

MITEL Call Accounting



General Information Guide

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Chapter 1

Overview

Overview

This guide provides an overview of Mitel® Call Accounting, an application that enables customers to log call activity and monitor and control telecommunications costs. Call Accounting is ideal for both general business and contact center operations.

Features covered in this guide:

- Call Accounting
 - Tracking call usage and costing
 - YourSite Explorer
 - Real-time Client
 - Reporting
 - Toll Fraud
 - Data Mining—SMDR Inspector
- Call Accounting Node
- Call Accounting Resiliency
- Subscriber Services
- Traffic Analysis
- PhoneSet Manager
- Screen Pop
- CTI Developer Toolkit (with server and client side components)
- Mitel Border Gateway Connector

Licensing

You license Call Accounting based on the total number of physical extensions in your enterprise on which you will generate reports. Your license reflects the maximum number of extensions on which you can generate reports.

Call Accounting is included in Contact Center Solutions Standard, Advanced, and Premium Starter Packs, but may be licensed separately.

To view details on your software licenses

Click **Help=>About your Mitel applications**.

To view details on your installed professional services

Click **Help=>About your Mitel applications=>Professional Services**.

Regional and language support

Mitel Call Accounting supports the following languages

- English
- Canadian French
- Brazilian Portuguese
- Dutch
- Chilean Spanish

Geographic support for Call Accounting is available in the following regions

- North America
- Latin America
- United Kingdom and Netherlands

Audience

This guide is intended for

- End customers
- Solution providers
- Sales executives
- Sales engineers

About the Call Accounting documentation

Further detailed and full technical specifications about Call Accounting and the various Mitel applications and integrations that can benefit a Call Accounting installation are available in the following documents.

Call Accounting information guides:

- *Call Accounting User Guide*: explains how to configure Call Accounting on your system, and provides detailed information about the Call Accounting features.
- *Call Accounting Installation Guide*: describes Call Accounting hardware and software requirements, explains how to install and configure the Enterprise Server components, details the Call Accounting set up, and explains how to program the necessary information on the Mitel 3300 ICP, SX-200 ICP, 5000, and Axxess.
- *Call Accounting Reports Guide*: describes Call Accounting and the Call Accounting Subscriber Services reports. The Reports Guide includes procedures to run the reports and descriptions of the reports.
- *Contact Center Solutions and Call Accounting Systems Engineering Guide*: describes Contact Center Solutions and Call Accounting system engineering requirements.

Other Mitel information guides:

- *Contact Center Solutions - General Information Guide*: provides an overview of the Contact Center Solutions suite.
- *3300 IP Communications Platform Resiliency Guidelines*: provides an overview of the requirements for deploying a resilient telephone system.

Chapter 2
Call Accounting

Introduction

This section provides an overview of Mitel Call Accounting and its features. For more information, refer to the following topics:

- Overview
- Features
 - Tracking of call usage and costs
 - Configuration—YourSite Explorer
 - Real-time Monitoring—Real-time Client
 - Reporting
 - Toll Fraud
 - Data Mining-SMDR Inspector
- Optional applications
- Virtualization

Overview

The purpose of Call Accounting is to enable businesses to manage call activity and call costs effectively. It provides call logging information through historical reports and real time monitors. Call Accounting is suitable for general business and contact center environments, Whether you are tracking call traffic and call costs, billing back departments and budgeting telecom expenses, or running a tenanting business where you need to charge back students or customers, Call Accounting provides the functionality for your needs.

Call Accounting is included with either a Contact Center Enterprise or Business Edition license (in supported regions only) or as a stand-alone license.

Features

Call Accounting out-of-the-box and optional features can be grouped as follows:

- Tracking call use and costing (see page 10)
- Configuration—YourSite Explorer (see page 11)
- Real-time Monitoring—Real-time Client (see page 12)
- Reporting (see page 14)
- Toll Fraud (see page 20)
- Data Mining—SMDR Inspector (see page 22)
- Call Accounting Node (see page 25)
- Resiliency (see page 33)
- Subscriber Services (see page 39)

- Traffic Analysis (see page 45)
- PhoneSet Manager (see page 51)
- Screen Pop (see page 57)
- CTI Developer Toolkit (see page 63)
- Mitel Border Gateway (see page 67)

Tracking call use and costing

Call Accounting ensures you have a true picture of how and where your business's telecommunications budget is being spent. You can use Call Accounting to track phone use, cost calls, reconcile carrier bills, and bill back departments.

Tracking phone use

Call Accounting enables you to track phone use and to determine

- The average and total duration of incoming and outgoing calls.
- The average and total cost of incoming and outgoing calls.
- The destination of outgoing call traffic.
- The call activity per employee or extension.
- The type of call, as determined by your YourSite Explorer configuration.
- The overall call activity for your business: find out when your phone system is being used most.
- Where most of your long-distance budget is being spent, and which employees are making the most and longest calls.

Costing calls

Call Accounting costs calls according to carrier plans, which you associate to trunk groups or media servers:

Outbound calls

Outbound calls are outgoing calls from your company. The rate charged per call is determined by the digits dialed. Rates are associated to digit patterns such as country codes, area codes, or specific phone numbers.

Inbound calls

Inbound calls are incoming calls to your company. You can set charge rates for your system using the Dialed Number Identification Service (DNIS), which is a feature of toll-free lines.

Internal calls

Internal calls are calls that do not interact with the public telephone system. You can cost internal calls on your own telephone system as you require.

Reconcile carrier bills

You can use Call Accounting to detect billing errors. By configuring Call Accounting to mimic your phone carrier's charges, you can detect discrepancies between your amounts and carrier amounts.

Bill back departments

Call Accounting enables you to bill departments in your company. You can use this feature to have departments cover their own calling costs. With the Subscriber Services addition, you can also add equipment leasing costs and other fixed charges.

Time slots

Use time slots to configure different rates for varying time periods. Using Call Accounting, you can determine a wide range of costing for different times of the day. For example, you can define discounted costing for mornings and evenings while retaining normal costs during business hours.

Configuration—YourSite Explorer

YourSite Explorer makes configuration of Call Accounting quick and easy, with features like

- Synchronization—read and write devices between the telephone system and YourSite database and validate essential telephone system programming
- Multi-selection and attribute changes of devices in one step
- Viewing group membership information on the same window as installed devices
- Viewing multiple windows of devices simultaneously and tabbing between them
- Editing inline with an extended grid
- Default configuration settings for North America, Latin America, United Kingdom, and the Netherlands.
- Import digit patterns using CSV import tool to quickly configure carrier plans, rates, and digit patterns.

When device associations to device groups are updated in YourSite Explorer (whether the device is renamed, added, or removed), users have their Contact Center Client real-time monitors automatically updated to reflect the edit in real time, without having to close and re-open the applications, delete devices from a list, or reselect devices or device group filters.

Figure 1 displays an example of the YourSite Explorer interface.

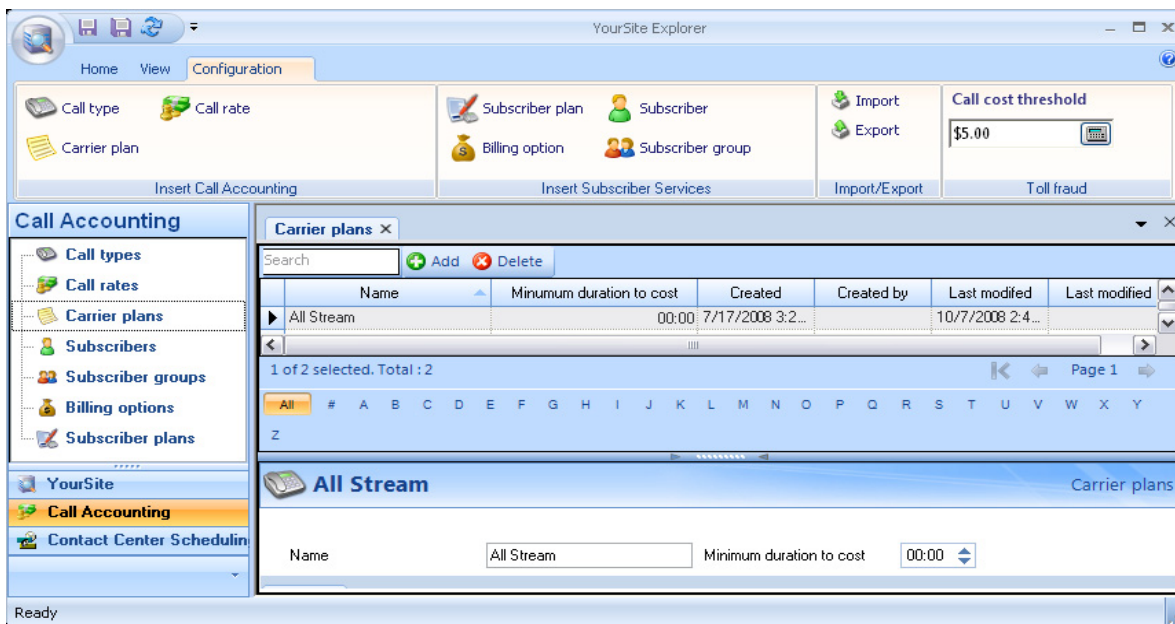


Figure 1: YourSite Explorer

Real-time Monitoring—Real-time Client

Real-time Client is the software application for client computers. You use Real-time Client to access extension monitors, view and clear alarms related to performance variables, access Real-time Chat and access PhoneSet Manager functions, if you have PhoneSet Manager installed. Figure 2 displays Real-time Client as it appears on the client computer.




Figure 2: Real-time Client

Real-time Client's main functions are:

- Real-time monitors
- Management console
- PhoneSet manager controls (when PhoneSet Manager is installed)

Real-time monitors

 **NOTE:** The Call Notes monitor only works with PhoneSet Manager installed.

When used with the Mitel 3300 ICP telephone system, Call Accounting can provide real-time information through Real-time Client to enable real-time monitoring. Real-time monitoring enables you to view the state of extensions, view call notes for transferred calls, and view the state of your network.

Real-time Client enables you to use the following real-time monitors

- Extension monitor
- Call Notes monitor
- Network monitor

Extension monitor

The extension monitor enables you to view the current activity of extensions within your business. Using the extension monitor, you can see if an extension is available, on a call, or unavailable. Real-time extension monitors display the general business activity of extensions including caller ID, Busy Lamp Field (BLF), call costing, and real-time alarming. Figure 3 displays an example of an extension monitor.

