



# CDMA/AMPS

## Lucent Operations and Maintenance Center - RAN (Lucent OMC-RAN)

Release 27

Graphical User Interface

401-380-093R27 Issue 1 November 2006

Lucent Technologies - Proprietary This document contains proprietary information of Lucent Technologies and is not to be disclosed or used except in accordance with applicable agreements.

> Copyright © 2006 Lucent Technologies Unpublished and Not for Publication All Rights Reserved

This material is protected by the copyright and trade secret laws of the United States and other countries. It may not be reproduced, distributed, or altered in any fashion by any entity (either internal or external to Lucent Technologies), except in accordance with applicable agreements, contracts or licensing, without the express written consent of Lucent Technologies and the business management owner of the material.

#### Trademarks

All trademarks and service marks specified herein are owned by their respective companies.

#### Notice

Every effort was made to ensure that the information in this guide was complete and accurate. However, information is subject to change.

#### Interference information: Part 15 of FCC Rules

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

#### **CE Conformity**

Hereby, Lucent Technologies declares that the Lucent OMC-RAN is in compliance with the essential requirements and other relevant provisions of the following directives:

- 89/336/EEC Electromagnetic Compatibility Directive
- 73/23/EEC Low Voltage Directive
- 1999/5/EC R&TTE Directive

Conformity is indicated by the CE marking affixed to the rack.

#### Conformity information

For more information regarding CC marking and Declaration of Conformity (DoC), please contact Lucent Technologies Technical Support.

#### Ordering information

The ordering information for this product is 401-380-093R27. To order, call:

1-888-582-3688 (Inside the continental U.S.)

+1-317-322-6416 (Outside the continental U.S.)

#### **Technical support**

Contact your Lucent Technologies Technical Support if you have questions about information not covered in this document.

#### Information product support

Customers in Europe, call: +353 1 692 24579 ICMC (International Customer Management Center). Web page: http://quickplace.emea.lucent.com/QuickPlace/icmc\_dublin/main.nsf/h\_Toc/f856c8360ab24728c1256eaefef/?OpenDocument This link also contains the tollfree numbers by country. Customers in all other regions, call: CTAM: 1-866-Lucent8 (prompt #1) Outside of the US +1-630-224-4672 Web page: http://tssweb.wins.lucent.com/

## Contents

#### About this information product

Purpose	vii
Reason for reissue	vii
Intended audience	vii
How to use this information product	vii
Conventions used	vii
Related documentation	viii
Related training	viii
How to comment	ix
Introduction to the Lucent OMC-RAN GUI	
Overview	
What is Lucent OMC-RAN?	
The Lucent OMC-RAN GUI	
Permissions on the Lucent OMC-RAN GUI	
Getting Started	
Overview	
Logging into the Lucent OMC-RAN client	
Changing the Lucent OMC-RAN password	
Saving a GUI session	
Setting user preferences for the Lucent OMC-RAN GUI	

1

2

	Setting system preferences from the Lucent OMC-RAN GUI	
	Launching Lucent OMC-RAN client on Sun Blade <sup>™</sup>	
3	The Lucent OMC-RAN Desktop	
	Overview	
	About the Lucent OMC-RAN Desktop	
	Lucent OMC-RAN desktop menu bar	
	Lucent OMC-RAN desktop tool bar	
4	Network Manager	
	Overview	
	About Network Manager	
	Network Manager menu bar	
	Network Manager tool bar	
	Network Manager views	
	NE status icons	
5	Recent Change and Verify (RC/V) Manager	
	Overview	
	About Recent Change and Verify (RC/V) Manager	
	Recent Change and Verify (RC/V) Manager menu bar	
	Recent Change and Verify (RC/V) Manager tool bar	
	About Recent Change and Verify (RC/V) Form Selection Wizard	
6	Alarm Manager	
	Overview	
	About Alarm Manager	
	Alarm Manager menu bar	
	Alarm Manager tool bar	
	Alarm Manager views	6.0

	Alarm status icons	
7	Profile Browser	
	Overview	
	About Profile Browser	
8	Technician's Interface Command Line Interface (TICLI)	
	Overview	
	About Technician's Interface Command Line Interface (TICLI)	
9	Report Manager	
	Overview	
	About Report Manager	
	Report Manager menu bar	
	Report Manager tool bar	
	Report Manager tabs	
10	Log Manager	
	Overview	10-1
	Log Manager menu bar	
	Log Manager tool bar	
	Log Manager views	
11	Scheduler	
	Overview	11-1
	About Scheduler	
	Scheduler menu bar	
	Scheduler tool bar	
12	Action History	
	Overview	
	About Action History	
401-38	0-093R27 Lucent Technologies - Proprietary	

	Re-invoke, cancel and clear actions 1	2-4
13	User and Session Manager	
	Overview	3-1
	About User and Session Manager 1	3-2
	User and Session Manager menu bar 1	3-4
	User and Session Manager tool bar 1	3-8
	User and Session Manager views 1	3-9
	User and Session Manager status icons	-15
14	Maintenance	
	Overview	4-1
	About Maintenance	4-2
Gloss	ary	

Index

## About this information product

#### Purpose

The purpose of this guide is to introduce and describe the Graphical User Interface (GUI) of an Operations and Maintenance Center for the Radio Access Network - Lucent OMC-RAN.

#### **Reason for reissue**

This is the first issue of this document. Information that is added, deleted, or changed in future issues will be summarized in this notice.

#### Intended audience

The intended audience for this guide are first-time Lucent OMC-RAN GUI users who are not familiar with the Lucent OMC-RAN Desktop, Network Manager, Alarm Manager, Report Manager, Technician's Interface Command Line Interface (TICLI), Log Manager, Scheduler, User & Session Manager, and System Administration interfaces.

#### How to use this information product

There are no special instructions for using this document.

#### **Conventions used**

The following conventions are used in this document:

User	Refers to any person who is performing a task.
Bold typeface	Identifies menu selections and command names.
Constant-width typeface	Identifies keyboard input and system generated responses.
Italic typeface	Identifies titles of documents, filenames, and directories.

Esc 2	Implies that you press <b>Esc</b> and then <b>2</b> .
< >	Represents variables in a command which are not optional.

#### Related documentation

This section lists the documents that support the use of the Lucent OMC-RAN for installation, operation, administration, and maintenance activities.

#### Lucent OMC-RAN documentation

The following documents comprise the Lucent OMC-RAN documentation set:

- Fault Management, 401-380-088
- Configuration Management, 401-380-197
- Graphical User Interface, 401-380-093
- Object Descriptions, 401-380-091
- System Administration, 401-380-085
- System Installation, 401-380-086
- System Overview, 401-380-094
- Site Preparation, 401-382-210
- Flexent® Wireless Networks OMC-RAN Operations, Administration, and Maintenance, 401-662-105
- Flexent® Wireless Networks OMC-RAN Planning, 401-662-107
- Software Retrofit Procedures, 401-662-106.
- Common Object Request Broker Architecture North Bound Interface, 401-380-198
- Simple Network Management Protocol North Bound Interface, 401-380-199

#### Third-party documentation

The System Installation document refers to the following third-party documents:

• Sun GigaSwift Ethernet Adapter Installation and User's Guide, 806-2989-10.

#### **Related training**

.....

Lucent Technologies provides a complete set of training courses to support the Lucent Technologies RAN System.

For a complete description of Lucent Technologies training courses, see

https://training.lucent.com/SabaWeb.

For a course registration, see Contact Us at

https://training.lucent.com/SabaWeb.

#### How to comment

To comment on this information product, go to the Online Comment Form (http://www.lucent-info.com/comments/enus/) or email your comments to the Comments Hotline (comments@lucent.com).

Lucent Technologies welcomes any suggestions you might have concerning ways in which we can improve this document. Please send the name of the document and any comments to comments@lucent.com or use online comments forms at http://www.lucent-info.com/comments/.

## 1 Introduction to the Lucent OMC-RAN GUI

### Overview

#### Purpose

This chapter provides an introduction to the Lucent OMC-RAN and its Graphical User Interface (GUI). It also provides information on the permissions required to launch the Lucent OMC-RAN GUI on your computer.

.....

