

Advanced call analytics for large multi-site organisations

Product Documentation

Last Updated: August 2013

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Legal & copyright notices

Software license

When you purchase this software, you are actually purchasing a license to use it.

One license covers one installation, although one installation may cover up to five sites.

Your support contract, if applicable, will cover all sites logged by this TIM Enterprise installation.

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Free upgrades

We operate a free upgrade scheme for customers who purchase maintenance at the same time as purchasing a license; whilst a maintenance contract is in place, minor software updates and enhancements are made available free of charge.

Free upgrades are solely at the discretion of Tri-Line and are usually delivered by electronic means over the internet. It is the customer's responsibility to ensure that these updates can be received.

Customers without a maintenance contract will be charged for any software upgrades they require, as well as for any technical assistance needed during the upgrade procedure.

System requirements

Hardware

A computer with the following specification will comfortably run a single copy of TIM Enterprise:

- CPU: 3 GHz Dual-Core x86/x86-64
- Memory: 3 GB
- Hard disk: 160 GB
- Operating system: Windows XP SP3 Windows 7 (inc. Server editions)
- Network: Ethernet TCP/IP
- I/O: Dedicated serial RS232-C port for each PBX (if required)

Software

The TIM Enterprise service is accessed solely through a web browser and, whilst any modern standards-compliant browser should be sufficient to access the service, we always test on the following browsers:



- Microsoft Internet Explorer 6+
- Mozilla Firefox 2+
- Apple Safari
- Google Chrome
- Opera

The browser must have Javascript enabled when accessing the TIM Enterprise service.

Network

The operating system must have a TCP/IP network subsystem and the computer must be connected to such a network.

For automatic licensing during installation of the software, a connection to the internet is also required. For best results, ensure that the PC can access external websites on TCP ports 80 (HTTP) and 443 (HTTPS) without the need for a proxy login.

Automatic e-mails

To enable TIM Enterprise to send automatic email notifications, such as missed call alarms or scheduled reports, you must provide an SMTP interface to an existing email server accessible from the PC running TIM Enterprise.

Summary

TIM Enterprise must be installed on a Windows PC but can be viewed from any web browser running on any operating system

without the need for additional client software

- TIM Enterprise comes with its own in-built web server, so a server edition of Windows is not required nor is an external web server such as IIS or Apache
- TIM Enterprise can utilise one of three flavours of SQL server:Microsoft SQL Server, Oracle MySQL, Native (SQLite).

Setup

Obtaining and installing TIM Enterprise

Log on to the Tri-Line Gateway using the credentials you created when you first enquired about TIM Enterprise. Once logged on, you will be directed to your Home page, from where you can download your personal copy of the software.

It is important that you download your software only from this location, since each installation package is tagged with an unique ID bound to your account.

When you have downloaded the setup package, double-click on it and follow the setup wizard in order to complete the installation.

Setup - TIM Enterprise	
timenterprise	Welcome to the TIM Enterprise Setup Wizard This will install v3.0.0.87 on your computer. It is recommended that you close all other applications before continuing. Click Next to continue, or Cancel to exit Setup.
Version 3	
	Next > Cancel

When asked to provide a license certificate, click on the Get license button to retrieve this automatically from our servers.

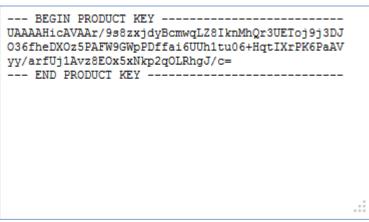
Firefox		X
TIM Ent	nterprise - Setup Wizard +	
€ ⇒	Iocalhost/stage3.html ☆ マ C S - Google ▶ ♠	-
	License Progress 123456	*
	TIM Enterprise needs a valid software license in order to run. You can obtain a license right now if you allow the software to contact a license server.	
	Ensure this computer is connected to the internet, then press the Get license button.	
	Get license	
	✓ Back Next >	
		Ŧ

Obtaining a license manually

If you cannot update your software license automatically, you can apply this manually by following the steps below:

1. In the Get license window, click on the Next button and copy the product key displayed in the License box, as shown

below:



- 2. Log in to the Gateway using your username and password.
- 3. In the Products panel, click on the TIM Enterprise product.
- 4. In the Software license panel, click on the Activate now link.
- 5. Paste the product code in the text box provided.
- 6. Enter the number of users you intend to log and the version number of the software, then click on the Activate Now to obtain the

license certificate.

7. Copy and paste the certificate in the License box of the setup wizard.

Connecting to your PBX

3COM

3COM VCX

These instructions help you configure your 3COM VCX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn	TIM Enterprise receives FTP transfers from this PBX.
Supp	ort Files
≣	3Com VCX-NBX.TDT
	3Com VCX-NBX.TDS
Requ	ired Tasks
2	Configure the SMDR output
	Configure TIM Enterprise
-	

Configuring your SMDR output

To retrieve call logging data from your 3COM VCX phone system, you need to set up an SFTP transfer. Below is an example of how to configure this, using WinSCP - a free FTP client software. Any other third-party client software can be used instead.

Charles	Session		
 Stored sessions Logging 	Host name:		Port number:
Environment	172.30.240.2		22 🤤
- Directories - SFTP	User name:	Password:	
SCP/Shell	cworks		
Connection Proxy	Private <u>k</u> ey file:		
SSH SSH			
- Key exchange - Authentication - Bugs	Protocol Eile protocol: SF	TP 🔽 🗹 Allow SC	P fallback
Preferences	-		Select color

Field	Description
Host name	The IP address or host name of the phone system
Port number	The port number for the SFTP transfer. The default port number is 22
User name	The username required to log in to your 3COM VCX phone system
Password	The password required to log in to your 3COM VCX phone system

Once connected to the phone system, you can transfer the CDR files, located by default in opt/3com/VCX/acctxml/db/export, to the

PC running TIM Enterprise.

C: Local Disk	王 希望 월 🔤 😚		Default • 🛛 🚱 •	i 🗁 export	• 🔄 🕁 • =	- 🖻 🗖 🚮 🕅	fg		
\Program Files\Tri-Line\TIN	d Enterprise∖FTP			/opt/3com/components/acctxml	7.1.61/db/export				
Name 🔶 Ext	Size Type	Changed	Attr	Name - Ext	Size	Changed	Rights	Owner	
9	Parent directory	28/06/2011 18:00:00		@		12/02/2009 15:25:32	rwxr-xr-x	cworks	22
opt	Folder	14/01/2011 17:04:58		latest	31	28/06/2011 18:31:24	rw-rw-r	cworks	
				3cdv2r10.log	949,959	26/08/2010 12:01:52	rw-rw-r	cworks	
				🗖 cdrworking1	2,180	28/06/2011 18:43:54	rw-rw-r	cworks	
				drworking2	3,309	28/06/2011 19:04:33	rw-rw-r	cworks	
				drworking3	2,518	28/06/2011 19:02:24	rw-rw-r	cworks	
				drworking4	2,791	28/06/2011 19:03:32	rw-rw-r	cworks	
B of 0 B in 0 of 1			-	0 B of 938 KiB in 0 of 6					
P F2 Rename	t 🎼 F5 Copy 🎼 F6 Move 🏕 F	7 Create Directory 🗙 F8	Delete 🖀 F9 Properties 👖 F1	0 Quit			A SF1	(E) ca	0:01:2

In this example, the XML files are being copied in the following location: C:\Program Files\Tri-Line\TIM Enterprise\FTP, given the FTP folder has been created in advance for this purpose.

NProgram Files\Tri-Line\TI	M Enterprise\FTF		
Name 🔺 Ext	Size	Туре	Changed
Ē		Parent directory	28/06/2011 18:00:00
🚞 opt		Folder	14/01/2011 17:04:58

Creating a batch file

8

To enable TIM Enterprise to process the XML files, you need to create a batch file containing the following lines:

```
xcopy/Y "C:\Program Files\Tri-Line\TIM Enterprise\FTP\*.XML"
"C:\Program Files\Tri-Line\TIM Enterprise\spool\*.{sitecode}"
cd "\Program Files\Tri-Line\TIM Enterprise\FTP\"
del *.* /q
cd\
```

In the above example, the {sitecode} needs to be replaced with the unique ID of the site object you are trying to send the data to. The site ID will be displayed in the general properties of the site object in the Directory.

The batch file will change the .xml file extension to the designated site code and move the files in the spool folder for processing.

A Windows scheduled task must be set up as well in order to run the batch file every 5 minutes or so.

Configuring TIM Enterprise

Once the batch file has been configured, log in to TIM Enterprise and perform the steps below:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.

3. A new window will open, displaying the general properties of the PBX object. In the General tab, select 3Com VCX-NBX from

the Data format list and tick the Keep a local backup of data box, as shown below:

B 3COM VCX		×
General Connection	General settings	Data format
Inactivity Options	Name 3COM VCX Unique ID 73 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Reep a local backup of data Backup location {app}\backup\New PBX\{year}\{month}	 3Com NBX R6 3Com VCX-NBX 3CX Aastra BP Aastra MX-ONE BC10 Aastra MX-ONE BC8 Aastra OpenCom Aastra PC5 AGFEO AC-AS Series Alcatel OminPCX Office Alcatel OminPCX Office
		Cancel Save

📃 Screenshot

4. Click on the Connection tab and select No connection required from the Connection method list.

5. Click on the Save button to apply the changes.

SCOM VCX		\mathbf{X}
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

3CX 3CX PBX

These instructions help you configure your 3CX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn 777	Connection Type TIM Enterprise listens for connections from this PBX.					
Supp	ort Files					
	3CX.TDT					
	3CX.TDS					
	CDRTemplate-Socket.xml					
Requ	ired Tasks					
2	Configure the SMDR output					
	Configure TIM Enterprise					
_						

Configuring your SMDR output

Download the interface file

1. Visit the Gateway and download the interface files from the Related downloads section, as shown below:

Downloads	Software license View license certificate
Full install package	This product is licensed The license for this product is valid and up-to-date.
Upgrade package	
TIM Plus	Maintenance
Solution Product documentation for your TIM Plus	This product is maintained You have maintenance until 19 September 2020, giving you full access to our technical support resources during this time.
Related downloads	
Download executables and documents related to the PBXs you are usin	g with this software
Name	fersion
3CX 3CX interface file for this TIM Enterprise.	TDT file (zip)

- 2. Extract the **3CX.ZIP** file onto the desktop.
- 3. Copy the 3CX.TDT and 3CX.TDS files into C:\Program Files\Tri-Line\TIM Enterprise\config, overwriting any existing files with the same name.

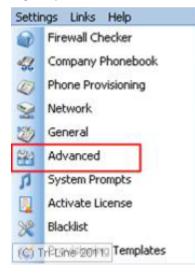
Configure the interface file

- 1. Transfer the CDRTemplate-Socket.xml file onto the 3CX server and place it in the following location: C:\Documents and Settings\All Users\Application Data\3CX\Data\CDRTemplates.
- 2. Edit CDRTemplate-Socket.xml and update the relevant entry to point to the IP address of the machine running TIM Enterprise,

as shown below:

<pre><?xml version="1.0" encoding="utf-8"?> <calltemplate host="127.0.0.1" outboundonly="false" port="33555"></calltemplate></pre>

3. Log in to your 3CX server and from the main menu go to Settings->Advanced, as shown in the below:



- 4. Select CDR output from the Advanced Settings screen.
- 5. Enable the tick box for Output CDR to Socket (Active Initiates connection) and click Apply .
- 6. Under 3CX Phone System, click Service Status and within the Service Name Section, select 3CX PhoneSystem Call History.
- 7. Click Restart to load the new XML file.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to listen for SMDR data from your 3CX phone system:

- 1. Log in to TIM Enterprise and click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of you PBX object. Select 3CX from the Data format list and tick the box Keep a local backup of data.

I 3CX		
General		
Connection	General settings	Data format
Inactivity Options	Name 3CX Unique ID 76116 Time zone 0 Broadcast CDRs from this PBX Data backup Veep a local backup of data Backup location {app}\backup\3CX\{year}\{month}\bac	 3Com NBX R6 3Com VCX-NBX 3CX Aastra BP Aastra MX-ONE BC10 Aastra MX-ONE BC8 Aastra OpenCom Aastra PC5 AGFEO Alcatel OminPCX Office OHL Alcatel OminPCX Office
		Cancel Save

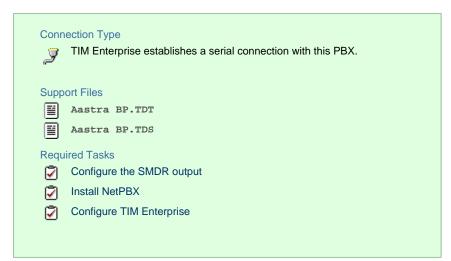
- 4. Click on the Connection tab and select Listen for connections from PBX from the Connection method list.
- 5. Leave the Host field blank.
- 6. In the Port field, enter 33555 as the default port for connections to this PBX.
- 7. Click on the Save button to apply the settings.

I 3CX		
General Connection Inactivity Options	Connection method	Connection details Host Port 33555
	 Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Aastra

Aastra BP

These instructions help you configure your Aastra BP phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

BP firmware R12 or older

If you are using firmware older than R12, set the SMDR output to type CIL 3 which is a fixed format requiring no further configuration.

BP firmware R13+

If you are using firmware R13+, set the SMDR output to Flexible CIL and configure the options as shown in the screenshot below:

Configuration - > Record length 193						
Boards	Index	Offset		Edit	Insert	Delet
xtensions Dect	1	1	Message code	<u></u>	<u>Insert</u>	Delete
runks	2	4	Sequence number CIL4		<u>Insert</u>	<u>Delete</u>
ectory mber series	3	8	TAG identifier		<u>Insert</u>	Delete
em > ps	4	14	Call date CIL4		<u>Insert</u>	Delete
s es	5	21	End time hh:mm:ss		<u>Insert</u>	Delete
s :es	6	30	Caller's number DDI		<u>Insert</u>	Delete
5 >	7	39	Call duration CIL4		<u>Insert</u>	Delete
ion I/O >	8	45	Dialled access code CIL4		<u>Insert</u>	Delete
ble CIL Format >	9	50	Dialled number CIL4		<u>Insert</u>	Delete
nance >	10	75	Information status 3		<u>Insert</u>	Delete
	11	84	ORG/TERM DEFINITION		<u>Insert</u>	Delete
	12	87	Account code CIL4		<u>Insert</u>	Delete
	13	103	Authorisation code DDI		<u>Insert</u>	Delete
	14	112	Queue time, answer CIL4		Insert	Delete
	15	117	Meter pulses CIL4		<u>Insert</u>	Delete
	16	122	Cost state CIL4		<u>Insert</u>	Delete
	17	124	Cost CIL4		<u>Insert</u>	Delete
	18	136	Trunk number CIL4		<u>Insert</u>	Delete
	19	141	Sent access code CIL4		<u>Insert</u>	Delete
	20	146	Sent number CIL4		<u>Insert</u>	Delete
	21	171	A-number CIL4		<u>Insert</u>	Delete
	22	192	Carriage return/LF		<u>Insert</u>	Delete
	23		not used		<u>Insert</u>	Delete
	24		not used		<u>Insert</u>	Delete
	25		not used		Insert	Delete
	26		not used		<u>Insert</u>	Delete
	27		not used		Insert	Delete
			not used		Insert	Delete
	29		not used		Insert	Delete
	30		not used		Insert	Delete

Installing NetPBX

The Aastra BP phone system sends SMDR information via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.

3. A new window will open, displaying the general properties of you PBX object. Select Aastra BP from the Data format list and

tick the Keep a local backup of data box, as shown below:

🗯 Aastra BP		\mathbf{X}
General Connection	General settings	Data format
Inactivity Options	Name Aastra BP Unique ID 2 Time zone 0 Image: Broadcast CDRs from this PBX	3Com NBX R6 3Com VCX-NBX 3CX Aastra BP
	Data backup keep a local backup of data Backup location {app}\backup\Aastra BP\{year}\{mont	 Aastra MX-ONE BC10 Aastra MX-ONE BC8 Aastra OpenCom Aastra PC5 AGFEO AC-AS Series Alcatel OminPCX Office Alcatel OminPCX Office
		Cancel Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🗯 Aastra BP		×
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Aastra Intelligate Series

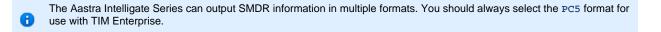
The Aastra Intelligate Series can be configured to send its SMDR data over a serial (RS232) or an IP connection. Click on one of the links below that relates to your preferred connection method.

Aastra Intelligate Series - Serial connection

These instructions help you configure your Aastra Intelligate phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring the SMDR output



The screenshots below display how the Aastra Intelligate Series should be configured:

Setting the SMDR format to PC5

🕼 AMS 1.0 - Account manager - Aastra							
File Edit View Online Help							
Find:	- F # E 7 @ E U ?						
• ¶×							
E Communication server							
📄 🕞 1 Common setup	Title: Aastra UK						
🖻 🖃 1.1 Output interface							
1.1.1 Output interface	Charge counter: Yes 💌						
imen 1.2 Call logging (CL)	Outgoing call logging (OCL): PC5						
1.2.2 Print language	Incoming call logging (ICL): PC5 🔍						
1.2.3 Charge value	OCI hu companier solo Mar -						
1.2.4 Currency	OCL by connection only: Yes 💌						
1.2.5 Round-up	Print language OCL: English 🗨						
1.2.6 Minimum output level	Currency: GBP						
1.3 External digit barring 1.4 Number of digits of cost centre	Currency. Jubr						
1.6 Surcharge calculator							
E 2 Routing							
3 Least cost routing (LCR)							
🗄 🔄 4 User setup							
E S Counter							
	Call logging data Charge value / OCL						

Setting the SMDR format to TCP/IP

AMS 1.0 - Account manager - Aastra						
Find:	- B A	🖻 🗧 🗲 🖻	II. 9			
• ¶×	:				Outpu	t interface
Communication server	Туре	Page length	Interface	Destination	IP address	TCP Port
🖃 🎽 1 Common setup	CL output	60	Ethernet	Ethernet	10.101.6.217	1080
1.1 Output interface	ICC output	60	Ethernet	Ethernet	10.101.6.217	1080
1.1.1 Output interface 1.2 Call logging (CL)						
1.2 Call logging (CL) 1.2.1 Title						
1.2.2 Print language						
1.2.3 Charge value						
1.2.3 Charge value 1.2.4 Currency						
1.2.4 Currency 1.2.5 Round-up					2 of 2	record(s)
 1.2.4 Currency 1.2.5 Round-up 1.2.6 Minimum output level 					2 of 2	record(s)
 1.2.4 Currency 1.2.5 Round-up 1.2.6 Minimum output level 1.3 External digit barring 					2 of 2	record(s)
1.2.4 Currency 1.2.5 Round-up 1.2.6 Minimum output level 1.3 External digit barring 1.4 Number of digits of cost centre					2 of 2	record(s)
 1.2 4 Currency 1.2 5 Round-up 1.2 6 Minimum output level 1.3 External digit barring 1.4 Number of digits of cost centre 3 1.5 More settings 					2 of 2	record(s)
1.2.4 Currency 1.2.5 Nound-up 1.2.5 Minimum output level 1.3 External digit barring 1.4 Number of digits of cost centre ☑ ☑ ☑ ☑ ☑ ☑ ☑					2 of 2	record(s)
1.2.4 Currency 1.2.5 Round-up 1.2.5 Minimum output level 1.3 External digit barring 1.4 Number of digits of cost centre 1.5 More settings 1.6 Surcharge calculator 2 Routing 2 Routing					2 of 2	record(s)
1.2 4 Currency 1.2 5 Round-up 1.2 5 Round-up 1.3 External digit barring 1.4 Number of digits of cost centre 1.5 More settings 1.6 Surcharge calculator S					2 of 2	record(s)
1.2 4 Currency 1.2 5 Round-up 1.2 5 Minimum output level 1.3 External digit barring 1.4 Number of digits of cost centre 1.5 Surcharge calculator 1.6 Surcharge calculator 2 Routing 2 Routing 3 Least cost routing (LCR)					2 of 2	record(s)
1.2 4 Currency 1.2 5 Round-up 1.2 5 Round-up 1.3 External digit barring 1.4 Number of digits of cost centre					2 of 2	record(s)

OIP Server and TIM Enterprise

The OIP Server has a very basic call logging module. If you intend to install TIM Enterprise alongside the OIP Server, you need to uninstall the call logging module from the OIP Server suite, otherwise, when configuring your Aastra to output the data to the PC running TIM Enterprise, the OIP Server will overwrite some of the required settings.

Installing NetPBX

If your Aastra Intelligate has been configured to send SMDR data via a serial connection, you first need to install the NetPBX software to collect the data from the serial port and send it to TIM Enterprise. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Aastra PC5 from the Data format list and

tick the Keep a local backup of data box, as shown below:

🚍 Aastra Intelliga	te PC5	×
General Connection	General settings	Data format
Inactivity Options	Name astra Intelligate PC5 Unique ID 2 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Reep a local backup of data	 3CX Aastra BP Aastra MX-ONE BC10 Aastra MX-ONE BC8 Aastra OpenCom Aastra PC5 AGFEO AC-AS Series Alcatel OminPCX Office
	Backup location [}\backup-{year}-{month}-{day}.{uiv}	 Alcatel OminPCX Office Alcatel OmniPCX Enterprise Asterisk Cancel Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings

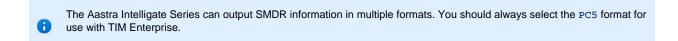
Aastra Intelligate PC5					
General Connection	Connection method	Connection details			
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method			
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms			
		Cancel			

Aastra Intelligate Series - IP connection

These instructions help you configure your Aastra Intelligate phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr	TIM Enterprise listens for connections from this PBX.
Supp	port Files
	Aastra PC5.TDT
	Aastra PC5.TDS
Requ	uired Tasks
2	Configure the SMDR output
	Configure TIM Enterprise

Configuring the SMDR output



The screenshots below display how the Aastra Intelligate Series should be configured:

Setting the SMDR format to PC5

🛱 AMS 1.0 - Account manager - Aastra	
File Edit View Online Help	
Find:	- F M C 🖓 E 🗈 📭 🦞
Communication server Communication setup I Common setup I 1 Output interface I.1 1 Output interface I.1 1 Output interface I.2 Call logging (CL) I.2 Print language I.2.2 Print language I.2.2 Print language I.2.4 Currency I.2.5 Round-up I.2.6 Minimum output level I.3 External digit barring I.4 Number of digits of cost centre I.5 More settings I.6 Surcharge calculator Z Routing S Least cost routing (LCR) S Counter	Title: Aastra UK Charge counter: Yes ▼ Outgoing call logging (ICL): PC5 ▼ Incoming call logging (ICL): PC5 ▼ OCL by connection only: Yes ▼ Print language OCL: English ▼ Currency: GBP
	Call logging data Charge value / OCL

Setting the SMDR format to TCP/IP

🕅 AMS 1.0 - Account manager - Aastra						
File Edit View Online Help						
Find:	I 🛛 🖓 🕒	9 🖻 🖻	F. ?			
• "*					Output	interface
Communication server	Туре	Page length	Interface	Destination	IP address	TCP Port
□ 🔁 1 Common setup	CL output	60	Ethernet	Ethernet	10.101.6.217	1080
1.1 Output interface	ICC output	60	Ethernet	Ethernet	10.101.6.217	1080
1.1.1 Output interface						
1.2.1 Title						
1.2.2 Print language						
1.2.3 Charge value						
1.2.4 Currency						
1.2.5 Round-up	L				2 of 2 i	ecord(s)
1.2.6 Minimum output level 1.3 External digit barring						
1.4 Number of digits of cost centre						
1.6 Surcharge calculator						
🗄 🖃 2 Routing						
4 User setup						
i±······ € 5 Counter						
	Output interface					

OIP Server and TIM Enterprise

The OIP Server has a very basic call logging module. If you intend to install TIM Enterprise alongside the OIP Server, you need to uninstall the call logging module from the OIP Server suite, otherwise, when configuring your Aastra to output the data to the PC running TIM Enterprise, the OIP Server will overwrite some of the required settings.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to listen for SMDR data from your Aastra Intelligate Series:

- 1. Log in to TIM Enterprise and click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and click Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Aastra PC5 from the Data format list and

tick the Keep a local backup of data box, as shown below:

🚍 Aastra Intellig	ate PC5	\mathbf{X}
Aastra Intellig General Connection Inactivity Options	General settings Name astra Intelligate PCS Unique ID 2 Time zone 0 Broadcast CDRs from this PBX	Data format 3CX Aastra BP Aastra MX-ONE BC10 Aastra MX-ONE BC8 Aastra OpenCom Aastra PC5 AGFEO AC-AS Series
	<pre>keep a local backup of data Backup location .}\backup-{year}-{month}-{day}.{uiv}</pre>	 Alcatel OminPCX Office Alcatel OminPCX Office Alcatel OmniPCX Enterprise Asterisk

- 4. Click on the Connection tab and select Listen for connections from PBX from the Connection method list.
- 5. Leave the Host field blank.
- 6. In the Port field, enter 1080, the default port number for your Aastra Intelligate phone system.
- 7. Click on the Save button to apply the settings.

Aastra Intelligate PC5						
General Connection	Connection method	Connection details				
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	Host Port 1080				
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms				
		Cancel Save				

Aastra MX-ONE

These instructions help you configure your Aastra MX-ONE phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

The Aastra MX-ONE supports multiple SMDR output formats. TIM Enterprise requires the SMDR format to be set to either BC8, BC10 or BC 13. For more information on how to configure the data output, please contact your system maintainer.

Installing NetPBX

The Aastra MX-ONE phone system sends SMDR information via a serial connection. To collect the data from the serial port and send it to TIM Enterprise you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Aastra MX-ONE BC10 from the Data

format list and tick the Keep a local backup of data box, as shown below:

🚍 Aastra MX-ON	E BC10	\mathbf{X}
General Connection	General settings	Data format
Inactivity Options	Name Aastra MX-ONE Unique ID 2 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Response of the second	 3Com NBX R6 3Com VCX-NBX 3CX Aastra BP Aastra MX-ONE BC10 Aastra MX-ONE BC8 Aastra OpenCom Aastra PC5 AGFEO AC-AS Series Alcatel OminPCX Office Alcatel OminPCX Office
		🗦 Cancel 📑 Save

4. Click on the Connection tab and select No connection required from the Connection method list.

5. Click on the Save button to apply the settings.

🚍 Aastra MX-ONE BC10					
General					
Connection	Connection method	Connection details			
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection 	There are no options for this connection method			
	• RADIUS connection				
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms			
		Cancel			

AGFEO

AGFEO AC-AS Series

These instructions help you configure your AGFEO AC-AS phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Connection Type JTIM Enterprise establishes a serial connection with this PBX.
Support Files
AGFEO AC-AS Series.TDT
AGFEO AC-AS Series.TDS
Required Tasks
Configure the SMDR output
📝 Install NetPBX
Configure TIM Enterprise

Configuring your SMDR output

The AGFEO AC-AS Series outputs its call records via a serial connection. You need to directly connect a serial cable between your AGFEO AC-AS phone system and the PC that NetPBX is installed and running on.

For more information about the output and configuration of your SMDR data, please contact your system maintainer.

Installing NetPBX

The AGFEO phone system sends SMDR information via a serial connection. To collect the call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select AGFEO AC-AS Series from the Data

format list and tick the Keep a local backup of data box, as shown below:

I AGFEO AC-AS Series					
General Connection	General settings	Data format			
Inactivity Options	Name AGFEO AC-AS Series Unique ID 2 Time zone 0 Broadcast CDRs from this PBX Data backup Veep a local backup of data	3CX Aastra BP Aastra MX-ONE BC10			
		Aastra MX-ONE BC8 Aastra OpenCom Aastra PC5 AGFEO AC-AS Series			
	Backup location [}\backup-{year}-{month}-{day}.{uiv}	Alcatel OminPCX Office Alcatel OminPCX Office Alcatel OmniPCX Enterprise Actorick			
		🔁 Cancel 📮 Save			

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🚍 AGFEO AC-AS	Series			
General Connection	Connection method	Connection details		
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method		
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms 		
		Cancel		

Alcatel

Alcatel 4200-4400e

These instructions help you configure your Alcatel 4200-4400e phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr J	TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
	Alcatel 4400E.TDT
Requ	uired Tasks
2	Configure the SMDR output
2	Download the interface file
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

The Alcatel 4200-4400e phone system sends its call records via a serial connection. The most recent units already have a .v24 port but, for older units, you may need to purchase a .v24 module. Connect a serial cable between your Alcatel 4200-4400e .v24 module and the PC that NetPBX is installed and running on. See the table below for a summary of data output from Alcatel 4200-4400e:

Manufacturer	Model	Account Codes	СЦ	DDI	Internal Calls	Ring Time	Unanswered
Alcatel	4200	Y	Y	N	N	Y	Y
	4300	Y	Y	N	N	Y	Y
	4400e	N	Y	Y	Y	Y	Y
	OmniPCX Enterprise	N	Y	Y	Y	Y	Y
	OmniPCX Office	Y	Y	N	Y	Y	Y

Download the interface file

1. Visit Tri-Line's Gateway and download the interface file, as shown below:

Downloads	Software license View license certificate
Full install package	This product is licensed The license for this product is valid and up-to-date.
Upgrade package	Maintenance
Documentation Product documentation for your TIM Plus	This product is maintained You have maintenance until 19 September 2020, giving you full access to our technical support resources during this time.
Related downloads	
Download executables and documents related to the PBXs you are using	ing with this software
Name	Version
Alcatel 4400E	IDT file (zip)

2. Extract the Alcatel 4400E.ZIP file onto your computer's Desktop. This ZIP file contains the following file: Alcatel 4400E.TDT.

3. Copy the file into the C:\Program Files\Tri-Line\TIM Enterprise\config folder.

Installing NetPBX

The Alcatel 4200-4400e phone system sends its call records via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Alcatel 4400e from the Data format list

Alcatel 4400e		X
General Connection	General settings	Data format
Inactivity Options	Name Alcatel 4400e Unique ID 2 Time zone 0	Aastra MX-ONE BC10 ^
	Broadcast CDRs from this PBX	Aastra OpenCom Aastra PC5 AGFEO
	Data backup	Alcatel 4400e
	Keep a local backup of data Backup location .}\backup-{year}-{month}-{day}.{uiv}	 Alcatel OminPCX Office OHL Alcatel OminPCX Office Alcatel OmniPCX Enterprise
		💂 Asterisk 💂 Avaya Argent Branch 🔹
		Cancel Save

and tick the Keep a local backup of data box, as shown below:

4. Click on the Connection tab and select No connection required from the Connection method list.

5. Click on the Save button to apply the settings.

Alcatel 4400e		
General		
Connection	Connection method	Connection details
Inactivity	Receive FTP transfers from PBX	
Options	== ≈ Establish TCP connection to PBX	
	🐙 Listen for connections from PBX	There are no options for this connection method
	👔 System DSN connection	
	RADIUS connection	
	I SysLog connection	O anna attion andiana
	O No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms
		Cancel

Alcatel OmniPCX Enterprise

The Alcatel OmniPCX Enterprise can be configured to send its SMDR data over a serial (RS232) or an IP connection. Click on one of the links below that relates to your preferred connection method.

Alcatel OmniPCX Enterprise - Serial connection

These instructions help you configure your Alcatel OmniPCX Enterprise phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn J	ection Type TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
	Alcatel OmniPCX Enterprise.TDT
	Alcatel OmniPCX Enterprise.TDS
Requ	ired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

Follow the instructions below to configure the SMDR output via a serial connection. These instructions are taken from the Alcatel OmniPCX Enterprise manual:

Using Telnet, connect to the IP address of your Alcatel OmniPCX Enterprise and follow the steps below:

- 1. Applications (Enter)
- 2. Accounting (Enter)
- 3. Review/Modify (Enter)

- 4. All Instance (F1)
- 5. Realtime ticket Output: Set this to ethernet. Note that if you don't have an appropriate license, you may only select V24 (serial) here.
- 6. Save changes and exit.

Below is an example of the data output from an Alcatel OmniPCX Enterprise:

Manufacturer	Model	Account Codes	CLI	DDI	Internal Calls	Ring Time	Unanswered
Alcatel	4200	Y	Y	N	N	Y	Y
	4300	Y	Y	N	N	Y	Y
	4400e	N	Y	Y	Y	Y	Y
	OmniPCX Enterprise	N	Y	Y	Y	Y	Y
	OmniPCX Office	Y	Y	N	Y	Y	Y

Installing NetPBX

If your Alcatel OmniPCX Enterprise has been configured to send SMDR data via a serial connection, you first need to install the NetPBX soft ware to collect the data from the serial port and send it to TIM Enterprise. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Alcatel 4400e from the Data format list

and tick the Keep a local backup of data box, as shown below:

Alcatel OmniP	CX Enterprise	
General Connection	General settings	Data format
Inactivity Options	Name Alcatel OmniPCX Enter Unique ID 76370 Time zone 0 Broadcast CDRs from this PBX Data backup Veep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Aastra PC5 AGFEO Alcatel 4400e Alcatel OminPCX Office OHL Alcatel OminPCX Office Alcatel OmniPCX Enterprise Asterisk Avaya Argent Branch Avaya Communications Mana Avaya INDEX 9.1 Plus Avaya INDEX v7
		Cancel Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

Alcatel OmniP	°Y Enternrise	
General		
Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Alcatel OmniPCX Enterprise - IP connection

These instructions help you configure your Alcatel OmniPCX Enterprise phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr ∛∓	TIM Enterprise establishes a TCP connection to this PBX.
Supp	ort Files
	Alcatel OmniPCX Enterprise.TDT
Ĩ	Alcatel OmniPCX Enterprise.TDS
Requ	uired Tasks
2	Configure the SMDR output
	Configure TIM Enterprise
_	

Configuring your SMDR output

Follow the instructions below to configure the SMDR output via a serial connection. These instructions are taken from the Alcatel OmniPCX Enterprise manual:

Using Telnet, connect to the IP address of your Alcatel OmniPCX Enterprise and follow the steps below:

- 1. Applications (Enter)
- 2. Accounting (Enter)
- 3. Review/Modify (Enter)
- 4. All Instance (F1)
- 5. Realtime ticket Output: Set this to ethernet. Note that if you don't have an appropriate license, you may only select V24 (serial) here.
- 6. Save changes and exit.

Below is an example of the data output from an Alcatel OmniPCX Enterprise:

Manufacturer	Model	Account Codes	CLI	DDI	Internal Calls	Ring Time	Unanswered
Alcatel	4200	Y	Y	N	N	Y	Y
	4300	Y	Y	N	N	Y	Y
	4400e	N	Y	Y	Y	Y	Y
	OmniPCX Enterprise	N	Y	Y	Y	Y	Y
	OmniPCX Office	Y	Y	N	Y	Y	Y

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Alcatel OmniPCX Enterprise:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Alcatel OmniPCX Enterprise from the D

ata format list and tick the Keep a local backup of data box, as shown below:

Alcatel OmniP	CX Enterprise	
General Connection	General settings	Data format
Inactivity Options	Name Alcatel OmniPCX Enter Unique ID 76370 Time zone 0 Broadcast CDRs from this PBX Data backup Ø keep a local backup of data Backup location \\backup-{year}-{month}-{day}.{uiv}	 Aastra PC5 AGFEO Alcatel 4400e Alcatel OminPCX Office OHL Alcatel OminPCX Office Alcatel OmniPCX Enterprise Asterisk Avaya Argent Branch Avaya Communications Mana Avaya INDEX 9.1 Plus
		💂 Avaya INDeX v7 🗸
		🔁 Cancel 📑 Save

4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.

- 5. In the Host field, enter the IP address of your Alcatel OmniPCX Enterprise.
- 6. In the Port field, enter 2533 as the default port number for this phone system.
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Alcatel OmniPCX Enterprise 7.1+ from the drop-down list.
- 9. Click on the Save button to apply the changes.

Alcatel OmniP	CX Enterprise	
General Connection Inactivity Options	Connection method Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection ADIUS connection	Connection details Host 192.168.1.1 Port 2533 Username Password IP script Alcatel OmniPCX En +
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Alcatel OmniPCX Office

The Alcatel OmniPCX Office can be configured to send its SMDR data over a serial (RS232) or database connection. Click on one of the links below that relates to your preferred connection method.

Alcatel OmniPCX Office - Serial connection

These instructions help you configure your Alcatel OmniPCX Office phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr J	TIM Enterprise establishes a serial connection with this PBX.
Supp	port Files
	Alcatel OmniPCX Office.TDT
	Alcatel OmniPCX Office.TDS
Requ	uired Tasks
2	Configure the SMDR output
٢	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

Alcatel-Lucent OmniPCX Office Communication Server supports two types of call metering:

- V24 metering supports V24 printing for all call metering tickets
- IP metering supports IP printing for call metering tickets originating from a 3rd party application (Business or Hotel) via an IP

connection

The type of metering must be specified when the Office Link driver is installed. The driver can be set to one of two modes: hotel or metering. You can use the OMC Counting function to specify the type of call metering for hardcopy printouts.

To set printing options for call metering tickets, follow the steps below:

- 1. Open the Counting function window in the OMC console and select the Accounting Printout tab.
- 2. Select the metering type from the drop-down list: Ext. Accounting Activation IP OF Ext. Accounting Activation

V24.

3. Click OK to save the settings.

The table below presents a summary of the data output from an Alcatel:

Manufacturer	Model	Account Codes	СЦ	DDI	Internal Calls	Ring Time	Unanswered
Alcatel	4200	Y	Y	N	N	Y	Y
	4300	Y	Y	N	N	Y	Y
	4400e	N	Y	Y	Y	Y	Y
	OmniPCX Enterprise	N	Y	Y	Y	Y	Y
	OmniPCX Office	Y	Y	N	Y	Y	Y

Installing NetPBX

If your Alcatel OmniPCX Office has been configured to send SMDR data via a serial connection, you first need to install the NetPBX software to collect the data from the serial port and send it to TIM Enterprise. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Alcatel OmniPCX Office from the Data

format list and tick the Keep a local backup of data box, as shown below:

Alcatel OmniP	CX Office					
General Connection	General settings	Data format				
Inactivity Options	Name Alcatel OmniPCX Offic Unique ID 76375 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Reep a local backup of data	 Aastra OpenCom Aastra PC5 AGFEO Alcatel 4400e Alcatel OminPCX Office OHL Alcatel OminPCX Office Alcatel OminPCX Enterprise Asterisk 				
	Backup location [.}\backup-{year}-{month}-{day}.{uiv}	 Avaya Argent Branch Avaya Communications Mana Avaya INDeX 9.1 Plus Cancel Save 				

- 4. In the Connection tab, select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🚍 Alcatel OmniP	CX Office				
General					
Connection	Connection method	Connection details			
Inactivity Option s	Receive FTP transfers from PBX FE Establish TCP connection to PBX FE Listen for connections from PBX System DSN connection RADIUS connection	There are no options for this connection method			
SysLog connection No connection required		Connection options Binary data Timestamp data Delay processing by ms 			
		Cancel			

Alcatel OmniPCX Office - Database connection

These instructions help you configure your Alcatel OmniPCX Office phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr 💼	TIM Enterprise establishes a DSN connection with this PBX.
Supp	ort Files
	Alcatel OmniPCX Office.TDT
	Alcatel OmniPCX Office.TDS
	Alcatel OmniPCX Office.DBS
Requ	ired Tasks
2	Configure the SMDR output
2	Install Alcatel Office Link Driver
2	Set up a DSN connection
2	Configure TIM Enterprise

Configuring your SMDR output

Follow the instructions below to configure the SMDR output for your Alcatel OmniPCX Office phone system:

Alcatel-Lucent OmniPCX Office Communication Server supports two types of call metering:

- V24 metering supports V24 printing for all call metering tickets
- IP metering supports IP printing for call metering tickets originating from a 3rd party application (Business or Hotel) via an IP connection

The type of metering must be specified when the Office Link driver is installed. The driver can be set to one of two modes: hotel or metering. You can use the OMC Counting function to specify the type of call metering for hardcopy printouts.

To set printing options for call metering tickets, follow the steps below:

- 1. Open the Counting function window in the OMC console and select the Accounting Printout tab.
- 2. Select the metering type from the drop-down list: Ext. Accounting Activation IP or Ext. Accounting Activation
- 3. Click OK to save the settings.

The table below presents a summary of the data output from an Alcatel:

Manufacturer	Model	Account Codes	СЦ	DDI	Internal Calls	Ring Time	Unanswered
Alcatel	4200	Y	Y	N	N	Y	Y
	4300	Y	Y	N	N	Y	Y
	4400e	N	Y	Y	Y	Y	Y
	OmniPCX Enterprise	N	Y	Y	Y	Y	Y
	OmniPCX Office	Y	Y	N	Y	Y	Y

Installing the Alcatel Office Link Driver

If your Alcatel OmniPCX Office has been configured to send SMDR data via IP, you first need to install the Alcatel Office Link Driver to configure the output.

For information on how to install the Alcatel Office Link Driver, please refer to the Alcatel OmniPCX Office manual or speak to your system maintainer.

Setting up a DSN connection for TIM Enterprise

To enable TIM Enterprise to work with the Alcatel Office Link Driver, you need to setup a DSN connection. Follow the instructions below to perform this operation within Microsoft Windows:

- 1. Open Windows Control Panel.
- 2. Double click on the Administrative tools icon.
- 3. Double click on the Data Sources (ODBC) icon to open the ODBC Data Source Administrator window.

For a 64 bit system, access the ODBC Data Source Administrator from the following location C:\Windows \SysWOW64\odbcad32.exe

- 4. Click on the System DSN tab.
- 5. Click on the Add button.

A

- 6. Select Native from the list of drivers and click Finish .
- 7. In the Name field enter: TIM Enterprise Alcatel OHL.
- 8. In the Database name field enter: Native.
- 9. Click on the OK button, then close the window.

An example of an ODBC setup is shown below:

🕅 ODBC Data S	ource Administrator	? ×	
User DSN Sys	tem DSN File DSN Drivers Tracing Connect	ion Pooling About	
System Data S	ources:		
Name	Driver	Add	
TIM Enterpris	e - Alcatel OHL Native	Remove	
		Cantana	
		Configure	
	ODBC System data source stores information abou		
the indicated data provider. A System data source is visible to all users on this machine, including NT services.			
	OK Cancel App	oly Help	

Configuring TIM Enterprise

Once the DSN connection has been set up, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Alcatel OmniPCX Office from the Data

format list and tick the Keep a local backup of data box, as shown below:

Alcatel OmniPo	CX Office					
General Connection	General settings	Data format				
Inactivity Options	Name Alcatel OmniPCX Offic Unique ID 76375 Time zone 0 Broadcast CDRs from this PBX Data backup Veep a local backup of data	 Aastra OpenCom Aastra PC5 AGFEO Alcatel 4400e Alcatel OminPCX Office OHL Alcatel OminPCX Office Alcatel OminPCX Office 				
	Backup location []\backup-{year}-{month}-{day}.{uiv}	 Asterisk Avaya Argent Branch Avaya Communications Mana Avaya INDeX 9.1 Plus Cancel Save 				

- 4. Click on the Connection tab and select System DSN connection from the Connection method list.
- 5. In the DSN field, select TIM Enterprise- Alcatel OHL from the drop-down list.

- 6. In the Frequency field, enter 5 to check for data every five seconds.
- 7. In the DB script field, select Alcatel OmniPCX Office OHL from the drop-down list.
- 8. Click on the Save button to apply the settings.

Alcatel OmniPCX Office				
General Connection Inactivity Options	Connection method	Connection details DSN TIM Enterprise - A Frequency 5		
	 Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	DB script Alcatel OminPCX Of Connection options Binary data Timestamp data Delay processing by ms		
		Cancel		

Asterisk

Asterisk PBX

These instructions help you configure your Asterisk phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Connectio	n Type I Enterprise establishes a TCP connection to this PBX.
Support F	iles
≣ Ast	erisk.TDT
Ast	erisk.TDS
Required ⁻	Tasks
🟹 Cor	figure the SMDR output
🟹 Cor	nfigure TIM Enterprise

Configuring your SMDR output

Follow the steps below to enable the SMDR output on your Asterisk phone system:

- 1. Enter the Server Setup System.
- 2. Under the Advanced section, edit the manager_custom.conf file.
- 3. Add the following lines to the file:

```
[CDRout]
secret =
cdrdeny = 0.0.0.0/0.0.0.0
permit = 10.0.0.0/255.0.0.0
permit = 192.168.0.0/255.255.0.0
permit = 212.57.232.128/255.255.128
read =
write =
```

4. Verify and save the changes.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Asterisk phone system:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Asterisk from the Data format list and

tick the Keep a local backup of data box, as shown below:

🚍 Asterisk			
General Connection	General settings	Data format	
Inactivity Options	Name Asterisk Unique ID 76379	Aastra OpenCom	
opuons	Unique ID 76379 Time zone 0 Broadcast CDRs from this PBX	Aastra PC5 AGFEO AGFEO Alcatel OminPCX Office OHL	
	Data backup	Alcatel OminPCX Office	
	Reep a local backup of data	Alcatel OmniPCX Enterprise Asterisk	
	Backup location []\backup-{year}-{month}-{day}.{uiv}	 Avaya Argent Branch Avaya Communications Mana Avaya INDeX 9.1 Plus 	
		Avaya INDeX v7	
		🔁 Cancel 📮 Save	

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the Host field, enter the IP address of your Asterisk phone system.
- 6. In the Port field, enter 5038.
- 7. In the Username and Password fields, enter your username and password accordingly.
- 8. In the IP script field, select Asterisk from the drop-down list.
- 9. Click on the Save button to apply the changes.

Asterisk			
General			
Connection	Connection method	Connection	n details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection 	Host Port Username Password IP script	192.168.0.1 5038 CDRout ••• Asterisk •
	 Systog connection No connection required 	Connection Binary data Timestamp Delay proce	data
			Cancel

Avaya

Avaya BCM up to v3.x

These instructions help you configure your Avaya BCM phone system (up to v3.x) to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr	TIM Enterprise establishes a TCP connection to this PBX.
Supp IIII	ort Files Avaya BCM.TDT Avaya BCM.TDS
Requ Requ Requ Requ Requ Requ Requ Requ	uired Tasks Configure the SMDR output Create CDR user Install and configure NetPBX Configure TIM Enterprise

Configuring your SMDR output

Follow the steps below to configure your Avaya BCM (up to v3.x) to output SMDR to TIM Enterprise:

- 1. Open your Business Communications Manager Unified Manager.
- 2. Click on the Services tree node.
- 3. Click on the Call Detail Recording node.
- 4. On the right-hand panel the Summary window will appear. Ensure that Up is selected in the Status drop-down list.
- 5. Select the Report Parameters tree node and configure the fields as shown below:

SMDR field	Value
Format	Norstar
Report Type	All
Language	English
Report Filter	All

6. Select the Report Options tree node and configure the fields as shown below:

SMDR field	Value
Date Format	MM/DD/YY
Header Format	Line/Station
DNIS Info	Enabled
Connection Char	Leave as default
Clip File Schedule	Leave as default
Clip File Size	Leave as default
CDR Disk Space Limit	Leave as default

- 7. For the Market Parameters settings, please leave as the system defaults.
- 8. For the Prefix Bin Options setting please leave as the system defaults.
- 9. Once you have completed the above changes, choose Commit from the Configuration file menu.

Creating a CDR User

To enable TIM Enterprise to connect to your Avaya BCM you will need to create a CDR User in the System option of your BCM Unified Manager configuration utility. The Avaya BCM connection requires the DCOM service to be enabled on the machine running TIM Enterprise. Following the introduction of enhanced security in Windows XP Service Pack 2, the username and password for the CDR User now need to be exactly the same as the credentials of the Windows account under which TIM Enterprise runs.

Installing and configuring NetPBX

To collect the call logging data from the Avaya BCM up to v3.x phone system and send it to TIM Enterprise, you first need to install the NetPBX software.

After the installation, follow the instructions below to set up a connection between BCM and NetPBX:

1. Make sure the CDRServer.EXE and Interop.CDRSERVERLib.dll files are placed in the same folder as NetPEX.EXE, usually

located in {pf}\Tri-Line\NetPBX.

늘 NetPBX					
File Edit View Favorites Tools	: Help				
S Back + 🕥 - 🏂 🔎 Search 📂 Folders 🔠 +					
Address 🛅 C:\Program Files\Tri-Line\M	letPBX				
	Name 🔺	Size	Туре	Date Modified	1
File and Folder Tasks 🛛 🛠	👏 CDRClient.dll	176 KB	Application Extension	17/05/2010 08:10	
and Males and Males	CDRServer.exe	36 KB	Application	31/01/2005 14:57	
💋 Make a new folder	📼 CDRServer.tlb	3 KB	TLB File	31/01/2005 14:57	
Publish this folder to the Web	🔊 Interop.CDRSERVERLib.dll	7 KB	Application Extension	23/10/2012 19:57	
	🖓 NetPBX.exe	92 KB	Application	23/10/2012 19:57	
😂 Share this folder	🛐 osa40.dll	1,112 KB	Application Extension	27/05/2010 03:24	
	🛣 Uninstall NetPBX	2 KB	Shortcut	24/10/2012 12:33	

2. Register CDRServer.EXE by running the command line with administrator privileges and typing the following command under the

directory path of the NetPBX folder: CDRServer.EXE/regserver.

3. Open the computer's local security policies: Start -> Control Panel -> Administrative Tools -> Local Security

Policy.

률 Local Security Settings	
File Action View Help	
← → X 🖪 🔮	
Security Settings Account Policies Local Policies Public Key Policies Software Restriction Policies IP Security Policies on Local Computer	Name Image: Account Policies Image: Account Policies Image: Public Key Policies Image: Software Restriction Policies Image: Policies on Local C

4. Within the Security Settings\Local Policies\Security Options tree, change the following items as highlighted in the

screenshot below:			
📑 Local Security Settings			
File Action View Help			
🗢 🤿 🖻 🗙 📽 😫			
📴 Security Settings	Policy A	Security Setting	
🕀 🤷 Account Policies	Audit: Shut down system immediate	Disabled	
🖻 🤷 Local Policies	🛗 DCOM: Machine Access Restrictio	Not defined	
🕀 🧰 Audit Policy	DCOM: Machine Launch Restrictio	Not defined	
🕀 🛄 User Rights Assignment	👸 Network access: Shares that can b	COMCFG,DFS\$	
	👪 Network access: Sharing and secu		
General Public Ney Policies Software Restriction Policies	👸 Network security: Do not store LAN	Disabled	
IP Security Policies on Local Computer	Microsoft network client: Digitally si	Disabled	
	BNetwork access: Do not allow stor	Disabled	
	🚟 Network access: Let Everyone per		
	Still Maturaly access: Married Dines that	COMMAR COMMOD	

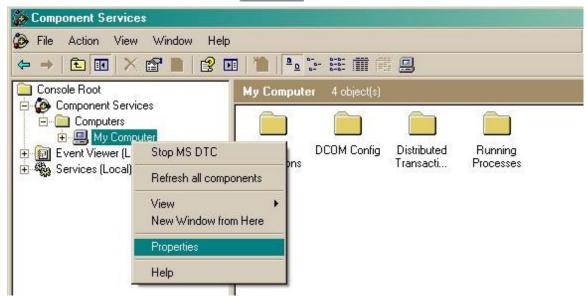
Network access: Named Pipes that... COMNAP,COMNOD...

- a. Network Access: Let Everyone permissions apply to anonymous users. Set this to Enabled.
- b. Network Access: Sharing security model for local accounts. Set this to Classic.
- c. DCOM: Machine Access Restrictions: Click on Edit Security and add the following user accounts: Anonymous,

Everyone, Interactive, Network, System. Set each one to have full access rights.

DCOM: Machine Access Restrictions in Security Descriptor Defi 💽 🗙	Access Permission	<u>? ×</u>
Template Security Policy Setting Explain This Setting	Security Limits	
DCDM: Machine Access Restrictions in Security Descriptor Definition Language (SDDL) syntax If the security descriptor is left blank after defining the policy setting in the template, the policy setting will not be enforced.	Group or user names: ANONYMOUS LOGON Everyone INTERACTIVE NETWORK SYSTEM	_
Security descriptor: 0:BAG:BAD:(A;;CCDCLC;;;AN)(A;;CCDCLC;;;WD)(Edit Security	Add Permissions for ANONYMOUS LOGON Local Access Remote Access	Remove Deny
OK Cancel Apply	ОК С	Cancel Apply

5. Next step is to modify the way DCOM behaves on the computer by executing the DCOM configuration program: Start -> Run -> DCOMCNFG [enter]. Browse the tree to the following location: Console Root -> Component Services -> Computers -> My Computer. Righ-click on My Computer for Properties and amend or update the following options:



a. On the Default Properties tab:

Enable Distributed COM on this computer: tick the box for his option

Default Authentication Level: set this to Connect

Default	Impersonation	Level: set this to	Identify
---------	---------------	--------------------	----------

Computer Properti	B\$?
Default Protocols) MSDTC	1	COM Security efault Properties	
General	Options	U	erault Properties	
 Enable Distributed 	COM on this compute	ſ		
Enable COM Inter	net Services on this co	mputer		
- Default Distributed C	OM Communication Pi	operties		
The Authentication	Level specifies security	at the pa	icket level.	
Default Authentica	ation Level:			
Derdaktriaktionaet	10 A 0180 MARTIN S. S.			
Connect The impersonation le	evel specifies whether			
Connect The impersonation k who is calling them, using the client's ide Default Impersona	and whether the applic ntity.			
Connect The impersonation le who is calling them, using the client's ide	and whether the applic ntity.			
Connect The impersonation low who is calling them, using the client's ide Default Impersona Identify Security for reference and that the default	and whether the applic ntity.	vided if au not anony	i do operations thentication is use mous.	d
Connect The impersonation low who is calling them, using the client's ide Default Impersona Identify Security for reference and that the default	and whether the applic ntity. tion Level: te tracking can be prov impersonation level is i	vided if au not anony	i do operations thentication is use mous.	d

b. On the COM Security tab:

Go to the Access Permissions section and select Edit default .

Add the following accounts and set both local and remote access permissions: Anonymous, Everyone, Interactive,

Network, Local Service and System.

My Computer Properties	X Access Permission	? ×
General Options Default Properties Default Protocols MSDTC COM Security Access Permissions You may edit who is allowed default access to applications. You may also set limits on applications that determine their own permissions. Edit Limits Edit Default Launch and Activation Permissions You may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed by default to launch applications or you may edit who is allowed to you may edit who is allow	Default Security Group or user names: ANONYMOUS LOGON Everyone INTERACTIVE NETWORK SFI F Add Remove	
activate objects: You may also set limits on applications that determine their own permissions. Edit Limits Edit Default	Permissions for SYSTEM Allow Deny Local Access Remote Access	-
OK Cancel Apply	OK Cancel Ap	oly

Go to the Launch and Activation Permissions section and click on Edit default tab.

Add or update the following accounts to give them all local and remote access permissions: Anonymous, Everyone,

Interactive, Network, Local Service and System.

General	Options	Default Properties	1
Default Protocol	s MSDTC	COM Security	
ccess Permission	\$		-
	io is allowed default access t applications that determine t		
	Edit Limits	Edit Default	
aunch and Activa	tion Permissions		
	io is allowed by default to lau You may also set limits on a		
activate objects	io is allowed by default to lau You may also set limits on a		
activate objects	io is allowed by default to lau You may also set limits on a win permissions.	pplications that	
activate objects	io is allowed by default to lau You may also set limits on a win permissions.	pplications that	
activate objects	io is allowed by default to lau You may also set limits on a win permissions.	pplications that	
activate objects	io is allowed by default to lau You may also set limits on a win permissions.	pplications that	

ANONYMOUS LOGON		-
2 Everyone 2 INTERACTIVE		
& LOCAL SERVICE & SYSTEM		لد. لد لـــــ
	Add	Remove
ermissions for SYSTEM	Allow	Deny
Local Launch Remote Launch Local Activation	202	
Remote Activation		
emote Activation		Ē

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Avaya BCM:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of the PBX object. Select Avaya BCM from the Data format list and tick

the Keep a local backup of data box, as shown below:

📕 Avaya BCM 3.6	;	
General Connection	General settings	Data format
Inactivity Options	Name Avaya BCM 3.6 Unique ID 76582	💂 Asterisk
	Time zone 0 Dimensional Time zone 0 Dimensional Dimensiona	Avaya BCM 4+ Avaya Communications Mana
	Data backup keep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	Avaya EuroGeneris Avaya INDeX 9.1 Plus Avaya INDeX v7 Avaya INDeX v9 Avaya INDeX v9 Avaya IP Office 6+ Avaya IP Office Avaya Matra 65xx
		Cancel Save

4. Click on the Connection tab and select No connection required from the Connection method list.

5. Click on the Save button to apply the settings.

📕 Avaya BCM 3.6	;	
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		⊃ Cancel 🔒 Save

Avaya BCM v4.0+

These instructions help you configure your Avaya BCM (v4.0+) phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

	tion Type IM Enterprise establishes a TCP connection to this PBX.
Support	Files vaya BCM.TDT
	vaya BCM.TDS d Tasks
	Configure the SMDR output
🖉 c	Configure TIM Enterprise

Configuring your SMDR output

Follow the steps below to configure your Avaya BCM to output SMDR data to TIM Enterprise:

- 1. Log in to the BCM Element Manager.
- 2. On the Task Navigation Panel, click the Configuration tab.
- 3. Click on Telephony .
- 4. Click on Call Detail Recording .
- 5. In the Call Detail Recording panel that appears, configure the options as below:

SMDR field Value

Format	Norstar
Report Type	All
Language	English
Date Format	MM/DD/YY
Header Format	Line/Station
Filter Type	All
Feature Code F9	Leave as default
Minimum Call Duration	Leave as default
Hospitality Records	Leave as default
Include DNIS Info	Enable
Include CLID with call type	Enable
Include Long CLID	Leave as default
Use answer supervision	Leave as default
Display connection character	Leave as default
Suppress digits after connect	Leave as default
Maximum digits after connect	Leave as default

CDR User

To enable TIM Enterprise to connect to your Avaya BCM, you need to create a CDR User under the System option in the BCM Unified Manager configuration utility.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Avaya BCM:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Avaya BCM 4+ from the Data format list and tick the Keep a local backup of data box, as shown below:

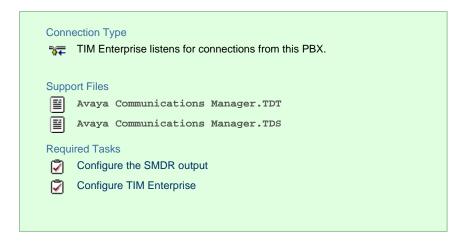
🚍 Avaya BCM 4.0)	
General		
Connection	General settings	Data format
Inactivity Options	Name Avaya BCM 4.0 Unique ID 76598	🔒 Asterisk 🔷
	Time zone 0 Broadcast CDRs from this PBX	Avaya BCM 4+
	Data backup keep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Avaya EuroGeneris Avaya INDeX 9.1 Plus Avaya INDeX v7 Avaya INDeX v9 Avaya IP Office 6+ Avaya IP Office Avaya Matra 65xx
		Ә Cancel 🗍 Save

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the ${\tt Host}$ field, enter the IP address of your Avaya BCM.
- 6. In the Port field, enter 4000.
- 7. In the Username field, enter the username of the CDR user you configured in the BCM Unified Manager utility (above)
- 8. In the Password field, enter the password for the CDR user.
- 9. In the Connection script field, select Avaya BCM v4 from the drop-down list.
- 10. Click on the Save button to apply the changes.

🚍 Avaya BCM 4.0		
General Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	Host 192.168.1.1 Port 4000 Username CdUser Password ●●●●●● IP script Avaya BCM v4 →
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Avaya Communications Manager

These instructions help you configure your Avaya Communications Manager phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

Connect to your Avaya Communications Manager using an RS232 or IP terminal client and, after logging in with your administrative credentials, follow the steps below:

Configuring node-names ip

Issue the change node-names command to add a new node. Two fields need to be specified as follows:

- Name: TIMEnterprise.
- IP Address: (the IP address of the machine running TIM Enterprise)

Here is an example of a node-names configuration:

change node-names	; ip	Page 1 of 1
	IP NODE NAMES	
Name	IP Address Name	IP Address
CLAN	10. 10 .2 .211	
MEDPRO	10. 10 .2 .212	
RDTT	10. 10 .2 .50	
SiteB	10. 10 .3 .13	
TIMPlus	10. 10 .2 .80	
default	0 .0 .0 .0	
procr	10. 10 .2 .201	

Configuring ip-services

Issue the change ip-services command to add or amend IP services. There are three pages to configure:

On Page 1, the following fields are required:

- Service type: CDR1
- Local Node: (set this to the node-name of the CLAN board)
- Local Port: 0 (this cannot be changed)
- Remote Node: TIMEnterprise (the same node-name as created in the node-names section above)
- Remote Port: (the TCP port that TIM Enterprise will use to listen for CDR data, e.g. 9000)

Here is an example of an ip-services configuration (page 1):

change ip-s	services				Page	1 of	3	
Service Type	Enabled	Local Node	IP SERVICES Local Port	Remote Node	Remote Port			
CDR1		CLAN	0	TIMPlus	9000			

On Page 2 no configuration changes are needed.

On Page 3 the following fields are required:

- Reliable Protocol: n
- Packets Resp Timer: 30 (default value)
- Sessions Connect Message Cntr: 3 (default value)
- SPDU Cntr: 3 (default value)
- Connectivity Timer: 60 (default value)

Here is an example of an ip-services configuration (page 3):

change ip-se	ervices				Page 3 of	3
Service Type	Reliable Protocol		LAYER TIMERS Session Connect Message Cntr		Connectivity Timer	
CDR1	n	30	3	3	60	

Configuring system-parameters cdr

Use the change system-parameters cdr command to amend the CDR format. The following screenshots describe how the settings should appear on your system:

Page 1

```
change system-parameters cdr
                                                                        Page 1 of
                                                                                       2
                               CDR SYSTEM PARAMETERS
 Node Number (Local PBX ID): 1
                                                         CDR Date Format: day/month
      Primary Output Format: customized Primary Output Endpoint: CDR1
    Secondary Output Format:
     Use Enhanced Formats? n
Use Legacy CDR Formats? y
Fied Circuit TD Diverses (Condition Code 'T' For Redirected Calls? n
Remove # From Called Y
Modified Circuit ID Display? y
                                                                  Intra-switch CDR?
                                                                                      v
                   Record Outgoing Calls Only? n
                                                        Outg Trk Call Splitting? y
  Suppress CDR for Ineffective Call Attempts? y Outg Attd Call Record? y Disconnect Information in Place of FRL? n Interworking Feat-flag? n
 Force Entry of Acct Code for Calls Marked on Toll Analysis Form? n
                                       Calls to Hunt Group - Record: member-ext
Record Called Vector Directory Number Instead of Group or Member? n
     Inc Trk Call Splitting? y
                                                     Inc Attd Call Record? y
                                   Call Record Handling Option: warning
  Record Non-Call-Assoc TSC? n
      Record Call-Assoc TSC? n Digits to Record for Outgoing Calls: dialed
   Privacy - Digits to Hide: 0
                                                 CDR Account Code Length: 6
```

chai	nge system-pai	rameters c	dr		Page	2 of 2	
			CDR SYSTEM PARAM	1ETERS			
	Data Item -	Length	Data Item -	Length	Data Item -	Length	
1:	date	— б	17: dialed-num	- 18 33:	auth-code	- 13	
2:			18: space				
3:	time	- 4	19: in-trk-code	- 4 35:	line-feed	- 1	
4:	space	- 1	20: space	- 1 36:		-	
5:	sec-dur	- 5	21: in-crt-id	- 3 37:		-	
б:	space	- 1	22: space	- 1 38:		-	
7:	cond-code	- 1	23: calling-num	- 15 39:		-	
			24: space			-	
9:	attd-console	- 2	25: vdn	- 5 41:		-	
10:	space	- 1	26: space	- 1 42:		-	
11:	code-used	- 4	27: bcc	- 1 43:		-	
		- 1				-	
13:	out-crt-id	- 3	29: ppm	- 5 45:		-	
14:	space	- 1	30: space	- 1 46:		-	
			31: acct-code			-	
16:	space	- 1	32: space	- 1 48:		-	
	Record length = 126						

Configuring trunk-group

To ensure that response times for incoming calls are included in your CDR data, the CDR field for each trunk group must be set to r. This must be applied to all trunk groups using the following command:

change trunk-group X (where X is the trunk group number)

An example trunk-groups configuration screen is shown below:

change trunk-group 3		Page 1 of 21
	TRUNK GROUP	
Group Number:3	Group Type: isdn	CDR Reports: r
Group Name: ToSimulatedPSTN	COR: 1	TN: 1 TAC: 113
Direction: two-way	Outgoing Display? y	Carrier Medium: PRI/BRI
Dial Access? y	Busy Threshold: 255	Night Service:
Queue Length: 0		
Service Type: tie	Auth Code? n	TestCall ITC: rest
Far	End Test Line No:	
TestCall BCC: 4		

Configuring intra-switch-cdr

To have internal calls included in your CDRs, ensure that the intra-switch-cdr table is populated with the extension numbers you are interested in. To modify the table, issue the following command:

change intra-switch-cdr

Here is an example of an intra-switch-cdr configuration table:

change intra-switch-co	dr		Page 1 of 3
	INTRA-SWITCH CDR		
Extension 301 302 303 311	Assigned Members: Extension Extension	4 o	f 5000 administered Extension

Configuring multiple Avaya Communications Manager systems

If you have more than one Avaya Communications Manager, configuration of your CDR depends on which of the following scenarios you have implemented:

LSPs (Local Survivable Processors)

If your Avaya Communications Manager systems are connected and the remote sites are LSPs then you need only configure the Ma ster/Primary Avaya Communications Manager. When TIM Enterprise receives the CDR information, it will include CDRs from all of the remote LSPs.

Not linked

If you have multiple Avaya Communications Manager systems where LSPs aren't in use, you need to configure each Avaya Communications Manager separately. You must ensure that each Avaya Communications Manager has its own unique Remote Port (IP-services) setup.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to listen for SMDR data from your Avaya Communications Manager:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.

3. A new window will open, displaying the general properties of your PBX object. Select Avaya Communications Manager from the

Data format list and tick the Keep a local backup of data box, as shown below:

🚍 Avaya Communications Manager				
General Connection	General settings	Data format		
Inactivity Options	Name Avaya Communications Unique ID 76427 Time zone 0	 Alcatel OmniPCX Enterprise Asterisk Avaya BCM 		
	Broadcast CDRs from this PBX Data backup Weep a local backup of data Backup location .}\backup-{year}-{month}-{day}.{uiv}	 Avaya BCM 4+ Avaya Communications Mana Avaya EuroGeneris Avaya INDEX 9.1 Plus Avaya INDEX v7 Avaya INDEX v9 Avaya IP Office 6+ Avaya IP Office 		
		🔁 Cancel 📑 Save		

- 4. Click on the Connection tab and select Listen for connections from PBX from the Connection method list.
- 5. Leave the Host field blank.
- 6. In the Port field, enter the Remote Port (ip-services) that you configured above.
- 7. In the **Connection options**, enable the **Timestamp** data field.
- 8. Click on the Save button to apply the settings.

🚍 Avaya Commu	nications Manager	
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	Host Port 9000
	 SysLog connection No connection required 	Connection options Binary data Imestamp data Delay processing by ms

Avaya EuroGeneris

These instructions help you configure your Avaya EuroGeneris phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



To obtain the Avaya EuroGeneris.TDS and Avaya EuroGeneris.TDT support files, contact our Technical Support te am.

Configuring your SMDR output

The Avaya EuroGeneris has multiple SMDR output options and formats. TIM Enterprise requires the SMDR output type to be set to customized and the format to Format 5 rows 80 columns. For more information about the output and configuration of your SMDR data, contact your system maintainer.

Installing NetPBX

The Avaya EuroGeneris phone system sends SMDR information via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Avaya EuroGeneris from the Data

format list and tick the Keep a local backup of data box, as shown below:

📕 Avaya EuroGe	neris	
General		
Connection	General settings	Data format
Inactivity Options	Name Avaya EuroGeneris Unique ID 76436 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Construct of the second se	 Avaya Communications Mana Avaya EuroGeneris Avaya INDeX 9.1 Plus Avaya INDeX v7 Avaya INDeX v9 Avaya IP Office 6+ Avaya IP Office Avaya Matra 65xx Avaya Meridian Option Series Avaya Network Alchemy Avaya Norstar
		🔁 Cancel 📑 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🚍 Avaya EuroGer	neris	
General		
Connection	Connection method	Connection details
Inactivity	are ceive FTP transfers from PBX	
Options	F Establish TCP connection to PBX	
	₩ Listen for connections from PBX	There are no options for this connection method
	💼 System DSN connection	connection method
	• RADIUS connection	
	SysLog connection	
	No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms
		Cancel

Avaya INDeX

These instructions help you configure your Avaya INDeX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

To configure the SMDR output from your Avaya INDeX, follow the steps below:

- 1. Log in to your Avaya INDeX through a terminal.
- 2. Select option 1 for Reports.
- 3. Select option 2 for Set up SMDR.
- 4. Configure the SMDR options as shown below:

```
- Reports > Set up SMDR [1-4]

Set up SMDR 1

1. Minimum call time : 0

2. Call type : Any

3. International included : yes

4. Long distance included : yes

5. Other outgoing included : yes

6. Page size : 60

7. Line spacing : 1

<ESC> Reports
```

- 5. Press the Esc key to return to the Reports menu.
- 6. Select option 5 for Start Logs/DECT.
- 7. Use the arrows keys to select the port you intend to use for the SMDR output.
- 8. Enable the SMDR and Event or SMDR option, depending on the version of your PBX.

Installing NetPBX

The Avaya INDeX phone system sends SMDR information via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Avaya INDex v7 from the Data format list

and tick the Keep a local backup of data box, as shown below:

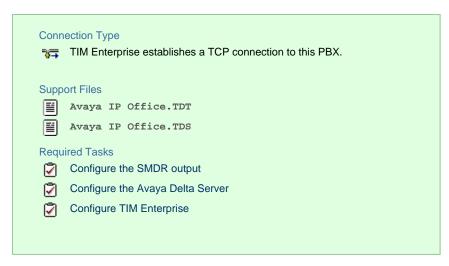
📕 Avaya INDeX v	7	
General		
Connection	General settings	Data format
Inactivity	Name Avaya INDeX v7	Alcatel OmniPCX Enterprise
Options	Unique ID 76430	📕 Asterisk
	Time zone ⁰	📃 Avaya BCM 📃
	Broadcast CDRs from this PBX	💂 Avaya BCM 4+
		💂 Avaya Communications Mana
	Data backup	💂 Avaya EuroGeneris
▼ Kee	🖉 Keep a local backup of data	💂 Avaya INDeX 9.1 Plus
	_	📃 Avaya INDeX v7
	Backup location .}\backup-{year}-{month}-{day}.{uiv}	📃 Avaya INDeX v9
		💂 Avaya IP Office 6+
		💂 Avaya IP Office 🔻
		🥥 Cancel 📑 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

📕 Avaya INDeX v	7	
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		⊋ Cancel ि <u>Save</u>

Avaya IP Office up to v5

These instructions help you configure your Avaya IP Office up to v5 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

The Avaya IP Office version 5 or lower uses the Avaya Delta Server software to configure the SMDR output. If you don't have a copy of the Avaya Delta Server, you should be able to get this from your Avaya Administration CD; otherwise, contact your system maintainer to obtain a copy.

The Avaya Delta Server is known to be compatible with older versions of the Avaya IP Office as far back as v3.x.

Configuring Avaya Delta Server

Ensure the CCC Delta Server service is started, then follow the instructions below to configure the Avaya Delta Server to work with TIM Enterprise:

- 1. On the computer running Delta Server, open a web browser and navigate to: http://127.0.0.1:8080.
- 2. Ensure that Delta Server is connected to your Avaya IP Office by verifying that Comms Status is displaying Comms Restored.

Alternatively, select the <u>Comms</u> option from the left-hand side menu and click on the <u>Search</u> button. When the system finds your Avaya IP Office unit, select it from the <u>Connection</u> drop-down list and click <u>Apply</u>.

3. When connected, click on the SMDR option from the left-hand menu and configure each of the fields on the SMDR screen, as

shown below:

C () (http://127.0.0.1:8080,	/	n ☆ @			
File Edit View Favorites Too					
Event Viewer Event Viewer	Comms Status : Comms Restored				
Selector		SMDR			
Email Notification Log to File SMDR Comms	SMDR Log File Enabled SMDR File name	C:\SMDR\SMDR.csv			
Message Control PCA Target Time Extension Extension [Active]	SMDR Port Enabled SMDR Port	8082			
Agents Agent [Logged On] Agent [Logged Off]	SMDR Port will act as a client Remote host IP Address for SMDR Client				
Agent [Active] Agent [Available] Agent [Located] Recent SMDR	© Send Data every © Send Data at	SMDR 💌 00:00 💌			
Entries License Info Session Info Group Group [Active]	SMDR COM Port enabled SMDR COM PORT SMDR COM PORT Bits per second Translate to Secure Logix	□ 1 9600 ▼			
Pilot Number Lines Lines [Active]	apply				

4. Click on the Apply button for the changes to take effect.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from the Delta Server:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Avaya IP Office from the Data format li

st and tick the Keep a local backup of data box, as shown below:

🚍 Avaya IP Office	e v5	
General Connection	General settings	Data format
Inactivity Options	Name Avaya IP Office v5 Unique ID 76431 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Reep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Avaya Communications Mana Avaya EuroGeneris Avaya INDeX 9.1 Plus Avaya INDeX v7 Avaya INDeX v9 Avaya IP Office 6+ Avaya IP Office Avaya Matra 65xx Avaya Meridian Option Series Avaya Network Alchemy
		💂 Avaya Norstar 🗾 🗸

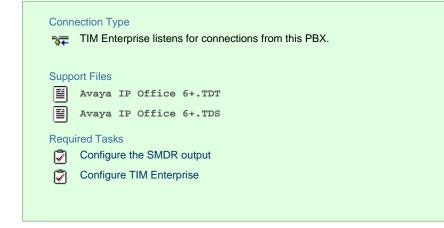
- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the Host field, enter the IP address of the Avaya Delta Server.

- 6. In the Port field, enter 8082.
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Avaya IP Office from the drop-down list.
- 9. Click on the Save button to apply the settings.

🚍 Avaya IP Office	v5	
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	Host 192.168.1.1 Port 8082 Username Password IP script Avaya IP Office • Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Avaya IP Office v6+

These instructions help you configure your Avaya IP Office v6+ phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

To configure the Avaya IP Office to output SMDR you must program the Avaya IP Office unit to send the SMDR data to the computer running TIM Enterprise. Using the Avaya IP Office Manager application, perform the following steps to configure the SMDR output:

- 1. Log in to your Avaya IP Office unit using the Avaya IP Office Manager.
- 2. Click on System from the left-hand menu and select your Avaya IP Office unit.
- 3. On the right-hand side, click on the CDR/SMDR tab.
- 4. From the Output drop-down menu, select SMDR only. The SMDR section will now become active at the bottom of the page.
- 5. In the IP Address field, enter the IP address of the machine that TIM Enterprise is installed on.

- 6. In the TCP Port field, enter the port number that you want your SMDR data to be sent to. You can use any free TCP port, but we would recommend one in the 9000 range.
- 7. In the Records to Buffer option, increase the value to the maximum available.
- 8. Check the Call Splitting for Diverts option.
- 9. Click on the OK button, then save and merge the configuration for the settings to take effect.

Here is an example of the SMDR screen and how it should be configured:

Eile Edit View Iools Help System ▼ Tri-Line ▼ System ▼ Tri-Line ▼	
🔍 🗁 🕶 🖬 🖳 🔛 🖈 🗸 🗸 Tri-Line 🔹 System 🔹 Tri-Line 🔹	
IP Offices 🗹 Tri-Line* 🖆 - 📉 🗸	< >
B BOOTP (2) B Operator (3) B Operator (3) B System (1) B System (1) B Fitline B Control Unit (3) B Collower (4) Call Detail Recorder Communications D Shothome	

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to listen for SMDR data from your Avaya IP Office phone system:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Avaya IP Office 6+ from the Data

format list and tick the Keep a local backup of data box, as shown below:

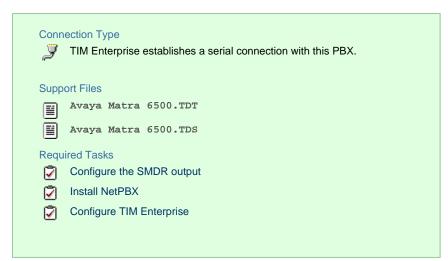
📕 Avaya IP Office	e v6	
General		
Connection	General settings	Data format
Inactivity Options	Name Avaya IP Office v6 Unique ID 76432 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Second	 Avaya Communications Mana Avaya EuroGeneris Avaya INDeX 9.1 Plus Avaya INDeX v7 Avaya INDeX v9 Avaya IP Office 6+ Avaya IP Office Avaya Matra 65xx Avaya Meridian Option Series
	(1 mm) [1 mm] [mm] [1 mm]	 Avaya Network Alchemy Avaya Norstar Cancel Save

- 4. Click on the Connection tab, select Listen for connections from PBX from the Connection method list.
- 5. Leave the Host field blank.
- 6. In the Port field, enter 9000.
- 7. Click on the Save button to apply the settings.

🚍 Avaya IP Office	e v6	
General Connection Inactivity	Connection method	Connection details
Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	Host Port 9000
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Avaya Matra 65xx series

These instructions help you configure your Avaya Matra 65xx series to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

The Avaya Matra 65xx series is outputting the SMDR data via a serial connection. You need to connect a serial cable between your Avaya Matra 65xx phone system and the PC running NetPBX. For more information about the output and configuration of the SMDR data, please contact your system maintainer.

Installing NetPBX

To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Avaya Matra 6500 from the Data format

list and tick the Keep a local backup of data box, as shown below:

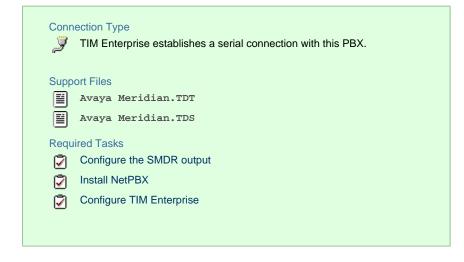
📕 Avaya Matra 6	500	
General		
Connection	General settings	Data format
Inactivity	Name Avaya Matra 6500	💂 Avaya Communications Mana 🔺
Options	Unique ID 76437	📃 Avaya EuroGeneris
	Time zone 0	💂 Avaya INDeX 9.1 Plus
	Broadcast CDRs from this PBX	💂 Avaya INDeX v7
		💂 Avaya INDeX v9
	Data backup	💂 Avaya IP Office 6+
	Keep a local backup of data	💂 Avaya IP Office
	_	📃 Avaya Matra 65xx
	Backup location .}\backup-{year}-{month}-{day}.{uiv}	📱 Avaya Meridian Option Series
		Avaya Network Alchemy
		💂 Avaya Norstar 🗸 👻
		🔁 Cancel 📑 Save

- 4. Click on the Connection tab, select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🗯 Avaya Matra 65	00	
General Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Avaya Meridian Option Series

These instructions help you configure your Avaya Meridian Option Series to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR

By default, the SMDR output in the Avaya Meridian Option Series is disabled. You need to speak to your system maintainer to have this enabled for incoming, outgoing and internal calls. Additionally, CLI, DNIS, response time and abandoned calls should be enabled for incomin g calls.

You need to configure one of the TTY ports on the Meridian to output SMDR information and connect a serial cable between this port and the PC running NetPBX.

Using the following commands, configure each option as shown below:

1. Enable CDR (command: LD 21)

>LD 21 PT1000 REQ: PRT TYPE: CDR TYPE CDR_DATA CUST 0 TYPE CDR DATA CUST 00 CDR YES IMPH NO OMPH NO AXID YES TRCR YES CDPR NO ECDR YES PORT [TTY port used on PBX] CHLN 0 FCAF NO

2. Port Setup (command: LD 22)

>LD 22

ADAN	TTY [TT	Y port used on PBX]		
CARD	00 [card	00 [card it resides on]		
PORT	[port or	n that card]		
DES	[descrip	tion]		
BPS	1200	← baud rate		
BITL	8	← bit length		
STOP	1	← stop bit		
PARY	NONE	← parity		
FLOW	NO	← flow control		
USER	CTY	← type of TTY port for CDR		
XSM	NO			

3. CDR Format (commands: LD 22; LD 17)

CDR Format (commands: LD 22; LD 17)

**** the following is part System config. for CDR printed in LD 22; changed in LD 17.

PARM LPIB 125 HPIB 50 500B 200 NCR 300 MGCR NULL CSQI 020 CSQO 020 NCPU 1 CFWS NO PCML MU ALRM YES ERRM ERR BUG AUD DTRB 100 TMRK 128

***** start CDR section

FCDR NEW PCDR NO TPO NO TSO NO CLID NO DUR5 NO

******* end CDR section

•	CDR output port values:
	Baud = 1200;
	Data bits = 8;
	Parity = None;
	Stop bits = 1;
	Flow control = DTR/RTS
	Use CDR format #511 (Meridian / SL1-X11) or #526 (CS 1000 Rel 4+ / Meridian 1).

Installing NetPBX

The Meridian sends SMDR information via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Click on the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Avaya Meridian Option from the Data format list and tick the Keep a local backup of data box, as shown below:

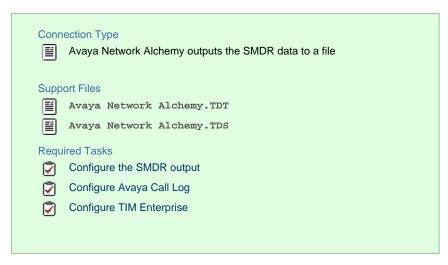
📕 Avaya Meridiai	n M2250	
General Connection	General settings	Data format
Inactivity Options	Name Avaya Meridian M2250 Unique ID 76609 Time zone 0 Broadcast CDRs from this PBX Data backup Veep a local backup of data Backup location \]\backup-{year}-{month}-{day}.{uiv}	 Avaya INDeX v9 Avaya IP Office 6+ Avaya IP Office Avaya Matra 65xx Avaya Meridian Option Series Avaya Network Alchemy Avaya Norstar Avaya Tenovis i55 AYCTelecom IPCTS
		 BT Inspiration BT Monarch
		🔁 Cancel 📑 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🚍 Avaya Meridian M2250				
General Connection	Connection method	Connection details		
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method		
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms		
		Cancel		

Avaya Network Alchemy

These instructions help you configure your Avaya Network Alchemy to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

The Avaya Network Alchemy uses the Avaya Call Log software to configure the SMDR data. As the application will be outputting the data to a file, the installation of the Avaya Call Log software needs to be performed on the same machine as TIM Enterprise. A copy of the Avaya Call Log application can be found on your Avaya Administration CD. Your system maintainer should be able to supply you with a copy of the software.

The Avaya Call Log software does not run as a Windows Service; therefore, you must ensure that the application is never stopped because you may lose SMDR data.

Configuring Avaya Call Log

Follow the steps below to configure the Avaya Call Log software:

- 1. Start the Avaya Call Log application.
- 2. From the File menu, select Select Unit .
- 3. In the first field, enter the IP address of your Avaya Network Alchemy.
- 4. In the second field, enter the password for your Avaya Network Alchemy and click the OK button.
- 5. From the File menu, select Log Option .
- 6. From the select Logging Information window, choose the Periodic option.
- 7. Type C:\Program Files\Tri-Line\TIM Enterprise\spool\data.{sitecode} in the Log Filename field, replacing {si

tecode } with the ID of the site you are logging. The site ID is displayed in the general properties of the site object, in the Unique

ID field, as shown below:

General settings				
Name	Avaya	Network Alchemy		
Unique ID	2			
Time zone	0			
Broadcast CDRs from this PBX				

8. Click on the OK button to apply the settings.

CallLogger		
<u>File View H</u> elp		
StartLogging		
Select Logging Information	<u>? ×</u>	
 Periodic Daily Log to COM port COM1 Log Filename c:\program files\tri-line\tim \spool\data.1 	OK Cancel Help	

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Avaya Network Alchemy from the Data

format list and tick the ${\tt Keep}$ a local backup of data box, as shown below:

🚍 Avaya Network Alchemy		
General		
Connection	General settings	Data format
Inactivity	Name Avaya Network Alchemy	📕 Avaya Communications Mana 🔺
Options	Unique ID 76433	🚊 Avaya EuroGeneris
	Time zone 0	🚊 Avaya INDeX 9.1 Plus
	Broadcast CDRs from this PBX	💂 Avaya INDeX v7
		🚊 Avaya INDeX v9
	Data backup	💂 Avaya IP Office 6+
	Keep a local backup of data	📃 Avaya IP Office
	Backup location	🔋 Avaya Matra 65xx
	.}\backup-{year}-{month}-{day}.{uiv}	📱 Avaya Meridian Option Series
		📃 Avaya Network Alchemy
		📃 Avaya Norstar 👻
		🔁 Cancel 📑 Save

4. Click on the Connection tab and select No connection required from the Connection method list.

5. Click on the Save button to apply the settings.

📕 Avaya Network	Alchemy	
General		
Connection	Connection method	Connection details
Inactivity	🍰 Receive FTP transfers from PBX	
Options	🖙 Establish TCP connection to PBX	
	₩ Listen for connections from PBX	There are no options for this connection method
	🎁 System DSN connection	
	RADIUS connection	
	SysLog connection	O
	🖉 No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms
		⊃ Cancel 🔒 Save

Avaya Norstar

These instructions help you configure your Avaya Norstar to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn J	TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
	Avaya Norstar.TDT
	Avaya Norstar.TDS
Requ	ired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

To obtain the Avaya Norstar.TDT and Avaya Norstar.TDS support files, contact our Technical Support team.

Configuring your SMDR output

8

Follow the steps below to configure your Avaya Norstar to output SMDR data to TIM Enterprise. You must perform these operations from a system programming phone:

- 1. On your programming phone, press the Feature key, followed by 9 * 2 to access the CLI menu.
- 2. Press Next to display the Printer settings showing the baud rate that the data is sent at. To change this value, select

Change and choose a new baud rate.

- 3. Press Next to display the Format settings. Ensure this is set to Norstar.
- 4. Press Next to show Report settings. Ensure this is set to All.
- 5. Press the RIs button to complete the programming steps.

Installing NetPBX

The Avaya Norstar phone system sends SMDR information via a serial connection to the computer running TIM Enterprise. To collect serial data, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Avaya Norstar from the Data format list

and tick the Keep a local backup of data box, as shown below:

🚍 Avaya Norstar		
General Connection	General settings	Data format
Inactivity Options	Name Avaya Norstar Unique ID 76628 Time zone 0 Image: Broadcast CDRs from this PBX	 Avaya Matra 65xx Avaya Meridian Option Series Avaya Network Alchemy Avaya Norstar
	Data backup keep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Avaya Tenovis i55 AYCTelecom IPcts BT Inspiration BT Monarch BT Versatility Cisco UCM 5+ Cisco UCM v4 DSN
		Cancel Revealed Save

4. Click on the Connection tab and select No connection required from the Connection method list.

5. Click on the Save button to apply the settings.

🚍 Avaya Norstar		
General		
Connection	Connection method	Connection details
Inactivity	🔓 Receive FTP transfers from PBX	
Options	🖙 Establish TCP connection to PBX	
	₩ Listen for connections from PBX	There are no options for this connection method
	💼 System DSN connection	
	RADIUS connection	
	SysLog connection	
	No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms
		Cancel

Avaya Tenovis

These instructions help you configure your Avaya Tenovis to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Connection Type TIM Enterprise establishes a serial connection with this PBX.
Support Files
Avaya Tenovis i55.TDT
Required Tasks
Configure the SMDR output
📝 Install NetPBX
Configure TIM Enterprise

Configuring your SMDR

For specific information about the output and configuration of the SMDR data of your Avaya Tenovis phone system, please contact your system maintainer.