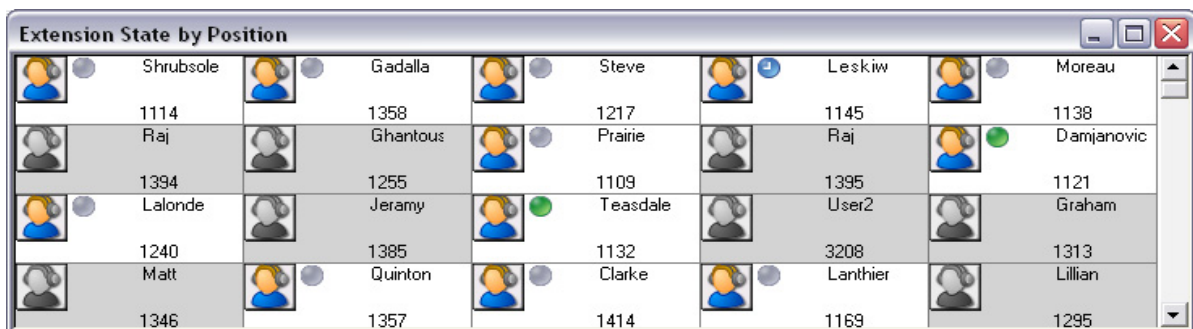


Figure 3: Extension State by Position real-time monitor

Call Notes

Call Notes enable employees to add notes to calls in progress. When a call is transferred to another extension, the PhoneSet manager pop-up will display the most recent notes associated with the call. When another employee answers the call, Real-time Client appears on top of all other open applications and displays the Call Notes Monitor. The monitor includes all notes associated with the current call.

Network monitor



NOTE: You must have administrator access to view the Network monitor.

The Network Monitor enables you to see critical and warning alarms. Critical alarms warn you of errors related to data collection, low disk space, or other situations that may cause the Call Accounting server to function unreliably. Warning Alarms warn you of non-critical issues such as license violations and duplicate record creation.

Management Console

The Management Console application resides in Real-time Client. Using Management Console, you can perform various Call Accounting administrative functions. These functions include:

- Configuration
 - Update the Server IP address
 - Import configuration data
- Maintenance
 - Start the Call Accounting maintenance routine
 - Summarize system data — upload telephone system data to the SQL database
- Support
 - Create a support package — create an information package to aid prairieFyre in providing the support you require
 - View contact information — provide contact details to prairieFyre to receive support
- System
 - Control services — enables access to all Call Accounting services and mandatory system services
 - Convert data files — enables you to convert historical data from competitor products to prairieFyre data, ensuring you do not lose historical data during a product transition

Reporting

Mitel Call Accounting Reporter and Scheduled Reports applications provide detailed telecommunication statistics. The applications provide over 110 reports that cover both specific, and user-defined date and time periods. With Reporter and Scheduled Reports you can both produce reports on demand or schedule them to run at a time of your choice. You can also automatically email reports to individual employees or to employee groups.

Report filtering features help you further define and customize your report data output. By defining filters, you can refine the information you want to see in reports. There are a variety of filters available, depending on the type of report being generated. Potential filters include:

- Call direction (incoming or outgoing)
- Account Code
- Phone number
- DNIS
- Extension
- Trunk
- Call duration
- Call cost
- Call type

Advanced options enable you to define additional variables, including report output language, render type (excel or PDF), and email distribution options.

The Call Accounting report types are:

- Lifecycle reports
- Account Code reports
- ANI reports
- Division reports
- DNIS reports
- Employee reports
- Enterprise reports
- Extension reports
- Phone Number reports
- Trunk reports

Lifecycle reports

Lifecycle reports provide detailed information on all events related to the life of a specific call, from the moment the call enters the telephone system to call termination. Filters enable you to define a range of devices and options that will be reported on in the Lifecycle report. Lifecycle reports also include call notes.

Lifecycle reports can generate information on DNIS and DNIS groups, voice extensions and voice extension groups, trunk and trunk groups, sites, and media servers. Figure 4 displays an example of a Lifecycle report.

Time: Feb 04, 2009 14:52:11 - Feb 04, 2009 14:52:28	Duration: 00:00:17	Call direction	Incoming	Number: 6135550045	Location	Kanata-stittsville,Ontario,Canada	Caller ID:
Call start time	Duration (hh:mm:ss)	Event type	Type of device	Reporting	Full Name	Comment	
Feb 04, 2009 14:52:11	00:00:09	Call transferred	Voice extension	1102	Mankal,H		
Feb 04, 2009 14:52:28	00:00:06	Call segment complete	Voice extension	2211	2211		
Time: Feb 04, 2009 15:02:29 - Feb 04, 2009 15:02:29	Duration: 00:00:00	Call direction	Incoming	Number: 1280	Location	Dial 0 Ans Pt.	Caller ID:
Call start time	Duration (hh:mm:ss)	Event type	Type of device	Reporting	Full Name	Comment	
Feb 04, 2009 15:02:29	00:00:05	Call segment complete	Voice extension	2211	2211		
Time: Feb 04, 2009 15:02:40 - Feb 04, 2009 15:03:01	Duration: 00:00:21	Call direction	Incoming	Number: 6135550045	Location	Kanata-stittsville,Ontario,Canada	Caller ID:
Call start time	Duration (hh:mm:ss)	Event type	Type of device	Reporting	Full Name	Comment	
Feb 04, 2009 15:02:40	00:00:08	Call transferred	Voice extension	1102	Mankal,H		
Feb 04, 2009 15:03:01	00:00:15	Call segment complete	Voice extension	2211	2211		
Time: Feb 05, 2009 12:48:34 - Feb 05, 2009 12:49:09	Duration: 00:00:35	Call direction	Incoming	Number: 6135555866	Location	Ottawa-hull,Ontario,Canada	Caller ID:
Call start time	Duration (hh:mm:ss)	Event type	Type of device	Reporting	Full Name	Comment	
Feb 05, 2009 12:48:34	00:00:09	Call transferred	Voice extension	1102	Mankal,H		
Feb 05, 2009 12:49:09	00:00:28	Call segment complete	Voice extension	2211	2211		
Time: Feb 05, 2009 12:50:17 - Feb 05, 2009 12:51:01	Duration: 00:00:44	Call direction	Incoming	Number: 6135555866	Location	Ottawa-hull,Ontario,Canada	Caller ID:
Call start time	Duration (hh:mm:ss)	Event type	Type of device	Reporting	Full Name	Comment	
Feb 05, 2009 12:50:17	00:00:08	Call transferred	Voice extension	1102	Mankal,H		
Feb 05, 2009 12:51:01	00:00:40	Call segment complete	Voice extension	2211	2211		
Time: Feb 05, 2009 13:11:29 - Feb 05, 2009 13:11:29	Duration: 00:00:00	Call direction	Incoming	Number: 1334	Location	Dallas,TX	Caller ID:
Call start time	Duration (hh:mm:ss)	Event type	Type of device	Reporting	Full Name	Comment	
Feb 05, 2009 13:11:29	00:00:45	Call segment complete	Voice extension	2211	2211		

Figure 4: Lifecycle Report example

Carrier Reports

Carrier reports are generated with the SMDR information collected from the calls in your enterprise. The carrier plans you configure in YourSite Explorer determine the call costs shown in carrier reports, and provide you with the flexibility to determine how you view costs.

The individual carrier report types you can access in Call Accounting are listed below. An example of each report is also provided.

Account Code reports

Account Code reports provide an indication of call activity and associated costs incurred by account code. Figure 5 is an example of the Account Code Accounting by Account Code report.

Reporting	Full Name	Total calls	Total cost	Total duration (hh:mm:ss)	Average cost	Average duration (hh:mm:ss)
98836	T., Gloria	0	\$0.00	00:00:00	\$0.00	00:00:00
98880	Tutors	2	\$0.18	00:02:00	\$0.09	00:01:00
99092	Garage	20	\$13.07	02:20:12	\$0.65	00:07:01
99169	Test Local	69	\$14.78	02:43:34	\$0.21	00:02:22
99199	M., Maria	0	\$0.00	00:00:00	\$0.00	00:00:00
99427	Office Fax	11	\$0.69	00:08:39	\$0.06	00:00:47
99955	Front Lobby	0	\$0.00	00:00:00	\$0.00	00:00:00
Total		5591	\$1,300.66	182:56:13	\$0.23	00:01:58

Figure 5: Account Code Accounting by Account Code report

ANI reports

ANI reports provide an indication of call activity and call cost by ANI. Figure 6 is an example of the ANI Accounting by Interval report.

Activity Period	Total calls	Duration (hh:mm:ss)	Total cost	Incoming calls	Incoming duration (hh:mm:ss)	Incoming costs	Outgoing calls	Outgoing duration (hh:mm:ss)	Outgoing costs
15:00	8	00:15:41	\$0.00	8	00:15:41	\$0.00	0	00:00:00	\$0.00
15:15	11	00:55:21	\$0.00	11	00:55:21	\$0.00	0	00:00:00	\$0.00
15:30	7	00:31:19	\$0.00	7	00:31:19	\$0.00	0	00:00:00	\$0.00
15:45	15	00:46:44	\$0.00	15	00:46:44	\$0.00	0	00:00:00	\$0.00
16:00	3	00:45:49	\$0.00	3	00:45:49	\$0.00	0	00:00:00	\$0.00
16:15	2	00:05:38	\$0.00	2	00:05:38	\$0.00	0	00:00:00	\$0.00
16:30	3	00:00:25	\$0.00	3	00:00:25	\$0.00	0	00:00:00	\$0.00
16:45	3	00:15:23	\$0.00	3	00:15:23	\$0.00	0	00:00:00	\$0.00
17:00	0	00:00:00	\$0.00	0	00:00:00	\$0.00	0	00:00:00	\$0.00
370 20:52:52 \$0.00 370 20:52:52 \$0.00 0 00:00:00 \$0.00									

Figure 6: ANI Accounting by Interval report

Division reports

Division reports provide an indication of call activity and call cost by employee division or extension division. Employee divisions are groups of employee groups and extension divisions are groups of divisions. Figure 7 is an example of an Extension Accounting by Division Group report.

Reporting	Full Name	Total calls	Total cost	Total duration (hh:mm:ss)	Average cost	Average duration (hh:mm:ss)
88	3Sales	78	\$20.09	05:00:06	\$0.26	00:03:51
99	3CS	40	\$12.33	04:26:46	\$0.31	00:06:40
Total		118	\$32.42	09:26:52	\$0.27	00:04:48

Figure 7: Extension Accounting by Division Group report

DNIS reports

DNIS reports record call activity and call costs for DNIS numbers. Figure 8 is an example of a DNIS Group Accounting by DNIS by Call Type report.

Reporting	Full Name	Call type	Total calls	Cost	Duration (hh:mm:ss)	Average duration (hh:mm:ss)
8102	Trunk 8102	Inbound Call Type	155	\$0.00	11:55:28	00:04:37
		SubTotal	155	\$0.00	11:55:28	00:04:37
8103	Trunk 8103	Inbound Call Type	98	\$0.00	06:55:34	00:04:14
		SubTotal	98	\$0.00	06:55:34	00:04:14
8104	Trunk 8104	Inbound Call Type	79	\$0.00	06:03:18	00:04:36
		SubTotal	79	\$0.00	06:03:18	00:04:36
Total			596	\$0.00	49:47:15	00:05:01

Figure 8: DNIS Group Accounting by DNIS by Call Type

Employee reports

Employee reports can be generated on individual employees or employee groups. The employee reports provide an indication of call activity and call cost by employee. Figure 9 is an example of an Employee Accounting Summary report.