#### Contents

What is Lucent OMC-RAN?	1-2
The Lucent OMC-RAN GUI	1-5
Permissions on the Lucent OMC-RAN GUI	1-7

## What is Lucent OMC-RAN?

#### Overview

The Lucent OMC-RAN is the element management system for the Radio Access Network network elements.

The Lucent OMC-RAN resides in the element management layer of a typical telecommunications network. It provides an interface between the RAN function located within the network element layer and network management systems located in the network management layer.

The Lucent OMC-RAN does not interact with an upstream network level system for the configuration management function.

#### The Lucent OMC-RAN components

There are broadly four different types of components that make up the Lucent OMC-RAN architecture:

- The Root Group
- The FxApx (FAS Flexent Autoplex System) Group

.....

- The SPF and ORCA Groups
- The System Group



#### The Root group

The Root group is at the top most level in the network manager hierarchy and it displays the server name on which the application is running.

#### The FAS group

Immediately below the Root Group is the FxApx (FAS) group.

The FAS Group contains:

- the SPF Group
- the ORCA Group

#### The SPF and ORCA groups

The SPF group consists of several Application Processors (APs) and the SNMP-proxy.

The ORCA (OMC-RAN Corba Agent) group consists of the following:

- The BTS group
- The CDN group

- The DCS group •
- The RNC1X group
- The CORBA agent •

The BTS group consists of several network elements (NEs), such as Mod1bts, Microbts, and ApxS2. The CDN group consists of one or more than one Cdn network elements. The DCS group consists of one or more than one Dcs5Ess network elements. The RNC1X group consists of one or more than one RNC1X network elements. The CORBA agent is the ORCA network element.

#### The System group

The System group consists of the system NE that tracks the effectiveness and efficiency of the system.

The system has one or more thresholds such as:

- Log manager has reached its limit •
- CPU has crossed its limit
- Disk has become full •
- System is overloaded with too many events. •

If the threshold is crossed, the system NE, which is under the EMS group will raise an alarm indicating the type of threshold that is crossed.

#### **Related information**

For advanced information on the Lucent OMC-RAN network elements, please refer to the Lucent OMC-RAN System Overview, 401-380-094.

## The Lucent OMC-RAN GUI

#### About the Lucent OMC-RAN GUI

The GUI is an interface to the functionality on a Lucent OMC-RAN. The GUI allows authorized users to manage the network elements and objects involved in the exchange of information to and from the network.

#### Lucent OMC-RAN permissions

To access and use any of the functional areas on the Lucent OMC-RAN GUI, you need permissions assigned by the Lucent OMC-RAN administrator. These permissions are required to carry out tasks or perform actions on the network elements and objects or entities. For more information on permissions refer to the *Lucent OMC-RAN System Administration*, 401-380-085.

#### Network management

The Network Manager is a configuration management interface that allows you to manage the network elements and objects on the telecommunications network.

#### Fault management

The Alarm Manager enables you to track network element failures and manage them without causing major service interruptions.

#### System administration

The system administrator module on the Lucent OMC-RAN enables the system administrator to carry out the following tasks:

- Enable users with appropriate permissions to carry out tasks on the GUI and monitor user sessions
- Generate and store archives and backups on the file system (System Maintenance)
- Generate and store logs on the file system (Log Manager)
- Set system preferences
- Generate and store reports on the file system (Report Manager)
- Schedule and delete tasks (Scheduler)
- Monitor user sessions.

#### User administration

The system administrator can use the User and Session Manager GUI to manage users and assign permissions on the Lucent OMC-RAN. The functions on the User and Session Manager interface are only available to the user with Lucent OMC-RAN administrator permissions.

#### System maintenance

System administration on the GUI involves system maintenance tasks such as archiving, backing up files, and generating logs. You need Lucent OMC-RAN administrator permissions to carry out these tasks.

The system administrator can also use GUI tools such as Report Manager to generate reports and Scheduler to schedule tasks/actions.

#### Help

Access the Lucent OMC-RAN documentation set from the Help menu on the Lucent OMC-RAN desktop by selecting Help, then On-line Documentation. If you want to find a topic in the documentation, you can search using a key word, by selecting Help, then **Documentation Search**.

#### **Related information**

For more information on the functional areas on the GUI, see the following titles in the Online Documentation set:

- Lucent OMC-RAN Configuration Management, 401-380-197 •
- Lucent OMC-RAN Fault Management, 401-380-088 •
- Lucent OMC-RAN System Administration, 401-380-085. •

### Permissions on the Lucent OMC-RAN GUI

#### Overview

This section deals with the permissions required on the Lucent OMC-RAN client to access or use any of the functionality on the GUI.

#### User access

You have to be an authorized user on the Lucent OMC-RAN system to access or use any of the functionality on the GUI.

#### **Access rights**

Permissions refer to the access rights assigned to a user by the Lucent OMC-RAN system administrator on the Lucent OMC-RAN GUI. The administrator assigns rights or permissions to users based on the tasks they need to carry out on the GUI. After you login successfully, your access to element management functions is determined by the user permissions that are set for you by the Lucent OMC-RAN system administrator.

You need to:

- Have a valid user name and password to access the GUI
- Be assigned to a user group by the administrator
- Have entities and tasks or task groups assigned to your user group by the administrator.

#### **Related information**

For more information refer to Lucent OMC-RAN System Administration, 401-380-085 .

## 2 Getting Started

### Overview

#### Purpose

This chapter provides important procedural information about logging into the Lucent OMC-RAN client, changing the Lucent OMC-RAN client password, and saving a Lucent OMC-RAN GUI session. It also presents information about how to customize the Lucent OMC-RAN GUI.

#### Contents

Logging into the Lucent OMC-RAN client	2-2
Changing the Lucent OMC-RAN password	2-5
Saving a GUI session	2-7
Setting user preferences for the Lucent OMC-RAN GUI	2-9
Setting system preferences from the Lucent OMC-RAN GUI	2-16
Launching Lucent OMC-RAN client on Sun Blade <sup>TM</sup>	2-29

## Logging into the Lucent OMC-RAN client

#### Purpose

This procedure provides instructions for logging into the Lucent OMC-RAN client from your computer.

#### **Related information**

When you launch the GUI on your computer for the first time, you will be prompted to create a short cut to the Lucent OMC-RAN client application.

Note that this depends on the shortcut preferences you have set in the **Shortcut Options** tab of the **Preferences** dialog of the *Java*<sup>®</sup> Web Start application. Use the shortcut icon to launch the GUI. For more information on *Java*<sup>®</sup> Web Start, refer to *System Installation*, 401-380-086

#### Before you begin

Before you begin this procedure, the following software must be installed on your system:

- *Java*<sup>TM</sup> JDK 1.4.2\_11
- Lucent OMC-RAN Client software
- Web browser with internet access
- *lucent.cert*, the Lucent certificate.

NOTE: For more information on a first time software installation, refer to the section Installing Lucent OMC-RAN client application of the *System Installation*, 401-380-086.

The Lucent OMC-RAN system administrator needs to provide you with a user name and password, and permissions to logon and perform tasks on the GUI. You also need a web link to the Lucent OMC-RAN client supplied by the system administrator.

#### To log into the Lucent OMC-RAN client

Complete the steps below to log into the Lucent OMC-RAN client:

1 Click the Web link supplied by the Lucent OMC-RAN system administrator. The Lucent OMC-RAN client launch page is displayed.

2 Click the step to launch the GUI.

If an interface with an external Access Control Server (ACS)	Then
has been implemented	the Lucent OMC-RAN GUI may be automatically launched without displaying server connection and login windows
has not been implemented	<ul> <li>the Lucent Technologies Lucent OMC-RAN splash screen and the Lucent OMC-RAN Server</li> <li>Connection window are displayed on your computer.</li> <li>Go to Step 3</li> </ul>

**3** Select the server you want to connect to from the **Server Name** field. The **Server Port** field is populated with the corresponding port number.

NOTE: You can select the server during login from the drop-down list.

- .....
- 4 Click the **Connect** button.

**Result:** The Lucent OMC-RAN Log In screen appears.

- **5** In the **User name** field, enter your GUI user name assigned by the Lucent OMC-RAN system administrator.
- 6 In the **Password** field, enter your GUI password assigned by the Lucent OMC-RAN system administrator.
- 7 Click Log in.