Installing NetPBX

The Avaya Tenovis outputs its SMDR data via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

1. Click on the Directory tab.

- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Avaya Tenovis i55 from the Data

format list and tick the Keep a local backup of data box, as shown below:

🚍 Avaya Tenovis i55		
General	General settings	Data format
Connection		
Inactivity	Name Avaya Tenovis 155	💂 Avaya INDeX v9
Options	Unique ID 76434	💂 Avaya IP Office 6+
	Time zone	💂 Avaya IP Office
	Broadcast CDRs from this PBX	📱 Avaya Matra 65xx
		📱 Avaya Meridian Option Series
	Data backup	📱 Avaya Network Alchemy
	Keep a local backup of data	📱 Avaya Norstar
	_	📃 Avaya Tenovis i55
	Backup location]/backup-{year}-{month}-{day}.{uiv}	AYCTelecom IPCTS
		BT Inspiration
		📱 BT Monarch 👻
		🔁 Cancel 🗍 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🚍 Avaya Tenovis i55		
General Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by
		Cancel

AYCTelecom

AYCTelecom IPcts

These instructions help you configure your AYCTelecom IPcts to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

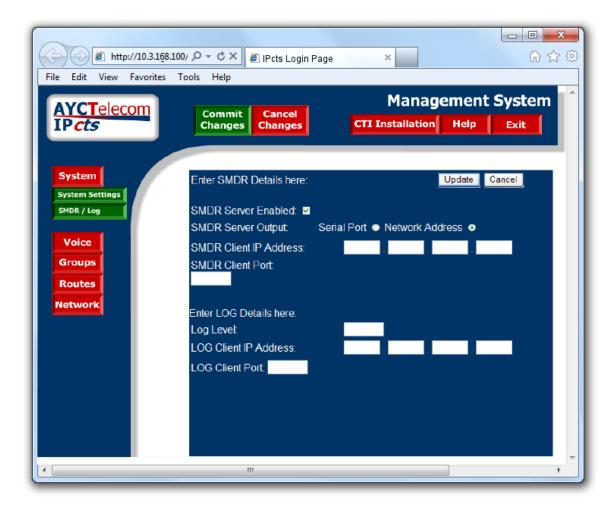
Conn	ection Type
3 -	TIM Enterprise listens for connections from this PBX.
_	
Supp	ort Files
	AYCTelecom IPCTS.TDT
	AYCTelecom IPCTS.TDS
Requ	ired Tasks
2	Configure the SMDR output
2	Configure TIM Enterprise

Configuring your SMDR output

Follow the steps below to set up the SMDR output of your IPcts through its management web page:

- 1. Log in to your AYCTelecom IPcts management web page.
- 2. Select the System tab
- 3. Select the SMDR/Log tab and configure the fields on the page as below:
 - SMDR Server Enabled: Enable the check box.
 - SMDR Server Output: Choose Network Address.
 - SMDR Client IP Address: Enter the IP address of the computer running TIM Enterprise.
 - SMDR Client Port: Enter the TCP port number you want to send the SMDR data to. You can use any free TCP port, but we would recommend one in the 9000 range.
- 4. Click the Update button.
- 5. Click the Commit Changes button at the top of the page so save your settings.

Here is an example screenshot of the SMDR configuration screen from the AYCTelecom IPcts management web page:



Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to listen for SMDR data from your AYCTelecom IPcts phone system:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select AYCTelecom IPCTS from the Data format I ist and tick the Keep a local backup of data box, as shown below:

# AYCTelecom IF	Pcts					
General						
Connection	General settings	Data format				
Inactivity	Name AYC Telecom IPcts	📃 Avaya Matra 65xx 🔺				
Options	Unique ID 76380	📃 Avaya Meridian Option Series				
	Time zone 0	📃 Avaya Network Alchemy				
	Broadcast CDRs from this PBX	📃 Avaya Norstar 🗧				
		🚊 Avaya Tenovis i55				
	Data backup	J AYCTelecom IPcts				
	Keep a local backup of data	📕 BT Inspiration				
	Backup location	📃 BT Monarch				
	.}\backup-{year}-{month}-{day}.{uiv}	📃 BT Versatility				
		📃 Cisco UCM 5+				
		📃 Cisco UCM v4 DSN 🚽				
		🗦 Cancel 📑 Save				

- 4. Click on the Connection tab and select Listen for connections from PBX from the Connection method list.
- 5. Leave the Host field blank.
- 6. In the Port field, enter the TCP port that was configured on your AYCTelecom IPcts (e.g. 9000).
- 7. Click on the Save button to apply the settings.

# AYCTelecom IP	cts	
General Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	Host Port 9000
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

BT

BT Inspiration

These instructions help you configure your BT Inspiration phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

To configure SMDR settings on your BT Inspiration you need to have a BT System Phone and be familiar with how to use it for system programming purposes. To enable SMDR output, follow the steps below:

- 1. From the programming position, press the phone setup key P and select System programming .
- 2. Enter the PIN and select System .
- 3. Select Call logging and choose Call logging on .
- 4. Press HANDSFREE/MONITOR to finish configuring the system.

Installing NetPBX

The BT Inspiration phone system sends SMDR information via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select BT Inspiration from the Data format lis

t and tick the Keep a local backup of data box, as shown below:

BT Inspiration		
General		
Connection	General settings	Data format
Inactivity	Name BT Inspiration	💂 Avaya IP Office
Options	Unique ID 76387	📃 Avaya Tenovis i55
	Time zone 0	AvayaNetworkAlchemy
	Broadcast CDRs from this PBX	AYCTelecom IPCTS
		💂 BT Inspiration
	Data backup	💂 BT Monarch
	Keep a local backup of data	💂 BT Versatility
	Backup location	Cisco UCM 5+
	.}\backup-{year}-{month}-{day}.{uiv}	Cisco UCM v4 DSN
		🧕 Cisco UCM v4 Transfer
		Cisco UCME - RADIUS
		🔁 Cancel 📑 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

	11,7	
BT Inspiration		
General		
Connection	Connection method	Connection details
Inactivity	🍰 Receive FTP transfers from PBX	
Options	→ → F Establish TCP connection to PBX	
	₩ Listen for connections from PBX	There are no options for this connection method
	👔 System DSN connection	connection method
	RADIUS connection	
	SysLog connection	
	🖉 No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms
		⊋ Cancel

BT Monarch

These instructions help you configure your BT Monarch to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

Please contact your system maintainer for information about how to configure the SMDR output of your BT Monarch.

Installing NetPBX

The BT Monarch phone system sends SMDR information via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select BT Monarch from the Data format list and

tick the Keep a local backup of data box, as shown below:

🖽 BT Monarch						
General Connection	General settings	Data format				
Inactivity Options	Name BT Monarch Unique ID 76389 Time zone 0 Broadcast CDRs from this PBX Data backup Very keep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Avaya IP Office Avaya Tenovis i55 AvayaNetworkAlchemy AYCTelecom IPCTS BT Inspiration BT Monarch BT Versatility Cisco UCM 5+ Cisco UCM v4 DSN Cisco UCM v4 Transfer Cisco UCME - RADIUS 				
		🔁 Cancel 📑 Save				

4. Click on the Connection tab and select No connection required from the Connection method list.

5. Click on the Save button to apply the settings.

BT Monarch		
General		
Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

BT Pathway

These instructions help you configure your BT Pathway to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Connection Type TIM Enterprise establishes a serial connection with this PBX.
Support Files
BT Pathway.TDT
BT Pathway.TDS
Required Tasks
Configure the SMDR output
Install NetPBX
Configure TIM Enterprise

Configuring your SMDR output

To receive SMDR data from your BT Pathway you need to have a BT System Phone and be familiar with how to use it to perform system programming. To enable SMDR output, follow the steps below:

- 1. From the programming position, press the phone setup key P and select System programming .
- 2. Enter the PIN and select System .
- 3. Select Call logging and choose Call logging on .
- 4. Press HANDSFREE/MONITOR to finish.

Installing NetPBX

The BT Pathway phone system transmits SMDR information via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select **BT Pathway** from the Data format list and

tick the Keep a local backup of data box, as shown below:

😅 BT Pathway						
General Connection	General settings	Data format				
Inactivity Options	Name BT Pathway Unique ID 76388 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Second	 Avaya IP Office Avaya Tenovis i55 AvayaNetworkAlchemy AYCTelecom IPCTS BT Inspiration BT Monarch BT Pathway BT Versatility Cisco UCM 5+ 				
		Cisco UCM v4 DSN Cisco UCM v4 Transfer Cisco UCM v4 Transfer Cancel Save				

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🟾 BT Pathway		
General Connection	Connection method Connection details	
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

BT Versatility

These instructions help you configure your BT Versatility to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr J	TIM Enterprise establishes a serial connection with this PBX.
Supp E	ort Files BT Versatility.TDT
Requ Requ Requ	uired Tasks Configure the SMDR output Install NetPBX Configure TIM Enterprise
Ż	Configure TIM Enterprise

Configuring your SMDR output

The BT Versatility outputs its SMDR data via a serial port. The default communication parameters for this serial connection are:

- Speed 4800, 9600, 19200, 38400 or 115200 bps;
- Data 8 bits;
- Parity None.

The phone system has an in-built buffer to store the last 500 call records in case the receiving equipment becomes disconnected. This buffered data can be set to output to the serial port during system programming. An x-OFF signal can be enabled to allow the Versatility to detect if a compatible device is receiving its SMDR data successfully. The Versatility can also be set to output SMDR data using restricted call logging, whereby the last four digits of any dialled number is masked out.

Follow the instructions below to configure your BT Versatility for use with TIM Enterprise:

Calls are printed out in the following format as they are completed:

1	2	3	4	5	6	7	8	9	10
O/G	1234	10/01/99	12.00:01	00:00:30	L01	S21	S21	:000.00	1234567
O/G		10/02/99	12.00:10	00:01:56	L02	S25	S25	:000.00	567890
I/C	5678	10/13/99	12.01:13	00:06:32	L03	S22	S24	:000.00	

The explanation of the data output is as follows:

Column Number	Data Output Explanation
1	Incoming (I/C) or Outgoing (O/G) call
2	Account Codes
3	Date (day/month/year)
4	Start time
5	Duration of the call
6	Line used
7	Initiating Extension
8	Terminating Extension
9	Cost. (Not Available)
10	Digits entered (outgoing calls only)

To enable/disable Call Logging

Call Logging is disabled by default on power up.

- From the Programming Extension, press the PROGRAMME Key
- Press the Scroll Down Key (>) until 'System programming' is displayed.
- Select 'System programming'.
- Enter the System Programming Password and select 'System'.
- Press the Scroll Down Key (↘) until 'Call logging' is displayed.
- Select 'Call logging'.
- Select either 'Call logging On', 'Call logging off'. 'Restricted call log ON', 'Enable Xon / Xoff' or 'Print Log'

Press the Hands-free Key to finish programming.

To prevent calls from individual Extensions being logged

If Call Logging is enabled, then by default all calls from all extensions will be logged. However individual extensions can be programmed to prevent their calls being logged.

- From the Programming Extension, press the PROGRAMME Key
- Press the Scroll Down Key (>) until 'System programming' is displayed.
- Select 'System programming'.
- Enter the System Programming Password and select 'Extensions'.
- Press the Scroll Down Key () until 'No call logging' is displayed.
- Select 'No call logging'.
- Select the Extensions whose calls are not to be logged. The selected Extensions will be indicated with a ♦.

Press the Hands-free Key to finish programming.

To set the call logging interface speed for connecting a Printer or PC

- From the Programming Extension, press the PROGRAMME Key
- Press the Scroll Down Key (>) until 'System programming' is displayed.
- Select 'System programming'.
- · Enter the System Programming Password and select 'System'.
- Press the Scroll Down Key (≌) until 'Set v24 baud rate' is displayed.
- Select 'Set v24 baud rate'.
- Select the speed you require 4800, 9600, 19, 200, 38, 400 or 115, 200 bps.

Press the Hands-free Key to finish programming.

Note: To connect a printer or PC for call logging, use the call logging interface module and cable provided and connect one end to the V24 interface on the CCU and the other end to the serial device e.g. a PC or a printer.

Installing NetPBX

To collect the SMDR data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Director, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select ET Versatility from the Data format lis

t and tick the Keep a local backup of data box, as shown below:

📕 BT Versatility		
General Connection	General settings	Data format
Inactivity Options	Name BT Versatility Unique ID 76405 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Second Sec	 AvayaNetworkAlchemy AYCTelecom IPCTS BT Inspiration BT Monarch BT Versatility Cisco UCM 5+ Cisco UCM v4 DSN Cisco UCM v4 Transfer Cisco UCME - RADIUS Cisco UCME - SysLog
		📕 Coral Flexicom 200 👻
		Decancel 📑 Save

4. Click on the Connection tab and select No connection required from the Connection method list.

5. Click on the Save button to apply the settings.

BT Versatility		
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Cisco

Cisco UCM (below v5)

These instructions help you configure your Cisco UCM to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr	TIM Enterprise establishes a DSN connection with this PBX.
Supp	port Files
	Cisco UCM v4 DSN.TDT
≣	Cisco UCM v4 DSN.TDS
	Cisco UCM 4.DBS
Requ	uired Tasks
2	Configure the SMDR output
2	Set up a DSN connection
2	Configure TIM Enterprise

Configuring the SMDR output

This version of the Cisco UCM stores its call records in a Microsoft SQL Server database. However, by default, this functionality is not enabled. To enable it, the following settings must be configured on the Publisher using the Service Parameters configuration window:

- CDR Enabled
- CDR Log Calls With Zero Duration Flag
- Call Diagnostics Enabled

This version of the UCM outputs its call records to a table named CallDetailRecord in a database entitled CDR. Rather than have TIM enterprise read and remove CDRs from the live CallDetailRecord table, we recommend you replicate this into a second table - leaving the original intact - so that it may be used by other applications that require it. Normally, there already exists a SQL User with the following credentials:

- Username: CiscoCCMCDR
- Password: dipsy

To set up replication you may need to speak to your database administrator or your Cisco UCM maintainer. Ensure that the SQL user described above has full access rights to this replicated table.

You need to know the following information in order for TIM Enterprise to be able to connect to the Cisco UCM CDR database:

- The IP address or hostname of the Microsoft SQL Server database located on the Publisher node.
- The username and password to connect to the CDR database.

Setting up a DSN connection for TIM Enterprise

To enable TIM Enterprise to work with your Cisco UCM, you first need to set up a DSN connection. Follow the steps below to perform this task within Microsoft Windows:

- 1. Open Windows Control Panel
- 2. Double click on the Administrative tools icon
- 3. Double click on the Data Sources (ODBC) | icon to open the ODBC Data Source Administrator window

0	For a 64 bit system, access the ODBC $ {\tt Data}$	Source	Administrator	from the following location C:\Windows
	\SysWOW64\odbcad32.exe			

- 4. Select the System DSN tab and click the Add button
- 5. Select SQL Server from the list of available drivers and click Finish
- 6. In the Name field, enter CCM
- 7. In the Description field enter the following: TIM Enterprise link to CCM
- 8. In the Database name field enter the database type e.g sqL, MysqL etc.
- 9. In the server drop-down list select the Cisco UCM Publisher IP address or machine name
- 10. Click the Next button
- 11. Select the option With SQL Server authentication using a login ID and password entered by the user, then click Next
- 12. Enable the checkbox Change the default database to: , select CDR , then click the Next button
- 13. Click the Finish button
- 14. Click the Test Data Source button to verify your settings and, if the test is successful, click OK
- 15. Click the OK button to close the control panel applet

An example of an ODBC setup is shown below:

ODBC Data Source Administrator	?)
User DSN System DSN File DSN Drivers Tracing Connection P	ooling About
System Data Sources:	
Name Driver CCM SQL Server	Add Remove Configure
An ODBC System data source stores information about how the indicated data provider. A System data source is visible	

Configuring TIM Enterprise

Once the DSN connection has been set up, log in to TIM Enterprise and perform the steps below:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Cisco UCM v4 DSN from the Data format |

ist and tick the Keep	a local	backup	of	data box, as shown below:
-----------------------	---------	--------	----	---------------------------

🚍 Cisco UCM 4.0	l de la constante de	
General		
Connection	General settings	Data format
Inactivity	Name Cisco UCM 4.0	BT Versatility
Options	Unique ID 76792	Cisco UCM 5+
	Time zone 0	Cisco UCM v4 DSN
	Broadcast CDRs from this PBX	Cisco UCME - RADIUS
		Cisco UCME - SysLog
	Data backup	Coral Flexicom 200
	🛛 Keep a local backup of data	Coral Flexicom 500
		📃 Draytek
	Backup location }/backup-{year}-{month}-{day}.{uiv}	📃 Epygi Quadro
	./ backup-{year}-{monen}-{day}.{urv}	📕 Fujitsu Rhapsody Rio
		GEC BTEX600S
		🔁 Cancel 🗮 Save

- 4. Click on the Connection tab and select Connect to a system DSN from the Connection method list.
- 5. The DSN connection details should be picked up automatically.
- 6. Click on the Save button to apply the changes.

🚍 Cisco UCM 4.0		
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	DSN Cisco - Frequency 5 DB script Cisco UCM v4 DSN -
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Cisco UCM / Business Edition (Call Manager) version 5+

These instructions help you configure your Cisco UCM version 5.0 - 8.6 to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn	ection Type TIM Enterprise receives FTP transfers from this PBX.
Supp	ort Files
	Cisco UCM 5+.TDT
Ĩ	Cisco UCM 5+.TDS
Requ	ired Tasks
2	Create Cisco Application User for AXL sync
2	Configure Cisco AXL sync
2	Configure TIM Enterprise to receive data by FTP
2	Set up FTP/SFTP in Cisco UCM

Create Cisco Application User for AXL sync

To enable TIM Enterprise to query the Cisco database, you need to create an Application User on your Cisco UCM. Follow the steps below to complete this task:

1. Connect to the web management interface of your UCM node and select Cisco Unified CM Administration from the Navig

ation drop-down list.

2. Log in to the system and click User Management from the main menu. Select Application User from the drop-down list.

Click Add New to create a new user:

User ID: TIM_AXL

Password: C1sco

Confirm Password: Clsco

Application User Infor	mation		 	
User ID*	TIM_AXL			
Password				
Confirm Password				
Digest Credentials				
Confirm Digest Credentia	als			
Presence Group*	Standard Presence group	•		
Accept Presence Subs	scription			
Accept Out-of-dialog	REFER			
Accept Unsolicited No	tification			
Accept Replaces Head	der			

The credentials above are shown as an example. In the interests of security, you should choose your own values.

- 3. Scroll down to the Permissions Information section and click Add to User Group .
- 4. In the new window, enter standard Tab and then click Find . Tick the standard TabSync User box, and then click on the Add Selected tab.

User Group (1 - 1 of 1)			
Find User Group where Name	begins with		Find Clear Filter
	V		Standard TabSync User
Select All Clear All	Add Selected	Close	

5. Click Save to apply the settings.

Configuring Cisco AXL sync

Follow the steps below to configure TIM Enterprise to synchronise with the directory of your Cisco UCM:

- 1. Click on the Directory tab.
- 2. Go to the Directory level where you want to synch the UCM files and add a new Directory Sync object. Enter a name for the object and click on the Add button, as shown below:

Add new object		
Organisation unit	Other object	
 Channel Group Cost Centre Division Group Reporting Collection Site 	 Alarm Channel PBX Magic Box User Display Board Question 	 Billing Charge Stats Collector LCR Plan Tariff Modifier Web User Directory Sync
Provides the ability to synchro		ry with third-party systems
Enter a name for the object	Cisco AXL	Cancel Add

- 3. Left-click on the newly-created object and select Properties .
- 4. In the Directory type drop-down list, select Cisco UCM.
- 5. In the Host name field, enter the IP address of the UCM Publisher node.
- 6. In the Host port field, enter the port number of the UCM Publisher node.
- 7. In the Username field, enter the username of the Cisco Application User you configured in the previous section, e.g. TIM_AXL.

😢 Cisco AXL		
General	_	
Options	General setting	gs
	Name Directory type	Cisco AXL Cisco UCM
	Connection op	otions
	Enter the IP address a	nd port of the secure web interface of your UCM
	Host name Host port	192.168.1.1 8443
		of an Application User that is authorised to access the system
	Username Password	TIM_AXL Set password
		Dencel 📑 Save

8. Click Set password and enter the password configured in the previous section, e.g. Clsco.

🔞 Cisco AXL				
General	Open and politica as			
Options	General settings			
	Name Cisco AXL			
	Directory type Cisco UCM 🔻			
	CO Set password			
	Ente 1			
	Hos New password			
	Hos Decancel			
	Ente system			
	Username TIM_AXL			
	Password Set password			
	Decancel 📑 Sav	e		

9. Click on the Save button to apply the changes.

Configuring TIM Enterprise to receive data by FTP

Follow the steps below to configure TIM Enterprise to receive data from your Cisco UCM:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Cisco UCM 5+ from the Data format list and tick the Keep a local backup of data box, as shown below:

📕 Cisco UCM		
General		
Connection	General settings	Data format
Inactivity	Name Cisco UCME	BT Versatility
Options	Unique ID 76793	📃 Cisco UCM 5+
	Time zone 0	Cisco UCM v4 DSN
	Broadcast CDRs from this PBX	Cisco UCME - RADIUS
		📕 Cisco UCME - SysLog
	Data backup	Coral Flexicom 200
	Keep a local backup of data	Coral Flexicom 500
	Backup location	📱 Draytek
	{app}\backup\Cisco UCME\{year}\{mor	Epygi Quadro
		💂 Fujitsu Rhapsody Rio
		GEC BTEX600S
		🔁 Cancel 📑 Save

- 4. Click on the Connection tab and select Receive FTP transfers from PBX from the Connection method list.
- 5. In the Username field, enter the username you created when setting up your Cisco UCM for FTP/SFTP transfers, e.g. TIM.
- 6. In the Password field, enter the password you chose when setting up your Cisco UCM for FTP/SFTP transfers, e.g. Ciscoftp.
- 7. Click on the Save button to apply the changes.

🚍 Cisco UCM			
General Connection Inactivity Options	Connection method Receive FTP transfers from PBX F Establish TCP connection to PBX Establish TCP connections from PBX System DSN connection RADIUS connection	Connection details Username Ciaco Password ••••• Use SFTP protocol	
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms 	

Set up FTP/SFTP in Cisco UCM

You will need to configure your Cisco UCM to send the CDR data to TIM Enterprise. Note that the UCM can be configured with cluster wide or server specific settings, depending on how the system maintainer has installed it. Please note that, by default, CDR records are turned off.

1. Log in to Cisco UCM Administration and from the left-hand menu click on the System tab and select

Service Parameters .

2. Choose your UCM node from the Server drop-down list.

- 3. Select Cisco Call Manager from the Service drop-down list.
- 4. In the System section, change the CDR Enabled Flag to True. Enable this parameter on all servers within the cluster you want to

log calls for.

ſ	— System —		
	CDR Enabled Flag *	True	•
	CDR Log Calls with Zero Duration Flag *	True	•
	Digit Analysis Complexity *	StandardAnalysis	•

- 5. Change the CDR Log Calls with Zero Duration Flag to True. This parameter enables or disables the logging of CDRs for calls which did not connect.
- 6. Click on the Save button.
- 7. Click on the Navigation drop-down list from the top right-hand corner, and select Cisco Unified Serviceability. You may need to log in with a user account that has administrative permissions.
- 8. Select Tools , then click on the CDR Management tab.
- 9. Click the Add New button. You will now see the Billing Application Server Parameters window. Enter the following parameters:

Host Name / IP Address: The IP address or hostname of the machine running TIM Enterprise.

User Name: Enter a user name for FTP/SFTP transfers (e.g. TIM)

Password: Enter a password for the FTP account (e.g. Ciscoftp)

Protocol: Select FTP or SFTP as desired.

Directory Path: Enter a forward-slash character to indicate root (/).

Remove the tick from Resend on Failure.

Alarm - Trace - Tools - Snmp - Help -

<u>Management</u>		
ling Application Server Pa	ameters	
Host Name / IP Address*	192.168.0.22	
User Name*	ТІМ	
Password*	•••••	
Protocol*	FTP 🔹	
Directory Path*	(
Resend on Failure		

10. Next, click on the Add button to complete the billing server configuration. The UCM node will check that the FTP/SFTP details

are valid and will write a test file to the FTP/SFTP directory. If this fails, you should double-check the details you entered.

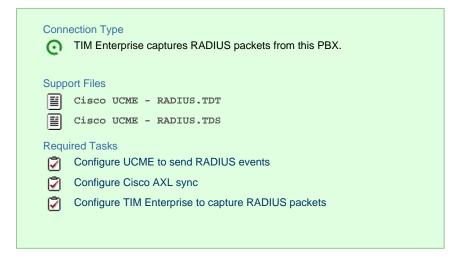
Cisco UCME / UC500 (AKA Call Manager Express)

The Cisco UCME / UC500 can be configured to send RADIUS or SysLog events. Click on one of the links below for your preferred connection method.

Cisco recommends that you use RADIUS events because they provide more detailed call logging information.

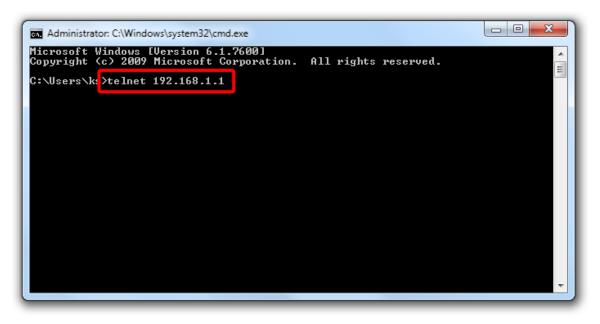
Cisco UCME / UC500 - RADIUS

These instructions help you configure your Cisco UCME / UC500 to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring UCME to send RADIUS events

Use Telnet to connect to the IP address of your UCME as shown below:



Once connected, enter the following commands to enable the UCME to send RADIUS events to TIM Enterprise:

Step	IOS commands	Description
1	enable	Causes the UCME to enter EXEC mode. Type your EXEC password if requested
2	conf t	Enters the global configuration mode

3	aaa new-model	Enables aaa accounting mode
	aaa accounting connection h323 start-stop group RADIUS	
	gw-accounting aaa	
	acct-template callhistory-detail	
4	RADIUS-server host 192.168.0.1 auth-port 0 acct-port 1612	Specifies the IP address and port of TIM Enterprise's RADIUS, to which CDR data will be sent, e.g. 192.168.0.1:1612
5	RADIUS-server key Clsco	Specifies a RADIUS authentication secret that will be used by TIM Enterprise (configured in the next section), e.g. Clsco
6	RADIUS-server vsa send accounting	Enables VSA events
7	end	Exits configuration mode
8	wr	Saves the changes

Configuring Cisco AXL sync

Follow the steps below to configure TIM Enterprise to synchronise with the directory of your your Cisco UCME:

- 1. Click on the Directory tab.
- 2. Go to the Directory level where you want to sync the UCME files and add a new Directory Sync object. Enter a name for the object and click on the Add button, as shown below:

Organisation unit	Other object			
Channel Group	🔆 Alarm	🚕 Billing Charge		
📑 Cost Centre	🥢 Channel	🖈 Stats Collector		
🖾 Division	🚍 PBX	123 LCR Plan		
📄 Group	🗃 Magic Box	\rm 🔒 Tariff Modifier		
😢 Reporting Collection	🛃 User	🔇 Web User		
🛄 Site	📅 Display Board	🙆 Directory Sync		
	🛃 Question			
Provides the ability to synchronise portions of the Directory with third-party systems				
Enter a name for the object	Cisco AXL			
		🔎 Cancel 📑 <u>Ac</u>		

4. In the Directory type drop-down list, select Cisco UCME.

- 5. In the Host name field, enter the IP address of your UCME.
- 6. In the Host port field, enter the port number of the IOS service, e.g. 23 .

3.

7. In the Username field, enter the username of the IOS login that can perform synchronisation.

🔞 Cisco AXL				
General				
Options	General setting	gs		
	Name Directory type	Cisco AXL Cisco UCME		
	Connection op	otions		
	Enter the IP address a	nd port of the IOS interface of your UCME		
	Host name	192.168.1.1		
	Host port	23		
	Optionally, enter a use	ername and password to access IOS		
	Username	CiscoUser		
	Password	Set password		
			Cancel	📑 Save

8. Click on Set password button and enter the password of the IOS login that can perform synchronisation.

🙆 Cisco AXL	
General	General settings
Options	Name Cisco AXL Directory type Cisco UCME
	Co Set password Ente
	Hos Hos Opti
	Username CiscoUser Password Set password
	Cancel Save

9. Click on the Save button to apply the changes.

Configuring TIM Enterprise to capture RADIUS packets

Follow the steps below to configure TIM Enterprise to receive RADIUS data from your UCME:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Cisco UCME RADIUS from the Data format list and tick the Keep a local backup of data box, as shown below:

🗮 Cisco UCME			×
General Connection	General settings	Data format	
Inactivity Options	Name Cisco UCME Unique ID 3 Time zone 0 Broadcast CDRs from this PBX Data backup Very keep a local backup of data Backup location {app}\backup\New PBX\{year}\{month}	 Cisco UCM 5+ Cisco UCM v4 DSN Cisco UCM v4 Transfer Cisco UCME - RADIUS Cisco UCME - SysLog Coral Flexicom 200 Coral Flexicom 500 Draytek Epygi Quadro Fujitsu Rhapsody Rio GEC BTEX 600S 	T T
		Cancel	📑 Save

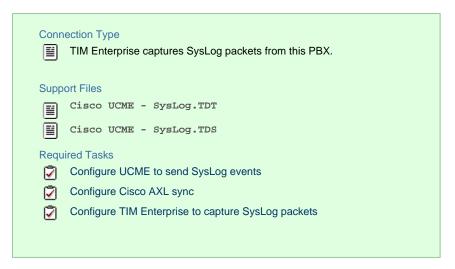
- 4. Click on the Connection tab and select RADIUS connection from the Connection method list.
- 5. In the Client IP field, enter the IP address of your UCME.
- 6. In the secret key field, enter the RADIUS-server key you configured on your UCME in the section above, e.g. Clsco.

📕 Cisco UCME			
General Connection	Connection method	Connectio	on details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	Client IP Secret key Connection Binary dat Timestamp Delay proc	a Jodata

7. Click on the Save button to apply the settings.

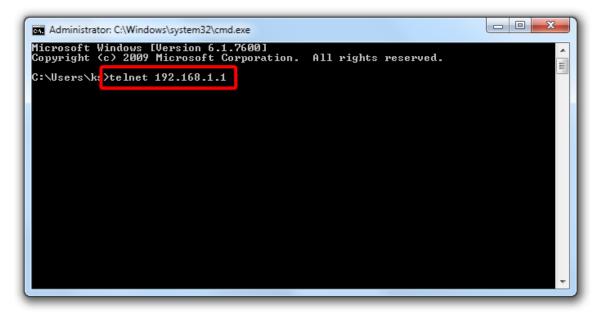
Cisco UCME / UC500 - SysLog

These instructions help you configure your Cisco UCME / UC500 to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring UCME to send SysLog events

Use Telnet to connect to the IP address of your UCME as shown below:



Once connected, enter the following commands to enable the UCME to send SysLog events to TIM Enterprise:

Step	IOS commands	Description
1	enable	Causes the UCME to enter EXEC mode. Type your EXEC password if requested
2	conf t	Enters the global configuration mode
3	aaa new-model	Enables aaa accounting mode
	aaa accounting connection h323 start-stop group SysLog	
	gw-accounting syslog	
	acct-template callhistory-detail	
4	logging 192.168.0.1	Specifies the IP address of TIM Enterprises's SysLog server, to which CDR data will be sent, e.g. 192.168.0.1
5	end	Exits configuration mode

6 wr

Configuring Cisco AXL sync

Follow the steps below to configure TIM Enterprise to synchronise with the directory of your Cisco UCME:

- 1. Click on the Directory tab.
- 2. Go to the Directory level where you want to sync the UCME files and add a new Directory Sync object. Enter a name for the

object and click on the Add button, as shown below:

TAdd new object				
Organisation unit	Other object			
 Channel Group Cost Centre Division 	-∯- Alarm ∦ Channel ∰ PBX	 illing Charge ii Stats Collector LCR Plan 		
🧰 Group	🥶 Magic Box	🔥 Tariff Modifier		
🛞 Reporting Collection	🙎 User	🔇 Web User		
🛄 Site	📷 Display Board	🔞 Directory Sync		
	📝 Question			
Provides the ability to synchronise portions of the Directory with third-party systems				
Enter a name for the object	Cisco AXL			
		Cancel Add		

- 3. Left-click on the newly-created object and select Properties .
- 4. In the Directory type drop-down list, select Cisco UCME.
- 5. In the Host name field, enter the IP address of your UCME.
- 6. In the Host port field, enter the port number of the IOS service, e.g. 23 .
- 7. In the Username field, enter the username of the IOS login that can perform synchronisation.

🔞 Cisco AXL				
General				
Options	General setting	gs		
	Name Directory type	Cisco AXL Cisco UCME	▼	
	Connection op	otions		
	Enter the IP address a	Enter the IP address and port of the IOS interface of your UCME		
	Host name Host port	192.168.1.1 23		
	Optionally, enter a use	ername and password to access IOS		
	Username Password	CiscoUser Set password		
			🗦 Cancel	📑 Save

8. Click on Set password button and enter the password of the IOS login that can perform synchronisation.

🔞 Cisco AXL			
General Options	General setting	js	
	Name Directory type	Cisco AXL Cisco UCME	•
	CO Set passwor	rd	
	Hos New passw		
	Opti Username	CiscoUser	
	Password	Set password	
			🥃 Cancel 📄 Save

9. Click on the Save button to apply the changes.

Configuring TIM Enterprise to capture SysLog packets

Follow the steps below to configure TIM Enterprise to receive SysLog data from your UCME:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Cisco UCME SysLog from the Data format list and tick the Keep a local backup of data box, as shown below:

🚍 Cisco UCME		
 General		
Connection	General settings	Data format
Inactivity	Name Cisco UCME	📕 BT Versatility
Options	Unique ID 76793	Cisco UCM 5+
	Time zone 0	🥫 Cisco UCM v4 DSN
	Broadcast CDRs from this PBX	Cisco UCME - RADIUS
		📃 Cisco UCME - SysLog 📰
	Data backup	Coral Flexicom 200
		Coral Flexicom 500
	Keep a local backup of data	Draytek
	Backup location	💂 Epygi Quadro
	.}\backup-{year}-{month}-{day}.{uiv}	💂 Fujitsu Rhapsody Rio
		GEC BTEX600S
		🥥 Cancel 📮 Save

- 4. Click on the Connection tab and select SysLog connection from the Connection method list.
- 5. In the Client IP field, enter the IP address of your UCME.

🚍 Cisco UCME		
General	Connection method	Connection details
Connection	Connection method	Connection details
Inactivity	Receive FTP transfers from PBX	Client IP 192.168.1.1
Options	 क Establish TCP connection to PBX	
	🐺 Listen for connections from PBX	
	👔 System DSN connection	
	RADIUS connection	
	SysLog connection	
	No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms

6. Click on the Save button to apply the settings.

DrayTek

DrayTek UG-Vigour

These instructions help you configure your Draytek phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr I	nection Type TIM Enterprise captures SysLog packets from this PBX.
Supr	ort Files
i i i i i i i i i i i i i i i i i i i	Draytek.TDT
	Draytek.TDS
Requ	iired Tasks
2	Configure your router
2	Configure TIM Enterprise

Configuring your router

Follow the steps below to enable SysLog events on your phone system:

1. Access the web interface of your DrayTek router and navigate to System Maintenance >> SysLog/Mail Alert Setup, as

shown	be	low:
-------	----	------

ysLog / Mail Alert Setup	
SysLog Access Setup Fenable Syslog Save to: Syslog Server USB Disk Router Name Server IP Address 192.168.1.10 Destination Port 514 Enable syslog message: Firewall Log VPN Log User Access Log	Mail Alert Setup Enable Send a test e-mail SMTP Server
✓ Call Log WAN Log Router/DSL information	

- 2. Check the Enable box to activate the SysLog fuction.
- 3. Check the Syslog Server box to save the logs directly to the server.
- 4. Enter the IP address of TIM Enterprise's SysLog server, to which CDR data will be sent.
- 5. Check the Call Log box to enable the output of call logging data.
- 6. Click on the OK button to save the settings.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to receive SysLog data from your DrayTek phone system:

1. Log in to TIM Enterprise and click on the Directory tab.

- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open displaying the general properties of your PBX object. Select Draytek from the Data format list and tick

the Keep a local backup of data box, as shown below:

🚍 DrayTek		\mathbf{X}
General Connection	General settings	Data format
Inactivity Options	Name DrayTek Unique ID 73 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Reep a local backup of data Backup location {app}\backup\New PBX\{year}\{month}	 Cisco UCME - SysLog Coral Flexicom 200 Coral Flexicom 500 Draytek Epygi Quadro Fujitsu Rhapsody Rio GEC BTEX 600S iBOX Internal Iridiancom Telrad IS LG GDK
		Cancel

- 4. Click on the Connection tab and select SysLog connection from the Connection method list.
- 5. In the Client IP field, enter the IP address of your DrayTek router.

📰 DrayTek		\mathbf{X}
General Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	Client IP 192.168.0.1 Connection options Binary data Timestamp data Delay processing by ms
		🗦 Cancel 📑 Save

6. Click on the Save button to apply the settings.

Ericsson

Ericsson BP

Please refer to Aastra BP.

Fujitsu

Fujitsu Rhapsody Rio

These instructions help you configure your Fujitsu Rhapsody Rio phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Connection Type TIM Enterprise establishes a serial connection with this PBX.
Support Files
Fujitsu Rhapsody Rio.TDT
Required Tasks
Configure the SMDR output
🔽 Install NetPBX
Configure TIM Enterprise

Configuring your SMDR output

The Fujitsu Rhapsody Rio phone system sends SMDR information via a serial connection. You need to directly connect a serial cable from the Fujitsu Rhapsody Rio phone system to the PC that NetPBX is installed and running on. For more information about the output and configuration of your SMDR data, please contact your system maintainer.

Installing NetPBX

To collect call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Fujitsu Rhapsody Rio from the Data

format list and tick the Keep a local backup of data box, as shown below:

📕 Fujitsu Rhapso	ody Rio	
General		
Connection	General settings	Data format
Inactivity Options	Name Fujitsu Rhapsody Rio Unique ID 76406 Time zone 0 Broadcast CDRs from this PBX Data backup Weep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Cisco UCME - SysLog Coral Flexicom 200 Coral Flexicom 500 Draytek Epygi Quadro Fujitsu Rhapsody Rio GEC BTEX600S iBOX Internal Iridiancom Telrad IS LG IP LDK
		🤀 Cancel 📑 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🚍 Fujitsu Rhapso	dy Rio		
General Connection	Connection method	Connection details	
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method	
 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by		
		Cancel	

GEC

GEC BTEX

These instructions help you configure your GEC BTEX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

Note that the GEC BTEX can output SMDR information in multiple formats. You should select the 600s format for use with TIM Enterprise.

The GEC BTEX phone system sends SMDR information via a serial connection. You need to directly connect a serial cable from the GEC BTEX phone system to the PC that NetPBX is installed and running on. For more information about the output and configuration of your SMDR data, please contact your system maintainer.

Installing NetPBX

To collect the call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Director, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select GEC BTEX 6005 from the Data format list

and tick the Keep a local backup of data box, as shown below:

🚍 GEC BTEX 600	S		
General			
Connection	General settings	Data format	
Inactivity	Name GEC BTEX 600S	Coral Flexicom 500	
Options	Unique ID 76411	📱 Draytek	
	Time zone 0	📱 Epygi Quadro	
	Broadcast CDRs from this PBX	📱 Fujitsu Rhapsody Rio	
		GEC BTEX 600S	
	Data backup	ibox E	
	Keep a local backup of data	📃 Internal	
	Backup location	📃 Iridiancom Telrad IS	
	.}\backup-{year}-{month}-{day}.{uiv}	📃 LG IP LDK	
		📃 Lucent EuroGeneris	
		📃 Matracom MC-6500 🔻	
		🗦 Cancel 📑 Save	

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

B GEC BTEX 600	S	
General		
Connection	Connection method	Connection details
Inactivity	🔓 Receive FTP transfers from PBX	
Options	→ → Establish TCP connection to PBX	
	₩ Listen for connections from PBX	There are no options for this connection method
	💼 System DSN connection	connection method
	• RADIUS connection	
	SysLog connection	
	🕗 No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms

Inter-Tel

Inter-Tel Axxess up to V7.x

Please refer to Mitel 5000-7000.

Inter-Tel Axxess V8 plus

Please refer to Mitel 5000-7000.

Iridiacom

Iridiacom Telrad

These instructions help you configure your Iridiacom Telrad phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr J	TIM Enterprise establishes a serial connection with this PBX.
Supp E	oort Files Iridiacom Telrad IS.TDT
	uired Tasks
2	Configure the SMDR output Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

The Iridiacom Telrad phone system sends SMDR information via a serial connection. You need to directly connect a serial cable from the Iridiacom Telrad phone system to the PC that NetPBX is installed and running on. For more information about the output and configuration of your SMDR data, please contact your system maintainer.

Installing NetPBX

To collect call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Iridiacom Telrad IS from the Data

format list and tick the Keep a local backup of data box, as shown below:

🗯 Iridiacom Telra	d IS	
General		
Connection	General settings	Data format
Inactivity	Name Iridiacom Telrad IS	ji iBOX
Options	Unique ID 76435	Internal
	Time zone 0	💂 Iridiacom Telrad IS
	Broadcast CDRs from this PBX	📕 LG IP LDK
		Lucent EuroGeneris
	Data backup	Matracom MC-6500
	· · · · · · · · · · · · · · · · · · ·	Matracom MC-6501
	Keep a local backup of data	💂 Meridian Dealer Board
	Backup location	🧵 Mitel 3100
	.}\backup-{year}-{month}-{day}.{uiv}	💂 Mitel 3300
		Mitel 5000-7000
		Cancel Revealed Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

	11,7 5	
🚍 Iridiacom Telra	d IS	
General		
Connection	Connection method	Connection details
Inactivity	🔓 Receive FTP transfers from PBX	
Options	 क Establish TCP connection to PBX	
	🐙 Listen for connections from PBX	There are no options for this connection method
	💼 System DSN connection	
	• RADIUS connection	
	SysLog connection	
	🖉 No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms
		Cancel

IPCortex

VolPCortex

These instructions help you configure your VoIPCortex phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Con	nection Type TIM Enterprise establishes a TCP connection to this PBX.
Sup	port Files
	VoIPCortex.TDT
	VoIPCortex.TDS
Req	uired Tasks
2	Configure the SMDR output
2	Configure TIM Enterprise

Configuring your SMDR output

Follow the steps below to enable the SMDR output on your VoIPCortex phone system:

1. Log in to the VoIPCortex phone system using your admin username and password.

ipcortex	ipcortex.tri-line.net
public phonebook jogon help Serial Number: 107055 Lidenoed to: Loan Lidenoed to: Loan Lidenoed to: Loan Lidenoed to: Loan CALE Stream Lidence IP Cortex Lide Software Lidence	Logon Username: Password: DK Launch OCM Note that login to this site requires that your browser accept cookies. We plant a cookie to be sent back to this server only, which expires at the end of your session to hold your login state If you have lost your password, click here

2. Click on the System tab and from the left-hand side menu expand the Global tree node.

3. In the Passwords section, create a password to allow event to be retrieved by TIM Enterprise, as shown below:

	ipcortex.tri-line.net		
ipcortex			
	👗 user 🛯 🗱 system 📲 pabx 🛛 👺 routing	Y 🎕 record Y 🧼 call-log Y	🖀 monitor
🐒 phone hardware	Manage Global Settings		
— 🌉 system backup 🕎 shutdown / reboot	NOTE: It is possible that the system will need to be rebooted (powered off and on) if settings marked * are altered. Settings marked ** requre a further activation step		
🕒 global	De	fault passwords	
🚯 network	Description of Setting	Current	Change to
🔥 telephony	Admin PIN for phones	0000	0000
ᡖ email	Admin PIN for phone provisioning		
🚯 passwords	Default voicemail PIN	000	000
🚡 general	Nightmode PIN	0000	0000
🔂 dhcp server	IVR recording PIN	0000	0000
🚯 handsets	User PIN overrides call barring	false / off	
🔂 advanced	User PIN overrides phone rights	false / off	
🔂 advanced/network	Password for Sugar CRM / Voice RD		
🔥 advanced/groups	Password for xtelsio	tntnet1	tntnet1
😜 high availability	Password for Call Data Collection	tntnet	
💥 remote support			Update
_ආ upgrades			
			
📲 logout			
help			
Serial Number: 107055 Licenced to : Loan Eulid T;pe: ISDN2e / 110304 MAC Address:⊞4D53265d11dd			
GPL Software Licence IPCortex Ltd Software Licence			

4. Once you have completed the configuration, restart the phone system for the changes to take affect.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect SMDR data from your VoIPCortex phone system:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select VolPCortex from the Data format list and

tick the Keep a local backup of data box, as shown below:

B VolPCortex		\mathbf{X}
General Connection Inactivity Options	General settings Name VoIPCortex Unique ID 2 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Reep a local backup of data Backup location {app}\backup\New PBX\{year}\{month}	Data format Siemens OpenOffice SpliceCom Maximiser SWYX V6 SWYX V8 SWYX V8 Telappliant Telesoft TeleVantage Toshiba CIX-CTX Toshiba Strata DK VoIPCortex VoiSpeed v
		🤀 Cancel 📑 Save

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the ${\tt Host}$ field, enter the IP address of your VoIPCortex.
- 6. In the Port field, enter 5038.
- 7. In the Username field, enter xtelsio.
- 8. In the Password field, enter the password you configured in the phone system.
- 9. In the IP script field, select VoIPCortex from the drop-down list.
- 10. In the **Connection options**, enable the **Timestamp** data field.
- 11. Click on the Save button to apply the settings.

SolPCortex		X
General Connection Inactivity Options	Connection method Receive FTP transfers from PBX Figure Establish TCP connection to PBX Figure Listen for connections from PBX System DSN connection RADIUS connection	Connection detailsHost192.168.1.1Port5038UsernamextelsioPassword••••••IP scriptVoIPCortex
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel Save

LG GDK

These instructions help you configure your LG GDK phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr J	TIM Enterprise establishes a serial connection with this PBX.
	port Files
	LG GDK.TDT
	LG.TDS
Requ	uired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

The LG GDK phone system sends SMDR information via a serial connection. You need to directly connect a serial cable from the LG GDK phone system to the PC that NetPBX is installed and running on. Since the LG GDK doesn't have the SMDR output enabled by default, you need to ask your system maintainer to enable SMDR logging for outgoing, incoming and abandoned calls.

Installing NetPBX

To collect call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select LG GDK from the Data format list and tick

the Keep a local backup of data box, as shown below:

📕 LG GDK			
General			
Connection	General settings	Data format	
Inactivity	Name LG GDK	ibox 🔹	
Options	Unique ID 76689	📃 Internal	
	Time zone 0	📃 LG GDK	
	Broadcast CDRs from this PBX	LG iPECS	
		📕 LG IPLDK	
	Data backup	Matracom MC-6500	
	Keep a local backup of data	Matracom MC-6501	
		📕 Meridian Dealer Board	
	Backup location .}\backup-{year}-{month}-{day}.{uiv}	Mitel 3100	
		Mitel 3300	
		Mitel 5000-7000	
		Cancel Research Save	

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

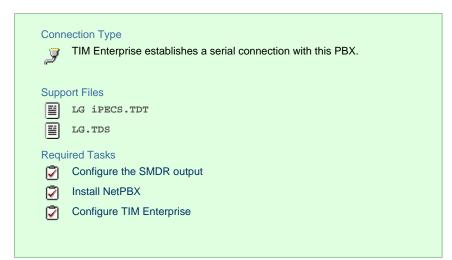
	a	
📕 LG GDK		
General		
Connection	Connection method	Connection details
Inactivity	🍰 Receive FTP transfers from PBX	
Options	🖙 Establish TCP connection to PBX	
	🗺 Listen for connections from PBX	There are no options for this connection method
	💼 System DSN connection	
	 RADIUS connection 	
	SysLog connection	Composition ontions
	🖉 No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms
		⊋ Cancel 틙 <u>Save</u>

LG iPECS

The LG iPECS can be configured to send its SMDR data over a serial (RS232) or an IP connection. Click on one of the links below that relates to your preferred connection method.

LG iPECS - Serial connection

These instructions help you configure your LG iPECS phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configure the SMDR output

The SMDR output in LG iPECS is disabled by default. To enable the output, you need to amend the following settings in the programming sections below:

SMDR Attributes (PGM 177)

Field	Description
Save Enable	Leave this as the default, which is unticked
Print Enable	This needs to be enabled by clicking on the check box
SMDR Record Call Type	This needs to be set to 'All Calls', you will need to select this from the drop-down list
Records In Detail	This needs to be enabled by clicking on the check box
Print Incoming Call	This needs to be enabled by clicking on the check box
Print Lost Call	This needs to be enabled by clicking on the check box
SMDR Dial Digit Hidden	Leave this as the default which is '0'
SMDR Currency Unit	Leave this as the default which is blank
SMDR Cost Per Metering Pulse	Leave this as the default which is blank
SMDR Fraction	Leave this as the default which is '0'
SMDR Start Time	Leave this as the default which is '0'
SMDR Hidden Digit	Leave this as the default which is 'Right'
Long Distance Call Digit Counter	Leave this as the default which is '0'
Long Distance Code (Max 2 Digits)	Leave this as the default
MSN Print on SMDR	Leave this is the default which is unticked
Print Caller Number	This needs to be enabled by clicking on the check box

Here is an example of a populated SMDR Attributes screen:

	Administration	S/W Upgrade	System Management	
Board Based Data	SMDR Attributes]			
CO Line Data				
System Data	Attribute	Value	Range	Sav
System Attributes(160~161)	Save Enable	OFF 💌		
System Password(162)	Print Enable	ON 💌		
Alarm Attributes(163)	Record Type	All Call 📃		
Attendant Assignment(164)	Long Distance Call Digit Counter	7	07-15	
Multicast RTP/RTCP(165)	Print Incoming Call			
DISA COS(166)	Print Lost Call			
DID/DISA Destination(167)	Records In Detail			
External Control Contacts(168)	Hidden Dialed Digit		0.9	
LCD Display Mode(169)			0-9	
LED Flashing Rate(170)	Dialed Digit Hide Option	Right -		
Music Sources(171)	SMDR Currency Unit		Max 3 characters	
PBX Access Codes(172)	SMDR Cost Per Metering Pulse	000000	Must be 6 digits	
RLP Priority(173)	SMDR Decimal Location		0-5	
RS-232 Port Settings(174)	Start Timer	0 (*1sec)	000-250	
Serial Port Selections(175)	SMTP Mail Server IP Address	0.0.0.0		
Break / Make Ratio(176)	SMDR User Mail Address		MAX 40 characters	
SMDR Attributes(177)	SMDR System Domain Name		MAX 18 characters	
System Date & Time(178)	SMDR Mail Send Weekly Set	N/A 💌		
System Multi Language(179)	SMDR Mail Send Daily Set	00	00-23	
System Timers(180~182,186)	SMDR Mail Auto Send Set	OFF 🔽		
In Room Indication(183)	SMDR Mail Auto Delete Set	OFF -		
Web Access Authorization		10	Max 2 digits	
NTP Attributes(195) SNMP Attribute(196)		2	Max 2 digits	
Cabinet Attribute(197)	Long Distance Code	3	Max 2 digits	
Hot Desk Attributes(250)	2016 2 21 200 0000	4	Max 2 digits	
System Call Routing(251)		5	Max 2 digits	
CO Call Rerouting(252)			INIAX 7 CURIUS	
System Speed Dial	SMDR Ring/CLI/CPN Service-I	Ring 🔽		
Custom Messages	SMDR Ring/CLI/CPN Service-II	CPN 🔽		
Station Group Data	Print MSN			
ISDN Line Data	Print Serial No	ON 💌		
	SMDR Interface Service	OFF 💌		
ISDN Attributes(200)	SMDR ICM Save	OFF 💌		
CLIP/COLP Table(201)	SMDR ICM Print	ON 🔽		
MSN Table(202)	SMDR Disconnect Cause	OFF -		
ICLID Route Table(203) ICLID Ring Assignment(204)	Long Time Call	0 (*10min)	000-144	

Printer Port Selection (PGM 175)

In the Printer Port Selection (PGM 175) window, set Info/On-line SMDR to COM1/COM2 to send call logging data by serial port.

ISDN Attributes (PGM 200)

To enable CLI information in the call records produced by your LG iPECS, you need to set the CLI Print To Serial to ON, as shown below:



Installing NetPBX

If your LG iPECS has been configured to send SMDR data via a serial connection, you first need to install the NetPBX software to collect data from the serial port and send it to TIM Enterprise. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. select LG iPECS from the Data format list and

tick the Keep a local backup of data box, as shown below:

🗮 LG iPECS		
General		
Connection	General settings	Data format
Inactivity	Name LG GDK	ibox 🔺
Options	Unique ID 76689	🧵 Internal
	Time zone 0	📕 LG GDK
	Broadcast CDRs from this PBX	📃 LG IPECS
		LG IPLDK
	Data backup	Matracom MC-6500
	Keep a local backup of data	Matracom MC-6501
	Backup location	📃 Meridian Dealer Board
	.}\backup-{year}-{month}-{day}.{uiv}	Mitel 3100
	· · · · · · · · · · · · · · · · · · ·	Mitel 3300
		Mitel 5000-7000 +
		🥥 Cancel 📑 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

E LG iPECS		
General	Composition mothed	Connection details
Connection	Connection method	Connection details
Inactivity	🍰 Receive FTP transfers from PBX	
Options	🖙 Establish TCP connection to PBX	
	🐺 Listen for connections from PBX	There are no options for this connection method
	👔 System DSN connection	
	RADIUS connection	
	SysLog connection	
	🕗 No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms
		Cancel

LG iPECS - IP connection

These instructions help you configure your LG iPECS phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

	ection Type
8∓	TIM Enterprise establishes a TCP connection to this PBX.
_	
Suppo	ort Files
	LG iPECS.TDT
Ĩ	LG.TDS
Requi	red Tasks
2	Configure the SMDR output
2	Configure TIM Enterprise

Configuring the SMDR output

The SMDR output in LG iPECS is disabled by default. To enable the output, you need to amend the following settings in the programming sections below:

SMDR Attributes (PGM 177)

Field	Description
Save Enable	Leave this as the default, which is unticked
Print Enable	This needs to be enabled by clicking on the check box
SMDR Record Call Type	This needs to be set to 'All Calls', you will need to select this from the drop-down list
Records In Detail	This needs to be enabled by clicking on the check box
Print Incoming Call	This needs to be enabled by clicking on the check box
Print Lost Call	This needs to be enabled by clicking on the check box
SMDR Dial Digit Hidden	Leave this as the default which is '0'
SMDR Currency Unit	Leave this as the default which is blank
SMDR Cost Per Metering Pulse	Leave this as the default which is blank
SMDR Fraction	Leave this as the default which is '0'
SMDR Start Time	Leave this as the default which is '0'
SMDR Hidden Digit	Leave this as the default which is 'Right'
Long Distance Call Digit Counter	Leave this as the default which is '0'
Long Distance Code (Max 2 Digits)	Leave this as the default
MSN Print on SMDR	Leave this is the default which is unticked
Print Caller Number	This needs to be enabled by clicking on the check box

Here is an example of a populated SMDR Attributes screen:

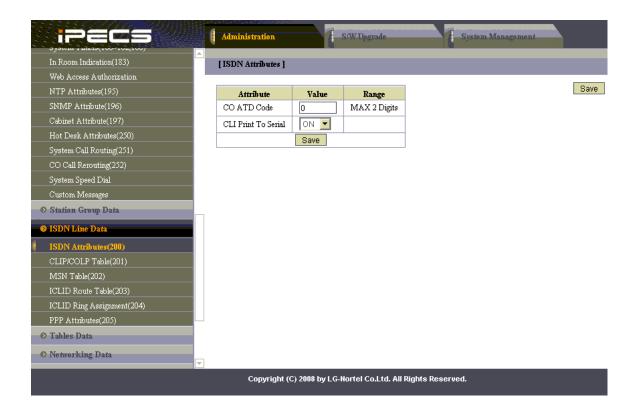
	Administration	S/W Upgrade	System Management	
Board Based Data	[SMDR Attributes]			
CO Line Data	[]			
System Data	Attribute	Value	Range	Save
System Attributes(160~161)	Save Enable	OFF 💌		
System Password(162)	Print Enable	ON 💌		
Alarm Attributes(163)	Record Type	All Call 🔽		
Attendant Assignment(164)	Long Distance Call Digit Counter	7	07-15	
Multicast RTP/RTCP(165)	Print Incoming Call			
DISA COS(166)	Print Lost Call			
DID/DISA Destination(167)	Records In Detail			
External Control Contacts(168)	Hidden Dialed Digit		0-9	
LCD Display Mode(169)			0-9	
LED Flashing Rate(170)	Dialed Digit Hide Option	Right 💌	M 2 1 1	
Music Sources(171)	SMDR Currency Unit		Max 3 characters	
PBX Access Codes(172)	SMDR Cost Per Metering Pulse	000000	Must be 6 digits	
RLP Priority(173)	SMDR Decimal Location		0-5	
RS-232 Port Settings(174)	Start Timer	0 (*1sec)	000-250	
Serial Port Selections(175)	SMTP Mail Server IP Address	0.0.0.0		
Break / Make Ratio(176)	SMDR User Mail Address		MAX 40 characters	
SMDR Attributes(177)	SMDR System Domain Name		MAX 18 characters	
System Date & Time(178)	SMDR Mail Send Weekly Set	N/A 💌		
System Multi Language(179)	SMDR Mail Send Daily Set	00	00-23	
System Timers(180~182,186)	SMDR Mail Auto Send Set	OFF 🔽		
In Room Indication(183)	SMDR Mail Auto Delete Set	OFF -		
Web Access Authorization		10	Max 2 digits	
NTP Attributes(195)		2	Max 2 digits	
SNMP Attribute(196)	Lana Distance Cards	3		
Cabinet Attribute(197) Hot Desk Attributes(250)	Long Distance Code		Max 2 digits	
System Call Routing(251)		4	Max 2 digits	
CO Call Rerouting(252)		5	Max 2 digits	
System Speed Dial	SMDR Ring/CLI/CPN Service-I	Ring 🔽		
Custom Messages	SMDR Ring/CLI/CPN Service-II	CPN 🔽		
Station Group Data	Print MSN	OFF 🔽		
	Print Serial No	ON 💌		
ISDN Line Data	SMDR Interface Service	OFF 💌		
ISDN Attributes(200)	SMDR ICM Save	OFF -		
CLIP/COLP Table(201)	SMDR ICM Print			
MSN Table(202)	SMDR Disconnect Cause			
ICLID Route Table(203)	Long Time Call	0 (*10min)	000-144	

Printer Port Selection (PGM 175)

In the Printer Port Selection (PGM 175) window, set Info/On-line SMDR to Telnet 1 to send call logging data to TIM Enterprise over TCP to port 23.

ISDN Attributes (PGM 200)

To enable CLI information in the call records produced by your LG iPECS, you need to set the CLI Print To Serial to ON, as shown below:



Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your LG iPECS:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select LG iPECS from the Data format list and tick

the Keep a local backup of data box, as shown below:

🚍 LG iPECS		
General General settings		Data format
Inactivity Options	Name LG GDK Unique ID 76689	🥫 iBOX
	Time zone 0	LG GDK LG iPECS LG IPLDK
Data backup keep a local backup of data Backup location \\backup-{year}-{month}-{day}.{uiv}		Matracom MC-6500 Matracom MC-6501 Meridian Dealer Board Mitel 3100 Mitel 3300 Mitel 5000-7000
		🔁 Cancel 틖 Save

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the Host field, enter the IP address of your LG iPECS.
- 6. In the Port field, enter 23.

- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Generic Simple from the drop-down list.
- 9. Click on the Save button to apply the settings.

🚍 LG iPECS		
General Connection Inactivity Options	Connection method	Connection details Host 192.168.1.1 Port 23 Username 1
 	 Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	Password IP script Generic Simple
		⊃ Cancel 📑 <u>Save</u>

LG IPLDK

The LG IPLDK can be configured to send its SMDR data via a serial (RS232) or an IP connection. Click on one of the links below that relates to your preferred connection method.

LG IPLDK - Serial connection

These instructions help you configure your LG IPLDK phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Connecti J TI	on Type I Enterprise establishes a serial connection with this PBX.
Support F	Files
E LG	IPLDK.TDT
E LG	TDS
Required	Tasks
📝 Co	nfigure the SMDR output
📝 Ins	stall NetPBX
📝 Co	nfigure TIM Enterprise

Configuring your SMDR output

The SMDR output on the LG IPLDK is disabled by default. To enable the output, you need to amend the following settings in the programming sections below:

Print Serial Port Selection (PGM 175)

In the Print Serial Port Selection (PGM 175) window, set Info/On-line SMDR to COM1/COM2 to send call logging data to the serial port.

🔗 Print Serial Port Selection(PGM 📃 🗆 🔀				
←Refresh 🚰Update 🖽 Close				
Items				
	Off-line SMDR/Statistics Prin	π		
Off-line SMDR / Statistics Print	COM2	-		
Admin Print	COM2	•		
Traffic	COM2	•		
SMDI Print	COM2	•		
Call Information	COM2	•		
Info/On-line SMDR	TELNET 1	•		
Trace	COM2	•		
Debug	COM2	•		
PC Admin	NET_PCADM	÷		
PC Attendant	NET_PCATD	-		
СТІ	NET_CTI	•		
Remote Diagnostic	NET_REMOTE	•		

SMDR Attributes (PGM 177)

Field Description		
Save Enable	Leave this as the default, which is unticked	
Print Enable	This needs to be enabled by clicking on the check box	
SMDR Record Call Type	This needs to be set to 'All Calls', you will need to select this from the drop-down list	
Records In Detail	This needs to be enabled by clicking on the check box	
Print Incoming Call	This needs to be enabled	
Print Lost Call	This needs to be enabled	
SMDR Dial Digit Hidden	Leave this as the default which is '0'	
SMDR Currency Unit	Leave this as the default which is blank	
SMDR Cost Per Metering Pulse	Leave this as the default which is blank	
SMDR Fraction Leave this as the default which is '0'		
SMDR Start Time Leave this as the default which is '0'		
SMDR Hidden Digit	Leave this as the default which is 'Right'	
Long Distance Call Digit Counter Leave this as the default which is '0'		
Long Distance Code (Max 2 Digits) Leave this as the default		
MSN Print on SMDR	This needs to be disabled	
Print Caller Number	This needs to be disabled	

🔗 SM	DR A	tributes(PGM17	77)		
]	fresh	Update	⊡J⊆los	e		
Save	Enable					Г
Print I	Enable					V
SMDI	R Reco	rd Call Type		All Call		-
Reco	rds In D	etail				V
Print I	ncomin	g Call				•
Print I	Lost Cal	Í.				V
SMDI	R Dial D	igit Hidden			0	(0-9)
SMDI	R Curren	ncy Unit		(Max	3 char	acters)
SMDI	R Cost F	^p er Metering F	Pulse	000000	(Must	6 digit)
SMDI	R Fracti	on			0	(0-5)
SMDI	R Start	Timer	0	*1 sec	(000 -	250)
SMDI	R Hidde	n Digit		RIGHT	_	•
Long	Distanc	e Call Digit Co	ounter	7	(7	· 15)
Long	Distanc 1: 0	e Code (Ma) 2:	2 Digits) 3:	4:	5: [
MSN	Print Or	SMDR				Г
Print	Caller N	umber				•

ISDN Attributes (PGM 200)

Enable the CLI Print to serial field, as shown the ISDN Attributes window below:

Advice Of Charge Do not Service AOC CO ATD Code Max 2 Digits	•
CO ATD Code Max 2 Digits	
CLI Brief To Social	
CEL PHILE TO SERIAL	₽
Int'l Access Code Max 4 Digits	
My Area Code Max 6 Digits	
My Area Prefix Code 0 Max 4 Digits	
Maintain DID Name	Г
PC Application Station 1000	

Installing NetPBX

If your LG IPLDK has been configured to send SMDR data via a serial connection, you first need to install the NetPBX software to collect the data from the serial port and send it to TIM Enterprise. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select LG IPLDK from the Data format list and tick the Keep a local backup of data box, as shown below:

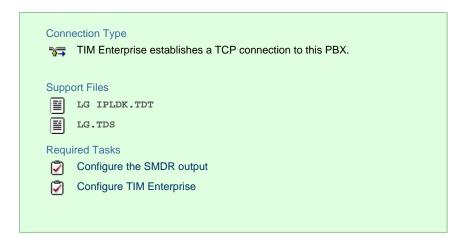
🚍 LG IPLDK		
General Connection	General settings	Data format
Inactivity Options	NameLG IPLDKUnique ID76790	💂 iBOX 🔺
	Time zone 0 Broadcast CDRs from this PBX	📕 LG GDK 💂 LG iPECS
	Data backup keep a local backup of data Backup location .}\backup-{year}-{month}-{day}.{uiv}	 LG IPLDK Matracom MC-6500 Matracom MC-6501 Meridian Dealer Board Mitel 3100 Mitel 3300 Mitel 5000-7000
		🔁 Cancel 📑 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settin

🚍 LG IPLDK		
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by
		Cancel

LG IPLDK - IP connection

These instructions help you configure your LG IPLDK phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

The SMDR output on the LG IPLDK is disabled by default. To enable the output, you need to amend the following settings in the programming sections below:

Print Serial Port Selection (PGM 175)

In this window, set Info/On-line SMDR to Telnet 1 to send call logging data to TIM Enterprise over TCP to port 23.

Here is an example of a populated Print Serial Port Selection screen:

Print Serial Port Selection(PGM]				
∫ ⇐Refresh 🖁 Update 🖻	l⊆lose			
Items	Off-line SMDR/Statistics Print			
Off-line SMDR / Statistics Print	COM2 .]		
Admin Print	COM2 .]		
Traffic	C0M2 .]		
SMDI Print	C0M2 -]		
Call Information	СОМ2 -	1		
Info/On-line SMDR	TELNET 1]		
Trace	C0M2 -			
Debug	СОМ2]		
PC Admin	NET_PCADM]		
PC Attendant	NET_PCATD]		
СТІ	NET_CTI]		
Remote Diagnostic	NET_REMOTE]		

SMDR Attributes (PGM 177)

Set the SMDR Attributes as shown below:

4	SMDR Attributes(PGM177)	
	←Refresh 💥Update 🖽 Close	
	Save Enable	Г
	Print Enable	V
	SMDR Record Call Type All Cal	I 💽
	Records In Detail	v
	Print Incoming Call	V
	Print Lost Call	V
	SMDR Dial Digit Hidden	0 (0-9)
	SMDR Currency Unit (M	lax 3 characters)
	SMDR Cost Per Metering Pulse 000000) (Must 6 digit)
	SMDR Fraction	0 (0-5)
	SMDR Start Timer 0 * 1 se	ec (000-250)
	SMDR Hidden Digit RIGH	TT
	Long Distance Call Digit Counter	7 (7-15)
	Long Distance Code (Max 2 Digits) 1: 0 2: 3: 4:	5:
	MSN Print On SMDR	Г
	Print Caller Number	V

ISDN Attributes (PGM 200)

Set the ISDN Attributes as shown below, ensuring that the CLI Print to serial field is enabled:

SIDN Attributes (PGM200) 😑 🗉 🎫		
j ⇔ <u>R</u> efresh j i⊔pda	te 🚽 🛛 ose	
Advice Of Charge	Do not Service AOC	
CO ATD Code	Max 2 Digits	
CLI Print To Serial	<u>۲</u>	
Int'l Access Code	Max 4 Digits	
My Area Code My Area Prefix Code	Max 6 Digits Max 4 Digits	
Maintain DID Name		
PC Application Station		

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your LG IPLDK:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select LG IPLDK from the Data format list and tick

IG IPECS		
General		
Connection	General settings	Data format
Inactivity	Name LG GDK	ibox 🔺
Options	Unique ID 76689	📃 Internal
	Time zone 0	📃 LG GDK
	Broadcast CDRs from this PBX	📱 LG iPECS
		📃 LG IPLDK
	Data backup	Matracom MC-6500
	Keep a local backup of data	Matracom MC-6501
	Backup location	📃 Meridian Dealer Board
	.}\backup-{year}-{month}-{day}.{uiv}	📃 Mitel 3100
		📃 Mitel 3300
		📃 Mitel 5000-7000 👻
		Cancel 📑 Save

the Keep a local backup of data box, as shown below:

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the Host field, enter the IP address of your LG IPLDK.
- 6. In the Port field, enter 23.
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Generic Simple from the drop-down list.
- 9. Click on the Save button to apply the settings.

📰 LG IPLDK		
General Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	Host 192.168.1.1 Port 23 Username Password IP script Generic Simple \checkmark Connection options Binary data Delay processing by ms
		Cancel

Lucent

Lucent EuroGeneris

Please refer to Avaya EuroGeneris.

Matracom

Matracom Matra 65xx series

Please refer to Avaya Matra 65xx series.

Mitel

Mitel 3100

These instructions help you configure your Mitel 3100 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn J	ection Type TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
	Mitel 3100.TDT
Requ	ired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

Follow the steps below to configure your Mitel 3100 to output SMDR data via a serial connection:

- 1. Using an RS-232 cable, connect the PC running TIM Enterprise to the serial port of the Mitel 3100.
- 2. Launch the Mitel System Tool.
- 3. Choose Voice from the selection menu.
- 4. Click on the Management tab, select Call Logging .
- 5. Click Change to set the following parameters:
 - Set the Cost per minute to 00. (This functionality is not supported in NA systems)
 - Set the Minimum call duration to be recorded option to 00:00:00.
 - Set the Type of calls option to All.
 - Set the Minimum page length to 1.
 - Enable call logging.
- 6. Click Save and commit the changes.

Installing NetPBX

The Mitel 3100 phone system sends SMDR information via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Mitel 3100 from the Data format list and

tick the Keep a local backup of data box, as shown below:

🚍 Mitel 3100		
General Connection	General settings	Data format
Inactivity	Name Mitel 3100	Matracom MC-6500
Options	Unique ID 76422 Time zone 0 Broadcast CDRs from this PBX	Matracom MC-6501 Meridian Dealer Board Mitel 3100
Data backup keep a local backup of data Backup location []\backup-{year}-{month}-{day}.{uiv}	 Mitel 3300 Mitel 5000-7000 Mitel Imagination Mitel SX50 Mitel SX2000 NEC Aspire NEC DXE 	
		🥥 Cancel 📑 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

📰 Mitel 3100			
General Connection	Connection method	Connection details	
Inactivity Options	 ♣ Receive FTP transfers from PBX ➡ Establish TCP connection to PBX ➡ Listen for connections from PBX ① System DSN connection ④ RADIUS connection 	There are no options for this connection method	
 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms		
		Cancel	

Mitel 3300

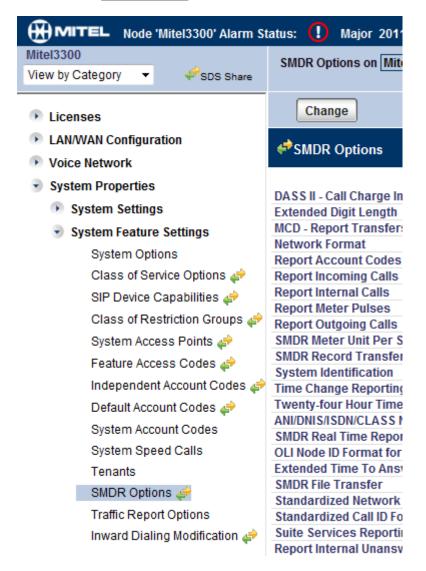
These instructions help you configure your Mitel 3300 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr ∛∓	nection Type TIM Enterprise establishes a TCP connection to this PBX.
Supp	ort Files
	Mitel 3300.TDT
	Mitel 3300.TDS
Requ	uired Tasks
2	Configure the SMDR output
2	Configure TIM Enterprise

Configuring your SMDR output

Follow the steps below to configure the SMDR options of your Mitel 3300:

- 1. Log in to the Mitel Communication Director software
- 2. Click on System Properties
- 3. Click on System Feature Settings
- 4. Click on SMDR Options



Set the SMDR options as shown below:

SMDR Options Assignment		
DASS II - Call Charge Information Provided:	⊙ No	○ Yes
Extended Digit Length:	O No	Yes
MCD - Report Transfers:	All 🗸	
Network Format:	⊙ No	Yes
Report Account Codes:	🔿 No	Yes
Report Incoming Calls:	🔿 No	Yes
Report Internal Calls:	🔿 No	 Yes
Report Meter Pulses:	💿 No	🔿 Yes
Report Outgoing Calls:	🔘 No	 Yes
SMDR Meter Unit Per Station:	📀 No	🔿 Yes
SMDR Record Transfer:	🔿 No	💿 Yes
System Identification:]
Time Change Reporting:	💿 No	Yes
Twenty-four Hour Time Reporting:	🔿 No	Yes
ANI/DNIS/ISDN/CLASS Number Delivery Reporting:	🔿 No	 Yes
SMDR Real Time Reporting:	💿 No	🔿 Yes
OLI Node ID Format for Incoming Trunk Calls:	💿 No	🔿 Yes
Extended Time To Answer:	🔘 No	 Yes
SMDR File Transfer:	📀 No	🔿 Yes
Standardized Network OLI:	🔿 No	 Yes
Standardized Call ID Format:	🔿 No	💿 Yes
Suite Services Reporting:	💿 No	🔿 Yes
Report Internal Unanswered Calls:	💿 No	🔿 Yes
SMDR Extended Reporting Level 1:	🔿 No	💽 Yes
Report Attendant Name:	💿 No	🔘 Yes
Account Code Reporting for Internal Calls:	🔘 No	💽 Yes
Tag Call Reporting:	💿 No	O Yes
Tag Call Identifier:		
Path Reporting for Internal ACD2 Calls:	📀 No	🔿 Yes
Number of destination address digits to mask:	0	
SMDR Extended Reporting Level 2:	O No	Yes
Two B-Channel Transfer Reporting:	 No 	Yes
		Save Cancel

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Mitel 3300:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Mitel 3300 from the Data format list and

tick the Keep a local backup of data box, as shown below:

📕 Mitel 3300				
General				
Connection	General settings	Data format		
Inactivity	Name Mitel 3300	Matracom MC-6500		
Options	Unique ID 76423	Matracom MC-6501		
	Time zone	📕 Meridian Dealer Board		
	Broadcast CDRs from this PBX	Mitel 3100		
		📃 Mitel 3300		
	Data backup	Mitel 5000-7000		
	Keep a local backup of data	📕 Mitel Imagination 🛛 🗉		
	Backup location	Mitel SX50		
	.}\backup-{year}-{month}-{day}.{uiv}	Mitel SX2000		
	· · · · · · · · · · · · · · · · · · ·	NEC Aspire		
		NEC DXE 👻		
		🗦 Cancel 📑 Save		

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the Host field, enter the IP address of your Mitel 3300.
- 6. In the Port field, enter 1752.
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Mitel 3300 from the drop-down list.
- 9. Click on the Save button to apply the settings.

🚍 Mitel 3300		
General	Connection method	Connection details
Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	Host 192.168.1.1 Port 1752 Username Password IP script Mitel 3300 • Connection options Binary data Delay processing by ms
		Cancel 🔲 Save

Mitel 5000-7000

These instructions help you configure your Mitel 5000-7000 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn	ection Type
76∓	TIM Enterprise establishes a TCP connection to this PBX.
Supp	ort Files
	Mitel 5000-7000.TDT
	Mitel 5000-7000.TDS
Requ	ired Tasks
2	Configure the SMDR output
	Configure TIM Enterprise
_	

Configuring the SMDR output

By default, the Mitel 5000-7000 has its SMDR output disabled. Follow the steps below to enable it:

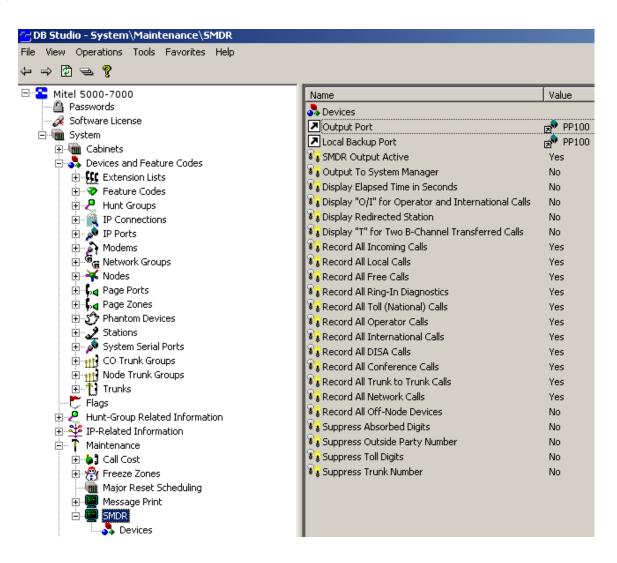
- 1. Log in to the Mitel DB Studio software.
- 2. Click and expand the System node.
- 3. Click and expand the Cabinet node.
- 4. Select the Sockets node.
- 5. In the right-hand window, click on the SMDR parameter to set its enabled state to Yes.

C DB Studio - System\Cabinets\Sockets				
File View Operations Tools Favorites Help				
$(\Rightarrow \Rightarrow \textcircled{2} = ?$				
		Name	Password	Enable
A Passwords			1 03511010	
		Message Print		No
🖻 🆣 System				Yes
🔄 🦏 Cabinets		System OAI Level 2		Yes
🗄 📣 Error Thresholds		🔊 User Level System Monitor		No
- 🐼 Reference Clock List				
Resources				
🔊 Sockets				
🔤 📶 01:01 Digital Keyset 16 Card				
01:02 Uninstalled				
01:03 Uninstalled				
01:05 Uninstalled				
- (?) 01:06 Uninstalled				
🕀 🌃 01:07 E1 Primary Rate Interface Card				
🊟 01:08 Central Processor / 1024 (NT)				
- 🥂 01:09 Uninstalled				
- 🥂 01:10 Uninstalled				
01:11 Uninstalled				
01:12 Uninstalled				
01:13 Uninstalled				
01:14 Uninstalled				
01:15 Uninstalled				
Click and expand the System icon.				

- 7. Click and expand the Maintenance icon.
- 8. Click on the SMDR icon.

6.

9. On the right-hand side you will have the SMDR fields that need to be configured, as shown below:



Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Mitel 5000-7000:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Mitel 5000-7000 from the Data format li

st and tick the Keep a local backup of data box, as shown below:

🚎 Mitel 5000-7000)			
General				
Connection	General settings	Data format		
Inactivity	Name Mitel 5000-7000	Matracom MC-6500		
Options	Unique ID 76421	Matracom MC-6501		
	Time zone 0	📃 Meridian Dealer Board		
	Broadcast CDRs from this PBX	📃 Mitel 3100		
		📃 Mitel 3300		
	Data backup	📃 Mitel 5000-7000		
	Keep a local backup of data	💂 Mitel Imagination 🗧		
	Backup location	Mitel SX50		
	.}\backup-{year}-{month}-{day}.{uiv}	Mitel SX2000		
	· · · · · · · · · · · · · · · · · · ·	NEC Aspire		
		NEC DXE 👻		
		🔁 Cancel 📮 Save		

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the ${\tt Host}$ field, enter the IP address of your Mitel 5000-7000.
- 6. In the Port field, enter 4000.
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Mitel from the drop-down list.
- 9. Click on the Save button to apply the settings.

itel 5000-7000		
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection 	Host 192.168.1.1 Port 4000 Username Password IP script Mitel •
	 No connection required 	Connection options Binary data Timestamp data Delay processing by
		Cancel

Mitel Imagination

These instructions help you configure your Mitel Imagination phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

The Mitel Imagination phone system sends SMDR information via a serial connection. You need to directly connect a serial cable from your Mitel to the PC that NetPBX is installed and running on. For more information about the output and configuration of your SMDR data, please contact your system maintainer.

Installing NetPBX

To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Mitel Imagination from the Data

format list and tick the Keep a local backup of data box, as shown below:

🚍 Mitel Imaginati	on	
General	General settings	Data format
Connection		
Inactivity	Name Mitel Imagination	Meridian Dealer Board
Options	Unique ID 76424	📕 Mitel 3100
	Time zone 0	🥫 Mitel 3300
	Broadcast CDRs from this PBX	J Mitel 5000-7000
		📃 Mitel Imagination
	Data backup	Mitel SX50
		Mitel SX2000
	Keep a local backup of data	NEC Aspire
	Backup location	NEC DXE
	.}\backup-{year}-{month}-{day}.{uiv}	NEC NEAX
		📃 Nortel BCM 🗸
		🔁 Cancel 📑 Save

4. Click on the Connection tab and select No connection required from the Connection method list.

5. C	Click on the	Save	button to apply the settings.	
	🚎 Mitel In	nagina	tion	
	General Connecti	ion	Connection method	Connection details
	Inactivit Options	y	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
			 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by
				Cancel

Mitel SX50

These instructions help you configure your Mitel SX50 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn J	ection Type TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
	Mitel SX50.TDT
	Mitel SX50.TDS
Requ	iired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

By default, the SMDR output of your Mitel is not enabled. To enable it, perform the steps below:

- 1. Within the PBX programming interface choose Systems Options Programming .
- 2. Access Command 100, register 14.
- 3. Set the Enabled for both incoming and outgoing trunk calls option.
- 4. Ensure SMDR is enabled in all of your Class of Services (Commands 121-129) and Trunk Groups (Commands 151-156).

Installing NetPBX

The Mitel SX50 phone system sends SMDR information via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Mitel SX50 from the Data format list and

tick the Keep a local backup of data box, as shown below:

📕 Mitel SX50		
General Connection	General settings	Data format
Inactivity Options	Name Mitel SX50 Unique ID 76425 Time zone 0 Broadcast CDRs from this PBX Data backup Very keep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Mitel 3300 Mitel 5000-7000 Mitel Imagination Mitel SX50 Mitel SX2000 NEC Aspire NEC DXE NEC NEAX Nortel BCM Nortel Meridian Option
		Danaconic NRS Soriec 🔻
		🥥 Cancel 📑 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

Mitel SX50		
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		⊃ Cancel 🔒 Save

Mitel SX2000

These instructions help you configure your Mitel SX2000 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Connection Type TIM Enterprise establishes a serial connection with this PBX.
Support Files
Mitel SX2000.TDT
Mitel SX2000.TDS
Required Tasks
Configure the SMDR output
Install NetPBX
Configure TIM Enterprise

Configuring your SMDR output

The Mitel SX2000 phone system sends SMDR information via a serial connection. You need to directly connect a serial cable from your Mitel to the PC that NetPBX is installed and running on. By default, the SMDR output of your Mitel is not enabled. For more information about enabling and configuring the SMDR output, you should speak to your system maintainer.

Installing NetPBX

To collect call logging data from the serial port of your Mitel and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Mitel SX2000 from the Data format list

and tick the Keep a local backup of data box, as shown below:

Mitel SX2000			
General			
Connection	General settings	Data format	
Inactivity	Name Mitel SX2000	🥫 Mitel 3100	*
Options	Unique ID 76426	🥫 Mitel 3300	
	Time zone 0	🧃 Mitel 5000-7000	
	Broadcast CDRs from this PBX	🥫 Mitel Imagination	
		📕 Mitel SX50	
	Data backup	📕 Mitel SX2000	
	🛛 Keep a local backup of data	NEC Aspire	=
	_	I NEC DXE	=
	Backup location .}\backup-{year}-{month}-{day}.{uiv}	I NEC NEAX	
	Jacoba (Icar) [monow] [asl].[ar)]	Nortel BCM	
		Nortel Meridian Option	-
		Cancel	Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

Mitel SX2000		
General		
Connection	Connection method	Connection details
Inactivity	🔓 Receive FTP transfers from PBX	
Options	= व≓ Establish TCP connection to PBX	
	🐙 Listen for connections from PBX	There are no options for this connection method
	💼 System DSN connection	
	RADIUS connection	
	SysLog connection	Oceano chiene entione
	No connection required	Connection options
		 Binary data Timestamp data Delay processing by
		Cancel

NEC

NEC Aspire

The NEC Aspire can be configured to send its SMDR data over a serial (RS232) or an IP connection. Click on one of the links below that relates to your preferred connection method.

NEC Aspire - Serial connection

These instructions help you configure your NEC Aspire phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr J	TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
	NEC Aspire.TDT
	NEC Aspire.TDS
Requ	iired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

Follow the steps below to configure the SMDR output on your NEC Aspire:

- 1. Log in to your PC Pro/Web Pro software.
- 2. To configure SMDR output by serial port, apply the following settings for each system adapter:

Adapter	Programming code	Value	Description
NTCPU - Serial	10-21-02	1	NTCPU Hardware Setup - Baud Rate for COM Port. Choose the baud rate from the three available options: $0 = 4800$, $1 = 9600$, and $2 = 38400$
	35-01-01	1	SMDR Options - Output Port Type
CTA/CTU - Serial	15-02-19	1	Multi-Line Telephone Basic Data Setup - CTA/CTU Data Communication Module
	15-02-20	1	Multi-Line Telephone Basic Data Setup - Baud Rate for CTA/CTU port. Choose from the three available options: $0 = 4800$, $1 = 9600$, and $2 = 38400$
	35-01-01	4	SMDR Options - Output Port Type
	35-01-02	Extension number that the CTA/CTU adaptor is attached to.	SMDR Options - Output Destination Number

3. Apply the following settings in the programming sections below:

ogramming code Value

14-01-06	1	Basic Trunk Data Setup - SMDR Print.
15-01-03	1	Basic Extension Data Setup - SMDR Print.
35-01-03	0	SMDR Options - Header Language.
35-01-04	0	SMDR Options - Omit (Mask) Digits.
35-01-05	0	SMDR Options - Minimum Number of SMDR Digits.
35-01-06	0	SMDR Options - Minimum Call Duration.
35-01-07	0	SMDR Options - Minimum Ringing Time.
35-01-08	Default	SMDR Options - SMDR Format.
35-02-01	0	SMDR Output Options - Toll Restricted Call.
35-02-02	1	SMDR Output Options - PBX Calls.
35-02-03	1	SMDR Output Options - Display Trunk Name or Numbers.
35-02-04	0	SMDR Output Options - Daily Summary.
35-02-05	0	SMDR Output Options - Weekly Summary.
35-02-06	0	SMDR Output Options - Monthly Summary.
35-02-08	1	SMDR Output Options - Incoming calls.
35-02-09	0	SMDR Output Options - Print Name or Numbers.
35-02-10	0	SMDR Output Options - All Lines Busy (ALB) Output.
35-02-12	0	SMDR Output Options - DID Table Name Output.
35-02-13	1	SMDR Output Options - CLI Output when DID to Trunk.
35-02-14	1	SMDR Output Options - Date.
35-02-15	1	SMDR Output Options - CLI/DID Number Switching.
35-02-16	1	SMDR Output Options - Print Trunk Name or Received Dialled Number.
35-02-17	0	SMDR Output Options - Print Account Code or Caller ID Name.
35-02-18	Default	SMDR Output Options - Caller ID Name Output Method.

80-05-01	1	Date Format for SMDR and System Reports.	

Installing NetPBX

To capture SMDR data from your NEC Aspire using a serial connection, you first need to install the NetPBX software to collect the data from the serial port and send it to TIM Enterprise. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select NEC Aspire from the Data format list and

tick the Keep a local backup of data box, as shown below:

INEC Aspire		
General Connection Inactivity Options	General settings Name NEC Aspire Unique ID 76681 Time zone 0 Broadcast CDRs from this PBX Data backup Veep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	Data format Mitel SX50 NEC Aspire NEC DXE NEC NEAX Nortel BCM Nortel Meridian Option Panasonic DBS Series Panasonic ICX Panasonic KX Family Panasonic KXT336 Panasonic KX T-616
		Q Cancel 📑 Save

4. Click on the Connection tab and select No connection required from the Connection method list.

5. Click on the Save button to apply the settings.

🚍 NEC Aspire		
General		
Connection	Connection method	Connection details
Inactivity Options	Receive FTP transfers from PBX Establish TCP connection to PBX Establish for connections from PBX System DSN connection RADIUS connection	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

NEC Aspire - IP connection

These instructions help you configure your NEC Aspire to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr ∛∓	TIM Enterprise establishes a TCP connection to this PBX.
Supp IIII	NEC Aspire.TDT NEC Aspire.TDS
Requ Requ	uired Tasks Configure the SMDR output Configure TIM Enterprise

Configuring your SMDR output

Follow the steps below to configure the SMDR output on your NEC Aspire:

- 1. Log in to your PC Pro/Web Pro software.
- 2. To configure SMDR output using an IP connection, apply the following settings for each system adapter:

Adapter	Programming code	Value	Description
NTCPU - IP	10-12-01	IP address of the PC running TIM Enterprise.	NTUCPU Network Setup - IP Address.

	10-20-01	TCP port that TIM Enterprise will connect to. We recommend using 9000	LAN Setup for
		and incrementing it for each NEC Aspire you configure.	External Equipment.

3. Apply the following settings in the programming sections below:

Programming code	Value	Description
14-01-06	1	Basic Trunk Data Setup - SMDR Print.
15-01-03	1	Basic Extension Data Setup - SMDR Print.
35-01-03	0	SMDR Options - Header Language.
35-01-04	0	SMDR Options - Omit (Mask) Digits.
35-01-05	0	SMDR Options - Minimum Number of SMDR Digits.
35-01-06	0	SMDR Options - Minimum Call Duration.
35-01-07	0	SMDR Options - Minimum Ringing Time.
35-01-08	Default	SMDR Options - SMDR Format.
35-02-01	0	SMDR Output Options - Toll Restricted Call.
35-02-02	1	SMDR Output Options - PBX Calls.
35-02-03	1	SMDR Output Options - Display Trunk Name or Numbers.
35-02-04	0	SMDR Output Options - Daily Summary.
35-02-05	0	SMDR Output Options - Weekly Summary.
35-02-06	0	SMDR Output Options - Monthly Summary.
35-02-08	1	SMDR Output Options - Incoming calls.
35-02-09	0	SMDR Output Options - Print Name or Numbers.
35-02-10	0	SMDR Output Options - All Lines Busy (ALB) Output.
35-02-12	0	SMDR Output Options - DID Table Name Output.
35-02-13	1	SMDR Output Options - CLI Output when DID to Trunk.
35-02-14	1	SMDR Output Options - Date.