Call type	Total calls	Total cost	Total duration (hh:mm:ss)	Average cost	Average duration (hh:mm:ss)
Outbound Call Type	20	\$6.24	01:19:45	\$0.31	00:03:59
International outbound	9	\$0.45	00:29:22	\$0.05	00:03:16
Internal	4	\$0.44	00:05:14	\$0.11	00:01:18
Inbound Call Type	3	\$0.00	00:11:26	\$0.00	00:03:49
Total	36	\$7.13	02:05:47	\$0.20	00:03:30

Figure 9: Employee Accounting Summary

Enterprise reports

Enterprise reports enable you to track patterns in usage and manage call flows across sites. These reports provide a broad overview of enterprise level activities and costs by media server, toll fraud, and call trace reports. Enterprise reports incorporate data from multiple telephone systems to enable you to view the “big picture”. Figure 10 is an example of a Site Accounting Toll Fraud report.

Call start time	Extension	Full Name	Phone Number	Location/Name	Call type	Fraud Type	Duration (hh:mm:ss)	Cost
2/20/2008 10:07:55 AM	1130	M., Bumett	6135552122	Kanata-stittsville, Ontario, Canada	Outbound Call Type	Cost of call above the maximum defined cost	01:09:38	\$6.27
2/21/2008 8:58:23 AM	1105	N., Letourneau	6135552122	Kanata-stittsville, Ontario, Canada	Outbound Call Type	Cost of call above the maximum defined cost	02:00:22	\$10.84
2/21/2008 10:00:56 AM	1142	K., Roper	6135552122	Kanata-stittsville, Ontario, Canada	Outbound Call Type	Cost of call above the maximum defined cost	01:11:27	\$6.44
2/21/2008 10:01:16 AM	1164	J., Smith	6135552122	Kanata-stittsville, Ontario, Canada	Outbound Call Type	Cost of call above the maximum defined cost	01:26:58	\$7.83
2/28/2008 4:33:39 PM	1164	J., Smith	6135552122	Kanata-stittsville, Ontario, Canada	Outbound Call Type	Cost of call above the maximum defined cost	01:19:21	\$7.15
							81:11:38	\$428.00

Figure 10: Site Accounting Toll Fraud report

Extension reports

Extension reports can be generated on both individual extensions and extension groups. They provide an indication of call activity and call costs by extension. Figure 11 is an example of an Extension Group Accounting by Extension by Call Type report.

Reportin	Full Name	Call type	Total calls	Cost	Duration (hh:mm:ss)	Average duration (hh:mm:ss)
1278	White, B.	Inbound Call Type	26	\$0.00	02:31:01	00:05:48
		International outbound	7	\$1.34	00:33:20	00:04:46
		Internal	52	\$8.59	02:59:18	00:03:27
		Outbound Call Type	40	\$15.23	02:58:16	00:04:27
		Sub Total	125	\$25.16	09:01:55	00:04:20
1314	Daly, H.	Inbound Call Type	21	\$0.00	02:02:33	00:05:50
		Internal	5	\$0.34	00:04:43	00:00:57
		Outbound Call Type	37	\$7.68	01:34:56	00:02:34
		Sub Total	63	\$8.02	03:42:12	00:03:32
Total			2555	\$495.00	154:38:17	00:03:38

Figure 11: Extension Group Accounting by Extension by Call Type report

Phone Number reports

Phone Number reports provide an indication of call activity and call cost by phone number. Figure 12 is an example of a Phone Number Accounting Trace report.

	Phone number name/location	Call start time	Calling	Called	Call type	Duration (hh:mm:ss)	Cost
6135552122	ABC Software inc	11/15/2006 10:36:00 AM			Local outbound	00:27:18	0.00
6135552122	ABC Software inc	11/15/2006 12:52:00 PM	2008		Local outbound	00:02:20	0.00
6135552122	ABC Software inc	11/16/2006 8:14:00 AM	2008		Local outbound	00:01:42	0.00
6135552122	ABC Software inc	11/16/2006 10:01:00 AM	Trunk 810		Local inbound	00:00:26	0.00
6135552122	ABC Software inc	11/20/2006 11:30:00 AM	2008		Local outbound	00:02:46	0.00
6135552122	ABC Software inc	11/21/2006 8:40:00 AM	Trunk 810		Local inbound	00:00:17	0.00
6135552122	ABC Software inc	11/22/2006 10:32:00 AM			Local outbound	00:26:50	0.00
6135552122	ABC Software inc	11/23/2006 10:45:00 AM	2008		Local outbound	00:00:36	0.00
6135552122	ABC Software inc	11/23/2006 10:46:00 AM	2008		Local outbound	00:04:28	0.00
Total	--		--	--	--	01:06:43	0.00

Figure 12: Phone Number Accounting Trace report

Trunk reports

Trunk reports can be generated on both individual trunks and trunk groups. They provide an indication of call activity and call cost by trunk. Figure 13 is an example of a Trunk Accounting Trace report.

Call start time	Phone Number	Location/Name	Call type	Call rate	Duration (hh:mm:ss)	Cost	Trunk	DNIS number	Account Code	Third party	Third party device type	Caller ID
2/4/2008 4:58:37 PM			Inbound Call Type	Toll Free	00:08:48	\$0.00	8104	7777				
2/4/2008 5:17:34 PM			Inbound Call Type	Toll Free	00:00:10	\$0.00	8104	7777		70		
2/5/2008 3:58:08 AM			Inbound Call Type	Toll Free	00:03:53	\$0.00	8104	7777				
2/5/2008 10:03:26 AM			Inbound Call Type	Toll Free	00:00:20	\$0.00	8104	7777		1145	Voice extensior	H2 PHARMA
2/7/2008 9:50:57 AM			Inbound Call Type	Toll Free	00:00:30	\$0.00	8104	7777				
2/7/2008 3:53:23 AM			Inbound Call Type	Toll Free	00:00:18	\$0.00	8104	7777		2068	Agent	
2/7/2008 4:02:16 PM			Inbound Call Type	Toll Free	00:00:53	\$0.00	8104	7777				
2/7/2008 4:04:52 PM			Inbound Call Type	Toll Free	00:00:20	\$0.00	8104	7777		1108	Voice extension	
2/8/2008 10:14:30 AM			Inbound Call Type	Toll Free	00:02:00	\$0.00	8104	7777				
2/8/2008 11:14:15 AM			Inbound Call Type	Toll Free	00:02:18	\$0.00	8104	7777				SOUTHEASTERN
					02:43:41	\$0.00						

Figure 13: Trunk Accounting Trace report

Toll fraud

Toll Fraud refers to the misuse of a telephone system. Using Call Accounting, you define what your company considers to be toll fraud. You can specify toll fraud as specific digit patterns, internal calls, or calls that cost more than a set rate.

You can also use real time alarming with Toll Fraud to detect calls that are flagged as toll fraud as they occur, enabling instant action on calls of this nature. You can receive alarms through Real-time Client or by email.

Using Call Accounting, you can configure toll fraud for:

- Digit Patterns
- Call cost thresholds

Digit patterns

When adding digit patterns to Call Accounting through YourSite Explorer using carrier plans, you can define specific patterns as toll fraud. Toll fraud digit patterns to consider include:

- Toll charge numbers, such as 1-900.
- Calls to specific countries.
- Calls to specific cities or areas.
- Calls to individual companies or homes.

Figure 14 displays the digit pattern toll fraud option in YourSite Explorer.

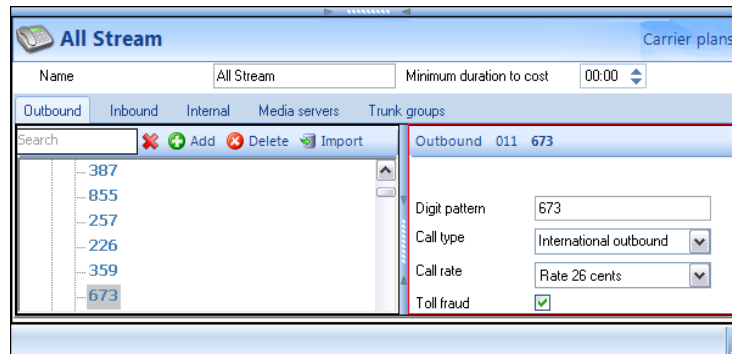


Figure 14: Digit pattern toll fraud option

Call cost thresholds

You can configure Call Accounting to report on calls that cost more than a pre-defined rate. For example, if you mark calls over \$10 as toll fraud, then all calls \$10.01 and greater will be listed as toll fraud in reports. Figure 15 displays the call cost threshold for defining toll fraud in YourSite Explorer.

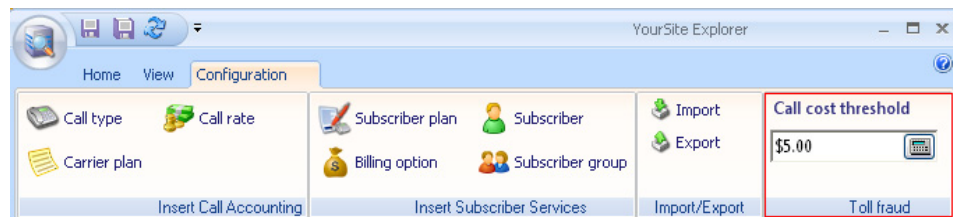


Figure 15: Call cost threshold toll fraud option

Data Mining—SMDR Inspector

SMDR Inspector is a flexible tool that searches SMDR data according to defined search variables to find specific telecommunication events. SMDR Inspector enables you to verify that the reports produced by Call Accounting are valid, by conducting searches against the raw telephone data. Results are displayed in an easy to read table format that can be printed or saved.

SMDR Inspector provides businesses with the following capabilities

- Search telephone system data by date
- Search telephone system data by media server
- Search telephone system data by Call Parties
- Search Telephone system data by Call Type
- Refine search criteria with the SMDR Inspector Options tab

Search by call parties

Searching by call parties criteria helps you find call events in the raw telephone data, such as calls an extension received (call party), calls an extension made (calling party), or the extension the call was transferred to (third party). See Figure 16 for an example of the call parties tab.

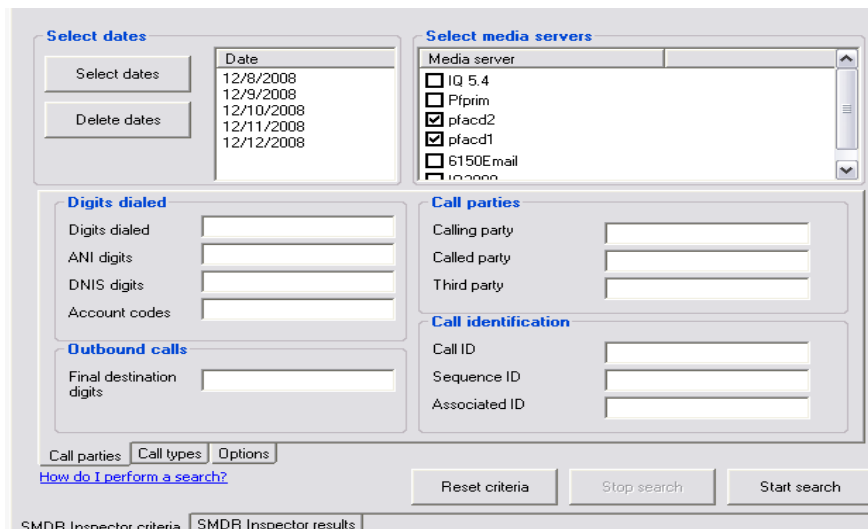


Figure 16: The Call parties tab in SMDR Inspector

Search by call types

Searching by call types criteria enables you to search the raw telephone data and find call events for the types of calls that an extension received. These call types can include abandoned, interflowed, requeued, unavailable, or outbound calls. Figure 17 displays the Call types tab in SMDR inspector, illustrating some of the search variables that can be entered.