Result: On a successful log in, a legal disclaimer screen is displayed.

8 Click **Accept** to accept the disclaimer.

Result The Lucent OMC-RAN Desktop GUI is displayed on your computer.

END OF STEPS

## Changing the Lucent OMC-RAN password

#### Purpose

This procedure provides instructions to change your Lucent OMC-RAN password.

#### **Related Information**

There is no related information required for this procedure.

#### Before you begin

Please ensure that your password:

- Must have more than 3 different characters from the previous passwords defined in the system.
- Is a string of minimum seven and maximum twelve characters.
- Contains at least two letters of the alphabet and one number.
- Does not have blank spaces.
- Does not contain your user name.

The password entered into the New password and Confirm new password fields must be identical. The password is case-sensitive.

#### To change the password

Complete the steps below to change your password on the Lucent OMC-RAN client:

- 1 From the Lucent OMC-RAN desktop, select **Options**.
- 2 Select Change Password.
- 3 In the **Old password** field, enter your current password.
- 4 In the **New password** field, enter your new password.
- 5 In the **Confirm new password** field, re-enter your new password.
- 6 Click **OK**.

**Result:** The Lucent OMC-RAN system displays a confirmation message that your password has been changed successfully.

END OF STEPS

## Saving a GUI session

#### Purpose

This procedure provides instructions for saving a GUI session on the Lucent OMC-RAN.

#### **Related information**

The **Use saved session** option does not alter, delete, or overwrite system or user preferences. When the Use saved session option is not enabled, the Lucent OMC-RAN GUI uses either the user preferences, if defined or the default system preferences.

#### Before you begin

A saved GUI session can be enabled for Network Manager, and Alarm Manager and Alarm Summary windows.

If a GUI session is saved, the saved window opens by default when you next log on to the Lucent OMC-RAN GUI. Saving a GUI session also saves the position and size of the window that opens on the next start of the Lucent OMC-RAN GUI.

The saved session option can be enabled by selecting the **Use saved session** check box in the Lucent OMC-RAN **Log In** screen.

At any time, you can have only one session saved per user on the Lucent OMC-RAN GUI. If you save a second session, it overwrites the first one.

#### To save a GUI session

Complete the following steps to save a GUI session:

- 1 From the Lucent OMC-RAN GUI, open the windows that you want displayed by default, when you log on next.
- 2 From the Lucent OMC-RAN desktop, select **Options**, then **Save Session**.

**Result:** A confirmation window is displayed, indicating that the session is successfully saved.

**3** Click **OK** to acknowledge the confirmation.

Result You have saved a GUI session for Lucent OMC-RAN.

END OF STEPS

### Setting user preferences for the Lucent OMC-RAN GUI

This section describes how to define user preferences settings related to the Lucent OMC-RAN GUI features.

#### **User Preferences**

The User Preferences window enables you to set preferences for using the GUI. User preferences are defined at a user level, so you can access or modify the user preference settings only for your user login to the GUI.

To access User Preferences, select **Options**, then **User Preferences** from the Lucent OMC-RAN desktop menu bar.

User Preferences, when defined, have priority over system or default settings.

If you do not set User Preferences, the default values, or the values set in System Preferences are used by the system.

However, if you have saved a session using the **Tools**, **Save Session** option from the Lucent OMC-RAN desktop, then the saved session takes priority over system and user preferences.

General Alarm Mgmt Configuration Mgmt Report Mgmt		
_Windows to be opened at applic	ation startup	Auditory feedback
Network Manager		On error
📃 Alarm Manager		Show
Alarm Summary		OUser label
Number of actions to be display	ed in	ODistinguished Name
Feedback area on frames	20	÷
Action History	100	Auto close
		Apply OK Cancel Help

The General tab on the User Preferences window enables you to specify default settings for the Lucent OMC-RAN GUI.

#### General tab

Section	Field	Description
Windows to be opened at application startup	Network Manager	Select one or more options to open the GUI with the specified windows.
	Alarm Manager	For example, select <b>Network Manager</b> if you want the GUI to open with the
	Alarm Summary	Network Manager window.
		Default = unchecked
Number of actions to be displayed in	Feedback area on frames	Select the number of actions you want to display on the feedback area on the GUI, by clicking the arrows on the field to increase or reduce the number.
		Range = $10 - 50$ actions
		Default = 20 actions
		Per feedback bar $= 1$ action.
	Action History	Select the number of actions you want to display on the Action History table, by clicking the arrows to increase or reduce the number.
		Range = $50 - 500$ actions
		Default = 100 actions
		Per window = 10 actions
Auditory feedback	On error	Select the <b>On error</b> check box, if you want an audible sound when an error occurs.
		Default = checked
Show	User label	Enables you to choose how you want the object or Network Element (NE) names to be displayed on the GUI.
		If you select the <b>User label</b> radio button, the labels for the objects or NEs are used on the Lucent OMC-RAN GUI. It is
	Distinguished Name	recommended that you use this option. If you select the <b>Distinguished Name</b> radio button, the distinguished name, or the GDN of the object or a network element, is displayed on the GUI. A GDN is a unique ID assigned to an object. Default = User label

Section	Field	Description
CLI	Auto close	Select the check box to automatically close all the TICLI sessions opened from the GUI.

#### Alarm Mgmt tab

General Alarm Mgmt Configuration Mgmt Report Mgmt		
☑ Open alarm table on start up		
Use alarm filter	OpenAlarmsSystemDefault	
Alarm sounds on		
Alarm sounds filter	CriticalAlarmsSystemDefault	
Save position of alarm summary		
	Apply OK Cancel Help	

The Alarm Mgmt tab on the User Preferences window allows you to specify settings for the Alarm Manager application on the Lucent OMC-RAN GUI.

Field	Description	
Open alarm table on start up	Select this check box if you want the Alarm Table displayed when you open Alarm Manager.	
	Default = checked	
Use alarm filter	When the Alarm Manager is opened the alarm table displays information on alarms as specified in the selected filter.	
	Select a filter from the list box, by clicking the arrow to display the filter options.	
	Default = all open alarms.	
Alarm sounds on	Select the check box to enable an audible sound when an alarm is activated on the GUI. Default = checked	

Field	Description	
Alarms sounds filter	Select from the list box, the alarm severity, event type, and NE to which the audible alarm will apply.	
	Default = critical alarms of any event type associated with any NE managed by the GUI.	
Save position of alarm summary	Select the check box to save the position of the Alarm Summary window. The next time you log in, the Alarm Summary window will open in the same position. Default = cleared.	

#### **Configuration Mgmt tab**

General Alarm Mgmt Configuration Mgmt Report Mgmt		
Number of NE tree tabs 3 🛨		
Topological view		
Default topology arrangement	Table	9
Topographical view		
	Apply OK Cancel Help	۵ ا

The Configuration Mgmt tab on the User Preferences window allows you to specify settings for the Topological and Topographical views in the Network Manager, on the Lucent OMC-RAN GUI.

Section	Field	Description
Topological view	Default topology arrangement	Opens the topological view with the NEs displayed in the selected arrangement.
		Select an arrangement from the list box.
		Default = Table.
		<b>Note</b> : Topological view is not supported in Lucent OMC-RAN. This option does not impact the graphical user interface.

Section	Field	Description
Topographi- cal view	Reload map files from server	Select this check box to reload the map files from the server.
		Default = cleared
		<b>Note</b> : Topographical view is not supported in Lucent OMC-RAN. This option does not impact the graphical user interface.

#### **Report Mgmt tab**

General Alarm Mgmt Configuration Mgmt Report Mgmt		
Preselected report type in report manager	none	
	Apply OK Cancel Help	

The Applications tab on the User Preferences window allows you to specify settings for the Alarm Manager and Report Manager applications on a Lucent OMC-RAN GUI.

Field	Description	
Preselected report type in report manager	Opens the Report Manager showing reports in the selected report format.	
	Select a report type from the list box. Default = no report type is selected.	

#### Elements you can adjust on the GUI

You can manually adjust the listed features temporarily on the GUI.