35-02-15	1	SMDR Output Options - CLI/DID Number Switching.
35-02-16	1	SMDR Output Options - Print Trunk Name or Received Dialled Number.
35-02-17	0	SMDR Output Options - Print Account Code or Caller ID Name.
35-02-18	Default	SMDR Output Options - Caller ID Name Output Method.
80-05-01	1	Date Format for SMDR and System Reports

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your NEC Aspire:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select NEC Aspire from the Data format list and

tick the Keep a local backup of data box, as shown below:

NEC Aspire		
General Connection Inactivity Options	General settingsNameNEC AspireUnique ID76681Time zone0	Data format
	Broadcast CDRs from this PBX Data backup Image: Comparison of the second seco	 NEC NEAX Nortel BCM Nortel Meridian Option Panasonic DBS Series Panasonic ICX Panasonic KX Family Panasonic KXT336 Panasonic KX T-616
		🥥 Cancel 📮 Save

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the ${\tt Host}$ field, enter the IP address of your NEC Aspire.
- 6. In the Port field, enter the port number you configured whilst programming code 10-20-01 (above).
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Generic Simple from the drop-down list.
- 9. Click on the Save button to apply the settings.

🚍 NEC Aspire		
BREC Aspire General Connection Inactivity Options	Connection method	Connection details Host 192.168.1.1 Port 9000 Username
		 Binary data Timestamp data Delay processing by ms
		Cancel 📄 Save

NEC DXE

These instructions help you configure your NEC DXE phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn J	ection Type TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
	NEC DXE.TDT
	NEC DXE.TDS
Requ	ired Tasks
2	Configure the SMDR output
2	Install NetPBX
۷	Configure TIM Enterprise

Configure your SMDR output

The NEC DXE phone system sends SMDR information via a serial connection. You need to directly connect a serial cable from your NEC DXE to the PC that NetPBX is installed and running on. By default, the SMDR output of your NEC DXE is not enabled. For more information about enabling and configuring the SMDR output, contact your system maintainer.

Installing NetPBX

To collect call logging data from the serial port of your NEC DXE and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Director, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select NEC DXE from the Data format list and tick

the Keep a local backup of data box, as shown below:

INEC DXE			
General			
Connection	General settings	Data format	
Inactivity	Name NEC DXE	📱 Mitel SX50 🔹	
Options	Unique ID 76680	NEC Aspire	
	Time zone 0	■ NEC DXE	
	Broadcast CDRs from this PBX	NEC NEAX	
		📃 Nortel BCM	
	Data backup	Nortel Meridian Option	
	· · · · · · · · · · · · · · · · · · ·	Panasonic DBS Series	
	🛛 Keep a local backup of data	Panasonic ICX	
	Backup location	📱 Panasonic KX Family	
	.}\backup-{year}-{month}-{day}.{uiv}	📃 Panasonic KXT336	
		Panasonic KX T-616	
		🔁 Cancel 📮 Save	

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

B NEC DXE		
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection 	There are no options for this connection method
	No connection required	Connection options Binary data Timestamp data Delay processing by
		Cancel

NEC NEAX

The NEC NEAX can be configured to send its SMDR data over a serial (RS232) or an IP connection. Click on one of the links below that relates to your preferred connection method.

NEC NEAX - Serial connection

These instructions help you configure your NEC NEAX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn J	ection Type TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
	NEC NEAX.TDT
	NEC NEAX.TDS
Requ	ired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

Using the Customer Administration Terminal (CAT), enter the following settings in the system-programming mode:

Field name	Details			
CM40	Default output port and attributes: 9600 baud, 8 data bits, no parity, 2 stop bits, DTR/RTS flow control.			
CM13+05	Enable SMDR for incoming calls to required stations.			
CM13+06	Enable SMDR for outgoing calls to required stations.			
CM35+14	Enable SMDR for outgoing calls to required trunk routes.			
CM35+49	Enable SMDR for incoming calls to required trunk routes.			
СМ08	If SMDR for incoming calls is enabled, specify whether the setting applies to all incoming calls or only to those that use account codes. Also, include ANI/Caller ID for incoming calls.			
	 NOTE 1: The ANI/Caller ID is required to provide SMDR data for incoming calls, even if this feature is enabled by CM13+05 and CM35+49. NOTE 2: Use CDR formats #501 (2400 IMS), #505 (2000 IPS), #506 (2000 IVS). 			

Installing NetPBX

To capture SMDR data from your NEC NEAX using a serial connection, you first need to install the NetPBX software to collect the data from the serial port and send it to TIM Enterprise. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select NEC NEAX from the Data format list and tick the Keep a local backup of data box, as shown below:

NEC NEAX			
General Connection	General settings	Data format	
Inactivity Options	Name NEC NEAX Unique ID 76654 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Comparison of the state of the st	 Mitel SX50 NEC Aspire NEC DXE NEC NEAX Nortel BCM Nortel Meridian Option Panasonic DBS Series Panasonic ICX Panasonic KX Family Panasonic KXT336 Panasonic KX T-616 	
		Cancel = Save	4

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

INEC NEAX		
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

NEC NEAX - IP connection

These instructions help you configure your NEC NEAX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Х.

Configure the SMDR output

By default, the SMDR output of your NEC NEAX is not enabled. For more information about enabling and configuring the SMDR output, contact your system maintainer.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your NEC NEAX:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of the PBX object. Select NEC NEAX from the Data format list and tick

the Keep a local backup of data box, as shown below:

🚍 NEC NEAX		
General	General settings	Data format
Connection		
Inactivity	Name NEC NEAX	📃 Mitel SX50
Options	Unique ID 76654	NEC Aspire
	Time zone 0	NEC DXE
	Broadcast CDRs from this PBX	I NEC NEAX
		Nortel BCM
	Data backup	Nortel Meridian Option
		Panasonic DBS Series
	Keep a local backup of data	Panasonic ICX
	Backup location	Panasonic KX Family
	.}\backup-{year}-{month}-{day}.{uiv}	💂 Panasonic KXT336
		💂 Panasonic KX T-616 🗸 🗸
		🔁 Cancel 📑 Save

4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.

- 5. In the ${\tt Host}$ field, enter the IP address of your NEC NEAX.
- 6. In the Port field, enter 2599.
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Generic Simple from the drop-down list.
- 9. Click on the Save button to apply the settings.

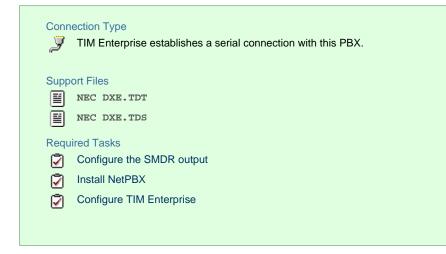
General			
Connection	Connection method	Connection details	
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	Host 192.168.1.1 Port 2599 Username Password IP script Generic Simple • Connection options	
		 Binary data Timestamp data Delay processing by ms 	
		Cancel	

NEC XN120

The NEC XN120 can be configured to send its SMDR data over a serial (RS232) or an IP connection. Click on one of the links below that relates to your preferred connection method.

NEC XN120 - Serial connection

These instructions help you configure your NEC XN120 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

Follow the steps below to configure the SMDR output on your NEC XN120:

- 1. Log in to your PC Pro/Web Pro software.
- 2. To configure SMDR output by serial port, apply the following settings:

Adapter	Programming code	Value	Description
NTCPU - Serial	10-21-02	1	NTCPU Hardware Setup - Baud Rate for Com Port. Choose from the three available options: 0(4800), 1(9600) and 2(38400).
	35-01-01	1	SMDR Options - Output Port Type.

3. Apply the following settings in the programming sections below:

Programming code	Value	Description
14-01-06	1	Basic Trunk Data Setup - SMDR Print.
15-01-03	1	Basic Extension Data Setup - SMDR Print.
35-01-03	0	SMDR Options - Header Language.
35-01-04	0	SMDR Options - Omit (Mask) Digits.
35-01-05	0	SMDR Options - Minimum Number of SMDR Digits.
35-01-06	0	SMDR Options - Minimum Call Duration.
35-01-07	0	SMDR Options - Minimum Ringing Time.
35-01-08	Default	SMDR Options - SMDR Format.
35-02-01	0	SMDR Output Options - Toll Restricted Call.
35-02-02	1	SMDR Output Options - PBX Calls.
35-02-03	1	SMDR Output Options - Display Trunk Name or Numbers.
35-02-04	0	SMDR Output Options - Daily Summary.
35-02-05	0	SMDR Output Options - Weekly Summary.
35-02-06	0	SMDR Output Options - Monthly Summary.
35-02-08	1	SMDR Output Options - Incoming calls.
35-02-09	0	SMDR Output Options - Print Name or Numbers.
35-02-10	0	SMDR Output Options - All Lines Busy (ALB) Output.

35-02-12	0	SMDR Output Options - DID Table Name Output.
35-02-13	1	SMDR Output Options - CLI Output when DID to Trunk.
35-02-14	1	SMDR Output Options - Date.
35-02-15	1	SMDR Output Options - CLI/DID Number Switching.
35-02-16	1	SMDR Output Options - Print Trunk Name or Received Dialled Number.
35-02-17	0	SMDR Output Options - Print Account Code or Caller ID Name.
35-02-18	Default	SMDR Output Options - Caller ID Name Output Method.
80-05-01	1	Date Format for SMDR and System Reports.

Installing NetPBX

To capture SMDR data from your NEC XN120 using a serial connection, you first need to install the NetPBX software to collect the data from the serial port and send it to TIM Enterprise. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure the PBX object in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select NEC DXE from the Data format list and tick

the Keep a local backup of data box, as shown below:

INEC XN120		
General		
Connection	General settings	Data format
Inactivity	Name NEC XN120	📕 Mitel SX50 🔺
Options	Unique ID 76682	📃 NEC Aspire
	Time zone 0	📃 NEC DXE
	Broadcast CDRs from this PBX	I NEC NEAX
		Nortel BCM
	Data backup	📃 Nortel Meridian Option
	· · · · · · · · · · · · · · · · · · ·	📃 Panasonic DBS Series
	Keep a local backup of data	📃 Panasonic ICX 🔤
	Backup location	Panasonic KX Family
	.}\backup-{year}-{month}-{day}.{uiv}	Panasonic KXT336
		📃 Panasonic KX T-616
		🔁 Cancel 📮 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

INEC XN120		
General	Connection method	Connection details
Connection Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	There are no options for this connection method Connection options Binary data
		 Timestamp data Delay processing by ms Cancel Save

NEC XN120 - IP connection

These instructions help you configure your NEC XN120 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr	TIM Enterprise establishes a TCP connection to this PBX.
Supp	port Files
	NEC DXE.TDT
	NEC DXE.TDS
Requ	uired Tasks
2	Configure the SMDR output
	Configure TIM Enterprise

Configuring your SMDR output

Follow the steps below to configure the SMDR output on your NEC XN120:

- 1. Log in to your PC Pro/Web Pro software.
- 2. To configure SMDR output using an IP connection, apply the following settings:

Adapter	Programming	Value	Description
	code		

NTC - IP	CPU	10-12-01	IP address that TIM Enterprise will connect to.	NTUCPU Network Setup - IP Address.
		10-20-01	TCP port that TIM Enterprise will connect to. We recommend using 9000 and incrementing it for each NEC XN120 you configure.	LAN Setup for External Equipment.

3. Apply the following settings in the programming sections below:

Programming code	Value	Description
14-01-06	1	Basic Trunk Data Setup - SMDR Print.
15-01-03	1	Basic Extension Data Setup - SMDR Print.
35-01-03	0	SMDR Options - Header Language.
35-01-04	0	SMDR Options - Omit (Mask) Digits.
35-01-05	0	SMDR Options - Minimum Number of SMDR Digits.
35-01-06	0	SMDR Options - Minimum Call Duration.
35-01-07	0	SMDR Options - Minimum Ringing Time.
35-01-08	Default	SMDR Options - SMDR Format.
35-02-01	0	SMDR Output Options - Toll Restricted Call.
35-02-02	1	SMDR Output Options - PBX Calls.
35-02-03	1	SMDR Output Options - Display Trunk Name or Numbers.
35-02-04	0	SMDR Output Options - Daily Summary.
35-02-05	0	SMDR Output Options - Weekly Summary.
35-02-06	0	SMDR Output Options - Monthly Summary.
35-02-08	1	SMDR Output Options - Incoming calls.
35-02-09	0	SMDR Output Options - Print Name or Numbers.
35-02-10	0	SMDR Output Options - All Lines Busy (ALB) Output.
35-02-12	0	SMDR Output Options - DID Table Name Output.

35-02-13	1	SMDR Output Options - CLI Output when DID to Trunk.
35-02-14	1	SMDR Output Options - Date.
35-02-15	1	SMDR Output Options - CLI/DID Number Switching.
35-02-16	1	SMDR Output Options - Print Trunk Name or Received Dialled Number.
35-02-17	0	SMDR Output Options - Print Account Code or Caller ID Name.
35-02-18	Default	SMDR Output Options - Caller ID Name Output Method.
80-05-01	1	Date Format for SMDR and System Reports.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your NEC XN120:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select NEC DXE from the Data format list and tick the Keep a local backup of data box, as shown below:

INEC XN120		
General		
Connection	General settings	Data format
Inactivity	Name NEC XN120	📕 Mitel SX50
Options	Unique ID 76682	NEC Aspire
	Time zone ⁰	I NEC DXE
	Broadcast CDRs from this PBX	NEC NEAX
		Nortel BCM
	Data backup	Nortel Meridian Option
	· · · · · · · · · · · · · · · · · · ·	📃 Panasonic DBS Series
	Keep a local backup of data	Panasonic ICX
	Backup location	Panasonic KX Family
	.}\backup-{year}-{month}-{day}.{uiv}	Panasonic KXT336
		📃 Panasonic KX T-616
		Ә Cancel 틙 Save

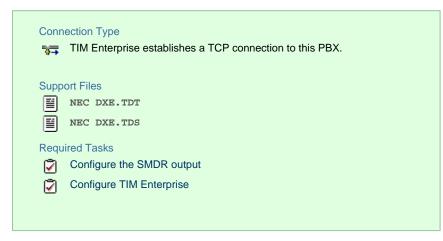
4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.

- 5. In the Host field, enter the IP address of your NEC XN120.
- 6. In the Port field, enter the port number you configured whilst programming code 10-20-01 (above).
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Generic Simple from the drop-down list.
- 9. Click on the Save button to apply the settings.

INEC XN120		
General		
Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	Host 192.168.1.1 Port 9000 Username Password IP script Generic Simple • Connection options Binary data Delay processing by ms
		Cancel

NEC SV8100

These instructions help you configure your NEC SV8100 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring the SMDR output

Follow the instructions below to configure your NEC SV8100 for use with TIM Enterprise:

External equipment LAN setup

9	System Data			Form View	Apply	Cancel	* Default
	10-20: External Equipment LAN S	ietup					
		TCP Port	KeepAlive Time				
7	01 - 3rd Party Server	0	30				
	02 - ACD MIS	4000	30				
	04 - Networking System	30000	30				
	05 - SMDR Output	60010	30				
10-03: DTA Configure		0	30				
10-03: DIOPA Config	09 - 1st Party CTI	0	30				
10-03: BRIA Configur 10-03: PRTA (PRT) C	10 - ACD Agent Control	4002	30				
10-03: IPL Configurat	11 - D&M Server	8010	30				
10-03: PRTA (T1/CC	12 - Traffic Report Output	0	30				
10-03: PVAU Configu	13 - Hotel Service Room Data Output	0	30				
	14 - IP-DECT Directory Access	0	30				
] 10-04: Music On Hok-] 10-05: General Purpo							
10-07: Conversation F							
10-08: Pre-ringing Sel							
10-09: DTMF and Dia							
10-12 CD-CP00 Net							
10-13: DHCP Server							
10-14: Managed Net							
1 10-15: Client Informat							
10-16: Option Informa							
10-17: H.323 Gateke							
10-18: H. 323 Alias Ac							
] 10-18: H.323 Alias Ac] 10-19: IPL DSP Resc							
10-18: H.323 Alias Ac 10-19: IPL DSP Resc 10-20: External Equit							100
] 10-18: H.323 Alias Ac] 10-19: IPL DSP Resc	Use Program 10-20: LAN Setup for External Equipment	to define the TCP port/address/etc. for communicating to exten	nal equipment.				<u>14</u>

SMDR options

em Data 🔸 4 🗙 arch Q		n Data SMDR Optio	ns							Form View	Apply	Cancel	* Default
	SMDR P	Output Port Type	Output CTA/CTU Extensi	Header Langua	Omit Digits	Minimum Dig	Minimum Duration	Minimum Ring Ti	SMDR Format Ty				
*	1	LAN		English	0	0	0	0	General Overseas				
	2	Not set		English	1	0	0	0	General Overseas				
	3	Not set		English	1	0	0	0	General Overseas				
a second s	4	Not set		English	1	0	0	0	General Overseas				
14:00: Trunk Setup	5	Not set		English	1	0	0	0	General Overseas				
15-XX Extension Setup	6	Not set		English	1	0	0	0	General Overseas				
16-XX: Department Group	7	Not set		English	1	0	0	0	General Overseas				
20-XX: System Options 21-XX: Outgoing Call Ser-	8	Not set		English	1	0	0	0	General Overseas				
25/02 (MS/DISA Servic 25/04 (MS/DISA Note 1: 30/02 DS/DLS Cennols 31/02 Estemal Speaker: 33/02 Audo Cemmunics 33/02 Audo Cemmunics 33/02 Audo Cemmunics 33/02 Audo Cemmunics 33/02 SMDR and Acco. 35/02 SMDR Dutput Optio 35/02 SMDR Part As 35/05 SMDR Part As	T	w 35-01- SMDP One	ons to set the SMDR (Station	Nercana Detail De	contino) antino	re for each of t	se aicht SAIDD route						
pand All Collapse All	Use Progra	m 35-01: SMDR Opt	ons to set the SMDR (Station	1 Message Detail Re	cording) optio	is for each of th	e eight SMDR ports.	•					-

SMDR port assignment for trunk groups

File View Programming Communications Tools Help							
	19 V DI + 1 3 11 8 3a 0						
System Data 🔷 4 🗙 Search 🔍 🔍	System Data 35-03: SMDR Port Assignment for Trunk Group	E C	* Defauk				
	Trunk Group	SMDR Port					
-1	001	1					
	002	4					
	003	1					
Filter	004	1					
1400: Trunk Setup	005	1	_				
15-XX: Extension Setup	006	1					
16:00: Department Group	007	1					
20-XX: System Options	008	1					
21-XX: Outgoing Call Ser 22-XX: Incoming Call Ser	009	1					
22:00: Incoming Call Sen 23:00: Answer Service	010	1					
24-XX: Hold/Transfer Ser	011	1					
25XX: VRS/DISA Servic	012	1					
26-XX: Automatic Route !	013	1					
	014	1					
31-XX: External Speakers	015	1					
32 XX: Doorphones and 5	016	1					
33:>>: Audio Communica	017	1					
34 XX: Tie Line Setup 35 XX: SMDB and Accos	018	1					
35-01: SMDR Option	019 020	1					
- 35-02 SMDR Output	020	1					
- 35-03 SMDR Part As	022	1					
35-04: SMDR Port As	022	1	ind.				
- 35-05: Account Code	025		-				
35-06: Verified Accou	Use Program 35-03: SMDR Port Assignment for Trunk Group to assign the SMDR port for each trunk group.	For each Trunk Group, select the SMDR port to which the incoming SMDR information should be sent.	-				
I 4020℃ Voice Becording ♥							
Expand Al Collapse Al							
🗥 Wizards 😚 System Data							

Trunk Basic setup

iData 🗸 🕈 X h		em Da 1: Trunk	ta Basic Setup					Form V		Cancel	* Defa
								Trunk 001: CO - Ci	hassis 1 - Slot 02	(2) • 4	
<u>×</u>	Tru	Trunk Na	Transmit Gain Le	Receive Gain Le	Conference and Transfer Calls Transmit Gain Level	Confe.	SMDR Print-out	Outgoing Calls	Tol Restriction	Private Line	Outg
a second s	001	Line 001	32	32	32	16	R	R	R	Normal	
		Line 002	32	32	32	16	N	4	R	Normal	
0-00: System Configurat	003	Line 003	32	32	32	16	N	N	R	Normal	
1-XX: System Configurat	004	Line 004	32	32	32	16		A	R	Normal	
2000: Night Mode Servic	005	Line 005	32	32	32	16		R	R	Normal	
3-XX: Speed Dialing	006	Line 006	32	32	32	16	2	N	A	Normal	
4-XX: Trunk Setup	007	Line 007	32	32	32	16		R	A	Normal	
1 14-01: Trunk Basic S	800	Line 008	32	32	32	16	2	R	R	Normal	
14-02: Analogue Trur	009	Line 009	32	32	32	16			R	Normal	
14-84: Behind PBX S	010	Line 010	32	32	32	16	2	N	A	Normal	
] 14-05: Trunk Groups	011	Line 011	32	32	32	16		R	R	Normal	
] 14-06: Trunk Group F	012	Line 012	32	32	32	16	R	N	A	Normal	
] 14-07: Trunk Access	013	Line 013	32	32	32	16	N	R	N	Normal	
] 14-08: Music On Hok	014	Line 014	32	32	32	16		A	A	Normal	
] 14-09: ACI Conversat	015	Line 015	32	32	32	16	2	R		Normal	
14-11: IP Trunk ID Se		Line 016	32	32	32	16		R	R	Normal	
14-12: SIP Register II	017	Line 017	32	32	32	16	2	4	R	Normal	
14-13: CCIS System F	018	Line 018	32	32	32	16	N	N	R	Normal	
14-14: CCIS Trunk Ci	019	Line 019	32	32	32	16		R	R	Normal	
14-15: ISDN Trunk C	020	Line 020	32	32	32	16	₩.	R	R	Normal	
5-XX: Extension Setup 5-XX: Department Group	021	Line 021	32	32	32	16	2	A	A	Normal	
B-XX: Department Group B-XX: System Options		Line 022	32	32	32	16	2	2	R	Normal	
1-00: Dutgoing Call Serv	i i						-	-	-		•
pand All Collapse All	100	ogram 14-01:	Basic Trunk Data Set	up to set the basic of	ptions for each trunk port. Refer to the chart below fo	or a desc	ription of each option, its range	and default setting.			-

CD DP00 Network setup

m Data 🔷 🕈 🗙	System Data		F
<u>100</u>	10-12: CD-CP00 Network Setup		
<u>×</u>	01 - IP Address	10.75.2.61	
	02 - Subnet Mask	255.255.255.0	
	03 - Default Gateway	10.75.2.1	
	04 - Time Zone	(GMT) Greenwich Mean Time, D	ublin, Edinburgh, Lisbon, London
10-XX: System Configurat .	05 - NIC Setting	Automatic detection	
10-02: Location Setu 10-03: DLCA (Channel	06 - NAPT Router		—
10-03: DLCA (Channe	07 - NAPT Router IP Address	0.0.0	
10-03: LCA/LTA Con	08 - ICMP Redirect		
10-03: COT Configure	09 - IPL IP Address	172.16.0.10	
10-03: DTA Configure	10 - IPL Subnet Mask	255.255.0.0	
10-03: DIOPA Contig	11 - IPL NIC Setting	Automatic detection	
10-03 BRIA Configur	13 - DNS Primary Address	0.0.0.0	
10-03 PRTA (PRT) (14 - DNS Secondary Address	0.0.0.0	
10-03. IPL Configurat	15 - DNS Port	53	
 10-03: PRTA (T1/CC 10-03: PVAU Configu 10-04: Music On Hok 			
10-05: General Purpo 10-07: Conversation I 10-08: Pre-inging Set			
10-03: DTMF and Di 10-12: CD-CP00 Net			
10-13: DHCP Server			
10-14: Managed Net			
10-15: Client Informat	Use Program 10-12: CPUII Network Setup to setup the IP Address, S	ubnet-Mask and Default Gateway addresses.	
FT 10-16: Ontion Inform			
	Caution: If any of the IP Address or NIC settings are changed, the s	where must be regent to order for the changes to take affect	

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your NEC SV8100:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select NEC DXE from the Data format list and tick

the Keep a local backup of data box, as shown below:

B NEC SV8100			×
General Connection	General settings	Data format	
Inactivity Options	Name NEC SV8100 Unique ID 3 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Reep a local backup of data Backup location {app}\backup\New PBX\{year}\{month}	 Mitel SX2000 Mitel SX50 NEC Aspire NEC DXE NEC NEAX Nortel BCM Nortel Meridian Option Panasonic DBS Series Panasonic ICX S-ICX Panasonic KX-T336 Panasonic KX-T616 	
		Cancel	Save

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the Host field, enter the IP address of your NEC SV8100.
- 6. In the Port field, enter 60010.
- 7. Leave the Username and Password fields blank.

- 8. In the IP script field, select Generic Simple from the drop-down list.
- 9. Click on the Save button to apply the changes.

B NEC SV8100		X
General Connection Inactivity Options	Connection method Receive FTP transfers from PBX FESTABLISH TCP connection to PBX FE Listen for connections from PBX System DSN connection RADIUS connection Connection Connection	Connection details Host 192.168.1.1 Port 60010 Username Password IP script Generic Simple
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel Save

Nortel

Nortel BCM up to v3.x

Please refer to Avaya BCM up to v3.x.

Nortel BCM v4.x+

Please refer to Avaya BCM v4.x+.

Nortel Meridian Option Series

Please refer to Avaya Meridian Option Series.

Nortel Norstar

Please refer to Avaya Norstar.

Panasonic

Panasonic DBS Series

These instructions help you configure your Panasonic DBS Series phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr J	nection Type TIM Enterprise establishes a serial connection with this PBX.
Supp E	Panasonic DBS Series.TDT
Requ	uired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

Follow the steps below to configure your Panasonic DBS Series to output SMDR data to TIM Enterprise. The configuration needs to be performed from the Operator phone:

- 1. Press the ON/OFF key.
- 2. Press the RECALL key.
- 3. Press # # to enter the Programming mode.
- 4. Navigate to Call logging/Remote programming parameters.
- 5. Go to Call logging Parity check and select 1, then press the # key.
- 6. Go to Call logging Even/Odd parity and select 1, then press the # key.
- 7. Go to Call logging Baud rate (SMDR) and select 4, then press the # key.
- 8. Go to Call logging Stop bit and select 1, then press the # key.
- 9. Go to Call logging Data length and select 4, then press the # key.
- 10. Go to Call logging Printing selection out/in and select 1 for incoming and outgoing calls.
- 11. Go to Call logging Printing selection local/long distance calls and select 1 to print all outgoing calls, then press the # key.
- 12. Press the ON/OFF key to save the settings.

Installing NetPBX

The Panasonic DBS Series phone system sends SMDR information via a serial connection. To collect the call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Panasonic DBS Series from the Data

format list and tick the Keep a local backup of data box, as shown below:

🗯 Panasonic DB	S 40		
General			
Connection	General settings	Data format	
Inactivity	Name Panasonic DBS 40	NEC NEAX	
Options	Unique ID 76567	Nortel BCM	
	Time zone 0	Nortel Meridian Option	
	Broadcast CDRs from this PBX	📃 Panasonic DBS Series	
		Panasonic ICX/S-ICX	
	Data backup	Panasonic KX-TD Series	
	Keep a local backup of data	Panasonic KX T-336	
	Backup location	Panasonic KX T-616	
	.}\backup-{year}-{month}-{day}.{uiv}	Philips Sopho	
		Samsung DCS	
		📕 SDX 40 🗸	
		Cancel Save	

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🚍 Panasonic DBS	i 40	
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms

Panasonic ICX/S-ICX

These instructions help you configure your Panasonic ICX/S-ICX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring the SMDR output

The Panasonic ICX/S-ICX phone system sends SMDR information via a serial connection. You need to directly connect a serial cable from the Panasonic ICX/S-ICX phone system to the PC that NetPBX is installed and running on. For more information about the output and configuration of your SMDR data, please contact your system maintainer.

Installing NetPBX

The Panasonic ICX/S-ICX phone system sends SMDR information via a serial connection. To collect the call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Panasonic ICX S-ICX from the Data

format list and tick the Keep a local backup of data box, as shown below:

Panasonic ICX/	S-ICX	
General Connection	General settings	Data format
Inactivity Options	Name Panasonic ICX/S-ICX Unique ID 76574 Time zone 0 Broadcast CDRs from this PBX Data backup Image: State of the state o	 NEC NEAX Nortel BCM Nortel Meridian Option Panasonic DBS Series Panasonic ICX S-ICX Panasonic KX-T336 Panasonic KX-T616 Panasonic KX-T0 Series Philips Sopho Samsung DCS SDX 40
		🧔 Cancel 📑 Save

4. Click on the Connection tab and select No connection required from the Connection method list.

5.	Click on the	Save	button to apply the settings.	
	🗃 Panaso	onic IC	X/S-ICX	
	General Connect	ion	Connection method	Connection details
	Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method	
			 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by

Panasonic KX-TA/E

These instructions help you configure your Panasonic KX-TA/TE phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Connection Type TIM Enterprise establishes a serial connection with	this PBX.
Support Files	
Panasonic KX-TD Series.TDT	
Panasonic KX-TD Series.TDS	
Required Tasks	
Configure the SMDR output	
Install NetPBX	
Configure TIM Enterprise	

Configuring the SMDR output

Follow the steps below to configure your Panasonic KX-TA/TE to output SMDR data to TIM Enterprise. The configuration needs to be performed from a Panasonic KX-T7130 phone:

- 1. Set the System Program Switch on the EMSS Control Unit to the Programming position.
- 2. Press * followed by the # key, then enter your system password.
- 3. Press # # to enter the Programming mode.
- 4. Go to programming code 800 and set each of the fields as shown below. Press Store and then Next after each entry in order to move to the next field:

SMDR field	Value
NL-Code	CR+LF
Baud Rate	9600
Word Length	8 bits
Parity	None
Stop Bit	1 bit

5. Go to programming code 801 and set each of the fields as shown below. Press Store and then Next after each entry in order to move to the next field:

SMDR field	Value
Page Length	Leave as default
Skip Perf	Leave as default

6. Go to programming code 802 and set each of the fields as shown below. Press Store and then Next after each entry in order to move to the next field:

SMDR field	Value
Outgoing	On
Incoming	On

7. Set the System Program Switch back to Store position.

Installing NetPBX

The Panasonic KX-TA/TE phone system sends SMDR information via a serial connection. To collect the call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Panasonic KX-TD Series from the Data

format list and tick the	e Keep a local backup of data box, as sh	nown below:	
📕 Panasonic KX-	TA/E		
General	General settings	Data format	
Connection Inactivity	Name Panasonic KX-TA/E		
Options	Unique ID 76577 Time zone 0	 Nortel Meridian Option Panasonic DBS Series 	
	Broadcast CDRs from this PBX	Panasonic ICX/S-ICX Panasonic KX-TD Series	
	Data backup	 Panasonic KX T-336 Panasonic KX T-616 	
	Keep a local backup of data	Philips Sopho	
	Backup location]\backup-{year}-{month}-{day}.{uiv}	Samsung DCS	
		 ShoreTel Siemens HiCom-HiPath 	
		Cancel Save	e

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

📕 Panasonic KX-	-TA/E	
General		
Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection 	There are no options for this connection method
	RADIUS connection	
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by
		Cancel

Panasonic KX-TDA/E/NCP500/1000

The Panasonic KX-TDA/E/NCP500/1000 can be configured to send its SMDR data over a serial (RS232) or an IP connection. Click on one of the links below that relates to your preferred connection method.

Panasonic KX-TDA/E/NCP500/1000 - Serial connection

These instructions help you configure your Panasonic KX-TDA/E/NCP500/1000 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn	ection Type
Į	TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
Ĩ	Panasonic KX-TD Series.TDT
	Panasonic KX-TD Series.TDS
Requ	ired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring the SMDR output

Follow the steps below to configure your Panasonic phone system to output SMDR to TIM Enterprise.

- 1. Log in to the Panasonic Maintenance Console program.
- 2. Click on the 11. Maintenance tab from the left-hand menu.
- 3. Click on the **SMDR** tab and configure the options as shown below:

OK(O) Cancel(C) Apply(A)				
SMDR SMDR Options RS232C Maintenance Syslog Remote Password				
SMDR Format				
Туре:	Туре С 💌			
Port:	RS-232C			
Page Length (Number of Lines):	66 💌			
Blank Footer Length (Number of Lines):	0			
Date Format:	DD-MM-YY			
Time Format (12H / 24H):	2411 😽			
Print Information Outgoing Call:	Print			
Incoming Call:	Print 💌			
Intercom Call:	No Print 💌			
Log-in / Log-out:	No Print 💌			
Hotel Room Status:				
Timed Reminder (Make-up Call):	No Print 💌			
Error Log:	No Print 💌			

4. Click on the SMDR Options tab and configure the options as shown below:

Caller ID Number & Name: Number DDI / DID Number & Name: Number Secret Dial: Print "" (Secret) Privacy Mode: Print Dialled Number Condition Code "RC": Print Condition Code "AN": Print Caller ID Modification: After Modification	ption				
DDI / DID Number & Name: Number Secret Dial: Print "" (Secret) Privacy Mode: Print Dialled Number Condition Code "RC": Print Condition Code "AN": Print Caller ID Modification: After Modification		ARS Dial:	Dial after Af	RS Modification	*
Secret Dial: Print "" (Secret) Privacy Mode: Print Dialled Number Condition Code "RC": Print Condition Code "AN": Print Caller ID Modification: After Modification	Caller ID Num	ber & Name:	Number		*
Privacy Mode: Print Dialled Number Condition Code "RC": Print Condition Code "AN": Print Condition Code "AN": Print Caller ID Modification: After Modification	DDI / DID Numi	ber & Name:	Number		*
Condition Code "RC": Print Condition Code "AN": Print Caller ID Modification: After Modification		Secret Dial:	Print "" (S	Secret)	*
Condition Code "AN": Print Caller ID Modification: After Modification	Pri	ivacy Mode:	Print Dialled	Number	*
Caller ID Modification: After Modification	Condition	Code "RC":	Print		~
	Condition	Code "AN":	Print		~
AN	Caller ID N	Modification:	After Modifi	cation	~
	AN-				
SMDR Port Number: 2300	SMDR P	Port Number:	2300		
SMDR Password : PCCSMDR	SMDR	Password :	PCCSMDR		
New-Line Code for Telnet : CR + LF	New-Line Code	e for Telnet :	CR + LF		*
*) Perform System Reset for changes to take effect		ect			

5. Click on the Apply button to save the changes.

Installing NetPBX

The Panasonic KX-TDA/E/NCP500/1000 phone systems can send SMDR information via a serial connection. To collect the call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Panasonic KX-TD Series from the Data

format list and tick the Keep a local backup of data box, as shown below:

Panasonic KX-	TDA/E	
General		
Connection	General settings	Data format
Inactivity Options	Name Panasonic KX-TDA/E Unique ID 76576 Time zone 0 Broadcast CDRs from this PBX Data backup Veep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Nortel Meridian Option Panasonic DBS Series Panasonic ICX/S-ICX Panasonic KX-TD Series Panasonic KX T-336 Panasonic KX T-616 Philips Sopho Samsung DCS SDX 40 ShoreTel Siemens HiCom-HiPath
		🔁 Cancel 📑 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

	11.7	
🚍 Panasonic KX-	TDA/E	
General		
Connection	Connection method	Connection details
Inactivity	& Receive ETD transfers from DDV	
Options	Receive FTP transfers from PBX	
options	🖙 Establish TCP connection to PBX	There are no options for this
	🗺 Listen for connections from PBX	connection method
	💼 System DSN connection	
	RADIUS connection	
	SysLog connection	0
	No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms
		Cancel

Panasonic KX-TDA/E/NCP500/1000 - IP connection

These instructions help you configure your Panasonic KX-TDA/E/NCP500/1000 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn	nection Type
3∓	TIM Enterprise establishes a TCP connection to this PBX.
Supp	ort Files
	Panasonic KX-TD Series.TDT
	Panasonic KX-TD Series.TDS
Requ	iired Tasks
2	Configure the SMDR output
2	Configure TIM Enterprise

Configuring the SMDR output

Follow the steps below to configure your Panasonic phone system to output SMDR to TIM Enterprise.

- 1. Log in to the Panasonic Maintenance Console program.
- 2. Click on the 11. Maintenance tab from the left-hand menu.
- 3. Click on the **SMDR** tab and configure the options as shown below:

OK(O) Cancel(C) Apply(A)					
SMDR SMDR Options RS232C Maintenance Syslog Remote Password					
SMDR Format]				
Туре:	Туре С 💌				
Port:	LAN				
Page Length (Number of Lines):	66 💌				
Blank Footer Length (Number of Lines):	0				
Date Format:	DD-MM-YY				
Time Format (12H / 24H):	2411				
Print Information					
Outgoing Call:	Print 💌				
Incoming Call:	Print 💌				
Intercom Call:					
Log-in / Log-out:					
Hotel Room Status:					
Timed Reminder (Wake-up Call):					
Error Log:	No Print				

4. Click on the SMDR Options tab and configure the options as shown below:

Option		
ARS Dial:	Dial after ARS Modification	*
Caller ID Number & Name:	Number	*
DDI / DID Number & Name:	Number	~
Secret Dial:	Print "" (Secret)	~
Privacy Mode:	Print Dialled Number	~
Condition Code "RC":	Print	~
Condition Code "AN":	Print	~
Caller ID Modification:	After Modification	~
LAN		
SMDR Port Number:	2300	
SMDR Password :	PCCSMDR	
New-Line Code for Telnet :	CR + LF	~
*) Perform System Reset for changes to take effect		

5. Click on the Apply button to save the changes.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Panasonic phone system:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open. In the General tab, select Panasonic KX-TD Series from the Data format list and tick the Keep
 - a local backup of data box, as shown below:

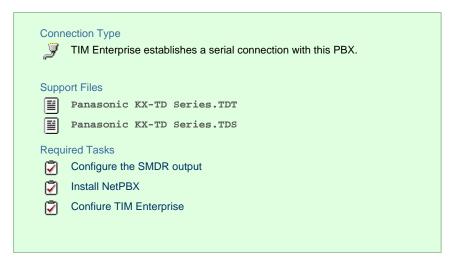
Panasonic KX-	-TDA/E	
General		
Connection	General settings	Data format
Inactivity Options	Name Panasonic KX-TDA/E Unique ID 76576 Time zone 0 Broadcast CDRs from this PBX Data backup Weep a local backup of data Backup location \}backup-{year}-{month}-{day}.{uiv}	 Nortel Meridian Option Panasonic DBS Series Panasonic ICX/S-ICX Panasonic KX-TD Series Panasonic KX T-336 Panasonic KX T-616 Philips Sopho Samsung DCS SDX 40 ShoreTel
		🧵 Siemens HiCom-HiPath 💽
		🔁 Cancel 📑 Save

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the Host field, enter the IP address of your phone system.
- 6. In the Port field, enter 2300.
- 7. Leave the Username field blank.
- 8. In the Password field, enter the password required to connect to your phone system, by default PCCSMDR.
- 9. In the IP script field, select Panasonic from the drop-down list.
- 10. Click on the Save button to apply the settings.

Panasonic KX-	TDA/E	
General Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	Host 192.168.1.1 Port 2300 Username Password •••••• IP script Panasonic •
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Panasonic KX-TD Series

These instructions help you configure your Panasonic KX-TD Series phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

Follow the instructions below to configure your Panasonic KX-TD phone system to output SMDR data to TIM Enterprise. The configuration needs to be performed from a Digital Proprietary Telephone (DPT) such as the KX-T7431, KX-T7433, KX-T7436, KX-T7230, KX-T7235.

- 1. Press the PROG + * + # buttons simultaneously, then enter your system password.
- 2. Enter programming mode 800 and press the Next button.
- 3. Press the Select button to set the Outgoing option to All, then click on the Store button. Click Next .
- 4. Press the Select button to set the Incoming option to All, then press the Store button.
- 5. Press the End button to complete the configuration.

Installing NetPBX

The Panasonic KX-TD Series phone system sends SMDR information via a serial connection. To collect the call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Panasonic KX-TD Series from the Data

format list and tick the Keep a local backup of data box, as shown below:

Panasonic KX-	-TD 1232	
General		
Connection	General settings	Data format
Inactivity Options	Name Panasonic KX-TD 1232 Unique ID 76575 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Reep a local backup of data Backup location []\backup-{year}-{month}-{day}.{uiv}	 Nortel Meridian Option Panasonic DBS Series Panasonic ICX/S-ICX Panasonic KX-TD Series Panasonic KX T-336 Panasonic KX T-616 Philips Sopho Samsung DCS SDX 40 ShoreTel Siemens HiCom-HiPath
		🔁 Cancel 📮 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

Panasonic KX-	TD 1232		
General			
Connection	Connection method	Connection details	
Inactivity	🍰 Receive FTP transfers from PBX		
Options	-		
	🛱 Establish TCP connection to PBX	There are no options for this	
	🗺 Listen for connections from PBX	connection method	
	💼 System DSN connection		
	 RADIUS connection 		
	SysLog connection		
	🔗 No connection required	Connection options	
		🔲 Binary data	
		Timestamp data	
		Delay processing by ms	
		💭 Cancel 📑 <u>Save</u>	

Samsung

Samsung DCS

These instructions help you configure your Samsung DCS phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn J	ection Type TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
Ē	Samsung DCS.TDT
	Samsung DCS.TDS
Requ	ired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

Follow the instructions below to configure your Samsung DCS to output SMDR data to TIM Enterprise. The configuration needs to be performed from an LCD handset.

- 1. Open Programming and select 725.
- 2. Program each option as presented below:

SMDR field	Value
Page Header	Yes
Lines per page	1
Incoming Call	Yes
Outgoing Call	Yes
Authorise Code	Yes
SMDR Start Time	Yes
In/Out Group	No
DND Calls	No
Wake-Up Calls	No
Directory Names	None
Caller ID Data	Yes
Abandoned Call	Yes
No of Dial Mask	00



- 3. Next, press the SPKR key and select 804.
- 4. Dial 0 and use the arrow keys to select SMDR.
- 5. Press the **TRSF** key to complete the configuration.

Installing NetPBX

The Samsung DCS phone system sends SMDR data via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select <u>samsung</u> DCS from the Data format list and tick the Keep a local backup of data box, as shown below:

🚍 Samsung DCS		
General		
Connection	General settings	Data format
Inactivity	Name Samsung DCS	Panasonic KX-T336
Options	Unique ID 76456	📱 Panasonic KX-T616
	Time zone 0	🚊 Panasonic KX-TD Series
	Broadcast CDRs from this PBX	📃 Philips Sopho
		🔋 Samsung DCS
	Data backup	SDX 40
	Keep a local backup of data	ShoreTel
	Backup location	🥫 Siemens - HiPath DX
	.}\backup-{year}-{month}-{day}.{uiv}	📃 Siemens HiCom-HiPath 📲
	· · · ·	Siemens OpenOffice
		💂 SpliceCom Maximiser 🔍
		🔁 Cancel 🗧 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🚍 Samsung DCS		
General		
Connection	Connection method	Connection details
Inactivity Options	Receive FTP transfers from PBX F Establish TCP connection to PBX F Listen for connections from PBX System DSN connection	There are no options for this connection method
	 RADIUS connection SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		⊃ Cancel <u>Save</u>

Samsung iDCS

The Samsung iDCS can be configured to send its SMDR data over a serial (RS232) or an IP connection. Click on one of the links below that relates to your preferred connection method.

Samsung iDCS - Serial connection

These instructions help you configure your Samsung iDCS phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn J	TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
	Samsung DCS.TDT
	Samsung DCS.TDS
Requ	iired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

Follow the instructions below to configure your Samsung iDCS to output SMDR data to TIM Enterprise.

- 1. Log in to the Samsung Installation Tool software.
- 2. Click on the 5. Features option from the left-hand menu.
- 3. Click on the 5.6 System I/O Options tab and select 5.6.2. LAN Printer .
- 4. In the LAN Printer options configure the entries in the SMDR column, as shown below:

🕡 Installation Tool - [5.6.2. LAN Printer]	
😑 System File Option Util Window Help	
] ♥ • \$ \$ \$ ₹ 全 ₩ 🖓 @ • № • № •	- 🖸 🕄 🚽 🖓
Port Base	▋▋♀ ● ❹ ❹ ♀ ⇒ ☆ 」∦
Expand All Menu Item(s)	5.6.2.
[] ⊕	Data Type SMDR
	Current Status Off
4. Group & Table	Buffered Data Printout No
5. Features	Update to LAN Card Yes
5.1. Call Restriction	Printer IP Address 192.168.1.1
5.2. VolP Options	Printer TCP Port 5100
5.3. Wireless LAN	LAN TCP Port 10020
Filmer 1 5.4. Volume Control	Printer Destination PC
	Retry Count 3
5.6. System Control	Retry Interval (sec) 10
	PJL Enable False
5.6.1. [841,804,830] System I/O P	Printer Language Raw
5.6.2. [829] LAN Printer	Paper Size Letter
5.6.3. [725] SMDR Options	Font Type Courier
5.6.4. [844] Phone I/O Parameter	Duplex Enable False
1 5.7. System Tone/Ring	Orientation Portrait
5.8. Diagnostics	Printer Tray Default
5.9. Voice Mail	Resolution 300 DPI
5.11. Hotel Operation	Line per Page 1

5. Click on the Save icon to save the settings.

6. Click on the 5.6.3. SMDR Options tab and configure the following settings:

Installation Tool - [5.6.3. SMDR Options] System File Option Util Window Help		
\$•\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ 	O 0 44 🛷	
Port Base		6 🗈 🛍 👬 🎮 👘 (
Expand All Menu Item(s)	5.6.3.	
	Item Value	
🕀 🖂 3. Call Routing	Page Header	Yes
🗄 . Group & Table	Line Per Page	1
5. Features	Incoming Call	Yes
5.1. Call Restriction	Outgoing Call	Yes
5.2. VolP Options	Authorization Code	Yes
	SMDR Start Time	Yes
	Group In/Out	No
	DND Call	No
5.6. System I/O Options	Wake Up Call	No
5.6.1. [841,804,830] System I/O P	Caller ID Data	Yes
5.6.2. [829] LAN Printer	Abandon Call	Yes
	Directory Name	
5.6.3. (725) SMDR Options	Number of Dial Mask	0
5.6.4. [844] Phone I/O Parameter	Incoming Answer	Yes
⊕ 5.7. System Tone/Ring	Intercom Call	No
⊕ (□) 5.8. Diagnostics	Key MMC In/Out	No
1.9. Voice Mail	Hotel Page Feed	End
5.11. Hotel Operation	Hotel Start Line	0
🕀 🛄 5.12. Call Costing	DID Number/Name	Yes
5.13. System Features	ITP Regist	No
5.14. Timer/Option Features	Set Relocate	No
5.15. Station Features	Call Index	Yes
System Control	Incomming Call Resp	Yes

7. Click on the Save icon at the top of the window to save the settings.

Installing NetPBX

The Samsung iDCS phone system can send its SMDR data via a serial connection. To collect the data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select samsung DCs from the Data format list

and tick the Keep a local backup of data box, as shown below:

🚍 Samsung iDCS			
General Connection	General settings	Data format	
Inactivity Options	Name Samsung iDCS Unique ID 76566 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Reep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Panasonic KX-T336 Panasonic KX-T616 Panasonic KX-TD Series Philips Sopho Samsung DCS SDX 40 ShoreTel Siemens - HiPath DX Siemens HiCom-HiPath Siemens OpenOffice SpliceCom Maximiser 	
		Ә Cancel 📑 Save	

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

Samsung iDCS		
General		
Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Samsung iDCS - IP connection

These instructions help you configure your Samsung iDCS phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr ⊽ ∓	TIM Enterprise establishes a TCP connection to this PBX.
	oort Files Samsung DCS.TDT Samsung DCS.TDS uired Tasks Configure the SMDR output
	Configure TIM Enterprise

Configuring your SMDR output

Follow the instructions below to configure your Samsung iDCS phone system to output SMDR data to TIM Enterprise.

- 1. Log in to the Samsung Installation Tool software.
- 2. Click on the 5. Features option from the left-hand menu.
- 3. Click on the 5.6 System I/O Options tab and select 5.6.2. LAN Printer .
- 4. In the LAN Printer options, configure the entries in the SMDR column, as shown below:

🕡 Installation Tool - [5.6.2. LAN Printer]	
😑 System File Option Util Window Help	
] ♥ • \$ \$ \$ ₹ 全 ₩ 🖓 @ • № • № •	- 🖸 🕄 🚽 🖓
Port Base	▋▋♀ ● ❹ ❹ ♀ ⇒ ☆ 」∦
Expand All Menu Item(s)	5.6.2.
[] ⊕	Data Type SMDR
	Current Status Off
4. Group & Table	Buffered Data Printout No
5. Features	Update to LAN Card Yes
5.1. Call Restriction	Printer IP Address 192.168.1.1
5.2. VolP Options	Printer TCP Port 5100
5.3. Wireless LAN	LAN TCP Port 10020
Filmer 1 5.4. Volume Control	Printer Destination PC
	Retry Count 3
5.6. System Control	Retry Interval (sec) 10
	PJL Enable False
5.6.1. [841,804,830] System I/O P	Printer Language Raw
5.6.2. [829] LAN Printer	Paper Size Letter
5.6.3. [725] SMDR Options	Font Type Courier
5.6.4. [844] Phone I/O Parameter	Duplex Enable False
1 5.7. System Tone/Ring	Orientation Portrait
5.8. Diagnostics	Printer Tray Default
5.9. Voice Mail	Resolution 300 DPI
5.11. Hotel Operation	Line per Page 1

5. Click on the Save icon to save the settings.

6. Click on the 5.6.3. SMDR Options tab and configure the following settings:

Installation Tool - [5.6.3. SMDR Options]	
* • \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\	+ 🗿 🕕 🔤 🎎 🍫
Port Base	
Expand All Menu Item(s)	5.6.3
	Item Value
	Page Header Yes
4. Group & Table	Line Per Page 1
5. Features	Incoming Call Yes
5.1. Call Restriction	Outgoing Call Yes
€ 5.2. VolP Options	Authorization Code Yes
	SMDR Start Time Yes
Filler	Group In/Out No
5.5. System Control	DND Call No
5.6. System I/O Options	Wake Up Call No
5.6.1. [841,804,830] System I/O P	Caller ID Data Yes
	Abandon Call Yes
5.6.2. [829] LAN Printer	Directory Name
5.6.3. [725] SMDR Options	Number of Dial Mask 0
5.6.4. [844] Phone I/O Parameter	Incoming Answer Yes
⊕ 🛄 5.7. System Tone/Ring	Intercom Call No
🕀 🛄 5.8. Diagnostics	Key MMC In/Out No
🕂 🛄 5.9. Voice Mail	Hotel Page Feed End
5.11. Hotel Operation	Hotel Start Line 0
🗄 🛅 5.12. Call Costing	DID Number/Name Yes
5.13. System Features	ITP Regist No
	Set Relocate No
5.15. Station Features	Call Index Yes
System Control	Incomming Call Resp Yes

7. Click on the Save icon at the top to save the settings.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Samsung phone system:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select <u>samsung</u> DCS from the Data format list and tick the Keep a local backup of data box, as shown below:

📕 Samsung iDCS		
General Connection	General settings	Data format
Inactivity Options	NameSamsung iDCSUnique ID76566Time zone0Image: Broadcast CDRs from this PBX	 Panasonic KX-T336 Panasonic KX-T616 Panasonic KX-TD Series Philips Sopho
	Data backup keep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Samsung DCS SDX 40 ShoreTel Siemens - HiPath DX Siemens HiCom-HiPath Siemens OpenOffice SpliceCom Maximiser
		🔁 Cancel 📑 Save

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the ${\tt Host}$ field, enter the IP address of of your Samsung iDCS.
- 6. In the Port field, enter 9000.
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Samsung from the drop-down list.
- 9. Click on the Save button to apply the settings.

🔳 Samsung iDCS	i.	
General Connection Inactivity Options	Connection method ♣ Receive FTP transfers from PBX ➡ Establish TCP connection to PBX ➡ Listen for connections from PBX ♠ System DSN connection ♠ RADIUS connection	Connection details Host 192.168.1.1 Port 9000 Username
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms

Samsung OfficeServ

These instructions help you configure your Samsung OfficeServ phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn 777	TIM Enterprise establishes a TCP connection to this PBX.
	ort Files Samsung DCS.TDT Samsung DCS.TDS uired Tasks
incqu int	Configure the SMDR output
<u>v</u>	
	Configure TIM Enterprise

Configuring your SMDR output

Follow the instructions below to configure your Samsung OfficeServ phone system to output SMDR data to TIM Enterprise.

- 1. Log in to the Samsung Installation Tool software.
- 2. Click on the 5. Features option from the left-hand menu.
- 3. Click on the 5.6 System I/O Options tab and select 5.6.2. LAN Printer .
- 4. In the LAN Printer options, configure the entries in the SMDR column, as shown in the screenshot below, modifying the value of the Printer IP Address field accordingly, in order to match the IP address of the computer running TIM Enterprise.

🕡 Installation Tool - [5.6.2. LAN Printer]	
😑 System File Option Util Window Help	
] ♥ • \$ \$ \$ ₹ 全 ₩ 🖓 @ • № • № •	- 🖸 🕄 🚽 🖓
Port Base	▋▋♀ ● ❹ ❹ ♀ ⇒ ☆ 」∦
Expand All Menu Item(s)	5.6.2.
[] ⊕	Data Type SMDR
	Current Status Off
4. Group & Table	Buffered Data Printout No
5. Features	Update to LAN Card Yes
5.1. Call Restriction	Printer IP Address 192.168.1.1
5.2. VolP Options	Printer TCP Port 5100
5.3. Wireless LAN	LAN TCP Port 10020
Filmer 1 5.4. Volume Control	Printer Destination PC
	Retry Count 3
5.6. System Control	Retry Interval (sec) 10
	PJL Enable False
5.6.1. [841,804,830] System I/O P	Printer Language Raw
5.6.2. [829] LAN Printer	Paper Size Letter
5.6.3. [725] SMDR Options	Font Type Courier
5.6.4. [844] Phone I/O Parameter	Duplex Enable False
1 5.7. System Tone/Ring	Orientation Portrait
5.8. Diagnostics	Printer Tray Default
5.9. Voice Mail	Resolution 300 DPI
5.11. Hotel Operation	Line per Page 1

5. Click on the Save icon to save the settings.

6. Click on the 5.6.3. SMDR Options tab and configure the following settings:

Installation Tool - [5.6.3. SMDR Options]	
* • \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\ \$\	+ 🗿 🕕 🔤 🎎 🍫
Port Base	
Expand All Menu Item(s)	5.6.3
	Item Value
	Page Header Yes
4. Group & Table	Line Per Page 1
5. Features	Incoming Call Yes
5.1. Call Restriction	Outgoing Call Yes
€ 5.2. VolP Options	Authorization Code Yes
	SMDR Start Time Yes
Filler	Group In/Out No
5.5. System Control	DND Call No
5.6. System I/O Options	Wake Up Call No
5.6.1. [841,804,830] System I/O P	Caller ID Data Yes
	Abandon Call Yes
5.6.2. [829] LAN Printer	Directory Name
5.6.3. [725] SMDR Options	Number of Dial Mask 0
5.6.4. [844] Phone I/O Parameter	Incoming Answer Yes
⊕ 🛄 5.7. System Tone/Ring	Intercom Call No
🕀 🛄 5.8. Diagnostics	Key MMC In/Out No
🕂 🛄 5.9. Voice Mail	Hotel Page Feed End
5.11. Hotel Operation	Hotel Start Line 0
🗄 🛅 5.12. Call Costing	DID Number/Name Yes
5.13. System Features	ITP Regist No
	Set Relocate No
5.15. Station Features	Call Index Yes
System Control	Incomming Call Resp Yes

7. Click on the Save icon at the top to save the settings.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Samsung phone system:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select samsung DCS from the Data format list

and tick the Keep a local backup of data box, as shown below:

📕 Samsung Offic	eServ	
General		
Connection	General settings	Data format
Inactivity	Name Samsung OfficeServ	Panasonic KX-T336
Options	Unique ID 76565	Panasonic KX-T616
	Time zone 0	📱 Panasonic KX-TD Series
	Broadcast CDRs from this PBX	📱 Philips Sopho
		📱 Samsung DCS
	Data backup	J SDX 40
	Keep a local backup of data	ShoreTel
	_	🥫 Siemens - HiPath DX
	Backup location .}\backup-{year}-{month}-{day}.{uiv}	🥫 Siemens HiCom-HiPath 📃
	.,	Siemens OpenOffice
		💂 SpliceCom Maximiser 🗸 🗸
		🥭 Cancel 📑 Save

4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.

5. In the Host field, enter the IP address of of your Samsung OfficeServ.

- 6. In the Port field, enter 5100.
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Samsung from the drop-down list.
- 9. Click on the Save button to apply the settings.

🚍 Samsung Offic	eServ	
General		
Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	Host 192.168.1.10 Port 5100 Username Password IP script Samsung •
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

ShoreTel

ShoreTel PBX

These instructions help you configure your ShoreTel phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn	ection Type TIM Enterprise establishes a DSN connection with this PBX.
Supp	ort Files
	ShoreTel.TDT
	ShoreTel.TDS
	ShoreTel.DBS
Requ	ired Tasks
2	Configure the SMDR output
2	Set up a DSN connection
2	Configure TIM Enterprise

Configuring your SMDR output

By default, the ShoreTel phone system writes its CDR data to a MySQL database called **ShoreWareCDR**. In order for TIM Enterprise to connect to the database and collect the call logging data, you need to create a username and password in the MySQL database on the ShoreWare Server. Contact your system maintainer if you are not familiar with this procedure.

The following information is required for TIM Enterprise to connect to the Shoretel ShoreWareCDR database:

- IP address or hostname of the ShoreWare Server where the MySQL database resides.
- Username and Password of the ShoreWareCDR database.

Setting up a DSN connection

To enable TIM Enterprise to work with your ShoreTel phone system, you first need to set up a DSN connection by following the steps below:

- 1. Open Windows Control Panel and select the Administrative Tools icon.
- 2. Double-click on the Data Sources (ODBC) icon to open the ODBC Data Source Administrator window

For a 64 bit system, access the ODBC Data Source Administrator from the following location C:\Windows \SysWOW64\odbcad32.exe

- 3. Click on the System DSN tab.
- 4. Click on the Add button.

A

- 5. Select MySQL ODBC 3.51 Driver from the driver list and click Finish . If you cannot see the MySQL ODBC 3.51 Driver opt ion in the drop-down list, you can download it from http://www.mysql.com.
- 6. In the Name field, enter shoretel.
- 7. In the Description field, enter TIM Enterprise link to ShoreTel.
- 8. In the Server field, enter the IP address or hostname of your ShoreWare Server.
- 9. In the Username field, enter the username for your ShoreWareCDR database.
- 10. In the Password field, enter the password for your ShoreWareCDR database.
- 11. In the Database drop-down list, select ShoreWareCDR.
- 12. Click on the Test button to confirm the information you entered is correct and that the connection is successful.
- 13. Click on the OK button to close the window.

An example of an ODBC entry is shown below:

🕙 ODBC Da	ata Source Administrator	<u>? ×</u>
User DSN	System DSN File DSN Drivers Tracing Conne	ection Pooling About
System D	lata Sources:	
Name	Driver	Add
shoretel	MySQL ODBC 3.51 Driver	Remove
		Configure
3	An ODBC System data source stores information ab the indicated data provider. A System data source on this machine, including NT services.	
	OK Cancel A	Apply Help

Configuring TIM Enterprise

Once the DSN connection has been set up, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open. In the General tab, select ShoreTel from the Data format list and tick the Keep a local

backup of data box, as shown below:

i Shoretel		
General Connection	General settings	Data format
Inactivity	Name Shoretel	💂 SDX 40
Options	Unique ID 76195 Time zone Broadcast CDRs from this PBX Data backup Keep a local backup of data Backup location	 ShoreTel Siemens HiCom-HiPath Siemens OpenOffice Siemens Realitis SpliceCom Maximiser SWYX V6 SWYX V8 Telappliant
	.}\backup-{year}-{month}-{day}.{uiv}	Telesoft

- 4. Click on the Connection tab and select System DSN connection from the Connection method list.
- 5. In the DSN field, select **ShoreTel** from the drop-down list.
- 6. In the ${\tt Frequency}$ field, enter 5 to check for data every five seconds.
- 7. In the DB script field, select **ShoreTel** from the drop-down list.
- 8. Click on the Save button to apply the settings.

Shoretel			
General			
Connection	Connection method	Connectio	on details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	DSN Frequency DB script Connection Binary dat Delay proc	o data
			Cancel Save
			_

Siemens

Siemens HiCom-HiPath

The Siemens HiCom/HiPath can be configured to send its SMDR data over a serial (RS232) or an IP connection. Click on one of the links below that relates to your preferred connection method.

Siemens HiCom/HiPath - Serial connection

These instructions help you configure your Siemens HiCom/HiPath phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conne	ection Type TIM Enterprise establishes a serial connection with this PBX.
Suppo	ort Files
	Siemens HiCom-HiPath.TDT
	Siemens.TDS
Requi	red Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

When configuring your Siemens HiCom/HiPath phone system to send SMDR data via a serial connection, you need to directly connect a serial cable from the Siemens HiCom/HiPath phone system to the PC that NetPBX is installed and running on.

For more information about the output and configuration of your SMDR data, please contact your system maintainer.

Installing NetPBX

To collect call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Siemens HiCom-HiPath from the Data

format list and tick the Keep a local backup of data box, as shown below:

Siemens HiCom-HiPath				
General	O and a still a	Deta format		
Connection	General settings	Data format		
Inactivity	Name Siemens HiCom-HiPath	📃 Samsung DCS 🔺		
Options	Unique ID 76034	📃 SDX 40		
	Time zone 0	🔒 ShoreTel		
	Broadcast CDRs from this PBX	🥫 Siemens HiCom-HiPath		
		🥫 Siemens HiPath 4000		
	Data backup	Siemens HiPath DXSiemens OpenOffice		
	Keep a local backup of data			
	Backup location	SpliceCom Maximiser		
	.}\backup-{year}-{month}-{day}.{uiv}	SWYX V6		
		SWYX V8		
		📕 Telappliant 🔍		
		Cancel 📑 Save		

- 4. Click on the Connection tab, select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

Siemens HiCom-HiPath				
General Connection	Connection method	Connection details		
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method		
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by		
		Cancel		

Siemens HiCom/HiPath - IP connection

These instructions help you configure your Siemens HiCom/HiPath phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr ⊽ ∓	TIM Enterprise listens for connections from this PBX.
Supp	port Files
	Siemens HiCom-HiPath.TDT
	Siemens.TDS
Requ	uired Tasks
2	Configure the SMDR output
٦	Configure TIM Enterprise
_	

Configuring your SMDR output

By default, the SMDR output of a Siemens HiCom/HiPath phone system is not enabled. Contact your system maintainer for information about how to configure the SMDR output for incoming, outgoing and internal calls.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to listen for SMDR data from your Siemens HiCom/HiPath:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Siemens HiCom-HiPath from the Data

format list and tick the Keep a local backup of data box, as shown below:

General Connection	General settings	Data format			
Inactivity Options	Name Siemens HiCom-HiPath Unique ID 76034 Time zone 0	Samsung DCS			
	Broadcast CDRs from this PBX	ShoreTel Siemens HiCom-HiPath Siemens HiPath 4000			
	Data backup keep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Siemens HiPath DX Siemens OpenOffice SpliceCom Maximiser SWYX V6 SWYX V8 Telappliant 			
		Cancel 📑 Save			

4. Click on the Connection tab and select Listen for connections from PBX from the Connection method list.

5. Leave the Host field blank.

- 6. In the Port field, enter 9000.
- 7. Click on the Save button to apply the settings.

📕 Siemens HiCor	m-HiPath	
General		
Connection	Connection method	Connection details
Inactivity	Receive FTP transfers from PBX	Host
Options	ন্দ্র Establish TCP connection to PBX	Port 9000
	₩ Listen for connections from PBX	
	👔 System DSN connection	
	• RADIUS connection	
	SysLog connection	
	No connection required	Connection options
		 Binary data Timestamp data Delay processing by ms
		Cancel

Siemens OpenOffice

These instructions help you configure your Siemens OpenOffice phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn	ection Type TIM Enterprise establishes a DSN connection with this PBX.
Supp	ort Files
	Siemens OpenOffice.TDT
	Siemens.TDS
	Siemens.DBS
Requ	ired Tasks
2	Configure the SMDR output
2	Set up a DSN connection
2	Configure the interface file
2	Configure TIM Enterprise
_	

Configuring your SMDR output

By default, the SMDR output of a Siemens OpenOffice phone system is not enabled. For information about how to configure the output for incoming, outgoing and internal calls, contact your system maintainer.

Setting up a DSN connection

To enable TIM Enterprise to work with the Siemens OpenOffice, you first need to set up a DSN connection, by following the steps below:

- 1. Open Windows Control Panel
- 2. Double-click on the Administrative tools icon

3. Double-click on the Data Sources (ODBC) icon to open the ODBC Data Source Administrator window

For a 64 bit system, access the ODBC Data Source Administrator from the following location C:\Windows \SysWOW64\odbcad32.exe

- 4. Click on the System DSN tab
- 5. Click on the Add button
- 6. Select Native from the driver list and click Finish
- 7. In the Data source name field enter Siemens OpenOffice
- 8. Click on the OK button to save the changes

An example of an ODBC entry is shown below:

🕙 ODBC Da	ita Source Ad	ministrate	or				? ×
User DSN	System DSN	File DSN	Drivers	Tracing	Connect	ion Pooling	About
System D	ata Sources:						
Name Siemen:)river lative				B	Add emove nfigure
3	An ODBC Sy the indicated on this mach	data provid	ler. A Sy: ig NT serv	stem data		visible to al	

Configuring the interface file

Follow the steps below to configure the interface file to establish an HTTPS connection with your Siemens OpenOffice:

- Open the Siemens OpenOffice.TDT file, located by default in C:\Program Files (x86)\Tri-Line\TIM Enterprise\config.
- 2. Edit the file to point to the IP address of your Siemens OpenOffice and enter the relevant username and password, as shown below.



3. Remove the apostrophe (') in front of the amended fields to enable them. An example of a configured interface file is shown below:



Configuring TIM Enterprise

Once the DSN connection has been set up, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Siemens OpenOffice from the Data

format list and tick the Keep a local backup of data box, as shown below:

Siemens OpenOffice					
General Connection	General settings	Data format			
Inactivity	Name Siemens OpenOffice	Samsung DCS			
Options	Unique ID 76035 Time zone 0 Broadcast CDRs from this PBX	 SDX 40 ShoreTel Siemens HiCom-HiPath 			
Data backup		 Siemens HiPath 4000 Siemens HiPath DX Siemens OpenOffice 			
	<pre>keep a local backup of data Backup location .}\backup-{year}-{month}-{day}.{uiv}</pre>	 SpliceCom Maximiser SWYX V6 SWYX V8 			
		Telappliant			

4. Click on the Connection tab and select System DSN connection from the Connection method list.

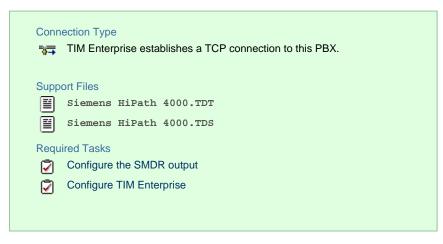
5. In the DSN field, select Siemens OpenOffice from the drop-down list.

- 6. In the Frequency field, enter 5 to check for data every five seconds.
- 7. In the DB script field, select **Siemens** from the drop-down list.
- 8. Click on the Save button to apply the settings.

Siemens OpenOffice				
 Siemens OpenO General Connection Inactivity Options 	Connection method [©] Receive FTP transfers from PBX [©] RADIUS connection	Connection details DSN Siemens OpenOffice Frequency 5 DB script Siemens		
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms		

Siemens HiPath 4000

These instructions help you configure your Siemens HiPath 4000 phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

By default, the SMDR output of a Siemens HiPath 4000 phone system is not enabled. For information about how to configure the output for incoming, outgoing and internal calls, contact your system maintainer.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Siemens HiPath 4000:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Siemens HiPath 4000 from the Data

format list and tick the Keep a local backup of data box, as shown below:

🚍 Siemens HiPat	h 4000			
General	Concrel acttings	Data format		
Connection	General settings	Data format		
Inactivity	Name Siemens HiPath 4000	📱 Samsung DCS 🔺		
Options	Unique ID 76036	J SDX 40		
	Time zone 0	📃 ShoreTel		
	Broadcast CDRs from this PBX	🥫 Siemens HiCom-HiPath		
		🥫 Siemens HiPath 4000		
	Data backup	 Siemens HiPath DX Siemens OpenOffice SpliceCom Maximiser 		
	Keep a local backup of data			
	Backup location .}\backup-{year}-{month}-{day}.{uiv}	SWYX V6		
		SWYX V8		
		📃 Telappliant 👻		
		🤰 Cancel 📑 Save		

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the Host field, enter the IP address of your Siemens HiPath 4000.
- 6. In the Port field, enter 9000.
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Generic Simple from the drop-down list.

9. Click on the Save button to apply the settings.

🔳 Siemens HiPat	h 4000		
General Connection Inactivity	Connection method	Connection details	
Options	 Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	Port 9000 Username Password IP script Generic Simple • Connection options	
	V No connection required	 Binary data Timestamp data Delay processing by ms 	
		Cancel Save	

Siemens HiPath DX

The Siemens Realitis/HiPath DX can be configured to send its CIL output via a serial (RS232) or an IP connection. Click on the link below that relates to your preferred connection method.

Siemens Realitis/HiPath DX - Serial connection

These instructions help you configure your Siemens Realitis/HiPath DX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn 🍠	ection Type TIM Enterprise establishes a serial connection with this PBX.
Supp	ort Files
	Siemens HiPath DX.TDT
	Siemens HiPath DX.TDS
Requ	ired Tasks
2	Configure the CIL output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your CIL output

When configuring your Siemens Realitis/Hipath DX to send its CIL information via a serial connection, you need to directly connect a serial cable from the phone system's wall box to the PC running NetPBX.

Your system maintainer needs to enable CIL output by setting it to the Full or unrestricted CIL format.

Installing NetPBX

To collect call logging data from the serial port of your phone system and send it to TIM Enterprise, you first need to install the NetPBX

software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Director, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Siemens HiPath DX from the Data format list and tick the Keep a local backup of data box, as shown below:

📕 Siemens HiPat	th DX	
General Connection	General settings	Data format
Inactivity Options	Name Siemens HiPath DX Unique ID 76037 Time zone 0 Broadcast CDRs from this PBX Data backup Veep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 Samsung DCS SDX 40 ShoreTel Siemens HiCom-HiPath Siemens HiPath 4000 Siemens HiPath DX Siemens OpenOffice SpliceCom Maximiser SWYX V6 SWYX V8 Telappliant
		🥥 Cancel 📮 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

📕 Siemens HiPath	n DX	
General Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection 	There are no options for this connection method
	No connection required	Connection options Binary data Timestamp data Delay processing by
		Cancel

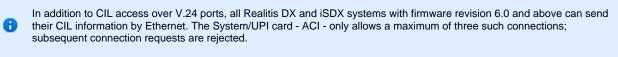
Siemens Realitis/HiPath DX - IP connection

These instructions help you configure your Siemens Realitis/HiPath DX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conn	ection Type
70∓	TIM Enterprise establishes a TCP connection to this PBX.
Supp	ort Files
	Siemens HiPath DX.TDT
	Siemens HiPath DX.TDS
Requ	ired Tasks
2	Configure the CIL output
2	Configure TIM Enterprise
	Supp

Configuring your CIL output

CIL access over Ethernet



To set up and activate this feature, a request must be made to Product Management at Siemens, Beeston.

Connecting to the CIL server

TIM Enterprise establishes a TCP connection to the IP address of the System/UPI card of your Siemens phone system.

You can choose the IP address of the System/UPI card by setting the variable IPACT in the permanent database. Your local maintenance engineer should be able to program this address for you.

The default listening port is 17257.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Siemens phone system:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Siemens HiPath DX from the Data

format list and tick the Keep a local backup of data box, as shown below:

🗯 Siemens HiPat	h DX	
General		
Connection	General settings	Data format
Inactivity Options	Name Siemens HiPath DX Unique ID 76037	Samsung DCS
	Time zone 0	J ShoreTel
	Broadcast CDRs from this PBX	Siemens HiCom-HiPath Siemens HiPath 4000
	Data backup	📃 Siemens HiPath DX
	Keep a local backup of data Backup location .}\backup-{year}-{month}-{day}.{uiv}	 Siemens OpenOffice SpliceCom Maximiser SWYX V6 SWYX V8
		📃 Telappliant 👻
		🔁 Cancel 틙 Save

- 4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.
- 5. In the ${\tt Host}$ field, enter the IP address of the System/UPI card of your phone system.
- 6. In the Port field, enter 17257.
- 7. Leave the Username and Password fields blank.
- 8. In the IP script field, select Siemens Realitis DX from the drop-down list.
- 9. Click on the Save button to apply the settings.

INEC SV8100		×
General Connection Inactivity Options	Connection method	Connection details Host 192.168.1.1 Port 17257 Username
		🗦 Cancel 📑 Save

SpliceCom

SpliceCom Maximiser

These instructions help you configure your Splicecom Maximiser phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring the SMDR output

By default, the call logging output of the Splicecom Maximiser is enabled and you do not normally require a password to obtain it. To protect your call logging data, you can set a Call Logging Password in the System Details screen of your Maximiser's web management interface. If you decide to set a password, you need to enter this when configuring TIM Enterprise (below).

Your system maintainer may have already set a call logging password for you.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to collect the SMDR data from your Splicecom Maximiser:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Splicecom Maximiser from the Data

format list and tick the Keep a local backup of data box, as shown below:

SpliceCom Ma	ximiser	
General Connection	General settings	Data format
Inactivity Options	NameSpliceCom MaximiserUnique ID76038Time zone0	 Siemens OpenOffice Siemens Realitis SpliceCom Maximiser
	Broadcast CDRs from this PBX Data backup	SWYX V6 SWYX V8 Telappliant
	Keep a local backup of data Backup location .}\backup-{year}-{month}-{day}.{uiv}	 Telesoft TeleVantage Toshiba CIX-CTX Toshiba Strata DK
		VoiSpeed 👻
		🔁 Cancel 📑 Save

4. Click on the Connection tab and select Establish TCP connection to PBX from the Connection method list.

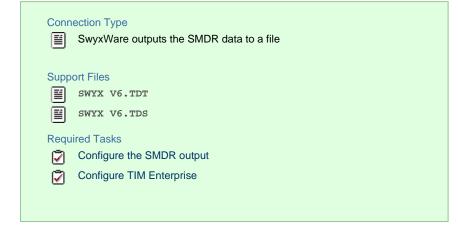
- 5. In the Host field, enter the IP address of your Splicecom Maximiser.
- 6. In the Port field, enter 4001.
- 7. Leave the Username field blank.
- 8. If your Maximiser has a call logging password set, enter it in the Password field; if not, leave it blank.
- 9. In the IP script field, select Splicecom Maximiser from the drop-down list.
- 10. Click on the Save button to apply the settings.

🚍 SpliceCom Max	kimiser	
General Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	Host 192.168.1.1 Port 4001 Username Password IP script Splicecom Maximise • Connection options Binary data
		 Timestamp data Delay processing by ms Cancel

Swyx

SwyxWare

These instructions help you configure your SwyxWare phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

Follow the steps below to configure the SwyxWare to output SMDR data to a file in a specific location:

- 1. Log in to your SwyxWare Administration Tool.
- 2. Right-click on the Swyx server you want to configure and click on the Properties button.

- 3. In the Properties window, click on the Call Detail Records tab.
- 4. Click on the Call Detail Records into Text File radio button.
- 5. In the Save to Folder field, enter \program files\tri-line\tim Enterprise\spool\. If you are using a mapped drive enter the driver letter.

X

1

6. In the File Name field, enter data.{sitecode}, replacing {sitecode} with the ID of the site you are logging. The site ID is

displayed in the general properties of the site object, in the Unique ID field, as shown below:

Name	Avaya	Network Alchemy
Unique ID	2	
Time zone	0	

7. Click on the OK button and close the SwyxWare Administration Tool.

SwyxServer TNTTEST2 Properties

 Search SwyxPhones
 Login Device
 Standby SwyxServer

 Tumb Recording
 Visitemail
 Meil Course

Here is an example of the SwyxWare Administration properties window:

Search Swywi Hones	Login Device		Standby St		
Trunk Recording	Voicema	picemail 👘 Mail Servi		Server	
Files	Conne	Connected SwyxWare Sites		tes	
General Client Preference	ces Music on Hold	Hold Internal Numbers Licer		s Licenses	
Call Detail Records SwyxPhone Firmware Update Char			Charges		
🔿 No Call Detail Record	O No Call Detail Becords				
Call Detail Records in	nto Text File	h	5		
Save to Folder:					
c:\program files\tri-li	ne\tim enterprise\	spool/		_	
File Name:	•				
data.1					
jaata. I					
🔲 Limit File Size to:	5000	-	Kilobytes		
C Call Detail Records in	nto Database				
Database Connection String:					
,		T 1	o v		
Esternal Marshare		Test	Connection		
	External Numbers				
	Store complete Number				
O Hide Digits					
Number of Digits replaced by 'x':					
O Replace Number with "xxx"					
OK	Cancel	A	pply	Help	

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to receive SMDR data from your SwyxWare:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select SWYX V6 from the Data format list and tick the Keep a local backup of data box, as shown below:

SwyxWare		
General Connection	General settings	Data format
Inactivity Options	Name SwyxWare Unique ID 76101 Time zone 0 Broadcast CDRs from this PBX Data backup Veep a local backup of data Backup location \backup-{year}-{month}-{day}.{uiv}	 ShoreTel Siemens - HiPath DX Siemens HiCom-HiPath Siemens OpenOffice SpliceCom Maximiser SWYX V6 SWYX V8 Telappliant Telesoft TeleVantage Toshiba CIX-CTX
		🔁 Cancel 📑 Save

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

SwyxWare		
General Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection 	There are no options for this connection method
	No connection required	Connection options Binary data Timestamp data Delay processing by
		Cancel

Tadiran

Coral

These instructions help you configure your Coral Flexicom phone system to work with TIM Enterprise. Contact your system maintainer if you

are not familiar with the configuration of your PBX.

Connection Type	establishes a serial conne	ection with this PBX.
Support Files		
Coral Flexi	com 200.TDT	
Required Tasks		
Configure the S	MDR output	
Install NetPBX		
Configure TIM	Enterprise	

Configuring your SMDR output

The Coral Flexicom phone system sends its SMDR data via a serial connection. You need to directly connect a serial cable from the phone system to the PC that NetPBX is installed and running on.

For more information about the output and configuration of your SMDR data, contact your system maintainer.

Installing NetPBX

To collect call logging data from the serial port and send it to TIM Enterprise, you need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Coral Flexicom 200 from the Data

format list and tick the Keep a local backup of data box, as shown below:

📰 Coral		
General		
Connection	General settings	Data format
Inactivity	Name Coral	BT Versatility
Options	Unique ID 76207	Cisco UCM 5+
	Time zone 0	🚊 Cisco UCM v4 DSN
	Broadcast CDRs from this PBX	Cisco UCM v4 Transfer
		Cisco UCME - RADIUS
	Data backup	📃 Cisco UCME - SysLog
	Keep a local backup of data	📃 Coral Flexicom 200
	Backup location	Coral Flexicom 500
	.}\backup-{year}-{month}-{day}.{uiv}	Draytek
		📃 Epygi Quadro
		📃 Fujitsu Rhapsody Rio 💌
		Cancel 📑 Save

- 4. In the Connection tab, select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🚍 Coral		
General	O and a stirle mostly a d	O anna atlan dataila
Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Toshiba

Toshiba CIX/CTX

The Toshiba CIX/CTX can be configured to send its SMDR data over a serial (RS232) or an IP connection. Click on one of the links below that relates to your preferred connection method.

Toshiba CIX/CTX - Serial connection

These instructions help you configure your Toshiba CIX/CTX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr J	TIM Enterprise establishes a serial connection with this PBX.
Supp	port Files
	Toshiba CIX-CTX.TDT
	Toshiba CIX-CTX.TDS
Requ	uired Tasks
2	Configure the SMDR output
2	Install NetPBX
2	Configure TIM Enterprise

Configuring your SMDR output

When configuring your Toshiba CIX/CTX phone system to output its SMDR data via a serial connection, you need to directly connect a serial cable from the phone system to the PC running NetPBX.

For more information about the output and configuration of your SMDR data, contact your system maintainer.

Installing NetPBX

To collect call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Toshiba CIX-CTX from the Data format li

Toshiba CIX/C	тх	
General		
Connection	General settings	Data format
Inactivity	Name Toshiba CIX/CTX	Siemens OpenOffice
Options	Unique ID 76112	🥛 Siemens Realitis
	Time zone 0	📕 SpliceCom Maximiser
	Broadcast CDRs from this PBX	SWYX V6
		SWYX V8
	Data backup	📃 Telappliant
		📃 Telesoft
	Keep a local backup of data	📕 TeleVantage
	Backup location	📃 Toshiba CIX-CTX
	.}\backup-{year}-{month}-{day}.{uiv}	📃 Toshiba Strata DK 📃
		📕 VoiSpeed 🗸
		Cancel Save

st and tick the Keep a local backup of data box, as shown below:

- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🚍 Toshiba CIX/C	тх	
General		
Connection	Connection method	Connection details
Inactivity Options	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Toshiba CIX/CTX - IP connection

These instructions help you configure your Toshiba CIX/CTX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.

Conr	TIM Enterprise listens for connections from this PBX.
Supp	port Files
	Toshiba CIX-CTX.TDT
	Toshiba CIX-CTX.TDS
Requ	uired Tasks
2	Configure the SMDR output
	Configure TIM Enterprise
_	

Configuring your SMDR output

By default, the SMDR output of your Toshiba CIX/CTX is not enabled. Contact your system maintainer to enable call logging output for incoming, outgoing and internal calls.

Configuring TIM Enterprise

Follow the steps below to configure TIM Enterprise to listen for SMDR data from your Toshiba CIX/CTX:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Toshiba CIX-CTX from the Data format li

st and tick the Keep a local backup of data box, as shown below:

🗯 Toshiba CIX/C	тх	
Toshiba CIX/C General Connection Inactivity Options	General settings Name Toshiba CIX/CTX Unique ID 76112 Time zone 0 Broadcast CDRs from this PBX Data backup Image: Seep a local backup of data Backup location []\backup-{year}-{month}-{day}.{uiv}]	Data format Siemens OpenOffice Siemens Realitis SpliceCom Maximiser SWYX V6 SWYX V6 SWYX V8 Telappliant Telesoft Telesoft Televantage Toshiba CIX-CTX Toshiba Strata DK VoiSpeed
		Cancel 📑 Save

- 4. Click on the Connection tab and select Listen for connections from PBX from the Connection method list.
- 5. Leave the Host field blank.
- 6. In the Port field, enter 9000.
- 7. Click on the Save button to apply the settings.

Toshiba CIX/CTX		
General Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Eisten for connections from PBX System DSN connection RADIUS connection 	Host Port 9000
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

Toshiba Strata DK

These instructions help you configure your Toshiba Strata DK phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your SMDR output

The Toshiba Strata DK phone system sends SMDR information via a serial connection when it is fitted with a Small Options Card. You need to directly connect a serial cable from the phone system to the PC that NetPBX is installed and running on.

For more information about the output and configuration of your SMDR data, contact your system maintainer.

Installing NetPBX

To collect call logging data from the serial port and send it to TIM Enterprise, you first need to install the NetPBX software. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select Toshiba Strata DK from the Data

format list and tick the Keep a local backup of data box, as shown below:

🚍 Toshiba Strata	DK	
General		
Connection	General settings	Data format
Inactivity	Name Toshiba Strata DK	Siemens OpenOffice
Options	Unique ID 76113	🥫 Siemens Realitis
	Time zone 0	SpliceCom Maximiser
	Broadcast CDRs from this PBX	📱 SWYX V6
		SWYX V8
	Data backup	📱 Telappliant
	Keep a local backup of data	📃 Telesoft
	-	📱 TeleVantage
	Backup location .)\backup-{year}-{month}-{day}.{uiv}	📱 Toshiba CIX-CTX
	., (backup (year) (monon) (day). (div)	🔋 Toshiba Strata DK 🗧
		👤 VoiSpeed 🗸 🗸
		🔁 Cancel 📮 Save

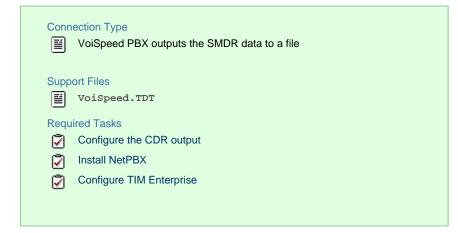
- 4. Click on the Connection tab and select No connection required from the Connection method list.
- 5. Click on the Save button to apply the settings.

🗮 Toshiba Strata DK		
General Connection	Connection method	Connection details
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel

VoiSpeed

VoiSpeed PBX

These instructions help you configure your VoiSpeed PBX phone system to work with TIM Enterprise. Contact your system maintainer if you are not familiar with the configuration of your PBX.



Configuring your CDR output

The VoiSpeed phone system outputs its CDR data to a file. To configure the output, contact your system maintainer.

TIM Enterprise can be installed on the same machine as the VoiSpeed server; however, you should confirm this first with your system maintainer as it may impact system performance.

Installing NetPBX

Since your VoiSpeed phone system outputs its call logging data to a file, you first need to install the NetPBX software in order to collect the contents of the call logging file and forward it to TIM Enterprise. For setup instructions, click on the link below:

Install and configure NetPBX

Configuring TIM Enterprise

Once NetPBX is configured and collecting data, log in to TIM Enterprise and perform the following steps:

- 1. Click on the Directory tab.
- 2. Locate the PBX object you want to configure in the Directory, right-click on it and select Properties.
- 3. A new window will open, displaying the general properties of your PBX object. Select VoiSpeed from the Data format list and

tick the Keep a local backup of data box, as shown below:

📰 VoiSpeed		
General	Concrete acttinge	Data format
Connection	General settings	Data format
Inactivity	Name VoiSpeed	Siemens OpenOffice
Options	Unique ID 76115	🥫 Siemens Realitis
	Time zone 0	SpliceCom Maximiser
	Broadcast CDRs from this PBX	SWYX V6
		SWYX V8
	Data backup	📱 Telappliant
	Keep a local backup of data	📕 Telesoft
		TeleVantage
	Backup location .}\backup-{year}-{month}-{day}.{uiv}	📱 Toshiba CIX-CTX
	./ backup-{year}-{monon}-{day}.{arv}	📱 Toshiba Strata DK 📲
		📃 VoiSpeed 🗸
		Cancel Revealed Save

4. Click on the Connection tab and select No connection required from the Connection method list.

5. Click on the Save button to apply the settings.

🚍 VoiSpeed				
General Connection	Connection method	Connection details		
Inactivity Option s	 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	There are no options for this connection method		
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms		
		Cancel		

Accessing the system

TIM Enterprise resides on a centralised machine within your network where it runs as a service and, due to its in-built web server, it can be accessed via a standard web browser from any other PC on your network.

To access TIM Enterprise, open a web browser, go to the IP address or host name of the computer running TIM Enterprise and log in using your username and password.

Windows Security	×	
The server enterprise.call-logger.com at TIM Enterprise HTTP Service requires a username and password.		
	erver is requesting that your username and password be ure manner (basic authentication without a secure	
	User name Password Remember my credentials	
	OK Cancel	

After successfully logging in, the following "dashboard" screen will be displayed.



You may find that your access is restricted to a specific site or group. If you need to access other sites or groups, speak to your system administrator to get additional privileges.

8

Root account

Root account overview

The root account in TIM Enterprise allows you to access and configure the general settings of the system, such as its database, the license details or the backup and restore function. The root user is also able to access two additional tabs, Engineering and SQL, which are not available to admin or standard web users.

When logging in to TIM Enterprise with the root credentials, the System settings screen will be displayed:

tim enterprise)	Engineering	Directory Ca	all View	SQL	Tariff Edit	or Alerts
System setting	IS		¢	Refresh set	tings cache	📕 Save settings
Database	Create tables Test settings	Alerts				
Enter connection informat	ion of database storage engine	Enter logging o			alert	
Database provider Host : Port	Native Database Microsoft SQL Server MySQL Server 127,0.0.1 1433	Type Log		address	2.COM	
Host : Port	127.0.0.1 1433	(i)				
Password	•••••					
Database	timenterprise	Current log lo C:\Program Fil				
Email Enter email server details SMTP host : Port HELO name Reply-to SMTP authentication Username Password	Test settings for system alerts mail.tri-line.net example@tri-line.net None	Web ser Enter IP addre Local host Port Dind to this		192.168.0 localhost 127.0.0.1 80		Test settings

System settings

Syste	em settings
-	Database
1	Alerts
1	Email
1	Web server
1	Remote access & diagnostics

Database

The Database section allows you to enter the connection information of your database storage engine.

tim enterprise)	Engineering	Directory (Call View	SQL	Tariff Edi	tor Alerts
System setting	gs		¢	Refresh set	tings cache	📕 Save settings
Database Enter connection informa Database provider Host : Port Username Password Database	Create tables Test settings ation of database storage engine Microsoft SQL Server Microsoft SQL Server * 127.0.0.1 1433 tim ****** tim ****** tim ******	Type Log Current log	examp	address le@tri-lind		
Email Enter email server detail SMTP host : Port HELO name Reply-to SMTP authentication Username Password	Test settings is for system alerts mail.tri-line.net 25 example@tri-line.net	Local host Port	FVEF ress & port of nis address &	192.168.0 localhost 127.0.0.1		Test settings

Field	Description
Database provider	Select the database you are trying to connect to. Be default, TIM Enterprise is connected to a Native database.
Host: Post	Enter the Host name or IP address of the database and the relevant port number.
Username	Enter the username required to log in to the database.
Password	Enter the password required to log in to the database.
Database	Enter the name of the database.