Figure 17: The Call types tab in SMDR Inspector

Call Accounting Applications

Call Accounting can be used in conjunction with numerous Mitel products. The interoperability of Call Accounting with other Mitel Products delivers enhanced capabilities to the basic Call Accounting software suite. The following chapters examine these other software and hardware offerings that, when used with Call Accounting, extend its functionality.

Virtualization

Call Accounting applications are supported on a variety of virtual and thin-client systems: Citrix, Microsoft Virtual Server, Microsoft Hyper-V, and VMware. For details on thin-client and virtualization support, see the *Contact Center Solutions and Call Accounting System Engineering Guide*.

Chapter 3
Call Accounting Node

Introduction

This section provides an overview of the Mitel Call Accounting Node. For more information, refer to the following topics.

- Overview
- Call Accounting Node software
- Remote Server
- Call Accounting Node configuration

Overview



NOTE: A single Call Accounting Node can collect data for one voice media server. If you have additional media servers, you require additional Call Accounting Node licenses.

Call Accounting Node enables you to set up a remote collection point at a separate location. It is an add-on application that provides multi-site capabilities using a single-server configuration.

Call Accounting Node software

Call Accounting Node software collects raw data from remote media servers. The data is filed on a local hard drive and streamed to the prairieFyre Collector Service (on the Enterprise Server) over TCP/IP.

If you have a multisite, geographically dispersed company with Call Accounting, you can collect SMDR data from more than one communications platform using a Call Accounting Node. The Call Accounting Node can reside at one or more remote locations, allowing you to leverage multisite Call Accounting functionality while minimizing the overhead costs associated with multiple servers.

The Call Accounting Node software allows you to collect SMDR data from OPS Manager (via Enterprise Manager) at a corporate office across a company's LAN/WAN and internet via TCP/IP or FTP. The Enterprise Server supports extensions throughout the enterprise. The remote locations do not have configuration requirements.

Call Accounting Node does not require SQL, IIS, or other server support applications at your remote sites. This results in significant cost savings. In addition, the data collection provides added security in case of network outages.

Call Accounting Node software performs the following functions

- Collects SMDR data from single or co-located telephone systems
- Stores SMDR data on the local Call Accounting Node server
- Streams SMDR data to the Call Accounting Server for enterprise wide real-time statistics with automatic synchronization and stores all statistics on the Enterprise Server for accurate, multi-site, historical reporting

- Automatically synchronizes and stores all call statistics on the Enterprise Server for accurate multisite historical reporting
- Uses a telephone system neutral collection process that allows you to collect data and run reports on companies with various Mitel telephone systems

Benefits of Call Accounting Node

Call Accounting Node provides the following benefits

- A small application footprint, which does not require Microsoft supporting applications (SQL, Internet Information Server.).
- Increases reliability through redundant data collection. Call Accounting Node stores SMDR data locally if network fails.
- Collects data over COM ports or TCP/IP.
- Leverages existing computers at remote company locations.
- Implements a centralized backup strategy.
- Lowers administrative overhead and maintenance.
- Supports dual telephone system data collection.

Remote Server

Remote Server installs media servers for voice, and/or the WallBoarder Service on Call Accounting Node servers.

Call Accounting Node configuration

Figure 18 displays a possible Call Accounting Node configuration.

At the Main Office, the prairieFyre Collector Service collects data from the media servers at the site (A SX-200). A Call Accounting Node is not required at the site.

Office 2 uses a 3300 ICP media server to communicate directly by TCP/IP to the prairieFyre Collector Service at the Main Office. Since there is no Call Accounting Node, SMDR data from Office 2 would be lost during a service outage.

Office 3 uses a SX-200 media server. The SX-200 communicates with a Call Accounting Node, which then communicates with the prairieFyre Collector Service at the Main office. In the case of a service outage, SMDR data from office 3 would be available.

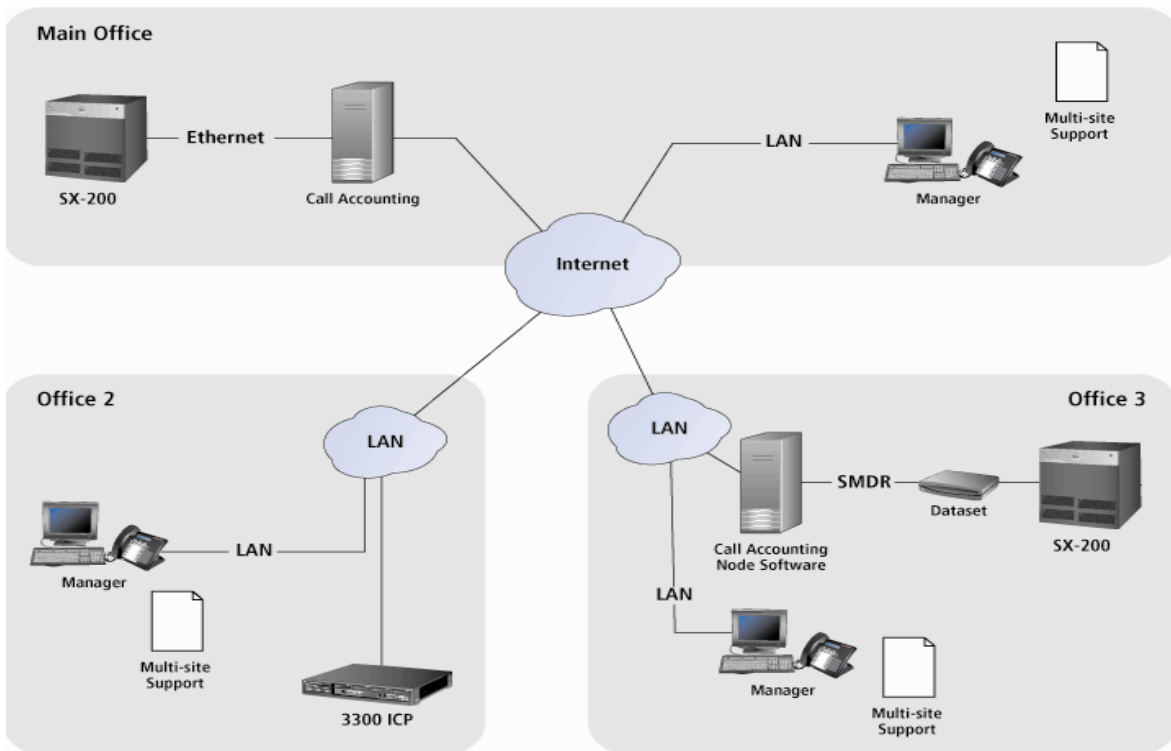


Figure 18: Call Accounting Node configuration example

Chapter 4

Call Accounting Resiliency

Introduction

This section provides an overview of Mitel Call Accounting Resiliency. For more information, refer to the following topics:

- Overview
- Features
- Configuration
- OPS Manager integration

Overview

Call Accounting Resiliency, available with the Call Accounting Network License, provides businesses with an immediate response to outages and enables Call Accounting to remain in service in the event of a primary telephone system failure. Call Accounting Resiliency supports the resiliency, scalability, and virtual models of the Mitel telephone systems and is an add-on option to Call Accounting.



NOTE: Active calls on the primary controller will be lost during a telephone system failure. Calls in progress on the secondary controller will remain active while the secondary controller picks up all new calls.

A resilient Call Accounting configuration typically consists of two 3300 ICPs, with one failing over to the other. Resilient Call Accounting is able to scale to a multi-controller environment programmed within a cluster. During normal operation, Call Accounting costs calls on the primary controller. If the primary controller fails, the secondary controller takes over, ensuring that Call Accounting continues to operate as normal.



NOTE: Call Accounting Resiliency is supported on 3300 ICP only.

Features

Call Accounting Resiliency includes the following features

Minimize single points of failure

- With resiliency, depending on the configuration, extensions can remain active during a telephone system failure, and down time can be averted or minimized while performing upgrades.
- Reliability down to the desktop

Maintain call progress

- In a multiple trunk configuration, calls in progress can be maintained if a switch fails. In the event of an outage, employees and customers remain on the line until they

conclude their conversations. Only after a call ends does an extension or employee phone automatically reregister with the failover controller.

- Callers are unaware of the outage / system event
- Failover occurs seamlessly – customers do not experience any delay in service or interruptions while on calls with employees. Only after an employee hangs up does the employee's phone reregister with the failover controller.

Extensions and employees do not have to log back in

Extensions and employees are rerouted to the available telephone system in case of a failure, and are automatically logged back into the system.

Highly distributed

The Mitel 3300 ICP resiliency solution is highly distributed, spreading trunk density, extensions, and employees across several nodes. It provides a high level of resiliency and ensures that there is no single point of failure.

Continued real-time monitoring

Supervisors can quickly identify extensions and employees as soon as their phones reregister with the failover controller. Real-time monitors indicate which extensions and employees have re-registered.

Seamless historical reporting

Call Accounting provides seamless historical reporting during a network or controller outage. The date and time of the primary controller is maintained to ensure reports are accurate.

Configuration

Call Accounting is flexible and can be configured to serve your needs. Call Accounting Resiliency configurations are based on the level of resiliency achieved. The classes for resiliency are:

- Basic Call Accounting Resiliency
- Advanced Call Accounting Resiliency
- Full Call Accounting Resiliency

Basic Call Accounting Resiliency

Figure 19 displays a Call Accounting Resiliency set up with extension paths programmed on both Extension Controllers. Paths are set up with some extensions and extension groups on both controllers. These paths take calls for the same 800 number. The calls from the public exchange split evenly between two Extension Controllers.