Feature	Description
Window size	Change the size of the different interfaces that can be accessed from the Lucent OMC-RAN desktop window. Placing the cursor at the corner of the window, changes the cursor to a double arrow. Drag the corner to enlarge the window to the preferred size.
	<b>Note:</b> The next time the window is opened, it will open at the original size.
Tool bar	Show or hide the tool bar on the desktop or on any of the navigation window by selecting <b>View</b> , then <b>Toolbar</b> .
Manager window	Hide the tree view (if the manager window displays the tree view), by clicking the leftward facing toggle arrow on the split pane bar.
	The split pane bar divides the left and right panes of a navigation window that has a tree view.
Tree view	Expand the tree view to cover the entire manager window area by clicking the rightward facing toggle arrow on the split pane bar.
Column size	Adjust the width of a column by placing the cursor on the column heading dividing line. The cursor changes to a double arrow, and you drag the line to enlarge or reduce the column width. There is a maximum and a minimum limit to which you can resize the column width.
	When a field in the table does not display the complete content, you can place the mouse cursor over a field to view a tooltip that displays the complete content of the field.
Number of Columns	In Alarm Manager, change the number of the columns on a table or list, by clicking the <b>Show/Hide</b> toolbar button on the Alarm Manager toolbar.
Re-ordering column display in a table	You can use the mouse to drag a column heading and change the column's display order within a table.
Sorting columns	Click the column heading in a table to show a sort arrow. You can sort a column in the ascending or descending order.

Feature	Description
Windows menu	Use this menu to tile or cascade the open windows within the navigation window.
	The Tile command fits all open GUI windows within the navigation area, so that you can view all the windows.
	The Cascade command places open GUI windows on top of one another. The title bar of the open windows are visible. Click the title bar of the window that you want to bring forward.

#### **Related information**

For more information on User and System Preferences, refer to the *Lucent OMC-RAN System Administration*, 401-380-085.

### Setting system preferences from the Lucent OMC-RAN GUI

This section provides information on how to set the system preferences from the Lucent OMC-RAN graphical user interface (GUI).

#### System preferences

System preferences are configurable system-level parameters that affect certain aspects of the functionality of your system, such as how logs and reports are presented and stored, what security options are enabled, and how alarms are generated. System preferences offer you the flexibility of configuring your system to meet your changing needs.

System preferences have default values that remain in effect until you change them. System preferences are grouped by function, such as Security Management and Network Management.

#### Security for system preferences

Lucent OMC-RAN system administrators may modify all types of system preferences. Accessing and modifying system preferences require a system administration login account.

#### System Preferences window

The System Preferences window enables you to set the preferences from the Lucent OMC-RAN GUI.

To access the System Preferences window, select **Options**, then **System Preferences** from the Lucent OMC-RAN desktop menu bar.

The System Preferences window consists of the following tabs:

- General
- User Mgmt
- Radius Access
- Alarm Mgmt (1)
- Alarm Mgmt (2)
- Log Mgmt
- Report Mgmt
- Performance Monitoring
- Advanced

#### General tab

The General tab on the System Preferences window enables you to set the following preferences:

Field	Description
Local title	Specifies the title of the element management application.
Display IP address	Displays the server IP address at the different GUI applications.
Restore defaults	Resets the default values.

#### User Mgmt tab

The User Mgmt tab on the System Preferences window enables you to set the following preferences:

Section	Field	Description
User access	Max. sessions per user	The number of clients that can be started at the same time with the same user account.
		Range = $1$ to $20$
		Default = 7
	Restrict authentication failures	Automatic blocking of users after consecutive authentication failures.
		Default = checked
-	Block user after number of	The number of incorrect consecutive logins before user account is blocked.
	authentication failures	Range = $1$ to $20$
		Default = 3
Password	Prohibit password reuse	The number of times previously used passwords cannot be reused.
		Range = 0 to $10$
		Default = 5

Section	Field	Description
Time outs	Automatically terminate inactive user sessions	Disconnects the client automatically on user inactivity.
		Default = checked
	Allow session inactivity for (time)	The time allowed for a user to be inactive Default = 60 mins
	Warn user in advance	Number of minutes before automatic client disconnect when user receives a warning.
		Range = 5 to 15 mins
		Default = 5
	Permit user only to one user group	Avoids user assignment to multiple user groups.
		Default = unchecked
	Restore defaults	Resets the default values.

#### **Radius Access tab**

The Radius Access tab on the System Preferences window enables you to set the following preferences:

Section	Field	Description
Default	Local	Applies to locally authenticated users.
authentication mode Default = Local	External (RADIUS)	Applies to externally authenticated users.
	Primary IP	The IP address of the primary RADIUS server.
	Primary UDP port	The authentication UDP port number of the primary RADIUS server
		Default = 1812
	Primary shared secret	The shared secret key of the primary RADIUS server
	Confirm primary shared secret	The shared secret key of the primary RADIUS server again, for confirmation.
	Alternate 1 IP	IP address of the first alternate RADIUS server
Section	Field	Description
---------	--------------------------------------	---
	Alternate 1 UDP port	The authentication UDP port number of the first alternate RADIUS server
		Default = 1812
	Alternate 1 shared secret	The shared secret key of the first alternate RADIUS server
	Confirm alternate 1 shared secret	The shared secret key of the first alternate RADIUS server again, for confirmation.
	Alternate 2 IP	The IP address of the second alternate RADIUS server
	Alternate 2 UDP port	The authentication UDP port number of the second alternate RADIUS server Default = 1812
	Alternate 2 shared secret	The shared secret key of the second alternate RADIUS server
		Maximum length = 16 characters
	Confirm alternate 2 shared secret	The shared secret key of the alternate RADIUS server again, for confirmation.
	Restore defaults	Resets the default values.

#### Alarm Mgmt (1) tab

The Alarm Mgmt (1) tab on the System Preferences window enables you to set the following preferences:

Section	Field	Description
Purge settings	Alarms purge	Automatic purge policy for alarm records.
	policy	Policies available:
		Automatically purge alarms when exceeding internal system boundaries
		Automatically purge alarms when reaching maximum size
		Automatically purge alarms when exceeding latency period
		Default = Latency
	Historical events purge policy	Automatic purge policy for historical event records
		Policies available:
		Automatically purge historical events when exceeding internal system boundaries
		Automatically purge historical events when reaching maximum size,
		Automatically purge historical events when exceeding latency period
		Default = Latency
	Alarm purge reduction	Percentage reduction in database use by purge command for alarms.
		Range = 0 to $85\%$
		Default = 60
	Historical events purge reduction	Percentage reduction in database use by purge command for historical events.
		Range = 0 to $85\%$
		Default = 60%

Section	Field	Description
Alarm overflow thresholds	Major	Specifies the alarm overflow capacity for a major alarm that exceeds the specified value.
		Range = 0 to $100\%$
		Default = 90%
	Minor	Specifies the alarm overflow capacity for a minor alarm that exceeds the specified value.
		Range = 0 to $95\%$
		Default = 80%
	Warning	Specifies the alarm overflow capacity for a warning alarm that exceeds the specified value.
		Range = 0 to $90\%$
		Default = 70%
Historical event overflow	Major	Specifies the historical event capacity for a major alarm that exceeds the specified value.
thresholds		Range = 0 to $100\%$
		Default = 90%
	Minor	Specifies the historical event capacity for a minor alarm that exceeds the specified value.
		Range = 0 to $95\%$
		Default = 80%
	Warning	Specifies the historical event capacity for a warning that exceeds the specified value.
		Range = 0 to $90\%$
		Default = 70%
	Restore defaults	Resets the default values.

#### Alarm Mgmt (2) tab

The Alarm Mgmt (2) tab on the System Preferences window enables you to set the following preferences:

Section	Field	Description
Database	Alarm limit	The maximum number of alarm records.
management		Range = $10,000$ to $500,000$
		Default = 20,000
	Historical Event limit	The maximum number of historical event records.
		Default = 20,000
	Alarm age	The number of days until when the alarm records are retained before purging.
		Range = 0 to 90 days
		Default = 7 days
	Historical Event age	The number of days until when the historical event records are retained before purging.
		Range = 0 to 90 days
		Default = 7 days
Alarm e-mail forwarding	Server	The IP address or the host name of the alarm forwarding e-mail server
	Sender e-mail address	The e-mail address of the sender
	Subject	The subject for the alarm forwarding e-mail.
		Default = "Alarms details forwarded"
	Delay in logging communication errors	The time after which a log is generated for device communication errors.
		Range = $1$ to $3600$ seconds
		Default = 60 seconds
	Restore defaults	Resets the default values.