Alerts

TIM Enterprise can be configured to raise an alert when particular events occur whilst the system is running. The alerts can be saved to a log file on a disk or sent as an email notification.

tim enterprise)	Engineering	Directory Ca	all View SQL	Tariff Editor	Alerts
System setting	js		💋 Refresh s	ettings cache	
Database Enter connection informat Database provider Host : Port Username Password Database	Create tables Test settings tion of database storage engine Native Database Microsoft SQL Server MySQL Server 127.0.0.1 1433 tim tim timenterprise	Type Log Constant Constant Co	options for each type o Email address example@tri-li contine coation: les (x86)\Tri-Line\TIM	ne.com	
Email	Test settings	Web ser	ver	Te	est settings
Enter email server details	for system alerts	Enter IP addres	ss & port of the built-in	n web server	
SMTP host : Port	mail.tri-line.net 25	Local host	192.168 localhos		^
HELO name			127.0.0	.1	
Reply-to	example@tri-line.net				-
SMTP authentication	None 👻	Port	80		
Password		Bind to this	address & port		

Alert	Description
😵 Critical	A critical alert notifies you of any events that are detrimental to the system, e.g. database failure
🔥 Warning	A warning alert notifies you of any non-critical events that have occurred on the system, e.g. you have exceeded your license limit
(i) Information	An information alert notifies you of any system events that have occurred on the system, e.g. if the application service has been restarted
€! Voice audit	An alert that notifies you of progress during call recording operations
🖄 Audit	Provides very detailed information about ongoing system events, primarily used for fault-finding

Email

This section allows you to configure the details of your mail server in order to enable TIM Enterprise to send out scheduled reports, call alarms, missed call notifications or system alerts.

tim enterprise)	Engineering	Directory C	all View	SQL Ta	ariff Editor	Alerts
System setting	s		🤹 i	Refresh settings c	ache 📙	
Database Enter connection informat Database provider Host : Port Username Password Database	Create tables Test settings ion of database storage engine Native Database Microsoft SQL Server MySQL Server 127.0.0.1 1433 tim •••••• timenterprise	Type Log Current log	Email ac example	ch type of alert ddress =@tri-line.com	se\logs\	
Email	Test settings	Web ser	ver		Test	settings
Enter email server details	for system alerts	Enter IP addre	ess & port of t	he built-in web se	rver	
SMTP host : Port	mail.tri-line.net 25	Local host		192.168.0.115 localhost		*
HELO name				127.0.0.1		
Reply-to	example@tri-line.net					-
SMTP authentication	None 🗸	Port		80		
Username Password		Bind to this	s address & po	ort		

Field name	Description
SMTP host: Port	The IP address or host name of your company's mail server and the port number, which by default is 25
HELO name	The greeting name required by your mail server to identify the computer that is sending the email. In most cases, this is the network name of the server running TIM Enterprise
Reply-to address	The email address you want to use to send a test email, in order to verify your email settings
SMTP authentication	The authentication method used by your mail server. Choose None if the authentication is automatic or not used
Username	Enter the username of the SMTP authentication
Password	Enter the password of the SMTP authentication

Web server

TIM Enterprise has its own built-in web server and it can be accessed from any PC on your network without the need of any additional software. To configure, choose the IP address and port number that you want the web service to listen on.

tim enterprise)	Engineering	Directory	Call View	SQL	Tariff Edit	or Alerts
System setting	S		\$	Refresh set	tings cache	
Database Enter connection informati Database provider Host : Port Username Password Database	Create tables Test settings tion of database storage engine Native Database Microsoft SQL Server MySQL Server 127.0.0.1 tim ••••••• timenterprise	Type S (3) (4) Current	ging options for (address	e.com	
Email Enter email server details SMTP host : Port HELO name Reply-to SMTP authentication Username	Test settings for system alerts mail.tri-line.net 25 example@tri-line.net None		SERVER address & port of t	f the built-in v 192.168.0 localhost 127.0.0.1 80		Test settings
Password		🔲 Bind t	to this address &	port		

Remote access & diagnostics

This feature is reserved for future use.

Engineering



Backup & restore

This section allow you to create or restore a system backup.

tim enterprise)			Engineering		Directory	Call View	SQL	Tariff Edit	or A	lerts
Backup & restore	Cache	Socket	ts & timers	Li	cense detai	ls				
								🗳 Re	fresh syste	m status
Backup					Restor	e				
Create a backup point					Restore data	and settings				
Backup name					Backup nam	e	Select a ba	ckup set	-	
Backup all data from	the database									
Backup selected period	od only									
Start date	14	Jan 👻	2012							
End date	14	Jan 👻	2012							
Remove backup set f	rom the datab	ase								
			📙 Backup	p				C	Restore	

To create a backup of the database, enter a name for the backup file, select the period you want to run the backup for, then click on the Backup button, as shown below:

tim enterprise)			Engineering		Directory	Call View	SQL	Tariff Editor	Alerts
Backup & restore	Cache	Socke	ets & timers	Li	cense detail	s			
								🗳 Refresh	
Backup					Restore)			
Create a backup point					Restore data	and settings			
Backup name	backup 0	1-09-2013			Backup name	Э	Select a ba	ckup set	•
Backup all data from	the database	•							
Backup selected period	od only								
Start date	01	Jan 👻	2013						
End date	30	Aug 👻	2013						
Remove backup set f	rom the data	base							
			🔒 Back	up				C R	estore

To restore an existing backup, select it from the drop-down list and click on the **Restore** button.

timenterprise			Engineering		Directory	Call View	SQL	Tariff Editor	Alerts
Backup & restore	Cache	Socke	ts & timers	Lic	ense details	s			
								🗳 Refresh	i system status
Backup					Restore	•			
Create a backup point					Restore data	and settings			
Backup name					Backup name	•	backup 01-0	3-2012	•
Backup all data from	the database								
Backup selected period	od only								
Start date	14	Jan 👻	2012						
End date	14	Jan 👻	2012						
Remove backup set f	rom the datab	ase							
			📄 Backup	0				🛅 Re	estore

Cache

This section displays information about the data cashed by the system and allows you to reload a tariff table if any changes were made.

imenterprise)		Engin	eering	Directory	Call View	SQL	Tariff Edito	or Alert
ackup & restore	Cache	Sockets & tir	mers	License deta	ils			
							🗘 Refr	resh system st
)irectory						🖲 📵 Page	e 1 of 2 🛞 🛞	Clear cache.
ype		Fullkey			Name			
webuser		\1\			admin			
🔰 webuser		\90\			Joe Blog	gs		
g user		\43\2\13\14\			VM Char	nnel 42		
e user		\43\2\13\15\			8888			
g user		\43\2\13\17\			C Chest	er		
ariff tables								Reload tariffs.
itle		File name	File p	ath				Call count
ь вт		Default	C:\P	rogram Files (x86)	Tri-Line\TIM Ente	rprise\tariffs\	Default.xml	0

Sockets and timers

This section displays information about the web sessions in progress, the status of the currently established sockets and the interval timers set up on the system.

		E	ngineering	<u> </u>	Direc	tory Ca	II View	SQL	Tariff Editor	Aler
Backup & restore	Cache	Sockets 8	& timers	Lic	ense	e details				
									🗳 Refresh	
Web sessions				Т	Sc	ockets				
100 303310113				- 1		JUNULS				_
Remote IP Time connecte	ed State	Last	URI			Name	Directory nam	e State	Remote IP	
127.0.0.1 00:00:00	User is co	nnec /sys	.js?cmd	*	0	RADIUSReply	[SYSTEM]	Closed		*
						RADIUS	[SYSTEM]	Closed		
						SysLog	[SYSTEM]	Closed		
						Socket.Mail	[SYSTEM]	Closed		
						udpin	[SYSTEM]	Closed		
					0	Socket.Out	[SYSTEM]	Closed		
						Socket.TCP	[SYSTEM]	Closed		
					0	Socket.IPPBX	[SYSTEM]	Closed		
				Ŧ						Ŧ
Timers				-						~
Name	Index	Interval		•						
Name Timer.License	Index	60000		-						
Name Timer.License Timer.StartHTTPS	Index	60000 1000		•						•
Name Timer.License Timer.StartHTTPS Timer.StopHTTPS	Index	60000 1000 1000		•						•
Name Timer.License Timer.StartHTTPS Timer.StopHTTPS Timer.ClearCLTA	Index	60000 1000 1000 2000		•						*
Name Timer.License Timer.StartHTTPS Timer.StopHTTPS Timer.ClearCLTA Timer.TestEmail	Index	60000 1000 2000 1000		• •						×
Name Timer.License Timer.StartHTTPS Timer.StopHTTPS Timer.ClearCLTA Timer.TestEmail Timer.RenewKeys		60000 1000 2000 1000 1000								*
Name Timer.License Timer.StartHTTPS Timer.StopHTTPS Timer.ClearCLTA Timer.TestEmail Timer.RenewKeys Timer.TCP	0	60000 1000 2000 1000 1000 2000								
Name Timer.License Timer.StartHTTPS Timer.StopHTTPS Timer.ClearCLTA Timer.TestEmail Timer.RenewKeys		60000 1000 2000 1000 1000								

License details

This section contains information about your software license, such as the number of users it covers or the expiry date. If you need to update your license details, click on the Get license button.

tim enterprise)			Engineering	Directory	Call View	SQL	Tariff Editor	Alerts
Backup & restore	Cache	Socke	ets & timers	License details				
							🗳 Refresh s	
License								
Here are your license det	ails:-							
Company Capacity Expiry Code You can check for a new Ensure the computer run internet, then press the C	ning TIM Enter	2014 right now. prise is cou	nnected to the					

SQL

The SQL tab allows you to query the TIM Enterprise database, in order to retrieve specific information related to your calls, reports, users, etc. In the example below, the query will display how many scheduled reports are configured on the system.

timenterprise	Engineering	Directory	Call View	SQL	Tariff Editor	Alerts	
Query 1 New							
						📌 Run query	
select count(*) from dir where icon = 'event_report	Pie						1
sciele count() non gr where icon - event_report	.,						
The query returned 1 row							_
count(*) 1							
-							
						-	,
<						+	

Main screen

Overview

When logging in to TIM Enterprise, the following dashboard screen is displayed:



The information you see on this screen is relevant only to the area to which you've been granted access. For example:

- If you are a site administrator, the graphs, live call view and any other call-related information will be derived from calls that happened only on your own site and not those from any other sites within the system.
- If your login account is restricted to a specific user group (department), the statistics will relate only to the call
 - information for users within that particular group.

The dashboard screen consists of a toolbar along the top of the page and three main panels.

The toolbar is the main menu that you use to navigate the major features of TIM Enterprise. The tabs that make up the toolbar differ according to the type of account you use to log in with. The screenshot above displays an example dashboard screen for a user account that has administrative privileges whereby all of the tabs are present; however, for a restricted web user account, some of the tabs might not be visible.

The three panels that make up the dashboard screen are as follows:

Summary graphs

A

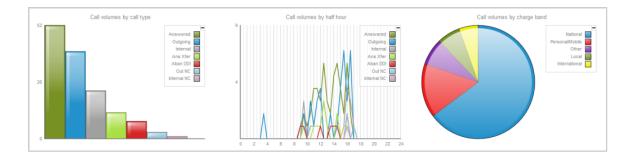
- Quick call search
- Most recent calls

Summary graphs

The summary graphs panel consists of three separate graphs, each organising their information using different criteria, as described below:

Call volumes by call type

- Call volumes by half hour
- Call volumes by charge band

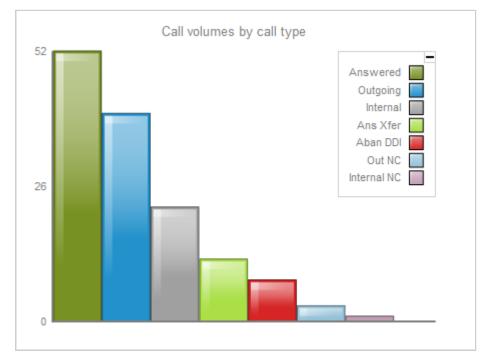


The information you see in each graph pertains only to the area which the logged-in user has been granted access to.

Call volume by call type

8

This first graph shows a snapshot of calls for the current day, based on the type of call, e.g. inbound, outbound, missed.



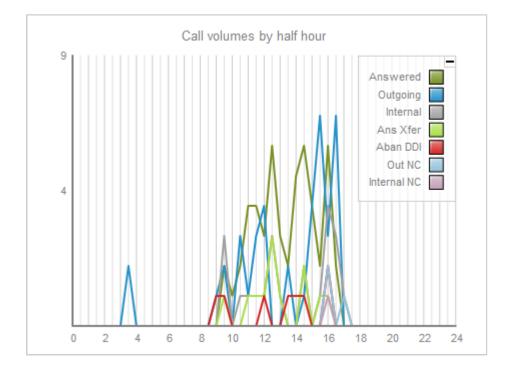
Each call type in the graph is colour-coded as follows:

- Green: Incoming calls
- Light green: Answered transferred calls
- Blue: Outgoing calls
- Light blue: Outgoing non-connected calls
- Grey: Internal calls
- Mauve: Internal non-connected calls
- Red: Abandoned DDI (Direct Dialled In) calls

Pink: Tandem calls

Call volume by half hour

This graph shows a snapshot of calls for the current day, broken down by half-hour, allowing you to quickly identify peaks and troughs in call volumes to identify busy periods.



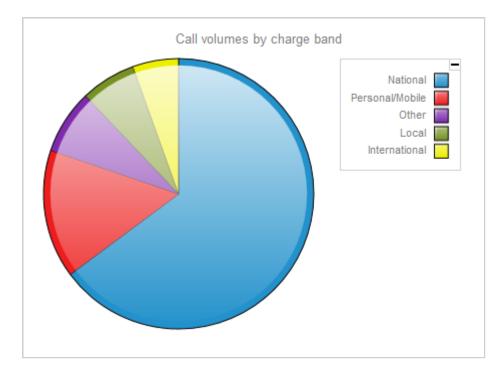
Each call type is colour-coded as follows:

- Green: Incoming calls
- Light green: Answered transferred calls
- Blue: Outgoing calls
- Light blue: Outgoing non-connected calls
- Grey: Internal calls
- Mauve: Internal non-connected calls
- Red: Abandoned DDI (Direct Dialled In) calls
- Pink: Tandem calls

The same call type colour scheme applies throughout TIM Enterprise.

Call volume by charge band

This graph shows a snapshot of calls for the current day, based on their destination, allowing you to identify where you call most often. Calls are grouped into geographical locations such as Mobile, National, Local, International etc.



By default, the following colour scheme is used to identify calls to each geographical group:

- Red: Personal/Mobile calls
- Green: Local calls
- Blue: National calls
- Yellow: International calls
- Purple: Other calls

Quick call search

The <u>Quick call search</u> panel offers a rapid way to locate specific calls in the central database, as an alternative to running a full call report. You can refine your search results by using the filters described below:

Quick call sea	rch	Most recent calls				🔚 Headers	📕 Save
Quick call sea	rch All call types ↓ Today ↓ @ @ @ 100 calls Q Search	Most recent calls	Source	Route	Destination	Headers	Save

Call type

This filter allows you to define the type of call you want your search results to cover, e.g. incoming, outgoing, internal etc. To include all types of call, set this to All call types.

All call types 🔻
All call types
Answered
Outbound
Missed

Period

The Period search field defines the time period the results should cover. To choose a period, select it from the drop-down list.

Period	Today 💌
	Today
	Yesterday
	This week
	Last week
	This month
	Last month
	This year
	All calls
	Custom

There are several preset reporting periods available for selection, based on the standard Gregorian calendar. The following table describes how the start and end times are defined for each preset period:

Field	Description
Today	The start and end dates are set to the current date. The start time is set to 00:00:00 and the end time to 23:59:59.
Yesterday	The start and end dates are set to the current date minus one day. The start time is set to 00:00:00 and the end time to 2 3:59:59.
This week	The start date is set to the first day (normally Monday) of the current week. The end date is set to the current day. The start time is set to 00:00:00 and the end time to the current time.
Last week	The start date is set to the date of the last Monday, and the end date is set to the start date plus seven days. The start time is set to 00:00:00 and the end time to 23:59:59.
This month	The start date is set to the first day of the current month. The end date is set to the current day. The start time is set to 00: 00:00 and the end time to the current time.
Last month	The start date for this period is set in three stages: The day is set to the first day of the month. The month is set to the previous month. The year is set to the current year, unless it is currently January, in which case, the previous year is used. The start and end times are set to 00:00:00 and 23:59:59 respectively.
This year	The start date is set to the first day of the first month of the current year, whilst the end date is set to today's date. The start and end times are set to 00:00:00 and 23:59:59 respectively.
All calls	The start and end dates and times are set to the dates and times of the first and last call in the entire call database, respectively.
Custom	Enter the start and end dates and times into the boxes provided. The start and end times are linked to their respective dates.

Dialled number

The Dialled number field allows you to filter your results by the number that was dialled. You can also specify a partial number to match all calls beginning with that number, e.g. to show all calls to London, enter 0207.

Dialled number	0207

CLI

Calling Line Identification (CLI) is the telephone number of the remote caller in an incoming call scenario.

You can filter your results to show only calls that originate from a specific CLI or those whose CLI matches a particular pattern of digits. For example, to report on all incoming calls from London, you could enter 0207.

CLI	0207

Entity

If you want to limit the search results to a particular site, group or user, click on the O button, as shown below:



A new window will open, allowing you to navigate through the Directory in order to locate the entity whose calls the search results should include. To select an entity, click on the 🗸 icon alongside it.

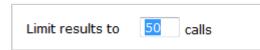
Sel	ect an object		
Ê.	8	Q	
	Aberdeen		×
	Birmingham		* * * * * * * * * *
	Brighton		× .
	Cardiff		× .
	Leeds		× .
	London		
	Manchester		 Image: A second s
	Newcastle		× .
	Northern General		× .
	York		× .
=	Main PBX		× .
			🕽 Close

If you want to search for a specific entity, you can enter its name in the search bar at the top of the window and click on the 🔍 icon.

Limit results to

This feature enables you to specify the maximum number of search results you want to retrieve. Set the limit by entering a value in the field

provided, e.g. entering 50 in the Limit results to field, will return a maximum of 50 results.



The search results will show in a new panel entitled Search results, as shown below:

Search results:					Back to recent calls
Time v	Source	Route	Destination	Duration	
10:28:58	T-Mobile	07958725862	Alf A. Romeo	00:00:05	Ҏ 🏠 🗋 🛞
10:28:56	Amanda Lynn	07871990245	02	00:00:35	모 🏠 🗂 🕑
10:28:31	124001	UNAVAILABLE	Ty Coon	00:01:36	모 🏠 🖪 🛞
10:27:26	Ty Coon	07969104684	Orange	00:00:19	⊽ ☆ 🖞 ⊙
10:27:26	124002	UNAVAILABLE	Hugh Ass	00:00:18	모 ☆ 🗋 🔘
10:27:13	Mike Stand	2043	Anna Recksiek	00:00:35	모 ☆ 🖞 🕥
10:26:58	London	02087411123	Jo King	00:01:30	모 🚖 🗋 🛞
10:26:16	Bill Loney	07976274178	Orange	00:01:51	모 🏠 🗋 🛞
10:25:58	London	02073942660	Holly Day	00:00:59	Ҏ 🏠 🖪 🛞
10:25:08	120029	UNAVAILABLE	Billy Cann	00:00:24	Ҏ 🏠 🗋 💿
10:25:01	London	02072400260	Carrie Oakey	00:00:42	Ҏ 🏠 🗋 🛞

To close the search results and return to the Most recent calls panel, click on the Back to recent calls link, at the top-right corner of the panel.

Most recent calls

By default, the Most recent calls panel displays the latest calls to have been processed by TIM Enterprise, with the most recent towards the top of the list. To sort the results by a different column, click on the relevant column header.

Search rea	Back to recent calls				
Time ▼	Source	Route	Destination	Duration	
10:28:58	T-Mobile	07958725862	Alf A. Romeo	00:00:05	Ҏ 🏠 🗋 🛞
10:28:56	Amanda Lynn	07871990245	02	00:00:35	Ҏ 🏠 🗋 🛞
10:28:31	124001	UNAVAILABLE	Ty Coon	00:01:36	Ҏ 🏠 🖪 🛞
10:27:26	Ty Coon	07969104684	Orange	00:00:19	Ҏ 🏠 🗋 🛞
10:27:26	124002	UNAVAILABLE	Hugh Ass	00:00:18	Ҏ 🏠 🗂 🔕
10:27:13	Mike Stand	2043	Anna Recksiek	00:00:35	오 ☆ 🗋 🕥
10:26:58	London	02087411123	Jo King	00:01:30	Ҏ 🚖 🗋 🛞
10:26:16	Bill Loney	07976274178	Orange	00:01:51	ᄝ☆ゴ⊛
10:25:58	London	02073942660	Holly Day	00:00:59	Ҏ 🏠 🖪 🛞
10:25:08	120029	UNAVAILABLE	Billy Cann	00:00:24	모 슦 🗋 💿
10:25:01	London	02072400260	Carrie Oakey	00:00:42	ᄝ☆ゴ ⊙

Each call type is colour-coded using a system-wide colour scheme, as follows:

- Green: Incoming calls
- Light green: Answered transferred calls
- Blue: Outgoing calls
- Light blue: Outgoing non-connected calls
- Grey: Internal calls

- Mauve: Internal non-connected calls
- Red: Abandoned DDI (Direct Dialled In) calls
- Pink: Tandem calls

The calls you see in the Most recent calls panel pertain only to the area to which the logged-in user has been granted access; administrators see calls from all sites.

Columns headers

8

The column headers shown in the most recent calls list are specific to each web user and can be customised by clicking on the Headers button, which will display the following selection panel:

Most recent calls 🔚 Headers							
Time v 10:34:46 10:33:38 10:32:11	Sot Date Min Time Con Source Route Mor Destina	ation	CLI Dialled number Source name Source ID Destination nam	ne	Account code LCR digits Trunk access code Data source Call reference Flags	> ☆ ſ ⊕ > ☆ ſ ⊕ > ☆ ſ ⊕	
10:32:01 10:31:56 10:31:53 10:31:28	Lon Respor Are Duratio 120 02		Tariff		Voice location Voice filename	♀ ☆ ⊥ ● ♀ ☆ ⊥ ● ♀ ☆ ⊥ ● ♀ ☆ ⊥ ●	
10:30:41 10:30:23 10:30:01 10:28:58	Earl E. Bird London London T-Mobile	07854181524 02073134000 02076055000 07958725862	Orange Orson Carte May Day Alf A. Romeo	00:00:09 00:01:45 00:03:12 00:00:05	02076055000	 ♀ ☆ ゴ ⊕ ♀ ☆ ゴ ⊕ ♀ ☆ ゴ ⊕ ♀ ☆ ゴ ⊕ 	

Include a column header in the list by ticking the box alongside each one. Click on the Save button to apply any changes.

Each column header is described below:

Field name	Description
Date	The date the call started
Time	The time the call started
Source	The place from where the call originated
Route	 The information displayed in this field is determined by the type of call: for incoming calls, this shows the CLI of the caller for incoming internal calls, this shows either the caller's username or extension number for outgoing calls, this shows the dialled number

Destination	The information displayed in this field is determined by the type of call:
	for incoming calls, this shows the name of the user whose extension answered the call, or the extension
	number if not available
	for outgoing calls, this shows the geographical location that was dialled, or an alias if defined in your
	contacts list
	for internal calls, this shows the extension that was dialled, enclosed in square brackets []
Response	The time it took for the call to be answered (in seconds)
Duration	The duration of the call (in hours, minutes and seconds)
Cost	The cost of the call
CLI	The telephone number of the remote caller for inbound calls
Dialled number	The number that was dialled in order to reach a particular destination
Source name	The name of the person who made the call
Source ID	The ID of the person who made the call
Destination name	The name of the destination called, e.g. Manchester, Tri-Line, London
Destination ID	The ID of the destination called
Tariff	The name of the tariff table that was used to cost the call, e.g. BT
Tariff band	The specific tariff band that was used to cost the call, e.g. International, National, Mobile etc.
Account code	The account code associated with the call
LCR Digits	The Least Cost Routing (LCR) digits used to route the call
Trunk access code	The trunk access code used to access a group of channels
Data source	The location where the call originated
Call reference	Any call reference number associated with the call
Flags	Any flags associated with a call, as described below:
	The call has no associated voice recording
	The call has an associated voice recording; click on the icon to listen to the call
	The call has not been scored; click on the icon to score the call
	The call has been scored; click on the icon to review scoring information for the call
	The call has not been annotated; click on the icon to add a note to the call
	The call has one or more associated notes; click on the icon to review the note(s)
	The call has no related transfer legs
	The call has related transfer legs; click on the icon to view all transfers associated with the call
Voice location	The unique ID of the call recording device that captured audio for the call
Voice filename	The unique call reference identifying any voice recording associated with the call

Reordering column headers

Each column header can be reordered by clicking and dragging it to the new location, as shown below:

Most recent calls			J	2	Headers 📕 Save
Time 🔻	Source	Route	Destination	Paration	
10:45:23	London	02073781122	warren Pease	00:04:51	Ҏ 🏠 🗋 🛞
10:45:06	London	02075914200	Jim Shorts	00:07:05	Ҏ 🏠 🗋 🛞
10:44:28	Aretha Holly	73776031	Local Call	00:00:02	Ҏ 🏠 🗋 🛞
10:44:18	02	07889106306	Rick Shaw	00:00:59	Ҏ 🏠 🗋 🛞

Columns can be sorted by clicking the relevant column header, with each click toggling between ascending and descending order.

Any layout changes you make to the Most recent calls panel are saved only for the current web user and do not affect other web users.

Reports

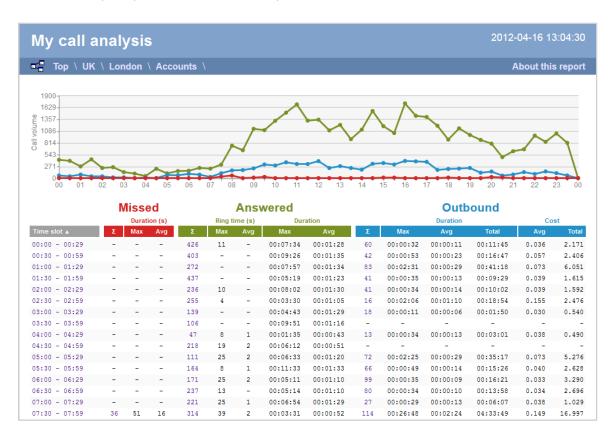
A

What are reports?

Reports are the means by which your telephone call data is presented to you in a visual, meaningful way. Although the results of each report type differ substantially, running each of them involves following a similar procedure. All report types accept filters and options, allowing you to tailor the results to exactly the information you are looking for.

The reports can be run on demand at any time, or be scheduled to run at predetermined times in the future.

Below is an example output of the Call Analysis report:



Reports overview video

Running reports on demand

To run a report on demand, click on the **Reports** tab and select the report you want to run from the **Type** list on the left-hand side of the screen, as shown below:

timenterprise	Reports	Directo	ory Call View	Tariff Editor	Alerts
Create a report Scheduled re	ports	•			
🥺 Report queue					
Туре	Entity 🔍 🖉				
 Account summary Busy channels 					
Call analysis Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers Inbound call performance	Vesterday v Last 1 hours v From 08 Aug 2013 at 00:00:00 To 08 Aug 2013 at 23:59:59		Format Web XML Excel	n PDF	
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices User activity 	Filters 🗢 🛛	_	Options 🥯 🤇	>	

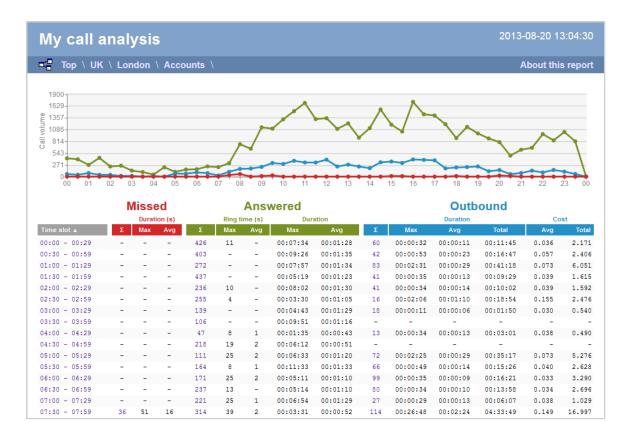
To change any of the report's parameters, refer to the relevant instructions from the following pages:

- Entity
- Period
- Filters
- Options
- Format

When you are ready to run the report, click on the Run now button, as shown below:

tim enterprise)	Reports Dir	rectory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	
🥺 Report queue	📩 My reports 🛛 🔚 Save	© Schedule 🥂 Run now
Type	Entity 🔍 🖉	
Busy channels Busy times		
Call analysis Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Period • Preset Yesterday • Last 1 hours • From 08 Aug 08 Aug 2013 at 2015959	Format web Mu XML Scol
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices User activity 	Filters 🤤 🕸	Options 🛛

When the report has finished, its results will open in a new browser window. The example below shows a Call Analysis report in web format:



If the results window does not appear after running your report, it may be because your browser is using a pop-up blocker. You should exclude pop-up blocking for the host name of the computer running TIM Enterprise.

Scheduling reports

8

How to schedule a report?

To schedule a report, click on the **Reports** tab and select the report you want to run from the available list on the left-hand side of the screen, as shown below:

tim enterprise)	Reports	Directory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue		
Type Account summary Busy channels Busy times Call analysis	Entity I I I I I I I I I I I I I I I I I I I	Format
Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	<pre> Preset Yesterday Last 1 hours + From 08 Aug + 2013 at 00:00:00 To 08 Aug + 2013 at 23:59:59 </pre>	Web ⊠ XML ঊ CSV ঊ Excel
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices User activity 	Filters ⊜ ⊛	Options I I I I I I I I I I I I I I I I I I I

To change any of the report's parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

When you have configured these parameters, click on the Schedule button, as shown below:

tim enterprise)	Reports	Directory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	🐈 My reports 🛛 🛱 Save	© Schedule 🥂 Run now
Type	Entity 🗢 🛛	
Busy channels Busy times		
Call analysis Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Period • Preset Yesterday • Last 1 hours • From • Aug • From 08 Aug • To • 08 Aug	Format
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices User activity 	Filters ⊖ ©	Options ©

A new window will open, where you can set the scheduling parameters of the report:

- when you want the report to first run
- how frequently you want the report to run
- how you want the report delivered
- who should receive the report

🧟 Schedule a report				X
Date				
Start running the report		08 Aug v 2 1 months	013 at 15: ▼	:25:03
Delivery				
💎 Email	Recipient email ac	ldress		Find
💎 File	jbloggs@tri-lin	e.com		
🍸 FTP				
T HTTP POST				
Please select a delivery r	nethod, and report	start time from the	e boxes above	
			Close	🕑 Schedule

Scheduling parameters

The properties of a scheduled reports are web user specific, and can be seen or edited only by the web user that initially added the report in the system.

When do you want the first report to run?

8

Enter the future date and time that you want the report to run at, as shown below:

8	Aug	•	2013	at	13:34:5	6
L	months			•		
D	8		8 Aug 🗸 months			

How often do you want the report to recur?

If you want the report to recur, tick the Thereafter, repeat the report box and select the frequency for re-runs from the drop-down list, as shown below:

08 Aug 🗸 2013 at 13:34:56
1 months -

How do you want the report delivered?

Select the method by which you want your report to be delivered and enter the destination parameters, as explained in the table below:

Delivery								
 Email File FTP HTTP POST 	Recipient email address jbloggs@tri-line.com	Find						

Delivery method	Description								
E-mail	 Enter the e-mail address that you want the report to be delivered to If you want the report to be e-mailed to more than one person, separate each address using the ; symbol. 								
File	Repo	the full filename, including folder, of the location that you want the report to be saved as, e.g. C:\My rts\My Call Analysis.html lename can include the following variables:							
	Variable	Description							
	{year}	The current year							
	{month}	The current month							
	{week}	The current week number							
	{day}	The current day of the month							
	{hhmmss}	The time that the report ran, in a compact hours, minutes and seconds format							
	{name}	The name given to the report							
	{uiv}	A unique numeric report identifier							
		ve the report to a network share, specify the filename using a UNC path. You must ensure that the user int running the TIM Enterprise service has access privileges to write to the file you have specified.							

FTP	Field	Description					
	Host IP : port	Enter the IP address or host name of the FTP server.					
	Remote folder	Enter the name of the folder where you want the report to be saved.					
	Username	Username Enter the username required to connect to the FTP server.					
	Password Enter the password required to connect to the FTP server.						
	Field						
HTTP POST	Field Host IP : port	Enter the IP address and port number of the Web server.					
		Enter the IP address and port number of the Web server. Enter the name of the script used to post the file to the Web server.					
	Host IP : port	·					

When you have configured the scheduling parameters, click on the Schedule button to save the report's definition.

e	Schedule a report			X
	Date			
	Start running the report		08 Aug v 2013 at 15:25:03 1 months v	
	Delivery	Recipient email ac	dress Find	
	7 Email 💎 File	jbloggs@tri-lin		
	♥ FTP ♥ HTTP POST			
	Please select a delivery r	method, and report	start time from the boxes above	1
			Close	ule

The newly-scheduled reports will be added to the scheduled reports list, as shown below:

im enterprise)			Reports	Directory	Call View	Tariff Editor	Alerts
reate a report Sched	luled reports						
🗈 Edit delivery 🛛 🐺 Edit defi	nition 📘 Delete	e schedule			٩	Suspend all	Run now
Report 🔺	Runs every	Last run		Next runs			
My enterprise overview	1 month	10 July 2013 13:00:19		10 August 201	3 12:59:53		
My user activity	1 month	01 August 2013 09:01:00		01 September	2013 09:00:32		

Editing the report definition

To edit the definition of a scheduled report, select it from the Scheduled reports list and click on the Edit definition button, as shown below:

tim enterprise)	timenterprise				Call View	Tariff Edito	r Alerts
Create a report Sched	luled reports						
📮 Edit delivery 🐺 Edit defi	nition 📮 Delete s				Q	Suspend all	🤻 Run now
Report ▲	Runs every	Last run		Next runs			
My enterprise overview	1 month	10 July 2013 13:00:19		10 August 201	3 12:59:53		
🍠 My user activity	1 month	01 August 2013 09:01:00		01 September :	2013 09:00:32		

A new window will open, where you can edit the entity, period, filters, options and format of the report.

Туре	Entity 🔍 🔍	
Account summary Busy channels Busy times		
Call analysis Call geography Call scoring Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Period • Preset • Last • Last • From • Rom • 08 • Aug + 2013 • at • 2013 • at 23:59:59 • 2013 • at • 23:59:59 • 23:59	Format ♥ web ♥ XML ♥ CSV ♥ Excel
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices User activity 	Filters 🗢 Ø	Options 🛛 🖓

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period

- Filters
- Options
- Format

To apply any changes to the report's definition, click on the Save button, as shown below:

tim enterprise)	Reports Dir	rectory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🕺 Report queue	📩 My reports 🛛 🔚 Save	😇 Schedule 🥂 Run now
Type Account summary Busy channels Busy times	Entity 🗢 🛇	
Call analysis Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Yesterday Last hours From 15 Aug 08 Aug 2012 at 00:00:00 at 23:59:59	Format
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices User activity 	Filters \ominus 🛛	Options 🔍

Editing the report delivery

To edit the delivery of a report, select it from the scheduled reports list and click on the Edit delivery button, as shown below:

tim enterprise)			Reports	Directory	Call View	Tariff Editor	Alerts
	uled reports	a schedule			س) Suspend all	🛪 Run now
Report 🔺	Runs every	Last run		Next runs			
My enterprise overview	1 month	10 July 2013 13:00:19		10 August 201	3 12:59:53		
My user activity	1 month	01 August 2013 09:01:00		01 September	2013 09:00:32		Ċ

A new window will open, allowing you to edit the scheduling parameters of the report. For details about how to configure these parameters, refer to the Scheduling parameters section above.

Ş	Schedule a report			×
	Date Start running the report of Thereafter, repeat the		08 Aug v 2013 at 15:25:03 1 months v	
	Delivery Email File FIP HTTP POST	Recipient email ad		
	Please select a delivery r	method, and report	start time from the boxes above	
			🥭 Close 🛛 🙆 Schedu	ıle

Suspending a scheduled report

Suspend a report

To temporarily suspend the delivery of a report, select it from the scheduled reports list and click on the icon, as shown below:

reate a report	Scheduled reports			
🗈 Edit delivery 🦻	Edit definition 🛛 📘 Delete scher	dule	🕚 Suspend all 🛛 🧏 Run	now
Report ▲	Runs every	Last run	Next runs	
🛃 My busy times	3 months	Never	01 September 2013 09:00:00	
🛃 My call analysis	1 months	01 August 2013 09:00:00	01 September 2013 09:00:00	

The 0 icon will now become 0 , highlighting the report is suspended, as shown below:

cheduled reports		
it definition 🛛 🙀 Delete sc		🌑 Suspend all 🛛 🥂 Run now
Runs every	Last run	Next runs
3 months	Never	01 September 2013 09:00:00
1 months	01 August 2013 09:00:0	0 01 September 2013 09:00:00
	Runs every 3 months	it definition Runs every Last run 1 3 months Never

Suspend all reports

To suspend all of your scheduled reports, click on the Suspend all button at the top-right of the screen, as shown below:

definition 🛛 📘 Delete sch		🖑 Suspend a	📶 🥂 Run now
Runs every	Last run	Next runs	
3 months	Never	01 September 2013 09:00:00	\oplus
1 months	01 August 2013 09:00:00	01 September 2013 09:00:00	Ô
	Runs every 3 months	Runs every Last run	Runs every Last run Next runs 3 months Never 01 September 2013 09:00:00

Resume running a suspended report

To resume running a suspended report, click on the (1) icon, as shown below:

Create a report Sc	heduled reports				
🕽 Edit delivery 🛛 🐺 Edit	definition 🛛 🙀 Delete s	chedule		🖞 Suspend	all 🥂 Run now
Report 🔺	Runs every	Last run		Next runs	
My busy times	3 months	Never		01 September 2013 09:00:00	1
My call analysis	1 months	01 August 2013	09:00:00	01 September 2013 09:00:00	0

Deleting a scheduled report

To delete a scheduled report, select it from the scheduled reports list and click on the Delete schedule button at the top-left of the screen, as shown below:

tim enterprise)			Reports	Directory	Call View	Tariff Editor	Alerts
Create a report	Scheduled reports						
📮 Edit delivery 🛛 💱	Edit definition	<u>schedule</u>			ć	Suspend all	🛪 Run now
Report 🔺	Runs every	Last run		Next runs			
🛃 My busy times	3 months	Never		01 Septem	aber 2013 09:00	0:00	Ċ
🦻 My call analysis	1 months	01 August 20:	13 09:00:00	01 Septem	mber 2013 09:00	0:00	ė

When prompted to confirm the deletion, click on the OK button to remove the report from the system.

Are you sure you want to delete this scheduled repor	t?
OK Cancel]

Saving reports

Γ

To save the definition of a complex report that you may need to re-run at a later time, configure its parameters and click on the Save butt on at the top-centre of the screen, as shown below:

tim enterprise)	Reports Dire	ctory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	🕫 Schedule - 🦧 Run now
Account summary	Entity I arringham \ Avaya IP Office \	
 Busy times Call analysis Call geography Call scoring Call volumes Custom report Daily activity 	• Preset • Last • From • To • 09 Aug + 2012 • at 2013 • at 23:59:59 • 23:59:59 • 09 • 09 • 09 • 01 • 0 • 0 • 0	Format
 Enterprise overview Frequent numbers Inbound call performance Missed calls Phone bill Random call selection Target response 	Filters Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207 Image: CLI begins with 0207	Options Sort results by Average answered duration Scores only Yes

A new window will appear, allowing you to name the report's definition.

🚆 Save report definition						
Name	My Busy channels - London					
	Cancel 🗍 Save					

Accessing a saved report

To access a saved report, click on the My reports button at the top-centre of the screen, as shown below:

tim enterprise)	Reports Direc	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🕺 Report queue	🐈 My reports 🛛 🔚 Save	
Туре	Entity 🔍 🔍	
Account summary		
Busy times Call analysis	Period	Format
Call geography Call scoring Call volumes Call volumes Custom report Daily activity	● Preset Yesterday ▼ ● Last 1 hours ▼ ● From 15 Aug 2012 at 00:00:00 To 09 Aug 2013 at 23:59:59	© Web 2 PDF ☞ XML
 Enterprise overview Frequent numbers 	Filters 🔍 🔍	Options 🔍 🔍
Inbound call performance Missed calls Phone bill Random call selection Target response		

A new window will open, displaying a list with all the reports previously saved in the system. To run or edit the properties of a report, select it from the list and click the Load button, as shown below:

Name 🔺	Report title	Entity	Created	
🛃 My phone bill	Phone bill	Brighton		
🛃 My phone bill	Phone bill	UK		
🛁 My Busy channels	Busy channels	London		
📓 My busy times	Busy times	UK		
🗟 My call analysis	Call analysis	UK		
🛃 My enterprise overview	Enterprise overview	UK		
📓 My Call analysis	Call analysis	\ UK \		
🗟 Sales Department	Enterprise overview	\ UK \		
🛃 Tech Dept	Enterprise overview	\ UK \		

To delete a saved report, select it from the list and click on the Delete button, as shown below:

Name 🔺	Report title	Entity	Created	
🛃 My phone bill	Phone bill	Brighton		-
🛃 My phone bill	Phone bill	UK		
🛃 My Busy channels	Busy channels	London		_
My busy times	Busy times	UK		
📓 My call analysis	Call analysis	UK		
📓 My enterprise overview	Enterprise overview	UK		
My Call analysis	Call analysis	\ UK \		
🗟 Sales Department	Enterprise overview	\ UK \		
Tech Dept	Enterprise overview	\ UK \		-

Report parameters

Entity

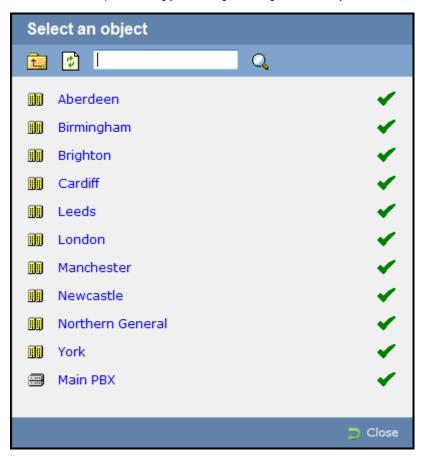
The Entity parameter allows you to select the part of your organisation whose calls the report should include, e.g. a site, a group or an individual user.

Selecting an entity

To select an entity, click on the O button, as shown below:

Entity 🔍 🔍	
Preset Yesterday Last 1 From 15 Aug 2012 at 00:00:00 To 12	Format Web XML SCSV Excel
Filters 🔍 🛇	Options 🔍

A new window will open, allowing you to navigate through the Directory in order to locate the entity you want to report on.



If your web account is restricted to a specific part of the Directory, only those entities which you are allowed to access will show in this window.

To drill-down into the directory structure, click on a hyperlink.

8

Sel	ect an object		×
È.	Ø	Q	
	Aberdeen		 *
	Birmingham		×
	Brighton		~
	Cardiff		~
	Glasgow		
	Leeds		 Image: A set of the set of the
	London		
	Manchester		~
83	National Sales		
	Newcastle		×
	Wapping		
=	Avaya IP Office V8		 -
			🔁 Close

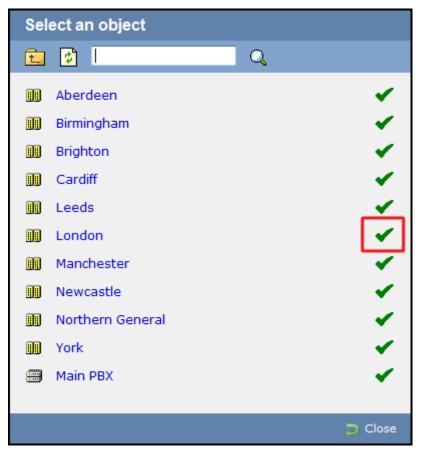
To go up in the hierarchy of the directory, click on the to button.

Sel	ect an object	
1	🖸 🗌 🔍	
	Aberdeen	×
	Birmingham	×
	Brighton	×
	Cardiff	×
	Leeds	
	London	×
	Manchester	×
	Newcastle	×
	Northern General	×
	York	×
-	Main PBX	×
		⊃ Close

To search for a specific entity, e.g. site, group or user, enter its name in the search bar at the top of the window and click on the 🔍 icon.

Sel	Select an object			
Ê.	🐉 John Smith 🔾			
	Aberdeen	×		
	Birmingham	×		
	Brighton	×		
	Cardiff	**		
	London 🖌			
	London 🖌 Manchester \checkmark Newcastle \checkmark			
	📕 Newcastle 🖌 🖌			
	Northern General			
	York 🖌			
=	Main PBX	×		
		⊃ Close		

To select an entity, click on the 🗸 icon alongside it.



The name and directory path of the selected entity will be added in the Entity field, as shown below:

Entity O S				
• Preset • Last • From 15 • Aug + 2012 at 00:00:00 at 23:59:59	Format Web ML SV Excel			
Filters 🥯 🛛	Options 🛛 🔍			

Deleting an entity

To delete an entity, select it from the Entity field and click on the 😔 button, as shown below:

Entity C \UK \ Manchester \ Manchester Admin \ Joe Bloggs \				
Yesterday ✓ Last 1 hours ✓ From 15 Aug 2012 at 00:00:00 12 Aug 2013 at 23:59:59				
Filters 🛛	Options 🥯 🛛			

Period

The Period parameter allows you to specify a time span that covers the calls you want the report to include. This is known as the "reporting period".

Entity 🛛 🛇	
Period Image: Preset Yesterday Last 1 hours From 15 Aug 2012 at 00:00:00 To 12 Aug 2013 at 23:59:59	Format Image: Web Image: PDF Image: XML Image: CSV Image: Excel Excel
Filters 🛛	Options 🛛 😔

Preset period

The Preset option contains several reporting periods available for selection, based on the standard Gregorian calendar. The table below describes how the start and end times are defined for each preset period:

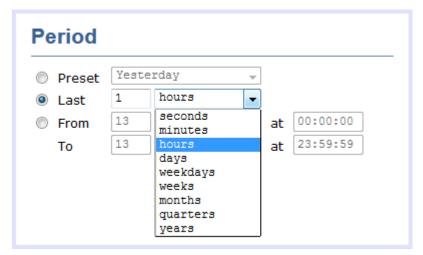
Period				
Preset Last	Yesterday Today	-		
	Yesterday			
From	This week Last week		at	00:00:00
То	This month Last month This year All calls		at	23:59:59

Period	Description
Today	The start and end dates are set to the current date. The start time is set to 00:00:00 and the end time to 23:59:59.
Yesterday	The start and end dates are set to the current date minus one day. The start time is set to 00:00:00 and the end time to 2 3:59:59.
This week	The start date is set to the first day of the current week (normally Monday). The end date is set to the current day. The start time is set to 00:00:00 and the end time to the current time.
Last week	The start date is set to the date of the last Monday, and the end date is set to the start date plus seven days. The start time is set to 00:00:00 and the end time to 23:59:59.
This month	The start date is set to the first day of the current month. The end date is set to the current day. The start time is set to 00: 00:00 and the end time to the current time.
Last month	The start date for this period is set in three stages: The day is set to the first day of the month. The month is set to the previous month. The year is set to the current year, unless it is currently January, in which case, the previous year is used. The start and end times are set to 00:00:00 and 23:59:59 respectively.

This year	The start date is set to the first day of the first month of the current year, whilst the end date is set to today's date. The start and end times are set to 00:00:00 and 23:59:59 respectively.
All calls	The start and end dates and times are set to the dates and times of the first and last call in the entire call database, respectively.

Last period

The Last period option is an alternative to the preset periods described above, allowing you to choose the number of minutes, days, months etc, you want to run the report for.



The start and end times are defined as for the Preset periods described above. For example, Last week is defined as Monday to Sunday of the previous week, while Last 7 days is the preceding 7 days from the current day.

Custom period

In addition to the presets described above, it is possible to specify a custom reporting period by choosing Custom period from the Period drop-down list and specifying your own Start date, Start time, End date and End time of the period you want to report on.

Preset	Yest	erday			
Last	1	hours	Ŧ	-	
From	13	Aug -	2013	at	00:00:00
То	13	Aug .	2013	at	23:59:59

Filters

The Filter parameter allows you to add one or more filters to your report in order to narrow down your search results. Each filter consists of two elements: a text box where you can enter the filtering value and a drop-down list containing the criteria by which this value should be matched in the results.

Choose a filter		Help
 ✓ Account code ✓ Carrier ✓ Cost ✓ Dialled number ✓ LCR code ✓ Start time 	 Call type CLI Destination Duration Response time Trunk access code 	Account code (or client code) assigned to the call
count code equals	•	

A list describing all filters available in TIM Enterprise is presented below; however, note that not all filters are relevant to all reports.

Click filter for details		
Y Account code	T LCR code	V Destination
🍸 Carrier	🍸 Start time	💎 Duration
🏆 Cost	🍸 Call type	🍸 Response time
Y Dialled number	V CLI	Trunk access code

Account code

To filter a report by account code, enter the relevant value in the box provided and select the criteria by which you want this to be matched in the results. The options contained in the drop-down list are described in the table below:

Criteria	Description			
equals	Search for calls whose account code matches a particular value. In the example below, the results will show only calls whose account code is 1140.			
	Account Code equals 1140			
is not equal to	Exclude calls whose account code matches a particular value. In the example below, the results will exclude calls whose account code is 1140.			
	Account code is not equal to 1140			

begins with	Search for calls whose account code begins with a particular combination of digits. In the example below, the results will show only calls whose account code begins with 11.				
	Account code	begins with	11		
does not begin with					
	Account code	does not begin with	11		
ends with	Search for calls whose account code ends with a particular combination of digits. In the example below, the results will show only calls whose account code ends with 40.				
	Account codes	ends with	40		
does not end with Exclude calls whose account code ends with a particular combination of digits. In the example exclude calls whose account code ends with 40.			pination of digits. In the example below, the results will		
	Account codes	does not end with	40		
contains	Search for calls whose account code contains a particular combination of digits. In the example below, the rest will show only calls whose account code contains 14.				
	Account codes	contains <	14		
does not contain		Exclude calls whose account code contains a particular combination of digits. In the example below, the results will exclude calls whose account code contains 14.			
	Account codes	does not contain	14		

Carrier

The carrier is the tariff table used to cost calls. If you use more than one carrier, you can choose to filter your results by displaying or excluding calls routed over a particular carrier.

Criteria	Description			
equals	Search for calls that were routed over a particular carrier. In the example below, the results will show only calls routed over BT carrier.			
	Carrier	equals 🔻	вт	
is not equal to	Exclude calls that were route routed over BT carrier.	ed over a particular carrier. In the ex	ample below, the results will exclude calls	
	Carrier	is not equal to	BT	

Cost

You can define a cost filter to include calls above or below specific values by entering your criteria, as shown below:

Criteria	Description			
is greater than	Search for calls whose cost is greater than a particular value. In the example below, the results will show only calls whose cost is greater than 5.00.			
	Cost is greater than T 5.00			
is less than	Search for calls whose cost is less than a particular value. In the example below, the results will show only calls whose cost is less than 15.00.			
	Cost is less than T 15.00			
equals	Search for calls whose cost is equal to a particular value. In the example below, the results will show only calls whose cost is 7.00.			
	Cost equals T.00			
is not equal to	Exclude calls whose cost is equal to a particular value. In the example below, the results will exclude calls whose cost is 1.00.			
	Cost is not equal Table 1.00			

Dialled number

To filter a report by dialled number, enter the relevant value in the box provided and select the criteria by which you want this to be matched in the results. The options contained in the drop-down list are described in the table below:

Criteria	Description			
equals	Search for calls whose dialled number matches a particular value. In the example below, the results will show only calls whose dialled number is 02072652600.			
	Dialled number equals O2072652600			
is not equal to	Exclude calls whose dialled number matches a particular value. In the example below, the results will exclude calls whose dialled number is 02072652600.			
	Dialled number is not equal to 02072652600			
begins with	Search for calls whose dialled number begins with a particular combination of digits. In the example below, the results will show only calls whose dialled number begins with 00.			
	Dialled number begins with 00			
does not begin with	Exclude calls whose dialled number begins with a particular combination of digits. In the example below, the results will exclude calls whose dialled number begins with 00.			
	Dialled number does not begin with 00			

ends with	Search for calls whose dialled number ends with a particular combination of digits. In the example below, the resu will show only calls whose dialled number ends with 2600.				
	Dialled number	ends with	2600		
does not end with	Exclude calls whose dialled i will exclude calls whose diall		pination of digits. In the example below, the results		
	Dialled number	does not end with	2600		
contains	Search for calls whose dialle will show only calls whose di	•	bination of digits. In the example below, the results		
	Dialled number	contains <	265		
does not contain	Exclude calls whose dialled r exclude calls whose dialled r		nation of digits. In the example below, the results will		
	Dialled number	does not contain	265		

LCR code

To filter your results by Least Cost Routing (LCR) code, enter it in the box provided and select the criteria by which you want this to be matched in the results. The options contained in the drop-down list are described in the table below:

Criteria	Description			
equals	Search for calls whose LCR code matches a particular value. In the example below, the results will show only calls whose LCR code is 1470.			
	LCR code	equals	1470	
is not equal to	Exclude calls whose LCR co whose LCR code is 1470.	ode matches a particular value. In t	he example below, the results will exclude calls	
	LCR code	is not equal to	1470	
begins with		Search for calls whose LCR code begins with a particular combination of digits. In the example below, the results will show only calls whose LCR code begins with 14.		
	LCR code	begins with	14	
does not begin with	Exclude calls whose LCR code begins with a particular combination of digits. In the example below, the results will exclude calls whose LCR code begins 14.			
	LCR code	does not begin with	14	

ends with	Search for calls whose LCR show only calls whose LCR		ation of digits. In the example below, the results will	
	LCR code	ends with	70	
does not end with	Exclude calls whose LCR co exclude calls whose LCR co		ion of digits. In the example below, the results will	
	LCR code	does not end with	70	
contains	Search for calls whose LCR code contains a particular combination of digits. In the example below, the results will show only calls whose LCR code contains 47.			
	LCR code	contains	47	
does not contain				
	LCR code	does not contain	47	

Start time

This option allows you to filter calls based on the time the call started. Specify the start time in the text box provided using the hh:mm:ss for mat and choose from the drop-down list the criteria by which you want this to be matched in the reports.

Criteria	Description		
is greater than	Search for calls that started began after 10 am.	after a particular time. In the examp	le below, the results will show only calls that
	Start time	is greater than	10:00:00
is less than	Search for calls that started began before 10 am.	before a particular time. In the exam	nple below, the results will show only calls that
	Start time	is less than	10:00:00
equals	Search for calls that started started at 10:30:00.	at a particular time. In the example I	below, the results will show only calls that
	Cost	equals 🔻	10:30:00
is not equal Exclude calls that started at a particular time. In the example below, the results will exclude calls that started at a particular time. In the example below, the results will exclude calls that started at a particular time.		low, the results will exclude calls that started at	
	Cost	is not equal	10:30:00

Call type

This filter allows you to select the type of call you want to report on, in terms of where the call originated and where it was delivered, e.g. incoming, outgoing, internal, etc.

Call type	Description	n			
All inbound Inbound answered	Criteria	Description			
Inbound DDI only	equals	Search for calls of a part	ticular type. In the example	e below, the re	esults will show only internal calls.
Inbound transfer only		Call type	equals	•	All internal
Inbound missed call All outbound calls	is not equal to	Exclude calls of a partice internal calls.	ular type. In the example t	pelow, the resu	ults will show all call types, except
Outbound connected only		Call type	is not equal	•	All internal
Outbound not connected only Outbound operator assisted Tandem User mobile calls User SMS All internal answered only Internal not answered only Internal not connected Private wire	0	To report on all types of c	all, select the (All call	types) opti	on.
Feature					

CLI

Calling Line Identification (CLI) is the telephone number of the remote caller in an incoming call scenario. To filter a report by CLI, enter the relevant value in the box provided and select the criteria by which you want this to be matched in the results. The options contained in the drop-down list are described in the table below:

Criteria	Description			
equals	Search for calls whose CLI matches a particular value. In the example below, the results will show only calls whose CLI is 02072652600.			
	CLI	equals 🔻	02072652600	
is not equal to	Exclude calls whose CLI mate is 02072652600.	ches a particular value. In the exa	ample below, the results will exclude calls whose CLI	
	CLI	is not equal to	02072652600	
begins with	Search for calls whose CLI be show only calls whose CLI be		n of digits. In the example below, the results will	
	CLI	begins with	0789	
does not begin with	Exclude calls whose CLI begi exclude calls whose CLI begi		of digits. In the example below, the results will	
	CLI	does not begin with	0789	
ends with	Search for calls whose CLI er only calls whose CLI ends wit		of digits. In the example below, the results will show	
	CLI	ends with	2600	
does not end with	Exclude calls whose CLI ends with a particular combination of digits. In the example below, the results will exclude calls whose CLI ends with 2600.			
	CLI	does not end with	2600	
contains	Search for calls whose CLI contains a particular combination of digits. In the example below, the results will show only calls whose CLI contains 265.			
	CLI	contains 🔻	265	
does not contain	Exclude calls whose CLI cont calls whose CLI cont		ligits. In the example below, the results will exclude	
	CLI	does not contain 🔻	265	

Destination

If you want to filter calls to a specific, known destination, type the name of the destination in the text box provided and select the criteria by which you want this to be matched in the results. The options contained in the drop-down list are described in the table below:

Criteria	Description	

equals	Search for calls whose destination matches a particular name. In the example below, the results will show only calls whose destination is Warren Smith.				
	Destination	equals	•	Warren Smith	
is not Exclude calls whose destination matches a particular name. In the example below, the result destination is Warren Smith.				he example below, the results will exclude calls whose	
	Destination	is not equal to	•	Warren Smith	
begins with	Search for calls whose dest results will show only calls v			r combination of letters. In the example below, the Warren S.	
	Destination	begins with	•	Warren S	
does not begin with	Exclude calls whose destina results will exclude calls wh	tion name begins with a par ose destination name begins	rticular co s with wa	ombination of letters. In the example below, the urren <i>s</i> .	
	Destination	does not begin with	•	Warren S	
ends with	Search for calls whose dest results will show only calls v			combination of letters. In the example below, the nith.	
	Destination	ends with	•	Smith	
does not end with	Exclude calls whose destina will exclude calls whose des			nbination of letters. In the example below, the results	
	Destination	does not end with	•	Smith	
contains	Search for calls whose destination name contains a particular combination of letters. In the example below, the results will show only calls whose destination name contains Warren.				
	Destination	contains	•	Warren	
does not contain		Exclude calls whose destination name contains a particular combination of letters. In the example below, the results will exclude calls whose destination name contains Warren.			
	Destination	does not contain	•	Warren	

Duration

To filter calls above or below a particular duration, enter the duration (in seconds) in the text box provided and select the criteria by which you want this to be matched in the results. The options contained in the drop-down list are described in the table below:

Criteria Description

is greater than	Search for calls whose duration is longer than a particular value. In the example below, the results will show only calls whose duration is longer than 30 seconds.			
	Duration	is greater than	30	
is less than	Search for calls whose dura calls whose dura		e. In the example below, the results will show only	
	Duration	is less than	60	
equals	Search for calls whose duration is equal to a particular value. In the example below, the results will show only calls whose duration is 10 seconds.			
	Duration	equals	10	
is not equal to	Exclude calls whose duration is equal to a particular value. In the example below, the results will exclude calls whose duration is 10 seconds.			
	Duration	is not equal	10	

Response time

This option allows you to filter calls based on their response time, measured in seconds. Specify the desired response time threshold in the text box provided and select the criteria by which you want this to be matched in the results. The options contained in the drop-down list are described in the table below:

Criteria	Description		
is greater than	Search for calls whose response time is longer than a particular value. In the example below, the results will show only calls whose response time is longer than 10 seconds.		
	Response time is greater than 10		
is less than	Search for calls whose response time is shorter than a particular value. In the example below, the results will show only calls whose response time is shorter than 10 seconds.		
	Response time is less than To		
equals	Search for calls whose response time is equal to a particular value. In the example below, the results will show only calls whose response time is 3 seconds.		
	Response time equals		
is not equal to	Exclude calls whose response time is equal to a particular value. In the example below, the results will exclude calls whose response time is 10 seconds.		
	Response time is not equal 10		

Trunk access code

If your telephone system uses trunk access codes to connect calls using specific channels, you can limit your report's results to include only calls made using those codes. Specify the trunk access code in the text box provided and select the criteria by which you want this to be matched in the results. The options contained in the drop-down list are described in the table below:

Criteria	Description			
equals	Search for calls whose trunk access code matches a particular value. In the example below, the results will show only calls whose trunk access code is 12.			
	Trunk access code equals			
is not equal to	Exclude calls whose trunk access code matches a particular value. In the example below, the results will exclude calls whose trunk access code is 12.			
	Trunk access code is not equal to 12			
begins with	Search for calls whose trunk access code begins with a particular combination of digits. In the example below, the results will show only calls whose trunk access code begins with 1.			
	Trunk access code begins with			
does not begin with	Exclude calls whose trunk access code begins with a particular combination of digits. In the example below, the results will exclude calls whose trunk access code begins with 1.			
	Trunk access code does not begin with 1			
ends with	Search for calls whose trunk access code ends with a particular combination of digits. In the example below, the results will show only calls whose trunk access code ends with 3.			
	Trunk access code ends with 2600			
does not end with	Exclude calls whose trunk access code ends with a particular combination of digits. In the example below, the results will exclude calls whose trunk access code ends with 3.			
	Trunk access code does not end with 2600			
contains	Search for calls whose trunk access code contains a particular combination of digits. In the example below, the results will show only calls whose trunk access code contains 2.			
	Trunk access code contains			
does not contain	Exclude calls whose trunk access code contains a particular combination of digits. In the example below, the results will exclude calls whose trunk access code contains 2.			
	Trunk access code does not contain 2			

Options

The Options parameter allows you to further narrow down your report results, by excluding certain types of call or sorting the results in a

particular manner.

Add new option		
Choose an option		Help
 Exclude transfers Sort results by Ignore missed Notes only 	 Exclude weekends Sort order Audio only Scored only 	Choose an option from the panel on the left
Exclude transfers Yes	•	Ə Close 📑 Add

These options are specific to the type of report you are running and differ between report types.

Audio only	Hide unused	Rank data by	Show account codes
Callback interval	Hide contacts	Sort order	Show 'Do not log'
Call frequency	Hide charges	Sort results by	Show unconnected
Exclude weekends	Ignore missed	Scored only	calls
Exclude transfers	Include internal	Summary only	Thresholds
Group results by	Notes only	Show legs	

Audio only

This option allows you to include in your results only calls that have an associated voice recording.

Audio only	Yes	•

Callback interval

This option allows you to define, in hours, the time window in which a call must be responded to, in order to be considered handled. The default callback interval is 24 (hours), but you may enter your own value, as shown below:

Callback interval	24	

Call frequency

This option determines how frequently a call must have been dialled in order to feature in the results of the report. For example, to include only phone numbers that have been dialled twenty times or more, enter 20 as the minimum frequency, as shown below:

Call frequency	20	

Exclude weekends

To exclude weekend calls from your report's results, select the Yes option from the drop-down list, as shown below:

Exclude weekends	No	-

Exclude transfers

To exclude transferred calls from your report's results, select the Yes option from the drop-down list, as shown below:

Exclude transfers	Yes	-

Group results by

Choose from the drop-down list whether to group your results by CLI or dialled number.

Group results	Dialled number	•

Hide unused

This option allows you to exclude unused extensions from your report's results.

Hide unused	Yes	-

Hide contacts

This option allows you to hide the names associated with dialled numbers, CLIs and account codes, as defined in your web user's contacts list. To show only the phone number, select the **Yes** option from the drop-down list, as shown below:

Hide contacts	Yes	•

Hide charges

This option allows you to hide any charges applied to your report. To hide charges, select the **Yes** option from the drop-down list, as shown below:

Hide charges	Yes	•
--------------	-----	---

Ignore missed

Missed calls below a certain duration can sometimes pollute the meaning of a report's results. To exclude such short calls from your report, enter a duration threshold in the text box provided, e.g. to ignore calls below 3 seconds, enter 3.

Ignore missed calls shorter than	3	

Include internal

To include internal calls in your report's results, select the **Yes** option from the drop-down list, as shown below:

Include internal	Yes	•
------------------	-----	---

Notes only

If you want your search results to include only calls that have notes associated with them, select the Yes option from the drop-down list, as shown below:

Notes only

Yes

Rank data by

Select from the drop-down list the criteria by which you want to order the report's results.

Criteria	Description	
Number of calls	Order results based on the number of calls Rank data by	Number of calls
Cost	Order results based on the cost of calls	
	Rank data by	Cost
Dialled number	Order results based on dialled number	
	Rank data by	Dialled number
Location	Order the results based on location	
	Rank data by	Location

Sort order

Select from the drop-down list if you want your report's results to appear in ascending or descending order.

Sort order	Ascending	
Sort results by		
Select from the drop-down list the colum	n by which you want to sort your report's results.	
Sort results by	Total duration	
Scored only		
This option allows you to include only ca	alls that have a score associated with them, e.g. calls that have a	already been listened to and scored.
Scored only	Yes 🔻	
Summary only		
To show only a summary of calls, instead	d of an itemised list, select the Yes option from the drop-down l	ist, as shown below:
Summary only	Yes 🔻	
Show legs		
To show the legs of transferred calls, sel associated call legs.	lect the ¥es option from the drop-down list. A ③ icon will be dis	splayed next to any call with

Show legs	Yes	-
Show account codes		

Select this option to display any associated account codes as an additional column in this report.

Show account code	Yes	•

Show 'Do not log'

This option allows you to include in your results devices whose status is set to not log calls.

Show "Do not log" devices	Yes	•

Show unconnected calls

To show unconnected calls in the report's results, select the ves option from the drop-down list, as shown below:

Show unconnected calls	Yes	•

Thresholds

This option allows you to define your response target threshold(s) by entering comma-separated values in the text box provided. The example below shows response time targets for calls answered within 5, 10 and 20 seconds, respectively.

Thresholds	5,10,15	

Format

This section allows you to choose the media format of your completed report.

Entity 😑 🛇	
● Preset Yesterday ● Last 1 ● From 15 Aug → 2012 at 00:00:00 To 12 Aug → 2013 at 23:59:59	Format Web ML SXML Excel
Filters I I I	Options 🔍

The following formats are available:

Format	Description
Web	 The web format is the default interface for all report types. The results are displayed in a new browser window which contains a combination of HTML, CSS and JavaScript content. To navigate through a report consisting of multiple pages, click on the ⁽¹⁾, ⁽¹⁾, ⁽²⁾, ⁽²⁾) or ⁽²⁾ icons at the top-right corner of the screen. Universally-accessible, the web format provides a mixture of graphical charts and tabular data, whose column headers are click-able to allow dynamic sorting of results.
🔁 PDF	 The PDF format guarantees an identical look across all operating systems, making it an ideal report format for printing out on paper, or for e-mailing to colleagues inside and outside of your organisation. Due to the static nature of the PDF format, dynamic sorting of column headers is not available, although results can be pre-sorted using the filters and options available during report creation.
xls	The Excel format is useful for onward manipulation of the data contained in your reports, or for including results in popular spreadsheet packages.
a, CSV	The CSV format allows report results to be arranged in comma-separated lists of data. CSV files are often used for transferring data between different applications, such as databases, spreadsheets, and other third-party programs.
₩ XML	The XML format can be useful when transferring the structured data from your report results to third-party applications, such as billing, accounting and time management applications.

Report types

Account Summary

Overview

The Account Summary report produces a type of phone bill for tracking how much billable time you've spent with each client, grouping its results by account code.



In order to use this report, your telephone system needs to be capable of providing account code information as part of its call logging data.

Top \ UK \ London \ Accounts \				bout this re
s with no	account code			
Carrier	Charge band	Σ	Total duration	Total
BT		9398	247:25:54	
BT	International	106	02:41:48	34
BT	National	11105	321:43:11	137
BT	Local	501	11:59:29	26
BT	Other	114	06:43:21	
BT	Personal/Mobile	17985	363:46:59	343
		39209	954:20:42	541
01				
) 1 Carrier	Charge band	Σ	Total duration	Total
	Charge band Personal/Mobile	Σ 77	Total duration 00:53:17	
Carrier	-			
Carrier BT	Personal/Mobile	77	00:53:17	7
Carrier BT BT	Personal/Mobile Other	77 9	00:53:17 00:28:14	7
Carrier BT BT BT	Personal/Mobile Other Local	77 9 10	00:53:17 00:28:14 00:17:50	7 0 0
Carrier BT BT BT BT	Personal/Mobile Other Local	77 9 10 19	00:53:17 00:28:14 00:17:50 00:10:45	7 0 0
Carrier BT BT BT	Personal/Mobile Other Local	77 9 10 19	00:53:17 00:28:14 00:17:50 00:10:45	7 0 0
Carrier BT BT BT BT D2	Fersonal/Mobile Other Local National	77 9 10 19 115	00:53:17 00:28:14 00:17:50 00:10:45 01:50:06	Total 7 0 0 8 Total 9
Carrier BT BT BT BT BT D2 Carrier	Fersonal/Mobile Other Local National Charge band	77 9 10 19 115 Σ	00:53:17 00:28:14 00:17:50 00:10:45 01:50:06 Total duration	7 0 0 8 7 7 7 7 7 7 7

Running the report

Click on the Reports tab and select Account summary from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	
🥺 Report queue	📩 My reports 🛛 🔓 Save	😇 Schedule 🛛 🦧 Run now
Type Account summary Busy channels Busy times Call analysis Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Entity	Format Web XML XML Scole
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters 🔍	Options 🗧 🛛

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period

- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	ory Call View Tariff Editor Alerts		
Create a report Scheduled reports				
🕺 Report queue	📩 My reports 🛛 🛱 Save	🖸 Schedule 🧏 Run now		
Туре	Entity 😑 🛛			
Account summary	颵 \ UK \ London \			
Call analysis	Period	Format		
Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers	● Preset Last month ▼ ■ Last 1 hours ▼ ● From 15 Aug 2012 at 00:00:00 To 20 Aug 2013 at 23:59:59	♥ Web		
Incound call performance Missed calls	Filters 🔍 🔍	Options 🔍 🛇		
 Phone bill Random call selection Target response Top calls Unused devices 	Dialled number equals 02072652626			

The report's results

The results of this report are presented as a tabular breakdown of calls - grouped by account code - according to the parameters you've selected.

Below is an example of this report's output in Web format, showing a summary of account code usage:

「op ∖ UK ∖	London \ Accounts \		A	bout this re
s with no	account code			
Carrier	Charge band	Σ	Total duration	Total
BT		9398	247:25:54	
BT	International	106	02:41:48	34.
BT	National	11105	321:43:11	137.
BT	Local	501	11:59:29	26.
BT	Other	114	06:43:21	
BT	Personal/Mobile	17985	363:46:59	343.
01		39209	954:20:42	541.
01 Carrier	Charge band	39209 Σ	954 : 20 : 42 Total duration	
	Charge band Personal/Mobile			Total
Carrier		Σ	Total duration	Total
Carrier BT	Personal/Mobile	Σ 77	Total duration 00:53:17	Total 7.
Carrier BT BT	Personal/Mobile Other	Σ 77 9	Total duration 00:53:17 00:28:14	Total 7. 0.
Carrier BT BT BT	Personal/Mobile Other Local	Σ 77 9 10	Total duration 00:53:17 00:28:14 00:17:50	Total 7. 0. 0.
Carrier BT BT BT BT BT	Personal/Mobile Other Local	Σ 77 9 10 19	Total duration 00:53:17 00:28:14 00:17:50 00:10:45	Total 7. 0. 0.
Carrier BT BT BT	Personal/Mobile Other Local	Σ 77 9 10 19	Total duration 00:53:17 00:28:14 00:17:50 00:10:45	Total 7. 0. 0. 8.
Carrier BT BT BT BT D2	Personal/Mobile Other Local National	Σ 77 9 10 19 115	Total duration 00:53:17 00:28:14 00:17:50 00:10:45 01:50:06	

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results.

The headers of this report are as follows:

Header	Description
Carrier	The carrier used to route the call
Charge band	The charge band used to cost the call
Σ	The total volume of calls to each charge band
Total duration	The total time spent on calls to each charge band
Total cost	The total cost of calls to each charge band

By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

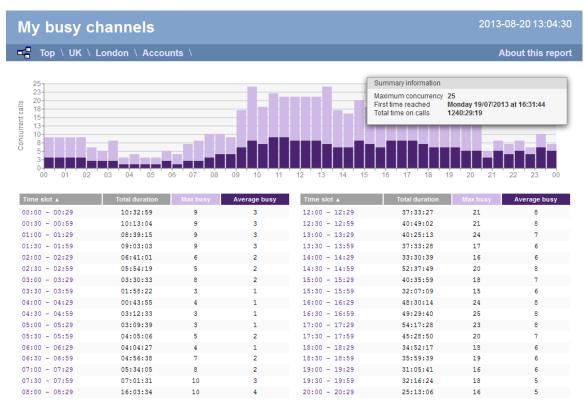
Top \ <u>UK</u> \ London \ Accounts \

About this report

Busy Channels

Overview

The Busy Channels report allows you to break down each business day into half-hour periods, showing the maximum and average number of telephone lines in use for each half-hour period. This report is useful for determining whether or not you have enough lines or if you have too many.



Running the report

Click on the Reports tab and select Busy channels from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports Direct	ory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
😜 Report queue	📩 My reports 🛛 📮 Save	© Schedule 🥂 Run now
Type Account summary Busy times Call analysis Call geography Call scoring Call volumes Custom report Daily activity	Entity © © Period Preset Yesterday Last 1 hours v From 15 Aug v 2012 at 00:00:00 To 20 Aug v 2013 at 23:59:59	Format ♥ Web
 Enterprise overview Frequent numbers Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters I I I I I I I I I I I I I I I I I I I	Options ©

For details about how to configure these parameters, refer to the relevant page in the list below:

- Entity
- Period
- Filters
- Options
- Format

Creating the report

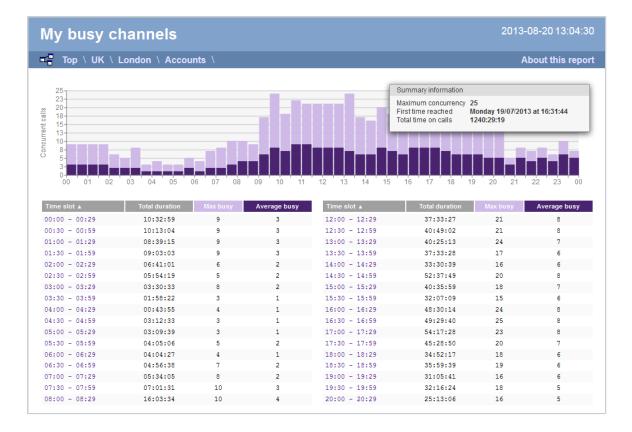
When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can save the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	📩 My reports 🛛 🗧 Save	🖸 Schedule 🥂 Run now
Туре	Entity 👄 🛛	
Account summary	🏢 \ UK \ London \	
Call analysis	Period	Format
Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	● Preset Last month ▼ □ Last 1 hours ▼ ● From 15 Aug 2012 at 00:00:00 To 20 Aug 2013 at 23:59:59	♥ Web 코 PDF 알 XML ▲ CSV 餐 Excel
Inbound call performance Missed calls	Filters 🔍 🔍	Options 🔍 🛇
Phone bill		E Sort results by Time slot
Random call selection		
Target response		
Top calls		

The report's results

Web format

Below is an example of this report's output in web format, displaying the activity of your telephone lines grouped in half-hour time slots:



The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The body of the report consists of a graph and a table:

- The graph is a quick and easy indication of your line usage, broken down into half-hour time slots. The percentage on the y-axis shows the number of lines utilised, and the x-axis shows each half-hour of the day. The bars on the graph coloured light-purple show the *maximum* number of busy trunks in each particular half-hour, and the overlaid dark-purple ones show the *average* number of busy trunks within the same time period.
- The table displays the actual data organised in columns for maximum and average busy lines and the total duration for each half-hour time slot. Each column is described below:

Header	Description	
Time slot	The time of day in half-hour periods	
Total duration	The total duration of all calls made or received within the time slot shown	
Max busy	The maximum number of trunks in use during the time slot shown	
Average busy	The average number of trunks in use during the time slot shown	

All column headers are clickable, allowing you to dynamically reorder the results.

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

🚅 Тор	\ <u>UK</u> \London\/	Accounts \	About this report
-------	-----------------------	------------	-------------------

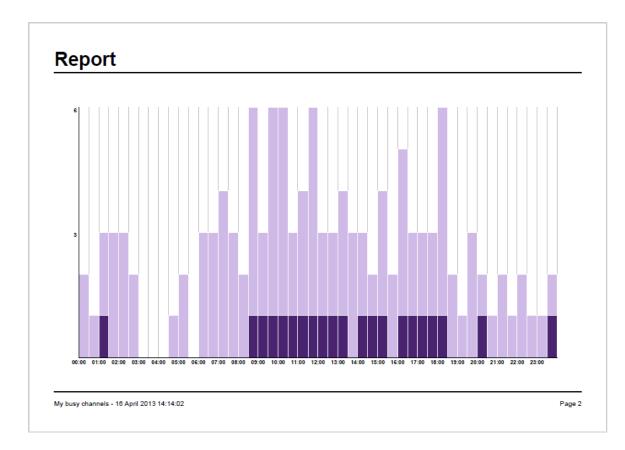
PDF format

If you chose to run the report in PDF format, the report will consist of three pages.

The first page shows the login name of the person who has prepared/scheduled the report, the entity you are reporting on, the period covered and any filters used in the report.

Prepared by	Joe Bloggs	Covering period 01 March 2013 00:00 to 31 March 2013 23:59:59
Entity	\UK \ London \ Accounts	
My busy channels - 1	16 April 2013 14:14:02	Page

The second page has a graph depicting the average and maximum number of channels used, as shown below:



The third page contains a table of time slots, showing the maximum and average number of channels that were busy, along with the total duration of time spent on calls during each time slot.

Data

ime slot	Total duration		Average busy	Time slot	Total duration		Avera
0:00 - 00:29	00:09:06	2	-	12:00 - 12:29	01:11:34	3	
0:30 - 00:59	00:01:24	1	-	12:30 - 12:59	00:36:41	3	
1:00 - 01:29	00:52:45	3	1	13:00 - 13:29	00:58:11	4	
1:30 - 01:59	00:13:54	3	-	12-20 - 12-59	00-07-28	2	
2:00 - 02:29	00:52:27	3	-	14:00 - 14:29	00:53:04	3	
2:30 - 02:59	00:22:47	2	-	14:30 - 14:59	01:34:11	2	
3:00 - 03:29	-	-	-	15:00 - 15:29	01:36:15	4	
3:30 - 03:59	-	-	-	15:30 - 15:59	00:21:46	2	
4:00 - 04:29	-	-	-	16:00 - 16:29	00:27:52	5	
4:30 - 04:59	00:15:08	1	-	16:30 - 16:59	01:44:37	3	
5:00 - 05:29	00:01:19	2	-	17:00 - 17:29	00:45:47	3	
5-20 - 05-59	-	-	-	17:30 - 17:59	02:18:00	3	
6:00 - 06:29	00:09:22	3	-	18:00 - 18:29	02:40:29	6	
6:30 - 06:59	00:39:00	3	-	18:30 - 18:59	01:28:19	2	
7:00 - 07:29	00:34:10	4	-	19:00 - 19:29	00:31:57	1	
7:30 - 07:59	00:47:09	3	-	19:30 - 19:59	00:01:43	3	
8:00 - 08:29	00:51:53	2	-	20:00 - 20:29	00:56:20	2	1
8:30 - 08:59	01:49:55	6	1	20:30 - 20:59	00:13:47	1	
9:00 - 09:29	03:59:58	3	1	21:00 - 21:29	00:46:09	2	
9:30 - 09:59	04:19:29	6	1	21:30 - 21:59	00:14:49	1	
0:00 - 10:29	02:33:48	6	1	22:00 - 22:29	01:46:40	2	
0:30 - 10:59	01:22:35	3	1	22:30 - 22:59	00:13:29	1	
1:00 - 11:29	02:07:29	4	1	23:00 - 23:29	01:11:37	1	
1:30 - 11:59	01:44:31	6	1	23:30 - 23:59	00:01:28	2	

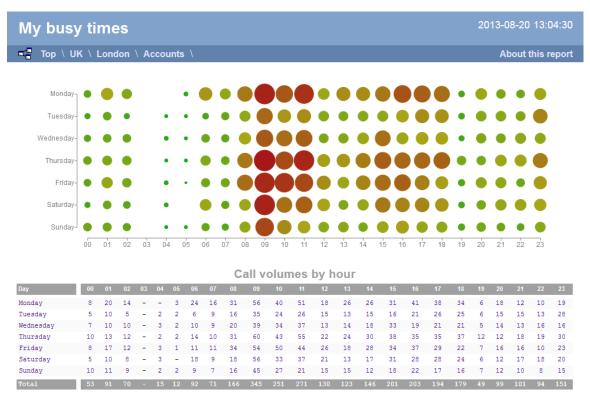
My busy channels - 16 April 2013 14:14:02

Page 3

Busy Times

Overview

The Busy Times report provides an hour-by-hour graphical representation of your call volumes for each day, giving a detailed breakdown of calls by type, for each time slot. This report is useful for identifying call traffic trends and can readily highlight your busiest periods, allowing you to more effectively plan your staffing requirements.



Running the report

Click on the Reports tab and select Busy times from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts		
Create a report Scheduled reports				
🥺 Report queue	📩 My reports 🛛 🗧 Save	🖲 Schedule 🥂 Run now		
Type Account summary Busy channels Busy times	Entity 🗢 🛛			
Call analysis Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Vesterday Last 1 From 15 Zo Aug + 2012 at 23:59:59	Format		
 Trequest numbers Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters ●	Options 🛛 🖓		

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

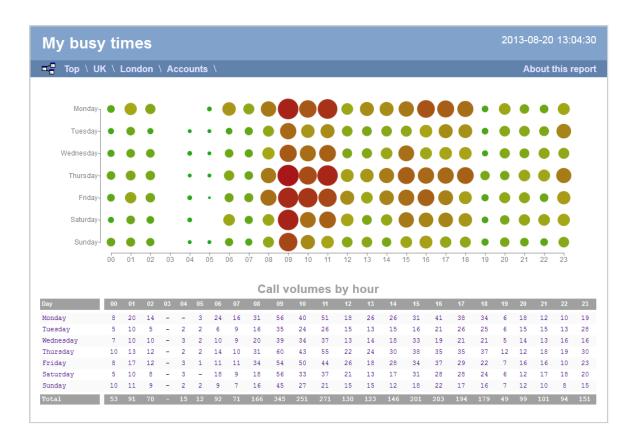
Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	📩 My reports 🛛 🗮 Save	🖸 Schedule 🧏 Run now
Type	Entity 🗢 📀	
 Busy channels Busy times 		
Call analysis	Period	Format
 Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	● Preset Last month ▼ Last 1 hours ▼ From 15 Aug 2012 at 00:00:00 To 20 Aug 2013 at 23:59:59	♥ Web
	Filters I I I I I I I I I I I I I I I I I I I	Options 🔍

The report's results

Below is an example of this report's output in Web format, showing a graphical representation of calls grouped into time slots of one hour.



The large, dark red dots represent your busiest periods, whereas the small, green dots represent quieter periods; by hovering your cursor over a particular dot a tooltip will be displayed, showing the volume of calls for that dot's time period.

The time slot data is also displayed in tabular form, each value being a hyperlink which, if clicked, will drill down into a detailed list of calls for that time slot.

Top \ UK \ Londor	n \					About thi	s repo
All Answer	red Missed	Internal					
Date & Time 🔺	Source	CLI	Route	Destination	Response	Duration	Cost
2013-07-05 07:07:28	Vodafone	07787575871	-	Cheri Pitts	-	00:00:31	-
2013-07-05 07:09:16	Vodafone	07919445550	-	Cheri Pitts	-	00:00:20	-
2013-07-05 07:42:56	T-Mobile	07932768466	-	Bea Minor	-	00:00:10	-
2013-07-05 07:59:01	Orange	07854181950	-	Rob Banks	4	00:01:02	-
2013-07-12 07:07:28	Vodafone	07787849051	-	Cheri Pitts	-	00:02:52	-
013-07-12 07:09:16	Vodafone	07919445550	-	Cheri Pitts	-	00:01:26	-
013-07-12 07:28:01	Orange	07854181059	-	Bea Minor	1	00:00:04	-
2013-07-12 07:42:56	T-Mobile	07932857786	-	Bea Minor	2	00:00:12	-
2013-07-12 07:48:28	Orange	07977404409	-	Cheri Pitts	-	00:00:52	-
2013-07-12 07:52:08	Vodafone	07887722242	-	Cheri Pitts	-	00:00:22	-
2013-07-12 07:59:01	Orange	07854181950	-	Rob Banks	4	00:02:30	-
013-07-19 07:07:28	Vodafone	07787575871	-	Cheri Pitts	-	00:01:38	-
2013-07-19 07:42:56	T-Mobile	07932768466	-	Bea Minor	1	00:00:11	-
2013-07-19 07:52:08	Vodafone	07887824142	-	Cheri Pitts	-	00:01:10	-
2013-07-19 07:57:56	Orange	07971710819	-	Cheri Pitts	-	00:01:21	-
2013-07-26 07:28:01	Orange	07854181059	-	Bea Minor	9	00:00:05	-
2013-07-26 07:42:56	T-Mobile	07932768466	-	Bea Minor	3	00:00:03	-
2013-07-26 07:48:28	Orange	07977404409	-	Cheri Pitts	-	00:02:57	-
2013-07-26 07:52:08	Vodafone	07887722242	-	Cheri Pitts	-	00:00:03	-
2013-07-26 07:57:56	Orange	07971710819	-	Cheri Pitts	-	00:00:33	-
20 calls						00:18:22	-

As with all reports produced by TIM Enterprise each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

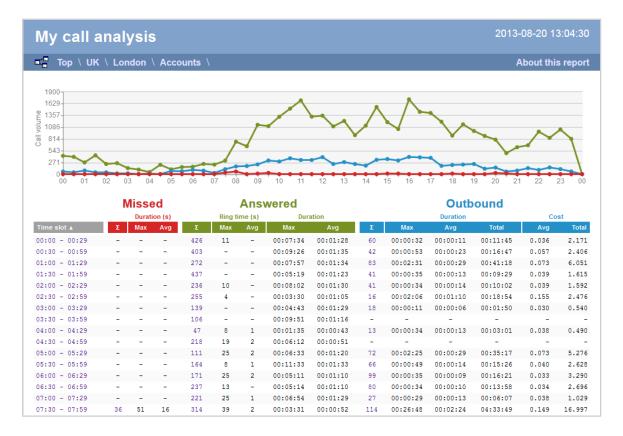
To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Top \ <u>UK</u> \ London \ Accounts \ About this report

Call Analysis

Overview

The Call Analysis report breaks down your working day into half-hour segments, providing a clear graphical representation of your outbound, answered and abandoned calls. Call volumes are shown as *maximums* and *averages* which can help with staff planning.