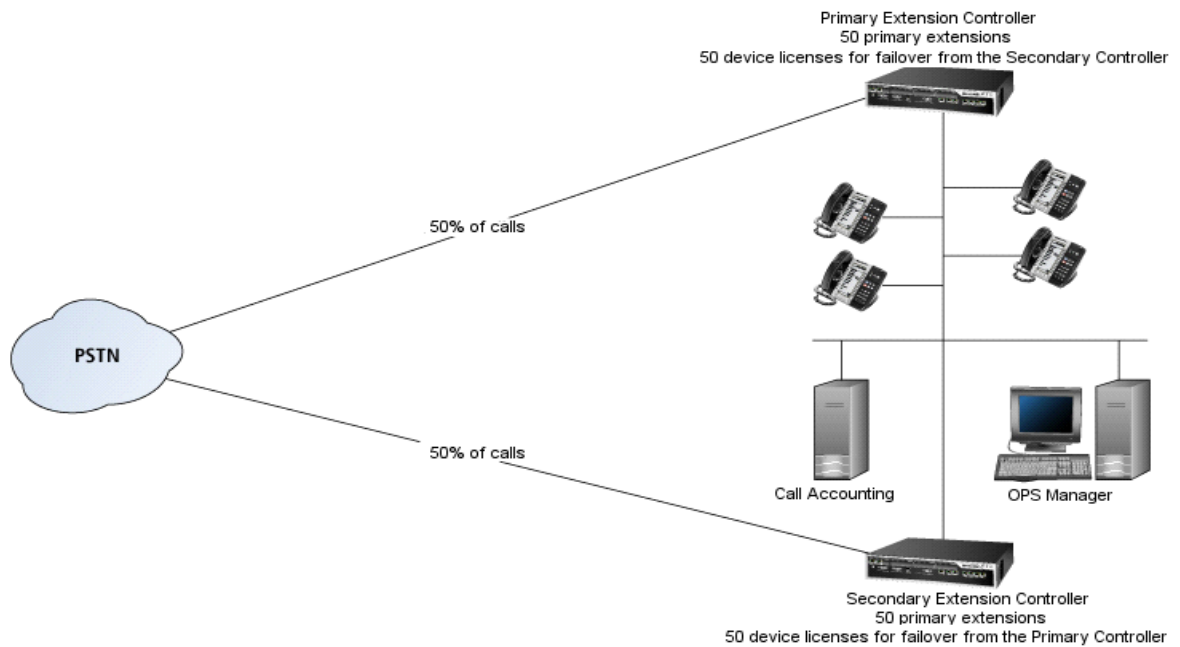


Figure 19: Basic Call Accounting Resiliency configuration

Advantages and Disadvantages

Advantages:

- no single point of failure
- most economical two-controller solution
- 100% of extensions remain in service
- 100% of trunks remain in service if each controller is provisioned with the required hardware to support 100% of the trunk traffic

Disadvantages:

- less resilient than advanced or full resiliency configurations
- not scalable – limited to 100 IP extensions per controller

Advanced Call Accounting Resiliency

In the Advanced Call Accounting Resiliency configuration displayed in Figure 20, the extension paths are programmed on the trunking gateway.

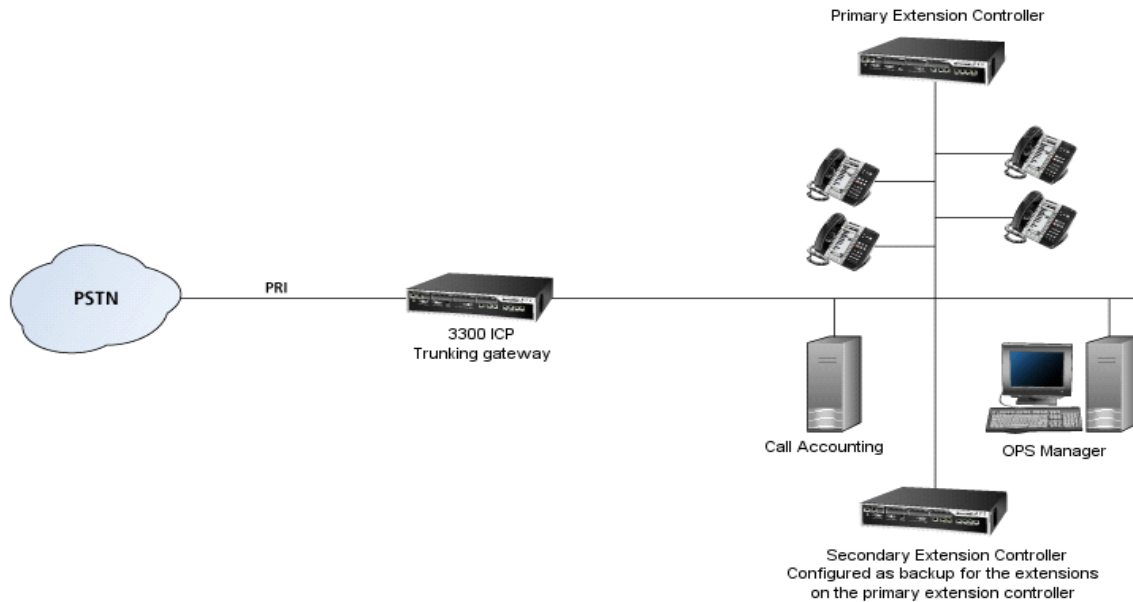


Figure 20: Advanced Call Accounting Resiliency configuration

Advantages and Disadvantages

The advantages:

- if the primary controller fails:
 - 100% of extensions remain in service
 - 100% of trunks remain in service
- scalability – up to 2 100 active extensions can be supported on the primary or secondary controller depending on the number of gateways
- the 3300 ICP CX and CXi Controllers can support up to 65 extensions (all IP phones) with one gateway

Full Call Accounting Resiliency

In the Full Call Accounting Resiliency configuration displayed in Figure 21, the extension paths are programmed on multiple trunking gateways.

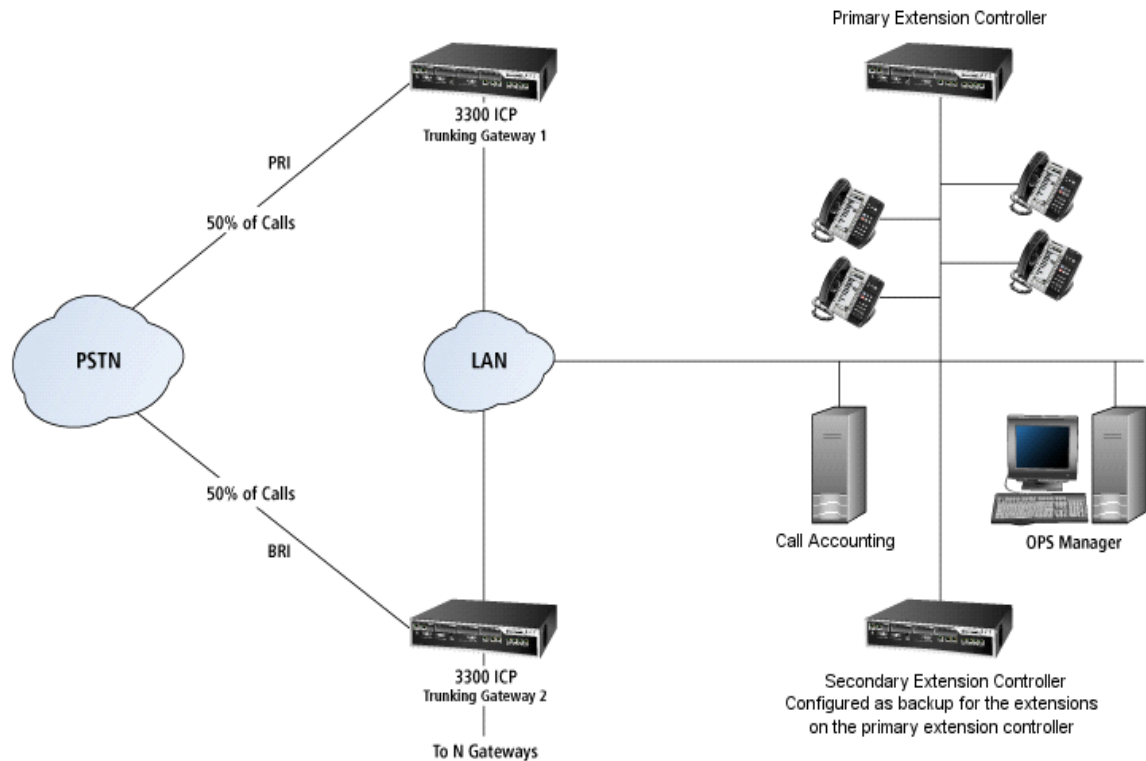


Figure 21: Full Call Accounting Resiliency configuration

Advantages and Disadvantages

The advantages:

- No single point of failure.
- If primary fails, all extensions remain in service.
- All trunks remain in service if each trunking gateway is provisioned with the required hardware to support 100% of the trunk traffic.
- All calls are maintained when an extension controller fails.
- 50% of active calls are maintained if a trunking gateway fails.
- If the extension controller fails, employees on an active call can complete active calls before failover (held calls are lost).
- Scalability - up to 500 active extensions can be supported on the primary or secondary controller depending on the number of gateways.

OPS Manager integration

OPS Manager is a telecommunications management tool that simplifies administration and maintenance for a network or cluster of 3300 ICPs. OPS Manager offers a centralized telephone directory, networked moves, adds and changes, and the ability to automate many repetitive

administration tasks including time synchronization and placing individual voice platforms into night service.

OPS Manager provides additional functionality to Enterprise Manager and is purchased in conjunction with Enterprise Manager.

Using a standard web browser, an authorized user can perform the following functions from any PC on the network.

- Manage a network telephone directory.
- Manage Messaging Server voice mail boxes.
- Move, add, change, and delete users.
- Schedule pending moves, additions, and changes to the 3300 ICP database.
- Integrate the network telephone directory with other network telephone directories through Integrated Directory Services (IDS) and Integrated User Management (IUM).
- Locate unused directory numbers and unused circuits.
- Activate and deactivate Call Forwarding.
- Configure resilient Hunt Groups, Voice Mail Hunt, and Record-a-Call Hunt Groups from a 3300 ICP and manage these Hunt Groups using OPS Manager.

Chapter 5

Subscriber Services

Introduction

This section provides an overview of Mitel Subscriber Services. For more information, refer to the following topics:

- Overview
- Benefits
- Features
- Reports

Overview

Subscriber Services is an application that allows you to modify call costs based on carrier plans. It allows you to mark up carrier costs and charge additional billing options. A subscriber is someone to whom you provide a communication product or service, such as a student in a dormitory, or a tenant in a rooming house. You can mark up, or charge only a fraction of the true cost of a bill to a subscriber using the configurable plans in Subscriber Services.

You use Subscriber Services to create your own custom costing plans, enabling you to cost the calls you want to charge back to a subscriber. Subscribers or employees are associated with subscriber plans according to your billing needs.

To track phone use, extensions and account codes are associated to subscribers or employees. Billing options can be associated to subscriber plans to charge for periodic fees (i.e. monthly equipment rental), or percentage based fees (i.e. taxes).

Benefits

Subscriber Services provides the capabilities to:

- Track and bill subscribers.
- Mark up or discount carrier costs or charges based on your own custom costing. You can augment carrier costs, regardless of the number of carriers you have. To apply the same fixed fee and percent for multiple carriers, based on carrier costs, you can create multiple plans by adding a 10 cent, plus 5% markup to each.
- Specify call types or call rates for outbound, inbound, or internal calls.
- Produce extended reporting.

Features

Subscriber Services provides the following features

- Configurable subscriber and subscriber groups.

- Configurable subscriber plans, mark up carrier plans, and customizable cost plans for outbound, inbound, and internal calls.
- Billing by extension or account code
- Extended reporting capabilities

Configurable subscribers and subscriber groups

Configure subscribers and subscriber groups in YourSite Explorer. Associate an extension or Account Code to each subscriber to enable bill back and subscriber tracking functions.

Configurable subscriber plans

Use subscriber services to define basic or advanced subscriber plans. Enable markup or discount carrier plan rates, or specify call rates for outbound, inbound and internal calls.

Billing by extension or account code

Subscriber services enables billing to extensions or account codes. Using account codes, you can enable subscribers to call from any phone, while ensuring the subscriber is billed for the call.

Extended reporting capabilities

Subscriber reports provide call statistics to help you track subscriber call activity and costs. You can report on all types of calls and create reports with the appearance of bills to provide to subscribers.

You can generate the subscriber reports if you have associated subscriber plans to subscriber devices. You generate employee reports if you associate employees to the subscriber plans.