#### Log Mgmt tab

The Log Mgmt tab on the System Preferences window enables you to set the following preferences:

Section	Field	Description
Activation	Enable action log	Enables logging of actions
		Default = enabled
	Enable event log	Enables logging of events
		Default = enabled
	Enable security log	Enables logging of inforamtion related to security
		Default = enabled
Overflow thresholds	Critical	The percentage, by when a critical alarm should be raised if the log file capacity exceeds the specified value.
		Range = $60\%$ to $95\%$
		Default = 80%
	Major	The percentage, by when a major alarm should be raised if the log file capacity exceeds the specified value.
		Range = $50\%$ to $90\%$
		Default = 70%
	Minor	The percentage, by when a minor alarm should be raised if the log file capacity exceeds the specified value.
		Range = $30\%$ to $65\%$
		Default = 60%
Log file management	Latency (Action log)	The number of days until when the action logs should be retained.
		Range = $1$ to $30$ days
		Default = 7 days
	Size (Action log)	The file system size for the action logs.
		Range = $25$ to $250$ MB
		Default = 25 MB

Section	Field	Description
	Latency (Security log)	The number of days until when the security logs should be retained.
		Range = $1$ to $30$ days
		Default = 7 days
	Size (Security log)	The file system size for the security logs.
		Range = $25$ to $250$ MB
		Default = 25 MB
	Latency (Event log)	The number of days until when the event logs should be retained.
		Range = $1$ to $30$ days
		Default = 7 days
	Size (Event log)	The filesystem size for the event logs.
		Range = $25$ to $250$ MB
		Default = 25 MB
Common log file		The automatic archive policy for log files
archiving policy		Policies available:
		Automatically archive logs when reaching maximum size
		Automatically archive logs when exceeding latency period
		Only remove files when reaching capacity limit
		Default = size
	Restore defaults	Resets the default values.

#### **Report Mgmt tab**

The Report Mgmt tab on the System Preferences window enables you to set the following preferences:

Section	Field	Description
Overflow thresholds	Critical	The percentage, by when a critical alarm should be raised if the report file capacity exceeds the specified value.
		Range = $60\% - 95\%$
		Default = 80%
	Major	The percentage, by when a major alarm should be raised if the report file capacity exceeds the specified value.
		Range = 50% - 90%
		Default = 70%
	Minor	The percentage, by when a minor alarm should be raised if the report file capacity exceeds the specified value.
		Range = 30% - 85%
		Default = 60%
Report file management	Latency	The number of days until when the report files should be retained.
		Range = $1$ to $30$ days
		Default = 7 days
	Size	The file system size for the report size. The size is irrespective of the report type or format.
		Range = $100$ MB to $1$ GB
		Default = 300 MB

Section	Field	Description
Report archiving		The automatic archive policy for log files.
policy		Following policies are available:
		Automatically archive reports when reaching maximum size
		Automatically archive reports when exceeding latency period
		Only remove files when reaching capacity limit
		Default = size
	Restore defaults	Resets the default values.

#### Performance Monitoring tab

The Performance Monitoring tab on the System Preferences window enables you to set the following preferences:

Section	Field	Description
Bundled file	Format	The file format for bundled statistics data.
settings		Available file formats are:
		TAR, CPIO, 3GPP
		Default = TAR
	3GPP File Type	The 3GPP bundle file format to be produced.
		Available file formats are:
		B series, D series
		Default = B series
	Compression mechanism	The compression mechanism to be used over bundled statistics data.
		Available file formats are:
		COMPRESS, GZIP, None
		Default = None

Section	Field	Description
	File retention	The number of days until when the bundled statistics data should be kept on file system.
		Range $= 1$ to 14 days
		Default = 7 days
Raw file settings	Automatic deletion	The raw statistics data to be automatically deleted when the retention period is exceeded.
		Default = unchecked
	Retention period	The number of hours until when the raw statistics data should be kept on file system.
		Range $= 1$ to 48 hours
		Default = 12 hours
	PM viewer file retention period	The number of hours until when the PM viewer statistics data should be kept on file system.
		Range = $1$ to $48$ hours
		Default = 12 hours
	Restore defaults	Resets the default values.

#### Advanced tab

The Advanced tab provides an option to alter the system preferences. You can set the following Lucent OMC-RAN specific system preferences:

Attribute	Description
Command output	Specifies the number of lines in the command output area of the TI Wizard and TICLI.
Wizard history list	Specifies the number of entries in the command history of the TI wizard and TICLI.
BTS Overview	Specifies the default group that should be selected for BTS Overview.
AP/ES Overview	Specifies the default group that should be selected for AP/ES.

Attribute	Description
Polling Duration	Specifies the duration the polling to either start or stop.
Alarm Polling Duration	Specifies the duration the polling in ES.
State Polling Duration	Specifies the duration the polling on the AP objects.

#### **Related information**

For more information on System Preferences, refer to *System Administration*, 401-380-085

## Launching Lucent OMC-RAN client on Sun Blade<sup>™</sup>

#### Purpose

This procedure provides instructions for launching the Lucent OMC-RAN client on Sun  $Blade^{TM}$ .

#### Before you begin

You must install  $Java^{TM}$  Web Start and  $Java^{TM}$  2 Runtime Environment, before installing Lucent OMC-RAN client.

For more information on installing  $Java^{TM}$  Web Start and  $Java^{TM}$  2 Runtime Environment, refer to *Lucent OMC-RAN System Installation*, 401-380-086, .

#### Launching the Lucent OMC-RAN client on Sun Blade<sup>™</sup>

1 On the Sun  $Blade^{TM}$  system, execute the following command to change the directory to where  $Java^{TM}$  Web Start was installed:

cd /<directory where Java Webstart is installed>

For example, if  $Java^{\text{TM}}$  Web Start was installed in */export/home/omcadm/javaws* then execute the command, cd /export/home/omcadm/javaws .

**Result** The directory is changed to the *Java*<sup>TM</sup> Web Start directory.

------

- **2** Execute the following command to launch the  $Java^{TM}$  Web Start application:
  - ./javaws

**Result** The *Java*<sup>™</sup> Web Start application is launched. The Java Web Start Manager window displays all the previous installations of Lucent OMC-RAN clients.

3 Click on a Lucent OMC-RAN client you want to launch.

**Result** The Lucent OMC-RAN Log in window is displayed.

4 Enter the user name as "*omcadm*" and password as "*lucent123*" and click Log In to log on to the Lucent OMC-RAN server.

Result The Lucent OMC-RAN GUI is displayed.

END OF STEPS

#### **Important!**

#### Troubleshooting the Lucent OMC-RAN client

The Lucent OMC-RAN client may not respond sometime, due to various reasons.

Follow the steps below, if the client becomes unusable and does not respond to the actions performed (applies only to Windows based PC) :

- 1 Press the **Ctrl**, **Alt** and **Delete** on the key board.
- 2 Click the <u>T</u>ask Manager button.

Result The Windows Task Manager window will appear.

**3** Right click on the Lucent OMC-RAN Desktop application in the **Applications** tab and select **Go To Process**.

Result The corresponding process for the GUI in the Processes tab is selected.

4 Right click on the selected GUI process and click End Process Tree option.

**Result** This would kill all the stale processes which were running at the background.

NOTE: There should not be any stale Java processes running before launching the client. The following steps are to be followed to identify the stale processes running on the system.

- Check for *javaw.exe* processes in the **Processes** tab of the **T**ask Manager window
- Go to Step 4.
- Ignore the error messages displayed, when certain processes are deleted. If any *javaw/java* process gives an exception that it cannot be removed or killed, then they are not started by the Lucent OMC-RAN GUI. So they will not pose any threat to the GUI.

END OF STEPS

# 3 The Lucent OMC-RAN Desktop

### Overview

#### Purpose

This chapter describes the Lucent OMC-RAN GUI desktop interface.