Running the report

Click on the Reports tab and select Call Analysis from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

timenterprise	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🕺 Report queue	📩 My reports 🛛 🔚 Save	😇 Schedule 🧏 Run now
Type Account summary Busy channels Busy times	Entity 🗢 🛛	
Call analysis Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview	Preset Yesterday Last 1 From 15 Aug 2012 at 00:00:00 To 20	Format
 Frequent numbers Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters 🛛	Options 😑 🛛

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

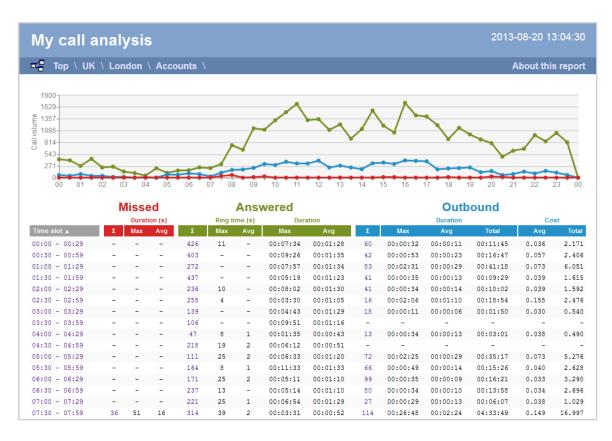
Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

timenterprise	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	
🥺 Report queue	🛨 My reports 🛛 🔒 Save	💿 Schedule 🦧 Run now
Туре	Entity 🗧 🛛	
Account summary Busy channels Busy times	🔢 \ UK \ London \	
Call analysis	Period	Format
Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	● Preset Last month ▼ □ Last 1 hours ▼ ● From 15 Aug 2012 at 00:00:00 To 20 Aug 2013 at 23:59:59	♥ Web 🛛 🕏 PDF 알 XML 🛋 CSV 웹 Excel
Inbound call performance	Filters 🔍 🌣	Options 🔍 🎯
Missed calls Phone bill Random call selection Target response Top calls Unused devices	Duration is greater than 30	E Sort order Ascending

The report's results

Below is an example of this report's output in web format, displaying a breakdown of calls organised in half-hour time slots:



By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results. The headers of this report are as follows:

Header	Description					
Time slot	The time period to which the other headers' results relate					
Missed	 Σ: The total number of missed calls Max: The maximum length of time a caller waited before abandoning the call (in seconds) Avg: The average length of time a caller waited before abandoning the call (in seconds) 					
Answered	 Σ: The total number of answered calls Ring time Max: The maximum length of time a caller waited before a call was answered (in seconds) Ring time Avg: The average length of time a caller waited before the call was answered (in seconds) Duration Max: The duration of the longest answered call (in hours, mins, secs) Duration Avg: The average length of all answered calls (in hours, mins, secs) 					
Outbound	 Σ: The total number of outbound calls Duration Max: The duration of the longest outbound call (in hours, mins, secs) Duration Avg: The average length of all outbound calls (in hours, mins, secs) Duration Total: The total duration of time spent on outbound calls Cost Avg: The average cost of all outbound calls Cost Total: The total cost of all outbound calls 					

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Top \ UK \ London \ Accounts \

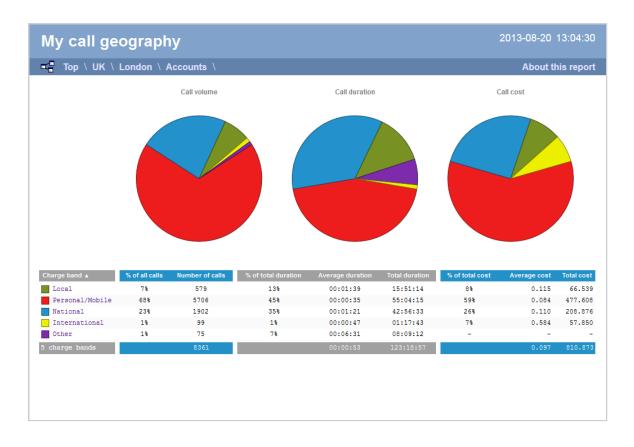
About this report

Call Geography

Overview

The Call Geography report consists of three pie charts, each showing call information grouped by volume, duration and cost. An accompanying table is also shown, containing details of where - geographically - your calls are made, classified by their tariff band, such as local, national, mobile or international.

The proportion of calls to each geographical destination is shown in terms of volume, duration and cost, highlighting the calls that are costing you the most and taking up most of your time.



Running the report

Click on the Reports tab and select Call geography from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports Direc	ctory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	
🕺 Report queue	🤸 My reports 🛛 🛱 Save	😨 Schedule 🦧 Run now
Type Account summary Busy channels Busy times Call analysis Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Entity	Format
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters 🛛	Options 🥯 🛛

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

Entity

- Period
- Filters
- Options
- Format

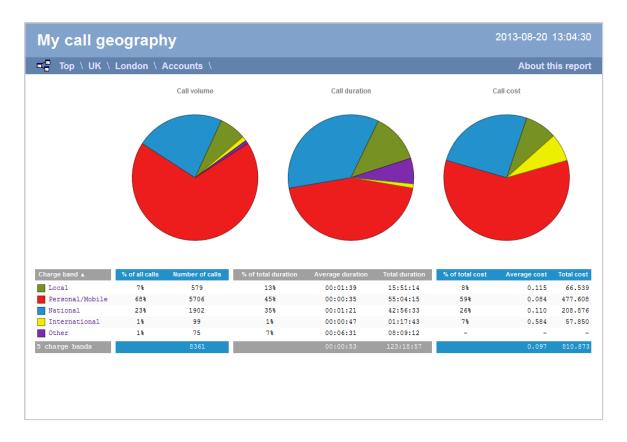
Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts		
Create a report Scheduled reports				
🥺 Report queue	🛨 My reports 🛛 🔓 Save	💿 Schedule 🧏 Run now		
Туре	Entity 🗧 🛛			
Account summary Busy channels Busy times	🗋 \UK \ London \ IT \			
Call analysis	Period	Format		
Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	● Preset Last month ▼ ● Last 1 hours ▼ ● From 15 Aug ▼ 2012 at 00:00:00 To 20 Aug ▼ 2013 at 23:59:59	Excel 전 PDF 전 PDF 전 XML 로 CSV		
Inbound call performance Missed calls	Filters 🔍 🔍	Options 🗧 🛛		
Phone bill		E Sort results by Total cost		
Random call selection				
Target response				
Top calls				
Unused devices				

The report's results

Below is an example of this report's output in web format:



The final report consists of three pie charts and a table.

Pie charts

- The left-hand pie chart shows the amount of calls to each location
- The centre chart shows the time spent on calls to each location
- The right-hand chart shows the cost of calls to each location

Table

The table shows the following information about the calls made to each charge band location:

Header	Description
Charge band	The charge band, e.g. Local, National, International, Mobile, etc. Each listed charge band is click-able, allowing you to drill-down to see which site, department or user made calls to that charge band location.
% of calls	The number of calls per charge band location as a percentage of the total calls made. To reorder, click on the header to alternate between descending and ascending.
Number of calls	The total volume of calls made to each charge band location.
% of total duration	The total duration of calls made to each charge band location, expressed as a percentage of all charge bands.
Average duration	The average duration spent on calls to the corresponding charge band.
Total duration	The total amount of time spent on calls to the corresponding charge band.
% of total cost	The total cost of all calls made to each charge band location, expressed as a percentage of the total cost of all calls.

Average cost	The average cost of calls made to each charge band location.
Total cost	The total cost of calls made to each charge band location.

The summary line at the foot of the table shows the total number of calls included in the report, the total duration of calls, average and total costs.

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Top \ <u>UK</u> \ London \ Accounts \ About this report

Call Scoring

Overview

The Call Scoring report provides a comprehensive analysis of previously-scored calls, enabling you to more efficiently assess the performance of your staff. TIM Enterprise gives you the option to create your own score cards, so you can specifically rate any call according to a set of custom evaluation criteria.

The scores can be based on any combination of questions whose answers are of the following type:

- Yes/No
- A value range
- Multiple choice

All questions are summarised in a clear, easy-to-understand format and are displayed separately, grouped into their respective categories.

Top \ UK \ London \ Accounts \		About this re
UK		
Did the customer place an order? (3 scores)	Placed order Booked demonst Requested more Not interested	information 33%
How well did the agent address customer needs? (3 scores)	Mn Average Max 5 8.33 10 Based on 3 scores 10	
How well did the agent understand customer's requirements? (3 scores)	Min Average Max 4 8 10 Based on 3 scores	
Rate the agent overall (3 scores)	Excellent Very good Good Average Below average Bad	100%
Was the agent friendly and helpful? (3 scores)	Yes No	67% 33%
Was the call answered quickly?	Yes	100%

An example of a scoring card can be seen below:

2	Requirements		X
	Question optio	ns	
	Name	Requirements	
	Question text	How well did the agent address customer needs?	
		łł.	
	Туре	III Yes / No III Range III Choice	
	Values	Min 0 Max 10	
		🗦 Cancel 📑 Save	ð

Running the report

Click on the Reports tab and select Call scoring from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

timenterprise Create a report Scheduled re	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	My reports 🔒 Save	© Schedule 🥂 Run now
Type Account summary Busy channels Busy times Call analysis Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview	Entity © Preset Period Preset Last To Prom To 20 Aug + 2013 at 23:59:59	Format Web ML XML Sv Excel
Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices	Filters © ©	Options 🤤 🛛

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the <u>Run now</u> button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	🔶 My reports 🛛 🔚 Save	🖸 Schedule 🧏 Run now
Туре	Entity 😑 🛛	
Account summary Account summary Busy channels Busy times	🗋 \ UK \ London \ IT \	
Call analysis	Period	Format
Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview	Preset Last month Last 1 hours From 15 Aug v 2012 at 00:00:00 To 20 Aug v 2013 at 23:59:59	♥ Web
 Frequent numbers Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters ©	Options 🗢 🗞

The report's results

Below is an example of this report's output in web format:

My call scoring 2013-08-20 13:04:3			
Top \ UK \ London \ Accounts \		About ti	his repor
) UK			
Did the customer place an order? (3 scores)		Placed order Booked demonstration Requested more information Not interested	33% 33% 33%
How well did the agent address customer needs? (3 scores)	Min Average Max 5 8.33 10 Based on 3 scores 10		
How well did the agent understand customer's requirements? (3 scores)	Min Average Max 4 8 10 Based on 3 scores 10		
Rate the agent overall (3 scores)		Excellent Very good Good Average Below average Bad	100% - - - -
Was the agent friendly and helpful? (3 scores)		Yes No	67% 33%
Was the call answered quickly? (3 scores)		Yes No	100% -
6 questions			

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated

the name of the report, if applicable

The results of the call scoring report will vary depending on the type of questions used to create your score cards:

Yes/No questions show their answers as two bars, each indicating the proportion of total answers.

Was the call answered guickly?	Yes	100%
(3 scores)	No	-

Range questions show the minimum and maximum scores, as well as the average score.

How well did the agent address customer needs? (3 scores)



Multiple choice questions show each possible answer as a percentage of the total number of answers.

Did the customer place an order?	Placed order	33%
(3 scores)	Booked demonstration	33%
	Requested more information	33%
	Not interested	-

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

🗖 🗖 Тор	\ <u>UK</u> \London\A	ccounts \		About this report
---------	-----------------------	-----------	--	-------------------

Call Volumes

Overview

The Call Volumes report gives you a complete picture of your call volumes organised by site, group or user. It provides a clear, graphical and tabular representation of your outbound, answered and abandoned calls, broken down into hourly time slots. Internal and external calls are itemised separately and every value can be toggled between a percentage or a number. Additionally, all of the displayed values are shown as hyperlinks, allowing you to drill down further into the results.

My call volumes	5			2013-08-20 09:42:43
Top \ UK \ London	\			About this report
Graph Details	S	ummary		Answered Outbound Show values percentages
		Total		Timeslots
Name 🔺	Σ	External	Internal	
C Accounts	2532	2077	455	
	-	-	-	
	1309	852	457	
C Accounts Admin	497	226	271	
	-	-	-	
	333	305	28	
🛅 Billing Team	341	288	53	
	86	86	-	
	388	354	34	
Call centre	7613	6931	682	
	52	52	-	
	1488	648	840	
Development	6165	5851	314	
	221	221	-	
	1597	1221	376	
Marketing	8041	7849	192	
	93	93	-	
	1064	709	355	

Running the report

Click on the Reports tab and select Call volumes from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

timenterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🕺 Report queue	🤟 My reports 🛛 🗮 Save	😇 Schedule 🛛 🧏 Run now
Туре	Entity 😑 🛛	
Account summary Busy channels Busy times		
Call analysis	Period	Format
Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers	<pre> Preset Yesterday Last 1 hours From 15 Aug + 2012 at 00:00:00 To 20 Aug + 2013 at 23:59:59 </pre>	♥ Web ♥ XML ■ CSV ■ Excel
Inbound call performance	Filters 🔍 🍳	Options 🗧 🛛
Missed calls Phone bill Random call selection Target response Top calls Unused devices		

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

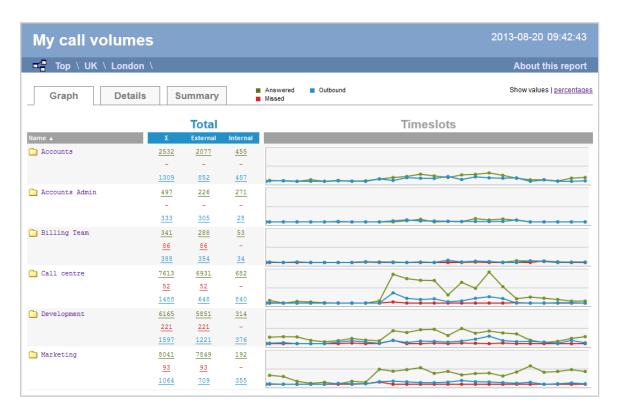
Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	📩 My reports 🛛 🔚 Save	© Schedule 🥂 Run now
Туре	Entity 🗢 🛛	
Account summary Busy channels Busy times	🔢 \ UK \ London \	
Call analysis	Period	Format
Call scoring	Preset Last month Last 1 hours From 15 Aug 2012 at 00:00:00	Web 🔁 PDF
Custom report	From 15 Aug 2012 at 00:00:00 To 20 Aug 2013 at 23:59:59	髱 Excel
 Enterprise overview Frequent numbers 		
Inbound call performance Missed calls	Filters © ©	Options 💿 🛇
 Phone bill Random call selection Target response Top calls Unused devices 	7 Dialled number begins with 07788	Sort order Ascending

The report's results

Below is an example of this report's output in web format:



As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be

drilled down into, allowing deeper analysis of your results. To view details of any filters or parameters used in creating this report, click on Ab out this report at the top-right corner of the page.

The report is divided into three sections: Graph, Details and Summary.

Graph

The Graph tab provides a visual representation of all inbound, outbound and missed calls for both external and internal call activity. A simple toggle button at the top right of the screen enables you to flip between call volumes and percentages.

My call volumes	5			2013-08-20 09:42:43
🖬 🖬 Top \ UK \ London				About this report
Graph Details	S	ummary		Answered Outbound Show values percentages Missed
		Total		Timeslots
Name 🛦	Σ	External	Internal	
Call centre	7613	6931	682	
	52	52	-	
	<u>1488</u>	648	840	

Details

The

Details tab shows the actual volumes (or percentages) of calls for each time slot throughout the day.

My call v	olu	mes																				201	3-08	3-20	09	:42:	:43
Top \ UK	\ Loi	ndon \																					Ab	out	this	rep	ort
Graph	De	etails	Sum	ıma	ry			An: Mis	swere sed	d		Dutbo	und										Shov	v valu	es p	ercen	itage
		Total												٦	Tim	esl	ots										
Name	Σ	External	Internal	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
🗋 Accounts	2532	2077	455	<u>31</u>	<u>15</u>	-	<u>55</u>	-	<u>33</u>	-	<u>19</u>	84	<u>130</u>	<u>169</u>	<u>247</u>	<u>187</u>	<u>132</u>	222	240	290	207	<u>107</u>	<u>53</u>	56	<u>13</u>	<u>109</u>	13
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1309	852	457	18	24	-	-	-	14	10	-	83	29	126	107	100	165	63	<u>155</u>	<u>121</u>	108	120	-	48	-	-	1
🗋 Accounts Admin	497	226	271	-	-	-	-	-	-	-	-	-	-	40	<u>91</u>	-	<u>15</u>	<u>11</u>	<u>114</u>	68	100	58	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	333	305	28	-	-	-	-	-	16	-	-	-	36	70	31	32	24	14	14	12	17	67	-	-	-	-	-
🛅 Billing Team	341	288	53	-	-	-	-	-	-	-	<u>12</u>	<u>16</u>	<u>18</u>	-	12	-	<u>13</u>	<u>16</u>	40	<u>15</u>	<u>11</u>	62	53	48	25	-	-
	86	86	-	-	-	-	-	-	-	-	<u>21</u>	-	-	-	-	-	-	-	<u>15</u>	-	-	-	-	50	-	-	-
	388	354	34	18	-	20	-	-	-	-	29	<u>11</u>	-	-	16	-	80	14	47	<u>33</u>	-	-	<u>54</u>	<u>32</u>	-	17	1
Call centre	7613	6931	682	91	-	58	36	<u>12</u>	-	-	-	74	995	846	786	782	281	<u>717</u>	<u>511</u>	1072	566	<u>151</u>	207	<u>168</u>	125	<u>67</u>	6
	52	52	-	-	-	-	-	-	-	-	-	-	38	-	-	-	-	-	-	-	-	14	-	-	-	-	-
	1488	648	840	<u>15</u>	-	-	-	-	-	-	-	-	353	<u>162</u>	<u>124</u>	148	44	76	165	220	156	-	-	-	<u>12</u>	<u>13</u>	-
Development	6165	5851	314	224	241	233	<u>114</u>	63	107	181	<u>125</u>	99	446	386	480	496	281	523	360	436	370	338	120	38	81	181	24
	221	221	-	-	-	-	-	-	-	<u>21</u>	-	2	<u>115</u>	-	-	<u>21</u>	-	<u>21</u>	<u>13</u>	-	23	-	-	-	-	-	-
	<u>1597</u>	1221	376	<u>16</u>	<u>33</u>	-	-	-	<u>56</u>	<u>98</u>	<u>54</u>	<u>14</u>	107	<u>38</u>	87	<u>79</u>	<u>53</u>	88	<u>155</u>	<u>259</u>	107	<u>69</u>	<u>77</u>	<u>54</u>	<u>14</u>	<u>111</u>	28
Marketing	8041	7849	192	308	268	101	31	68	<u>11</u>	102	69	517	449	505	572	376	444	322	371	386	284	422	634	415	442	504	44
	93	93	-	-	-	-	-	-	-	-	<u>18</u>	<u>75</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1064	709	355	15	-	-	-	-	30	<u>15</u>	18	87	107	82	57	53	73	128	88	79	56	34	66	-	16	44	16

All numeric figures are shown as hyperlinks, allowing you to drill down into an itemised list of the calls that they represent.

My call	volumes				20	13-08-20	09:42:4
🖬 🗧 Top \ U	IK \ London \ Account	s ∖ Tanya Burre	Ι \			About t	his repo
All	Outbound Answ	wered Miss	ed Internal		Show all	🖲 📵 1 of 1	I9 🛞 🖲
Date & Time 🔺	Source	CLI	Route	Destination	Response	Duration	Cost
13:15:26	London	02073536734	-	Norma Leigh	-	00:00:40	- Ç
13:15:36	Vodafone	07775872259	-	Brock Lee	14	00:00:11	- 5
13:19:33	Pearl E White	-	07810669018	Vodafone	-	00:00:25	0.054 🤤
13:27:48	Penny Wise	-	07841401258	02	-	00:02:28	0.321 🤤
13:38:38	Pearl E White	-	02071051229	London	-	00:00:33	0.055 🤤
13:49:33	London	02087729999	-	Brock Lee	10	00:01:06	- 5
13:56:33	Penny Wise	-	2054	Harry Patel	-	00:00:31	-
14:01:51	Gaye Barr	-	07960425550	T-Mobile	-	00:00:04	0.030 🤤
14:05:11	London	02071847559	-	Brock Lee	7	00:00:08	- 5
14:10:31	London	02074956590	-	Brock Lee	10	00:00:06	- 9
14:10:31	London	02074131490	-	Doug Hole	-	00:02:32	- 9
14:18:01	Easton West	-	07760202596	Vodafone	-	00:00:09	0.030 🤤
14:44:43	Orange	07973894927	-	Mika Stai	-	00:03:28	- ς
14:44:46	Orange	07973894927	-	Mika Stai	2	00:01:09	- Ç
14:48:08	London	02078022337	-	Don Key	5	00:00:01	- Ç
15:02:38	Gene Poole	-	2071	Pearl E White	-	00:01:22	-

Below is a description of each table header:

Header	Description
Date & Time	The date and time the call started
Source	The place from where the call originated
CLI	The telephone number of the remote caller for inbound calls
Route	 The information displayed in this field is determined by the type of call: for incoming calls, this shows the CLI of the caller for incoming internal calls, this shows either the caller's username or extension number for outgoing calls, this shows the dialled number
Destination	 The information displayed in this field is determined by the type of call: for incoming calls, this shows the name of the user whose extension answered the call, or the extension number if not available for outgoing calls, this shows the geographical location that was dialled, or an alias if defined in your contacts list for internal calls, this shows the extension that was dialled, enclosed in square brackets []
Response	The length of time it took for the call to be answered (i.e. the response time)
Duration	The duration of the call (in hours, minutes and seconds)
Cost	The cost of the call

Summary

The S

Summary tab shows a summary of all call activity for the reporting period you selected.

My c	all	volu	mes																			2	013	-08-2	20 0	9:42	:43
🗳 То	p \ UI	K \ Lor	ndon \	Acco	ount	s \																		Abou	it thi	s rep	oort
Gra	ph	De	etails		Sum	ma	ry			An Mi	iswei ssed	ed	0	utboun	d								SI	how va	lues	percer	ntages
		Total			Timeslots																						
	Σ	External	Internal	00	01	02	03	04	05	06	07	80	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Answered	49772	45672	4100	1091	891	609	348	327	337	532	669	1860	3258	3741	4037	3230	2746	3434	3040	4112	3276	2566	2189	1501	1501	2208	2269
Missed	465	465	-	-	-	-	-	-	-	21	39	82	153	-	-	21	-	21	41	-	23	14	-	50	-	-	-
Outbound	13885	9785	4100	156	145	89	21	26	164	284	192	684	1197	1090	1172	985	853	900	1191	1378	901	748	501	275	300	382	251
	64122	55922	8200	1247	1036	698	369	353	501	837	900	2626	4608	4831	5209	4236	3599	4355	4272	5490	4200	3328	2690	1826	1801	2590	2520

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Top \ <u>UK</u> \ London \ Accounts \	About this report
---------------------------------------	-------------------

Custom

Overview

The Custom report allows a wide range of options and filtering criteria to be selected, enabling you to search for very specific phone calls. The results are displayed as an itemised list, grouped by call type: All, Outbound, Answered, Missed, Internal and Tandem.

My custom	report				20	13-08-22	13:04:30
📲 Top \ UK \ Lo	ndon \ Accounts	١				About th	nis report
All	utbound Ans	wered Miss	ed Interna	al	Show all	📧 📧 1 of	16 🕑 🖲
Date & Time 🔺	Source	CLI	Route	Destination	Response	Duration	Cost
21/08/2013 05:43:43	Adam Zapel	-	07767254860	Vodafone	-	00:00:27	0.058 💬
21/08/2013 06:05:58	Adam Zapel	-	07939041916	T-Mobile	-	00:00:04	0.030 🖵
21/08/2013 06:06:53	Adam Zapel	-	02074787000	London	-	00:00:08	0.030 🖵
21/08/2013 06:20:58	London	02070108086	-	Tom Morrow	-	00:01:03	- 🖓
21/08/2013 07:28:01	London	02079603334	-	Tom Morrow	-	00:02:10	- 🖓
21/08/2013 08:08:16	Orange	07968426619	-	Tom Morrow	-	00:01:35	- 🖓
21/08/2013 09:02:21	02	07921668518	-	Tom Morrow	-	00:01:44	- 🖓
21/08/2013 09:47:16	Adam Zapel	-	07932040779	T-Mobile	-	00:00:10	0.030 💭
21/08/2013 11:20:41	London	02086719759	-	Tom Morrow	-	00:00:40	- 🖵
21/08/2013 11:37:01	Orange	07971060111	-	Cheri Pitts	-	00:00:46	- 🖓
21/08/2013 12:40:01	London	02070152800	-	Cheri Pitts	-	00:00:21	- 🖓
21/08/2013 12:53:23	Adam Zapel	-	07949250374	T-Mobile	-	-	0.030 🖵
21/08/2013 13:20:08	Adam Zapel	-	07985980159	T-Mobile	-	00:00:13	0.030 🖵
21/08/2013 13:47:48	T-Mobile	07957503577	-	Cheri Pitts	-	00:06:37	- 🖓
21/08/2013 13:57:58	Adam Zapel	-	07788646633	Vodafone	-	00:00:18	0.039 💭
21/08/2013 14:04:43	02	07834585328	-	Tom Morrow	-	00:01:05	- 🖓
21/08/2013 14:20:28	London	02085103628	-	Tom Morrow	-	-	- 🖓
21/08/2013 14:58:06	Adam Zapel	-	07786276358	Vodafone	-	00:00:22	0.048 💭
21/08/2013 14:59:13	Adam Zapel	-	07717514310	Vodafone	-	00:00:01	0.030 💭
21/08/2013 15:04:08	London	02073511550	-	Tom Morrow	-	00:00:20	- 🖓
21/08/2013 16:12:18	UNAVAILABLE	-	-	Tom Morrow	-	00:01:09	- 🖓
21/08/2013 16:17:13	Vodafone	07796251027	-	Claire Annette	-	00:00:30	- 🖓
21/08/2013 16:24:33	London	02073368085	-	Tom Morrow	-	00:03:12	- 🖓
21/08/2013 16:47:56	Adam Zapel	-	02073076700	London	-	00:00:15	0.030 🖵
21/08/2013 17:01:41	London	02078227654	-	Tom Morrow	-	00:00:28	- 🖓
21/08/2013 18:19:08	London	02087402420	-	Claire Annette	-	00:02:34	- 👳
21/08/2013 19:11:58	Tom Morrow	-	07944789366	T-Mobile	-	00:01:09	0.150 🖵
21/08/2013 20:03:56	UNAVAILABLE	-	-	Cheri Pitts	-	00:01:38	- 🖓
21/08/2013 22:52:21	02	07739071992	-	Tom Morrow	-	-	- 🖓

Running the report

Click on the Reports tab and select Custom report from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	
🥺 Report queue	🐈 My reports 🛛 🔓 Save	😇 Schedule 🥂 Run now
Type Account summary Busy channels	Entity 🗢 🛛	
Busy times Call analysis Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Preset Yesterday Last 1 From 15 Aug + 2012 at 0:00:000 To 22	Format
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters O	Options 😑 🕸

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the <u>Run now</u> button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

timenterprise)	Reports Direc	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	📩 My reports 🛛 🔒 Save	💿 Schedule 🦧 Run now
Туре	Entity 😑 🛇	
Account summary Busy channels Busy times	🗋 \ UK \ London \ IT \	
Call analysis	Period	Format
Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	● Preset Yesterday ▼ ● Last 1 hours ▼ ● From 15 Aug 2012 at 00:00:00 To 22 Aug 2013 at 23:59:59	● Web 코 PDF 避 XML
Incound call performance Missed calls	Filters 🔍 🔍	Options 🔍 🍳
Missed Calls Phone bill Random call selection Target response Top calls Unused devices	 Dialled number begins with 07788 Duration is greater than 30 	 Sort order Ascending Sort results by Total cost

The report's results

Below is an example of this report's output in web format:

Top \ UK \ L	ondon \ Accounts	١				About th	nis repor
All	Outbound Answ	wered Misse	ed Internal		Show all	🗷 🛞 1 of	16 🕑 🖲
Date & Time ▲	Source	CLI	Route	Destination	Response	Duration	Cost
21/08/2013 05:43:43	Adam Zapel	-	07767254860	Vodafone	-	00:00:27	0.058 🤤
21/08/2013 06:05:58	Adam Zapel	-	07939041916	T-Mobile	-	00:00:04	0.030 🤤
21/08/2013 06:06:53	Adam Zapel	-	02074787000	London	-	00:00:08	0.030 🤤
21/08/2013 06:20:58	London	02070108086	-	Tom Morrow	-	00:01:03	- 9
21/08/2013 07:28:01	London	02079603334	-	Tom Morrow	-	00:02:10	- 9
21/08/2013 08:08:16	Orange	07968426619	-	Tom Morrow	-	00:01:35	- 9
21/08/2013 09:02:21	02	07921668518	-	Tom Morrow	-	00:01:44	- 0
21/08/2013 09:47:16	Adam Zapel	-	07932040779	T-Mobile	-	00:00:10	0.030 (
21/08/2013 11:20:41	London	02086719759	-	Tom Morrow	-	00:00:40	- 0
21/08/2013 11:37:01	Orange	07971060111	-	Cheri Pitts	-	00:00:46	- 0
21/08/2013 12:40:01	London	02070152800	-	Cheri Pitts	-	00:00:21	- 0
21/08/2013 12:53:23	Adam Zapel	-	07949250374	T-Mobile	-	-	0.030 0
21/08/2013 13:20:08	Adam Zapel	-	07985980159	T-Mobile	-	00:00:13	0.030 (
21/08/2013 13:47:48	T-Mobile	07957503577	-	Cheri Pitts	-	00:06:37	- (
21/08/2013 13:57:58	Adam Zapel	-	07788646633	Vodafone	-	00:00:18	0.039 0
21/08/2013 14:04:43	02	07834585328	-	Tom Morrow	-	00:01:05	- (
21/08/2013 14:20:28	London	02085103628	-	Tom Morrow	-	-	- (
21/08/2013 14:58:06	Adam Zapel	-	07786276358	Vodafone	-	00:00:22	0.048 (
21/08/2013 14:59:13	Adam Zapel	-	07717514310	Vodafone	-	00:00:01	0.030 (
21/08/2013 15:04:08	London	02073511550	-	Tom Morrow	-	00:00:20	- 0
21/08/2013 16:12:18	UNAVAILABLE	-	-	Tom Morrow	-	00:01:09	- (
21/08/2013 16:17:13	Vodafone	07796251027	-	Claire Annette	-	00:00:30	- (
21/08/2013 16:24:33	London	02073368085	-	Tom Morrow	-	00:03:12	- (
21/08/2013 16:47:56	Adam Zapel	-	02073076700	London	-	00:00:15	0.030 (
21/08/2013 17:01:41	London	02078227654	-	Tom Morrow	-	00:00:28	- (
21/08/2013 18:19:08	London	02087402420	-	Claire Annette	-	00:02:34	- 0
21/08/2013 19:11:58	Tom Morrow	-	07944789366	T-Mobile	-	00:01:09	0.150 0
21/08/2013 20:03:56	UNAVAILABLE	-	-	Cheri Pitts	-	00:01:38	- 0
21/08/2013 22:52:21	02	07739071992	-	Tom Morrow	-	-	- 0

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

the report's title

- the date and time that the report was generated
- the name of the report, if applicable

The report consists of a table containing an itemised list of the calls that matched your selection criteria. Each column header of the table is described below:

Header	Description
Date & Time	The date and time the call started
Source	The place from where the call originated
CLI	The telephone number of the remote caller for inbound calls
Route	The information displayed in this field is determined by the type of call:
	for incoming calls, this shows the CLI of the caller
	 for incoming internal calls, this shows either the caller's username or extension number
	for outgoing calls, this shows the dialled number
Destination	The information displayed in this field is determined by the type of call:
	for incoming calls, this shows the name of the user whose extension answered the call, or the extension number
	if not available
	for outgoing calls, this shows the geographical location that was dialled, or an alias if defined in your contacts list
	for internal calls, this shows the extension that was dialled, enclosed in square brackets []
Response	The length of time it took for the call to be answered (e.g. the response time)
Duration	The duration of the call (in hours, minutes and seconds)
Cost	The cost of the call

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

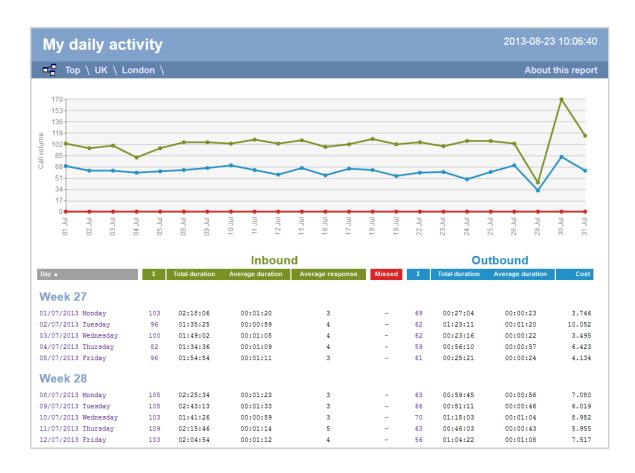
|--|

About this report

Daily Activity

Overview

The Daily Activity report provides a summary showing the volume of all inbound, outbound and missed calls for each day. It is useful for organisations whose call traffic fluctuates throughout the year because, by identifying your busiest periods, it allows you to more effectively plan your staffing requirements.



Running the report

Click on the Reports tab and select Daily Activity from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	
🥺 Report queue	📩 My reports 🛛 🔚 Save	© Schedule 🥂 Run now
Type Account summary Busy channels Busy times Contractions	Entity 🔍 🖉	
Call analysis Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Period Preset Yesterday Last 1 hours From 15 hug 2012 at 00:00:00 To 23 hug 2013 at 23:59:59	Format
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters 😑 🛛	Options 😑 🛛

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

Entity

- Period
- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

timenterprise	Reports Direc	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	📩 My reports 🛛 🔒 Save	🖸 Schedule 🦧 Run now
Type	Entity © ©	
 Busy channels Busy times 		
Call analysis Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Period Preset Last hours From Aug 2012 at 00:00:00 To 23 Aug 2013 at 23:59:59 	Format
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters O	Options 🗢 🛛

The report's results

Below is an example of this report's output in Web format, showing the total volume of all inbound, outbound and missed calls for each day.



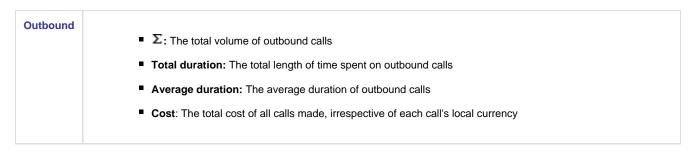
As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

The body of the report consists of a table showing a summary of your incoming and outgoing calls for each day during the period you selected. Each row shows the following information:

Header	Description
Day	The day of the week that the data covers
Inbound	 Σ: The total volume of calls received Total duration: The total length of time spent on incoming calls Average duration: The average call duration of inbound calls Average response: The average length of time taken to answer a call Duration Avg: The average length of time a caller waited before abandoning the call (in hours, minutes, seconds)
Missed	The missed calls column is always displayed as red. It allows you to re-order your details based on the total number of missed calls for the date shown



To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

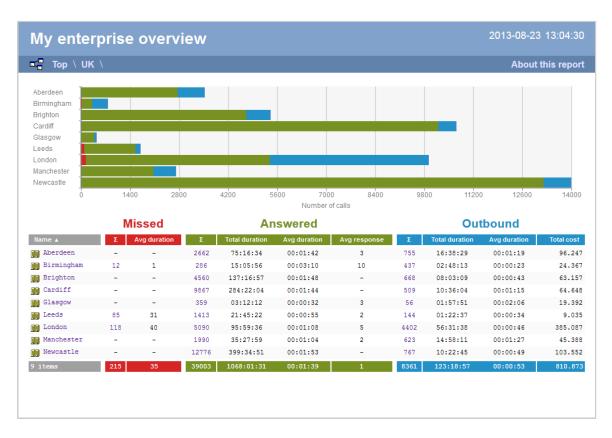
Top \ <u>UK</u> \ London \ Accounts \

About this report

Enterprise Overview

Overview

The Enterprise Overview report is an interactive, click-able report, showing call summaries for each type of call - inbound, outbound and missed. The report is useful for comparing call statistics between different parts of your organisation and allows you to drill-down into each value to see the same call information for subsequent groups or users. Totals, maximums and averages are displayed at the foot of each column.



Running the report

Click on the Reports tab and select Enterprise overview from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports Direct	ory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🕺 Report queue	📩 My reports 🛛 🔚 Save	😇 Schedule 🛛 🦧 Run now
Type Account summary Busy channels Busy times	Entity 🗢 🎯	
Call analysis Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Yesterday Last 1 From 15 Z0 Aug + 20 at 23:59:59	Format
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters O	Options 😑 🛛

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the <u>Run now</u> button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	
🥺 Report queue	🔸 My reports 🛛 🔚 Save	© Schedule 🥂 Run now
Туре	Entity 🗧 🛛	
Account summary Busy channels Busy times	🔢 \ UK \ London \	
Call analysis	Period	Format
Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	● Preset Last month ▼ □ Last 1 hours ▼ ● From 15 Aug 2012 at 00:00:00 To 23 Aug 2013 at 23:59:59	♥ Web 党 PDF ☞ XML ▲ CSV 餐 Excel
 Frequent numbers Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters	Options 🗢 🗞

The report's results

The results of the report show a summary of call volumes - organised by call type - for the report entity you selected. By clicking on the About t this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

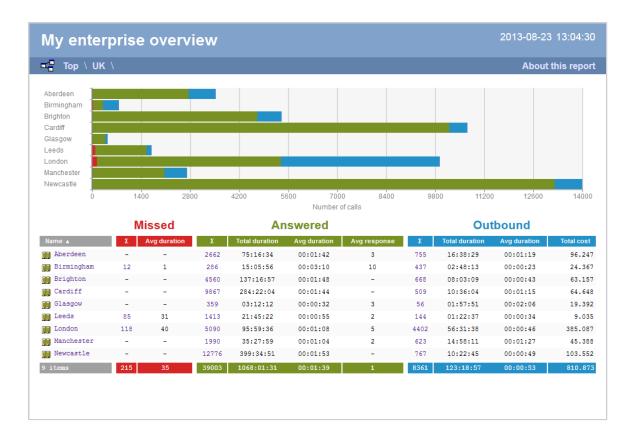
- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results.

The web format allows you to see the results of the report at different organisational levels: site level, group level, user level and as an itemised list.

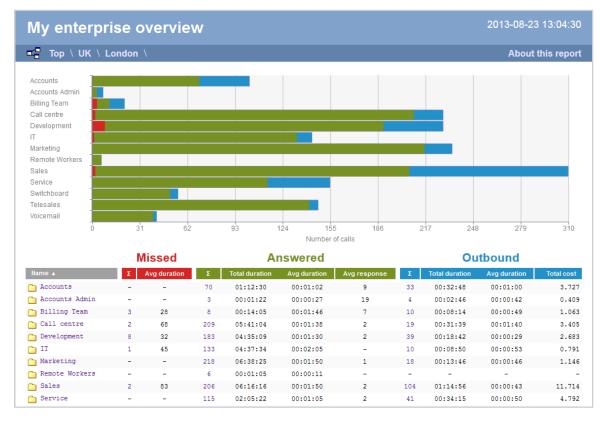
Site level

At site level, the report will show call summary information for each site, as shown below:



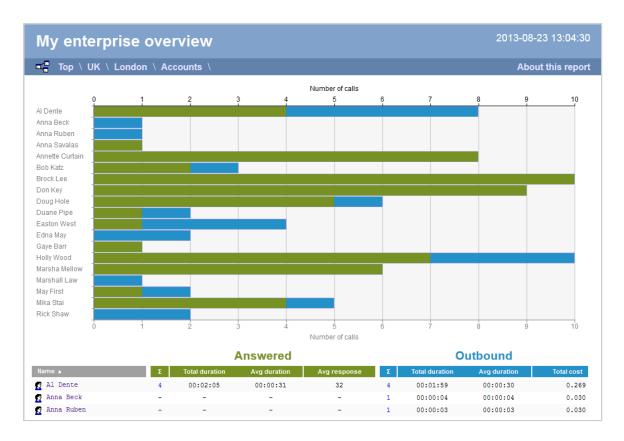
Group level

By clicking on a site, you can drill down into group-level information, as shown below:



User level

When drilling down into a group, a new report is produced, showing the same summary information for each individual user within that group, as shown below:



At all organisational levels, the body of the report consists of a table containing call summary information about each entity. The column headers of this table are described below:

Header	Description
Name	The name of the entity for each line of data
Missed	 Σ: The total number of missed calls Avg duration: The average duration of all missed calls (in seconds)
Answered	 Σ: The number of incoming calls answered by extensions within the selected entity, including transferred calls Total duration: The total duration of all incoming calls (in hours, minutes and seconds) Avg duration: The average duration of all incoming calls (in hours, minutes and seconds) Avg response: The average time taken to respond to all incoming calls (in seconds)
Outbound	 Σ: The number of outbound calls Total duration: The total duration of all outgoing calls (in hours, minutes and seconds) Avg duration: The average duration of all outgoing calls (in hours, minutes and seconds) Total cost: The total aggregate cost of all outbound calls

In addition to summary information, totals and averages for each call type are shown in the footer of each column.

Itemised list

 \checkmark

By clicking on the hyperlink of a particular user, a new report is produced that shows - in chronological order - an itemised list of calls made or received by that user, as shown below:

My enterprise overview						2013-08-23 11:09:10	
📲 \ \ \ E	Birmingham accour	nts \ Anna Sasii	n \			About	this repor
All Out	bound Answe	red Misse	d Internal				
Date & Time 🔺	Source	CLI	Route	Destination	Response	Duration	Cost
23/08/2013 01:33:28	Anna Sasin	-	07808791272	02	-	00:00:05	0.030 🖵
23/08/2013 05:06:41	Anna Sasin	-	07919185533	Vodafone	-	00:00:05	0.030 🖵
23/08/2013 05:36:36	Anna Sasin	-	07939818734	T-Mobile	-	00:00:09	0.030 🖵
23/08/2013 06:41:38	Anna Sasin	-	07852929342	T-Mobile	-	00:00:11	0.030 🤤
23/08/2013 07:27:03	Anna Sasin	-	07775863304	Vodafone	-	00:00:07	0.030 🤤
23/08/2013 08:26:58	Orange	07854426792	-	Anna Sasin	2	00:00:20	- Ç
23/08/2013 08:39:53	Pat Downe	-	3380	Anna Sasin	-	00:00:38	-
23/08/2013 09:10:08	Orange	07976222991	-	Anna Sasin	4	00:00:36	- Ç
23/08/2013 09:20:08	Bournemouth	01202770777	-	Anna Sasin	-	00:00:01	-
9 calls						00:02:12	0.150

The headers of the itemised call table are described below:

Unadan	Description
Header	Description
Date & Time	The date and time the call started
Source	The place from where the call originated
CLI	The telephone number of the remote caller for inbound calls
Route	The information displayed in this field is determined by the type of call:
	for incoming calls, this shows the CLI of the caller
	for incoming internal calls, this shows either the caller's username or extension number
	for outgoing calls, this shows the dialled number
Destination	The information displayed in this field is determined by the type of call:
	for incoming calls, this shows the name of the user whose extension answered the call, or the extension number
	if not available
	for outgoing calls, this shows the geographical location that was dialled, or an alias if defined in your contacts list
	for internal calls, this shows the extension that was dialled, enclosed in square brackets []
Response	The length of time it took for the call to be answered (i.e. the response time)
Duration	The duration of the call (in hours, minutes and seconds)
Cost	The cost of the call

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Top \ UK \ London \ Accounts \

About this report

Frequent Numbers

Overview

The Frequent Numbers report shows a top-ranking list of the numbers that you call, or are called by, most frequently. By highlighting your most frequently-called destinations, the report can help you to determine if private circuits to your commonly-called destinations would be beneficial; it can also help you negotiate call rates with your network provider.

-				
Top \UK \Lond	on \ Accounts \		Ab	out this rep
Dialled number 🔺	Location	Number of calls	Total duration	Total co
07966465332	Orange	11	00:01:07	0.3
07932138688	T-Mobile	9	00:00:53	0.27
07985980159	T-Mobile	16	00:04:52	0.71
07722702388	T-Mobile	10	00:01:21	0.30
02087355100	London	14	00:01:21	0.42
07958048138	T-Mobile	8	00:10:00	1.30
07867996393	Vodafone	11	00:00:59	0.3
02075849901	London	9	00:02:05	0.27
07849093682	02	12	00:01:52	0.3
07867525709	Vodafone	19	00:07:11	1.09
01342833313	East Grinstead	14	00:01:11	0.42
02075362601	London	8	00:00:40	0.24
02085977789	London	9	00:05:07	0.43
02074787000	London	9	00:01:02	0.2
07852616027	T-Mobile	14	00:08:53	1.19
07786276358	Vodafone	16	00:05:55	0.83
07968385191	Orange	10	00:03:03	0.43
00972525456330	Israel Mobile	9	00:02:27	2.6
07944789366	T-Mobile	13	00:09:00	1.24
07779599573	Orange	9	00:00:57	0.2
07957357127	T-Mobile	10	00:02:39	0.43
07854180071	Orange	12	00:01:14	0.3
02077497500	London	7	00:02:36	0.2
02088705151	London	12	00:02:46	0.3
07930410804	T-Mobile	14	00:06:52	0.93
07785546623	Vodafone	16	00:01:17	0.48

Running the report

Click on the Reports tab and select Frequent numbers from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

timenterprise	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
👰 Report queue	📩 My reports 🛛 🔚 Save	😇 Schedule 🛛 🦧 Run now
Type Account summary Busy channels Busy times Bo Structure	Entity 🗢 🛛	
Call analysis Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Period Preset Last hours From Aug 2012 at 00:00:00 23 Aug 2013 at 	Format
Thoound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices	Filters 👄 🏵	Options 🥯 🕸

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Dire	ectory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
👰 Report queue	📩 My reports 🛛 🛱 Save	© Schedule 🥂 Run now
Туре	Entity 🗢 🛛	
Account summary	颵 \UK \London \	
Call geography	Period	Format
Call scoring Call volumes Call volumes Custom report Daily activity	● Preset Yesterday ▼ ■ Last 1 hours ▼ ● From 15 Aug ▼ 2012 at 00:00:00 To 23 Aug ▼ 2013 at 23:59:59	Veb 전 PDF 알 XML 과 CSV 왕 Excel
Enterprise overview Frequent numbers		
Inbound call performance Missed calls	Filters • •	Options I I
Phone bill Random call selection	Duration is greater than 30	Exclude weekends Yes
Target response		
Unused devices		

The report's results

Below is an example of this report's output in Web format. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

Top \ UK \ Lond	lon \ Accounts \		Ab	out this rep
Dialled number 🔺	Location	Number of calls	Total duration	Total co
07966465332	Orange	11	00:01:07	0.33
07932138688	T-Mobile	9	00:00:53	0.27
07985980159	T-Mobile	16	00:04:52	0.7
07722702388	T-Mobile	10	00:01:21	0.30
02087355100	London	14	00:01:21	0.42
07958048138	T-Mobile	8	00:10:00	1.30
07867996393	Vodafone	11	00:00:59	0.33
02075849901	London	9	00:02:05	0.27
07849093682	02	12	00:01:52	0.3
07867525709	Vodafone	19	00:07:11	1.09
01342833313	East Grinstead	14	00:01:11	0.42
02075362601	London	8	00:00:40	0.24
02085977789	London	9	00:05:07	0.43
02074787000	London	9	00:01:02	0.2
07852616027	T-Mobile	14	00:08:53	1.19
07786276358	Vodafone	16	00:05:55	0.82
07968385191	Orange	10	00:03:03	0.43
00972525456330	Israel Mobile	9	00:02:27	2.64
07944789366	T-Mobile	13	00:09:00	1.24
07779599573	Orange	9	00:00:57	0.21
07957357127	T-Mobile	10	00:02:39	0.43
07854180071	Orange	12	00:01:14	0.36
02077497500	London	7	00:02:36	0.27
02088705151	London	12	00:02:46	0.39
07930410804	T-Mobile	14	00:06:52	0.91
07785546623	Vodafone	16	00:01:17	0.48
02080801502	London	9	00:03:23	0.34

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated

the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results.

The body of the report contains a table showing a summary of each frequently dialled number or CLI along with their associated destinations. The column headers of the table are described below:

Header	Description
Dialled number	The telephone number that was dialled
Location	The location name associated with the dialled number or CLI
Number of calls	The total number of calls made to each unique dialled number or from each unique CLI
Total duration	The total time spent on calls to each dialled number or from each CLI, displayed in hh:mm:ss format
Total cost	The total cost of calls for each unique dialled number

All dialled numbers, CLIs and locations in the table are shown as hyperlinks; clicking on any of them displays an itemised list of calls to/from each one.

About this report

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Top \ UK \ London \ Accounts \

Inbound Call Performance

Overview

The Inbound Call Performance report displays how quickly your inbound calls are being answered, compared to your target thresholds, grouped by year, month, day or hour. A visual representation of how well each target is met is shown alongside a table containing the actual response time values.

wy 111	boun	d call pe	erformar	ice								2013-08-23	3 15:49:
	Тор \	UK \	London	\ IT \								About	this repo
1	1												
2													
3 4													
4 5													
6	-												
7	1												
(0	14	D	280	420	560	700 Call volur	ne	840	980	1120	1260	1400
							Gairvolai					Show values	percentage
y		Σ	Ans	Avg durn	Avg resp	Max resp	0-10s	11-30s	31-60s	> 60s	%	Missed	Avg durn
		1424	1413	00:01:36	1	112	96%	38	1%	0%	99% 1	§ 11	38
		1396	1382	00:01:37	1	154	96%	4%	0%	0%	99% 1	\$ 14	38
		1361	1349	00:01:43	1	143	97%	2%	0%	0%	99% 1	-	42
				00:01:37	1	77	97%	2%	0%	0%	99% 1		33
		1343	1327					3%	1%	0%	99% 1	§ 12	33
		1343 1367	1327 1355	00:01:38	1	131	96%	35	± •			_	
					1 1	131 168	96% 97%	3%	1%	0%	99% 1	§ 14	45
		1367	1355	00:01:38						0% 0%	99% 1 99% 1		45 36

Running the report

Click on the Reports tab and select Inbound call performance from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🕺 Report queue	👈 My reports 🛛 🛱 Save	😇 Schedule 🛛 🤻 Run now
Type Account summary Busy channels Busy times	Entity 🛛	
Call analysis Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	Yesterday Last 1 hours v From 15 Aug v 2012 at 00:00:00 To 20 Aug v 2013 at 23:59:59	Format
	Filters 🔍	Options 🔍

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	📩 My reports 🛛 🛱 Save	💿 Schedule 🧏 Run now
Туре	Entity 🗧 ©	
Account summary Busy channels Busy times	💷 \ UK \ London \	
Call analysis	Period	Format
Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	● Preset Yesterday ▼ □ Last 1 hours ▼ ● From 15 Aug 2012 at 00:00:00 To 23 Aug 2013 at 23:59:59	♥ Web 📩 PDF 알 XML 🗟 CSV 웹 Excel
Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices	Filters ⊜	Options 🔗 🕲

The report's results

Below is an example of this report's output in Web format. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.



As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results.

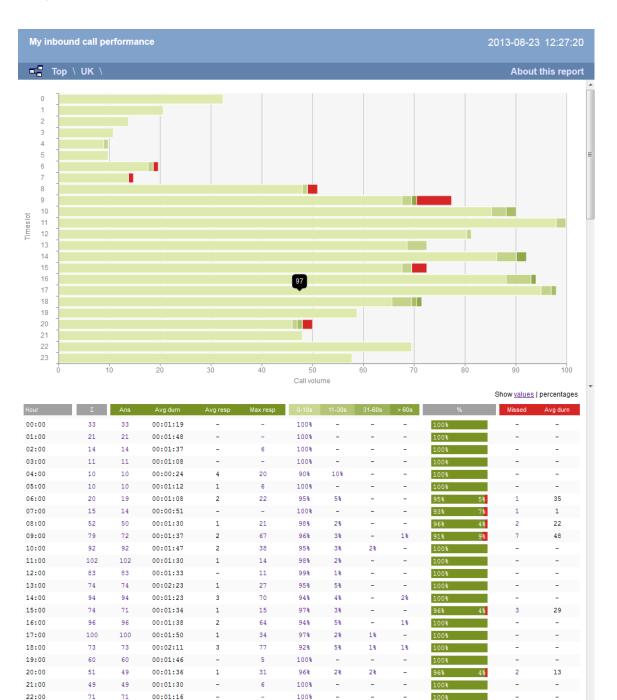
The achievement of each response time target is displayed as either percentages or actual values, and can be toggled using the link at the top-right of the graph.

The body of the report consists of a table showing a summary of your incoming calls, grouped by the period you selected. A description of

the column headers are shown below:

Header	Description						
Hour / Day / Month / Year	The time period.						
Σ	The total number of calls in each period.						
Answered	 Ans: The total number of answered calls in each period. Avg durn: The average length of time of all answered calls in each period. Avg resp: The average response time of all answered calls in each period. Max resp: The maximum time it took to answer a call in each period. x-xx s: The percentage of calls that were answered within each predefined target, e.g. if 50% is displayed under the 0-5s heading, means that half of all calls were answered within 5 seconds. 						
%	The number of answered versus missed calls within each period, expressed as a percentage.						
Missed	 Σ: The total number of missed calls in each period. Avg durn: The average length of time that missed calls rang before they were abandoned. 						

Each period is shown as a hyperlink which, if clicked on, re-runs the report using a more granular period.



To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

100%

_

100%

9

Top \ UK \ London \ Accounts \

59

1327

00:01:20

.

About this report

_

Missed Calls

59

1343

Overview

23:00

SUMMARY

The Missed Calls report analyses your missed calls in order to highlight which callers have and haven't been responded to. Each missed call is given a priority rating depending on how many times and how often the caller attempted to make contact. The time window in which a call must be responded to, if it is to be considered handled, is user-definable.

Top \ UK \				A	bout this rep
Missed Handled				E	xpand all Collaps
First attempt ▲	CLI	Contact	Avg ring time	Attempts	Priority 🕕
22 August 2013 07:55:13	07883218233	Lucy White	00:00:02	1	
22 August 2013 08:25:31	07854181008	Lucy White	00:00:19	1	
22 August 2013 08:25:48	07740783158	Lucy White	00:01:03	1	
22 August 2013 08:27:46	07887618737	Lucy White	00:00:38	2	
Date & time		Dialled number	Contact		Ring time
22 August 2013 08:27:46			Lucy White		00:00:18
22 August 2013 08:27:46			Lucy White		00:00:58
22 August 2013 09:20:08	01202770777	Anna Sasin	00:00:01	1	
22 August 2013 09:57:13	07854181348	Jennifer Lister	00:01:03	1	
22 August 2013 15:01:48	07952931786	Alan Prentice	-	1	
22 August 2013 20:05:41	07854180960	Alan Prentice	00:00:52	1	
Date & time		Dialled number	Contact		Ring time
22 August 2013 20:05:41			Alan Prentice		00:00:52
22 August 2013 20:14:13	07971032133	Alan Prentice	00:00:46	1	
22 August 2013 20:51:46	07940515848	Alan Prentice	00:00:09	1	
10 rows			00:00:30		

Running the report

Click on the Reports tab and select Missed calls from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

Create a report Scheduled		
🥺 Report queue	📩 My reports 🛛 🛱 Save	© Schedule 🥂 Run now
Туре	Entity 🗧 🌣	
Account summary Busy channels Busy times		
Call geography	Period	Format
Call geography Call scoring Call volumes Custom report Daily activity E	● Preset Yesterday ▼ □ Last 1 hours ▼ ● From 15 Aug ▼ 2012 at 00:00:00 To 20 Aug ▼ 2013 at 23:59:59	♥ Web 型 PDF 알 XML 및 CSV 웹 Excel
Enterprise overview Frequent numbers Inbound call performance		
Missed calls Missed calls Phone bill Random call selection Target response Top calls Unused devices	Filters 🥯 🕸	Options 🛛 🛇

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options

Format

Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can save the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direc	tory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	
🥺 Report queue	🤸 My reports 🛛 🔒 Save	💿 Schedule 🧏 Run now
Туре	Entity 🗧 🛛	
Account summary	III \ UK \ London \	
Call analysis	Period	Format
Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers	 Preset Last hours From 15 hug 2012 at 00:00:00 To 23 hug 2013 at 23:59:59 	♥WED DF W XML
Inbound call performance Nissed calls	Filters 🗢 🔍	Options 🔍 🍳
Phone bill	CLI begins with 0788	
Random call selection	7 Duration is greater than 2	
Target response		
Top calls		
🗋 Unused devices 🗸		

The report's results

Below is an example of this report's output in Web format. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

Top \ UK \				l l	About this rep
Missed Handled					Expand all Collaps
First attempt ▲	CLI	Contact	Avg ring time	Attempts	Priority 🕕
22 August 2013 07:55:13	07883218233	Lucy White	00:00:02	1	
22 August 2013 08:25:31	07854181008	Lucy White	00:00:19	1	
22 August 2013 08:25:48	07740783158	Lucy White	00:01:03	1	
22 August 2013 08:27:46	07887618737	Lucy White	00:00:38	2	
Date & time		Dialled number	Contact		Ring time
22 August 2013 08:27:46			Lucy White		00:00:18
22 August 2013 08:27:46			Lucy White		00:00:58
22 August 2013 09:20:08	01202770777	Anna Sasin	00:00:01	1	
22 August 2013 09:57:13	07854181348	Jennifer Lister	00:01:03	1	
22 August 2013 15:01:48	07952931786	Alan Prentice	-	1	
22 August 2013 20:05:41	07854180960	Alan Prentice	00:00:52	1	
Date & time		Dialled number	Contact		Ring time
22 August 2013 20:05:41			Alan Prentice		00:00:52
22 August 2013 20:14:13	07971032133	Alan Prentice	00:00:46	1	
22 August 2013 20:51:46	07940515848	Alan Prentice	00:00:09	1	
10 rows			00:00:30		

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results.

The report consists of two sections: Missed calls and Handled calls.

Missed calls

The Missed calls tab displays a table containing the calls that were missed and not responded to. Each column header of the table is described below:

Header	Description
First attempt	The date and time of the first missed call
CLI	The telephone number of the remote caller
Contact	The person who missed the call. If several people were called, the field will display the caption Various
Avg ring time	The average length of time a missed call rang before being abandoned
Attempts	The number of times the caller attempted to reach the specified contact without success
Priority	The priority is calculated by dividing the difference in time between the first and last call attempt by the total number of call attempts

Handled calls

 \checkmark

The Handled calls tab displays a table containing the calls that were initially missed but eventually responded to. Each column header of the table is described below:

Header	Description
Handled	The date and time the call was handled
CLI	The telephone number of the remote caller
Contact	The person who eventually handled the call
Duration	The duration of the handled call
Attempts	The number of call attempts made before the call was eventually handled
Priority	The priority is calculated by dividing the difference in time between the first and last call attempt by the total number of call attempts

Clicking on an individual call will show an itemised list of all call attempts made by that same caller; clicking on the Expand all link at the top-right corner of the screen will show this itemised list for all missed calls on the page.

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Phone Bill

Overview

The Phone Bill report produces a fully itemised telephone bill for billing back telephone usage to your clients, with the option of adding a percentage markup to each phone call. These bills can also include fixed charges for items other than phone calls, such as room rental, internet services and additional sundry items. You can fully customise the style of the report's output to reflect your own brand, including a company logo, for example.

Top \ UK \ London \ IT \			Ab	out this re
Minor (3389)				
Call charges				
Date & time ▲	Dialled number	Destination	Duration	Cos
22/08/2013 06:05:58	07717189227	Vodafone	00:00:15	0.032
22/08/2013 06:05:58	07717189227	Vodafone	00:00:12	0.030
22/08/2013 08:32:56	07956116604	T-Mobile	00:00:09	0.030
22/08/2013 09:02:21	07828882231	Hutchison 3G	00:00:01	0.030
22/08/2013 11:42:48	07724559575	02	00:00:22	0.048
22/08/2013 12:53:23	07956166876	T-Mobile	00:00:22	0.048
22/08/2013 13:20:08	07768414534	Vodafone	00:01:41	0.219
22/08/2013 14:58:06	72426320	Local Call	00:00:14	0.030
22/08/2013 14:58:06	72426320	Local Call	00:00:33	0.055
22/08/2013 16:24:33	07724559575	02	00:00:21	0.046
22/08/2013 18:24:03	07922435007	02	00:00:06	0.030
22/08/2013 18:58:01	07932101096	T-Mobile	00:01:51	0.240
22/08/2013 21:55:06	07958327107	T-Mobile	00:00:20	0.043
13 calls			00:06:27	0.881

Sunita Patel (3400)

Date & time 🔺	Dialled number	Destination	Duration	Cos
22/08/2013 09:02:56	02085795549	London	00:00:22	0.037
22/08/2013 09:02:56	02085795549	London	00:00:26	0.043
2 calls			00:00:48	0.080
Subtotal				0.080

Bill total	0.96
Tax (20%)	0.19
Total payable	1.15

Running the report

_

Click on the Reports tab and select Phone bill from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	🐈 My reports 🛛 🛱 Save	😇 Schedule 🛛 🦧 Run now
Type Account summary Busy channels	Entity 🗢 🛛	
 Busy times Call analysis Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview 	Preset Last month Last 1 From 15 Aug + 2012 at 0 23 Aug + 2013 at 23:59:59	Format
 Frequent numbers Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters I I I I I I I I I I I I I I I I I I I	Options 🛛

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

timenterprise	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	🤟 My reports 🛛 📙 Save	💿 Schedule 🥂 Run now
Туре	Entity 😑 🛛	
Account summary Busy channels Busy times	UK \ London \ Accounts \	
Call analysis Call geography Call scoring Call volumes C	Period Isst month Last From 15 Aug 23 Aug 2013 at 23:59:59	Format
	Filters I I I I I I I I I I I I I I I I I I I	Options 🔍 🕲

The report's results

Below is an example of this report's output in Web format. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

Top \ UK \ London \ IT \			Ab	out this re
Minor (3389)				
Call charges				
Date & time 🔺	Dialled number	Destination	Duration	Cos
22/08/2013 06:05:58	07717189227	Vodafone	00:00:15	0.032
22/08/2013 06:05:58	07717189227	Vodafone	00:00:12	0.030
22/08/2013 08:32:56	07956116604	T-Mobile	00:00:09	0.030
22/08/2013 09:02:21	07828882231	Hutchison 3G	00:00:01	0.030
22/08/2013 11:42:48	07724559575	02	00:00:22	0.048
22/08/2013 12:53:23	07956166876	T-Mobile	00:00:22	0.048
22/08/2013 13:20:08	07768414534	Vodafone	00:01:41	0.219
22/08/2013 14:58:06	72426320	Local Call	00:00:14	0.030
22/08/2013 14:58:06	72426320	Local Call	00:00:33	0.055
22/08/2013 16:24:33	07724559575	02	00:00:21	0.046
22/08/2013 18:24:03	07922435007	02	00:00:06	0.030
22/08/2013 18:58:01	07932101096	T-Mobile	00:01:51	0.240
22/08/2013 21:55:06	07958327107	T-Mobile	00:00:20	0.043
13 calls			00:06:27	0.881

Sunita Patel (3400)

Date & time 🔺	Dialled number	Destination	Duration	Cos
	Dianed Hamber		Bulation	
22/08/2013 09:02:56	02085795549	London	00:00:22	0.037
22/08/2013 09:02:56	02085795549	London	00:00:26	0.043
2 calls			00:00:48	0.080
Subtotal				0.080

 Total payable	1.15
Tax (20%)	0.19
Bill total	0.96

s with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results.

The body of the report consists of an itemised call list for each billed user. Each itemised list has the following column headers:

Header	Description
Date & Time	The date and time the call started
Dialled number	The telephone number that was dialled
Destination	The location name associated with the dialled number
Duration	The total time spent on the call, in hh:mm:ss format
Cost	The cost of the call(s)

Subtotal	The total cost of all outgoing calls for each user
Bill total	The total cost of all outgoing calls for all users
Тах	The sales tax to apply to the bill (if applicable)
Total payable	The total amount payable, including taxes

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Top \ UK \ London \ Accounts \

About this report

Random Call Selection

Overview

The Random Call Selection report is useful for obtaining a sample of phone calls from across your organisation for the purposes of call auditing and quality control, especially when coupled with the integrated call recording features of TIM. You can annotate, score, or listen to any of the calls that appear in the report's results.

My random call selection					2013-08-23 16:50		
					About this repo		
All	utbound Answe	ered Interna	al				
Date & Time ▲	Source	CLI	Route	Destination	Response	Duration	Cost
2013-08-12 09:57:13	London	02072671942	-	Dusty Rhodes	-	00:01:35	- 9
2013-08-12 10:10:08	London	02077772580	-	Barry Cade	-	00:01:51	- 🖓
2013-08-12 10:21:56	Vodafone	07787500043	-	Barb E. Dahl	-	00:00:48	- 🖓
2013-08-12 10:32:11	Mona Lott	-	07951385212	T-Mobile	-	80:00:00	0.030 🖵
2013-08-12 10:34:43	UNAVAILABLE	-	-	Megan Doyle	-	00:01:11	- 👳
2013-08-12 10:36:23	UNAVAILABLE	-	-	Barb E. Dahl	-	00:00:32	- 👳
2013-08-12 13:33:38	Hazel Nutt	-	2062	Adam Zapel	-	00:00:18	-
2013-08-12 13:47:16	Carl Mason	-	07813933029	Orange	-	00:00:03	0.030 🖵
2013-08-12 15:40:51	Mike Stand	-	07956727125	T-Mobile	-	00:00:31	0.067 🤤
2013-08-12 16:14:56	T-Mobile	07956403840	-	Mike Francis	27	00:00:49	- Ç
2013-08-13 09:19:18	Mary Christmas	-	1050	Gerry Clunes	-	00:05:31	-
2013-08-13 09:28:08	London	02070488595	-	Barbara Seville	18	00:02:03	- 5
2013-08-13 14:11:28	UNAVAILABLE	-	-	Anita Bath	-	00:00:49	- 🖓
2013-08-13 17:09:28	UNAVAILABLE	-	-	Barry Cade	-	00:00:12	- Ç
2013-08-13 18:53:51	UNAVAILABLE	-	-	Constance Noring	-	00:01:13	- Ç
2013-08-13 19:02:58	London	02074712347	-	Doug Graves	-	00:02:09	- 🖓
2013-08-13 20:51:41	Vodafone	07771566118	-	Jim Shorts	-	00:02:50	- Ç
2013-08-13 21:27:28	02	07739694989	-	Brandon Cattel	-	00:00:58	- 5
2013-08-13 23:07:31	London	02074129204	-	Brina Smith	-	00:00:06	- Ç
2013-08-14 00:47:11	UNAVAILABLE	-	-	Barb E. Dahl	-	00:01:42	- 🖓
2013-08-14 08:27:46	Orange	07854181706	-	Reese Francis	4	00:00:10	- Ç
2013-08-14 15:06:53	Kathy Burke	-	2044	Gwyn Osbourne	-	00:00:24	-
2013-08-15 01:33:28	Anna Sasin	-	07808791272	02	-	00:00:12	0.030 🤤
2013-08-15 09:07:28	Orange	07812357079	-	Billy Byrne	4	00:01:08	- 5
2013-08-15 12:31:21	T-Mobile	07940341885	-	Sally Forth	-	00:00:47	- Ç
2013-08-15 15:09:38	UNAVAILABLE	-	-	Jo King	-	00:00:20	- Ç
2013-08-15 16:53:46	Arthur Gros	-	Joe Bloggs Mobile	Hutchison 3G	-	00:08:22	1.088 🤤
2013-08-15 22:19:21	London	02079385700	-	Barb E. Dahl	-	00:03:08	- Ç
2013-08-16 01:55:38	London	02074955999	-	Barb Dwyer	-	00:03:18	- Ç
2013-08-16 09:24:26	London	02079092000	-	Jo King		00:01:35	- 0

Running the report

Click on the Reports tab and select Random Call Selection from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

timenterprise	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	
🥺 Report queue	📩 My reports 🛛 🔚 Save	💿 Schedule 🛛 🦧 Run now
Туре	Entity 😑 🛛	
Account summary Busy channels Busy times		
Call analysis	Period	Format
Call scoring	Preset Yesterday Last 1 hours From 15 Aug - 2012 at 00:00:00	Sweb 🔁 PDF 🗟 XML 🗟 CSV
Daily activity	To 27 Aug 2013 at 23:59:59	髱 Excel
Enterprise overview Frequent numbers		
Inbound call performance Missed calls	Filters © ©	Options 🔍 🛇
Phone bill Random call selection		
Target response		
Unused devices		

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Dire	ctory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	📩 My reports 🛛 🔓 Save	💿 Schedule 🧏 Run now
Туре	Entity 🗢 🌣	
Account summary Busy channels Busy times	🗅 \ UK \ London \ IT \	
Call analysis Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview	Last week Last 1 hours From 15 Aug 2012 at 00:00:00 To 23 Aug 2013 at 23:59:59	Format
 Frequent numbers Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices 	Filters 😑 🛛	Options © ©

The report's results

Below is an example of this report's output in Web format. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

My random call selection 2013-08-23 16:50:27							
Top \ UK \						About t	his report
All	Answered	I Interna	al				
Date & Time 🔺	Source	CLI	Route	Destination	Response	Duration	Cost
2013-08-12 09:57:13	London	02072671942	-	Dusty Rhodes	-	00:01:35	- 🖓
2013-08-12 10:10:08	London	02077772580	-	Barry Cade	-	00:01:51	- 🖓
2013-08-12 10:21:56	Vodafone	07787500043	-	Barb E. Dahl	-	00:00:48	- 🖓
2013-08-12 10:32:11	Mona Lott	-	07951385212	T-Mobile	-	80:00:00	0.030 🖵
2013-08-12 10:34:43	UNAVAILABLE	-	-	Megan Doyle	-	00:01:11	- 🖓
2013-08-12 10:36:23	UNAVAILABLE	-	-	Barb E. Dahl	-	00:00:32	- 🖓
2013-08-12 13:33:38	Hazel Nutt	-	2062	Adam Zapel	-	00:00:18	-
2013-08-12 13:47:16	Carl Mason	-	07813933029	Orange	-	00:00:03	0.030 💭
2013-08-12 15:40:51	Mike Stand	-	07956727125	T-Mobile	-	00:00:31	0.067 🖵
2013-08-12 16:14:56	T-Mobile	07956403840	-	Mike Francis	27	00:00:49	- 🖓
2013-08-13 09:19:18	Mary Christmas	-	1050	Gerry Clunes	-	00:05:31	-
2013-08-13 09:28:08	London	02070488595	-	Barbara Seville	18	00:02:03	- 👳
2013-08-13 14:11:28	UNAVAILABLE	-	-	Anita Bath	-	00:00:49	- 🖵
2013-08-13 17:09:28	UNAVAILABLE	-	-	Barry Cade	-	00:00:12	- 🖓
2013-08-13 18:53:51	UNAVAILABLE	-	-	Constance Noring	-	00:01:13	- 👳
2013-08-13 19:02:58	London	02074712347	-	Doug Graves	-	00:02:09	- 🖓
2013-08-13 20:51:41	Vodafone	07771566118	-	Jim Shorts	-	00:02:50	- 🖓
2013-08-13 21:27:28	02	07739694989	-	Brandon Cattel	-	00:00:58	- 🖓
2013-08-13 23:07:31	London	02074129204	-	Brina Smith	-	00:00:06	- 🖓
2013-08-14 00:47:11	UNAVAILABLE	-	-	Barb E. Dahl	-	00:01:42	- 🖓
2013-08-14 08:27:46	Orange	07854181706	-	Reese Francis	4	00:00:10	- 🗩
2013-08-14 15:06:53	Kathy Burke	-	2044	Gwyn Osbourne	-	00:00:24	-
2013-08-15 01:33:28	Anna Sasin	-	07808791272	02	-	00:00:12	0.030 🖵
2013-08-15 09:07:28	Orange	07812357079	-	Billy Byrne	4	00:01:08	- 🗩
2013-08-15 12:31:21	T-Mobile	07940341885	-	Sally Forth	-	00:00:47	- 🖓
2013-08-15 15:09:38	UNAVAILABLE	-	-	Jo King	-	00:00:20	- 🖓
2013-08-15 16:53:46	Arthur Gros	-	Joe Bloggs Mobile	Hutchison 3G	-	00:08:22	1.088 🖵
2013-08-15 22:19:21	London	02079385700	-	Barb E. Dahl	-	00:03:08	- 🖓
2013-08-16 01:55:38	London	02074955999	-	Barb Dwyer	-	00:03:18	- 🖓
2013-08-16 09:24:26	London	02079092000	-	Jo King	-	00:01:35	- 🖓

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results.

The body of the report consists of a table showing a randomly-chosen summary of calls for the period you selected. Each column header of the table is described below:

Header	Description
Date & Time	The date and time the call started
Source	The place from where the call originated
CLI	The telephone number of the remote caller, for inbound calls
Route	The information displayed in this field is determined by the type of call: for incoming calls, this shows the CLI of the caller
	 for incoming internal calls, this shows either the caller's username or extension number
	for outgoing calls, this shows the dialled number
Destination	The information displayed in this field is determined by the type of call:
	for incoming calls, this shows the name of the user whose extension answered the call, or the extension number if not available
	for outgoing calls, this shows the geographical location that was dialled, or an alias if defined in your contacts list
	 for internal calls, this shows the extension that was dialled, enclosed in square brackets []
Response	The length of time it took for the call to be answered (i.e. the response time)
Duration	The duration of the call (in hours, minutes and seconds)
Cost	The cost of the call

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Top \ <u>UK</u> \ London \ Accounts \	About this repo
---------------------------------------	-----------------

Target Response

Overview

The Target Response report enables you to assess how well calls to your company are answered, compared to user-defined targets. The report provides a visual representation as well as a line-by-line summary of the proportion of calls answered inside and outside your set targets.

Top \ UK \											About t	his repo
Aberdeen Birmingham Brighton Gasgow G												
Newcastle												
-	4000	0000	2000	5000		500	7000	0400	4	, loo	44700	10000
0	1300	2600	3900	5200		500 er of calls	7800	9100	1	0400	11700	13000
	1300	2600					7800	9100			11700	13000
0			Answ	ered	Numb	er of calls				ssed		
o ame ⊾	Σ	Avg resp	Answ 0-5 s	ered 6 - 10 s	Numb 11 - 15 s	er of calls	Σ	Avg durn	Mi s 0 - 5 s		11 - 15 s	> 15 s
ame 🛦	Σ 2662	Avg resp 3	Answ 0-5 s 88\$	6 - 10 s	Numb 11 - 15 s 3%	er of calls > 15 s 4%	Σ	Avg durn -	Mi s 0 - 5 s -	ssed		
ame 🛦) Aberdeen) Birmingham	Σ 2662 286	Avg resp 3 10	Answ 0-5 s 88 % 37 %	6 - 10 s 6 - 10 s 21 s	Numb 11 - 15 s 3% 18%	er of calls > 15 s 4 % 23 %	Σ	Avg durn	Mi s 0 - 5 s	ssed	11 - 15 s	> 15 s
ame A Aberdeen Birmingham Birghton	Σ 2662 286 4560	Avg resp 3	Answ 0 - 5 s 88% 37% 99%	6-10 s 6% 21% 1%	Numb 11 - 15 s 3% 18% 0%	er of calls > 15 s 4 % 23 % 1 %	Σ - 12	Avg durn - 1	Mi s 0 - 5 s -	ssed	11 - 15 s	> 15 s
ame A Aberdeen Birmingham Birghton Gardiff	Σ 2662 286	Avg resp 3 10 -	Answ 0-5 s 88 % 37 %	6 - 10 s 6 - 10 s 21 s	Numb 11 - 15 s 3% 18%	er of calls > 15 s 4 % 23 %	Σ - 12 -	Avg durn - 1 -	Mi s 0 - 5 s -	ssed	11 - 15 s	> 15 s _ _ _
ame A Aberdeen Birmingham Birghton Gardiff	Σ 2662 286 4560 9867	Avg resp 3 10 - -	Answ 0 - 5 s 88% 37% 99% 100%	6 - 10 s 6 \$ 21 \$ 1 \$ 0 \$	Numb 11 - 15 s 3 % 18 % 0 % 0 %	er of calls > 15 s 4 % 2 3 % 1 % 0 %	Σ - 12 -	Avg durn - 1 -	Mis 0 - 5 s - 100% - -	ssed	11 - 15 s	> 15 s - - -
ame ▲) Aberdeen) Birmingham) Brighton) Cardiff) Glasgow	Σ 2662 286 4560 9867 359	Avg resp 3 10 - - 3	Answ 0 - 5 s 88% 37% 99% 100% 77%	ered 6-10 s 6% 21% 1% 0% 8%	Numb 11 - 15 s 3 % 18 % 0 % 0 % 8 %	er of calls > 15 s 4 % 23 % 1 % 0 % 7 %	Σ - 12 - -	Avg durn - 1 - -	Mis 0 - 5 s - 100% - - -	6 - 10 s - - - - -	11 - 15 s - - - - -	> 15 s - - - -
ame A Aberdeen Birmingham Brighton Cardiff Glasgow Leeds London	Σ 2662 286 4560 9867 359 1413	Avg resp 3 10 - - 3 2	Answ 0-5 s 88% 37% 99% 100% 77% 92%	ered 6 - 10 s 6 % 21 % 1 % 0 % 8 % 4 %	Numb 11 - 15 s 3% 18% 0% 0% 8% 1%	er of calls > 15 s 4% 23% 1% 0% 7% 3%	Σ - 12 - - - 85	Avg dum - 1 - - - 31	Mis 0 - 6 s - 100% - - - 24%	6-10 s - - - - - 8\$	11 - 15 s - - - - - - 6§	> 15 s 62\$
ame A Aberdeen Birmingham Brighton Cardiff Glasgow Leeds	Σ 2662 286 4560 9867 359 1413 5090	Avg resp 3 10 - 3 2 5	Answ 0-5s 88% 37% 99% 100% 77% 92% 73%	6 - 10 s 6 \$ 21 \$ 1 \$ 0 \$ 8 \$ 4 \$ 11 \$	Numb 11 - 15 s 3% 18% 0% 0% 8% 1% 6%	er of calls > 15 s 4% 23% 1% 0% 7% 3% 9%	Σ 12 85 118	Avg dum - 1 - - 31 40	Mi: 0-5s - 100% - - 24% 21%	6 - 10 s - - - - 8 8 8 4 8	11 - 15 s - - - - - 6 \$ 6 \$	> 15 s 62% 69%

Running the report

Click on the Reports tab and select Target response from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
👰 Report queue	📩 My reports 🛛 🛱 Save	🖲 Schedule 🕂 Run now
Туре	Entity 😑 🛛	
 Account summary Busy channels Busy times Call analysis Call geography Call scoring Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers 	Preset Yesterday Last 1 From 15 Aug 2012 To 27	Format
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices User activity 	Filters ©	Options ତ ତ

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period

- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🕺 Report queue	📩 My reports 🛛 🔓 Save	🖸 Schedule 🧏 Run now
Туре	Entity 😑 🛛	
Account summary Busy channels Busy times	🖩 \UK \ London \	
Call analysis	Period	Format
Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers	● Preset Yesterday ▼ □ Last 1 hours ▼ ● From 15 Aug ⊋ 2012 at 00:00:00 To 27 Aug ⊋ 2013 at 23:59:59	♥ Web 전 PDF ፼ XML 과 CSV 왕 Excel
Inbound call performance Missed calls	Filters 😑 🛛	Options 🛛 🔍
 Phone bill Random call selection Target response Top calls Unused devices User activity 		E Exclude weekends Yes

The report's results

Below is an example of this report's output in Web format. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

Top \ UK \											About t	his repo
Aberdeen Birmingham Brighton Gasgow G												
Newcastle												
-	4000	0000	2000	5000			7000	0400	4		44700	40000
0	1300	2600	3900	5200		500 er of calls	7800	9100	1	0400	11700	13000
-	1300	2600					7800	9100			11700	13000
0			Answ	ered	Numb	er of calls				ssed		
o ame ⊾	Σ	Avg resp	Answ 0-5 s	ered 6 - 10 s	Numb 11 - 15 s	er of calls > 15 s	Σ	Avg durn	Mi s 0 - 5 s		11 - 15 s	> 15 s
ame 🛦	Σ 2662	Avg resp 3	Answ 0 - 5 s 88\$	ered 6 - 10 s 6§	Numb 11 - 15 s 3%	er of calls > 15 s 4%	Σ	Avg durn -	Mi s 0 - 5 s -	ssed		
ame 🛦) Aberdeen) Birmingham	Σ 2662 286	Avg resp	Answ 0-5 s 88 % 37 %	ered 6 - 10 s 6 \$ 21 \$	Numb 11 - 15 s 3% 18%	er of calls > 15 s 4 % 23 %	Σ	Avg durn	Mi s 0 - 5 s	ssed	11 - 15 s	> 15 s
ame A B Aberdeen B Birmingham B Frighton	Σ 2662 286 4560	Avg resp 3 10	Answ 0 - 5 s 88% 37% 99%	ered 6 - 10 s 6§	Numb 11 - 15 s 3%	er of calls > 15 s 4 % 23 % 1 %	Σ - 12	Avg durn - 1	Mi s 0 - 5 s -	ssed	11 - 15 s	> 15 s
ame A Aberdeen Birmingham Birghton Gardiff	Σ 2662 286	Avg resp 3 10 -	Answ 0-5 s 88 % 37 %	6-10 s 6% 21% 1%	Numb 11 - 15 s 3% 18% 0%	er of calls > 15 s 4 % 23 %	Σ - 12 -	Avg durn - 1 -	Mi s 0 - 5 s -	ssed	11 - 15 s	> 15 s _ _ _
o ame A Bardeen Birmingham Brighton Cardiff Glasgow	Σ 2662 286 4560 9867	Avg resp 3 10 - -	Answ 0 - 5 s 88% 37% 99% 100%	6-10 s 68 218 18 08	Numb 11 - 15 s 3 % 18 % 0 % 0 %	er of calls > 15 s 4 % 2 3 % 1 % 0 %	Σ - 12 -	Avg durn - 1 -	Mis 0 - 5 s - 100% - -	ssed	11 - 15 s	> 15 s - - -
ame A Aberdeen Birmingham Birghton Gardiff	Σ 2662 286 4560 9867 359	Avgresp 3 10 - - 3	Answ 0-5s 88% 37% 99% 100% 77%	ered 6-10 s 6% 21% 1% 0% 8%	Numb 11 - 15 s 3% 18% 0% 0% 8%	er of calls > 15 s 4 % 23 % 1 % 0 % 7 %	Σ - 12 - -	Avg durn - 1 - -	Mis 0 - 5 s - 100% - - -	6 - 10 s - - - - -	11 - 15 s - - - - -	> 15 s - - - -
ame A Aberdeen Birmingham Brighton Cardiff Glasgow Leeds London	Σ 2662 286 4560 9867 359 1413	Avg resp 3 10 - - 3 2	Answ 0-5s 88% 37% 99% 100% 77% 92%	ered 6 - 10 s 6 & 21 & 1 & 0 & 8 & 4 &	Numb 11 - 15 s 3% 18% 0% 0% 8% 1%	er of calls > 15 s 4 % 2 3 % 1 % 0 % 7 % 3 %	Σ - 12 - - - 85	Avg dum - 1 - - - 31	Mis 0 - 6 s - 100% - - - 24%	6-10 s - - - - - 8\$	11 - 15 s - - - - - 6§	> 15 s 62\$
o ame A B Aberdeen B Birmingham B Brighton Cardiff G Glasgow B Leeds	Σ 2662 286 4560 9867 359 1413 5090	Avg resp 3 10 - - 3 2 5	Answ 0-5s 88% 37% 99% 100% 77% 92% 73%	ered 6-10 s 6% 21% 1% 0% 8% 4% 11%	Numb 11 - 15 s 3% 18% 0% 0% 8% 1% 6%	er of calls > 15 s 4% 23% 1% 0% 7% 3% 9%	Σ 12 85 118	Avg dum - 1 - - 31 40	Mi: 0-5s - 100% - - 24% 21%	6 - 10 s - - - - 8 8 8 4 8	11 - 15 s - - - - - 6 \$ 6 \$	> 15 s 62% 69%

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

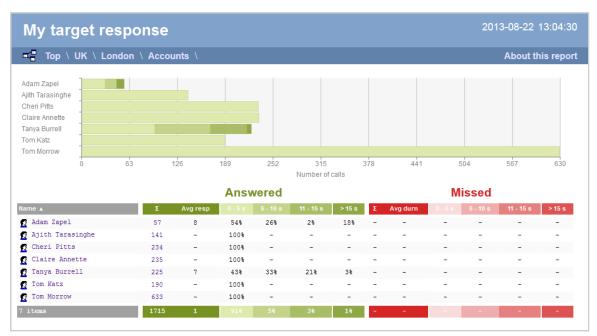
The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results.

The body of the report consists of a table showing a summary of call information for the period you selected, grouped by entity. Each column header of the table is described below:

Header	Description
Name	The name of the entity for each line of data
Answered	 Σ: The total volume of calls received for each entity Avg resp: The average response time of all answered calls in each period x-xx s: The percentage of calls that were answered within each predefined target, e.g. if 50% is displayed under the 0-5s heading, half of all calls were answered sooner than 5 seconds
Missed	 Σ: The total number of missed calls for each entity Avg durn: The average length of time a missed call rang before being abandoned x-xx s: The percentage of calls that were abandoned within each predefined target, e.g. if 50% is displayed under the 0-5s heading, half of all calls were abandoned sooner than 5 seconds

Each entity is shown as a hyperlink which, if clicked on, re-runs the report to include only call information pertaining to that entity, allowing you to inspect the performance of specific teams and individual users.





To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Top \ UK \ London \ Accounts \

About this report

Top Calls

Overview

The Top Calls report is useful for discovering unusual calling patterns and identifying potential abuse, by highlighting the longest and most

costly calls made by people in your organisation.

📲 Top \ UK \ Lond	on \ Accounts \					About t	his repor
All Outb	Source	CLI	Route	Destination	Response	Duration	Cost
05/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:05:20	0.693 9
20/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:05:06	0.663 0
12/03/2012 12:26:21	Adam Zapel	-	07905036413	T-Mobile	-	00:04:59	0.648 (
29/03/2012 09:46:41	Adam Zapel	-	00972525456330	Israel Mobile	-	00:00:32	0.613 (
19/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:04:39	0.604 (
15/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:04:23	0.570 (
18/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:03:53	0.505 (
21/03/2012 09:46:41	Adam Zapel	-	00972525456330	Israel Mobile	-	00:00:27	0.472 (
17/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:03:18	0.429 (
19/03/2012 11:07:08	Adam Zapel	-	02076232323	London	-	00:04:29	0.404 (
10 calls						00:37:06	5,601

Running the report

Click on the Reports tab and select Top calls from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	📩 My reports 🛛 🔓 Save	😇 Schedule 🥂 Run now
Туре	Entity 😑 🛛	
 Account summary Busy channels Busy times Call analysis Call geography Call scoring Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers 	Vesterday Last 1 From 15 Aug 2012 To 27 Aug 2013 at 23:59:59	Format
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices User activity 	Filters I I I I I I I I I I I I I I I I I I I	Options ତ ତ

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav

e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	
🥺 Report queue	🛨 My reports 🛛 🔚 Save	🖲 Schedule 🧏 Run now
Туре	Entity 😑 🛛	
Account summary Busy channels Busy times	🖩 \ UK \ London \	
 Call analysis Call geography Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers 	Period Image: Second system Last Image: Second system From Image: Second system To 27 Auge: 2013 at 23:59:59	Format
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices User activity 	Filters © © Response time is greater than 3	Options 🛛 I 🖓

The report's results

Below is an example of this report's output in Web format:

My top calls	on \ Accounts \					About t	his repo
All Outb	Source	CLI	Route	Destination	Response	Duration	Cost
05/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:05:20	0.693
20/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:05:06	0.663
12/03/2012 12:26:21	Adam Zapel	-	07905036413	T-Mobile	-	00:04:59	0.648
29/03/2012 09:46:41	Adam Zapel	-	00972525456330	Israel Mobile	-	00:00:32	0.613
19/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:04:39	0.604
15/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:04:23	0.570
18/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:03:53	0.505
21/03/2012 09:46:41	Adam Zapel	-	00972525456330	Israel Mobile	-	00:00:27	0.472
17/03/2012 12:26:21	Adam Zapel	-	07905501453	T-Mobile	-	00:03:18	0.429
19/03/2012 11:07:08	Adam Zapel	-	02076232323	London	-	00:04:29	0.404
10 calls						00:37:06	5,601

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The report consists of a table containing a list of your top calls, as defined by your selection criteria. Each column header of the table is described below:

Header	Description		

Date & Time	The date and time the call started
Source	The place from where the call originated
CLI	The telephone number of the remote caller for inbound calls
Route	 The information displayed in this field is determined by the type of call: for incoming calls, this shows the CLI of the caller for incoming internal calls, this shows either the caller's username or extension number for outgoing calls, this shows the dialled number
Destination	 The information displayed in this field is determined by the type of call: for incoming calls, this shows the name of the user whose extension answered the call, or the extension number if not available for outgoing calls, this shows the geographical location that was dialled, or an alias if defined in your contacts list for internal calls, this shows the extension that was dialled, enclosed in square brackets []
Response	The length of time it took for the call to be answered (i.e. the response time)
Duration	The duration of the call (in hours, minutes and seconds)
Cost	The cost of the call

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Top \ UK \ London \ Accounts \

Unused Devices

Overview

The Unused Devices report identifies any users and channels that haven't been utilised in a given period of time. It is useful for identifying telephone handsets that can be safely reallocated to other users or which channels are no longer used.