Subscriber Services includes the following report types

- Subscriber reports
- Employee reports
- Employee division reports

Subscriber reports

Subscriber reports provide an indication of call activity and call costs by subscriber and subscriber group according to subscriber plans. Figure 22 displays a Subscriber Billing by Account Code report example.

Account Code	Account Code Name	Total calls	Total duration (hh:mm:ss)	Cost
78815	Esthetician Training	10	00:17:47	\$2.42
74454	Library Extension	1	00:01:44	\$0.00
51392	Administration	9	00:06:24	\$0.00
Total	—	20	00:25:55	\$2.42

Figure 22: Subscriber Billing by Account Code report example

Employee reports

Employee reports provide an indication of call activity and call cost by employee or employee group. Figure 23 displays a Employee Billing Usage and Service Charges report example.

CallStartTime	NumberDialc	Location	Call Type	Duration	Cost
11/14/2006 10:13:00 AM	6135922122	South East Australia,Australia	Local outbound	00:00:37	\$0.06
11/14/2006 10:17:00 AM	6137976300	South East Australia,Australia	Local outbound	00:00:05	\$0.00
11/14/2006 12:10:00 PM	14168605186	Toronto,Ontario (Toronto Metro),Canada	In-state outbound long distance	00:02:25	\$0.17
11/14/2006 12:13:00 PM	14168605186	Toronto,Ontario (Toronto Metro),Canada	In-state outbound long distance	00:03:19	\$0.24
11/14/2006 12:50:00 PM	6135918208	South East Australia,Australia	Local outbound	00:00:18	\$0.03
11/14/2006 2:12:00 PM	6137976300	South East Australia,Australia	Local outbound	00:05:17	\$0.48
Usage charges					\$52.16
Service charges					\$328.00
Grand total					\$380.16
Option		Option Cost			
VocieMailYear		\$36.00			
PhoneRentalYear		\$24.00			
PhoneRentalWeek		\$15.00			

Figure 23: Employee Billing Usage and Service Charges report example

Division reports

Division reports provide an indication of call activity and call cost for Employee Groups (groups of employees) or Employee Divisions (groups of employee groups) based on subscriber plans. Figure 24 displays an All Employee Divisions Billing by Employee Division report.

Division name	Group name	Reporting	Full Name	Total calls	Total cost	Total duration (hh:mm:ss)	Average cost	Average duration (hh:mm:ss)
Division 3	Student Awards Office	2251	Bennet	17	\$0.00	0:11:11	\$0.00	0:01:10
		2220	Smith	19	\$0.00	00:21:21	\$0.00	00:01:15
		5606	Jones	31	\$1.88	1:30:18	\$0.04	0:02:11
Division 3	Financial Aid	4807	Brown	41	\$1.79	01:40:10	\$0.04	00:02:27
		8201	Hastings	77	\$1.61	1:35:17	\$0.02	0:01:57
		8850	ADMIN FAX	55	\$0.00	00:55:54	\$0.00	00:00:49
		1478	ADMIN IP	68	\$0.00	1:35:51	\$0.00	0:00:47
Total				812	\$21.72	23:49:30	\$0.02	00:01:28

Figure 24: All Employee Divisions Billing by Employee report example

Chapter 6

Traffic Analysis

Introduction

This section provides an overview of Mitel Traffic Analysis. For more information, refer to the following topics:

- Overview
- Features

Overview

Traffic Analysis is an application that provides an overall view of trunk traffic and enables you to analyze the traffic to maximize service and decrease costs. Trunk traffic data is provided through a number of reports.

Traffic Analysis reports provide call statistics on attendant and attendant groups, DTMF receivers, route lists, route plans, routes, and trunks. You can create on-demand or scheduled Traffic Analysis reports. Traffic Analysis reports are not available in real time.

Features

Traffic Analysis includes the following report types

- Traffic Attendant reports
- Traffic DTMF Receiver Group reports
- Traffic Route reports
- Traffic Trunk reports

Traffic Attendant reports

The following reports enable you to view and analyze attendant call activity by period:

- **Attendant Console Traffic by Period reports**—show the attendant console call activity for the shift duration and day(s) you specify. The activity is on a per-console basis, regardless of the number of attendants who may have manned it during the activity period.
- **Attendant and Attendant Group Traffic by Period reports**—show the attendant and attendant group call activity for the shift duration and day(s) you specify.

Figure 25 is an example of an Attendant Console Traffic by Period report.

Report: Attendant Console Traffic by Period Date Range: 2/22/2005 - Site: ABC Company Create Date: 2/28/2005 Device: SC1000 - Attendant Console Created By: _admin			
Activity period	Calls answered	Occupancy (hh:mm:ss)	Avg service time (hh:mm:ss)
8:00	14	0:13:30	0:00:05
8:15	5	0:10:20	0:00:02
8:30	2	0:03:02	0:00:01
8:45	1	0:02:33	0:00:00
9:00	4	0:02:43	0:00:02
9:15	5	0:06:21	0:00:02
9:30	3	0:04:32	0:00:01
9:45	4	0:04:32	0:00:03

Peak Hour	
Peak time	Feb 22 2005 14:15
Peak peg	25

Total	
Total calls answered	534
Total occupancy (hh:mm:ss)	0:05:24
Avg service time (hh:mm:ss)	0:00:03

Figure 25: Attendant Console Traffic by Period report

Traffic DTMF Receiver Group reports

The following report enables you to see if your telephone switch has sufficient DTMF receivers available to service your outbound callers.

- **DTMF Receiver Group Traffic by Period reports** —report on the accessibility of DTMF receivers for the shift duration and day(s) you specify.

Figure 26 is an example of a DTMF Receiver Group Traffic by Period report.

Report: DTMF Receiver Group Traffic by Period Site: ABC Company Device: [InHouse] 1 - DTMF Group					
Activity period	Peg	Usage (hh:mm:ss)	Busy peg	Max in use	Max in use/available
19:45	6	0:00:00	0	1	1/48
22:00	0	0:00:00	0	0	0/48
22:15	0	0:00:00	0	0	0/48
22:30	5	0:01:12	0	1	1/48
22:45	11	0:00:36	0	1	1/48
23:00	3	0:00:36	0	1	1/48
23:15	0	0:00:00	0	0	0/48
23:30	0	0:00:00	0	0	0/48
23:45	0	0:00:00	0	0	0/48
Total	950	1:03:53	0	1	1/48

Figure 26: DTMF Receiver Group Traffic by Period report

Traffic Route reports

The following reports enable you to identify the period of busiest route traffic:

- **Route List Traffic by Period reports**—show route list activity for the shift duration and day(s) you specify. A route list determines where call traffic is directed, based on a prioritized list of routes
- **Route Plan Traffic by Period reports**—show route plan activity for the shift duration and day(s) you specify. A route plan determines where call traffic is directed, based on the time of day and day of week.
- **Route Traffic by Period reports**—show route activity for the shift duration and day(s) you specify.

Figure 27 is an example of a Route List Traffic by Period report.

Report: Route List Traffic by Period				Date range 12/1/2008 - 12/5/2008									
Site prairieFyre Software				Created on: 1/14/2009									
Device: [Pprim] - Route list				Created by:									
Activity period	Outbound peg	Outbound usage (hh:mm:ss)	Busy peg	<table border="1"> <tr> <th colspan="2">Peak Hour</th> </tr> <tr> <td>Peak outbound time</td> <td>Dec 5 2008 14:00</td> </tr> <tr> <td>Peak outbound peg</td> <td>57</td> </tr> </table>		Peak Hour		Peak outbound time	Dec 5 2008 14:00	Peak outbound peg	57		
Peak Hour													
Peak outbound time	Dec 5 2008 14:00												
Peak outbound peg	57												
15:00	30	2:57:36	0	<table border="1"> <tr> <th colspan="2">Total</th> </tr> <tr> <td>Total outbound peg</td> <td>1209</td> </tr> <tr> <td>Total outbound usage (hh:mm:ss)</td> <td>113:36:00</td> </tr> <tr> <td>Total busy peg</td> <td>0</td> </tr> </table>		Total		Total outbound peg	1209	Total outbound usage (hh:mm:ss)	113:36:00	Total busy peg	0
Total													
Total outbound peg	1209												
Total outbound usage (hh:mm:ss)	113:36:00												
Total busy peg	0												
15:15	42	3:30:00	0										
15:30	37	3:31:12	0										
15:45	30	2:50:24	0										
16:00	36	3:10:12	0										
16:15	41	3:16:48	0										
16:30	34	3:28:48	0										
16:45	21	3:07:12	0										

Figure 27: Route List Traffic by Period report

Traffic Trunk reports

The following reports enable you to identify the period of busiest trunk traffic. You can use the information in these reports to configure trunks effectively and schedule the required staff.

- **Trunk Traffic by Period reports**—show trunk activity for the shift duration and day(s) you specify.
- **Trunk Busy Hour Traffic by Day of the Week reports**—show the trunk’s busiest hour for each day of the week.
- **Trunk and Trunk Group Traffic Usage by Day of the Week reports**—show the use of trunks or trunk groups across 15-, 30-, or 60-minute intervals for each day of the week.
- **Trunk Group Outgoing Traffic by Period reports**—show the outgoing trunk activity for the shift duration and day(s) you specify.

- **Trunk Group Outgoing Traffic Usage by Day of the Week reports**—show the outgoing trunk usage across each day of the week.
- **Trunk Group Outgoing Busy Hour Traffic by Day of the Week reports**—show the outgoing trunk’s busiest hour for each day of the week.

Figure 28 is an example of a Trunk Traffic by Period report.

Report: <i>Trunk Traffic by Period</i> Date Range: 2/3/2005 - 2/3 Site: ABC Company Create Date: 2/25/2005 Device: [SX-2000 ACD] 101 Created By: admin						
Activity period	Inbound peg	Inbound usage (hh:mm:ss)	Outbound peg	Outbound usage (hh:mm:ss)	Low peg high usage	High peg low usage
16:00	0	0:00:00	2	0:00:00	No	No
16:15	0	0:00:00	0	0:00:00	No	No
16:30	0	0:00:00	0	0:00:00	No	No
16:45	0	0:00:00	0	0:00:00	No	No
17:00	0	0:00:00	0	0:00:00	No	No
17:15	0	0:00:00	0	0:00:00	No	No
17:30	0	0:00:00	0	0:00:00	No	No
17:45	0	0:00:00	0	0:00:00	No	No
Total	1	0:00:00	18883	0:05:01	No	Yes

Figure 28: Trunk Traffic by Period report

Chapter 7

PhoneSet Manager

Introduction

This section provides an overview of the Mitel PhoneSet Manager. For more information, refer to the following topics.

- Overview
- Benefits
- Features

Overview

The PhoneSet Manager application is an add-on products to Call Accounting that enable employees to use their desktop computers as IP-based phones. PhoneSet Manager automates Mitel IP phone sets from the desktop computer, enabling complete phone set functionality through the computer desktop.

PhoneSet Manager is designed for the 3300 ICP (with the Mitel 5235, 5330, 5340, and Navigator) telephone systems.