#### Contents

About the Lucent OMC-RAN Desktop	3-2
Lucent OMC-RAN desktop menu bar	3-4
Lucent OMC-RAN desktop tool bar	3-9

## About the Lucent OMC-RAN Desktop

#### Overview

The Lucent OMC-RAN desktop is the interface that is displayed by default when you first log on to the Lucent OMC-RAN client GUI. The Lucent OMC-RAN desktop window displays a menu bar and a toolbar that provide access to Lucent OMC-RAN functionalities.

#### Permissions

To launch the GUI and the Lucent OMC-RAN desktop window you need to have a user account on the Lucent OMC-RAN system and be a member of at least one user group on the system. The user groups you belong to depend on the tasks you need to carry out on the GUI. The system administrator assigns permissions on the Lucent OMC-RAN GUI. Refer to the introductory section on Permissions in Chapter 1 of this guide.

For detailed information, refer to the *Lucent OMC-RAN System Administration*, 401-380-085.

#### Access

Launch the Lucent OMC-RAN GUI by clicking the Web link on the client launch page supplied by the system administrator. For details on accessing the Lucent OMC-RAN client application, refer to Logging into the Lucent OMC-RAN client, in this document.

#### Lucent OMC-RAN Desktop Interface



The Lucent OMC-RAN desktop window displays a menu bar and a tool bar that provide access to Lucent OMC-RAN functionalities.

Use the desktop window to access the following functionalities:

- Network Manager
- Alarm Manager
- Alarm Summary
- Recent Change and Verification (RC/V) Manager

- Profile Browser •
- Technician Interface Command Line Interface (TICLI)
- Scheduler
- Report Manager •
- Log Manager •
- User Preferences •
- System Preferences •
- User and Session Management (System Administration) •
- System Maintenance •
- Change password •
- Save session

## Lucent OMC-RAN desktop menu bar

#### Overview

This section describes the menus available on the Lucent OMC-RAN desktop in detail.

You can access Network Manager, Alarm Manager and other functionality from the Lucent OMC-RAN desktop menus.

The various menus, which are available on the Lucent OMC-RAN are described in the following tables:

#### File menu

Menu	Description
E <u>x</u> it	Closes the Lucent OMC-RAN desktop and the Lucent OMC-RAN GUI application.

#### Network menu

Menu	Description
Network <u>M</u> anager	Opens the Network Manager window. The Network Manager window allows you to carry out configuration tasks on the network. The menus and toolbar on this window are network management specific.
R <u>C</u> /V Manager	Opens the Recent Change Verification (RC/V) Manager window. The RC/V Manager window allows you to manage forms to carry out configuration tasks on the network.

.....

#### Alarms menu

Menu	Description
Alarm <u>S</u> ummary	Opens the Alarm Summary window. Allows you to view a count of the critical, major, minor, and open alarms on the network. Click one of the alarm type buttons to open the alarm table. This displays a list of the alarms for the selected type.
<u>A</u> larm Manager	Opens the Alarm Manager window. Enables you to carry out fault management tasks on the network if you have the required permissions. The menus and toolbar on this window are fault management specific.

#### View menu

Menu	Description
Toolbar	Shows or hides the Lucent OMC-RAN desktop toolbar.

#### Tools menu

Menu	Description
ŢICLI	Opens the Technician's Interface Command Line Interface, which is the standard Lucent OMC-RAN CLI.
Sche <u>d</u> uler	Opens the Scheduler window. The Scheduler window allows the Lucent OMC-RAN administrator to manage scheduled tasks/actions on the Lucent OMC-RAN system. The menus and toolbar on this window are Scheduler specific.
Action <u>H</u> istory	Opens the Action History window. The Action History window gives you a list of actions performed on the Lucent OMC-RAN GUI.

Menu	Description
<u>R</u> eport Manager	Opens the Report Manager window. The Report Manager window enables you to view, generate and manage reports for network configuration, fault management, logs, and user administration. Only authorized users can generate reports.
Log Manager	Opens the Log Manager window. Log Manager allows the Lucent OMC-RAN system administrator to generate and store logs.
Profiles	Opens the Profiles window.

#### **Options menu**

Menu	Description
Change Password	Opens the Change Password window, and allows you to change your password when required.
<u>U</u> ser Preferences	Opens the User Preferences window. The User Preferences window enables you to set user preferences options for using the Lucent OMC-RAN GUI.
System Preferences	Opens the System Preferences window. The System Preferences window enables you to set the system parameters such as radius access parameters, user access parameters and so on.
<u>S</u> ave Session	Opens the Save Session window. The Save Session command allows you to save the windows you are working with during a GUI session, and have these windows opened automatically the next time you login to the GUI. Note that you can choose not to open the saved Save Session information on the GUI login window by removing the checkmark, if you no longer want to use the saved Save Session windows.

#### System menu

Menu	Description
<u>U</u> ser & Session Manager	Opens the User and Session Manager window. This window enables the Lucent OMC-RAN administrator to carry out user administration tasks. The menus and toolbar on this window are user administration specific.
<u>M</u> aintenance	Allows you to perform maintenance activities such as, archive and backup of files.
	Options available:
	• <b>System Archive</b> - Opens the Archive window. The Archive window allows the Lucent OMC-RAN system administrator to generate and store archive files on the Lucent OMC-RAN system
	• <b>System Backup</b> - Opens the Backup window. The Backup window allows the Lucent OMC-RAN system administrator to generate and store backup files on the Lucent OMC-RAN system
	• System Purge Alarms - Opens the Alarm Purge window You can delete system alarms if you have the required permissions.

#### Windows menu

Menu	Description
Close <u>A</u> ll	Closes open windows on the GUI.

#### Help menu

Help	Description
Documentation <u>S</u> earch	Opens the search window for the On-line Documentation Set. You can search the documentation set for a key word or phrase using the search engine.
On-line Documentation	Opens the library page of the On-line Documentation set. The library page lists all the manuals available in the documentation set.
On <u>W</u> indow	Opens the Help files for the active window.

Help	Description
About Lucent OMC-RAN	Opens the About Lucent OMC-RAN dialog with version and software information.

#### **Related information**

For more information on the functionality on the Lucent OMC-RAN GUI, refer to:

- Fault Management, 401-380-088 •
- System Administration, 401-380-085 •
- Configuration Management, 401-380-197 •

## Lucent OMC-RAN desktop tool bar

#### Overview

This section describes the Lucent OMC-RAN desktop tool bar.

The desktop tool bar gives you quick access to the main functional areas on the Lucent OMC-RAN GUI.

#### Toolbar

The desktop toolbar provides the following icons:

- Network Manager
- RC/V (Recent Change Verification) Manager
- Alarm Manager
- Technician Interface Command Line Interface (TICLI)
- Reports Manager
- Help.

The tool bar icons are described in the following table:

Name	lcon	Description
Network Manager	<b>7</b>	Click the Network Manager icon to open the Network Manager window.
		The Network Manager window allows you to carry out configuration tasks on the network. The menus and toolbar on this window are Network Management-specific.
RC/V (Recent Change	<b>1</b>	Click the RC/V Manager to open the RC/V Manager window.
Verification) Manager		The RC/V Manager window allows you to carry out the network configuration activities. The menus and toolbar on this window are RC/V Management-specific.
Alarm Manager	<b>&amp;</b>	Click the Alarm Manager icon to open the Alarm Manager window.
		The Alarm Manager window enables you to carry out fault management tasks on the network. The menus and toolbar on this window are Fault Management-specific.

Name	Icon	Description
Technician's Interface Command Line Interface (TICLI)	<b>*</b>	Click the TICLI icon to open the Technician's Interface Command Line Interface (TICLI).
Report Manager		Click the Report Manager icon to open the Report Manager window. The Report Manager window enables you to view and generate reports for network management, fault management, and user and system administration.
Help		Click the Help icon to open a web library page, which lists the manuals in the Online Documentation set.

# 4 Network Manager

### Overview

#### Purpose

This chapter describes the Lucent OMC-RAN Network Manager interface.