About this report

🖀 Top \ UK \ London \ Accounts \				About this repo
Users Channels				
ame 🔺	ID	Email	DDI	Mobile
g Danny Lehman	7300	-	-	-
Jake Bolger	7289	-	-	-
Jo Balham	7311	-	-	-
Jon Southgate	1962	js@abc.com	-	-
g Lucy Smart	7081	-	-	-
g Malcolm Hughes	11043	-	-	-
g Marie Barrett	7725	-	-	-
g Michael Faulty	7210	-	-	-
Mohan Patel	7089	-	-	-
9 Natasha Levy	7305	-	-	-
g Oisin Kennedy	7294	-	-	-
Peta Lacey	1946	-	-	-
Phil Rogers	7209	-	-	-
Ros Leftley	7208	-	-	-
Sarah Baker	7309	-	-	-
Sean Mason	7297	-	-	-
3 Tina Ridgley	7310	_	-	_

Running the report

Click on the Reports tab and select Unused devices from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

tim enterprise)	Reports	rts Directory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🕺 Report queue	📩 My reports 🛛 🛱 Save	ave 💿 Schedule 🥂 Run now
Туре	Entity 😑 🕹	
Account summary Busy channels Busy times Call analysis Call geography Call scoring Call scoring Call volumes	Period Preset Yesterday Last hours	Format
Custom report Daily activity Enterprise overview Frequent numbers		20:00:00 23:59:59
Thbound call performance Missed calls Phone bill Random call selection	Filters © ©	Options
Target response Top calls Unused devices User activity		

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period
- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the Run now button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	🛨 My reports 🛛 🔓 Save	💿 Schedule 🧏 Run now
Туре	Entity 😑 🛛	
Account summary Busy channels Busy times	🖩 \ UK \ London \	
Call analysis	Period	Format
Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	● Preset Yesterday ▼ ● Last 1 hours ▼ ● From 15 Aug ↓ 2012 at 00:00:00 To 27 Aug ↓ 2013 at 23:59:59	♥ Web
Inbound call performance Missed calls	Filters 🗢 🛛	Options 🗧 🛛
Phone bill		E Show "Do not log" devices Yes
Random call selection		and show bornering devices res
Target response		
Top calls		
Unused devices		
User activity		

The report's results

Below is an example of this report's output in Web format, showing both unused users and unused channels:

Top \ UK \ London \ Accounts \				About this repo		
Users Channels						
ame 🔺	ID	Email	DDI	Mobile		
Danny Lehman	7300	-	-	-		
Jake Bolger	7289	-	-	-		
Jo Balham	7311	-	-	-		
Jon Southgate	1962	js@abc.com	-	-		
Lucy Smart	7081	-	-	-		
Malcolm Hughes	11043	-	-	-		
Marie Barrett	7725	-	-	-		
Michael Faulty	7210	-	-	-		
Mohan Patel	7089	-	-	-		
Natasha Levy	7305	-	-	-		
Oisin Kennedy	7294	-	-	-		
Peta Lacey	1946	-	-	-		
Phil Rogers	7209	-	-	-		
Ros Leftley	7208	-	-	-		
Sarah Baker	7309	-	-	-		
g Sean Mason	7297	-	-	-		
7 Tina Ridgley	7310	-	-	-		

My unused devices 2013-08-23 13:04:30	
Top \ UK \ London \ Accounts \	About this repor
Users Channels	<u>Show all</u> 🛞 🛞 1 of 2 🛞 🖗
Name	ID
<i>//</i> 10004	10004
<i>W</i> 25001	25001
<i>W</i> 25002	25002
H 25003	25003
<i>W</i> 25004	25004
	25005
	25006
	25007
	25008
<i>₩</i> 25009	25009

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The results will display as a paginated list of unused devices with each type of device being grouped in its own tab:

The	Users	tab shows the following information:
-----	-------	--------------------------------------

Header	Description
Name	The name of the user
ID	The extension number associated with the user
Email	The e-mail address associated with the user
DDI	The DDI associated with the user, if available
Mobile	The mobile number associated with the user, if available

The Channels tab shows the following information:

Header	Description
Name	The name of the channel
ID	The ID associated with the channel

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

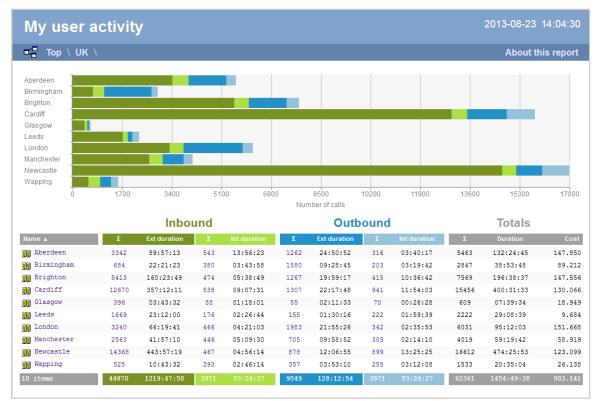
Top \ UK \ London \ Accounts \

About this report

User Activity

Overview

The User Activity report provides a comprehensive summary of internal and external call activity - both inbound and outbound - for each site, group or user. It is also possible to drill down into each entity to obtain the same call information at a more detailed level.



Running the report

Click on the Reports tab and select User activity from the left-hand pane. The screen displaying the parameters of the report will appear, where you can configure the entity, period, filters, options and format of the report.

timenterprise	Reports Dir	ectory Call View Tariff Editor Alerts
Create a report Scheduled re	eports	
👰 Report queue	📩 My reports 🛛 🔒 Save	💿 Schedule 🛛 🦧 Run now
Туре	Entity 😑 🛛	
Account summary	Period	Format
Call geography Call scoring Call volumes Call volumes Custom report Daily activity Enterprise overview Frequent numbers	 Preset Yesterday ▼ Last 1 hours ▼ From 15 Aug ▼ 2012 at 00:00:00 To 27 Aug ▼ 2013 at 23:59:59 	© Web ⊠ PDF ☑ XML
 Inbound call performance Missed calls Phone bill Random call selection Target response Top calls Unused devices User activity 	Filters I I I I I I I I I I I I I I I I I I I	Options

For details about how to configure these parameters, refer to the relevant page(s) in the list below:

- Entity
- Period

- Filters
- Options
- Format

Creating the report

When you have configured the report's parameters, click on the **Run now** button to run the report immediately; alternatively, you can sav e the report's definition or schedule the report for future delivery.

tim enterprise)	Reports Direct	tory Call View Tariff Editor Alerts
Create a report Scheduled re	ports	
🥺 Report queue	📩 My reports 🛛 🛱 Save	🖸 Schedule 🧏 Run now
Туре	Entity 😑 🛛	
Account summary	🔢 \ UK \ London \	
Call analysis Call geography	Period	Format
Call scoring Call volumes Custom report Daily activity Enterprise overview Frequent numbers	● Preset Yesterday ▼ □ Last 1 hours ▼ ● From 15 Aug ▼ 2012 at 00:00:00 To 27 Aug ▼ 2013 at 23:59:59	♥ Web
Inbound call performance Missed calls	Filters 🔍 🎯	Options 🔍 🌣
 Phone bill Random call selection Target response Top calls Unused devices User activity 	Response time is greater than 3	E Exclude weekends Yes

The report's results

The results of the report show comprehensive call summary information - organised by call type - for the report entity you selected. By clicking on the About this report link at the top-right corner of the page, you can review any filters and options that have been applied to the report.

As with all reports produced by TIM Enterprise, each page of the report includes the following information:

- the report's title
- the date and time that the report was generated
- the name of the report, if applicable

The web format is the most interactive of all formats: all column headers are click-sortable and most graphical and tabular elements can be drilled down into, allowing deeper analysis of your results.

Results are shown for each organisational level: site, group and individual user, where a table is shown with the following headers:

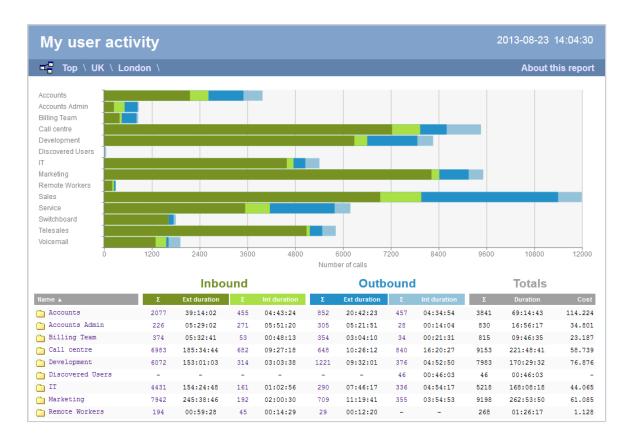
Header	Description
Name	The name of the entity for each line of data
Inbound	 Σ: The number of inbound answered calls, including transferred calls Ext duration: The total duration of all inbound external calls (in hours, minutes and seconds) Int duration: The total duration of all inbound internal calls (in hours, minutes and seconds)

Outbound	 Σ: The number of outbound calls made Ext duration: The total duration of all outbound external calls (in hours, minutes and seconds) Int duration: The total duration of all outbound internal calls (in hours, minutes and seconds)
Totals	 Σ: The total number of calls including all inbound and outbound, both internal and external Duration: The total duration of time spent on all inbound and outbound calls Cost: The total cost of all calls

Site level



Group level



Individual user level



Itemised call list

When drilling down into an individual user, the report style changes to an itemised call list rather than a call summary table:

Top \ UK \ Lo	ndon \ Accounts	∖ Anna Sasin ∖				About	this repo
All Out	tbound Answ	ered Missed	Internal				
Date & Time 🔺	Source	CLI	Route	Destination	Response	Duration	Cost
26/08/2013 01:33:28	Anna Sasin	-	07808791272	02	-	00:00:05	0.030 🤤
26/08/2013 05:03:13	Anna Sasin	-	07772467504	Orange	-	00:00:06	0.030 🤤
6/08/2013 05:06:41	Anna Sasin	-	07919185533	Vodafone	-	00:00:01	0.030 9
6/08/2013 06:32:53	Anna Sasin	-	07877774520	Hutchison 3G	-	00:00:13	0.030 9
6/08/2013 06:56:13	Jean Poole	-	3380	Anna Sasin	-	00:00:24	-
26/08/2013 07:27:03	Anna Sasin	-	07775863304	Vodafone	-	00:00:10	0.030 0
26/08/2013 08:26:58	Orange	07854181742	-	Anna Sasin	6	00:00:30	- 9
26/08/2013 08:39:53	Pat Downe	-	3380	Anna Sasin	-	00:00:23	-
26/08/2013 09:10:08	Orange	07976222991	-	Anna Sasin	4	00:00:45	- 0
26/08/2013 09:20:08	Bournemouth	01202227477	-	Anna Sasin	-	-	-
26/08/2013 14:10:13	Mica Balik	-	3380	Anna Sasin	-	00:00:11	-
26/08/2013 14:57:46	02	07701014548	-	Anna Sasin	1	00:00:49	- 9
26/08/2013 15:25:23	Anna Sasin	-	77798888	Local Call	-	00:03:30	0.350 9
26/08/2013 15:36:41	Anna Sasin	-	2041	Ceri Mason	-	00:00:54	-
26/08/2013 15:51:48	Anna Sasin	-	07773499227	Orange	-	00:00:31	0.067 9
26/08/2013 15:52:38	Anna Sasin	-	07773664507	Orange	-	00:00:01	0.030 0
26/08/2013 16:24:53	Anna Sasin	-	07841236238	02	-	00:00:03	0.030 9
26/08/2013 16:44:21	Anna Sasin	-	07769701646	Vodafone	-	00:00:11	0.030 9
26/08/2013 17:23:53	Anna Sasin	-	07771580014	Vodafone	-	00:00:45	0.098
26/08/2013 18:00:01	Anna Sasin	-	07908743502	T-Mobile	-	00:01:08	0.147 9
26/08/2013 20:19:46	Anna Sasin	-	07877751586	Hutchison 3G	-	00:00:11	0.030 9
26/08/2013 22:27:13	T-Mobile	07984625953	-	Anna Sasin	5	00:03:14	- 9
26/08/2013 22:32:48	Anna Sasin	-	07800523337	Orange	-	00:00:06	0.030 9
23 calls						00:14:11	0,962

The column headers of the itemised call list are as follows:

Header	Description
Date & Time	The date and time the call started
Source	The place from where the call originated
CLI	The telephone number of the remote caller for inbound calls
Route	 The information displayed in this field is determined by the type of call: for incoming calls, this shows the CLI of the caller for incoming internal calls, this shows either the caller's username or extension number for outgoing calls, this shows the dialled number
Destination	 The information displayed in this field is determined by the type of call: for incoming calls, this shows the name of the user whose extension answered the call, or the extension number if not available for outgoing calls, this shows the geographical location that was dialled, or an alias if defined in your contacts list for internal calls, this shows the extension that was dialled, enclosed in square brackets []
Response	The length of time it took for the call to be answered (i.e. the response time)
Duration	The duration of the call (in hours, minutes and seconds)
Cost	The cost of the call

To modify your report to cover a larger organisational scope, click on an element of the breadcrumb as shown below:

Directory

Directory overview video

Understanding the Directory

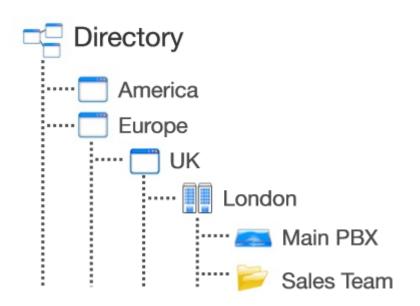
Understanding the Directory

- Directory overview
- Accessing the Directory
- Adding objects to the Directory
- Moving objects within the Directory
- Directory overview video

Directory overview

TIM Enterprise is designed upon an object-based directory that places no limits on its hierarchical width or depth. This approach permits the integration of multiple sites within one centralised system, where every user can be grouped into folders, sites, cost centres and divisions, allowing you to create an exact replica of your company's internal structure.

Every system object of the Directory has an explicit, defined relationship with its peers and an entire tree of related objects can be defined, with no width or depth limits of the branches.



To facilitate the configuration and management of large systems, TIM Enterprise supports directory synchronisation with third-party applications such as Active Directory and Cisco AXL.

Accessing the Directory

To access the Directory, click on the Directory tab from the main menu tab, as shown below:

timenterprise	Reports Directory Call View Tariff Editor Alerts
♠\UK\	
💼 🔗 🔤 🖉 New obje	ect 25 items Clipboard 0 items
 & All UK Sales Aberdeen Birmingham Brighton Cardiff Esher Glasgow Leeds London Manchester Newcastle Wapping 	Paste 🥜 Clear
UK Weekly	
🗃 Main PBX	
Intel 3300	
Answering	
/04/2012 17:19:05 Logged in as 'Joe Bloggs'	

If you are logged in as a standard web user whose access is restricted to a specific site or group, only the information related to that site or group will be displayed in the Directory. For administrative privileges, contact your system maintainer.

8

Adding objects to the Directory

To add objects to the Directory, click on the New object tab, as shown below:

timenterprise	Reports	Directory	Call View	Tariff Editor	Alerts
♠\UK\					
🔁 💈 🔍 🗋 New object			items	Clipboard 0 items	
			<u>^</u>	📔 Paste 🎜 Clear	
🔀 All UK Sales					
🎟 Aberdeen					
鶰 Birmingham					

A new window will open, displaying two categories of objects: Organisation units and Other objects. For a detailed description of each object type, refer to the relevant section.

🎽 Add new object		
Organisation unit	Other object	
 Channel Group Cost Centre Division Group Reporting Collection 	 Alarm Channel PBX Magic Box User 	 Billing Charge Stats Collector LCR Plan Tariff Modifier Web User
🛄 Site	📕 Display Board	Directory Sync
	📝 Question	
Create a new object within th	he directory	
Enter a name for the object	1	
		🔁 Cancel 🗮 Add

Moving objects within the Directory

To move objects within the Directory, follow the steps below:

1. Locate in the Directory the object you want to move, click on it and select Copy from the drop-down list. In the example below, the user Joe Bloggs is being moved from Manchester Admin group to Manchester Sales.

tim enterprise)			Reports	Directory	Call Vie	w Tariff Editor Alerts	
윰 \ UK \ Manchester \ M	anchester Adm	in \					
🔁 💈		New object			4 items	Clipboard 0 items	
						📔 Paste 🦽 Clear	
ò New Billing Charge							
🙎 Bill Empson							
😰 Bina Kapur							
Charles Bronte							
💈 Eric Partridge							
😰 Gaye Barr							
💈 Jack Bennett							
💈 James McDonald							
💈 Jane Howard		_					
🙎 Joe Bloggs	Open						
Misty Waters	Сору						
💈 Paul Lakes	Copy all Delete	-					
🙎 Roman Holiday	Properties	-					
💈 Stuart McDonald		_					

2. The object will be copied on the Clipboard panel on the right-hand side of the screen, as shown below:

timenterprise	Reports	Directory	Call View	/ Tariff Editor	Alerts
윰 \ UK \ Manchester \ Manchester Admin \					
🔁 🗳 🛛 🔍 🧃 New object			l items	Clipboard 1 item	
				📔 Paste 🍠 Clear	
🚕 New Billing Charge				📄 🙍 Joe Bloggs	
😰 Bill Empson					
😰 Bina Kapur					
😰 Charles Bronte					
😰 Eric Partridge					
😰 Gaye Barr					
🙍 Jack Bennett					
😰 James McDonald					
😰 Jane Howard					
😰 Joe Bloggs					
Misty Waters					
😰 Paul Lakes					
😰 Roman Holiday					
😰 Stuart McDonald					

3. To move the selected object, go to the point in the Directory where you want the object to be moved into, and click on the Paste

button at the top-right of the Clipboard screen.

tim enterprise)		Reports	Directory	Call View	Tariff Editor Alerts
윰 \ UK \ Manchester \ Manch	ester Sales \				
🔁 🖉	🔍 🧾 New object			5 items	Clipboard 1 item
 Overseas UK Manchester Sales Beth Sellers Brad Pitt Celia Gates Cristopher Norman Crystal Ball Elliot Evans Geoff Levy 				, cens	Paste Clear Image: Clear Im
😰 George Clooney					
🙎 Kim Long					
🙎 Manny Morris					
😰 William Wordsworth					

Directory overview video

Organisation units

What is an Organisation unit?

The Organisation unit section contains a list of objects designed to emulate the structural components of your organisation and it allows you to build the hierarchical levels of your Directory. The choice of objects belonging to this category are: sites, groups, divisions and cost

8

centres. A special type of group is also available, known as Reporting Collection, which acts as a virtual container that collates disparate users from anywhere in your organisation, for reporting purposes.

Divisions, Cost centres, Groups and Sites can be placed at any point in your Directory and can be used interchangeably to better reflect the internal structure of your company.

Add new object					
Organisation unit	Other object				
 Channel Group Cost Centre Division Group Reporting Collection Site 	 Alarm Channel PBX Magic Box User Display Board Question 	 Billing Charge Stats Collector LCR Plan Tariff Modifier Web User Directory Sync 			
Create a new object within the directory					
Enter a name for the object	Ι				
		Cancel Add			

Organisation unit	Description
Channel Group	Any group of channels or lines coming into your organisation
Cost Centre	A part of your organisation to which specific rates apply; it can contain other organisation units, such as sites or groups, or, it can be part of a larger group or division
Division	A part of your organisation that encompasses a series of smaller units, such as sites, cost centres or groups
Group	A part of your organisation characterised by the type of activity they perform, e.g. designated departments (IT, Sales, Accounts)
Reporting collection	A special type of group that acts as a virtual container, collating disparate users from anywhere in your organisation, for reporting purposes
Site	A part of your organisation that can function independently, usually a designated office branch

Channel Group

Chai	nnel Group
0	What is a channel group?
0	Adding a channel group
0	Configuring a channel group

What is a channel group?

A Channel Group object is a container of individual telephone lines coming into your organisation.

tim enterprise)			Reports	Directory	Call Viev	w Tariff Editor	Alerts
윰 \ UK \ Newcastle \							
🔁 🔮	Q	New object			items	Clipboard 0 items	
 Main Newcastle ISDN 30 Newcastle Accounts Newcastle Admin Newcastle Sales Newcastle Technical Support Newcastle Stats Mitel 3300 Newcastle Lines Newcastle Stats Joe Evans 						Poste	

The Discovered Channels folder

A special channel group, Discovered Channels, is automatically created in the Directory, in order to harvest hitherto-unknown channel information from the call data received from your telephone system. Over time, when all possible channels have been collected by the Discovered Channels folder, you can create your own channel groups based on the structure of your organisation, and move channels into the new groups.

Adding a channel group

To add a channel group to the system, drill-down to the Directory level where you want to add the group and click on the New object tab, as shown below:

timenterprise)	Reports	Directory	Call Vie	w Tariff Editor Alerts
A \ UK \ London \				
💼 🖻 📃 🔍 🚺 New object				Clipboard 0 items
				📔 Paste 🦽 Clear
🏙 All London				
C Accounts				
Customer Services				
Development				
С ІТ				
🗀 London Sales				
🛅 London				
🔢 London Daily Stats				

In the new window that opens, select the Channel group object from the Organisation unit list, enter a relevant name and click on the Add button, as shown below:

🍈 Add new object		
Organisation unit	Other object	
🔪 Channel Group	-∰- Alarm	🚕 Billing Charge
💽 Cost Centre	🥢 Channel	📸 Stats Collector
🖾 Division	🚍 PBX	123 LCR Plan
🗋 Group	🗃 Magic Box	뤥 Tariff Modifier
🛞 Reporting Collection	😰 User	💿 Web User
🛄 Site	📅 Display Board	🙆 Directory Sync
	📝 Question	
Provides the ability to synchro	onise portions of the Direct	tory with third-party systems
Fature and fauther abient	ISDN 30	
Enter a name for the object	1304 30	
		Ə Cancel 📑 Add

8

There is no limit to the amount of channel groups you can add to the Directory, which allows you to set up all your ISDN, analogue, fax lines and private circuits exactly as they are on your switch.

Configuring a channel group

To configure a channel group, locate the group in the Directory, click on it and select Properties from the drop-down list, as shown below:

tim enterprise)			Reports	Directory	Call Vi	ew Tariff Editor	Alerts
윰 \ UK \ Newcastle \							
🔁 🖉	Q	🚺 New object				Clipboard 0 items	
						📔 Paste 🌈 Clear	
൙ Main Newcastle ISDN 30	Open						
🗀 Newcastle Accounts	Сору						
🗋 Newcastle Admin	Copy all Delete						
🗀 Newcastle Sales	Properties						
🗀 Newcastle Technical Support		_					
📅 Newcastle Stats							
🗐 Mitel 3300							
🗯 Newcastle Lines							
🗯 Newcastle Stats							
🔇 Joe Evans							

A new window will open, where you can configure the properties of your channel group. Each tab in this window is described below:

General

The **General** tab allows you to edit the name of the channel group and its associated access code - if applicable - and exclude the group from being logged or recorded.

🗃 Main Newcastle	ISDN 30		X
General Private circuit	General Name Main Newca Access code 6030 Do not log calls for chann Exclude channels in this g Do not record calls for ch	group from call statistics	mode)
		Cancel	📑 Save

Screenshot | URL = /download/attachments...

Option	Description
Do not log	Calls for this channel group will not be logged by TIM Enterprise. In addition, if integrated call recording is in use, no audio recordings will be available.
Exclude channels in this group from call statistics	Collection of statistics will not be performed for this channel group.
Do not record calls	Calls for this channel group will not be recorded, if integrated call recording is in use.
Channels in this group emulate network termination	This option only applies if you have enabled integrated call recording on your system. Its purpose is to indicate that the far end of the channel's physical connection is emulating PSTN network termination (NT), such as in a private circuit scenario.

Private circuit

This option allows you to link the currently-selected channel to its counterpart on another site, in order to provide 'on-net' calls. To link the channels, click on the icon and drill-down through the Directory in order to locate the channel group you would like to add as your Remote end, as shown below:

Main ISDN30		
General		
Private circuit	Private circuit	
	This channel group is one half of a private circuit	
	Remote end 🗢 💿	
	🗦 Cancel 📑 Save	

When you have located the Remoted end channel in the Directory, click on the 💙 icon to select it:



The new channel group will then be added to the Remote end field and calls between sites will be treated as 'on-net' calls, thereby eliminating the call duplication often associated with inter-site links.

Main ISDN30		
General		
Private circuit	Private circuit	
	This channel group is one half of a private circuit	
	Remote end 🤤 🔘	
	🗃 \ UK \ Newcastle \ Main Newcastle ISDN 30 \	
	Ә Cancel 틖 Save	a

Cost Centre



What is a cost centre?

8

The Cost Centre object is normally used to represent parts of your organisation to which specific rates apply. The cost centre can contain other organisation units, such as sites or groups, or it can be part of a larger group or division.

Divisions, Cost Centres, Group and Sites are very similar and can be used interchangeably to better reflect the internal structure of your company.

im enterprise)			Reports	Directory	Call Vie	w Tariff Editor	Alerts
intire organisation \							
🖬 🖉 🛛	Q	New object			items	Clipboard 0 items	
 Sales Cost Centre London Manchester Avaya IP Office Requirements Directory Sync admin 		New Object			items	Clipboard Ortems	

Adding a cost centre

To add a cost centre to the system, drill-down to the Directory level where you want to add the group and click on the New object tab, as shown below:

timenterprise			Reports	Directory	Call Viev	v Tariff Editor	Alerts
A \ UK \ London \							
🔁 😰	Q	New object			7 items	Clipboard 0 items	
						📔 Paste 🌈 Clear	
🏙 All London							
🗎 Accounts							
Customer Services							
🗋 Development							
🗀 IT							
🗋 London Sales							
📅 London							
😼 London Daily Stats							

In the new window that opens, select the Cost Centre object from the Organisation unit list, enter a relevant name and click on the Add button, as shown below:

 illing Charge i Stats Collector i LCR Plan i Tariff Modifier
3 Stats Collector 123 LCR Plan
📀 Web User
🔞 Directory Sync
score calls
Cancel
)

There is no limit to the number of cost centres you can add to the Directory.

Configuring a cost centre

To configure a cost centre, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

timenterprise)			Reports	Directory	Call Vie	w Tariff Editor	Alerts
Entire organisation \							
💼 🔹	Q	New object			7 items	Clipboard 0 items	
Cales Cast Castro						📔 Paste 🌈 Clear	
 Sales Cost Centre London Manchester Avaya IP Office Requirements Directory Sync admin 	Open Copy Copy all Delete Properties						

A new window will open, where you can configure the general properties of the cost centre group, such as name, email address, ID etc, as shown below:

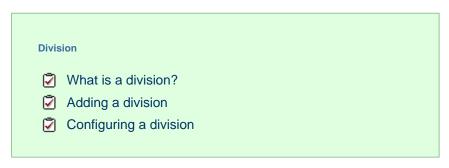
😫 Sales Cost Centre		X
Name	Sales Cost Centre	
Manager's email		
ID		
Fax		
DDI		
Address		
	tt	
Do not log calls for u		
	group from call statistics	
Do not record calls fo	or users in this group	
	🥥 Cancel 📑 Sav	/e

Additional options are available, allowing you to exclude users within this group from call statistics or from being logged or recorded.

Option	Description
Do not log	Calls for this group will not be logged by TIM Enterprise. In addition, if integrated call recording is in use, no audio recordings will be available.

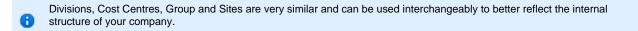
Exclude users in this group from call statistics	Collection of statistics will not be performed for this group.
Do not record calls	Calls for this group will not be recorded, if integrated call recording is in use.

Division



What is a division?

A Division object is normally used to represent parts of your organisation that encompass a series of smaller units, such as sites, cost centres or groups.



tim enterprise)		Reports	Directory	Call Vie	ew Tariff Editor	Alerts
Entire organisation \						
	New object				Clipboard 0 items	
 Australia UK USA Requirements Directory Sync admin 					Paste	

Adding a division

Drill-down to the Directory level where you want to add the division and click on the New object tab, as shown below:

timenterprise)	Reports	Directory	Call Viev	w Tariff Editor Alerts
♠ \ UK \ London \				
💼 💈 📃 🔍 🚺 New object				Clipboard 0 items
				📔 Paste 🍠 Clear
🛄 London				
III Manchester				
🚍 Avaya IP Office				
Requirements				
🔞 Directory Sync				
🔘 admin				

In the new window that opens, select the Division object from the Organisation unit list, enter a relevant name and click on the Add button, as shown below:

📫 Add new object		
Organisation unit	Other object	
🚵 Channel Group	🔆 Alarm	🚕 Billing Charge
🔁 Cost Centre	🥢 Channel	📸 Stats Collector
🖾 Division	🚍 PBX	123 LCR Plan
🗋 Group	🥶 Magic Box	🕕 Tariff Modifier
😥 Reporting Collection	🙎 User	📀 Web User
🛄 Site	📅 Display Board	🙆 Directory Sync
	📝 Question	
A 'site' container to hold object	ts in your organisational	hierarchy
Enter a name for the object	EMEA	
Enter a name for the object		
		Cancel Add

There is no limit to the number of division objects you can add to the Directory.

Configuring a division

To configure a division, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

timenterprise		Reports	Directory	Call Vie	ew Tariff Editor	Alerts
Entire organisation \						
🔁 🔮	🔍 🧾 New object				Clipboard 0 items	
					📔 Paste 🌈 Clear	
Australia Open						
🖾 UK Сору						
USA Copy all Delete						
Requirements Properties.						
Ø Directory Sync						
🔕 admin						

A new window will open, where you can configure the general properties of the group, such as name, email address, ID etc, as shown below:

🖀 Australia	
Name Manager's email ID Fax	Australia
DDI Address	
	users in this group s group from call statistics for users in this group
	🔁 Cancel 📑 Save

Additional options are available, allowing you to exclude users within this group from call statistics or from being logged or recorded.

Option	Description
Do not log	Calls for this group will not be logged by TIM Enterprise. In addition, if integrated call recording is in use, no audio recordings will be available.
Exclude users in this group from call statistics	Collection of statistics will not be performed for this group.
Do not record calls	Calls for this group will not be recorded, if integrated call recording is in use.

Group

Grou	ib
2	What is a group? Adding a group Configuring a group

What is a group?

A Group object is normally used to represent parts of your organisation characterised by the activity they perform, e.g. designated departments (IT, Sales, Accounts).

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Divisions, Cost Centres, Group and Sites are very similar and can be used interchangeably to better reflect the internal structure of your company.

tim enterprise)			Reports	Directory	Call Vie	w Tariff Edito	or Alerts
윰 \ UK \ London \							
🔁 🔮	Q					Clipboard 0 items	
						Paste 🧷	
Discovered Channels							
🔜 IT Cost Centre							
C Accounts							
Customer Services							
Development							
🗀 п							
📅 London Weekly							

Adding a group

Drill-down to the Directory level where you want to add the group and click on the New object tab, as shown below:

tim enterprise)			Reports	Directory	Call Viev	w Tariff Editor	Alerts
윰 \ UK \ London \							
💼 🖉	Q	New object			7 items	Clipboard 0 items	
						📔 Paste 🎜 Clear	
🛄 London							
🏢 Manchester							
🗐 Avaya IP Office							
📝 Requirements							
🔞 Directory Sync							
🔇 admin							

In the new window that opens, select the Group object from the Organisation unit list, enter a relevant name and click on the Add button, as shown below:

📑 Add new object		
Organisation unit	Other object	
 Channel Group Cost Centre Division Group Reporting Collection Site 	 Alarm Channel PBX Magic Box User Display Board Question 	 Billing Charge Stats Collector LCR Plan Tariff Modifier Web User Directory Sync
Provides the ability to synchro Enter a name for the object	onise portions of the Directo	ory with third-party systems

There is no limit to the number of groups you can add to the Directory.

Configuring a group

To configure a group, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

timenterprise	•		Reports	Directory	Call Vie	w Tariff Editor	Alerts
🕇 \ UK \ London							
i 🔹	Q	New object				Clipboard 0 items	
						📔 Paste 🌈 Clear	
🗃 Discovered Char	nels						
📑 IT Cost Centre							
🗅 Accounts							
🗋 Customer Servic	es						
🗋 Development							
🗀 IT							
🗋 Sales	Open						
🖥 London Weekly	Сору						
- 1	Copy all						
	Delete						
L	Properties						

A new window will open, where you can configure the general properties of the group, such as name, email address, ID etc, as shown below:

🖿 Sales		X
Name	Sales	
Manager's email		
ID		
Fax		
DDI		
Address		
Do not log calls for	r users in this group	
	his group from call statistics	
	s for users in this group	
	Cancel 📑 Save	
	Cancer 📑 Save	

Additional options are available, allowing you to exclude users within this group from call statistics or from being logged or recorded.

Option	Description
Do not log	Calls for this group will not be logged by TIM Enterprise. In addition, if integrated call recording is in use, no audio recordings will be available.
Exclude users in this group from call statistics	Collection of statistics will not be performed for this group.
Do not record calls	Calls for this group will not be recorded, if integrated call recording is in use.

Reporting Collection



What is a Reporting Collection

The Reporting Collection object is a special type of group that acts as a virtual container, collating disparate users from across the entire organisation. This allow you to group any number of directory units together, for reporting purposes, with no constrains on the directory structure. For example, you can compare statistics for all Sales teams from across the country, by running a single report on the virtual group.



When adding objects to a Reporting Collection, only a copy of the actual entity is being moved into the virtual group. To represent this, the objects in a Reporting Collection group will always show as greyed out.

timenterprise	Reports	Directory	Call Vie	ew Tariff E	Editor	Alerts
♠ \ UK \ UK Sales \						
💼 🔮 📃 🔍 🧻 New object			3 items	Clipboard 0 it	ems	
					🧬 Clear	
🗀 \ UK \ London \ Accounts \						
🗀 \ UK \ London \ Customer Services \						
🗀 \ UK \ London \ Development \						

Adding a Reporting Collection

To add a Reporting Collection to the system, drill-down to the Directory level where you want to add the group and click on the New object tab, as shown below:

tim enterprise)			Reports	Directory	Call Viev	w Tariff Editor	Alerts
윰 \ UK \ London \							
£ 🔹	Q	New object			7 items	Clipboard 0 items	
						📔 Paste 🎜 Clear	
🏽 All London							
Accounts							
Customer Services							
🗀 Development							
т 🗋							
🗀 London Sales							
🛅 London							
🛅 London Daily Stats							

In the new window that opens, select the Reporting Collection object from the Organisation unit list, enter a relevant name and c lick on the Add button, as shown below:

📫 Add new object		
Organization unit	Other object	
Organisation unit	Other object	
🗃 Channel Group	-🌉 Alarm	🚕 Billing Charge
💽 Cost Centre	🥢 Channel	📸 Stats Collector
🖾 Division	🚍 PBX	123 LCR Plan
🧰 Group	🥶 Magic Box	🔒 Tariff Modifier
😥 Reporting Collection	😰 User	🔇 Web User
🛄 Site	📅 Display Board	🙆 Directory Sync
	📝 Question	
An individual question a user i	must answer in order to so	core calls
Enter a name for the object	UK Northern Sales	
		Cancel

There is no limit to the amount of Reporting Collections you can add to the Directory.

Adding objects to a Reporting Collection

Follow the steps below to add an object to a Reporting Collection, e.g. sites, groups, users:

1. Locate in the Directory the object you want to add to the Reporting Collection, click on it and select Copy from the drop-down list, as

shown below:

tim enterprise)			Reports	Directory	Call Vie	w Tariff Editor	Alerts
윰 \ UK \ Manchester							
💼 🔹	Q	New object			2 items	Clipboard 3 items	
						📔 Paste 🎜 Clear	
这 National Sales						🔲 😭 London Sales	
🗋 Manchester Accounts						Aberdeen Sales	
🗀 Manchester Admin						📄 🚞 Brighton Sales	
🗀 Manchester Sales	Open						
🗀 Manchester Support	Сору						
😼 Manchester Accounts	Copy all						
😼 Manchester Stats	Delete						
Mitel 3300	Properties]					

- 2. The object will be copied on the Clipboard panel, on the right-hand side of the screen. To add more directory objects to the Reporting Collection, follow the same procedure.
- 3. To move the objects, open your Reporting Collection group, tick the box alongside the objects you want to move and click on the

Paste button at the top-left corner of the Clipboard screen, as shown below:

timenterprise)	Reports	Directory	Call Vie	w Tariff Editor Alerts
♠ \ UK \ UK Northern Sales \				
💼 🛃 🔍 📑 New object				Clipboard 4 items
This container is empty				Paste Clear V London Sales V Aberdeen Sales V Brighton Sales V Manchester Sales

4. A copy of selected objects will now be added to the Reporting Collection group.

() items	Clipboard 4 items	
() items	Clipboard 4 items	
		📔 Paste 🥒 Clear	

These groups are designed for reporting purposes only, therefore the calls will not be duplicated.

Site



What is a site?

0

A site object is normally used to represent a designated office branch within your organisation.

Divisions, Cost Centres, Group and Sites are very similar and can be used interchangeably to better reflect the internal structure of your company.

tim enterprise)	Reports	Directory	Call Viev	w Tariff Editor	Alerts
♠\UK\					
💼 🔹 🔍 🗋 New object			items	Clipboard 0 items	
Image: Constraint of the second se		36	E	Clipboard 0 items	

Adding a site

To add a site to the system, drill-down to the Directory level where you want to add the site and click on the New object tab, as shown below:

tim enterprise)		Reports	Directory	Call Viev	w Tariff Editor	Alerts
🔒 \ UK \ London \						
🔁 🕏	New object			7 items	Clipboard 0 items	
					📔 Paste 🌈 Clear	
🛄 London						
III Manchester						
🗐 Avaya IP Office						
📝 Requirements						
🙆 Directory Sync						
🄇 admin						

In the new window that opens, select the Site object from the Organisation unit list, enter a relevant name and click on the Add b utton, as shown below:

📫 Add new object			×
Organisation unit	Other object		
Channel Group Cost Centre	🄆 Alarm 🖋 Channel	ò Billing Charge 🖈 Stats Collector	
🖾 Division	🚍 PBX	123 LCR Plan	
🧰 Group	🕳 Magic Box	👶 Tariff Modifier	
🛞 Reporting Collection	😰 User	💿 Web User	
🛄 Site	诸 Display Board	🙆 Directory Sync	
	📝 Question		
A 'site' container to hold objec	ts in your organisational h	nierarchy	
Enter a name for the object	London		
		Ə Cancel 📑 A	<u>.dd</u>

There is no limit to the number of sites you can add to the Directory.

Configuring a site

To configure a site, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

tim enterprise)			Reports	Directory	Call Vie	ew Tariff Editor	Alerts
🛧 \ UK \							
E	Q	📑 New object				Clipboard 0 items	
 Aberdeen Birmingham Brighton Cardiff Glasgow Leeds London Manchester Newcastle Wapping 	Q Open Copy Copy all Delete Properties	New object		36	E	Clipboard 0 items	

A new window will open, where you can configure the general properties of the site, such as name, email address, ID etc, as shown below:

Brighton	X
Name	Brighton
Manager's email	
ID	
Fax	
DDI	
Address	
Do not log calls for	users in this group
	is group from call statistics
Do not record calls	for users in this group

Additional options are available, allowing you to exclude users within this site from call statistics or from being logged or recorded.

Option	Description
Do not log	Calls for this site will not be logged by TIM Enterprise. In addition, if integrated call recording is in use, no audio recordings will be available.
Exclude users in this group from call statistics	Collection of statistics will not be performed for this site.
Do not record calls	Calls for this site will not be recorded, if integrated call recording is in use.

Other objects

What are Other Objects?

The Other objects section consists of a list of different objects, each representing an additional feature you can add to the call logger, such as call recording integration, directory sync, display boards etc.

Add new object		
Organisation unit	Other object	
 Channel Group Cost Centre Division Group Reporting Collection Site 	 Alarm Channel PBX Magic Box User Display Board Question 	 Billing Charge Stats Collector LCR Plan Tariff Modifier Web User Directory Sync
Create a new object within t	he directory	
Enter a name for the object		
		🔁 Cancel 📑 Add

The objects available are presented in the table below:

Object	Description
Alarm	An Alarm object can be set up at any level of the Directory in order to trigger an alert when calls whose properties match certain criteria have happened, such as calls above a particular duration, calls to specific phone numbers, or when user-defined cost thresholds are exceeded. The criteria that must be met to trigger an alarm is user-defined, and email alerts can be sent to one or more recipients.
Channel	Channels are system objects representing your telephone lines. When you first configure the system, your channels are automatically harvested from the data received from the phone system. The properties of each channel can be edited afterwards, and channels can also be organised subsequently into new groups, if preferred.
PBX	The function of a PBX object is to acquire call logging data from a telephone system. TIM Enterprise can be configured to take call records from a single PBX covering multiple sites or you can connect to a number of PBXs.
Magic Box	The Magic Box object allows you to integrate a call recording device to TIM Enterprise. By adding one or more of our supported voice recording options, it is possible to store the audio recording of every telephone call that TIM Enterprise processes.
User	Users represent the people in your organisation who make use of devices such as telephone extensions, fax machines, etc. When you first configure the system, your users are automatically harvested from the data received from the phone system. The properties of each user can be edited afterwards, and users can also be subsequently organised into new user groups, if preferred.
Display Boards	A display board is a user-definable screen that can comprise any live, up-to-the-minute information, such as call statistics, leaderboards or RSS feeds. It can also pull content from third-party systems, such as sales management, accounting or CRM software.

Question	A Question object can be added to the Directory to allow users to score calls. By defining a list of questions, you can apply this to each call that you score, in order to rate calls for evaluation purposes.
Billing Charge	Billing charges allow to add additional charges or markups to calls, users or bills. Billing charges can be applied as a percentage or fixed charge. When several charges are added to a bill, the charges can be prioritised according to their importance.
Stats Collector	A stats collector is a mathematical "counter" that can be placed on any subject and whose scope of data collection is determined by its placement in your directory hierarchy. As calls are made and received, the properties of each one are collated for future consumption by display boards.
LCR Plan	LCR Plans can be placed anywhere in the Directory in order to apply your call routing plans for costing purposes.
Tariff Modifier	Tariff Modifiers can be placed anywhere in the Directory in order to apply different rates to the designated object.
Web User	When accessing TIM Enterprise you are required to enter a username and password in the web browser, which form a login credential known as web user. Web user can be allowed access to the entire system or restricted to any specific area of your Directory.
Directory Sync	The Directory sync object in TIM Enterprise allows you to sync any partition of TIM Enterprise with a third-party directory, such as Active Directory or Cisco AXL.

Alarm

Aları	m
2	What is an alarm?
2	Adding an alarm
2	Configuring an alarm
2	Call alarms
2	Stats alarms

What is an alarm?

An alarm object can be set up at any point in the Directory in order to trigger an alert when calls whose properties match certain criteria have happened, such as calls above a particular duration, calls to specific phone numbers, or when user-defined cost thresholds are exceeded. The alarm criteria is user-defined and email alerts can be sent to one or more recipients.

Adding an alarm

To add an alarm object to the system, drill-down to the Directory level where you want to place the alarm and click on the New object tab, as shown below:

tim enterprise)			Reports	Directory	Call Viev	w Tariff Editor	Alerts
윰 \ UK \ London \							
🔁 🔹	_ Q	New object			7 items	Clipboard 0 items	
						📔 Paste 🍠 Clear	
🏽 All London							
Accounts							
Customer Services							
🗀 Development							
🗀 IT							
🗀 London Sales							
🛅 London							
🛅 London Daily Stats							

In the new window that opens, select the Alarm object from the Other object list, enter a relevant name and click on the Add button, as shown below:

🍈 Add new object		
Organisation unit	Other object	
 Channel Group Cost Centre Division Group Reporting Collection Site 	 Alarm Channel PBX Magic Box User Display Board Question 	 Billing Charge Stats Collector LCR Plan Tariff Modifier Web User Directory Sync
An individual question a user Enter a name for the object	must answer in order to score London Alarm	calls
		Cancel Add

Configuring an alarm

To configure an alarm, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

timenterprise	•		Reports	Directory	Call Viev	v Tariff Editor	Alerts
🛧 \ UK \ Londoi	n \						
🔁 💈	Q	New object) items	Clipboard 0 items	
						📔 Paste 🍠 Clear	
🔆 London Alarm	Open						
🗋 Accounts	Сору						
🗀 Admin	Copy all						
🗋 Customer Servi	Delete Properties						
🗋 Development							

A new window will open, allowing you to configure the properties of your alarm object.

🔆 London Alarm				
General				
	General		Alarm	
Criteria				
Notification	Alarm name	London Alarm		
	Alarm type	🍾 Call alarm		
	Addition	—	Not activ	
		🖈 Stats alarm		
	Trigger only	y once until alarm is reset		
			Cancel	Save
			,	

Call alarms

General

This tab allows you to configure the general properties of your Call alarm object:

Field	Description
Alarm name	Enter a relevant name for the alarm object.
Alarm type	Select the type of alarm you want to add to the Directory.
Trigger only once until alarm is reset	Enable this option if you want the alarm to be triggered only the first time the alarm's criteria is met.

Criteria

To set up the criteria that must be met in order to trigger the alarm, click on the 💿 icon, as shown below:

🔌 London Alarm		
General Criteria	Criteria	• •
Notification	Alarm activates when all 🔹 of these criteria are met	
	Cancel	Save

A new window will open, displaying a list of filters you can set up in order to configure the alarm criteria. Each filter consists of three elements: the filter's property (account code, dialled number, etc), an operator and a value field.

Add new filter			X
Property	Operator	Value	
 Account code Call type Carrier Channel Chargeband CLI Cost Destination 			
		Close	Add

To add a filter to your alarm object, choose the filter type from the Property list, enter a relevant value and select an operator in order to define its meaning. The filters available for this type of alarm object are described below:

Account code

This filter allows you to set up an alarm based on account codes. To set up the alarm criteria, enter the account code (or part of the account code number) in the box provided and select the appropriate operator. In the example below, an alarm will be triggered when a call whose account code contains 21 is logged.

Y Account code	LE Contains	21

Call type

This filter allows you to set up an alarm based on call type, in terms of where the call originated and where it was delivered, e.g. incoming, outgoing, internal, etc. To set up the alarm criteria, choose a call type from the list provided and select the appropriate operator. In the

example below, an alarm will be triggered when a Tandem call is logged:

💎 Call type	I± Equals	Tandem

Carrier

This filter allows you to set up an alarm based on the carrier (tariff table) used to cost calls. To set up the alarm criteria, choose a carrier from the list provided and select the appropriate operator. In the example below, an alarm will be triggered when a call routed over a BT carrier is logged.

🍸 Carrier	11 Equals	BT	

Channel

This filter allows you to set up an alarm based on the call traffic going over your telephone lines. To set up the alarm criteria, click on the 📀 i con to locate the relevant channel in the Directory; select the channel and choose the appropriate operator. In the example below, an alarm will be triggered when channel **T234** is used to log a call.

7 Channel	11 Equals	T234	

Chargeband

This filter allows you to set up an alarm based on the chargeband used to cost calls. To set up the alarm criteria, enter the chargeband's name (or a sequence of characters you want to be matched) in the box provided and select the appropriate operator. In the example below, an alarm will be triggered when a call's chargeband begins with the characters Mob.

√ Chargeband	Mob
--------------	-----

CLI

This filter allows you to set up an alarm based on CLI. To set up the alarm criteria, enter the CLI (or part of the CLI number) in the box provided and select the appropriate operator. In the example below, an alarm will be triggered when a call's CLI contains the digits 2652626.

🍸 CLI	LE Contains	2652626	

Cost

This filter allows you set up an alarm in order to monitor calls below or above a specific cost. To set up the cost criteria, enter the relevant value in the box provided and select the appropriate operator. In the example below, an alarm will be triggered when the cost of a call is greater than 10.

🍸 Cost	Is greater than	10	

Destination

This filter allows you set up an alarm based on the destination of the call. To set up the alarm criteria, enter the destination name (or part of its name) in the box provided and select the appropriate operator. In the example below, an alarm will be triggered when the destination of a call is **France**.

V Destination	It Equals	France	

Dialled number

This filter allows you set up an alarm when a full or partial number is dialled. To set up the alarm criteria, enter the relevant number in the box provided and select the appropriate operator. In the example below, an alarm will be triggered when the dialled number begins with 074.

The set of th	074	
---	-----	--

Duration

This filter allows you set up an alarm based on the duration of a call. To set up the alarm criteria, enter the duration in the box provided and select the appropriate operator. In the example below, an alarm will be triggered when a call whose duration is greater than 3600 seconds is logged.

🍸 Duration	Is greater than	3600	

LCR code

This filter allows you set up an alarm based on Least Cost Routing (LCR) codes. To set up the alarm criteria, enter the LCR code in the box provided and select the appropriate operator. In the example below, an alarm will be triggered when a call whose LCR code ends with 680 is logged.

Y LCR code	It Ends with	680	

Response time

This filter allows you set up an alarm based on response time. To set up the alarm criteria, enter the response time in the box provided and select the appropriate operator. In the example below, an alarm will be triggered when the response time of a calls is greater than 20 second s.

🍸 Response time	Is greater than	20

Start time

This filter allows you set up an alarm based on the time a call started. To set up the alarm criteria, enter the start time in hh:mm:ss format in the box provided and select the appropriate operator. In the example below, an alarm will be triggered when a call that started before 09:00:00 is logged in the system.

	09:00:00
--	----------

Trunk access code

If your telephone system uses trunk access codes to connect calls using specific channels, you can set up an alarm based on calls made using these codes. To set up the alarm criteria, enter the trunk access code in the box provided and select the appropriate operator. In the example below, an alarm will be triggered when a call whose trunk access code is 5480 is logged.

If I runk access code I ⊨ Equais 5480	🍸 Trunk access code	It Equals	5480	
---------------------------------------	---------------------	-----------	------	--

User

This filter allows you set up an alarm in order to monitor the calls of a particular user. To set up the alarm criteria, click on the 🕥 icon to locate the user in the Directory; select the user and choose an appropriate operator. In the example below, an alarm will be triggered when a call is logged for the user John Smith.

🍸 User	1 Equals	John Smith

Weekday

This filter allows you set up an alarm in order to monitor the call activity for a particular day of the week. To set up the alarm criteria, choose the relevant weekday from the list provided and select an appropriate operator. In the example below, an alarm will be triggered when a call is logged on a Sunday.

🍸 Weekday	It Equals	Sunday	

Notification

The Notification tab allows you set up an email alert when the alarm is being triggered. To send the notification to multiple email addresses, separate each entry with a comma.

General Criteria Notification Send alarm notifications to the following email address(es) jbloggs@tri-line.com Custom message Enable custom message Image: Send alarm notification in the following email address (es) interval	_
jbloggs@tri-line.com	
Insert fi	_
	:

Stats alarms

General

This tab allows you to edit the general properties of your Stats alarm object:

🔺 alarm			X
General Criteria	General		Alarm
Notification	Alarm name Alarm type	alarm 🍆 Call alarm 🝰 Stats alarm	Not active
			🔁 Cancel 📄 Save

Field	Description
Alarm name	Enter a relevant name for the alarm object.

Criteria

This tab allows you to select the stats point where you want to place your alarm object and to set up the criteria that must be met in order to trigger the alarm.

Selecting a stats point

To select a stats point object, click on the 😳 icon, as shown below:

🛕 London alarm	\mathbf{X}
General	
Criteria	Statistics point
Notification	
	Criteria 💿 🕥
	Alarm activates when all 🗸 of these criteria are met
	Discret Cancel 📑 Save

A new window will open, allowing you to drill through the Directory in order to locate the stats point object where you want to add the alarm. Click on the **v** icon to select it. The stats point will be added in the list, as shown below:

👗 London alarm				X
General Criteria	Statistics point	٢	٥	
Notification	الله (New Group \ London statistics \			
	Criteria	•	٢	1
	Alarm activates when all 🗸 of these criteria are met			
	Cancel		Sav	e

Selecting the criteria

	To set up the criteria that m	ust be met in order to trigger the	alarm, click on the 😳 icon, as shown below:
--	-------------------------------	------------------------------------	---

👗 London alarm	\mathbf{X}
General	
Criteria	Statistics point \ominus 📀
Notification	
	Criteria 💿
	Alarm activates when all 🗸 of these criteria are met
	Save 🗐 Save

A new window will open, displaying a list of filters you can set up in order to configure the alarm criteria. Each filter consists of three elements: the filter's property (account code, dialled number, etc), an operator and a value field.

Add new filter		٥	×
Property	Operator	Value	
 Count Total duration Avg duration Min duration Max duration Total response Avg response Min response 			
		Close	

To add a filter to your alarm object, choose the filter type from the Property list, enter a relevant value and select an operator in order to define its meaning. The available filters for this type of alarm object are described in detail in the table below:

Count

This filter allows you set up an alarm based on the total number of calls registered by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the total number of calls collected by the stats point is greater than 100.

Count Is greater than	100	
-----------------------	-----	--

Total duration

This filter allows you to set up an alarm based on the total call duration register by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the total duration registered by the stats point is 3600 seconds.

🍸 Total duration	It Equals	3600

Average duration

This filter allows you to set up an alarm based on the average call duration registered for the calls collected by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the average duration registered by the stats point is not equal to 1800 seconds.

✓ Avg duration I± Does not equal 1800

Minimum duration

This filter allow you to set up an alarm based on the minimum call duration registered by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the minimum duration registered by the stats point is less than 600 seconds.

🍸 Min duration	Is less than	600	

Maximum duration

This filter allow you to set up an alarm based on the maximum call duration registered by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the maximum duration registered by the stats point is greater than 600 seconds.

Max duration		Is greater than	🍸 Max duration
--------------	--	-----------------	----------------

Total response

This filter allow you to set up an alarm based on the total response time registered by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the total response time registered by the stats point is less than 10 seconds.

	🍸 Total response	Is less than	10	
--	------------------	--------------	----	--

Average response

This filter allow you to set up an alarm based on the average response time registered by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the average response time registered by the stats point is greater than 7 seconds.

🍸 Avg response	Is greater than	7

Minimum response

This filter allow you to set up an alarm based on the minimum response time registered by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the minimum response time registered by the stats point is 5 seconds.

Y Min response	It Equals	5

Maximum response

This filter allows you to set up an alarm based on the maximum response time registered by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered

when the maximum response time registered by the stats point is not 5 seconds.

🍸 Max response	12 Does not equal	5	

Total cost

This filter allows you to set up an alarm based on the total cost registered for the calls collected by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the total cost registered by the stats point is 50.

1 Lotal cost	Lt Equals	50
		30

Average cost

This filter allows you set up an alarm based on the average cost registered for the calls collected by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the average cost registered by the stats point is greater than 20.

🍸 Avg cost	Is greater than	20

Minimum cost

This filter allows you set up an alarm based on the minimum cost registered for the calls collected by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the minimum cost registered by the stats point is 10.

	🍸 Min cost	11 Equals	10	
--	------------	-----------	----	--

Maximum cost

This filter allows you set up an alarm based on the maximum cost registered for the calls collected by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the maximum cost registered by the stats point is greater than 60.

🍸 Max cost	Is greater than	60

Concurrency

This filter allows you set up an alarm based on the concurrency of calls registered by the selected stats point. To set up the alarm criteria, enter the relevant value in the box provided and select an appropriate operator. In the example below, an alarm will be triggered when the call concurrency registered by the stats point is greater than 5.

V Concurrency	It Equals	5	

Notification

The Notification tab allows you set up an email alert when the alarm is being triggered. To send the notification to multiple email addresses, separate each entry with a comma.

🍝 alarm		X
General Criteria	Recipient	_
Notification	Send alarm notifications to the following email address(es) jbloggs@tri-line.com	
	Custom message	_
	Enable custom message O Insert fiel	d
		:
	🥥 Cancel 📑 S	ave

Channel



What is a channel?

Channels are system objects representing your telephone lines. When you first configure TIM Enterprise, your channels are automatically harvested from the data received from the phone system, into a folder named Discovered Channels. The properties of each channel can be edited afterwards, and channels can also be organised subsequently into new channel groups, if preferred.

🥢 010 007		
Name ID	010 007 010 007	
	Cancel	📑 Save

Adding a channel

To add an channel object to the system, drill-down to the Directory level where you want to add the channel and click on the New object ta b, as shown below:

tim enterprise)			Reports	Directory	Call Vie	w Tariff Editor	Alerts
윰 \ UK \ Main PBX \ Ma	in ISDN 30 Line	es \					
🔁 💈	Q	New object			items	Clipboard 0 items	
					* =	🖺 Paste 🎜 Clear	
🅢 010 001							
🥔 010 004							

In the new window that opens, select the Channel object from the Other object list, enter a relevant name and click on the Add butt on, as shown below:

🎽 Add new object		
Organisation unit	Other object	
🖻 Channel Group	🎘 Alarm	🞪 Billing Charge
🔄 Cost Centre	🥢 Channel	🝰 Stats Collector
Division	🚍 PBX	123 LCR Plan
🗋 Group	📾 Magic Box	🔥 Tariff Modifier
😥 Reporting Collection	💈 User	🔇 Web User
🛄 Site	📅 Display Board	🚱 Directory Sync
	📝 Question	
Provides the ability to synchro	nise portions of the Directory	with third-party systems
Enter a name for the object	020 001	
		Cancel

Configuring a channel

To configure a channel, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

timenterpri	ise)			Reports	Directory	Call Vi	ew	Tariff Editor	Alerts
윰 \ UK \ Mair	n PBX \ Main ISD	N30 Line	es \						
💼 💈 📃			New object			3 items	Clipb	oard 0 items	
<i>₩</i> 010008						-		Paste 🦽 Clear	
	Open								
<i>₩</i> 020001	Сору								
<i>₩</i> 020002	Copy all								
<i>₩</i> 020003	Delete								
	Properties								
<i>W</i> 020004									

A new window will open, allowing you to configure the properties of your channel object, as shown below:

🥢 020 001		
Name ID	<mark>0201</mark> 020 001	
	Cancel	📑 Save

Magic Box



What is a Magic Box

The Magic Box object allows you to add one or more of our supported voice recording options, enabling you to store the audio recording of every telephone call that TIM Enterprise processes.

Which option you choose depends on what type of telephone calls you want to record. In most cases, the recording equipment is placed between your telephone system and your telephone lines (channels) and any phone calls that are made over those channels are intercepted, recorded, then sent to TIM Enterprise to be attached to the logged call.

To record calls over PSTN channels such as ISDN30 (PRI/E1/T1/J1), ISDN2 (BRI) or analogue POT lines, a piece of physical hardware - the Magic Box - is used to physically connect into your lines.

For VoIP (SIP) channels, a PC with a standard network interface card (NIC) can be used to capture the voice packets from strategic points in your voice network. If many simultaneous VoIP calls are expected, a dedicated computer with multiple NICs becomes necessary.

Any number of recording devices can be configured to provide their audio recordings to TIM Enterprise, and a hybrid network of both types of interface can be used in a single TIM Enterprise deployment.

Adding a Magic Box

To add a recording device object to the system, drill-down to the Directory level where you want to place the object and click on the New object tab, as shown below:



In the new window that opens, select the Magic Box object from the Other object list, enter a name and select the type of telephone lines you are using (PRI, BRI, Analogue, VOIP), as shown below:

🔺 Add new object		
Organisation unit	Other object	
 Channel Group Cost Centre Division Group Reporting Collection Site 	 Alarm Channel PBX Magic Box User Display Board Question 	 Billing Charge Stats Collector LCR Plan Tariff Modifier Web User Directory Sync
An individual question a user	must answer in order to score	calls
Enter a name for the object Model	PRI Magic Box PRI (ISDN-30) 🗸	Cancel

Configuring a Magic Box

To configure your recording device, locate object in the Directory, click on it and select **Properties** from the drop-down list, as shown below:

timenterprise		Reports	Directory	Call Vie	w Tariff Editor	Alerts
♠ \ UK \ Mitel 3300 \						
💼 🖸 🔍 🔍	New object				Clipboard 0 items	
					📔 Paste 🌧 Clear	
🗃 UK Lines						
🗀 Accounts						
🗀 Development						
🗀 п						
🗀 Sales						
🖅 PRI Magic Box Open						
Сору						
Copy all						
Delete						
Properties						

A new window will open, allowing you to configure the properties of your recording device object.

General

🥃 PRI Magic Box				
General				
PRI IN	PRI Magic Box			
PRI OUT	General setting	pe ^{de} pe ^{de}	and and a second se	
	Name	New Magic Box]	
	Box ID	0		
	IP address:Port	127.0.0.1 8088]	
	Time tolerance	60	seconds	
			Cancel	📑 Save

Setting	Description
Name	The name of your recording device
Box ID	The unique identifier of each call recording device
IP address: Port	The IP address of the recording device, or computer to which the device is attached and the port number
Time tolerance	The time interval around which TIM Enterprise will search for calls when matching audio files

Voice recording - video overview

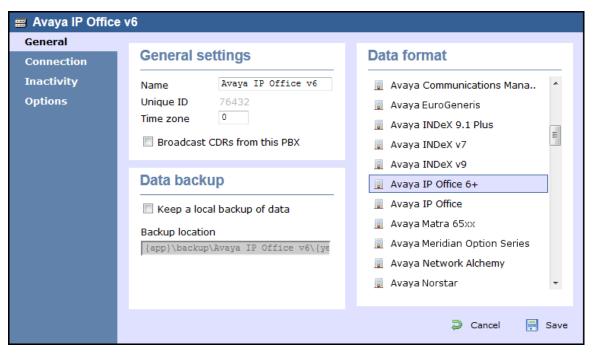
PBX

A

What is a PBX?

The function of a PBX object is to acquire call logging data from your telephone system and can be added at any point in your Directory structure. TIM Enterprise can log an unlimited number of telephone systems and a PBX object must be configured for each one.

If a large number of PBXs is added to the system, you must ensure you have the required license capacity to log them. If additional users or sites need to be added, you need to increase the license capacity on your software.



TIM Enterprise supports a large number of PBXs. For a full list of supported PBXs, click here.

Adding a PBX

To add a PBX object to the system, drill-down to the Directory level where you want to add the PBX and click on the New object tab, as shown below:

tim enterprise)			Reports	Directory	Call Viev	v Tariff Editor	Alerts
윰 \ UK \ London \							
💼 🙋	Q	📑 <u>New object</u>			items	Clipboard 0 items	
						📔 Paste 🌧 Clear	
Accounts							
🗀 Admin							

In the new window that opens, select the PBX object from the Other object list, enter a relevant name and click on the Add button. The name given to the PBX is usually its make or model ID. In the example below, a Cisco UCM PBX is being added in the UK \ London si te.

🍈 Add new object		
Organisation unit	Other object	
 Channel Group Cost Centre Division Group Reporting Collection Site 	 Alarm Channel PBX Magic Box User Display Board Question 	 Billing Charge Stats Collector LCR Plan Tariff Modifier Web User Directory Sync
An individual question a user	must answer in order to score	calls
Enter a name for the object	Cisco UCM	Cancel

The PBX object will appear in the Directory as follows:

tim enterprise)		Reports	Directory	Call Vie	w Tarif	f Editor	Alerts
윰 \ UK \ London \							
🔁 🔁 🛛 🖉	ڭ ل) items	Clipboard	0 items	
						🥒 Clear	
Accounts							
🗋 Admin							
Customer Services							
🗋 Development							
П 🗋							
🛅 London Weekly Stats							
🚍 Main PBX							
🚍 Cisco UCM							
🗯 London Weekly Stats							

Configuring a PBX



Overview

To configure a PBX, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

tim enterprise)			Reports	Directory	Call Vie	ew Tar	iff Editor	Alerts
윰 \ UK \ London \								
💼 🙆	Q	New object				Clipboard	0 items	
						Paste	: 🥒 Clear	
Accounts								
🗀 Admin								
Customer Services								
🗋 Development								
🗀 IT								
😼 London Weekly Stats								
🗐 Main PBX								
🗐 Avaya IP Office	Open							
🛨 London Weekly Stats	Сору							
	Copy all							
	Delete							
	Properties							

A new window will open, allowing you to configure the properties of your PBX object, as shown below:

📰 New PBX		\mathbf{X}
General	General settings	Data format
Connection Inactivity Options	Name New PBX Unique ID 73	3Com NBX R6 3Com VCX-NBX
	Time zone 0 Broadcast CDRs from this PBX	3CX Aastra BP
	Data backup	Aastra MX-ONE BC10 Aastra MX-ONE BC8
	Keep a local backup of data Backup location	Aastra OpenCom Aastra PC5 AGFEO AC-AS Series
	{app}\backup\New PBX\{year}\{month}	Alcatel OminPCX Office Alcatel OminPCX Office
		Cancel Revealed Save

General

This tab allows you configure the general properties of your PBX object, which are described in the table below:

Field	Description
Name	The name by which you want your PBX to be identified. Usually, the make or model name of your PBX is used
Unique ID	The unique ID of the site object
Time zome	This feature is no longer in use
Broadcast CDRs from this PBX	This feature is no longer in use

Keep a local backup of data	Tick this box to backup your call logging data and enter the location of the folder you want to store these files The default path is {app}\backup\backup-{year}-{month}-{day}.{uiv} and can contain dynamic variables, as detailed below:					
	Item	Description				
	app	The full installation path of TIM Enterprise				
	year	The year the data was captured, in yyyy format				
	month	The month the data was captured, in mm format				
	day	The day of the month when data was captured, in dd format				
	uiv	The unique ID representing each site in the Directory				
Data format		phone system outputs its call logging data in a different format. S o ensure your calls are logging correctly.	elect your PBX model from the list			

Connection

This tab allows you to configure the connection parameters of your telephone system. The properties presented in the Connection details section will vary, depending on the connection method used by your telephone system to provide call logging data. Each type of connection is described below:

📰 New PBX		\mathbf{X}
General Connection	Connection method	Connection details
Inactivity Options		Username Password
	 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms
		Cancel Revealed Save

Receive FTP transfers from PBX

Connection method	Connection details		
 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	Username Cisco Password ••••• Use SFTP protocol		
 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms 		

Field	Description
Username	The username of the FTP account on your telephone system.
Password	The password of the FTP account on your telephone system.

Establish TCP connection to this PBX

Connection method	Connection details
 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection SysLog connection No connection required 	Host 192.168.1.1 Port 9000 Username Password IP script Avaya IP Office • Connection options Binary data Delay processing by ms
Field Description	

F	ield	Description
н	lost	The IP address of the telephone system.
Ρ	ort	The port number that your telephone system listens on.

Username	The username required to log in to your telephone system, if applicable		
Password	rd The password required to log in to your telephone system, if applicable.		
IP script	The script file that TIM Enterprise uses when checking for new data.		

Listen for connection to this PBX

Connection method	Connection details	
 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	Host 192.168.1.1 Port 9000	
 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms 	

Field	Description
Host	Specify the IP address of your PBX to only allow data to be sent from that address. You may leave this field blank to accept data from any IP address.
Port	The port number that TIM Enterprise should listen on for call logging data.

System DSN connection

Connection method	Connection details	
 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	DSN TIM Enterprise - A - Frequency 5 DB script Alcatel OminPCX Of -	
 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms 	

Field	Description
DSN name	The name of the system DSN connection to use when connecting to your telephone system's database.
Frequency	The frequency, in seconds, of the checks that TIM Enterprise makes when connecting to the database to determine if new data is available.
DB Script	The database script that TIM Enterprise uses when checking for new data.

RADIUS connection

Connection method	Connection details	
 Receive FTP transfers from PBX Establish TCP connection to PBX Listen for connections from PBX System DSN connection RADIUS connection 	Client IP 192.168.1.1 Secret key	
 SysLog connection No connection required 	Connection options Binary data Timestamp data Delay processing by ms 	
Field Description		

Client IP The IP address of your telephone system responsible for sending RADIUS packets.

Secret The secret key used in RADIUS authentication between TIM Enterprise and your telephone system.

Syslog connection

Connection method		Connection details	
na Es na Li na Li na Si O R III Si	eceive FTP transfers from PBX stablish TCP connection to PBX sten for connections from PBX ystem DSN connection ADIUS connection ysLog connection o connection required	Client IP 192.168.1.1 Connection options Binary data Delay processing by ms	
Field	Description		
Client IP	The IP address of your telephone system responsible for sending SysLog events to TIM Enterprise.		

For detailed information about connecting to all makes/models of PBX, refer to the Connecting to your PBX section.

Connection options

New PBX		\mathbf{X}	
New PBX General Connection Inactivity Options	neral Connection method Activity Receive FTP transfers from PBX	Connection details Username Password Use SFTP protocol Connection options Binary data Timestamp data Delay processing by ms	
		Cancel Save	

Option	Description
Binary data	Select this option if your telephone system sends call records in a non-textual format.
Timestamp data	TIM Enterprise can timestamp call records from your telephone system as they are received, if they do not already include dates and times.
Delay processing by	Enable this option and enter a time delay, in milliseconds, if call records are sent from your telephone system over a slow connection. This helps to prevent data loss when call records are processed before they are fully received.

Inactivity

This tab allows you to set up an inactivity timer, which can notify you by e-mail when TIM Enterprise has not received data from your telephone system for a given amount of time.

In Avaya IP Office v6				
General Connection	Trigger			
Inactivity	After 30 minutes of inactivity email support@tri-line.com			
Options	Reset connection to datasource			
	Exclusions			
	■ Monday			
	□ Tuesday			
	🔲 Wednesday 🛛 02 💭 09 💭 16 📝 23			
	□ Thursday			
	□ Friday ✓ 04 □ 11 □ 18 ✓ Saturday ✓ 05 □ 12 ✓ 19			
	✓ Sunday ✓ 05 12 19 ✓ Sunday ✓ 06 13 ✓ 20			
	Cancel R Save			

Enable inactivity timer

Select this option to enable inactivity monitoring for the site you are configuring. Enter the amount of time, in minutes, that must pass with no call activity, before an e-mail is sent. Next, enter the e-mail address that will receive inactivity alerts for this site.

Reset connection on inactivity

TIM Enterprise can reset the network connection to your telephone system when an inactivity alert is sent, in order to cause the telephone system to restart its connection.

Exclude days and hours from inactivity monitoring

Tick the box alongside the days and hours when it is legitimate that no call activity takes place, such as at night or at weekends, so as not to receive unnecessary e-mail notifications for those periods.

Options

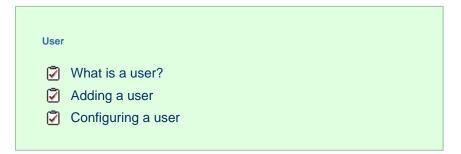
The Options tab allows you to restrict the lookup of users outside the selected PBX object. This will allow you to log users with the same extension number across different sites.

📕 Avaya IP Office	v6	×
General Connection	Options	
Inactivity	Limit lookup of users and channels to within the scope of this data source only	-
Options		
	🤪 Cancel 🗮 Sa	ve

This option is turned off by default and it is recommended that you check with our Technical Support team whether it needs to be enabled on our system.

User

8



What is a user?

Users represent the people in your organisation who make use of devices such as telephone extensions, fax machines, etc. When you first configure TIM Enterprise, your users are automatically harvested from the data received from the phone system into a folder named Discovered Users. The properties of each user can be edited afterwards, and users can also be subsequently organised into new user groups, if preferred.

💈 Alex Gustoli			
General			
Features	User prope	rties	User details
	Name Job title	Alex Gustoli Operations Manager	
	Extension Email	11065 agustoli@example.com	25
	Mobile DDI	07828123456 020726511065	
	Fax Pager IP phone Alternative ext	11064	Address 9-10 Telfords Yard The Highway London E1W 2BS
			🔁 Cancel 📑 Save

Adding a user

To manually add a user to the system, drill-down to the Directory level where you want to add the user and click on the New object tab, as shown below:

timenterprise		Reports	Directory	Call Vie	w Tariff Editor	Alerts
🛧 \ UK \ London \ IT \						
🔁 💈 🔍	New object				Clipboard 0 items	
					📔 Paste 🍠 Clear	
🖬 London IT						
📸 London IT Stats						
😰 Ahrun Hussain						
😰 Bea Minor						
😰 Gail Storm						

In the new window that opens, select the User object from the Other object list, enter a relevant name and click on the Add button, as shown below:

🍈 Add new object		
Organisation unit	Other object	
 Channel Group Cost Centre Division Group Reporting Collection Site 	 Alarm Channel PBX Magic Box User Display Board Question 	 Billing Charge Stats Collector LCR Plan Tariff Modifier Web User Directory Sync
An individual question a user	must answer in order to score	calls
Enter a name for the object	Alex Gustoli	Cancel Add

Configuring a user

To configure a user, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

timenterprise)		Reports	Directory	Call Viev	w Tariff Editor	Alerts		
A \ UK \ London \ IT \									
主 💈	Q,	New object			8 items	Clipboard 0 items			
						📔 Paste 🍠 Clear			
🖬 London IT									
湭 London IT Stats									
🧟 Ahrun Hussain									
💈 Alex Gustoli	Open								
💈 Bea Minor	Сору								
💈 Gail Storm	Copy all								
_	Delete								
😰 Rose Gardner	Properties								
🙎 Sunita Patel									

A new window will open, allowing you to configure the properties of your user object, as shown below:

General

💈 Alex Gustoli			
General Features	User prope	erties	User details
	Name Job title	Alex Gustoli Operations Manager	
	Extension Email Mobile DDI	11065 agustoli@example.com 07828123456 020726511065	
	Fax Pager IP phone Alternative ext	11064	Address 9-10 Telfords Yard The Highway London E1W 2BS
			🥥 Cancel 📮 Save

Field	Description	
Name	The name of the user. If no name is entered, the extension number will show instead	
Job title	The job title of the user	
Extension	The extension number of the user	
Email	The e-mail address of the user	
Mobile	The mobile number of the user	
DDI	The DDI number of the user	
Fax	The fax number of the user	
IP Phone	The IP phone number of the user	
Alt extension	The alternative extension number(s) or the DDI digits of the user, if applicable	

Features

💈 Alex Gustoli		
General Features	Feature options Email details of missed calls Licensed personal call manager Do not log calls for this user Do not record calls for this user Exclude this user from call statistics	Call barring User is barred from making calls Bar user if call made where cost exceeds dialing code is

Field	Description	Description				
Email details of missed calls	Tick this box if you would	l like this user to receive e-mail notifications every time they have a missed call				
Licensed personal call manager	This feature is no longer	in use				
Do not log calls for this user	When selected, calls for	When selected, calls for this user will not be logged				
Do not record calls for this user	When selected, calls for this user will not be recorded					
Exclude this user from call statistics	When selected, collection of statistics will not be performed for calls to and from this user					
Call barring	This feature is not available on the majority of telephone systems as it requires tight integration with the PBX. If available it will allow you to:					
	Bar user from making calls Prevents the user making calls. i.e. set a block on the PBX to prevent outbound calls from this user.					
	Partically Bar calls Bar calls to specific numbers or calls that exceed a specific pre-allocted amount.					

Display Boards

What is a display board?

A display board is a user-definable screen that can comprise any live, up-to-the-minute information, such as call statistics, leaderboards or RSS feeds. It can also pull content from third-party systems, such as sales management, accounting or CRM software.

Starting from either a blank canvas or from a pre-defined template, a display board can be customised by adding any combination of the following types of panel, using an on-screen designer:



The example below shows a display board containing a label panel at the top of screen, a leaderboard panel on the left-hand side, and a series of 6 summary panels on the right-hand side. An RSS panel is displayed at the bottom of the screen. At the top-left corner of the display board, an additional transparent label panel was added to represent a company logo.

		A	ll Teles	ales		19:47:31
	Best	t performers	S		Summa	ary stats
Pos	Name	Calls ▼	Total dur	Avg dur	Total In	Longest In
1	Grace Harper	24	00:51:43	00:02:09	107	00:09:16
	Christina Andrews	22	00:40:13	00:01:50		Grace Harper
	Mark Longhorn	21	00:24:25	00:01:10	Total Out	Longest Out
	Sally Gansa	12	00:14:32	00:01:13		00:04:27
5	Ricardo De Souze	12	00:25:30	00:02:08	14	00.04.27
6	Jason Myers	12	00:22:17	00:01:51		Lee Faithful
	Billy Elliot	7	00:16:37	00:02:22	Total Lost	Most Expensive
8	Malcolm Meehan	3	00:02:28	00:00:49		0.44
	Lee Faithful	3	00:05:04	00:01:41		0.44
Electricities Electricities Lee Faithful Image: Second control						

The following pages contain details of how to create and customise display boards.

How are display boards populated?

Whilst display boards can be populated by various external data feeds, their principal use is to display up-to-the-minute information about your organisation's phone calls, for which objects known as "stats collectors" are employed. These statistics collection points are mathematical "counters" whose scope is determined by their placement in your directory hierarchy. For example, placing a stats point inside a specific user group ensures that call information is collected only for users that inhabit the selected group. Similarly, placing a stats point inside a site will collect only call information for the chosen site.

Additionally, when configuring a stats point, a subject must be specified, which determines the property of each call whose value will be used when grouping its collated information into distinct sets. For example, specifying a subject of "user" will group its collated call information into sets of data for each distinct user.

: London Daily	: London Daily Stats					
General Exclusions	Name London Daily Stats	3				
Contents	 User group Site Cost centre Division PBX Dialled number CLI Chargeband Destination 	Reset frequency Every U Winutes Hours Hours O Weekdays Weeks Months	Next reset Time Day 06 Month Apr Year 2012 Reset now			

For more information about stats points and how to create them, refer to the Stats collector section.

A

8

In order to create a display board containing call information, at least one stats collection point must be defined first.

Accessing a display board

To access a display board, drill-down to the point in your Directory where your display board object is located.

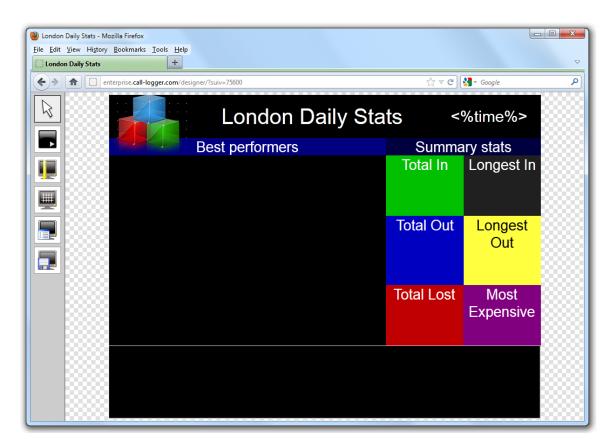
tim enterprise)		Reports	Directory	Call Vie	w Tariff Editor Ale	rts
윰 \ UK \ London \						
💼 🖸 🔹	🔾 🧻 New object			1 items	Clipboard 0 items	
					📔 Paste 🌈 Clear	
C Accounts						
C Admin						
Customer Services						
🗀 Development						
🗀 IT						
🔢 London Daily Stats						
🖬 London Weekly Stats						
🛲 Main PBX						
📸 London Daily Stats						
🗯 London Weekly Stats						

The list of display boards you are allowed to see depends on the place of your login account in the Directory. To be able to see additional display boards, contact your system administrator.

To view the display board, click on it to expand the drop-down list and select Display, as shown below:

tim enterprise)			Reports	Directory	Call Viev	w Tariff Editor	Alerts
윰 \ UK \ London \							
💼 💈	Q	New object		11	l items	Clipboard 0 items	
						📔 Paste 🏼 🥒 Clear	
Accounts					[
🗀 Admin							
🗀 Customer Services							
🗋 Development							
🗀 п							
📘 London Daily Stats	Display						
🛨 London Weekly Stats	Сору						
🗐 Main PBX	Copy all						
🝰 London Daily Stats	Delete	_					
نف London Weekly Stats	Design						

To design or edit a display board, select Design from the drop-down list. The design mode of your display board will display as follows:



To access a display board directly, type its URL in the address bar of your web browser, as shown below:

-	ly Stats - Mozilla Firefox w Higtory <u>B</u> ookmarks <u>T</u> ools aily Stats	Help +				□ ×
(+)	enterprise.call-logger.com	n/display/?suiv=75633]		☆ マ C 🚼 -	Google 🔎
		Lono	don Dai	ly Stats		11:15:26
	Be	st perform	ers			ary stats
Pos	Name	Calls ▼	Total dur	Avg dur	Total In	Longest In
1	Adam Zapel	16	00:05:24	00:00:20	37	00:10:57
2	Tom Morrow	13	00:25:35	00:01:58	Total Out	Longest Out
3	Cheri Pitts	10	00:14:37	00:01:28	04	00:01:33
4	Bea Minor	6	00:03:02	00:00:30	24	
5	Pat Downe	4	00:02:38	00:00:40	Total Lost	Olive Yew Most Expens
6	Claire Annette	4	00:04:47	00:01:12		0.15
					U	Olive Yew
6		delivers up-t	o-the-minute , politics and		nation on the latest	t top stories,

The URL of the display board can be saved in your Favorites, to your desktop or mobile device - if you need to view this screen frequently. Alternatively, you may want to display this permanently on a large screen in your office so that everyone in your team can monitor the statistics.

Creating a display board



Adding a display board

To add a display board object to the system, drill-down to the Directory level where you want to add the display board and click on the New object tab, as shown below:

tim enterprise)			Reports	Directory	Call View	Tariff Editor	Alerts
윰 \ UK \ London \							
£ 🖉	Q	New object			items	Clipboard 0 items	
						📔 Paste 🎜 Clear	
Accounts							
🗋 Admin							

In the new window that opens, select the Display board object from the Other object list, enter a relevant name and click on the Add button, as shown below:

🍈 Add new object			
Organisation unit	Other object		
🔪 Channel Group	🔆 Alarm	쵫 Billing Charge	
Cost Centre	🥢 Channel	🝰 Stats Collector	
🖾 Division	BX PBX	123 LCR Plan	
🗋 Group	🛲 Magic Box	뤥 Tariff Modifier	
😥 Reporting Collection	💈 User	🔕 Web User	
🛄 Site	🚼 Display Board	🙆 Directory Sync	
	📝 Question		
An individual question a user i	must answer in order to score	calls	
Entor a name for the object	London Daily Stats		
Enter a name for the object	barri boabb		
		🗦 Cancel	
			J

A new window will open, allowing you to select one of the following three options:

- Create blank: This option allows you to design your own display board from scratch
- Create from a template: This option allows you to choose a predefined display board template
- Create from an existing display board: This option allows you to create a new display board based on an existing template

-X	London Daily Stats	
	New display board Design a display board to show live call statistics, leaderboards, RSS feeds and other custom web panels. Choose to create a blank display board, a display board based on a pre-defined template, or to copy an existing display board.	 Create blank Create from a template Create from an existing display board
		ට Cancel 🛏 Back 📑 Finish

Create blank

To design your own display board from scratch, select the Create blank option and click on the Finish button, as shown below:

🔌 London Daily Stats		
<section-header>New display board to show live call statistics, leaderboards, RSS feeds and other custom web panels.Choose to create a blank display board, a display board based on a pre-defined template, or to copy an existing display board.</section-header>	 Create blank Create from a template Create from an existing display board 	
	🔁 Cancel 🦛 Back	Finish

A new window will open, showing the design mode of your display board, as shown below:

London Daily Stats	+	
) ⇒ कि □ en	iterprise. call-logger.com /designer/?suiv=75600	☆ マ C< Google
		······
8		
-00000		
#		
-		
-		
_		
e		

For information on how to design your own display board, refer to the Designing a display board section.

Create from a template

To create a display board from a predefined template, select the **Create from a template** option and click on the **Next** button, as shown below:

🔺 London Daily Stats	
<section-header>New display boardDesign a display board to show live call statistics, leaderboards, RSS feeds and other custom web panels.Choose to create a blank display board, a display board based on a pre-defined template, or to copy an existing display board.</section-header>	 Create blank Create from a template Create from an existing display board

You can now select from a series of predefined templates, by clicking on its associated number, then click on the Next button.

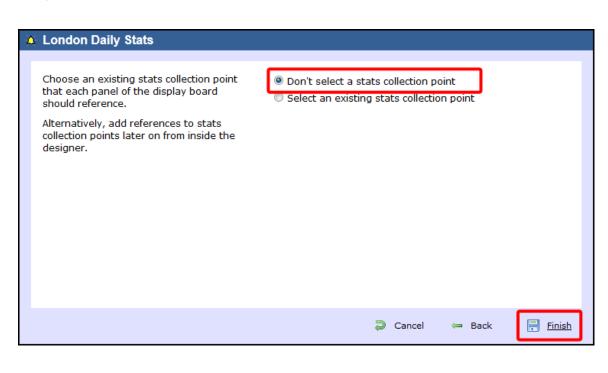
London Daily Stats **Best performers** 1 🖛 Prev 2 3 4 5 6 7 8 9 Next ⇒ Provides a leader board to show who's Telesales Stats 17:53:27 spent most time on calls. For each user, ary stats the total and average call durations are Total dur Avg du also shown. Calls 🗸 76 00:03:30 Mark Longh Summary panels highlight the longest Grace Harp Ricardo De Souze and most expensive calls as well as lly 6 00:17:14 showing a summary of inbound, ison Myers outbound and lost calls for the group you sh Shat Sillian Doyle select. dra Ck 0.58 N An RSS feed also provides rolling news and current affairs headlines. CNN.con Cancel 👄 Back Next ⇒

At this stage, you are asked to select a stats collection point or skip to the next section.

À	London Daily Stats		
	Choose an existing stats collection point that each panel of the display board should reference.	 Don't select a stats collection point Select an existing stats collection point 	
	Alternatively, add references to stats collection points later on from inside the designer.		
		🔁 Cancel 🖛 Ba	ack 틙 Finish

Don't select a stats collection point

If you don't want to select a stats point at this time, click **Finish** and your display board will be added to the Directory. A stats point can be added at a later stage, by accessing the Design mode of your display board. For information about how to configure a stats collection point, refer to the Adding a stats collector section.



The display board will be blank until a stats collection point is selected.

Select an existing stats collection point

A

If you select this option, a list with the existing stats points objects will be displayed, as shown below:

London Daily Stats				
Choose an existing stats collection point that each panel of the display board should reference.	 Don't select a state Select an existing 			
Alternatively, add references to stats	Name 🔺	Subject	Covering period	
collection points later on from inside the	Leeds Stats	User	1 day	
designer.	Lines	Channel group	1 week	
	Lines	Channel group	1 day	
	London Daily	User	1 day	
	London Daily St	User	1 day	
	London IT Stats	User	1 day	=
	London Weekly S	User	1 week	_
	Manchester Acco	User	1 day	
	Manchester Acco	User	1 day	
	Manchester Chan	Channel group	1 week	
	Manchester Sales	User	1 dav	-
		Cancel	= Back	<u>Finish</u>

Select the relevant stats point from the list and click on the Finish button to add the new display board to the Directory.

Create from an existing display board

To create a display board from an existing template, select the Create from an existing display board option and click the Next button.

 London Daily Stats New display board Design a display board to show live call statistics, leaderboards, RSS feeds and other custom web panels. Choose to create a blank display board, 	 Create blank Create from a template Create from an existing display board
Choose to create a blank display board, a display board based on a pre-defined template, or to copy an existing display board.	
	∂ Cancel ← Back → <u>Next</u>

A list with the currently-available display boards will be shown. Select the one you want to copy, then click on the Next button.

🔺 London Daily Stats	
Choose an existing display board to copy:	Preview:
🖶 Aberdeen Stats	London Daily Stats 18:18:12
📷 Aberdeen sales	Best performers Summery stats
🔢 Birmingham Accounts	Total In Longest Out
🔢 Brighton Daily Stats	
📷 Brighton Weekly Stats	Total Out Longest In
Cardiff Stats	
🚼 Customer Services - Weekly	Total Lost Most Expensive
📅 John Test	
🚼 Leeds Daily Call Summary	
🖬 London IT	
🖬 London Weekly Stats	▼
	\supseteq Cancel \leftarrow Back \rightarrow <u>Next</u>

At this stage, you are asked to select a stats collection point or skip to the next section.

🍝 London Daily Stats	
Choose an existing stats collection point that each panel of the display board should reference.	 Don't select a stats collection point Select an existing stats collection point
Alternatively, add references to stats collection points later on from inside the designer.	
	🔁 Cancel 🛏 Back 📑 Finish

Don't select a stats collection point

If you don't want to select a stats point at this time, click **Finish** to add the display boards to the Directory. A stats collection point can be added at a later stage, by accessing the Design mode of your display board. For information about how to configure a stats collection point, refer to the Adding a stats collector section.

🔺 London Daily Stats		
Change on existing state collection point		
Choose an existing stats collection point that each panel of the display board should reference.	 Don't select a stats collection point Select an existing stats collection point 	
Alternatively, add references to stats collection points later on from inside the designer.		
	Ә Cancel 🖛 Back 📑	<u>Finish</u>

The display board will be blank until a stats collection point is selected.

Select an existing stats collection point

If you select this option, a list with the existing stats points objects will be displayed, as shown below:

London Daily Stats				
Choose an existing stats collection point that each panel of the display board should reference.	 Don't select a state Select an existing 			
Alternatively, add references to stats	Name 🔺	Subject	Covering period	
collection points later on from inside the	Leeds Stats	User	1 day	
designer.	Lines	Channel group	1 week	
	Lines	Channel group	1 day	
	London Daily	User	1 day	
	London Daily St	User	1 day	
	London IT Stats	User	1 day	=
	London Weekly S	User	1 week	
	Manchester Acco	User	1 day	
	Manchester Acco	User	1 day	
	Manchester Chan	Channel group	1 week	
	Manchester Sales	User	1 dav	-
		Cancel	= Back	<u>Finis</u>

Select the relevant stats point from the list and click on the Finish button to add the new display board to the Directory.