Benefits

PhoneSet Manager

- Facilitates first contact resolution
- Significantly increases efficiency and productivity
- Readily shows employee or extension availability

Features

PhoneSet Manager include the following features:

- Time-saving features
- 5020 IP Phone display features and menus
- Telephony functions
- Support for Personal Identification Number (PIN) functionality
- Call notes
- Single-point data administration
- Reports on calls tagged with account codes and call classification codes
- Support for hot desking extensions
- Support for home-based and remote employees

Time-saving features

PhoneSet Manager boost employee productivity and optimizes desktop real-estate use, while providing the following time-saving features and productivity enhancements:

- Employees gain efficiency by performing all actions from within one application on their desktops
- Automated functions allow employees to perform actions using fewer steps
- PhoneSet Manager is embedded in the task bar and its menu is available in the System Tray, enabling quick access
- PhoneSet Manager's unified address book gives users access to YourSite database phone extensions and Outlook Personal Contact or Global Address List phone numbers
- Employees can add notes to calls to share with other employees involved in a call
- Customizable user interface, configurable ring tones, shortcut keys for telephony features, and pre-programmable call forward destinations and speed call numbers
- Pop-up windows, click-to-select telephony options, pick lists with contacts for transferring and conferencing calls, and pick lists with account codes and call classification codes
- Speaker and microphone volume control
- Preferred ring sounds for each phone line

5220 IP Phone display features and menus

PhoneSet Manager incorporates the Mitel 5220 IP Phone superkey and phone book functionality. The PhoneSet Manager user interface (UI) closely resembles the 5220 IP Phone. (See Figure 29) The UI displays Redial, Cancel, and Message buttons and provides hyperlinks that emulate the 5220 IP Phone soft buttons used to navigate the 5220 IP Phone menu system.

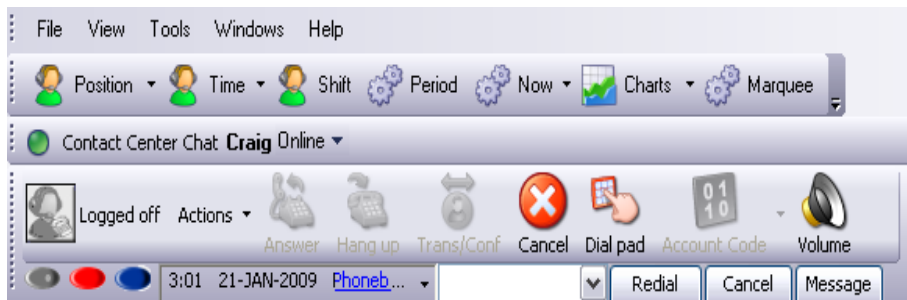


Figure 29: PhoneSet Manager User Interface

Telephony functions

Using PhoneSet Manager, employees can readily answer calls or forward them to extensions or phone numbers. They can select people from contact and speed dial lists and perform the following actions: Redial, Transfer, Conference, Mute, Forward, Request help, Hold, Retrieve, Split, Swap, Camp on, Leave a message, Retrieve a message, Call me back, Hang up, and Cancel.

Call notes

When employees are speaking with customers, they can add notes to calls to share with other employees involved in the call. This ensures employees and supervisors have context on calls and know what information has been provided to customers upon call transfer. When a call is being transferred to an employee or supervisor, the soft phone pop-up displays the most recent note associated with the call. When the employee answers the call, Real-time Client appears on top of all other open applications and displays the Call Notes monitor. The monitor includes all of the call notes associated with the current call.

Employees can add notes each time a call is transferred, and employees on conference calls can add notes simultaneously. Each set of notes includes the employee's name and a date/time stamp. When an employee completes a call and answers a new call or closes the Call Notes monitor, all call note information is saved and appended to the Lifecycle reports. Figure 30 displays an example of the call notes feature.

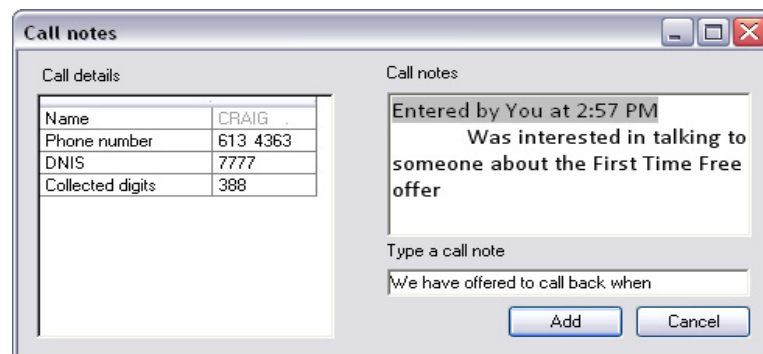


Figure 30: Call Notes

Single-point database administration

Managers benefit from single-point database administration. PhoneSet Manager is automatically updated with any database changes, so employees always have the latest information at hand. PhoneSet Manager provides pick lists for the account codes, call classification codes, extensions, and employees configured in Call Accounting.

Reports on calls tagged with account codes and call classification codes

Managers can generate reports on calls tagged with account codes and call classification codes. They can assess the impact of advertising campaigns and see the distribution of inquiries across products and services.

Figure 31 illustrates how PhoneSet Manager integrates with Real-time Client to provide real-time presence. An employee views the availability of other employees and right-clicks an idle extension to transfer a call to the extension.

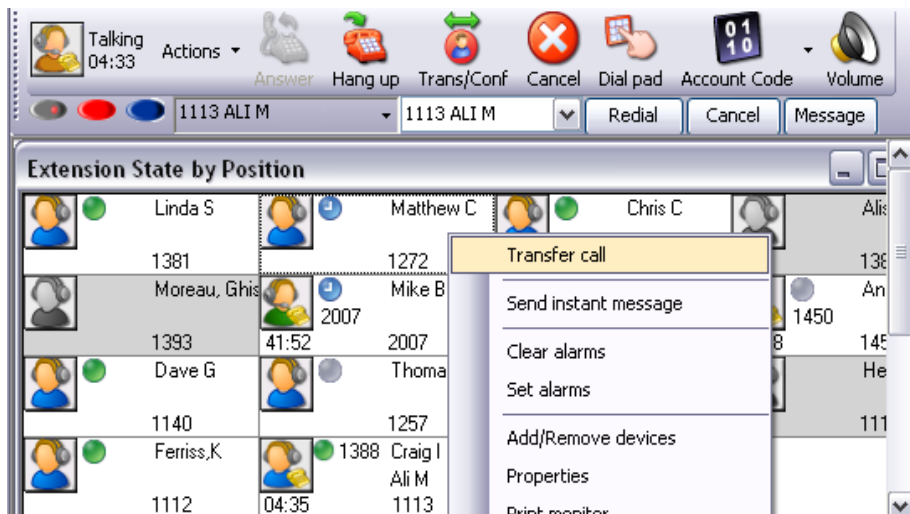


Figure 31: Employee transferring a call in PhoneSet Manager

Support for hot desking extensions

PhoneSet Manager supports hot desking employees. When an employee is configured as a Mitel hot desking employee, an employee uses a unique Account Code for accessing outside lines. The Account Code is a forced verified Account Code. Each employee must enter an Account Code to make an outgoing call. The cost is associated with the employee regardless of which phone extension is used.

Support for external hot desking, home-based, and remote employees

When an employee is configured as an external hot desking agent, they are associated with any external dialable number, enabling the system to ring an agent working remotely. Using Mitel Border Gateway Connector, external hot desking employees can use the full suite of Call Accounting applications. In order to fully integrate with the Call Accounting, external hot desking employees require a phone or USB headset, a computer, a router, and a high-speed Internet connection.

Home-based agents, remote agents, and supervisors can perform telephony functions without the use of a Virtual Private Network (VPN) using Mitel Border Gateway Connector and Contact Center Client. They can use IP desk phones, automate desk phones using Contact Center PhoneSet Manager.

Chapter 8


Screen Pop

Introduction

This section provides an overview of the Mitel Screen Pop. For more information, refer to the following topics:

- Overview
- Benefits
- Features

Overview

 **NOTE:** Screen Pop requires Visual Workflow Manager or Intelligent Queue with ANI /DNIS and/or Collect Caller Entered Digits options, Call Accounting, and PhoneSet Manager.

Screen Pop is an add-on application to Call Accounting that launches applications or Web pages when employees answer calls. In addition, it enables employees to automatically receive caller information via pop-ups on their computer monitors when they receive calls. (See Figure 32.) Businesses can generate personalized pop-ups for each caller using a customer database. The pop-ups can display the caller name, DNIS (the telephone number the caller dials), ANI (the telephone number of the caller), and caller entered digits (digits the caller enters for identification purposes), such as a customer site key.

By default, Screen Pop either launches Microsoft Outlook contact information or a caller-specific inbound trace report Web page. Alternatively, Screen Pop can launch a Web page or application you create.

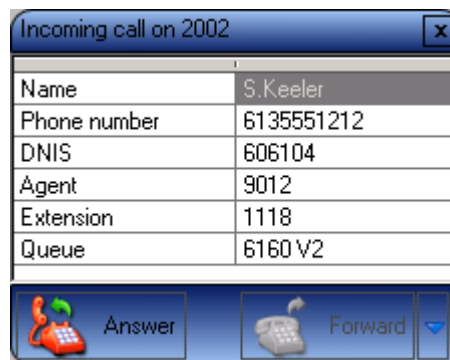


Figure 32: Screen Pop

Benefits

Screen Pop enables businesses to

- Enhance employee efficiency by providing caller information before they answer calls, enabling calls to be handled quickly and effectively
- Customize Screen Pop to display customer information most important to your business
- Provide employees with customer call history and journal entries to improve customer service

Features

Screen Pop provides the following features

- Comprehensive information availability
- Customizable display options
- Seamless CRM integration
- Enhanced employee support

Comprehensive information availability

When a call arrives, PhoneSet Manager provides the employee with a pop-up window that contains the caller's name and number. With Screen Pop, you can display additional information such as the DNIS, ANI, and caller entered digits. With caller information readily available, extensions can identify callers and know whether to answer or redirect calls.

Customizable display options

With the help of prairieFyre Professional Services, you can use your company's existing customer database to customize the data that appears in the Screen Pop. With detailed customer information at hand, employees can reduce the amount of time required to serve callers and increase the efficiency of your business.

Seamless CRM integration

With the purchase of the CRM connector, Screen Pop can launch a CRM application or Web page. Employees view both the pop-up and the CRM database or Web page simultaneously. This ensures employees have relevant caller and account information before they answer the call.

Enhanced employee support

The Screen Pop Inbound Trace report Web page enables employees to create, view, and edit journal entries and make educated decisions when answering or redirecting calls. This minimizes instances of customers repeating the same information over and over again.

Chapter 9

CTI Developer Toolkit

Introduction

This section provides an overview of the Mitel CTI Developer Toolkit. For more information, refer to the following topics:

- Overview
- Features
- Configuration

Overview

The CTI Developer Toolkit is a software development tool, activated with the Integrated Client License, that enables in-house developers to automate processes and information sharing within your business. Using CTI Developer Toolkit, developers can

- Automate employee computers and phones
- Integrate Customer Relationship Management (CRM) and Enterprise Resource Planning (ERP) systems or any OBCD compliant database
- Incorporate third-party Interactive Voice Response for use with Call Accounting

Features

CTI Developer Toolkit offers server and client-side programmable, Visual C#, .NET dynamic link libraries (DLLs) that can be used in any .NET application or website, from .NET 2.0 on.