#### Contents

About Network Manager	4-2
Network Manager menu bar	4-5
Network Manager tool bar	4-10
Network Manager views	4-11
NE status icons	4-22

## About Network Manager

#### Overview

Network Manager is the interface where you perform network management tasks on NEs from the Lucent OMC-RAN GUI.

Use Network Manager to perform network management tasks such as:

- Creating and deleting objects that represent NEs
- Modifying attributes of existing objects
- Managing the Lucent OMC-RAN NE software repository
- Viewing network configurations, including attributes, state values, and the parent-child relationships for each NE
- Synchronizing NE data between the NE and the Lucent OMC-RAN
- Backing-up and restoring NE data.

#### Permissions

To use Network Manager, you must have network management permissions assigned by the Lucent OMC-RAN administrator.

#### **Related information**

For more information refer to Lucent OMC-RAN System Administration, 401-380-085 .

#### Accessing Network Manager

From the Lucent OMC-RAN desktop menu, select **<u>Network</u>**, then **Network <u>Manager</u>**, or click the **Network Manager** icon on the desktop toolbar.

The Network Manager window opens.

The **Network Manager** icon appears first from left on the Lucent OMC-RAN desktop tool bar.

#### Network Manager Interface

This is a sample of the Network Manager window.

2.HM Tab	
3.NE Tab	
📲 Lucent OMC-RAN - Nel	twork Manager (135.254.225.23)
File Actions View Tools	Windows Help
	AP/ES BTS M ?
System	1 Torgle Toolber
E-O TEMS	
🔓 🔂 🗇 System	6. NE Icon
🗗 🔁 🗇 FAS4	
	Group 5. Collapse
	S Group 7. Expand
	S Group
	CTX Group 4. Group Icon
OR	CA-OFC:luc
🕀 🐻 🗇 Spf Gro	
🕂 🔁 🗇 FAS5	
🕀 🖉 🗇 FAS6	Alarm Table
	Expand All
	Collapse All
	Create 8. Shortcut menu
10. Alarm Status Icon	Delete
	AP/ES Overview
	Synchronize
100 AU	
Show on Tree on Sys	stem=0 completed successfully

The Network Manager window is divided into a left pane and a right pane with toggle arrows on the split pane bar to hide or display the tree/detail view. Click the left pointing toggle arrow to hide the tree view. Click the right pointing toggle arrow to hide the detail/table view in Network Manager.

The tree and detail views will be described in the section on *Network Manager views* in this guide.

Tree views are useful in network management. Network Manager is the only manager window with a tree view. By default the tree view is always displayed in the left pane. On the right of the split pane bar the detail views and table windows are displayed.

Use Network Manager to access the following windows:

- All NEs table window to view network elements on the network
- Detail windows for viewing and modifying network element and managed object attributes
- Find Object search engine to search the network using key words •
- Create windows for creating new network elements and objects. •
- HTTP Cut Through window for direct access to network elements, and for setting • performance measurements
- Alarm Table for viewing alarms for the selected network element. •

#### **Related information**

For more information on network and configuration management, refer to the Lucent OMC-RAN Configuration Management, 401-380-197.

## Network Manager menu bar

#### Overview

The Lucent OMC-RAN network manager window displays a menu bar that provides quick access to Lucent OMC-RAN network manager functionality.

The various menus, which are available on the Lucent OMC-RAN network manager menu bar are described in the following tables:

#### File menu

Menu	Description
<u>P</u> rint	Opens the Print dialog window for the operating system on your local network. The <b>Print</b> option allows you to print the contents of a table, or the text on a GUI window.
Print <u>S</u> election	Opens the Print dialog window for the operating system on your local network. The <b>Print Selection</b> option allows you to print the contents of a particular row or selected rows of a table.
<u>Close Network Manager</u>	Closes the Network Manager window.

#### Action menu

The options available in the Action menu depend on the network element or the object selected in the HM or NE tree.

Description
Creates a network element or object.
Deletes the selected object. For example, Group, NE and so on.
Opens the NE Management window and changes the management state of a network element.
When a network element is managed, the Unmanage option is available. When it is unmanaged, the Manage option is available. The Manage / Unmanage options are only available if the network element is in a provisioned state.
Selecting this option starts or stops the communication between the selected network element and the Lucent OMC-RAN system.

Menu	Description
Poke Commands	Allows you to execute some high-runner commands called poke commands through the TI Wizard.
	You can also invoke the TI Wizard from this menu item. The TI Wizard provides a GUI interface to allow TI commands to be targeted at specific objects in the Lucent OMC-RAN network.
Polling	Allows you to to retrieve the modified values for those attributes on the network that do not generate a log event when they are modified.
Synchronize	Synchronizes a managed object, individual NE, multiple NEs, and SPF managed objects.
	The types of network synchronization are Full, Network, and Alarms.
	<b>Full</b> - full network synchronization is carried out. This option is available for ORCA, SPF, and their child objects.
	<b>Network</b> - network synchronization is carried out on a selected ORCA or SPF group. This option is available from the HM tree view.
	<b>Alarms</b> - alarm synchronization is carried out on an NE. This option is available on ORCA-OFC, SPF, and AP objects only from the NE tree view.

#### View menu

Menu	Description
<u>D</u> etails	Opens the detail window for the selected object or network element.
<u>A</u> ll NEs	Displays all the network elements on the network in the All NEs browser. The network elements you see depends on your permissions on Network Manager.
Synchroniza- tion Status	Displays the Synchronization Status table that reflects the object attributes, states, and topological changes.
AP/ES Overview	Provides an overview of all the Application Processors (APs) and Ethernet switches under a particular FAS group.
BTS Overview	Displays parameters, such as the reflected highest severity alarm state, cell state, and managed or unmanaged cell for the BTS group objects.

Menu	Description
Informational Errors	Displays hardware errors and information relating to various boards within a specific cell site. All informational alarm errors logged at ORCA during the previous 24 hours appear in this window.
RC/V <u>F</u> orms	Displays the RC/V Manager window that provides the back-end infrastructure and processes that support the RC/V operations through the OMC-RAN GUI.
Alarm Table	Opens the Alarm Table in Network Manager.
	This menu is available when a network element is selected in the HM tree, and will show an Alarm Table with all the alarms for the selected network element.
	If you invoke the menu option from the NE tree, detail view, or All NE table, the Alarm Table will show the alarms for the selected network element or managed object, but not for its child objects.
<u>C</u> ross Navigate	Allows you to navigate from one detail view to another.
Refresh	Refreshes or updates the active window in Network Manager.
Expand All	Expands all the objects within the selected object.
<u>C</u> ollapse All	Collapses all the objects within the selected object.
<u>S</u> how on Tree	Displays the network element in the NE tree view or NE tab.
	You can also switch to the NE tree by double-clicking the network element in the HM tab.
Toolbar	Displays or hides the toolbar on the Network Manager window.
	The toolbar is visible when you can see a check-mark to the left of the menu option, and is not visible when there is no check-mark.
Des <u>k</u> top	Brings forward the Lucent OMC-RAN desktop menu to the front of all windows currently opened on the Lucent OMC-RAN GUI.

#### Tools menu

Menu	Description
Find Object	Launches the Find Object dialog box. Type the name of the object you want to find, and click the <b>Find</b> command button.
	The search result displays the detail view for the object or NE, or a list or browser view for a container object.
	Note that you cannot do a wildcard search using Find Object.
Find Fi <u>e</u> ld Engineer	Provides a link to an external database which displays field support details for that BTS. Available for all BTSs.
Cut Through	Opens a HTTP session from the Lucent OMC-RAN GUI to the network element.
	Options available:
	• <u>H</u> <b>TTP Cut Through:</b> allows you to perform functions on a selected ORCA-OFCandSPF network element by executing commands through an HTTP session.
	• <b>TPUGUI Alarms:</b> starts a HTTP session with the corresponding TPUGUI
	• <b>TPUGUI Status:</b> starts a HTTP session with the corresponding TPUGUI
	• <b>Telnet Cut Through:</b> allows you to perform functions on a selected ORCA-OFCandSPF network element by executing commands through a telnet session.
	• <b>ES:</b> allows you to perform functions on an Ethernet Switch execute commands through a telnet session.

#### Windows menu

Menu	Description
Tile	Tiles the open windows within the Network Manager interface.
	The Tile command fits all open Lucent OMC-RAN GUI windows within the manager area, so that every window can be seen in full.