Designing a display board

Designing a display board video

How to design a display board

To design a display board, locate the object in the Directory, click on it and select Design from the drop-down list, as shown below:

timenterprise)			Reports	Directory	Call Viev	v Tariff Editor	Alerts
윰 \ UK \ London \							
💼 💈 🛛	Q	New object			items	Clipboard 0 items	
						📔 Paste 🌛 Clear	
🗋 Accounts							
🗀 Admin							
🗀 Customer Services							
🗋 Development							
🗀 п							
😼 London Daily Stats	Display						
🖬 London Weekly Stats	Сору						
🗐 Main PBX	Copy all						
📩 London Daily Stats	Delete						
	Design						
🖄 London Weekly Stats							

If you opted to design your display board from scratch, the following screen will appear:

London Daily Stats - Mozilla Firefox le Edit <u>V</u> iew Higtory <u>B</u> ookmarks <u>I</u> ools <u>H</u> elp		, 🗆 <mark>— X</mark>
Condon Daily Stats		2
← → a enterprise.call-logger.com/designer/?suiv=75600	☆ ⊽ 🖒 Google	۶
	· · · · · · · · · · · · · · · · · · ·	

To add or edit panels in your display board, use the toolbar on the left-hand side of the panel. Each toolbar button is described below:



The pointer button

The pointer (selector) button allows you to select an object and alter its properties.



The panel type button

This button allows you to select the type of panel you want to add to the canvas. The available panel types are presented below:



Label panel





The aspect ratio button

This button allows you to change the ratio of the screen. The defaults available are 16:10 and 4:3, but the board can be stretched to any value you set.



The grid button

The grid button is a simple toggle switch that shows or hides the grid.



The canvas settings button

This button allows you to change the background properties of the canvas.



The save button

This button allows you to save any changes made to the canvas.

Display Board panels

Common features

This section offers information about how to style the panels of your display boards.



Selecting a font

To select a font style or a font size, expand the drop-down list and choose from the available options, as shown below:



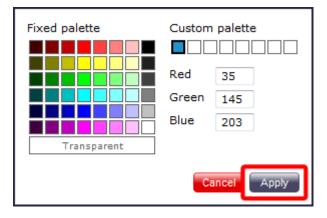
Colour picker

To select the colour of an object, click on the drop-down arrow to expand the colour palette.

Text style	16pt 👻 Arial 👻

To select a standard colour, choose from the Fixed palette section. If you are adding an image, select the background to be transparent, so it doesn't interfere with the appearance of the image.

To select a custom colour, click on one of the blank colour squares and type the RGB colour codes to add it to your custom palette. Click on the Apply button to set the chosen colour:



Formatting buttons

If you would like the text in your display board to appear as bold, italic or underlined, click on the relevant **B I U** button, as shown below:

Text style	20pt 🗸 Arial 🗸

Text position

To determine the position of your text, click on the relevant

Text style	20pt 🗸 Arial 🗸

Label panel



What is a label panel?

The label panel allows you to add textual labels anywhere on your display board. These labels can consist of static text, dynamic text (such as the current date and time), and images (such as your company logo) by specifying no text but choosing a background image.

The example below shows how label panels - highlighted in red - appear on a display board; a large label panel, All Telesales, is shown at the top of the screen, followed by two smaller label panels, Best Performers and Summary Stats, describing the sections below them. Two further label panels were used to add a company logo (at the top-left of the page) and the current date and time (at the top-right of the page).

All Telesales				19:47:31		
Best performers			Summa	iry stats		
Pos 1	Name Grace Harper	Calls ▼ 24	Total dur 00:51:43	Avg dur 00:02:09	Total In	Longest In 00:09:16
2	Christina Andrews	22	00:40:13	00:01:50	107	Grace Harper
3	Mark Longhorn	21	00:24:25	00:01:10	Total Out	Longest Out
4	Sally Gansa	12	00:14:32	00:01:13		00:04:27
5	Ricardo De Souze	12	00:25:30	00:02:08	14	00.04.27
6	Jason Myers	12	00:22:17	00:01:51	T-1-111	Lee Faithful
7	Billy Elliot	7	00:16:37	00:02:22	Total Lost	Most Expensive
8	Malcolm Meehan	3	00:02:28	00:00:49		0
9	Lee Faithful	3	00:05:04	00:01:41		0.44
						Lee Faithful

Fire rages near N. Mexico nuclear plant

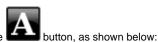
The fire is about a mile from the Los Alamos National Laboratory. All nuclear materials are protected, lab officials said in a statement.

There is no limit to the number of label panels you can use on a display board.

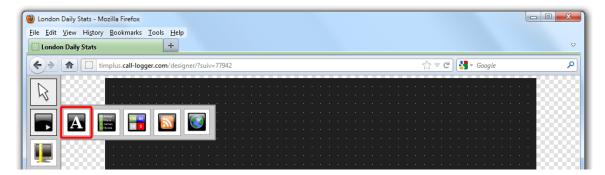
Adding a label panel



toolbar button to expand the list of panel types and choose the



To add a label panel, click on the



After selecting the label panel button, the mouse pointer changes into a white crosshair pointer, indicating that the designer is ready to draw your panel. Click and hold your left mouse button, starting at the point defining the upper-left corner of your new panel. Whilst still holding down the left mouse button, drag the marquee that will appear to the point that will define the lower-right corner of your panel, as shown below:

London Daily Stats - Mozilla Firefox <u>File Edit View History Bookmarks Iools H</u> elp		
Condon Daily Stats		▽
timplus.call-logger.com/designer/?suiv=77942	☆ マ C 🛃 - Google	٩
Label panel 1 Label panel 1		

Customising a label panel

To customise a label panel, click on the toolbar button to switch to panel selection mode. Hover your mouse pointer over the label panel you want to customise and click on the interval of the panel, as shown below:

W London Daily Stats - Mozilla Firefox File Edit View Higtory Bookmarks Iools Help Condon Daily Stats		- O X
♦ ↑ timplus.call-logger.com/designer/?suiv=77942	🏠 ⊽ 😋 🚼 → Google	٩
Label panel 1	X	
· · · · · · · · · · · · · · · · · · ·		
- 🖳 1999999		

The Label panel properties window will open, containing the following tabs:

Content

This tab allows you to enter the name you want to appear on the label panel and apply any styling properties, such as font size, font style, text colour, etc.

🛅 Label panel pr	operties	
Content		
Background Metrics	🔲 Hide label	
	Label Text style	London Daily Stats 24pt → Arial → B I U E E E Fixed palette Custom palette Red Green Blue Transparent Cancel Reply
		🔁 Cancel 📑 Save

Field	Description
Hide label	Tick this option if you don't want your panel to display the textual element, such as when you are adding a stand-alone image in the panel's background property
Label	Enter the text you want to appear on the label panel
Text style	Select any styling properties, such as font size, font style, text colour, etc.

Background

This tab allows you to configure the background properties of your label panel.

🛅 Label panel p	roperties
Content	
Background	Image source D:\images\logo.png
Metrics	Image style Colour Mapply lighting effer Fixed palette Fixed palette Red Green Blue Transparent Custom palette Custom palette Custo
	Cancel Revealed Save

Field	Description
Image source	If you want your panel to display an image, type its source here. Remember, the path is relative to the folder on disk from which the web content is served, and is different for each class of web user
Image style	Choose how the image should be displayed
Colour	Choose the background colour of the panel; if you are adding an image, you may want to select Transparent s o that this does not interfere with your image
Apply lighting effects to this panel	Tick this option to apply a shine effect to the entire panel; if you are using the panel to display an image, this may adversely affect how it appears

Metrics

This tab allows you to define the shape of the panel, by entering values for its position and size.

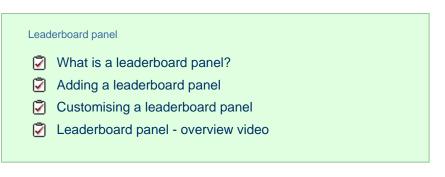
📅 Label panel p	roperties		
Content			
Background	Left	0 px	
Metrics	Тор	0 px	
	Width	799 px	
	Height	112 px	
	-		
			Cancel Save

When you have configured the properties of your Label panel, click on the Save button to apply the changes.

Label panel - overview video

For a live demonstration of how to design and customise a label panel, watch the video below:

Leaderboard panel



What is a leaderboard panel?

A

The leaderboard panel allows you to display your live call logging data organised in columns placed next to each other, in order to provide a visual summary of any call information you wish to monitor. The content of each column is determined solely by your selection and the leaderboard can show any combination of column types. The fonts and background of the panel are also customisable.

The information shown in the leaderboard is updated every time a call finishes and has been logged by the system.

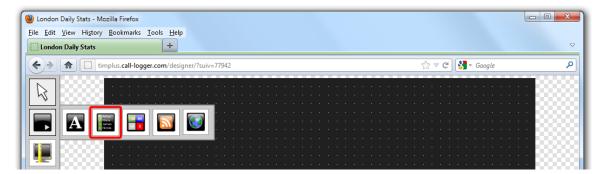
The example below shows a leaderboard panel containing the following columns: the total number of calls, inbound, outbound, lost calls, duration of inbound, duration of outbound, total duration of calls and is ordered by total number of calls per user:

2				t	X	X	*	7
	Pa	ris	W	'ee	ekl	y IT ⁻	Team	
Pos	Name	Total 🔻	In	Out	Lost	Duration (In)	Duration (Out)	Total Duration
1	Adam Zapel	111	2	104	0	00:01:52	00:33:33	00:38:32
2	Tom Morrow	66	60	2	0	01:49:52	00:00:19	01:50:35
3	Dan D. Lyons	59	5	48	0	00:02:45	00:16:51	00:26:08
4	Amanda Lynn	57	8	42	0	00:05:42	00:10:49	00:20:12
5	Bea Minor	52	36	13	0	00:18:36	00:06:18	00:27:24
6	Bill Loney	45	14	13	0	00:06:02	00:14:16	00:45:22
7	Lance Boyle	38	12	15	0	00:07:37	00:13:39	00:32:47
8	Al Fresco	37	11	13	0	00:05:48	00:13:26	00:36:32
9	Claire Annette	34	26	0	0	00:39:48	00:00:00	00:46:34
10	Aretha Holly	31	5	19	0	00:06:04	00:29:31	00:39:47

Adding a leaderboard panel



To add a leaderboard panel, click on the toolbar button to expand the list of panel types and choose the toolbar button, as shown below:

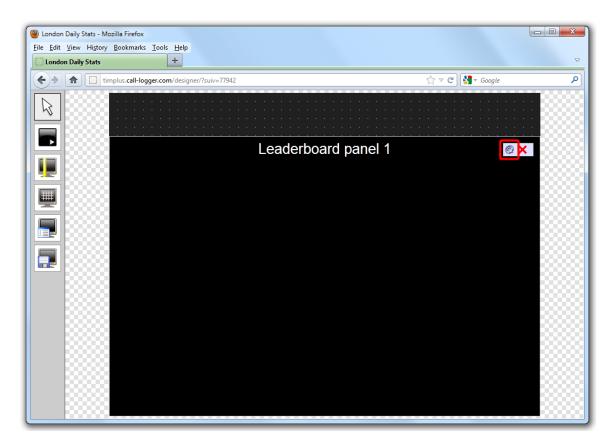


After selecting the leaderboard panel button, the mouse pointer changes into a white crosshair pointer, indicating that the designer is ready to draw your panel. Click and hold your left mouse button, starting at the point defining the upper-left corner of your new panel. Whilst still holding down the left mouse button, drag the marquee that will appear to the point that will define the lower-right corner of your panel, as shown below:

london Daily Stats - Mozilla Firefox				
Eile Edit View Higtory Bookmarks Tools Image: I				~
timplus.call-logger.com/	designer/?suiv=77942	☆ マ C	∛] ▼ Google	٩
	Leaderboard	panel 1		

Customising a leaderboard panel

To customize a leaderboard panel, click on the toolbar button to switch to panel selection mode. Hover your mouse pointer over the leaderboard panel you want to customise and click on the icon, when it appears towards the top-right corner of the panel, as shown below:



The Leaderboard panel properties window will open, containing the following tabs:

Title

The **Title** tab allows you to configure the properties of the panel title and of the leaderboard headers:

	Р	Panel title				board headers
		Best perform	iers			
Pos	Name	Total ▼	In	Out	Lost	Duration In
1	Adam Zapel	16		15		00:00:46
2	Tom Morrow	12	12	0		00:03:08
3	Cheri Pitts	10	10	0		00:01:15
4	Bea Minor	10	9			00:00:28

Panel title

📅 Leaderboard	panel properties	
Title		
Content	Panel title	
Background	🔲 Hide label	
Metrics		est Performers
		▼ B I U E E Fixed palette Custom palette
	Hide headers Text style	Red 35 Green 145 Blue 203 Transparent
	L	Cancel Apply
		🔁 Cancel 📑 Save

Field	Description	
Hide label Tick this option if you don't want your panel to have a title		
Label Enter the name of your leaderboard		
Text style	Select any styling properties for your panel title, e.g font size, font style or text colour etc.	

Leaderboard headers

📅 Leade	📅 Leaderboard panel properties						
Title							
Conten Backgr	ound	Panel title Ide label					
Metrics	5	Label Text style	Best performers 26pt Arial I I				
		Leaderboard header	rs				
		Text style	16pt → Arial → B <u>I</u> <u>U</u>				
			Fixed palette Custom palette Image: Construction of the constructi				
			Cancel Apply				
Field	Descript	ion					
Hide label	Tick this o	option if you don't want to add any	column headers				

Text style Select any styling properties for your column headers, e.g font size, font style or text colour etc.

Content

The **Content** tab allows you to select the type of information you want to display in your leaderboard. Each column can comprise different call information (duration, response time, etc.), for different call types (inbound, outbound, etc.) and for different entities (sites, groups, users). For example, one column can show statistics for the total number of inbound calls on a daily basis, while in a different column you can display the same information, but for a different user group and on a weekly basis.

To add a column to your leaderboard panel, perform the steps below:

Select a stats point

8

To populate a leaderboard with call logging information, you first need to configure a stats collector object to collect data for the site, group or user you want the leaderboard to display.

To select the relevant stats point for your leaderboard, click on the Select button, as shown below:

📅 Leaderboard	nanel properties	
Title	puner properties	
Content		
Background	Statistics point	O <u>Select</u>
Metrics	Call type	Answered v
	Column	Name 💌 🐺 Add column
	Column	×
		T
	Do not use con	tacts list to mask known numbers
		Cancel R Save

A new window will open, allowing you to drill-down to the Directory level where the stats point you want to add resides. To select the stats point, click on the 💜 icon alongside it.

Select a stats collection point					
£ 🔹	Q				
 Accounts Admin Customer Services Development IT 					
 Main PBX London Daily Stats London Weekly Stats 	 ✓ ✓ 				
	Close				

The selected stats point will automatically feed all columns in the leadearboard, but each individual column can be set afterwards to use a different stats point.

Select a call type

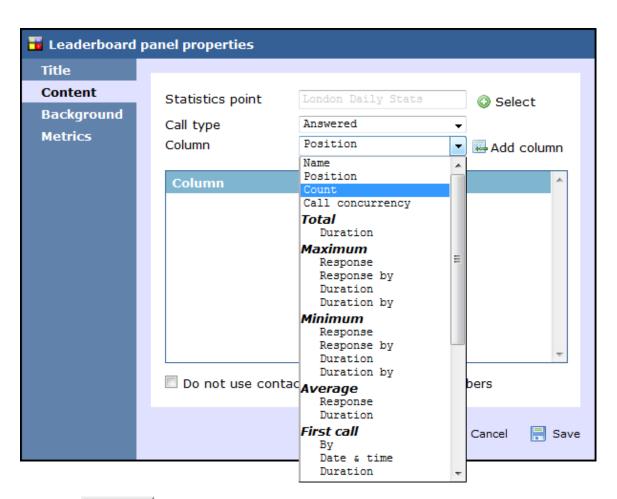
8

To select the type of call you want to display in this column, click on the Call type drop-down list and choose from the available options, as shown below:

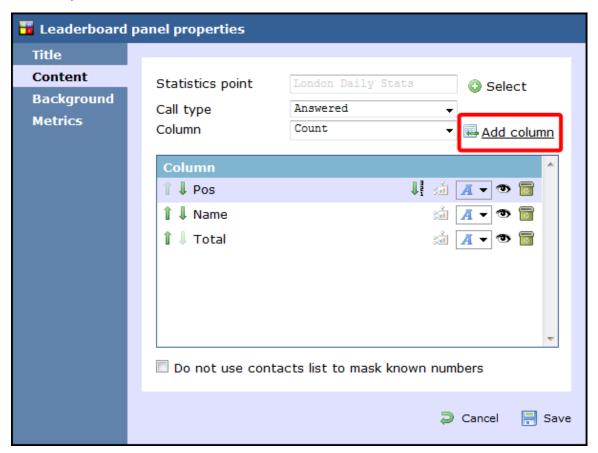
🛅 Leaderboard p	oanel properties		×]
Title				
Content Background Metrics	Statistics point Call type Column Column	London Daily Stats Answered Missed Outbound Outbound N/C Internal Tandem All	Select	
		ā	🕽 Cancel 🛛 🗍 Save	

Select the column information

To select the type of call information you want to display in each column, such as total duration, response time, etc., click on the Column dro p-down list and choose from the available options, as shown below:



Click on the Add column button to add the column to the list and repeat the process if you need to add another column to your leaderboard panel.



In the example below, the following settings for the Call type and Column fields have been selected in order to form the columns that appear in the list:

📅 Leaderboard	panel properties	
Title		
Content	Statistics point	London Daily Stats Select
Background	Call type	Answered -
Metrics	Column	Name 👻 🐺 Add column
	Column	
	1 🖡 Pos	🚵 🗛 🖜 🗃 🗍
	1 ↓ Name	:i A - 👁 🗟
	1 🖡 Total	JE 🔬 🗛 🐨 📷
	î↓ In	:å 🗛 👁 🐻 🖡
	1 ↓ Out	: 🔬 🖌 🖜 🐻
	1 🖡 Lost	: 🛋 🔺 👁 🗟
	1 Uuration In	:i 🗛 🖜 🗃 🚽
	Do not use con	tacts list to mask known numbers
		🔁 Cancel 🛛 틙 Save

Name	Call type	Column
Pos	All	Position
Name	All	Name
Total	All	Count
In	Answered	Count
Out	Outbound	Count
Lost	Missed	Count
Duration In	Answered	Average duration

Changing column name

To change the name of a column, click on it to highlight the text and enter the new name. Press the Enter key to save the changes.

🛅 Leaderboard	panel properties		
Title			
Content	Statistics point	London Daily Stat	3 Select
Background	Call type	Answered	•
Metrics	Column	Count	 Add column
	Ochuran		
	Column		
	1 Vos		li 🔬 🖌 🖜 🗃
	1 🌡 Name		🚈 🗛 🕶 🐻 📗
	1 🖡 Total		📬 📕 🖜 🗃 🗧
	1 🖡 Count (Ans)		🔬 🖪 🔻 👁 🐻 🗍
	1 ↓ Out		🚵 🖪 🔻 👁 🐻
	î↓ Lost		xi 🗛 🔻 👁 🐻
	1 ↓ Duration In		🔬 🖪 🔻 👁 🐻 🔻
	🗖 Do not use con	tacts list to mask kno	wn numbers
			🔁 Cancel 🛛 틙 Save

Rearranging columns

To rearrange the columns in a different order, click on the **1** licons alongside each column. By clicking on the **1** icon, the column will move one level up in the design mode, and one column to the left on the live display board.

In the example below, we rearrange the In and Total columns. By clicking on the 1 icon next to the Total column, we move it one level up.

📅 Leaderboard	panel properties	📅 Leaderboard	l panel properties
Title Content Background Metrics	Statistics point Iondon Daily Stats © Select Call type Missed Column Count • Add column Column I Pos I A • • • • Add column I Name A • • • • • • • • • • • • • • • • • •	Title Content Background Metrics	Statistics point <u>London Daily State</u> Select Call type <u>Hissed</u> Column <u>Count</u> Add column <u>Column</u> <u>I Pos</u> <u>I Name</u> <u>I Total</u> <u>I I In</u> <u>I Lost</u> Do not use contacts list to mask known numbers
	Cancel Research Save		Cancel 📑 Save

Changing a column's sorting

To sort the columns to appear in a specific order, click on the $1\frac{1}{3}$ icon.

In the example below, we change the sorting of the **Total** column from descending to ascending. By clicking on the \downarrow icon alongside the **T** otal column, we turn the sorting of this column to descending.

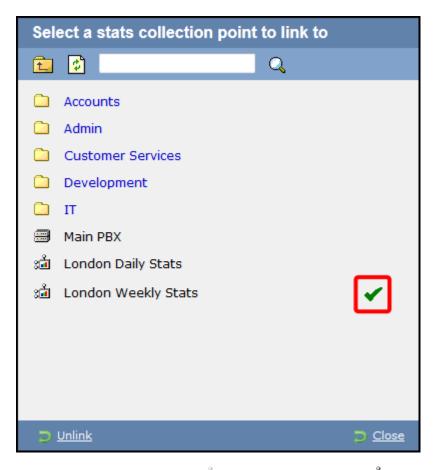
📅 Leaderboard	panel properties		🛅 Leaderboard	l panel properties		
Title Content Background Metrics	Statistics point Call type Column	London Daily Stats Select Answered • Count • Add column	Title Content Background Metrics	Statistics point Call type Column	London Daily Stats Answered Count Add c	
	Column			Column I ↓ Pos I ↓ Name I ↓ Total I ↓ In I ↓ Out Lost		
	Do not use cont	acts list to mask known numbers		Do not use con	itacts list to mask known numbers	- Save

Changing the stats collection point

To change the stats collection point of a column, click on the side icon alongside it, as shown below:

📅 Leaderboard panel properties			
Title			
Content Background Metrics	Statistics point Call type Column	London Daily Stats O Select Missed • Count • Add column	
	Column 1 Pos 1 Name 1 Total 1 In 1 Out 1 Lost Do not use cont	A Cancel Save	

A new window will open, allowing you to drill-down to the Directory level where the stats point you want to add resides. To select the stats point, click on the 💜 icon alongside it.



After selecting the new stats point, the 🕍 icon will automatically turn into 🝰, to highlight that the current column is using a different stats collection point.

📅 Leaderboard panel properties				
Title				
Content	Statistics point	London Daily Stats O Select		
Background	Call type	Missed 🗸		
Metrics	Column	Count		
	Column Column Pos A Pos A Name A Total A Total A In A Out Lost Do not use con	Image: A to be constant. Image: A		
		🔁 Cancel 🛛 틙 Save		

Changing the font properties

Click on the *A* icon to change any styling properties for the selected column, e.g font size, font style or text colour etc.

📅 Leaderboard panel properties				
Title				
Content	Statistics point	London Daily Stats Select		
Background	Call type	Answered		
Metrics	Column	Count 🗸 🖾 Add column		
	Column			
	1 🌡 Pos	VE 🖈 🖌 🖜 🔂		
	1 ↓ Name	: 🗴 🗖 🕶 🛅		
	1 ↓ Total	🚵 🗛 🔻 👁 📷		
	î↓In	📩 🗛 🗸 👁 📷		
	1 ↓ Out	着 Text style		
	1 🖡 Lost	i 20pt V Arial V		
	🔲 Do not use cont	tacts list to mask known num 🥥 Cancel 틙 Save		
		🔁 Cancel 🛛 틙 Save		

Hiding a column

To temporarily hide a column from your leaderboard panel, click on the 🌑 icon, which will turn automatically into 🛠, highlighting the column is hidden.

📅 Leaderboard panel properties				
Title				
Content Background Metrics	Statistics point Call type Column	London Daily Stats Missed Count	 ♦ Select ♦ Add column 	
	Column Pos Name Name Total In Out Lost Do not use con			

To display the column again, click on the $^{\bigstar}$ icon, which will turn back into $^{\textcircled{\baselineskip}}$.

Deleting a column

If you would like to permanently delete a column from your leaderboard panel, click on the 🛅 icon, as shown below:

📅 Leaderboard panel properties			
Title			
Content Background Metrics	Statistics point Call type Column	London Daily Stats ② Select Missed ~ Count ~ 是Add column	
	Column 1 Pos 1 Name 1 Total 1 In 1 Out 1 Lost Do not use cont	Image: Save	

Background

The Background tab allows you to configure the background properties of your leaderboard panel.

📅 Leaderboard	panel properties
Title	
Content	Image source
Background	Image style Centred -
Metrics	Colour 🖉 🗸
	Apply lighting effe
	🤪 Cancel 📑 Save

Field	Description
Image source	If you want your panel to display an image, type its source here. Remember, the path is relative to the folder on disk from which the web content is served, and is different for each class of web user
Image style	Choose how the image should be displayed
Colour	Choose the background colour of the panel; if you are adding an image, you may want to select Transparent s o that this does not interfere with your image
Apply lighting effects to this panel	Tick this option to apply a shine effect to the entire panel; if you are using the panel to display an image, this may adversely affect how it appears

Metrics

The Metrics tab allows you to define the size of the leaderboard panel and the parameters of the page.

📅 Leaderboard	panel properties			
Title				
Content	Left	0 px		
Background	Тор	96 px		
Metrics	Width	800 px		
	Height	503 px		
	Paging			
	✓ Use automatic p	aging		
	Page size	10		
	Show the firs	t page only		
	Page speed	3 seconds		
			Cancel	📕 Save
			a cancer	- Save

Panel size

To define the shape of the panel, enter the values for its position and size.

Paging

If you want to use automatic paging, select the box provided. Alternatively, you can determine the number of rows you want the leaderboard to show per page, or select show the first page only. If the leaderboard has more than one page, you can set the rate at which the pages should change, by entering a value in the Page speed box.

Once you have configured the settings of your leaderboard panel, click on the Save button to apply any changes.

Leaderboard panel - overview video

For a live demonstration of how to design and customise a leaderboard panel, watch the video below:

Summary panel

Summary panel
What is a summary panel?
Adding a summary panel
Customising a summary panel
Summary panel - overview video

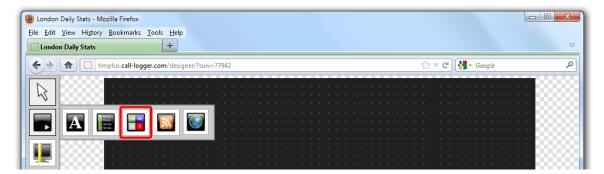
What is a summary panel?

Summary panels are normally used to display call statistics based on a particular call type or call property, e.g. the longest call, the most expensive call, the total number of inbound calls etc.

The display board in the screenshot below displays several summary panels, each of them showing call information grouped by different criteria



To add a summary panel, click on the toolbar button to expand the list of panel types and choose the button, as shown below:



After selecting the summary panel button, the mouse pointer changes into a white crosshair pointer, indicating that the designer is ready to draw your panel. Click and hold your left mouse button, starting at the point defining the upper-left corner of your new panel. Whilst still holding down the left mouse button, drag the marquee that will appear to the point that will define the lower-right corner of your panel, as shown below:

실 London Daily Stats - M		
	Bookmarks Iools Help	~
C London Daily Stats		
	mplus. call-logger.com /designer/?suiv=77942	☆ ♥ C ^I S ▼ Google
		Summary panel 1
		L

Customising a summary panel

To customize a summary panel, click on the

toolbar button to switch to panel selection mode. Hover your mouse pointer over the label panel you want to customise and click on the 🥏 icon, when it appears towards the top-right corner of the panel, as shown below:

<u>E</u> dit <u>V</u> iew His London Daily Sta	<u>s</u> tory <u>B</u> ookmarks I ts	Iools Help				
) > 🔒 🖸] timplus.call-log	ger.com/designer/?su	v=77942		🟫 ⊽ 😋 🚼 ד Google	
3		 	· · · · · · · ·	 	Summary pane	<
				· · · · · · · · ·		
				· · · · · · · ·		
						-33

The Summary panel properties window will open, containing the following tabs:

📅 Summary pa	nel properties	
Title		
Content Background Metrics	 Hide label Label Font family 	Summary panel 1 20pt → Arial → ■ ■ ■ ■ ■ ■ ■
		Cancel 📑 Save

Title

The **Title** tab allows you to enter the name you want to appear on the summary panel and apply any styling properties, such as font size, font style, text colour, etc.

📅 Summary par	el properties	
Title Content Background Metrics	Hide label Label Font family	Total In 24pt → Arial → □ → B I U ≣≣≣ Fixed palette
		Red 119 Green 145 Blue 34 Transparent
		Cancel 📑 Save

Field	Description
Hide label	Tick this option if you don't want your panel to have a title
Label	Enter a title for your summary panel
Text style	Select any styling properties for your panel title, e.g font size, font style or text colour etc.

Content

The **Content** tab allows you to select the type of call information you want to display in your summary panel.

Selecting a stats point

8

To populate the summary panel with call logging information, you first need to create a stats point object in the Directory to collect data for the site, group or user that you want the summary panel to display.

To choose the entity whose calls you want to display in this panel, select a stats collection point, by clicking on the Select button.

📅 Summary pan	el properties	
Title		
Content	Statistics point	Select
Background	Call type	Answered
Metrics	Column	Count
	Show summary v	alue
	Summary value	
	Font family	Auto \checkmark Arial \checkmark B $I \ \underline{U} \equiv \equiv \equiv$
	Show the name of	of the user responsible for this figure
	Summary value	e by
	Font family	20pt ▼ Arial ▼ B I U E
		Cancel 📑 Save

A new window will open, allowing you to drill-down to the site or group level in the Directory where the stats point object you want to add resides. To select the stats point, click on the 🗸 icon alongside it.

Select a stats collection point	
🔁 🖸 🔍 🔍	
 Accounts Admin Customer Services Development 	
 IT Main PBX i London Daily Stats i London Weekly Stats 	\
	D <u>Close</u>

Selecting the call type

To select the type of call you want to display in this column, click on the Call type drop-down list and choose from the available options, as

shown below:

📅 Summary pai	nel properties	X
Title		
Content	Statistics point London Daily Stats ③ Select	
Background Metrics	Call type Column Column Show summary value Font family Column Summary value Font family Column	
	Ә Cancel 🔗 Sav	/e

Selecting the column information

To select the type of call information you want to display in the summary panel, such as total duration, response time, etc., click on the Colu mn drop-down list and choose from the available options, as shown below:

📅 Summary pa	nel properties		
Title			
Content	Statistics point	London Daily Stats	Select
Background Metrics	Call type Column	Answered	•
	Show summary va		^
	Summary value	Total Duration	
	Font family	Maximum Response Duration	
	Show the name of	Response	⊨ his figure
	Summary value	Average Response Duration	
	Font family	First call By Date & time Duration Response	
		CLI Dialled number Destination Account code Charge band	Cancel 📄 Save

Show summary values

To see only the summary values for the information displayed in this panel, without the textual element, tick the available option and apply any styling properties, if preferred.

📅 Summary pa	nel properties	
Title	_	
Content Background Metrics	Statistics point Call type Column	London Daily Stats ③ Select Answered • Count •
	Show summary va Summary value Font family	lue 22pt → Arial → □ → B I U ≣ ≣ ≣
	Show the name of Summary value Font family	
		Cancel 틙 Apply

Show the name of the user

To see the name of the user whose call information is displayed in this panel, tick the available option and apply any styling properties, if preferred.

In the example below, we have selected to show the longest outbound call, so in the Call type field we have selected Outbound, and in the Column field we have selected Maximum Duration. Ticking the box to display the name of the user that meets the criteria above, the summary panel will display the outbound call with the max duration and the name of the person who achieved this.

📅 Summary pa	nel properties
Title	
Content Background Metrics	Statistics pointLondon Daily StatsImage: SelectCall typeOutboundImage: SelectColumnDurationImage: Select
	Show summary value
	Summary value
	Font family Auto → Arial → ■ ● B I U I
	Show the name of the user responsible for this figure
	Summary value by
	Font family 20pt → Arial → B I U E E E
	Cancel Revealed Save

The summary panel of this last example will display as shown below:

Longest duration
00:02:18
Linda Heys

Background

The Background tab allows you to configure the background properties of your summary panel.

📅 Summary par	nel properties
Title Content Background Metrics	Image source Image style Colour Apply lighting effe Fixed palette Custom palette Red 119 Green 145 Blue 34 Transparent Cancel
	Cancel 🔚 Save

Field	Description
Image source	If you want your panel to display an image, type its source here. Remember, the path is relative to the folder on disk from which the web content is served, and is different for each class of web user
Image style	Choose how the image should be displayed
Colour	Choose the background colour of the panel; if you are adding an image, you may want to select Transparent s o that this does not interfere with your image
Apply lighting effects to this panel	Tick this option to apply a shine effect to the entire panel; if you are using the panel to display an image, this may adversely affect how it appears

The two examples below show the difference between panels with and without lighting effects.



Metrics

The Metrics tab allows you to define the shape of the panel, by entering values for its position and size.

📅 Summary par	nel properties		
Title			
Content	Left	496 px	
Background	Тор	0 px	
Metrics	Width	300 px	
	Height	224 px	
	noight	PA	
			Cancel Save

When you have finished configuring the properties of your Summary panel, click on the **Save** button to apply the changes.

Summary panel - overview video

For a live demonstration of how to design and customise a summary panel, watch the video below:

RSS panel

RSS panel

- What is an RSS panel?
- Adding an RSS panel
- Customising an RSS panel
- RSS panel overview video

What is an RSS panel?

An RSS panel allows you to send a live RSS feed to your display board. The example below shows an RSS panel displayed at the bottom of the board.

		А	II Teles	sales		19:47:31				
	Best	Summa	ary stats							
Pos	Name	Calls v	Total dur	Avg dur	Total In	Longest In				
1	Grace Harper	24	00:51:43	00:02:09	107	00:09:16				
2	Christina Andrews	22	00:40:13	00:01:50		Grace Harper				
3	Mark Longhorn	21	00:24:25	00:01:10	Total Out	Longest Out				
4	Sally Gansa	12	00:14:32	00:01:13		00:04:27				
5	Ricardo De Souze	12	00:25:30	00:02:08	14	00.04.27				
6	Jason Myers	12	00:22:17	00:01:51		Lee Faithful				
	Billy Elliot	7	00:16:37	00:02:22	Total Lost	Most Expensive				
8	Malcolm Meehan	3	00:02:28	00:00:49		$0 \mathbf{\Lambda} \mathbf{\Lambda}$				
9	Lee Faithful	3	00:05:04	00:01:41						
	Fire rages near N. Mexico nuclear plant Lee Faithful The fire is about a mile from the Los Alamos National Laboratory. All nuclear materials are protected, lab officials said in a statement. Example 1									

Adding an RSS panel

🥙 London Daily Stats - Mozilla Firefox

<u>File Edit View History Bookmarks Tools H</u>elp



toolbar button to expand the list of panel types and choose the



()	() timplus.c	all-logge	r.com /des	igner/?suiv	/=7794	42							1	∇	e (<mark>8</mark> -	Goo	gle				,
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																				1.0	00	
	2 Arthur 2 Maria 3 James	130 84	5																	16		8
	- Neeela																			1.0	00	
	200 - A 4				<u> </u>															- R	93	2
!!! 1993																				- 0	88	

After selecting the RSS panel button, the mouse pointer changes into a white crosshair pointer, indicating that the designer is ready to draw your panel. Click and hold your left mouse button, starting at the point defining the upper-left corner of your new panel. Whilst still holding down the left mouse button, drag the marquee that will appear to the point that will define the lower-right corner of your panel, as shown below:

	timplus.call-logger.com/designer/?suiv=77942	🏫 🔻 😋 🚼 र Google
1888		
	🕐	
	📴 · · · · · · · · · · · · · · · · · · ·	
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	······································	

Customising an RSS panel

To customize an RSS panel, click on the toolbar button to switch to panel selection mode. Hover your mouse pointer over the label panel you want to customise and click on the icon, when it appears towards the top-right corner of the panel, as shown below:

÷)> 🍙 🖸 t	timplus.call-logger.com/designer/?suiv=77942	☆ マ C Google	
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The RSS panel properties window will open, containing the following tabs:

Content

The Content tab allows you to add the URL of your RSS feed, e.g. http://www.telegraph.co.uk/rss. To verify that the feed is valid, click on the Check feed button.

📅 RSS panel pro	operties
Content	
Appearance Background Metrics	RSS URL //www.telegraph.co.uk/rss Check feed
	Title

If the entry is valid, the title of the RSS feed will appear in the RSS title field. Click on the Add feed button to add this feed to your RSS panel, as shown below:

📅 RSS panel pro	operties
Content	
Appearance Background Metrics	RSS URL '/www.telegraph.co.uk/rss Check feed RSS title Telegraph.co.uk - Telegr Check feed Comparison of the second secon
	RSS feeds consist of text only
	🤪 Cancel 🛛 🗮 Save

By default, this will appear in your RSS panel as shown below:

📅 RSS panel pro	operties
Content	
Appearance Background Metrics	RSS URL Check feed
	Title ↑ ↓ Telegraph.co.uk - Telegraph online, Dail http://www.telegraph.co.uk/rss
	RSS feeds consist of text only

To add another RSS feed to your panel, follow the same procedure as described above.

Reordering RSS feeds

If your RSS panel contains more than one RSS feed, you can change the order they will appear on your display board by clicking on the

1 licons alongside each feed, as shown below:

📅 RSS panel pro	operties
Content	
Appearance Background Metrics	RSS URL Check feed
	Title I BBC News - Home http://feeds.bbci.co.uk/news/rss.xml?edi I Telegraph.co.uk - Telegraph online, Dail http://www.telegraph.co.uk/rss I CNN.com - World http://rss.cnn.com/rss/edition_world.rss
	RSS feeds consist of text only

Deleting an RSS feed

To delete an RSS feed from the panel, click on the 🛅 icon as shown below:

📅 RSS panel properties						
Content						
Appearance Background Metrics	RSS URL Check feed					
	Title Telegraph.co.uk - Telegraph online, Dail http://www.telegraph.co.uk/rss BBC News - Home http://feeds.bbci.co.uk/news/rss.xml?edi CNN.com - World http://rss.cnn.com/rss/edition_world.rss RSS feeds consist of text only					
	Description Cancel 🛛 🗮 Save					

Appearance

The <u>Appearance</u> tab allows you change the look of your RSS feed, by amending one or more of the following properties: the article title, the article description and the bullet point, as shown below:



Article description

📅 RSS panel pro	operties	
Content		
Appearance	Article title	
Background Metrics	Text style	24pt → Arial → B I U = = =
	Article description	
	Text style	20pt ▼ Arial ▼ ■ ■ I U I
	Bullet point	
	Image source Width Background colour	16 px □ ▼
		🔁 Cancel 📑 Save

Article title

Apply any styling properties, such as font size, font style or text colour, if you want to change the appearance of your article title.

Article title	
Text style	30pt 👻 Arial 👻

Article description

Apply any styling properties, such as font size, font style or text colour, if you want to change the appearance of your article description.

Article description	
Text style	22pt 👻 Arial 👻

Bullet point

Bullet point		
Image source		
Width	16 px	
Background colour		

Field	Description
Image source	To use an image rather than a plain colour as your bullet point, enter its source here; the path is relative to the folder on disk from which the web content is served, and is different for each class of web user; the background colour should be set as Transparent , so it does not interfere with your image
Width	Define the width of the image, in pixels
Background colour	If you don't want to use an image as your bullet point, you can select a background colour

The example below shows two different bullet point implementations of the same RSS feed. On the left, you can see an image as a bullet point, whereas on the right the bullet point is a coloured rectangle of specific width.



Background

The Background tab allows you to configure the background properties of your RSS panel.

_	
📅 RSS panel pro	operties
Content	
Appearance	Image source D:\images\rss_bg.png
Background	Image style Repeat -
Metrics	Colour
	Apply lighting effe
	🥥 Cancel 📑 Save

Field	Description
Image source	If you want your panel to display an image, type its source here. Remember, the path is relative to the folder on disk from which the web content is served, and is different for each class of web user
Image style	Choose how the image should be displayed
Colour	Choose the background colour of the panel; if you are adding an image, you may want to select Transparent S o that this does not interfere with your image
Apply lighting effects to this panel	Tick this option to apply a shine effect to the entire panel; if you are using the panel to display an image, this may adversely affect how it appears

The two examples below highlight the difference between panels with and without lighting effects.

Fire rages near

The fire is about a mile officials said in a state



Fire rages near

The fire is about a mile officials said in a state

It is recommended that you check with the RSS feed provider that they are happy for you to use their feed.

Metrics

8

The Metrics tab allows you to define the shape of the panel, by entering values for its position and size. You are also given the option to determine the refresh frequency of the page, by entering a value in the Article refresh box.

📅 RSS panel pro	operties				
Content					
Appearance	Left	0	рх		
Background	Тор	448	px		
Metrics	Width	799	px		
	Height	151	px		
	-				
	Article refresh	4	seconds		
				Cancel	📄 <u>Save</u>
				🥔 Cancer	- <u>Save</u>

When you have finished configuring the properties of your RSS panel, click on the Save button to apply the changes.

RSS panel - overview video

For a live demonstration of how to design and customise an RSS panel, watch the video below:

Web panel

Web	panel
2	What is a web panel?
2	Adding a web panel
2	Customising a web panel
2	Web panel - overview video

What is a web panel?

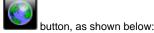
A web panel allows you to display a web page in any section of your display board. In the example below, the BBC News page is displayed on the right-hand side of the board, alongside a leaderboard panel.

	12 April		Lo	on	do	n C	Daily Stats 13:25:47
Pos	Name	▼ Total	Total Duration	In	Lost	Out	BBC News Sport Weather
1	Adam Zapel	18	00:06:41	0	0	17	
2	Tom Morrow	16	00:28:09	14	0	1	THURSDAY, 12 APRIL
3	Bea Minor	11	00:03:05	6	0	5	
4	Cheri Pitts	10	00:14:40	9	0	0	
5	Claire Annette	6	00:12:55	5	0	0	
6	Jo Sargeant	5	00:02:02	0	0	4	Should shops ban phone use when ordering?
7	Pat Downe	4	00:03:05	1	0	1	
8	Olive Yew	4	00:03:54	1	0	2	
9	Gail Storm	3	00:01:30	3	0	0	
							BBC TWO FACTUAL BBC RADIO 4 COMEDY

Adding a web panel



To add a web panel, click on the ______ toolbar button to expand the list of panel types and choose the



➢ London Daily Stats - Mozilla Firefox
 Eile Edit View Higtory Bookmarks Iools Help
 Condon Daily Stats
 ★
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 Coogle
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After selecting the web panel button, the mouse pointer changes into a white crosshair pointer, indicating that the designer is ready to draw your panel. Click and hold your left mouse button, starting at the point defining the upper-left corner of your new panel. Whilst still holding down the left mouse button, drag the marquee that will appear to the point that will define the lower-right corner of your panel, as shown

below:

London Daily Stats	+		
•	m /designer/?suiv=77942	🏫 ⊽ 🖱 🚼 ד Google	

Customising a Web panel

To customize a web panel, click on the toolbar button to switch to panel selection mode. Hover your mouse pointer over the label panel you want to customise and click on the icon, when it appears towards the top-right corner of the panel, as shown below:

London Daily Stats - Mozilla Firefox e Edit View History Bookmarks Too London Daily Stats	ols <u>H</u> elp +	L.	
	om/designer/?suiv=77942	🏠 ⊽ 😋 🚼 ד Google	

The Web page panel properties window will open, containing the following tabs:

Content

The <u>Content</u> tab allows you to add the URL and title of the web page you want to display. Click on the <u>Add</u> button to add the web page to the panel, as shown below:

ቼ Web page pa	nel properties		
Content			
Background Metrics	Content URL Content title	www.bbc.co.uk BBC News	Add
			🗦 Cancel 🛛 틙 Save

Background

The Background tab allows you to configure the background properties of your web panel.

📅 Web page pa	nel properties
Content	
Background	Image source
Metrics	Image source Image style Colour Apply lighting effe Fixed palette Custom palette Red Green Blue Transparent Cancel
	Cancel 📑 Save

Field	Description
Image source	If you want your panel to display an image, type its source here. Remember, the path is relative to the folder on disk from which the web content is served and is different for each class of web user
Image style	Choose how the image should be displayed
Colour	Choose the background colour of the panel; if you are adding an image, you may want to select Transparent s o that this does not interfere with your image
Apply lighting effects to this panel	Tick this option to apply a shine effect to the entire panel; if you are using the panel to display an image, this may adversely affect how it appears

Metrics

The Metrics tab allows you to define the shape of the panel, by entering values for its position and size. You are also given the option to determine the refresh frequency of the page, by entering a value in the Refresh page box, as shown below:

📅 Web page pa	nel properties				
Content					
Background	Left	816	рх		
Metrics	Тор	112	px		
	Width	700	рх		
	Height	800	рх		
	Refresh page every	10	seconds		
				🗦 Cancel	📑 <u>Save</u>

When you have finished configuring the properties of your Web panel, click on the Save button to apply the changes.

Web panel - overview video

For a live demonstration of how to design and customise a web panel, watch the video below:



Ques	stion
Ø	Overview
2	Adding a question
2	Editing a question
2	Using the score cards

Overview

TIM Enterprise allows you to create your own score cards in order to rate calls for evaluation purposes. The score cards are based on a list of questions that you can define in the directory and which must be completed afterwards for each call that you want to score.

A score card containing a list of possible questions is presented below:

Inbound call from	Inbound call from UNAVAILABLE to Barry Cade - 01 June 2012 10:50:43								
Audio	Audit trail	Scoring	Notes	F	Related	l calls	Cal	l info	
Rate the agent o	overall		۲	Excelle	ent				-
			۲	Very g	ood				
			•	Good					
				Average					
				Below a Bad	average	e			
				Bad					
Was the agent f	riendly and helpful?		٥	Yes	۲	No			
Was the call ans	wered quickly?		ø	Yes	۲	No			Ξ
								Save	Ŧ
.			R		00:00:	00 / 00:0	0:23		

Adding a question

To add a Question object to the system, drill-down to the Directory level where you want to add the question and click on the New object tab, as shown below:

im enterprise)			Reports	Call	View	Tariff Editor	Alerts
VUK \ London \							
🖻 🙆 🛛	Q	New object				rd 0 items	
Requirements 1					🔒 Pa	ste 🌈 Clear	
Requirements 2							
Accounts							
Customer Services							
Development							
🗅 П							

In the new window that opens, select the Question object from the Other object list, enter a relevant name and click on the Add but ton, as shown below:

Add new object									
Organisation unit	Other object								
 Channel Group Cost Centre Division Group Reporting Collection Site 	 Alarm Channel PBX Magic Box User Display Board Question 	31 123	Billing Charge Stats Collector LCR Plan Tariff Modifier Web User Directory Sync						
An individual question a user must answer in order to score calls Enter a name for the object Friendliness									
			Cancel	Add					

The Question object will appear in the Directory as follows:

tim enterprise)			Reports	Directory	Call View	Tariff Editor	Alerts
≜ \UK\							
💼 💈	Q	New object			7 items	Clipboard 0 items	
						🖺 Paste 🌈 Clear	
🖬 UK Weekly 🗐 Main PBX							
Requirements 1							
Requirements 2							

Editing a question

To edit a question, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

tim enterprise)			Reports	Directory	Call Viev	v Tariff Editor	Alerts
🚖 \ UK \							
💼 💈	Q	New object			7 items	Clipboard 0 items	
					*	📔 Paste 🎜 Clear	
📅 UK Weekly							
🗐 Main PBX							
📝 Friendliness	Open						
📝 Requirements 1	Сору						
Requirements 2	Copy all						
	Delete						
📝 Sales Order	Properties						
📝 Sales Overall							

A new window will open, where you can edit the properties of the selected question. Each answer type is explained in the table below:

Answer type	Description	
Yes/No answer	Calls will be rated based on a good of the comparison option opti	yes/no answer, e.g. Was the call answered quickly?
	Name	Promptness
	Question text	Was the call answered quickly?
	Туре	Tes / No Range Choice

Question op	tions
Name	Efficiency
Question text	How well did the agent understand your requirements?
Туре	Yes / No Image Image Image
Values	Min 0
	Max 10
ice Calls will be rated according bad.	to a fixed set of pre-defined answers, e.g. excellent, good, average, below
Question opt	
bad. Question opt Name	Rating
Question opt	Rating Rate the agent overall
bad. Question opt Name	Rating Rate the agent overall
bad. Question opt Name Question text	Rating Rate the agent overall Yes / No Range Choice Excellent
bad. Question opt Name Question text Type	Rating Rate the agent overall
bad. Question opt Name Question text Type	Rating Rate the agent overall Yes / No Excellent

Using the score cards

Once you have created your score cards, you can use them to score any call logged by the system. You can then run reports on these calls, in order to assess the performance of your staff.

Scoring a call

To score a call from the Call view screen, click on the $\widehat{\mbox{ icon}}$ icon, as shown below:

timenterprise	•					Reports Dire	ctory Ca	ll View Ta	ariff Editor	Alerts
Call View								🥒 Clear all	🔚 Headers	冒 Save
06 September 2013	11:46:18	00:02:06	0.21	London	Sandy Shore	125009	Sandy Shore	BT1	ς	0 ☆ 🗋 🛞
06 September 2013	11:45:31	00:00:41	0.00	Hazel Nutt	T-Mobile	Hazel Nutt	120012	BT1	Ç	0 ☆ 🗋 🛞
06 September 2013	11:45:01	00:00:07	0.03	Vodafone	Adam Zapel	123006	Adam Zapel	BT1	ç) <u>☆</u> 1⊕
06 September 2013	11:42:48	00:00:28	0.06	02	Bea Minor	120095	Bea Minor	BT1	ς	>★1 🛞
06 September 2013	11:42:48	00:02:30	0.33	T-Mobile	Adam Zapel	123010	Adam Zapel	BT1	Ç	Score this cal
06 September 2013	11:42:36	00:05:52	0.00	Marsha Mellow	London	Marsha Mellow	120045	BT1	ç	0 ☆ 🗋 🛞
06 September 2013	11:42:11	00:00:04	0.00	Jo King	Vodafone	Jo King	120056	BT1	ς	0 ☆ 🗋 🛞
06 September 2013	11:41:46	00:00:02	0.00	Seb Moore	London	Seb Moore	120062	BT1	ς	0 ☆ 🗋 🛞
06 September 2013	11:41:01	00:08:17	0.00	Ella Vader	120054	Ella Vader	120054	BT1	Ç	0 ☆ 🗋 🛞
06 September 2013	11:40:41	00:01:31	0.00	Noah Lott	120027	Noah Lott	120027	BT1	ç	0 ☆ 🗋 🛞
06 September 2013	11:39:11	00:05:42	0.00	Mike Stand	London	Mike Stand	120035	BT1	ς	0 ☆ 🗋 🛞
06 September 2013	11:39:11	00:03:18	0.00	Earl E. Riser	London	Earl E. Riser	120015	BT1	ç	0 ☆ 🗋 🛞
06 September 2013	11:38:23	00:00:12	0.00	Will Power	Orange	Will Power	121002	BT1	ς	0 ☆ 🗋 🛞
06 September 2013	11:37:56	00:00:38	0.08	Hutchison 3G	Etienne Guillot	120055	Etienne Guillo	t BT1	ς	0 ☆ 🗋 🛞
06 September 2013	11:37:03	00:00:20	0.00	Holly Day	London	Holly Day	120025	BT1	ς	0 ☆ 🗋 🛞
06 September 2013	11:37:01	00:00:01	0.00	Gail Storm	121003	Gail Storm	121003	BT1	ç	0 ☆ 🗋 🛞
06 September 2013	11:37:01	00:00:10	0.03	Hutchison 3G	Jean Richepin	125003	Jean Richepin	BT1	ς	0 ☆ 🗋 🛞
06 September 2013	11:37:01	00:00:00	0.00	Bill Bryson	121003	Bill Bryson	121003	BT1	ς	0 ☆ 🗋 🛞
06 September 2013	11:36:51	00:02:23	0.00	Claire Annette	London	Claire Annette	120002	BT1	ς	0 ☆ ₫ ⊕
06 September 2013	11:36:48	00:05:25	0.00	Craig Dale	Orange	Craig Dale	121004	BT1	ς	0 ☆ 🗋 🛞
06 September 2013	11:36:43	00:04:13	0.00	Jim Shorts	London	Jim Shorts	120013	BT1	ç	0 ☆ 🗋 🛞

A new window will open, where you can score the call using previously-created score cards. Click on the Save button to apply the changes.

Inbound call fro	om 02076636000 to S	onny Day - 05 Se	ptember 2013 00	:03:51		×
Audio	Audit trail	Scoring	Notes	Related calls	Call info	
Rate the age	nt overall		Exc	ellent		^
			Ver	y good		
			Good			
				rage		
				ow average		
			Bad			
Was the age	nt friendly and helpful?		◙ Yes	No		
Was the call	answered quickly?		🔘 Yes	• No		ш
					📕 Save	Ţ
		1	R	_		2

To score a call from an itemised report, click on it to display the Call detail window, then select the Scoring tab to score the call.

Reporting on scored calls

Use the Call scoring report to obtain a comprehensive analysis of answers to previously-scored calls. All question types are summarised and grouped into their respective category.

TIM Plus					
Did the customer place an order?				Placed order Booked demonstration	33% 33%
(5 stures)				Requested more information Not interested	33%
How well did the agent address customer needs? (3 scores)	Min 5	Average 8.33 Based on 3 score	Max 10 s		
How well did the agent understand customer's requirements? (3 scores)	Min 4	Average 8 Based on 3 score	Max 10 s		
Rate the agent overall (3 scores)				Excellent Very good Good Average Below average Bad	100%
Was the agent friendly and helpful? (3 scores)				Yes No	67% 33%
Was the call answered quickly? (3 scores)				Yes No	100%
6 questions					

Billing Charge

Billing Charge

- What is billing charge?
- Adding a billing charge
- Configuring a billing charge

What is a billing charge?

A Billing Charge is a monetary amount that can be appended to a Phone Bill report, in addition to standard call charges and it can be a percentage or a fixed charge. There is no limit to the number of billing charges that can be added to the Directory and the priority of each one can be specified to determine the order in which they appear on the final report.

The billing charge can be applied to an entire bill, to each call or to a user's subtotal.

🎄 Londo	n Billing Charg	e	[
Name	London Billing	g Charge	Priority 0 🗸						
How n	nuch?	How often?	Who for?						
🔥 Fix	ed charge	🛞 Just this bill	🛅 The whole bill						
🔥 Pe	rcentage	🛞 Daily	💈 For each user						
0		🛞 Weekly	🍾 Each call						
		🛞 Monthly							
		Quarterly							
		🛞 Yearly							
Apply th	Apply this charge for each quarter covered by the bill								
📃 Propag	🔲 Propagate this charge down directory hierarchy 🛛 Ə Cancel 🛛 틙 Save								

Adding a billing charge

To add a billing charge object to the system, drill-down to the Directory level where you want to place the charge and click on the New object tab, as shown below:

tim enterprise)		Reports	Directory	Call View	v Tariff Editor .	Alerts
윰 \ UK \ London \						
💼 🖸 🛛 🔍	New object			3 items	Clipboard 0 items	
					💼 Paste 🎜 Clear	
C Accounts						
C Admin						

In the new window that opens, select the Billing Charge object from the Other object list, enter a relevant name and click on the Add button, as shown below:

👗 Add new object		
Organisation unit	Other object	
📔 Channel Group	🔆 Alarm	ᆶ Billing Charge
🔁 Cost Centre	🥢 Channel	ះតំ Stats Collector
Division	🚍 PBX	123 LCR Plan
🦲 Group	🛲 Magic Box	🔥 Tariff Modifier
🏽 Reporting Collection	💈 User	🔇 Web User
🛄 Site	📅 Display Board	🔞 Directory Sync
	📝 Question	
An individual question a user	must answer in order to sco	re calls
Enter a name for the object	London Billing Charge	
		Ə Cancel 📑 Ad

The billing charge object will appear in the Directory, as shown below:

tim enterprise)	Reports	Directory	Call Vie	ew Tariff Edito	or Alerts
🛧 \ UK \ London \					
🔁 🖸 🔷 🖸			3 items	Clipboard 0 item	s
				Paste 🦽	
🚳 London Billing Charge					
Counts					
C Admin					

Configuring an billing charge

To configure a billing charge, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

tim enterprise)			Reports	Directory	Call View	/ Tariff Editor	Alerts
🔒 \ UK \ London \							
🔁 💈	C	New object			items	Clipboard 0 items	
						📔 Paste 🎜 Clea	
🚕 New Billing Charge	Open						
🔀 All London	Сору						
Accounts	Copy all	_					
🗀 Customer Services	Delete	-					
🗋 Development	Properties						

A new window will open, allowing you to configure the properties of your billing charge object.

-	London Billing Charg	e		×					
	Name London Billing	y Charge	Priority 0 🗸						
	How much?	How often?	Who for?						
	🔒 Fixed charge	③ Just this bill	The whole bill						
	뤥 Percentage	🛞 Daily	💈 For each user						
	0	🛞 Weekly	🍾 Each call						
		🛞 Monthly							
		🛞 Quarterly							
		🛞 Yearly							
	Apply this charge for each quarter covered by the bill								
	Propagate this charge do	own directory hierarchy	🔁 Cancel 📑 Save						

Field	Description
Name	The name of the billing charge object
Priority	This option allows you allocate a priority to each charge you want to add to your bill, in order to determine the order in which each charge will be applied to your bill
How much	This option allows you apply the marked up charge as either a fixed charge or as percentage
How often	This option allows you determine how often the charge should be added to your bill, e.g. daily, monthly etc.
Who for	This option allows you to select the entity you want the charge to be applied to, e.g. the whole bill, an user or each call
Propagate this charge down the directory hierarchy	Enable this option if you want the billing charge to propagate down the directory hierarchy.

Stats Collector

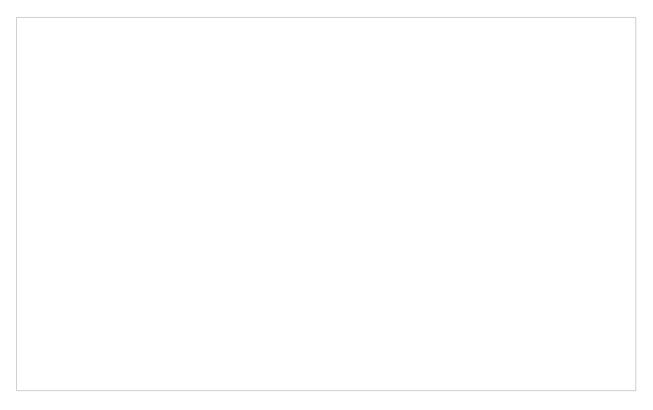
What is a stats collector?

A statistics collection point (stats collector) object is a mathematical "counter" whose scope of data collection is determined by its placement in your directory hierarchy. As calls are made and received, the properties of each one are collated for future consumption by display boards.

Stats points can be configured to only collect calls of a certain type or calls whose properties match certain criteria. Additionally, when configuring a stats collection point, a subject must be specified, which determines the property of each call whose value will be used when grouping its collated information into distinct sets. For example, specifying a subject of "user" will group its collated call information into sets of data for each distinct user.

Exclusions Contents	Subject User User group Site Cost centre	Reset frequency Every Minutes Hours Reset frequency	Day 06 Month Ar	0:00:00
	 Cost centre Division PBX Dialled number CLI Chargeband Destination Half hour time slot 	 Days Weekdays Weeks Months 		set now

Stats collector - overview video



Adding a stats collector

To add a stats collector object to the system, drill-down to the Directory level where you want to add the stats point and click on the New object tab, as shown below:

tim enterprise)			Reports	Directory	Call Vier	w Tariff Editor	Alerts
A \ UK \ London \			1				
💼 💈	_ Q	🥤 New object			3 items	Clipboard 0 items	
						📔 Paste 🎜 Clear	
Discovered Channels							
🔁 IT Cost Centre							
C Accounts							
🗀 Customer Services							
Development							
ТІ 🗋							
🗀 Sales							
🛅 London Weekly							

In the new window that opens, select the Stats Collector object from the Other object list, enter a relevant name and click on the Add button, as shown below:

📑 Add new object		
Organisation unit	Other object	
🗃 Channel Group	🔆 Alarm	ò Billing Charge
💽 Cost Centre	🥢 Channel	🝰 Stats Collector
🖾 Division	🚍 РВХ	123 LCR Plan
🗋 Group	글 Magic Box	🙏 Tariff Modifier
😥 Reporting Collection	🙎 User	💿 Web User
🛄 Site	📷 Display Board	🙆 Directory Sync
	📝 Question	
Provides the ability to synchro	onise portions of the Directo	ory with third-party systems
Enter a name for the object	London Daily Stats	
		Cancel

The stats collector object will appear in the Directory as shown below:

timenterprise)			Reports	Directory	Call View	Tariff Editor	Alerts
윰 \ UK \ London \							
💼 🙆	Q	New object) items	Clipboard 0 items	
						📔 Paste 🎜 Clear	
🗋 Accounts							
🗅 Admin							
🗀 Customer Services							
🗋 Development							
🗀 п							
📩 London Weekly Stats							
🗐 Main PBX							
🛍 London Daily Stats							
🗯 London Weekly Stats							

Configuring a stats collector



Overview

To configure a stats collector, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

tim enterprise)			Reports	Directory	Call Vie	w Tariff Editor	Alerts
윰 \ UK \ London \							
💼 💈	Q	New object) items	Clipboard 0 items	
						📔 Paste 🎜 Clear	
Accounts							
🗀 Admin							
🗀 Customer Services							
🗋 Development							
🗀 IT							
😼 London Weekly State							
🗐 Main PBX							
📬 London Daily Stats	Open						
🗯 London Weekly Stats	Сору						
London Web User	Copy all						
•	Delete						
	Properties						

A new window will open, allowing you to configure the properties of the stats collector object.

General properties

General Exclusions	Name London Daily Stats		
Contents	Subject User User group User group Site Cost centre Division PBX Dialled number CLI Chargeband Destination Half hour time slot	Reset frequency Every Minutes Hours Output Days Weekdays Weeks Months	Next reset Time 00:00:00 Day 06 Month Apr • Year 2012 Reset now
	🔲 Use data from the last reset pe	eriod	🔁 Cancel 📑 Save

Field	Description						
-------	-------------	--	--	--	--	--	--

Subject	Description
User	The stats will group its collated calls by user. Select this option if you want to compare call stats a number of different users.
User group	The stats will group its collated calls by user group. Select this option if you want to compare ca stats for different groups of users.
Site	The stats will group its collated calls by site. Select this option if you want to compare the call tr between two or more sites.
Cost centre	The stats will group its collated calls by cost centre. Select this option if you want to compare th call traffic between two or more cost centres.
Division	The stats will group its collated calls by division. Select this option if you want to compare the ca traffic between two or more divisions.
PBX	The stats will group its collated calls by PBX. Select this option if you want to compare the call traffic between two or more PBXs.
Dialled number	The stats will group its collated calls by dialled number. Select this option if you want to monitor most frequent dialled numbers.
CLI	The stats will group its collated calls by CLI. Select this option if you want to monitor the most frequent CLI numbers.
Chargeband	The stats will group its collated calls by chargeband. Select this option if you want to identify the most frequently used chargebands.
Destination	The stats will group its collated calls by destination. Select this option if you want to identify the most frequently dialled destinations.
Half hour time slot	The stats will group its collated calls by half hour time slot. Select this option if you want to ident peak times during the day.
Account code	The stats will group its collated calls by account code. Select this option if you want to identify th most frequently used account codes.
Channel	The stats will group its collated calls by channel. Select this option if you want to compare the cat traffic between two or more channels.
Channel group	The stats will group its collated calls by channel group. Select this option if you want to compare call traffic between two or more channel groups.

 Next
 Choose the next reset period, by entering a date and time.

 reset
 Choose the next reset period, by entering a date and time.

Exclusions

TIM Enterprise allows you to exclude certain calls from your live stats, giving you the option to define the criteria the calls should meet in order to be excluded. To add your criteria, click on the ^O button, as shown below:

in London Daily S	Stats		
General Exclusions	Criteria		• •
Contents			
	Calls will be excluded when all 🗸 of these criteria are met	Cancel	📕 Save

The Add new exclusion window will appear, allowing you to define which calls you want to exclude from the stats, by chosing a call property, an operator and a relevant value.

Add new exclusion		
Property Account code Account code Call type Call type Charrier Channel Chargeband CLI Cost Destination	Operator 1 Is greater than 1 Is less than 1 Equals 1 Does not equal	Value 5.00
Caller ID of an inbound call		Close 🖡 Add

Account code

To set up an exclusion based on account codes, enter the relevant code in the box provided and select the appropriate operator. In the example below, the stats collector will exclude calls whose account code is **4518**.

Y Account code	11 equals	4518
----------------	-----------	------

Call type

To set up an exclusion based on the call type, select the relevant type of call from the list provided and choose the appropriate operator. In the example below, the stats collector will exclude all types of calls, except internal calls.

🍸 Call type	It Does not equal	Internal

Carrier

To set up an exclusion based on the carrier (tariff table) used to cost the calls, choose a carrier from the list provided and select the appropriate operator. In the example below, the stats collector will exclude all calls that are not routed over a BT carrier.

💎 Carrier	12 Does not equal	BT

Channel

To set up an exclusion based on the call traffic going over your telephone lines, click on the 😳 icon to locate the relevant channel in the Directory; select the channel and choose the appropriate operator. In the example below, the stats collector will collate only calls going through T234 channel.

🍸 Channel	It Equals	T234	

Chargeband

To set up an exclusion based on the chargeband used to cost calls, enter the name of the chargeband in the box provided and select the appropriate operator. In the example below, the stats collector will exclude calls whose chargeband's name contains the characters Mob.

T Chargeband	Lt Contains	Mob

CLI

To set up an exclusion based on CLI of the caller, enter the relevant CLI in the box provided and select the appropriate operator. In the example below, the stats collector will exclude calls whose CLI contains the digits 2652626.

🦞 CLI	It Does not contain	2652626

Cost

To set up an exclusion based on the cost of calls, enter the relevant value in the box provided and select the appropriate operator. In the example below, the stats collector will exclude calls whose cost is greater than 10.

🍸 Cost	Is greater than	10

Destination

To set up an exclusion based on the destination of the call, enter the name of the destination in the box provided and select the appropriate operator. In the example below, the stats collector will exclude calls whose the destination is **France**.

🍸 Destination	It Equals	France	

Dialled number

To set up an exclusion based on the number that was dialled, enter the dialled number in the box provided and select the appropriate operator. In the example below, the stats collector will exclude calls whose dialled number begins with 074.

√ Dialled number ↓ ↓ Begins with	074	
------------------------------------	-----	--

Duration

To set up an exclusion based on the duration of a cal, enter the relevant value in the box provided and select the appropriate operator. In the example below, the stats collector will exclude calls whose duration is greater than 3600 seconds.

🍸 Duration	Is greater than	3600

LCR code

To set up an exclusion based on Least Cost Routing (LCR) codes, enter the relevant code in the box provided and select the appropriate operator. In the example below, the stats collector will exclude calls whose LCR code ends with 680.

V LCR code	It Ends with	680	

Response time

To set up an exclusion based on response time, enter the the relevant value in the box provided and select the appropriate operator. In the example below, the stats collector will exclude calls whose response time is less than 5 seconds.

Y Response time	5
-----------------	---

Start time

To set up an exclusion based on the time a call started, enter the start time in hh:mm:ss format in the box provided and select the appropriate operator. In the example below, the stats collector will exclude calls who started before 09:00:00.

√ Start time ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	09:00:00
---	----------

Trunk access code

If your telephone system uses trunk access codes to connect calls using specific channels, you can set up an exclusion based on calls made using these codes. To set up an exclusion, enter the trunk access code in the box provided and select the appropriate operator. In the example below, the stats collector will exclude calls whose trunk access code is 5480.

🍸 Trunk access code	LE Equals	5480	

User

To exclude a particular user from the stats collection point, click on the icon to locate the user in the Directory; select the user and choose the appropriate operator. In the example below, the stats collector will exclude calls for John Smith.

🍸 User	It Equals	John Smith

Weekday

To exclude calls for a particular day of the week from the stats collection point, choose the relevant weekday from the list provided and select the appropriate operator. In the example below, the stats collector will exclude calls made on a Sunday.

🍸 Weekday	LE Equals	Sunday	

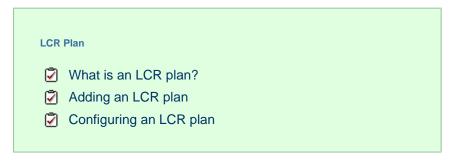
Contents

The Contents tab allows you to check whether call stats are being collected by TIM Enterprise and it is generally used for troubleshooting purposes.

General	0.00	4					
Exclusions	Con	tents				R	efresh
Contents	Iterat	or	Aggregate dat	a 🗸			
		х	٥	a	m	i	n t 🔺
	а	288	93	135	6	54	
	ь	15501	4533	8766	280	1922	=
	c	1	1	1	15	1	
	d	Polly Ester	Anna Recksiek	Polly Ester	Mischa Solov	Jo Sargeant	
	e	997	997	732	95	132	
	£	Ahrun Hussain	Ahrun Hussain	Tom Morrow	Mischa Solov	Lance Boyle	
	g	735		735			
	h	1		1			
	i	Bea Minor		Bea Minor			
	j	81		81			
	k	Tadao Ande	Adam Zapel	Tadao Ande	Mischa Solov	Dan D. Lyons	
	1	9.3373	9.3373				-
	•			111			•

Click on the **Refresh** button to refresh the statistics on that page and verify that the stats point is collecting data. If you click on the **Reset** button, you can clear the statistics and reload them for the period that they cover, e.g. last week.

LCR Plan



What is an LCR plan?

The LCR Plan object allows you to administer any least cost routing (LCR) codes you may use to route calls via different carriers.

123	LCR Ro	ute	
N	lame	LCR Route	
	Least C	Cost Routing	
	Number	1123	
	Routes to	ABC-Tariff	
	Number 4	Default Routes to	
	121	(Ignore)	Â
	141	(Ignore)	=
	1470	(Ignore)	
	1620	(Ignore)	
	162014	1 (Ignore)	
	162014	70 (Ignore)	
	1623	(Ianore)	Ψ.
		Cancel	📑 Save

Adding an LCR plan

To add an LCR object to the system, drill-down to the Directory level where you want to add the LCR plan and click on the New object tab, as shown below:

tim enterprise		Reports	Directory	Call Viev	w Tariff Editor	Alerts
♠ \ UK \ Mitel 3300 \						
💼 🖸 🔍 🔍	New object			items	Clipboard 0 items	
					📔 Paste 🌈 Clear	
🗃 UK Lines						
C Accounts						

In the new window that opens, select the LCR plan object from the Other object list, enter a relevant name and click on the Add but ton, as shown below:

🎽 Add new object		
Organisation unit	Other object	
 Channel Group Cost Centre Division Group Reporting Collection Site 	 Alarm Channel PBX Magic Box User Display Board Question 	 Billing Charge Stats Collector LCR Plan Tariff Modifier Web User Directory Sync
An individual question a user Enter a name for the object	must answer in order to sco LCR Route	ore calls
		Cancel 📑 Add

Configuring an LCR plan

To configure an LCR plan, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

tim enterpr	rise)			Reports	Directory	Call Vie	w Tariff E	ditor Alerts	
윰 \ UK \ Mite	el 3300 \								
💼 💈		Q	New object				Clipboard 0 it	ems	
							Paste 🔐	🔗 Clear	
🙋 UK Lines									
🗋 Accounts									
🗋 Developme	nt								
🗀 п									
🗋 Sales									
123 LCR Route	Open								
	Сору								
	Copy all								
	Delete								
	Properties								
		-							

A new window will open, allowing you to configure the properties of your LCR plan object, as shown below:

to: New LCF	R Plan	X
Name	LCR Route	
Least C	cost Routing	
Number Routes to	(Ignore) 🗸 🍚 💿	
Number 🔺	Routes to	
		•
	Ç	Cancel 📙 Save

To add an LCR code, enter the code in the Number field and select its associated tariff table from the drop-down list, as shown below:

123 L	CR Rou	te	
Nam	ne I	CR Route	
L	east C	ost Routing	
R	umber outes to lumber 🔺	1123 Default	_
	121 141	(Ignore) (Ignore)	×
	1470 1620 1620141	(Ignore) (Ignore)	
	1620141 1620147 1623		-
		Cancel	📑 Save

Tariff Modifier

Tarif	f Modifier
2	What is a tariff modifier?
2	Adding a tariff modifier
2	Configuring a tariff modifier

What is a tariff modifier?

The Tariff modifier object allows you to apply different rates to any particular section of your Directory, e.g. site, group, user etc. This feature can be useful if you have several sites spanning multiple countries that use different currencies.

d	UK Tariff Mod	lifier
		Nel at the same level or below, relative to this tariff will use the selected tariff.
		🔁 Cancel 📑 Save

Adding a tariff modifier

To add a tariff modifier to the system, drill-down to the Directory level where you want to add the object and click on the New object tab, as shown below:

timenterprise		Reports	Directory	Call View	Tariff Editor	Alerts
🔒 \ UK \ London \						
💼 🛃 🔍 🔍	New object		13	items	Clipboard 0 items	
					📔 Paste 🎜 Clear	
C Accounts						
C Admin						

In the new window that opens, select the Tariff Modifier object from the Other object list, enter a relevant name and click on the Add button, as shown below:

🎽 Add new object		
Organisation unit	Other object	
 Channel Group Cost Centre Division Group Reporting Collection Site 	 Alarm Channel PBX Magic Box User Display Board Question 	 Billing Charge Stats Collector LCR Plan Tariff Modifier Web User Directory Sync
An individual question a user		e calls
Enter a name for the object	London Tariff Modifier	Cancel

Configuring a tariff modifier

To configure a tariff modifier, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

tim enterprise)		Reports	Directory	Call Vie	w Tariff Editor	Alerts
윰 \ UK \ London \						
💼 🙆 🔹	🔍 🣑 New object			items	Clipboard 0 items	
					📔 Paste 🍠 Clea	
Accounts						
🗋 Admin						
🗀 Customer Services						
🗋 Development						
🗀 IT						
📷 London Weekly Stats						
🗐 Main PBX						
🗯 London Weekly Stats						
👶 London Tariff Modifier 🛛 Open						
S London Web User Copy						
Copy all						
Delete						
Propertie	25					

A new window will open, allowing you to name the object and select the relevant tariff from the drop-down list. After you have made your selection, click on the Save button, as shown below:

d	London Tarif	Modifier	
		nel at the same level or below, relative to this tariff vill use the selected tariff.	:
	Name	London Tariff Modifier	
	Tariff	BT ABC	^
			Ŧ
		Cancel	<u>Save</u>

Web User

What is a web user?

When accessing TIM Enterprise you are required to enter a username and password in the web browser, which form a login credential known as Web User.

Authentication	Authentication Required				
?	A username and password are being requested by http://enterprise.call-logger.com. The site says: "TIM Enterprise demonstration"				
User Name:	enterprise				
Password:	••••••				
	OK Cancel				

The placement in the directory structure of the web user object will determine the part of the Directory they are allowed to access. Virtual groups can also be set up to allow web users to report across the directory structure.

A web user is given a Web class to determine which features they can access. By default, there are two web classes:

Web class	Function
Administrator	An administrator can make changes to the Directory and access all of the system's functions.
Standard User	A standard users can only consume information from the system, e.g. run reports, show display boards, etc.

S London Web U	lser			
General My numbers	Account Display name Username Password Email address Iondon.user@e	-	Web class Administrator Standard user	
	🔲 Disable web u	ser	Cance	el 📑 Save

There are no limits to the number of web users you can add to the Directory.

Adding a web user

To add a Web User object to the system, drill-down to the Directory level where you want to add the user and click on the New object tab, as shown below:

tim enterprise)			Reports	Directory	Call Vie	w Tariff Editor Ale	rts
윰 \ UK \ London \							
💼 💈	Q	New object				Clipboard 0 items	
						🖺 Paste 🌈 Clear	
Accounts							
🗋 Admin							

In the new window that opens, select the Web User object from the Other object list, enter a relevant name and click on the Add but ton, as shown below:

Add new object		
Organisation unit	Other object	
📔 Channel Group	🔆 Alarm	🞄 Billing Charge
🔄 Cost Centre	🥢 Channel	📸 Stats Collector
🗟 Division	🚍 PBX	123 LCR Plan
📋 Group	🧀 Magic Box	뤥 Tariff Modifier
😥 Reporting Collection	💈 User	🔇 Web User
🛄 Site	📅 Display Board	🔞 Directory Sync
	📝 Question	
Provides the ability to synchro	onise portions of the Directo	ry with third-party systems
Enter a name for the object	London Web User	
		Cancel Add

The web user will appear in the Directory as follows:

tim enterprise)		Reports	Directory	Call Vie	ew Ta	ariff Editor	Alerts
🛧 \ UK \ London \							
💼 🖸 🔍 🔍	New object			9 items	Clipboard	d 0 items	
						te 🧳 Clear	
C Accounts							
🗀 Admin							
🗀 Customer Services							
🗀 Development							
🗀 п							
🔢 London Weekly Stats							
🗐 Main PBX							
📸 London Weekly Stats							
🔇 London Web User							

Configuring a web user

 Overview General properties Adding contacts manually Importing contacts 	Cont	iguring a web user
	- 2	General properties Adding contacts manually

Overview

To configure a web user, locate the object in the Directory, click on it and select Properties from the drop-down list, as shown below:

tim enterprise)			Reports	Directory	Call Viev	w Tariff Editor Alert
윰 \ UK \ London \						
💼 😰	Q	New object		9) items	Clipboard 0 items
						🖺 Paste 🌧 🖉 Clear
Accounts						
🗀 Admin						
Customer Services						
🗋 Development						
🗀 IT						
📅 London Weekly Stat	s					
🗐 Main PBX						
🝰 London Weekly Stat	s					
📀 London Web User	Open					
	Сору					
	Copy all					
	Delete					
	Properties					

A new window will open, allowing you to configure the properties of your web user.

General properties

😵 London Web U	lser	
General		
My numbers	Account	Web class
	Display name London Web User Username LondonUser Password Set password Email address london.user@example.com	 Administrator Standard user
	🗖 Disable web user	🔁 Cancel 📮 Save

Field	Description
Display name	The name you want the web user to be identified in the reports
Username	The username the web user will use to log in with
Password	The password the web user will use to log in with
Email address	The email address of the web user; this can also be used when scheduling reports
Web class	Select the administrative privileges of the web user

My numbers

The My numbers tab allows you to manually add or import a list of contacts to the current web user, replacing phone numbers or account

codes with friendly names wherever they feature throughout the system, e.g. in reports, display boards, etc.

Adding contacts manually

To manually add a contact to the currently-selected web user, choose the type of contact you want to add from the Category drop-down list and click on the ^(C) icon, as shown below:

🔇 admin		×
General		
My numbers	My numbers	🗋 Import 🛛 🔍 Search
	Category Phone numbers 🗸 🤤 📀	Add number
	No. contrado	
	No contacts	
		🗦 Cancel 🛛 🗍 Save
		🥔 Cancer 📊 Save

A new window will open, allowing you to enter the telephone number and the name you want to associate with it.

Add n	ew contact		X
Pho Nan	ne number ne	02072652600 Tri-Line	
		Cancel	틙 Add

To add another number, follow the same procedure, then click on the Save button to apply the changes.

admin	A Contacts have not yet been saved	X
General My numbers	My numbers	🗋 Import 🛛 🔍 Search
	Category Phone numbers 🗸 🤤 💿	Add number
	Phone number 🔺	Name
	⊜ 🖆 02072652600	Tri-Line
		Cancel

Importing contacts

TIM Enterprise allows you to automatically import contacts in the system from an existing CSV list. The columns in the list should be separated using a common delimiter, such as comma, dash, semicolon, tab or space.

To import a list of contacts, click on the Import button. A new window will open, allowing you to configure the contact list for the selected web user. Each step of the process is presented in the table below:

Option

Import contacts	This section allows to choose the source you want to import the contacts from, e.g. a CSV list, another web user account;
	Import contacts
	 Where do you want to import contact information from? Import from CSV data Copy contacts from another web user

Contact type	This section allows you to select the type of contact you want to import, e.g. account code, phone number.
	Contact type
	Select the type of contacts you want to import.
	Phone number Account code

Import options	This section allows you to select in which category you want the contacts to be included and how to handle duplicated entries or other conflicts with the existing contacts.
	Import options
	Which category should new contacts be placed in?
	Defined by a column in the data
	Existing category: General
	New category:
	How do you want to handle duplicates in the imported data?
	Always prefer the first occurrence
	Always prefer the last occurrence
	Let me choose manually
	How do you want to handle conflicts with existing contacts?
	Replace each category's entire contents
	Override existing contacts
	© Keep existing contacts
	Ask me when a conflict occurs

Data entry	This section allows you to paste the CSV list in the box provided.
	Data entry
	Paste your CSV data into the box below.
	02072652626, Tri-line 07737983718, Joe Bloggs Mobile 02076441422, Joe Bloggs

Import preview	This section gives you a preview of the imported contacts and allows you to select the delimiter you want to use to separate the two columns.
	Import preview
	Define the format of your data using the options below.
	The first row is a header Select the delimiter used to separate each column of data.
	Order Orden Orden
	Column 1 Column 2
	02072652626 Tri-line 07737983718 Joe Bloggs Mobile
	02076441422 Joe Bloggs

Choose the column(s) th	nat will make up each category's name.
Column 1	Column 2
02072652626 07737983718	Tri-line Joe Bloggs Mobile
02076441422	Joe Bloggs
Contact category	
<pre><%Phone numbers%></pre>	
<%Phone numbers%>	
<%Phone numbers%>	

Choose the column(s) th	nat will make up each phone number.	
Column 1	Column 2	
02072652626	Tri-line	
07737983718	Joe Bloggs Mobile	
02076441422	Joe Bloggs	
02072652626		
07737983718		
02076441422		
02070411422		

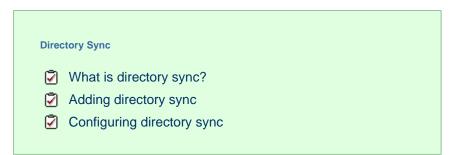
	Contact name		
	Choose the column(s) th	hat will make up each name.	
	Column 1	Column 2	
	02072652626	Tri-line	
	07737983718	Joe Bloggs Mobile	
	02076441422	Joe Bloggs	
	Contact name		
	Tri-line		
	Joe Bloggs Mobile		
	Joe Bloggs		
	SOC DIOGGO		
	Joe Dioggo		
	Joc Droggb		
	Joe Droggo		
	Joc Dioggo		

Ready to import	This section notifies you how many records are valid and ready to be imported.
	Ready to import
	Your data has been analysed and the following information has been determined: 3 valid records ready for importing
	Click the Import button to start processing your data.
	Cancel

😢 admin	🛕 Contacts have not yet t	peen saved
General	My numbers	
My numbers		🗋 Import 🔍 Search
	Category <%Phone numbers%> -	C Add number
	Phone number 🔺	Name
		Tri-line
	☺ ☎ 02076441422	Joe Bloggs
	Image:	Joe Bloggs Mobile
		Cancel

The contacts will be added to the list, as shown in the screenshot below. Click on the Save button to apply the changes.

Directory Sync



What is directory sync?

The Directory Sync object in TIM Enterprise allows you to sync any partition of TIM Enterprise with a third-party directory, such as Active Directory or Cisco AXL.

🙆 Directory Sync			
General			
Options	General settings		
	Name	Test Directory Sy	Sync
	Directory type	Active Directory	У 🗸
		Active Directory Cisco UCME	y
	Active Directory		
	Choose a domain from the	e list or enter a	If the selected domain requires a username
	custom one.		and password enter these below.
	Choose Default	domain 🚽	Username
	Custom		Password Set password
			Select the field that contains the user's PBX extension number.
			Ochoose Default field -
			© Custom
			Cancel Save

Adding directory sync

To add a directory sync object to the system, drill-down to the Directory level where you want to perform the synchronisation and click on the New object tab, as shown below:

timenterprise		Reports	Directory	Call View	Tariff Editor	Alerts
≜ \UK\						
E 🕈 🔍 🔍	<u>i New object</u>			items C	Clipboard 0 items	
🍘 All UK Sales 脯 Aberdeen					🖺 Paste 🥒 Clear	

In the new window that opens, select the Directory Sync object from the Other object list, enter a relevant name and click on the Add button, as shown below:

📫 Add new object		
Organisation unit	Other object	
🖻 Channel Group	🔆 Alarm	ò Billing Charge
Cost Centre	🥢 Channel	📩 Stats Collector
🖾 Division	🚍 РВХ	123 LCR Plan
🗋 Group	🥶 Magic Box	뤥 Tariff Modifier
😥 Reporting Collection	😰 User	🔇 Web User
🛄 Site	📷 Display Board	🙆 Directory Sync
	📝 Question	
Provides the ability to synchro	onise portions of the Directo	ory with third-party systems
Enter a name for the object	Directory Sync	
		Cancel 📑 Add

Configuring directory sync

To configure the directory sync, locate the object in the Directory, click on it and select **Properties** from the drop-down list, as shown below:

tim enterprise)			Reports	Directory	Call Vie	w Tariff Editor	Alerts
🔒 \ UK \							
💼 💈	Q	New object			items	Clipboard 0 items	
📝 Requirements 1					*	📔 Paste 🎜 Clear	
📝 Requirements 2							
📝 Sales Order							
📝 Sales Overall							
🝰 UK Daily Stats							
🗯 UK Weekly Stats							
🙆 Directory Sync	Open						
🔥 UK Tariff Modifier	Сору						
Joe Bloggs	Copy all						
	Delete						
	Properties						

A new window will open, allowing you to configure the properties of your Directory Sync object, as shown below:

Oirectory Sync				×
General Options	General settin	igs		
	Name Directory type	Directory Sync	▼	
			Cancel	📕 Save

General settings

Field	Description
Name	The name of the directory sync object.
Directory type	Select the type of sync you want to perform, e.g. Active directory, UCME or UCM, and enter the required details for each type of directory.

Options

The Options tab allows you to determine how often the synchronisation process should be performed. To set up the frequency, select a preset period from the available drop-down list, as shown below:

Oirectory Sync			X
General	Currehreniestier	antiona	
Options	Synchronisation	ropuons	
	Choose how frequently s	synchronisation will occur	
	Synchronise every	1 hours -	Sync now
	Last synchronised	03 September 2013 13:02:59	
	Next synchronisation	03 September 2013 14:02:59	
			Cancel Save
			🥔 Cancer 🔚 Save

To perform a manual directory sync, click on the Sync now button.

Call View

The Call view screen displays a live list of calls, showing each call the moment it is received from your telephone system(s) and successfully processed by TIM Enterprise. The call list is arranged so that the most recent calls are at the top of the list.

tim enterpri	timenterprise		Reports Directory		Call View		Tariff Editor	Ale	rts	
Call View							Clear al	🔚 Headers		
29 June 2011	20:35:43	London	02075848185	Lee Brinwood	3	00:00:26	0.00	Main PBX	Q	
29 June 2011	20:35:13	London	02088525205	Ella Vader	1	00:00:36	0.00	Main PBX	Q	1
29 June 2011	20:29:18	London	02072087208	Rose Bush	2	00:00:53	0.00	Main PBX	∇	10
29 June 2011	20:25:16	Miranda Rogers	3026	Mica Balik	1	00:00:14	0.00	Main PBX		
29 June 2011	20:23:23	Orange	07980546959	Brandon Cattel	25	00:02:02	0.00	Main PBX	$\mathbf{\nabla}$	
29 June 2011	20:22:43	Anna Sasin	07782026551	Hutchison 3G	35	00:00:03	0.03	Main PBX	\bigtriangledown	
29 June 2011	20:21:41	02	07720811726	Constance Noring	10	00:00:26	0.00	Main PBX	\bigtriangledown	1
29 June 2011	20:21:16	Vodafone	07747688610	Craig Cade	22	00:01:29	0.00	Main PBX	\bigtriangledown	
29 June 2011	20:20:01	120022	UNAVAILABLE	Martin Pagnell	2	00:00:09	0.00	Main PBX	\bigtriangledown	
29 June 2011	20:19:56	Vodafone	07775852163	Brandon Cattel	3	00:00:09	0.00	Main PBX	\bigtriangledown	1
29 June 2011	20:19:46	Anna Sasin	07877751586	Hutchison 3G	8	00:00:11	0.03	Main PBX	\bigtriangledown	
29 June 2011	20:18:46	Vodafone	07990555295	Earl E. Riser	3	00:01:27	0.00	Main PBX	\bigtriangledown	1
29 June 2011	20:18:41	120002	UNAVAILABLE	Dinah Soares	5	00:00:02	0.00	Main PBX	\bigtriangledown	
29 June 2011	20:18:11	Vodafone	07768054946	Craig Cade	4	00:00:17	0.00	Main PBX	Q	
29 June 2011	20:16:18	20001	UNAVAILABLE	Craig Cade	2	00:00:16	0.00	Main PBX	Q	1
29 June 2011	20:15:03	T-Mobile	07940574922	Ajith Tarasinghe	8	00:04:46	0.00	Main PBX	Q	rî (

Each call type is colour-coded using a system-wide colour scheme, as follows:

- Green: Incoming calls
- Light green: Answered transferred calls
- Blue: Outgoing calls
- Light blue: Outgoing non-connected calls
- Grey: Internal calls
- Mauve: Internal non-connected calls
- Red: Abandoned DDI (Direct Dialled In) calls
- Pink: Tandem calls

A

The calls you see in the Call view screen pertain only to the area to which the logged-in user has been granted access; administrators see calls from all sites.