The DLLs provide

- Notification of calls received
- Storage and access to call detail information
- Call control

CTI Developer Toolkit includes a test application (including source code) that enables developers to quickly understand how to write code for their own custom applications. Also included is a Windows CHM help file that documents the methods and properties that are programmatically exposed to the application programming interface (API).

CTI Developer Toolkit — Server

CTI Developer Toolkit — Server enables

- Gathering and sending of call detail information to the client DLL. For example, the Server DLL can send ANI, DNIS, Collect Caller Entered Digits, Caller Name, and the user's extension to a screen pop on the employee desktop
- Gathering of caller information from the Public Switched Telephone Network (PSTN), Visual Workflow Manager, Intelligent Queue, third-party IVRs, database lookup, etc.

- Caller data to be stored in the Call Accounting database with a unique ID and to be included in call records
- User-defined caller information which can be accessed and displayed on employee desktops

CTI Developer Toolkit — Client

CTI Developer Toolkit — Client receives call records from the contact center, such as ANI/DNIS (from the PSTN), Collect Caller Entered Digits (from Visual Workflow Manager or Intelligent Queue), and other caller data from third-party IVRs.

CTI Developer Toolkit — Client can be used to

- Screen pop an application based on the call information received
- Enter call notes and enable telephone control for functions such as Log in, Log out, Answer, Hang up, Make Call, Hold, Set/Remove Make Busy, and Set/Remove Do Not Disturb
- Store call received event data in an alternate database

Configuration

The following configurations incorporate CTI Developer Toolkit to provide screen pops on employee desktops.

In Figure 33, the customer is using either Microsoft Dynamics or Salesforce CRM databases and PhoneSet Manager to provide screen pops based on ANI/DNIS that will be collected from their service provider (PSTN). This configuration requires Call Accounting, CTI Developer Toolkit — Client license, PhoneSet Manager, Screen Pop and a CRM connector.

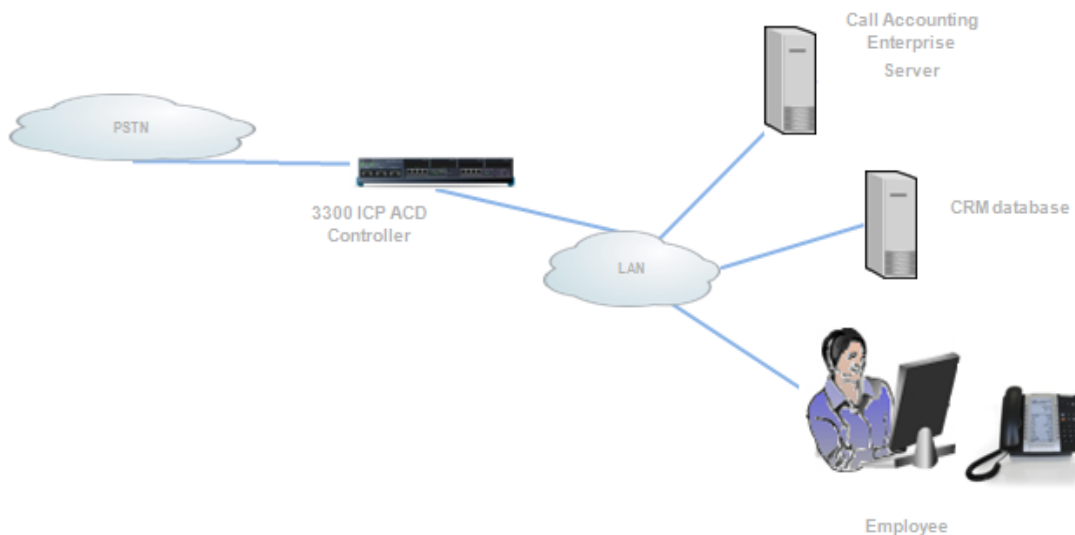


Figure 33: Call Accounting with Screen Pop using PhoneSet Manager

In Figure 34, the customer is using a CRM database and wants to integrate their third-party client screen pop application with the CTI Developer Toolkit. In this case, screen pops are based on Visual Workflow Manager or Intelligent Queue Collect Caller Entered Digits. This configuration requires Call Accounting and a CTI Developer Toolkit — Client license.

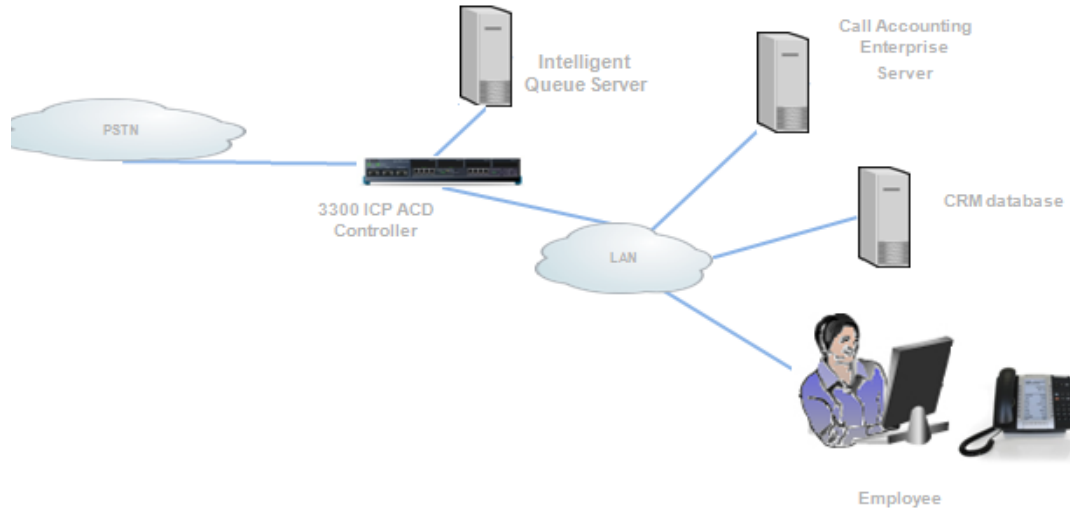


Figure 34: Call Accounting with Screen Pop

In Figure 35, the customer is using a CRM database and wants to provide a third-party screen pop based on data from a third-party Interactive Voice Response (IVR). They want to integrate their own IVR and Client Screen Pop using CTI Developer Toolkit Server and Client DLLs. This configuration requires Call Accounting, CTI Developer Toolkit — Server license, and CTI Developer Toolkit — Client license.

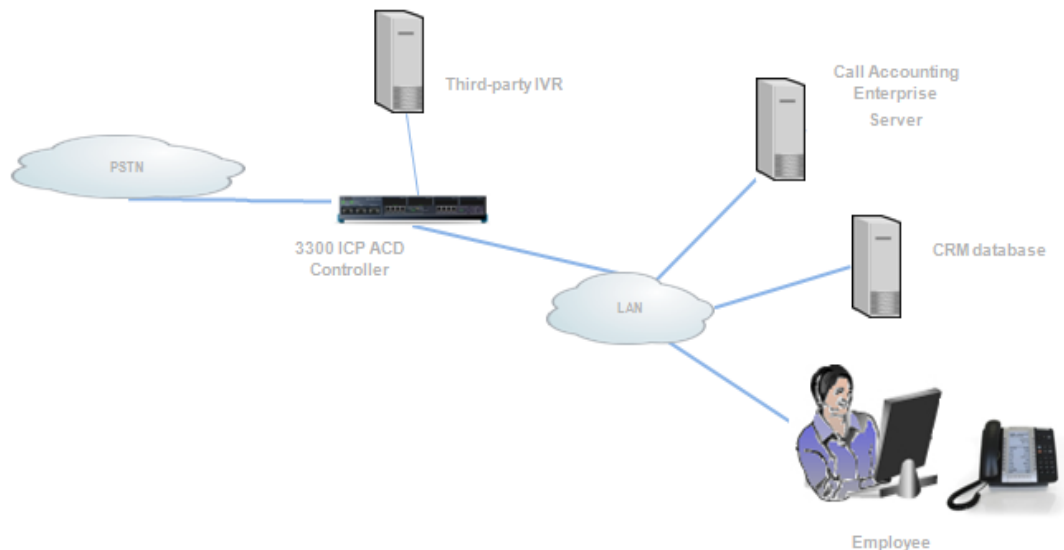


Figure 35: Call Accounting with Screen Pop based on IVR

Chapter 10

Mitel Border Gateway Connector

Introduction

This section provides an overview of Mitel Border Gateway Connector and how it works. For more information, refer to the following topics:

- Overview
- Features
- Benefits
- Configuration

Overview

Mitel Border Gateway Connector is a secure IP-based solution for remote and home-based employees that replaces Teleworker Solution. Using Mitel Border Gateway Version 7 or greater, remote agents, employees, and supervisors can connect to the Enterprise Server using a Virtual Private Network-like connection and use all Contact Center Solutions and Call Accounting functions as if they were in the office.



Note: Users of Mitel Border Gateway Version 6 may benefit from remote agent support through Mitel Border Gateway Connector, but only Contact Center Client real time, soft phone, and Contact Center Management / Call Accounting website functionality is supported.

Features

Mitel Border Gateway Connector enables remote employees at remote locations to

- Use the full suite of Contact Center Solutions and Call Accounting applications
- Handle calls using PhoneSet Manager and Contact Center Softphone
- View real-time monitors and enable real-time alarming
- View historical events in simulated real-time in Auditor
- View Network Monitor to verify if alarms are enabled for the media servers and if the media servers are reporting any alarms

Benefits

Increased productivity

- Agents tend to work longer hours with fewer disruptions.

Reduced real-estate and overhead costs

- Remote employees require little or no access to corporate facilities. Office space can be easily shared or even eliminated.

Increased agent morale

- Agents can avoid long commutes and work more flexible hours in the comfort of their own home. Improved agent satisfaction saves money by decreasing absenteeism and turnover.

Configuration

Employees using Mitel Border Gateway Connector require a phone or USB headset (for soft phone), a computer, a router, and a high-speed Internet connection. Phones must be registered with Mitel Border Gateway and the remote employee's client computer must have the Mitel Border Gateway Connector connection configured to Mitel Border Gateway by an administrator.

When employees connect to the system using the Mitel Border Gateway Connector, they can specify which Mitel Border Gateway they will connect to. After remote employees attempt to connect to the system for the first time, a Mitel Border Gateway system administrator must approve the Mitel Border Gateway certificate from the Mitel Border Gateway web application. Once approved, remote users are connected and have access to all of the Contact Center

Solutions and Call Accounting applications for which they are licensed and have the required security permissions.

While active, the Mitel Border Gateway Connector is visible in the Windows system tray and displays the name of the active connection. Only one connection can be made at a time. The name of the Mitel Border Gateway connection will become the address in all application login windows and users sign in with their normal username and password.

Global Headquarters	U.S.	EMEA	CALA	Asia Pacific
Tel: +1(613) 592-2122 Fax: +1(613) 592-4784	Tel: +1(480) 961-9000 Fax: +1(480) 961-1370	Tel: +44(0)1291-430000 Fax: +44(0)1291-430400	Tel: +1(613) 592-2122 Fax: +1(613) 592-7825	Tel: +61(0) 2 9023 9500 Fax: +61(0) 2 9023 9501

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