Column headers

The Call View screen can be customised by each web user to show only the columns they are interested in. To add or remove columns, click on the Headers tab, which will display the following panel:

tim enterp	rise				Reports	Directory	Call View	Tariff Editor	A	lerts
Call View								Clear all 🛛 🎾 Heade	rs	冒 Sav
			Response	🧭 Date		CLI		Account code		
30 March 2012	13:52:01	T-Mobile		🧭 Time		🧭 Dialled number		LCR digits	マ☆	7 🗋 🤆
30 March 2012	13:51:18	Adam Zapel		Source		Source name		Trunk access code	っ合	7 1 6
30 March 2012	13:50:23	Orange		😪 Route 🔗 Destination		 Source ID Destination name 		Data source Call reference	고 습	
30 March 2012	13:50:01	120001		💞 Response		Destination ID		Flags		2 F1 0
30 March 2012	13:48:56	London		Duration Cost		Tariff		Voice location Voice filename		r 🖞 🤇
30 March 2012	13:48:53	T-Mobile							マ☆	
30 March 2012	13:48:01	London						冒 Save	P 🟠	
30 March 2012	13:47:53	Vodafone	ł	00:00:44 0.	00 0777568	0382 Barb Dwyer			-þ 🏠	

Include a column header in the list by ticking the box alongside each one. Click on the Save button to apply your changes.

Field serve	Description
Field name	Description
Date	The date the call started
Time	The time the call started
Source	The place from where the call originated
Route	 The information displayed in this field is determined by the type of call: for incoming calls, this shows the CLI of the caller for incoming internal calls, this shows either the caller's username or extension number for outgoing calls, this shows the dialled number
Destination	The information displayed in this field is determined by the type of call:
	for incoming calls, this shows the name of the user whose extension answered the call, or the extension number if not available
	 for outgoing calls, this shows the geographical location that was dialled, or an alias if defined in your contacts list for internal calls, this shows the extension that was dialled, enclosed in square brackets []
Response	The time it took for the call to be answered (in seconds)
Duration	The duration of the call (in hours, minutes and seconds)
Cost	The cost of the call
CLI	The telephone number of the remote caller for inbound calls
Dialled number	The number that was dialled in order to reach a particular destination
Source name	The name of the person who made the call
Source ID	The ID of the person who made the call
Destination name	The name of the destination called, e.g. Manchester, Tri-Line, London
Destination ID	The ID of the destination called
Tariff	The name of the tariff table that was used to cost the call, e.g. BT

Each column header displayed in the Call view screen is described in the table below:

Tariff band	The specific tariff band that was used to cost the call, e.g. International, National, Mobile etc.
Account code	The account code associated with the call
LCR Digits	The Least Cost Routing (LCR) digits used to route the call
Trunk access code	The trunk access code used to access a group of channels
Data source	The location where the call originated
Call reference	Any call reference number associated with the call
Flags	 Any flags associated with a call, as described below: The call has no associated voice recording The call has an associated voice recording; click on the icon to listen to the call The call has not been scored; click on the icon to score the call The call has been scored; click on the icon to review scoring information for the call The call has not been annotated; click on the icon to add a note to the call The call has one or more associated notes; click on the icon to review the note(s) The call has no related transfer legs The call has related transfer legs; click on the icon to view all transfers associated with the call
Voice location	The unique ID of the call recording device that captured audio for the call
Voice filename	The unique call reference identifying any voice recording associated with the call

Reordering column headers

Each column header can be reordered by clicking and dragging it to the new location, as shown below:

timenterp	rise)				Rep	orts	Directory	Call View	Tariff Editor	Alerts
Call View	Ţ							🥜 Clear a	II 🎏 Headers	
Date 🔻			Response	Duration	Cost Ro	oute	Destination	Dialled num	ber	
30 March 2012	13:55:01	London	0	00:00:05	0.00 02	2078065000	May Day		C	⊇ ☆ 🗋 🛞
30 March 2012	13:52:33	120031	0	00:00:01	0.00 UM	NAVAILABLE	Paul Lakes		C	⊇ ☆ 🗋 🛞
30 March 2012	13:52:13	Bertrand Freur	0	00:00:08	0.03 07	7990924725	Vodafone	07990924725	; (⊇ ☆ 🗋 🛞

Columns can be sorted by clicking the relevant column header, with each click toggling between ascending and descending order. A small triangle is displayed alongside the column header to indicate the current sorting order.

Any layout changes you make to the Live calls panel are saved only for the current web user and do not affect other web users.

Tariff Editor

8

Configuring a tariff table

Conf	iguring a tariff table
Ż	Accessing the tariff editor
2	Selecting a tariff table
2	Recosting calls
2	Localising the tariff table
2	Table properties
2	Save changes

Accessing the tariff editor

To access the tariff table, click on the Tariff editor tab from the menu bar, as shown below:

tim enterprise)	Reports Directory Call View Tariff Editor Alerts
Tariff Editor	
Select a tariff table 📃 👻	🛃 Recost 📓 Localise 📝 Table properties 🔚 Save changes
National International	Find code Find O Add code
	^ ·
	Find band Find O Add band
	·
	•
30/03/2012 14:12:37 Logged in as 'Joe Bloggs'	

Selecting a tariff table

To select a tariff table, expand the drop-down list on the left-hand side of the screen and choose from the available options, as shown below:

timenterprise	Reports	Directory	Call View	Tariff Editor	Alerts
Tariff Editor					
Select a tariff table	🔥 Recos				
National Internative BT	Find code			Find	Add code
					*

Once a tariff has been selected, the following screen will be displayed:

Tariff Edi	tor									
Select a tariff t	able BT 🗸					🔒 Recost	📡 Local	ise 📝 Table	properties 📑	Save change
National Inte	rnational 🛞	@ 1 c	of 352 🧕	• •		Find code			Find	Add cod
Code 🔺		В	and nam	ie		Location		Code pat	tern	<u>-</u>
0113		U	KNAT			Leeds				
0114		U	KNAT			Sheffield				:
0115			KNAT			Nottingham				L
0116			KNAT			Leicester				
0117			KNAT			Bristol				
0118			KNAT			Reading				
01200			KNAT			Clitheroe				
01202			KNAT			Bournemouth				
01204			KNAT			Bolton				
01205			KNAT			Boston				
🖲 🛞 1 of 1						Find band			Find	Add bar
	Display name				te 4 Rate 5	Rateable unit Min co	ost Max cost	Start cost Min d	uration Connect	time Cap I
1 1 Mob	International International	0.4	0.4	0.4		0.03				
1 MOD 10	International	3	3	3		0.03				
10 Mob	International	3.3	3.3	3.3		0.03				
	International	0.45	0.45	0.45		0.03				
2	International	0.75	0.75	0.75		0.03				
	International	0.6	0.6	0.6		0.03				
2 Mob		0.9	0.9	0.9		0.03				
2 Mob 3	International		0.85	0.85		0.03				
2 2 Mob 3 3 Mob 4	International International	0.85				0.03				

Recosting calls

TIM Enterprise allows you to apply different rates to your already-logged calls, by re-running your data using a different tariff table. To recost calls, click on the Recost button, as shown below:

timenterprise		Reports Directo	ry Call View	Tariff Editor	Alerts
Tariff Editor					
Select a tariff table 🛛 🖶		🛃 <u>Recost</u> 💹	Localise 🏼 📝 Table	properties 📑	
National International 🛞 🕢	1 of 352 😟 😐	Find code		Find	Add code
Code ▲	Band name	Location	Code pat	tern	<u>^</u>
0113	UKNAT	Leeds			
0114	UKNAT	Sheffield			E

A new window will open, allowing you to select the tariff table and the period you want to recost calls for. If you want to recost all calls currently in the database, select the **all calls** option.

4	Call recosting	X
	 Select which tariff model to use: Use current tariff regime Use BT - tariff Select the period of calls to recost: All calls Selected period only: 	
	Start date 01 Jul + 2011 End date 23 Oct + 2012	Recost
		Close

The Recost procedure entails removing the selected calls from the database before applying the new rates. If this procedure is interrupted, you may loose calls.

Localising the tariff table

To inform TIM Enterprise which calls should be treated as local by your tariff table, click on the Localise tab, as shown below:

tim enterprise)		Reports Direc	tory Call View	Tariff Editor	Alerts
Tariff Editor		_			
Select a tariff table 🛛 📕 👻		📕 Recost [🗓 <u>Localise</u> 🍃 Table p	properties 📲	
National International 🛞 🛞	1 of 352 😕 😕	Find code		Find	Add code
Code 🔺	Band name				<u>^</u>
0113	UKNAT	Leeds			
0114	UKNAT	Sheffield			E
0115	UKNAT	Nottingham			

A new window will open, where you can enter your local dial code. Click on the **Check** button and the surrounding area codes will be listed automatically. Click on the **Localise** button at the bottom-right corner of the window to localise your tariff.

Area code			🔍 Check	
ocal area	codes for LO	NDON		
020	01322	01372	01689	01707
01708	01727	01737	01753	01784
01883	01895	01923	01932	01959
01992				

Table properties

To configure the general properties of the tariff table, click on the Table properties button, as shown below:

tim enterprise)		Reports Directory	Call View	Tariff Editor	Alerts
Tariff Editor					
Select a tariff table BT 🗸		🛃 Recost 🛛 💹 Lo	ocalise 🃝 <u>Table</u>	properties	Save changes
					Save changes
National International	🖲 🔟 1 of 352 🐌 🕅	Find code		Find	 Add code
			Code pat	Find	
<u>National</u> International		Find code		Find	Add code
National International	в (с) 1 of 352 (р) (н) Band name	Find code		Find	Add code

A new window will open where you can configure the properties of your tariff table. Each field in this window is described in the table below:

Edit tariff defaults		
Tariff title	BT	
Minimum dialled digits	3	
Minimum search digits	10	
International digits	00	
Weekday rates	222222221111111111222222	
Saturday rates	333333333333333333333333333333	
Sunday rates	333333333333333333333333333333	•••
Rounding	Default 🗸	
	Cancel	📑 ок
	•	

Field name	Description
Tariff title	The name of the tariff table

Minimum dialled digits	The minimum number of dialled digits required for the call to be logged					
Minimum search digits	The minimum number of search digits required to start allocating a charge to a call. TIM Enterprise starts from 10 digits and works backwards in order to find the closest tariff match					
International digits	The digits used to dial internationally, e.g. all international calls made from UK begin with 00					
Weekday rates	The weekday rates you want to apply to calls for each hour of the day. For example, in the table below rate 2 applies fr midnight to 7:59 and from 18:00 to 23:59, and rate 1 applies from 8:00 to 17:59					
	Weekday rates 222222211111111222222					
	To see the rates in more detail, click on the button to expand, as shown below:					
	Edit rate times					
	00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 2 2 2 2 2 2 1					
	Ә Cancel 틖 OK					
Saturday rates	The Saturday rates you want to apply to calls for each hour of the day. For example, in the table below rate 3 applies at all times					
	Saturday rates 333333333333333333333333333333333333					
	To see the rates in more detail, click on the button to expand, as shown below:					
	Edit rate times					
	00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 3					
	🥥 Cancel 🗮 OK					

Sunday rates	The Sunday rates you want to apply to calls for each hour of the day. For example, in the table below rate 3 applies at all times
	Sunday rates 333333333333333333333
	To see the rates in more detail, click on the button to expand, as shown below:
	Edit rate times
	00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 3
	Cancel 📄 OK
Rounding	This option allows you to select whether you want to round decimal places up or down
	Rounding Default Default Up Down

Save changes

To save any changes made to the tariff table, click on the Save changes button, as shown below:

tim enterprise)		Reports Directory	Call View	Tariff Editor	Alerts
Tariff Editor					
Select a tariff table 🛛 📕 🖵		👬 Recost 📓 La	ocalise 🃝 Table	properties 📑	Save changes
National International	🖲 🕘 1 of 352 🕑 🖲	Find code		Find	Add code
National International	® ≪ 1 of 352 ⊕ ® Band name	Find code	Code pat		Add code
			Code pat		^
Code 🔺	Band name	Location	Code pat		•

A new window will open allowing you to save the changes to a new tariff table, or overwrite the current one.

Save tariff		
Filename	ABC Tariff	
	Cancel	📑 ок

Adding a code

To add a code to your tariff table, click on the Add code button at the top-right corner of the screen, as shown below:

tim enterprise)		Reports Directory	Call View	Tariff Editor	Alerts
Tariff Editor					
Select a tariff table 🛛 📕 👻		🦺 Recost 🛛 🙀 Lo	calise 🏼 📝 Table	properties 📙	Save changes
			<u>•</u>		
	в 📧 1 of 352 😕 н	Find code		Find	
	8 6 1 of 352 9 9 Band name		Code pat	Find	
National International		Find code		Find	Add code
National International	Band name	Find code		Find	Add code

A new window will appear, where you can edit the properties of your dial code:

Add new dial c	ode		
Code Band Location Code pattern			-
X Delete	þ	Cancel	📑 ОК

Field	Description
Code	The new code you want to add to the tariff table.
Band	The charge band you want to apply to the current dial code.
Location	The geographical location you want to associate with the current dial code.
Code pattern	If your code needs to match a specific digit pattern, use the # symbol to construct the pattern and mask the necessary digits. For example, enter 020######### for a London phone number, which indicates that the number must start with 020 and to be followed by at least eight digits in order to be valid.

When you have finished configuring these properties, click on the OK button to apply the changes.

Add new dial cod	le	X
Code Band Location Code pattern	0203 LOCAL	
X Delete	Ә Cancel 📑 C	ж

Finding a code

Search for a dial code

To locate a dial code in the tariff table, enter it in the search box provided, as shown below:

tim enterprise)		Reports	Directory	Call View	Tariff Editor	Alerts
Tariff Editor						
Select a tariff table BT	•	🔒 Reco	ost 📡 Locali	se 🃝 Tableı	properties 📑	
<u>National</u> International	в 🤃 1 of 352 😕 н	Find cod	le 0161		Find	Add cod
<u>National</u> International		Find cod Location	le 0161	Code pati		Add cod
			le 0161	Code pat		ŕ
Code 🔺	Band name	Location	e 0161	Code patt		· · · · · · ·

The dial code and its matching destination will appear highlighted in the list, as shown below:

timenterp	rise						Reports	Di	rectory	Call Vi	ew Ta	niff Editor		Alerts
Tariff Edi	tor													
Gelect a tariff t	able BT 🗸						<u>.</u>		📡 Loca	lise 🃝		rties 🚦		
lational Inte	national 🙀	@ 13	of 352	(н) (ң)			Find	code				Find	0	Add cod
01609			KNAT	00			Northalle	rton						
0161			KNAT				Mancheste							
01620			KNAT				North Ber							
01621		U	KNAT				Maldon							
01622		U	KNAT				Maidstone							
01623		U	KNAT				Mansfield							
01624		U	KNAT			Isle of Man								
01625		U	KNAT			Macclesfield								
01626		U	KNAT				Newton Ab	bot						
01628		U	KNAT				Maidenhea	d						
🖲 🕜 1 of 14								band				Find		Add bar
	Display name				Rate 4	Rate 5	Rateable unit		Max cost	Start cost	t Min duratio	on Connect	time	Capl
1	International	0.4	0.4	0.4				0.03						
1 Mob	International	0.7	0.7	0.7				0.03						L
10	International	3	3	3				0.03						
10 Mob	International	3.3	3.3	3.3				0.03						
2	International	0.45	0.45	0.45				0.03						
2 Mob	International	0.75	0.75	0.75				0.03						
3 3 Mob	International	0.6	0.6	0.6				0.03						
	International	0.9	0.9	0.9				0.03						
•				III										- F

Search for a location

To search for a location in the tariff table, enter its name in the search box. The results will show all locations containing that name. In the example below, we searched for the word Chester.

tim enterp	orise				Reports	Directory	Call View	Tariff Editor	Alerts
Tariff Edi	itor								
	table BT 🚽								
National Inte		@ 1	of 386	B	Find co	de Chester		Find	Add code
Code ⊾			and nar	Search results	Location		Code pa	nttern	
0113				Search results			×		
0114			KNAT				A		=
0115			KNAT	Code ▲	Location				
0116			KNAT	01244	Chester				
0117			KNAT	01246	Chesterfield				
0118			KNAT						
01200			KNAT						
01202			KNAT						
01204			KNAT						
01205			KNAT						
01206		U	KNAT						-
🖲 🛞 1 of 1								Find	Add ban
									<u> </u>
	Display name	Rate 1					art cost Min	duration Connect	time Cap I
1		0.55	0.5						
10	International	3	3						
10 Mob	International	3.36	3.3						
2	International	0.6	0.6				-		
2 Mob	International	0.96	0.9						
3	International	1.11	1.1			💭 Clo	ose		
3 Mob	International	0.98	0.9						
4	International	1.1	1.1	1.1	0.				
4 Mob	International International	1.46	1.46	1.46	0.				
-	incernational		1.2	1.2					
5	· · · · · ·	1.4							

Search for a partial code or location

To search for a name or number that is contained in a string, use * character before or after the number or name you have entered. In the example below, the string **ford** was entered:

tim enterp	rise					Reports	Directory	Call View	Tariff Editor	Alerts
Tariff Edi	tor									
	able BT -									
National Inte		@ 10	of 386	ю н		Find code	*ford		Find	Add code
Code 🔺		В	and nar	ne		ocation		Code pat	tern	
0113			KNAT	Search re	sults		[×		
0114		υ	KNAT							Ξ
0115		υ	KNAT							
0116		υ	KNAT	Code 🔺	Location					
0117		υ	KNAT	01233	Ashford					
0118		υ	KNAT	01234	Bedford					
01200			KNAT	01237	Bideford Chelmsford					
01202			KNAT	01245	Blandford					
01204			KNAT	01250	Ammanford		E			
01205			KNAT	01274	Bradford					
01206			KNAT	01279	Bishops Stort	ford				
01200				01322	Dartford					.
0 0 1 -6 1				01432	Hereford				Find	Add band
🖲 🕙 1 of 12				01471	Isle of Skye	 Broadford 			Fillu	
			l Rat	01483	Guildford			art cost Min d		timeCap 🕻 🔺
1	International	0.55	0.5	01488	Hungerford					
10	International	3	3	01529	Sleaford					E
10 Mob	International	3.36	3.3	01565	Knutsford					
2	International	0.6	0.6	01708	Romford					
2 Mob	International	0.96	0.9	01///	Retford					
3	International	1.11	1.1							
3 Mob	International	0.98	0.9				Close			
4	International	1.1	1.1	1.1	_	0.03	_			
4 Mob	International	1.46	1.46	1.46		0.03				
5	International	1.2	1.2	1.2		0.03				
		1	14 55			0.00				
4										•

Adding a band

To add a new band to the tariff table, click on the Add band tab, as shown below:

t im enterp						Reports	Directory	Call View	Tariff Editor	Alerts
Tariff Edi	tor									
elect a tariff t	able BT 🚽					🔥 Reco	st 🐹 Lo	calise 📝 Table	properties 📑	
lational Inte	rnational 🛞	@ 10	of 352(в (н)		Find code			Find	Add cod
Code 🔺			and nan			Location		Code pa		
0113		U	KNAT			Leeds				
0114		U	KNAT			Sheffield				
0115		υ	KNAT			Nottingham				-
0116		υ	KNAT			Leicester				
0117		U	KNAT			Bristol				
0118		U	KNAT			Reading				
01200		U	KNAT			Clitheroe				
01202		U	KNAT			Bournemouth				
01204		υ	KNAT			Bolton				
🖲 🕘 1 of 1	4 🕑 🖲					Find band	1		Find	Add bar
Band name 🔺	Display name	Rate 1	l Rate 2		Rate 4	Rate 5 Rateable unit Min	cost Max co	st Start cost Min o	duration Connect	time Cap I
1	International	0.4	0.4	0.4		0.03				
1 Mob	International	0.7	0.7	0.7		0.03				
10	International	3	3	3		0.03				
10 Mob	International	3.3	3.3	3.3		0.03				
2	International	0.45	0.45	0.45		0.03				
2 Mob	International	0.75	0.75	0.75		0.03				
3	International	0.6	0.6	0.6		0.03				
3 Mob	International	0.9	0.9	0.9		0.03				
< l										+

The Add new band window will appear, where you can edit the properties of you band. Each field in this window is described below:

Add new band
Band name
Display name
Min cost
Max cost
Start cost
Min duration
Connect time
Weekday rates
Saturday rates
Sunday rates
Cap limit
Cap amount
Rateable unit
Rate 1 Rate 2 Rate 3 Rate 4 Rate 5
Delete Delete OK

Field	Description
Band name	The name of the band

Display name	The band name displayed in the call view or reports
Min cost	The minimum cost of a call, regardless of whether the call totals less at the defined rate
Max cost	The maximum cost a call can reach, regardless of whether the call totals more at the defined rate
Start cost	The starting cost of a call, regardless of its duration
Min duration	The number of seconds a call must last in order to be chargeable
Connect time	A fixed period of time that is added to each call's duration
Weekday rates	The call rates during weekdays
Saturday rates	The call rates during Saturdays
Sunday rates	The call rates during Sundays
Cap limit	The maximum duration (in seconds) you want to restrict certain calls to
Cap amount	The maximum charge for a call to a particular number
Rateable unit	The unit of time (in seconds) that a call's duration is divided into, when used as a multiplier to determine the cost of a call. By default, the rateable unit in TIM Plus is 1 - per second - but could be changed to 60 to enable per minute billing, for example.

When you have finished configuring these properties, click on the OK button to apply the changes.

Add new band		X
Band name	France Mobile	
Display name Min cost	0.05	
Max cost		
Start cost		
Min duration		
Connect time		
Weekday rates		
Saturday rates		
Sunday rates	···	
Cap limit	3600	
Cap amount		
Rateable unit		
Rate 1 Rate 2	Rate 3 Rate 4 Rate 5	
1.0 1.0	1.0	
🗙 Delete	💭 Cancel 📑	ок

Finding a band

To locate a band in the tariff table, enter its name in the search box and click on the Find button, as shown below:

im enter	orise					Re	eports	Directory	Call View	Tariff Editor	Alerts
lariff Ed	itor										
	table BT 🚽						🔒 Recost	t 📡 Loca	alise 🃝 Table	properties 📑	
lational Inte	ernational 🛞	@ 10	of 352	ю (н)			Find code	_		Find	Add co
Code 🔺		В	and nar	ne		Loca	ation		Code pat	tern	
0113		U	KNAT			Leed	is				
0114		U	KNAT			Shef	field				
0115		U	KNAT			Nott	ingham				
0116		U	KNAT			Leic	ester				
0117		U	KNAT			Bris	tol				
0118		U	KNAT			Reading					
01200		U	KNAT			Clitheroe					
01202		U	KNAT			Bournemouth					
01204		U.	KNAT			Bolt	on				
🖲 创 1 of 1							Find band			Find	Add ba
Band name 4 1	Display name				Rate 4 Rate :	5 Rateable		ost Max cos	Start cost Min d	uration Connect	time Cap I
Mob	International	0.4	0.4	0.4			0.03				
1 Mob	International International	0.7	0.7	3			0.03				
LU Mob	International	3.3	3.3	3.3			0.03				
2	International	0.45	0.45	0.45			0.03				
2 2 Mob	International	0.45	0.45	0.45			0.03				
2 MOD 3	International	0.75	0.75	0.75			0.03				
د	International	0.9	0.9	0.9			0.03				
3 Moh	Incernacional	0.9	0.9	0.9			0.03				
3 Mob											

The matching band will appear highlighted in the list, as shown below:

Nat NTS	National	0.0673	0.0336	0.0127			0.03				1
Navitas	International	1.5	1.5	1.5							
Non-Emergency	Other	0.085	0.085	0.085			0.03				
Thuraya	International	4.5	4.5	4.5			1.5				
Timeline	Other							0.425	0.425		
UKNAT	National	0.1	0.06	0.03	1		0.03	1			
Unknown	National										
Vision	International	0.5	0.5	0.5							
Voxbone	International	0.5	0.5	0.5							-

To configure the properties of the selected band, click on it to open the Band properties window, as shown below;

unenterp					Reports	s Direc	tory	Call View	Tariff Editor	Alerts
Tariff Edit	tor									
	able BT 🗸		Γ	Edit band				📝 Table		
National Inter Code ▲ 0113 0114	national (e	τ	of 35 Band JKNA1 JKNA1	Band name Display name Min cost	UKNAT National 0.03			Code pat	Find	Add code
0115 0116 0117		τ τ	JKNAJ JKNAJ JKNAJ	Max cost Start cost Min duration Connect time						
0118 01200 01202		τ τ	JKNAJ JKNAJ	Weekday rates Saturday rates						
01204 🖲 🛞 14 of 1	4 🕑 🕅	t	JKNAI	Sunday rates Cap limit Cap amount					Find	Add band
Nat NTS	National	0.0673	0.03	Rateable unit						^
Navitas Non-Emergency	International Other	1.5 0.085	1.5	Rate 1 Rate 2	Rate 3 Rate	4 Rate	5			
Thuraya Timeline	International Other		4.5	0.1 0.06	0.03					E
		0.1	0.00							
Unknown	National			X Delete		Cancel	📑 ок			
Vision	International		0.5	<u>~</u>			in ou			
Voxbone	International	0.5	0.5							
•										

To see the applied rates, click on the ... button, as shown below:

	••••
	••••

A new window will open, where you can update the current rates. To apply any changes, click on the OK button, as shown below:

tim enterprise)		Reports	Directory	Call View	Tariff Editor	Alerts
Tariff Editor						
Select a tariff table 🛛 💌	Edit band			📝 Table (
National International (e) (f) 1 of Code ▲ Bar 0113 UKN 0114 UKN 0115 UKN 0115 UKN 0116 Edit rate times	Band name UK Display name Na Al Min cost 0. Al Max cost Al Start cost	NAT tional 03		Code patt	Find	Add code
0117 0118 01200 01202 01202 01204	3 04 05 06 07 08 09 1			19 20 21 22 2 2 2 2 2 2	23	
(8) (8) 14 of 14 (9) Nat NTS Nation				Ə Cancel	, ок Find	Add band
Navitas International 1.5 1. Non-Emergency Other 0.085 0. Thuraya International 4.5 4. Timeline Other 0.011 UKNAT !National 10.1 10.1	Rate 1 Rate 2 0.1 0.06	Rate 3 Rate 4	Rate 5			
Unknown National Vision International 0.5 0. Voxbone International 0.5 0.	5 Delete	Ş	Cancel 🗮 O	к		
30/03/2012 15:57:18 Logged in as 'Joe E						

Alerts

The Alerts section notifies you when particular events occur on the system. The table below describes the type of alerts emitted from TIM Enterprise:

Alert	Description
Critical	Notifies you of any events that are detrimental to the system, e.g. database failure
Warning	Notifies you of any non-critical events that have occurred on the system, e.g. you have exceeded your license limit
Information	Notifies you of any general events that have occurred on the system, e.g. if the application service has been restarted
Voice activity	Provides details about the progress of call recording operations
Audit trail	Provides very detailed information about ongoing system events, primarily used for fault-finding

	rprise		Reports Directory Call View Tariff Editor Alerts
Critica	I 🔥 Warning	Information	Voice activity Audit trail
Count	First raised	Last raised 🔻	Description
16	2013-09-10 13:47:35	2013-09-10 14:34:42	RTACallMatch: Checking relevancy of Magic Box [Magic Box]
16	2013-09-10 13:47:35	2013-09-10 14:34:42	RTACallMatch: Magic Box [Magic Box] is not relevant to this call.
16	2013-09-10 13:47:35	2013-09-10 14:34:42	RTACallMatch: Checking relevancy of Magic Box [Optilogix Box]
3	2013-09-10 13:47:35	2013-09-10 14:34:42	Invoking RTACallMatch. There are 2 magic boxes installed.
3	2013-09-10 13:47:35	2013-09-10 14:34:42	No voice match. Didn't bother checking voice removal.
2	2013-09-10 14:23:04	2013-09-10 14:34:42	RTACallMatch: Magic Box [Optilogix Box] is not relevant to this call.
1	2013-09-10 14:34:42	2013-09-10 14:34:42	RTACallMatch returned location [], filename [] for callreference [f7870a00-ed1f-2f12- acca-0007d90006b0].
L	2013-09-10 14:34:42	2013-09-10 14:34:42	No voicereference returned. Call won't be updated. AEnd [8 - Modules.Tri-Line.PRI], BEnd [55 - 8002].
L	2013-09-10 14:34:42	2013-09-10 14:34:42	Performed 0 voice updates.
11	2013-09-10 14:13:03	2013-09-10 14:33:36	Performed 1 voice updates.
12	2013-09-10 14:01:08	2013-09-10 14:33:35	RTACallMatch: Magic Box [Optilogix Box] mapped trunk [Modules.Tri-Line.PRI]\[Modules.Tri-Line.PRI] to box channel [1,2,3,4,5,6,7,8,9,10].
11	2013-09-10 14:13:03	2013-09-10 14:33:35	CallMatch: Magic Box [Optilogix Box] using call match script [C:\Program Files\Tri-Line\TIM Enterprise\config\callmatch.js]
5	2013-09-10 14:24:22	2013-09-10 14:33:35	RTACallMatch: Channel [Modules.Tri-Line.PRI] is relevant to this OUTBOUND call; will query Magic Box [Optilogix Box]
1	2013-09-10 14:33:35	2013-09-10 14:33:35	RTACallMatch: Magic Box [Optilogix Box] sending query [/call.match?offset=30&csid=1& start=2013-09-10%2014:33:00&channel=1,2,3,4,5,6,7,8,9,10&direction=2&stamp=100913143335]. Time lapse now [52415.859375]
L	2013-09-10 14:33:35	2013-09-10 14:33:35	RTACallMatch: Magic Box [Optilogix Box] query returned status [200]\[OK]. Time lapse now [52415.875]
1	2013-09-10 14:33:35	2013-09-10 14:33:35	RTACallMatch: Magic Box [Optilogix Box] realtime authority returned match possibility data: [{ "matches": { "call1": { "callid": 'tdm:4d56cd5-2639-4d2a-98d1-83d4e2783a27", 'direction": 2, "num_calling": '02072652600", 'num_called": '1990124228300", 'time_started': '137881995678", "time_connected": '137881995025", 'time_ended': '1378819978772", 'response": '4, "duration": '16" }, 'call2": { 'callid": 'tdm:4d66cd2-2632-4746-91b8-dacc9510fa40", 'direction": 2, 'num_calling': ''c2072652600", 'num_called': '13990124228300", 'time_started': '1378819980427', ''time_connected': '1378819982227", 'time_ended': '1378820014106', 'response': '2, '', ''duration": '32" }}}

Integration

Call audio masking

Overview

TIM Enterprise offers the ability to obfuscate (mask out) one or more sections of the audio of a telephone call with an audible tone, preventing the listener from hearing the original speech.

This is normally required for compliance in certain industries where regulations dictate that certain spoken information be masked out, e.g. the Payment Card Industry - Data Security Standard (PCI-DSS).

Throughout this guide, we'll adopt the **PCI-DSS** example above, where telephone calls that contain spoken credit card information need to be masked out by an audible tone, but only during those parts of the call when the card details are being spoken, leaving intact the rest of the call audio.

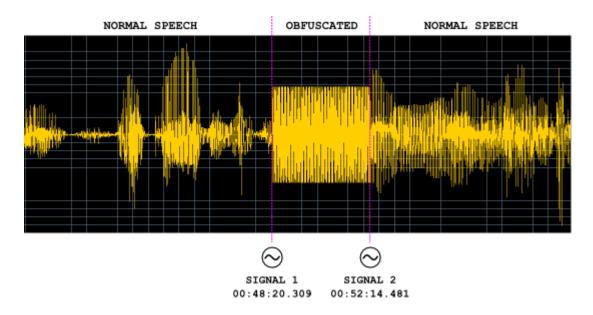
In this scenario, we'll assume that agents (employees that make or receive telephone calls) utilise an in-house or third-party data entry system into which credit card detailed are entered using a computer.

How it works

Because TIM Enterprise (in conjunction with one or more Magic Boxes) records the call audio at strategic boundaries in your telecom infrastructure - usually your organisation's telephone lines, rather than each user's telephone handset - some reconciliation is normally required between those boundaries and the actual agent that handled the call.

By default, this reconcilliation occurs automatically by TIM Enterprise, which is how the agent-centric calls that you see in call reports are able to be associated (matched) with each call as seen from the point of view of a telephone line, which delivers calls to many agents.

During obfuscation, it is necessary that a user or device sends at least two signals to TIM Enterprise. Together, these two signals allow TIM Enterprise to mask out the audio between the two points in time that each signal was received.



At the point in time during an agent's call when obfuscation is necessary, e.g. "Can I have your CVV number please?" is spoken by the agent, a signal is sent by the agent to TIM Enterprise, which records the event along with the exact time it was sent.

Similarly, when the sensitive part of the call has completed, a further signal is sent by the agent to TIM Enterprise, which records that event too.

A single telephone call can contain more than one obfuscation; the number of signals required is always exactly twice the amount of obfuscations in a call.

Assumptions

This guide assumes the following statements are true:

- You have a licensed copy of TIM Enterprise that includes voice recording
- Your installation is at least version 3.0.0.55
- You have one or more Magic Boxes installed, each with their governing RTA Service

Common solutions

Taking the example of masking out some digits of a phone call when a credit card number is being quoted, most solution providers modify the data entry system that an agent uses.

Implementation

HTTP request

To send a start or stop signal, a simple HTTP GET request must be sent to the TIM Enterprise web server.

Every request to the web server requires authentication, so ensure that the relevant HTTP authentication headers are sent with your request and that the username and password combination match an existing web user object in the Directory.

The response status code will indicate success or failure.

Request format

The request should be a GET request and take the following URL- encoded parameters, as per the following example:

http://192.168.0.1/signal.js?cmd=set&cat=4&type=1&objtype....

Valid parameters are described in the table below:

Parameter	Description
cat	Signal category. For audio masking, this value is always 0x04
type	The type of signal. Valid values for 0x04-categorysignals are: 0x01 Mute On 0x02 Mute Off
objtype	The type of object that this signal relates to. This can be one of two values: user (a user object) channel (a channel object)
objid	The unique ID of the object type as specified by the objtypeparameter (above). This is used to locate the object in the Directory The region of the Directory to search in is specified by the key parameter (below) and governed by the access implied by the placement of the web user whose credentials are used to effect the web request
key	Specifies the key relating to a container object in the directory (or blank, implying the whole directory) whereby a search on the object specified by objtype and objid is performed below

Return values are specified as HTTP response status code. Although the body of some responses may contain informational text, you should not rely on this text to make any decisions as to whether the request was successful or not.

Valid status codes are as follows:

Parameter	Description
200	The signal was received and stored successfully
400	The request was not acceptable for one of the following reasons:
	An invalid type parameter was specified. The type parameter is specific to the category specified by the cat
	parameter. Further, the type value (e.g. 0x01) can be used in multiple categories
	The objid was missing. Specify the ID of the object you want the signal to relate to
	The cat and type parameters - category and signal type, respectively - must be specified and cannot be
	zero
	The version of TIM Enterprise you are running does not understand the signal.js script
404	The object specified by the combination of the objtype and objid parameters - and optionally the key parameter - could not be found
500	Internal Server Error prevented the signal from being stored successfully. This may be due to a badly-configured database, or the lack of a signals table in the TIM Enterprise database

Programmatic Audio Retrieval

Overview

Normally, to retrieve call audio recordings from TIM Enterprise, an authenticated web user must log in to the web interface, navigate to the desired call using the Call View screen or by running a report, click on the call, then play it using the built-in web-based call player.

It is also possible to programmatically retrieve call recordings using a two-step authenticated request process. This works in the following way:

• Obtain the datasource, voicelocation and voicefilename values from the calls table in the TIM Enterprise database for

the call you want to retrieve.

- Request a security token from TIM Enterprise, by authenticating using an authorised web user's login credentials
- Request the call from the RTA Service, using the security token obtained above
- Receive the call audio in WAV format, forcibly obfuscated if any such events apply to the requested call

Below is an example code showing how to retrieve a voice recording from TIM Enterprise.

C# Example Source

This is a very simple example of some C# code to request a call's voice recording from TIM Enterprise. A more complex example would describe passing parameters in the class's constructor, for instance, but this should demonstrate the logic behind the procedure.

Use the following code to request a security token from TIM Enterprise, plugging in the appropriate values for <u>_datasource</u>, <u>_voicefilen</u> ame, and <u>_voicelocation</u> for the call you want to retrieve. These values are obtained directly from the calls database table.

A security token in this context is a URL which is used to obtain the actual voice recording from the RTA Service.

```
Simple call retrieval example
using System;
using System.Net;
using System.Text;
private class GetAudioFile
{
    string dataSource = "\\3\\";
    string voiceFilename =
"NCS0000000EA39883596CC41E799B4630006CF2D56";
    string voiceLocation = "4";
    string rtaUrl = "";
    using (WebClient client = new WebClient())
    {
        client.Headers["User-Agent"] = "3rd-Party-Agent";
        client.Credentials = new NetworkCredential("username",
"password");
        byte[] responseBody =
client.DownloadData("http://enterprise.example.com/voice.wav?cmd=getvmsg
&datasource=" + System.Uri.EscapeDataString(dataSource) +
                               "recordingid=" +
System.Uri.EscapeDataString(voiceFilename) +
                               "voicelocation=" +
System.Uri.EscapeDataString(voiceLocation) +
                               "salt=" + System.DateTime.Now.Ticks);
        rtaUrl = Encoding.UTF8.GetString(responseBody);
    }
 if (!string.IsNullOrEmpty(rtaUrl))
  // Use another WebClient object to query the URL provided in "rtaUrl"
to retrieve the actual call recording ...
 }
}
```

Assuming the request was successful (and the response status was a 200 OK), the variable **rtaUrl** will now contain a full URL which you must request in a similar way, using another **System.Net.WebClient** object.

The security token URL is valid for one minute (60 seconds).

Knowledgebase

Amending call charges

To modify call charges for a specific dial code or destination, follow the steps below:

1. Log in to TIM Enterprise, click on the Tariff editor tab and select the tariff you want to amend from the drop-down list, as shown

pelow:				
timenterprise	Reports Directory	Call View	Tariff Editor	Alerts
Tariff Editor				•
Select a tariff table	🔒 Recost 🛛 📓 Local			
National International	Find code		Find	Add code
				~

2. Locate the dial code for which you want to amend the charges, by entering the code in the search box provided.

tim enterprise)		Reports	Directory	Call View	Tariff Editor	Alerts
Tariff Editor						
Select a tariff table 🛛 📕 👻		🔒 Recos	t 🐹 Localis	e 🃝 Tableı	properties 📑	Save changes
National International	8 (1) 1 of 352 (9) (9)	Find code			Find	Add code
National International	Band name	Find code Location		Code patt		Add code
National International		Find code		Code patt		ŕ
National International	Band name	Find code Location		Code patt		

3. The matching dial code will be highlighted in the list, showing its associated charge band and destination name.

timenterp	rise					Rep	orts D	irectory	Call Vi	ew Tar	riff Editor	Alerts		
Tariff Edi	tor													
Select a tariff t	able BT 🗸						🔒 Recost	📡 Local	ise 🃝		ties 🚦			
		0.17		0.0								Add co		
National Inte	rnational 💌	• 13	of 352	••••			Find code				Find	V Add Cot		
01609	01609 UKNAT						llerton							
0161			KNAT			Manche								
01620			KNAT				Berwick							
01621			KNAT			Maldor								
01622			KNAT				Maidstone							
01623	UKNAT						eld							
01624			KNAT			Isle d								
01625			KNAT				sfield							
01626			KNAT				Abbot							
01628		U	KNAT			Maider	head							
🖲 📧 1 of 14	1 😕 😐					1	Find band				Find	🗿 Add bar		
Band name 🔺	Display name	Rate 1	l Rate 2	Rate 3	Rate 4 Ra	ate 5 Rateable (unit Min cos	t Max cost	Start cost	Min duratio	n Connect	time Cap I		
1	International	0.4	0.4	0.4			0.03							
1 Mob	International	0.7	0.7	0.7			0.03							
10	International	3	3	3			0.03							
10 Mob	International	3.3	3.3	3.3			0.03							
2	International	0.45	0.45	0.45			0.03							
2 Mob	International	0.75	0.75	0.75			0.03							
3	International	0.6	0.6	0.6			0.03							
3 Mob	International	0.9	0.9	0.9			0.03							
4				111										

4. Enter the name of the charge band in the Find band search box, as shown below:

tim enterp	orise						eports	Directory	Call View	Tariff Editor	Alerts	
Tariff Edi	tor											
	able BT 🚽						🔒 Recost	📡 Loca	lise 📝 Table	properties 📑		
National Inte	rnational (ii)	④ 1 c	of 352	н			Find code			Find	Add co	
Code 🔺			and nan			Loc	ation		Code pat	tern	-	
0113		KNAT			Lee	ds						
0114	UKNAT					She	ffield					
0115	UKNAT					Not	tingham					
0116	UKNAT					Leicester						
0117	UKNAT					Bri	stol					
0118	UKNAT					Read	ding					
01200	UKNAT					Cli	theroe					
01202			KNAT				rnemouth					
01204		U	KNAT			Bolt	ton					
🖲 🛞 1 of 1	4 😕 😕						Find band	UKNAT		Find	💿 Add ba	
Band name 🔺	Display name	Rate 1	Rate 2	Rate 3	Rate 4 Rat	e 5 Rateabl	e unit Min co	ost Max cost	Start cost Min d	uration Connect	time Cap I	
1	International	0.4	0.4	0.4			0.03					
1 Mob	International	0.7	0.7	0.7			0.03					
10	International	3	3	3			0.03					
10 Mob	International	3.3	3.3	3.3			0.03					
2	International	0.45	0.45	0.45			0.03					
2 Mob	International	0.75	0.75	0.75			0.03					
3	International	0.6	0.6	0.6			0.03					
3 Mob	International	0.9	0.9	0.9			0.03					
•											÷.	

5. The matching band will show highlighted in the list, as shown below:

					_						 _
Nat NTS	National	0.0673	0.0336	0.0127			0.03				
Navitas	International	1.5	1.5	1.5							
Non-Emergency	Other	0.085	0.085	0.085			0.03				
Thuraya	International	4.5	4.5	4.5			1.5				
Timeline	Other							0.425	0.425		
UKNAT	National	0.1	0.06	0.03	1		0.03		1		
Unknown	National										
Vision	International	0.5	0.5	0.5							
Voxbone	International	0.5	0.5	0.5							

6. To configure the properties of the selected band, click on it to open the Edit band window.

tim enterp	orise			Reports	Directory	Call View	Tariff Editor	Alerts
Tariff Edi	itor							
	table BT 🗸		Edit band			📝 Table		
National Inte		0.1.69					Find	Add code
national inte	imational (N)	④ 1 of 35	Band name UK	NAT			Find	Add code
		Band	Display name Na	tional		Code pat		<u>^</u>
0113		UKNAC	Min cost 0.	03				-
0114		UKNAI	Max cost					-
0115		UKNAI	Start cost					
0116		UKNAI	Min duration					
0117		UKNAI	Connect time					
0118		UKNAI						
01200		UKNAJ	Weekday rates					
01202		UKNAI	Saturday rates					
01204		UKNAC	Sunday rates					
0 0 11-6			Cap limit				Find	Add band
🖲 🕚 14 of	14 🕑 🕖		Cap amount				Find	Add balld
Nat NTS	National (0.0673 0.03	Rateable unit					^
Navitas	International 3	L.5 1.5						
Non-Emergenc	y Other (0.085 0.08	Rate 1 Rate 2	Rate 3 Rate 4	Rate 5			
Thuraya	International	4.5 4.5	0.1 0.06	0.03				
Timeline	Other	1						E
UKNAT	National (0.1 0.06						
Unknown	National			-				
Vision	International (0.5 0.5	🗙 Delete	2	Cancel 📑 O	ĸ		
Voxbone	International (0.5 0.5						-
•			m					Þ

7. To change the existing charges for any of the rates, e.g. Rate 1, Rate 2, etc, enter the preferred values in the field provided.

Band name UKNAT Display name National Min cost 0.03 Max cost Start cost Min duration Connect time Weekday rates Saturday rates Sunday rates Cap limit Cap amount Rate 1 Rate 2 Rate 3 Rate 4 Rate 5
Display name National Min cost 0.03 Max cost
Min cost 0.03 Max cost
Max cost Start cost Min duration Connect time Weekday rates Saturday rates Sunday rates Sunday rates Cap limit Cap amount Rate 1 Rate 2 Rate 3 Rate 4
Start cost Min duration Connect time Weekday rates Saturday rates Saturday rates Sunday rates Cap limit Cap amount Rate 1 Rate 2 Rate 3 Rate 4
Min duration Connect time Weekday rates Saturday rates Saturday rates Sunday rates Cap limit Cap amount Rate 1 Rate 2 Rate 3 Rate 4
Connect time Weekday rates Saturday rates Sunday rates Sunday rates Cap limit Cap amount Rate 1 Rate 2 Rate 3 Rate 4
Weekday rates Saturday rates Sunday rates Cap limit Cap amount Rate 1 Rate 2 Rate 3 Rate 4 Rate 5
Saturday rates Sunday rates Cap limit Cap amount Rate 1 Rate 2 Rate 3 Rate 4 Rate 5
Sunday rates Cap limit Cap amount Rateable unit Rate 1 Rate 2 Rate 3 Rate 4 Rate 5
Cap limit Cap amount Rateable unit Rate 1 Rate 2 Rate 3 Rate 4 Rate 5
Cap amount Rateable unit Rate 1 Rate 2 Rate 3 Rate 4 Rate 5
Rateable unit Rate 1 Rate 2 Rate 3 Rate 4 Rate 5
Rate 1 Rate 2 Rate 3 Rate 4 Rate 5
0.1 0.06 0.03
🗙 Delete 🗦 Cancel 틙 OK

8. To see how each rate is applied, click on the _... button.

9. A new window will open, where you can edit the rate times. To apply any changes, click on the OK button.

Edit rate times	
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 2 2 2 2 2 2 2 1 <th>19 20 21 22 23 2 2 2 2 2 2</th>	19 20 21 22 23 2 2 2 2 2 2
	Cancel OK

Automatic web login

Background

All of the web pages and scripts that TIM Enterprise serves are protected by a login that is provided by a user when entering their username and password into a pop-up dialog presented by the web browser.

In some situations, it is desirable to suppress this dialog box demanding the username and password. An example might be the deployment of a stand-alone computer displaying a pre-defined wallboard on a large screen - it would become tedious having to log in to the web page every time that computer is restarted.

Different web browsers behave differently when asked to automatically log in to web sites. Variously, they range from complete prohibition of the practice to permitting it only if certain system parameters are configured.

Specifics

In this article, details of how to allow automatic logging-in to a web page concerns the Microsoft Internet Explorer (version 6 and above) browsers only. Please consult your browser documentation for a solution related to your own choice of browser.

The solution involves creating a specially-crafted URL in the following form:

http://username:password@serverhost/

Solution

Although including the username and password in a URL is disabled by default on Windows Internet Explorer, since it is considered a security risk, you can override this restriction by making the following changes to the Windows Registry.

Since you'll be exposing a username and password as part of a URL, it is recommended that you create a dedicated Web User object inside the TIM Enterprise directory that will be used solely for this purpose. Refer to the Web user page for details of how to set up a web user.

Open Windows Registry Editor, REGEDIT.EXE, from the Windows Start Menu and locate the following registry key:

for a 32-bit system:

HKEY_LOCAL_MACHINE\Software\Microsoft\Internet Explorer\Main\FeatureControl\FEATURE_HTTP_USERNAME_PASSWORD_DISABLE

■ for a 64-bit system:

```
HKEY_LOCAL_MACHINE\Software\Wow6432Node\Microsoft\Internet
Explorer\Main\FeatureControl\FEATURE_HTTP_USERNAME_PASSWORD_DISABLE
```

Inside this registry key, add the following DWORD entries:

```
IEXPLORE.EXE (Set DWORD value to 0, zero)
EXPLORER.EXE (Set DWORD value to 0, zero)
```

Close the Registry Editor and create a bookmark in Internet Explorer, specifying the URL as per the following example:

```
http://USERNAME:PASSWORD@HOSTNAME/display/?suiv=12345
```

Replace the following entries:

- USERNAME replace with the username of the web user you use to access the page
- PASSWORD replace with the password of the web user you use to access the page
- HOSTNAME replace with the host name or IP address of the machine running TIM Enterprise

References

This information is available in more detail at the Microsoft Support site:

http://support.microsoft.com/kb/834489

Blacklisted users



- What are blacklisted users?
- Setting users to not log calls
- Merging a DDI with its extension

What are blacklisted users?

Blacklisted users are created in the system when your software license is insufficient for the number of users picked up in the Directory. The users will be blacklisted at random and they will not be logging calls.

To identify the total number of users currently logged in the system, you can run a Unused devices report for a period of time when no

calls were made or received. The best option is to select a date in the future, e.g. 01-01-2020.

timenterprise	Reports Directory	Call View Tariff Editor Alerts		
Create a report Scheduled re	eports			
👰 Report queue	📩 My reports 🛛 🛱 Save	🖸 Schedule 🥂 Run now		
Type	Entity 🔍 🎯			
Call volumes Custom report Daily activity Enterprise overview Frequent numbers Inbound call performance Missed calls	Period Preset Yesterday Last 1 hours * From 01 Jan 2020 at 00:00:00 To 01 Jan 2020 at 23:59:59	Format Web SPDF XML a CSV Excel		
 Phone bill Random call selection Target response Top calls Unused devices User activity 	Filters ⊜ ⊚	Options ⊜ ☺		

The report will display the total number of users picked up in the system.

Entire organisation \				About this rep
Users Channels				
ame 🔺	ID	Email	DDI	Mobile
1950	1950	-	-	-
80100	-	-	-	-
8888	8888	-	-	-
A Tarpey	1301	-	-	-
7 B Ahmed	1602	-	-	-
C Chester	1000	-	-	-
C Lowe	1603	-	-	-
7 D Xue	1605	-	-	-
7 Joe Bloggs	-	-	-	-
7 John Smith	-	-	-	-
7 L Anderson	1231	-	-	-
7 M Thompson	1619	-	-	-
7 New User	-	-	-	-
New User 1	-	-	-	-
New User 2	-	-	-	-
R Londesborough	5105	-	-	-
7 T Alexander	1248	-	-	-
7 T Dangerfield	1903	-	-	-
7 I Quirk	1904	-	-	-
7 Test 1	-	-	-	-
7 Test 2	-	-	-	-
V Afanasiev	1334	-	-	-
VM Channel 11	9511	-	-	-
VM Channel 42	9542	-	-	-

If the total number of users exceeds your license count, you can contact our Sales team to purchase more licenses for your users, alternatively you can check if any of the following applies:

DDI numbers are picked up as extensions, in which case you can merge the DDIs with their extension number or set them to not log

calls

you have old extensions that you don't wish to monitor, in which case you can set them to not log calls

Setting users to not log calls

Follow the steps below to set a user to not log calls:

1. Locate the extension you want to set to Do not log in the Directory, click on it and select Properties.

tim enterprise)			Reports	Directory	Call View	Tariff Editor	Alerts
윰 \ London \							
🔁 🔮	Q	New object			3 items	Clipboard 0 items	
						📔 Paste 🌈 Cle	
£ 80100 Open							
E New Use Copy							
Copy all							
Delete							
Properties							

2. Click on the Features tab and tick the box Do not log calls for this user, as shown below:

🙎 80100		×
General Features	Feature options Email details of missed calls Licensed personal call manager Do not log calls for this user Exclude this user from call statistics	Call barring User is barred from making calls Bar user if call made where cost exceeds dialing code is
		Cancel 📑 Save

For the changes to take effect, you need to restart the TIM Enterprise service.

Merging a DDI with its extension

Follow the steps below merge a DDI with its extension in TIM Enterprise:

1. Locate in the Directory the extension number whose DDI you want to merge, click on it and select Properties.

timenterprise		Reports	Directory	Call View	Tariff Editor	Alerts
윰 \ London \						
🔁 🔮] Q 🛛 💆			3 items	Clipboard 0 items	
		 			📔 Paste 🌈 Cl	
£ 80100 Open						
New Use Copy						
New Us Copy all						
Delete						
Properties						

2. A new window will open, displaying the general properties of the selected object. In the Alternative ext field, enter its DDI

number and click on the Save button, as shown below:

💈 New User 2		X
General Features	User properties Name New User 2 Job title	User details
		Cancel 📑 Save

3. Locate the user object created for the DDI number in the Directory, click on it and select Delete to remove the object from the Directory, as shown below:

tim enterprise)			Reports	Directory	Call View	Tariff Editor	Alerts
윰 \ London \							
🔁 💈	Q	New object			3 items	Clipboard 0 items	
						📔 Paste 🍠 Clear	
£ 80100 Open							
New U Copy Copy all							
New U Delete	1						
Properties							

For the changes to take effect, you need to restart the TIM Enterprise service.

Cisco specific

CDRs were being sent but have now stopped

If you stopped receiving data from your Cisco UCM, you need to restart the CDR services on the Publisher node.

DO NOT delete the Call Accounting and Billing server, as this will remove any CDRs that have not been sent.

To restart the CDR services, login to the Cisco Unified Serviceability screen and select Tools -> Control Center -> Network Services from the main menu. Locate the CDR services section in the list and restart the following services in the order specified below;

- 1. Cisco Database Layer Monitor (Depending on Cisco UCM version, you may not have this service)
- 2. Cisco CDR Repository Manager
- 3. Cisco CDR Agent
- 4. Cisco CAR Scheduler (if sending CMRs)

c	Cisco Change Credential Application	Running	Wed Apr 3 14:30:07 2013	42 days 06:13:15
CDR	Services			
	Service Name	Status	Start Time	Up Time
c	Cisco CDR Repository Manager	Running	Wed May 15 19:42:05 2013	0 days 00:01:17
с	Cisco CDR Agent	Running	Wed May 15 19:42:49 2013	0 days 00:00:33
C	Cisco CAR Scheduler	Starting		
•	Cisco SOAP - CallRecord Service	Running	Wed Apr 3 14:26:51 2013	42 days 06:16:31
c	Cisco CAR DB	Running	Thu Oct 11 03:32:17 2012	216 days 17:11:05
Sec	urity Services			
	Service Name	Status	Start Time	Up Time
c	Cisco Trust Verification Service	Running	Thu Oct 11 03:31:35 2012	216 days 17:11:47

CDRs should now be sent to the configured Call Accounting and Billing server, e.g. the machine running TIM Enterprise.

Importing historic data from Cisco UCM

Exporting CDR/CMR records

The following procedure describes how to export CDR/CMR into a dump file. This information was taken from Export CDR/CMR Records Configuration section of Cisco's documentation.

1. Go to the CDR Analysis and Reporting section and select CDR -> Export CDR/CMR option. The Export CDR/CMR records

window will display.

- 2. In the From and To date drop-down list boxes, choose a date range for the CDR/CMR dump.TXT file.
- 3. In Select records, check the CDR and/or CMR check box.
- 4. Click Export to File .

Re-running the data

To re-run the CDRs in TIM Enterprise, you need to rename the dump file extension from **.TXT** to the unique identifier of your PBX object in TIM Enterprise. To obtain the ID of your PBX, follow the steps below:

- 1. Log in to TIM Enterprise and locate the PBX object that collects the data from your UCM.
- 2. Click on the PBX object and select Properties from the drop-down list.
- 3. A new window will open, displaying the general properties of your PBX. The site ID is displayed in the Unique ID field, as shown

below:		
🚍 Cisco UCM		\mathbf{X}
General Connection Inactivity Options	General settings Name Cisco UCM Unique ID 82572 Time zone 0 Broadcast CDRs from this PBX	Data format 3Com NBX R6 3Com VCX-NBX 3CX Aastra BP
	Data backup Keep a local backup of data Backup location {app}\backup\Cisco UCM\{year}\{mont	 Aastra MX-ONE BC10 Aastra MX-ONE BC8 Aastra OpenCom Aastra PC5 AGFEO Alcatel OminPCX Office OHL Alcatel OminPCX Office
		🥥 Cancel 📑 Save

After renaming the file extension, copy it into the following location on the computer running TIM Enterprise: C:\Program Files\Tri-Line\TIM Enterprise\spool\.

TIM Enterprise will now process the data and it should be visible on the Call view screen.

Connect BCM v3.7 or below with NetPBX

Follow the instructions below to connect a BCM v3.7 or below with NetPBX:

1. Make sure the CDRServer.EXE and Interop.CDRSERVERLib.dll files are placed in the same folder as NetPEX.EXE, usually

located in {pf}\Tri-Line\NetPBX.

🚞 NetPBX						
File Edit View Favorites T	ools	Help				
😋 Back 🝷 💮 🚽 🏂 🎾) Sea	arch 🝺 Folders 🛛 🎹 🕶				
Address 🛅 C:\Program Files\Tri-Lin	ne\Ne	tPBX				
	_	Name 🔺	Size	Туре	Date Modified	
File and Folder Tasks	*	S CDRClient.dll	176 KB	Application Extension	17/05/2010 08:10	
📬 Mala a nam faldar		CDRServer.exe	36 KB	Application	31/01/2005 14:57	
💋 Make a new folder		🚾 CDRServer.tlb	3 KB	TLB File	31/01/2005 14:57	
Publish this folder to the Web		🔊 Interop.CDRSERVERLib.dll	7 KB	Application Extension	23/10/2012 19:57	
		🞘 NetPBX.exe	92 KB	Application	23/10/2012 19:57	
😂 Share this folder		🕙 osa40.dll	1,112 KB	Application Extension	27/05/2010 03:24	
		😤 Uninstall NetPBX	2 KB	Shortcut	24/10/2012 12:33	

- 2. Register CDRServer.EXE by running the command line with administrator privileges and typing the following command under the directory path of the NetPBX folder: CDRServer.EXE/regserver.
- 3. Open the computer's local security policies: Start -> Control Panel -> Administrative Tools -> Local Security Policy.



4. Within the Security Settings\Local Policies\Security Options tree, change the following items as highlighted in the

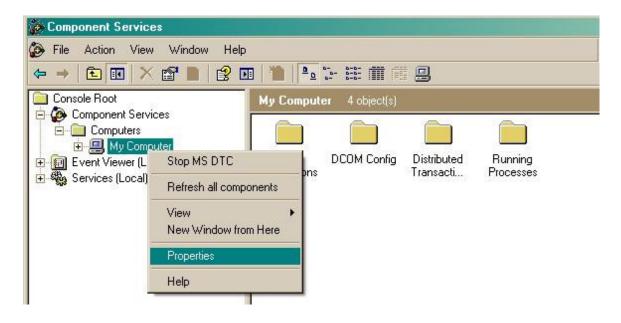
screenshot below:			
🙀 Local Security Settings			
File Action View Help			
⇔ ⇒ 🗈 🗙 📽 😫			
📴 Security Settings	Policy 🕗	Security Setting	ę.
🕀 🥶 Account Policies	避 Audit: Shut down system immediate	Disabled	
🖻 🤷 Local Policies	🔠 DCOM: Machine Access Restrictio	Not defined	
	BDCOM: Machine Launch Restrictio		
⊡ ⊡ User Rights Assignment	💐 Network access: Shares that can b		
	🗮 Network access: Sharing and secu	Guest only - local us	
Contract Restriction Policies	👸 Network security: Do not store LAN	Disabled	
Jortware restriction forcies IP Security Policies on Local Computer	🚊 Microsoft network client: Digitally si	Disabled	
	🞉 Network access: Do not allow stor		
	🚟 Network access: Let Everyone per		
	🔀 Network access: Named Pipes that	COMNAP,COMNOD	

- a. Network Access: Let Everyone permissions apply to anonymous users. Set this to Enabled.
- b. Network Access: Sharing security model for local accounts. Set this to Classic.
- C. DCOM: Machine Access Restrictions: Click on Edit Security and add the following user accounts: Anonymous,

Everyone, Interactive, Network, System. Set each one to have full access rights.

DCOM: Machine Access Restrictions in Security Descriptor Defi ? 🗙	Access Permission
Template Security Policy Setting Explain This Setting	Security Limits
DCDM: Machine Access Restrictions in Security Descriptor Definition Language (SDDL) syntax If the security descriptor is left blank after defining the policy setting in the template, the policy setting will not be enforced.	Group or user names:
Security descriptor: [0:BAG:BAD:(A:;CCDCLC;;;AN)(A;;CCDCLC;;;WD)(] Edit Security	SYSTEM Add Permissions for ANONYMOUS Allow Deny Local Access Remote Access V
DK Cancel Apply	OK Cancel Apply

5. Next step is to modify the way DCOM behaves on the computer by executing the DCOM configuration program: Start -> Run -> DCOMCNFG [enter]. Browse the tree to the following location: Console Root -> Component Services -> Computers -> My Computer. Righ-click on My Computer for Properties and amend or update the following options:



a. On the Default Properties tab:

Enable Distributed COM on this computer: tick the box for his option

Default Authentication Level: Set this to Connect

Default Impersonation Level: set this to Identify

mputer Propertie	2	
Default Protocols	MSDTC	COM Security
General	Options	Default Properties
Enable Distributed	COM on this computer	
Enable COM Intern	et Services on this cor	nouter
	OM Communication Pro	
The Authentication L	evel specifies security.	at the packet level.
Default Authentica	tion Level:	
Derault Authentica	and the state	
Connect	vel specifies whether a	pplications can determine ation can do operations
Connect The impersonation le who is calling them, a using the client's ider	vel specifies whether a and whether the applic htity.	▼ applications can determine ation can do operations
Connect he impersonation le	vel specifies whether a and whether the applic htity.	

b. On the COM Security tab:

Go to the Access Permissions section and select Edit default .

Add the following accounts and set both local and remote access permissions: Anonymous, Everyone, Interactive,

Î

Network.	Local	Service and	System.

dy Computer Properties	Access Permission	? ×
General Options Default Properties Default Protocols MSDTC COM Security Access Permissions You may edit who is allowed default access to applications. You may also set limits on applications that determine their own permissions. Edit Limits Edit Default Launch and Activation Permissions You may edit who is allowed by default to launch applications or activate objects. You may also set limits on applications. Launch and Activation Permissions Edit Limits Edit Default	Access Permission Default Security Group or user names: ANDNYMOUS LOGON Everyone INTERACTIVE INTERACTIVE NETWORK SET F Add Remove Permissions for SYSTEM Allow Deny Local Access Remote Access	
OK Cancel Apply	OK Cancel App	ły

Go to the Launch and Activation Permissions section and click on $\hfill {\hfill Edit default}$ tab.

Add or update the following accounts to give them all local and remote access permissions: Anonymous, Everyone,

Interactive, Network, Local Service and System.

General Options Default Properties Default Protocols MSDTC COM Security Access Permissions COM Security Group or user names: You may edit who is allowed default access to applications. You may also set limits Edit Default Edit Limits Edit Default Launch and Activation Permissions. Edit Default You may edit who is allowed by default to launch applications or activate objects. You may also set limits on applications that determine their own permissions. Add Remove Permissions for SYSTEM Allow Derault Limits Edit Default Coal Launch Edit Limits Edit Default Edit Default	omputer Propert	ies	<u>? ×</u>	Access Permission		
Access Permissions Access Permissions You may edit who is allowed default access to applications. You may also set limits on applications that determine their own permissions. Edit Limits Edit Limits	General	Options	Default Properties	Default Security		
Access Permissions You may edit who is allowed default access to applications. You may also set limits on applications that determine their own permissions. Image: ANONYMOUS LOGON Edit Limits Edit Default Launch and Activation Permissions Image: Add You may edit who is allowed by default to launch applications or activate objects. You may also set limits on applications that determine their own permissions. Add Permissions for SYSTEM Allow Deny Local Launch Edit Limits Edit Default	Default Protocols	s MSDTC	COM Security	Group of user names:		
Launch and Activation Permissions You may edit who is allowed by default to launch applications or activate objects. You may also set limits on applications that determine their own permissions. Edit Limits Edit Limits Edit Limits	You may edit wh	o is allowed default access		ANONYMOUS LOGON		<u>^</u>
You may edit who is allowed by default to launch applications or activate objects. You may also set limits on applications that determine their own permissions. Edit Limits Edit Default		Edit Limits	Edit Default			
Edit Limits Edit Default	You may edit wh activate objects.	o is allowed by default to la You may also set limits on		Permissions for SYSTEM	· · · · · · · · · · · · · · · · · · ·	
	determine their o		Edit Default	Remote Launch Local Activation		12200
		ОК	Cancel Apply	0	K Cance	Appl

Directory context menu doesn't work with Firefox 8

Directory context menu doesn't work with Firefox 8

- The problem
- The solution
- More information

The problem

Firefox 8, released in November 2011, has decided to make contextMenu a reserved word when creating HTML5-style context-sensitive menus. Unfortunately, TIM Enterprise already used this identifier before Firefox was changed, such that the Directory's pop-up menu no longer appears as expected. Therefore, we have changed the identifier in the product's content to use dirContextMenu instead of context tMenu. If you are using a version of TIM Enterprise earlier than 3.0.0.77 you will need to make some changes to your web content, located in the {Program Files}\Tri-Line\TIM Enterprise\ssldata\ folder.

The solution

Upgrade to at least version 3.0.0.77 where this change has already been made to the default content. If you are unable to upgrade to TIM Enterprise 3.0.0.77 (for example, you have no maintenance contract) then it is recommended that you either temporarily use an alternative browser or change the following code within the directory.js files.

The **directory**. js files are located by default in the following locations:

- C:\Program Files\Tri-Line\TIM Enterprise\ssldata_admin\furniture\js\directory.js
- C:\Program Files\Tri-Line\TIM Enterprise\ssldata_root\furniture\js\directory.js

The following changes need to be made to these files:

```
Search for:
    function contextMenu(strID, evt, fromFind) {
    Replace with:
    function dirContextMenu(strID, evt, fromFind) {
```

```
Search for:
    strOut.append("' onclick=\"contextMenu('");
```

```
Replace with:
    strOut.append("' onclick=\"dirContextMenu('");
```

```
Search for:
    strOut.append("', event)\" oncontextmenu=\"contextMenu('");
```

```
Replace with:
    strOut.append("', event)\" oncontextmenu=\"dirContextMenu('");
```

```
Search for:
    strOut.append("' onclick=\"highLight = this.id;contextMenu('");
Replace with:
    strOut.append("' onclick=\"highLight = this.id;dirContextMenu('");
Search for:
    strOut.append("', event, true);\" oncontextmenu=\"highLight =
    this.id;contextMenu('");
Replace with:
    strOut.append("', event, true);\" oncontextmenu=\"highLight =
    this.id;dirContextMenu('");
```

More information

Firefox 8 was publicly released on 8th November 2011. A new feature was introduced for integration with the browser's HTML5 context menu.

The related release note from Mozilla's documents is Added support for HTML5 context menus. Full release notes for Firefox 8 are available here.

Migrating TIM Enterprise

Migrating TIM Enterprise to a new machine involves the following actions:

On the old machine

- Upgrading the old system to our latest version of software
- Back up the TIM Enterprise database

On the new machine

- Reinstall MySQL and restore the old database on the new system
- Reinstall TIM Enterprise on the new machine

Upgrading the TIM Enterprise to the latest version of software

Log in to our Gateway and click on the TIM Enterprise product. Select the Upgrade package from the Downloads area and save the file on your computer.

timenterprise	
Downloads	Software license View license certificate
Full install package TIM Enterprise	This product is licensed The license for this product is valid until 04 February 2014.
TIM Enterprise	Maintenance
Documentation Product documentation for your TIM Enterprise	This product is maintained You have maintenance until 03 December 2013, giving you full access to our technical support resources during this time.

When you have downloaded the setup package, double-click on it and follow the setup wizard in order to complete the installation.



Backing up the TIM Enterprise database

Log in to MySQL Administrator and backup the TIM Enterprise database following the on-screen instructions.

Server Information Service Control Startup Variables User Administration Server Connections Health Server Logs Replication Status Backup Replication Status Backup Project Define the name and content of the backup General Project Name: backup 01092013 Name for this backup project. General Project Name: backup 01092013 Name for this backup project. Server Logs Replication Status Backup Project Server Catalogs Backup Projects Project Server Name for this backup project. Backup Projects Project Server Name for this backup project. Backup Projects Project Server Name for this backup project. Backup Projects Project Server Name for this backup project. Backup Projects Project Server Project Server	MySQL Administrator - Connection File Edit View Tools Window					
	Server Information Service Control Startup Variables User Administration Server Connections Health Server Logs Replication Status Seckup Restore Catalogs Backup Projects	Backup Project Advanced Op Backup Project Define the name and co General Project Name: backu Schemata	ontent of th p 01092013	Name for t Backup Content Data directory □ ♥	Obje Rows MyIS 0 MyIS 1 MyIS 0 MyIS 0 MyIS 0 CSV 2 MyIS 38 MyIS 453 MyIS 993	Data 0 880 E 0 0 0 220 892 893
New Project Save Project Execute Backup Now					My15 505	
		Net	w Project	Save Project	Execute Ba	ckup Now

When the backup procedure is completed, transfer the file on the machine you want to migrate the software.

Reinstall MySQL and restore the old database on the new system

MySQL installation

Visit http://www.mysql.com and download the following packages:

- mysql-5.5.16-win32.msi
- mysql-connector-odbc-3.51.29-win32.msi
- mysql-gui-tools-5.0-r17-win32.msi

Follow the setup instruction to install MySQL ODBC connector and MySQL GUI tools.

For the MySQL server installation, perform the steps below:

1. Click on the setup package and follow the on-screen instructions. When prompted to choose the type of setup, click on the

Typical button, as shown below:

Custom	ur needs
<u>Ivpical</u> Installs the most common progra <u>Cu</u> stom Allows users to choose which pr	
Installs the most common progra	am features. Recommended for most users.
Custom Allows users to choose which pr	am features. Recommended for most users.
Allows users to choose which pr	
	ogram features will be installed and where nded for advanced users.
Complete	
All program features will be insta	alled. Requires the most disk space.

- 2. Continue to follow the wizard's steps and, when prompted, tick the Launch the MySQL Instance Configuration Wizard bo
 - x. Click on the Finish button, as shown below;

🔂 MySQL Server 5.5 Setup	
	Completed the MySQL Server 5.5 Setup Wizard Click the Finish button to exit the Setup Wizard.
MySQL	Launch the MySQL Instance Configuration Wizard Back Finish Cancel

3. The MySQL configuration setup wizard will start automatically. Configure the instance to run as a server machine and the database usage type must be set to Non-Transactional Database only.

QL Server In:				
ySQL Server 1	instance Configuratio	n		
Configure the N	lySQL Server 5.5 server i	instance.		
Please select a	server type. This will influ	ience memory, d	isk and CPU usage.	
C Developer	Machine			
	This is a development ma run on it. MySQL Server memory.			
• Server Ma	chine			
	Several server application this option for web/appli memory usage.			
C Dedicated	MySQL Server Machin	ne		
0	This machine is dedicate other servers, such as a utilize up to all available	web or mail serv	Control of the second state of the second	
		< Back	Next >	Cancel
		< Back	Next >	Cancel
6QL Ser v er In	stance Configuration		Next >	Cancel
	stance Configuration	Wizard	Next >	Cancel
1ySQL Server	_	Wizard m	Next >	Cancel
1y5QL Server Configure the I	Instance Configuratio	Wizard m	Next >	Cancel
1ySQL Server Configure the I Please select t	Instance Configuration	Wizard m	Next >	Cancel
1ySQL Server Configure the I Please select t	Instance Configuration MySQL Server 5.5 server ne database usage.	Wizard instance. ases. This will opt	imize the server for	the use
1ySQL Server Configure the I Please select the Multifunct	Instance Configuration MySQL Server 5.5 server The database usage. ional Database General purpose databa of the fast transactiona	Wizard instance. ases. This will opt	imize the server for	the use
1ySQL Server Configure the I Please select the Multifunct	Instance Configuration MySQL Server 5.5 server the database usage. ional Database General purpose database of the fast transactiona MyISAM storage engine	Wizard instance. ases. This will opt I InnoDB storage n servers and tra te main storage e	imize the server for engine and the high ansactional web app	the use h speed
1ySQL Server Configure the I Please select the Multifunct	Instance Configuration MySQL Server 5.5 server the database usage. ional Database General purpose database of the fast transactiona MyISAM storage engine conal Database Only Optimized for application This will make InnoDB th MyISAM engine can still	Wizard instance, ases. This will opt I InnoDB storage n servers and tra te main storage of be used.	imize the server for engine and the high ansactional web app	the use h speed
1ySQL Server Configure the I Please select the Multifunct	Instance Configuration MySQL Server 5.5 server the database usage. ional Database General purpose database of the fast transactiona MyISAM storage engine onal Database Only Optimized for application This will make InnoDB th	Wizard m instance. ases. This will opt l InnoDB storage in servers and tra- te main storage of be used. Ily oplications, monit rams. Only the n	imize the server for engine and the hig ensactional web app engine. Note that th	the use h speed lications. e

4. When prompted to create a password for the root account, enter tntnet.

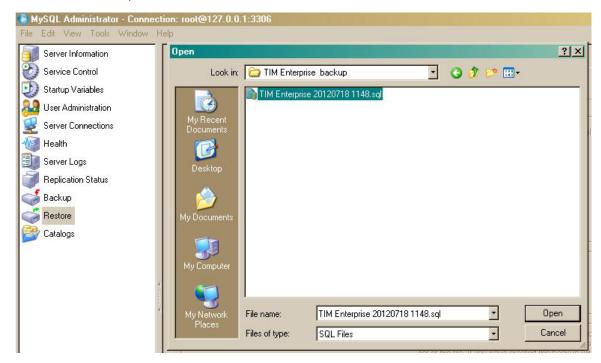
Please set	the security options.		
Modify	Security Settings		
	New root password:	*****	Enter the root password.
root	Confirm:	*****	Retype the password.
		🗖 Enable roo	ot access from remote machines
Create	An Anonymous Account		
_	This option will create ar	n anonymous acci	ount on this server. Please

- 5. Click on the Next button and follow the rest of the steps in order to finish the configuration setup.
- 6. Once the installation process is complete, log in to the MySql Administrator application and create a new database user for the

TIM Enterprise system.

Restore the old database on the new system

To restore the old database, log in to MySQL Administrator and click on the Restore tab. Select the backup file you have transferred across from the old computer and follow the on-screen instructions to restore the file.



Reinstall TIM Enterprise on the new machine

Log in to our Gateway and click on the TIM Enterprise product. Select the Full install package from the Downloads area and save the file on your computer.

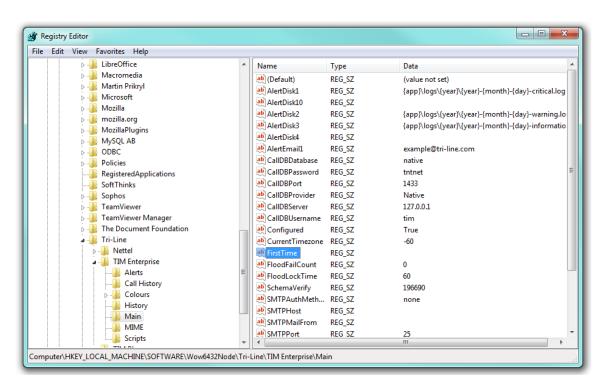
timenterprise	
Downloads	Software license View license certificate
Full install package	This product is licensed The license for this product is valid until 04 February 2014.
TIM Enterprise	Maintenance
Documentation Product documentation for your TIM Enterprise	This product is maintained You have maintenance until 03 December 2013, giving you full access to our technical support resources during this time.

To install TIM Enterprise, double-click on the setup package and follow the on-screen instructions. After installation, the First-time setup wizard screen will open automatically in a new web browser window.

irst-time setup wizard	Progress 123456
timenterprise	
This wizard walks you through the initial steps required to i TIM Enterprise on your server.	install
You will need the following information in order to complete th • Details of the type of database server you want to use storage • Your e-mail server settings, including its location and log • A working internet connection to obtain a license	for
Please note that any settings you provide during this wizard o changed after installation.	can be
When you are ready to start the wizard, click the Begin buttor	n below.
с 	
	Begin

HKEY_LOCALMACHINE\Software\Tri-Line\TIM Enterprise\Main

8

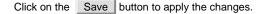


Start the TIM Enterprise service and log in to its web interface as a root user.

At this stage of the process you will be asked to provide a license key for the new installation. Copy the product key into a text file and email it to our Technical Support team.

When the license has been updated successfully, click on the TIM Enterprise logo to access the system settings and connect TIM Enterprise to the restored database, by entering the required details. Click on the Test settings button to verify the connection.

tim enterprise)		Engineering	Dire	ctory	Call View	SQL	Tariff E	Editor	Alert
System settings	i				🧳 R	efresh settin	gs cache		Save setting
Database	Create tables	st settings	Alert	s					
Enter connection informat	ion of database storage engine		Enter lo	ging opt	tions for each type	of alert			
Database provider	Native Database		Туре	Log	Email address				
Database provider	Microsoft SQL Server	<u>^</u>	8	V	example@tri-1	line.com			
	MySQL Server	-		V					
Host : Port	127.0.0.1	3306	•	v					
Username	root								
Password	•••••		</td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
			$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $						
Database	timenterprise			log loc					
			C:\Prog	ram Files	(x86)\Tri-Line\TI	M Enterprise \	logs\		



Re-running data

Follow the steps below to re-run data in TIM Enterprise:

1. Locate the backup files you want to re-run data for and copy them to a separate folder onto the Desktop. By default, the backup files are stored in the following location:

{Program	Files}\Tri-Line\TIM	Enterprise\backup
()		FFR_ (a a a a a a

- 2. Log in to TIM Enterprise as a root user and click on the ${\tt SQL}$ tab.
- 3. To check the datasource for the PBX object you want to delete calls for, enter the following query:

SELECT name, fullkey	from dir	where t	cype = 'p	bx';		
timenterprise	Engineering	Directory	Call View	SQL	Tariff Editor	Alerts
Query 1 New						
					ر	Run query
select name, fyllkey, from dir where type = 'gby';						.:
The query returned 2 rows			E allura a			
Name Avaya IP Office			FullKey \43\2\			
DrayTek			\73\			

4. To delete calls for a specific PBX object and time period, enter the following query:

Delete from calls						
where datasource = $ 43\rangle_2$						
and						
datetime between '2013-01-01 00:00:00' AND '2013-02-01 00:00:00';						

The datasource and datetime values must be modified accordingly, in order to match your requirements for the time period and the PBX you want to delete calls for.

5. The query should return the message No results set, confirming the selected calls have been deleted.

tim enterprise)	Engineering	Directory	Call View	SQL	Tariff Editor	Alerts
Query 1 New						
						🛠 Run query
Delete from calls where datasource = '43\2\' and datetime between '2013-01-01 00:00:00' AND '2013-02-0	1 00:00:00';					.:
The query returned 0 rows						
No results set						×

6. To re-run the data back in the system, copy the backup files you have previously copied on the Desktop and paste them into the following location:

{Program Files}\Tri-Line\TIM Enterprise\spool

7. While the system is processing the data, you can monitor the Call view screen to see the calls that are being logged.

The time to re-spool the data will vary, depending on the amount and size of the files your system is processing.

Security hardening

A



Introduction

The default security settings of TIM Enterprise allow for ease of installation and are suitable for the needs of most organisations. However, if your organisation's IT security policy demands it, or you plan to expose the system to an untrusted network such as the Internet, it is

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recommended you harden the security using the methods described below.

After changing any of the following settings, you will need to restart the TIM Enterprise service for the changes to take effect.

Blocking invalid login attempts

The system can blacklist the source IP address of a would-be attacker if a number of unsuccessful access attempts are made within a specified period of time. The following two Registry entries determine how many invalid login attempts are permissible before the source IP is blacklisted and, if so, for how long the blacklist will remain in place until further attempts are entertained:

Registry String data value	Description
<pre>FloodFailCount = 0</pre>	Number of attempts
FloodLockTime = 60	Lockout duration

All Registry keys for TIM Enterprise are located in the following hive:

HKEY_LOCAL_MACHINE\SOFTWARE\Tri-Line\TIM Enterprise

Changing the default web server port

If you would like to change the default port used for web traffic, you can edit the WWWServerPort Registry key.

Registry String data value	Description
WWWServerPort = port number	Port address for webserver to listen on (Default is 80, unless changed during setup)

Enabling High Security mode

To enable High Security mode, add the following Registry String value:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Tri-Line\TIM Enterprise\Main\HighSecurity =
"True"
```

Within the Windows Registry, right click and select New -> String Value and name it HighSecurity.

Next, double-click on it and enter the Value of **True**, as shown below:

Edit String	×
Value name:	
HighSecurity	
Value data:	
True	
	OK Cancel

When the HighSecurity Registry value is set to True, the following restrictions are imposed:

1. Ability to block individual web scripts by including them in a blacklist file:

"\ssldata\{class}\blacklist.___"

- 2. Enforce password complexity for web users (additional Registry entries required)
- 3. Forbid direct SQL queries through web interface
- 4. System alert messages are silently suppressed
- 5. System database connection tests forbidden
- 6. Ability to (re)create system database tables inhibited
- 7. Cannot change or test web (HTTP) port
- 8. Cannot send test emails
- 9. Debug information suppressed if a XSL translation error occurs

Web interface protocols

The default behaviour is to allow all protocols TLS1, SSL2 and SSL3.

You can change the type of connection that TIM will respond to, by adding the Registry String Value WWWSSLProtocol.

Note that this is a case-insensitive string value with one of the following data values:

Registry String data value	Description
nossl	No SSL protocols, behave like a standard HTTP server
ssl23	SSL2 and SSL3 protocols only
ssl2	SSL2 protocol only
ssl3	SSL3 protocol only
tlsl	TLS1 protocol only

Password complexity

You can configure TIM Enterprise web users with complex passwords to match your organisation's IT password policy.

To enable complex passwords, a Registry String Value PasswordComplexity must be added.

The use of the following data string values, allows you to configure how complex the passwords are:

```
"A"+{0-9}+"a"+{0-9}+"!"+{0-9}+"#"+{0-9}
```

Each part of the complexity string is defined by a pair of characters, a single character denoting the type of policy, immediately followed by a numeric character (0-9) stipulating how many characters of that type are required to satisfy the password policy.

The Type characters are as follows:

- A: Upper- or lower-case characters
- a: Lower-case characters
- I: Symbol characters
- #: Numeric characters

For example, to impose a restriction of at least 6 characters with two numbers, the following Registry entry could be used:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Tri-Line\TIM
Enterprise\Main\PasswordComplexity = "A6a0!0#2"
```

The value of **PasswordComplexity** must always be 8 characters, otherwise the policy will not be implemented. The order of each Type pair (Type character and amount character) is not important.

Automatic expiry of web user passwords

You can force Web users to change the password after a predetermined age has been set. Note that this is a system wide setting.

The server running TIM Enterprise will email the web user advising that a password change is required. The web user must have an email address configured, for notification to take place.

If the password is not changed by the expiry date, the account is automatically disabled.

Registry String data value	Description
PasswordExpiryTimeUnits	Determines the time units that the related expiry entries (below) will use. Valid values are minutes, hours, days, weekdays
PasswordExpiryReminder	A value, in the units described by the PasswordExpiryTimeUnits entry, after which an email is sent to the web user to remind them to change their password.
PasswordExpiryDisable	A value, in the units described by the PasswordExpiryTimeUnits entry, which specifies how long after the reminder email (above) is sent, that a web user's account will be disabled if it hasn't been updated.

Default values for the above settings are as follows:

- PasswordExpiryTimeUnits = "days"
- PasswordExpiryReminder = "7"
- PasswordExpiryDisable = "7"

Therefore, using the default settings, a web user will receive an email reminder after 7 days and the account will be disabled after 14 days.

If the **PasswordExpiryReminder** value is zero then password reminder functionality is disabled and neither a reminder email will be sent, nor will a web user's account be disabled. Since this value has a default of "7", this value must be explicitly set to zero to disable password

reminder functionality.

If the PasswordExpiryDisable value is explicitly set to zero, the disabling of a web user's account is skipped.

Registry String data value	Description
PasswordReminderSubject	"Password reset notification"
PasswordReminderMessage	"Your password to access the [%productname%] service will expire in <%expiryamount%> <%expiryunits%>.\r\n You should log in to the service before <%expirydate%> to reset your password, otherwise your account will be disabled"

The following <%%> variables are permissible in both the subject and the body text of the reminder email message:

<%%> variable	Description	
<%product%>	The name of the product, e.g. TIM Enterprise	
<%expiryunits%>	The value of PasswordExpiryTimeUnits	
<%expirydate%>	A computed date of the above values relative to the date that the email was sent at, in local date/time format.	

VAT rate adjustment

VAT rate adjustment

- Introduction
- Changing Web format
- Changing PDF format

Introduction

Every report in TIM Enterprise can be fully customised, from how they perform their calculations to the way they appear.

To amend a report, you need to edit its associated XSL or PDF script file, paying attention to the class of web user whose content you want to change, and which report format.

This document details how to change the tax rate in the Phone Bill report in both Web and PDF formats, for any web user with a class of A dministrator.

Every report has a unique ID number which the system uses to identify the report type (the report ID for a Phone Bill report is 2)

Changing Web format

Open the following file in a plain text editor such as Notepad:

```
{Program Files}\Tri-Line\TIM Enterprise\ssldata\_admin\scripts\web\2.xs
```

Look in the first few lines of code for the VAT amount, then change it to the new amount, respecting the decimal point and number of decimal places:

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Tran
<xsl:output media-type="text/html" encoding="UTF-8" method="html" />
<!-- Phone bill -->
<xsl:variable name="vat">20.0</xsl:variable>
<xsl:variable name="vat">20.0</xsl:variable>
<xsl:include href="all.xsl" />
<xsl:template match="report">
</title>
```

Save the file and run a new Phone Bill report in Web format to verify whether the amount has changed. If it hasn't then you may be running the report as a web user with a different web class than Administrator; in which case, modify the file in the path specified above, but choose the appropriate folder other than _admin.

Changing PDF format

Again, in a plain text editor such as Notepad, edit the following file:

You'll notice that this is a Javascript file, and that it is located in the \pdf\ folder of the \scripts\ folder.

```
{Program Files}\Tri-Line\TIM Enterprise\ssldata\_admin\scripts\pdf\2.js
```

i.....

Search for the following line (the value shown below may be different on your system):

var _vat = 20.0;

Change the value to the new amount, then save the file.

Run a new Phone Bill report in PDF format to verify that the amount has changed.

Glossary

Abandoned/missed call

A call in which the call originator disconnects or cancels the call after a connection has been made, but before the call is established.

Conference call

A service feature that allows a call to be established among three or more stations in such a manner that each of the stations is able to communicate with all the other stations.

CLI

Calling Line Identification (CLI) is the telephone number of the remote caller in an incoming call scenario. This feature permits the recipient of an incoming call to determine, even before answering, the number from which the incoming call is being placed.

Dialled number

The dialled number is defined as the number that is dialled (in the case of an outbound call), or the DDI number that the remote party dialled to reach a particular extension or group (in the case of an inbound call).

Destination

The destination of a call specifies where the call terminated. The destination will display different information for each type of call:

Call type	Information displayed	
Incoming calls	The name of the user whose extension answered the call, or the extension number if not available;	
Outgoing calls	The network or geographical location that was dialled, or an alias if defined in your contacts list;	
Internal calls	The extension that was dialled, enclosed in square brackets [].	

Destination name

The name of the destination called, e.g. Manchester, Tri-Line, London.

Destination ID

The ID of the destination called.

Feature call

A feature call is a special type of call that a user dials in order to obtain a specific PBX feature, such as voicemail enable/disable, group pick up, etc.

Internal call

A call placed within a private branch exchange (PBX) or local switchboard, e.g. not through a central office in a public switched network.

Operators

Operator	Description		
Equals	The Property of a call matches the value entered. In the example below, the filter monitors calls whose destination is Germany .		
	The stination Is Equals Germany		
Does not equal	The Property of a call does not match the value entered. In the example below, the filter monitors calls whose LCI is not 1470.		
	Image: CR Image: Does not equal 1470		
Begins with	The Property of a call begins with a particular combination of characters. In the example below, the filter monitors calls whose dialled number begins with 0207.		
	Image: Dialled number Image: Begins with 0207		

Does not begin with	The Property of a call does not begin with a particular combination of characters In the example below, the filter monitors calls whose CLI does not begin with 0131.			
	7 Dialled number	LE Does not begin with	0131	
Ends with	The Property of a call ends with a particular combination of characters. In the example below, the filter monitors calls whose LCR code ends with 70.			
	V LCR code	Ends with	70	
Does not end with	The Property of a call does not end with a particular combination of characters. In the example below, the filte monitors calls whose trunk access code does not end with 44.			
	Trunk access code	12 Does not end with	44	
Contains	The Property of a call contains a particular combination of characters. In the example below, the filter m whose account code contains the digits 40.			
	V Destination	LE Contains	Smith	
Does not contain	The Property of a call does not end with a particular combination of characters. In the example below, the filter monitors calls whose chargeband does not contain UKNAT.			
	Y Chargeband	1± Does not contain	UKNAT	
Is greater than	The Property of a call is greater than a particular value. In the example below, the filter monitors calls who response time is greater than 10 seconds.		w, the filter monitors calls whose	
	Y Response time	Is greater than	10	
Is less than	The Property of a call is less than a p less than 30 seconds.	articular value. In the example below,	the filter monitors calls whose duration is	
	V Duration	Is less than	30	

Route

The route is the itinerary of a call from its source to its destination. The information displayed in this field is determined by the type of call:

Call type	Information displayed
Incoming calls	The CLI of the caller
Outgoing calls	The number that was dialled
Incoming internal calls	The caller's username or extension number

Tandem call

A tandem call is a connecting call in a telephone network, coming into a switch through one trunk and transferred out again through another.