Menu	Description
Casca <u>d</u> e	Cascades the open windows within the Network Manager interface.
	The Cascade command places open GUI windows on top of one another, with the title bar of each window visible. Click the title bar of the window you want brought forward into full view.
Close	Closes the active window on the GUI.
Close <u>A</u> II	Closes all open windows within the Network Manager interface.
Window Title 1 Window Title 2	Lists all open windows within the network manager interface to enable access to minimized windows.

#### Help menu

Menu	Description
On <u>W</u> indow	Opens the Help file for the window in focus within the Network Manager navigation window.
About Lucent OMC-RAN	Opens the About Lucent OMC-RAN window. This window contains software version, and component location information.

#### **Related information**

You can find more advanced information on network configuration management in *Lucent OMC-RAN Configuration Management*, 401-380-197.

## Network Manager tool bar

#### **Overview**

This section describes the Network Manager tool bar.

#### **Tool bar icons**

The tool bar icons and their functions are described in the following table:

Name	Icon	Description		
Print	â	Opens the Print dialog window for the operating system on your local network. The print option allows you to print a table or the text on a GUI window.		
		Select File, then Print, and click OK.		
Details		Opens the detail/Edit window for viewing or editing the selected group, network element, or managed object on the network.		
		Access this command from right-click shortcut menus in the HM and NE tree views, table windows and detail views.		
Refresh	\$	Refreshes or updates the active window in Network Manager.		
Alarm Table	·	Opens the Alarm Table window for viewing the alarms on a selected object.		
AP/ES	AP/ES	Opens the AP/ES overview on a selected group.		
BTS	BTS	Opens the BTS overview on a selected group.		
Find	<b>14</b>	Launches the Find Object dialog box. Type the name of the object you want to find, and click the Find Now command button. The search result shows the detail view for the object or NE, or a list or browser view for a container object. Note that you cannot do a wildcard search using Find Object.		
Help	?	Opens the Help file for the active window in the Network Manager window.		

## Network Manager views

#### Overview

The different views available on the Lucent OMC-RAN Network Manager are described in this section.

#### HM tree view

The Hierarchy Manager (HM) tree view is a graphical map of the network. It displays the group objects and network elements on the network. The HM tree view is the default view of network manager.

Groups are containers for other groups and network element groups. The group objects on the Lucent OMC-RAN HM tree are the Root Group, the FxApx (FAS - Flexent Autoplex System) Group, the SPF and ORCA groups, and the EMS (System network element).

There are several types of network elements on the Lucent OMC-RAN, such as Mod1bts, Microbts, ApxS2, and Dcs5Ess.

This is a sample of the HM tree view.



#### **NE tree view**

The Network Element (NE) tree view is a hierarchical representation of the NE that was selected in the HM tree. It displays the managed objects of the selected NE.

Access the NE tree view by clicking the **Show on tree** icon beside the network element in the HM tree view.

This is a sample of the NE tree view.



Perform actions on selected network elements and managed objects in the tree views using the Network Manager menu bar, and tool bar, or select right-click to open context-sensitive pop-up menus.

#### **Evolution-Data Optimized (EVDO) Capable NEs**

Evolution-Data Optimized (EVDO) is a wireless radio broadband data standard adopted by many CDMA mobile phone service providers.

The NEs which come under the CcuMod/Ccu1bts class, can be distinguished as the EVDO capable elements if they are associated with the DO Capable icon. The Lucent OMC-RAN GUI provides a graphical indication to denote an EVDO capable CcuMod/Ccu1bts NE from the ccuTechnology attribute value.



This is a sample of the NE tree view of the EVDO capable NEs.

#### **NE detail views**

The NE detail views are of two types:

- NE detail view from HM tree
- NE detail view from NE tree

Open a modifiable NE detail view from HM tree for a network element by double-clicking the element in the HM tree, or right-clicking to open a pop-up menu, and selecting **Open**.

Alternatively, you can double-click a network element, right click anywhere in the NE detail view and then select **Show on Tree**.

This is a sample of the HM tree detail view.

9 9	2:SPF:CLIFAS1	00	
?			
NE Identification			
Name	2:SPF:CLIFAS1		
ld	2		
Туре	SPF		
Software version	7		
Overload priority	Normal		
Parent group	Spf Group		
NE Location NE Management			
	Modify Apply OK Cancel M	ore∓	

Open a modifiable NE detail view from NE tree for a network element by double-clicking the network element in the NE tree, or right-clicking to open a pop-up menu, and selecting Open.
This is a sample of the NE tree detail view.

OS Category B	ucketFactor	F: Threshol	xApx=4,	gosCategory=225	c
ID				Flow drop priority 0 🛨	
Drop checking in	nterval	0	÷	AT originated DoS Message allowed	
Delay bound in s	lots	0	÷	Physical layer nak	
RABPct				Maximum burst duration 0 🛨	
Enter block	0.0	<u>+</u>		Maximum drop percentage 0.0 🛨	
Exit block	0.0	<u>+</u>		DiffServ codepoint interface	_
Drop	0.0	÷		A10 interface 0 🛨	
FL RF Overloade	d			RAN interface 0 🛨	
Enter		*			
Exit		4 7			
				Modify Apply OK Cancel More	Ŧ

There are many tasks that you can perform on the network element or the managed object using the detail views. A few of them are listed below:

- View the set attributes of a network element on the HM tree or the NE tree detail view
- View the set attributes of a managed object on the NE tree detail view
- Modify the attributes of a network element on the HM or NE tree detail views
- Modify the attributes of a managed object on the NE tree detail view
- Enable or disable the communication parameters for a network element on the HM tree detail view.

#### All NE's table view

Access the All NEs table view from the Network Manager menu bar by selecting  $\underline{V}iew$  then <u>All NEs</u> from the list of menu options.

•		All NEs			000
Nun	nber	of records	28 Stop		
R		ld 🀺	Name	Туре	
۱		402	402:ORCA-RNC:jyoti	ORCA	1
۱		122	122:UnknownRNC:jyoti	RNC	
۱		122	122:UnknownRNC:rags	RNC	
?		102	102:ORCA-RNC:rags	ORCA	
۱		5	5:OvBts:jyoti	OVBTS	2
۱		5	5:OvBts:rags	OVBTS	l l l l l l l l l l l l l l l l l l l
۱		4	4:UnknownModCell::jyoti	MOD1BTS	
۱		4	4:ORCA-OFC:jyoti	ORCA	
?	8	4	4:SPF:jyoti	SPF	
۱		4	4:UnknownModCell::rags	MOD1BTS	
?	8	3	3:SPF:test6	SPF	
١		3	3:Microbts::jyoti	MICROBTS	
?	8	3	3:ORCA-OFC:test6	ORCA	
۱		3	3:Microbts::rags	MICROBTS	
?		2	2:SPF:CLIFAS1	SPF	
?	8	2	2:ORCA-OFC:CLIFAS1	ORCA	
۱		2	2:Cdbs::jyoti	CDBS	÷
			1		· ·

This is a sample of the All NEs table view.

A few tasks that you can perform using the All NEs table view are listed below.

- List all the network elements on the network
- View network element state information, such as managed/unmanaged, reflected • highest severity alarm (R.HSA), Id, name, and type.
- Open the detail view for a particular network element, by double-clicking the • network element row in the table list
- Open the Alarm Table in Alarm Manager. To do this, right-click the network • element in the table list and choose the **Alarm Table** option from the pop-up menu.

#### **AP/ES** Overview

Access the AP/ES Overview from the Network Manager menu bar by selecting View then **AP/ES Overview** from the list of menu options.

This is a sample of the AP/ES Overview.

Group 0 (1-4)	Frame 1	Frame 2	
0 0 0 0			
Group 1 (5-8)			
0 0 0			
Group 2 (9-12)			
0 0 0			
Group 3 (13-16)			
0 0 0			
Group 4 (17-20)			
0 0 0	Frame 3	Frame 4	
Group 5 (21-24)			
0 0 0 0			
Group 6 (25-28)			
0 0 0			
Group 7 (29-32)			
0 0 0			
Group 8 (33-36)			
0 0 0 0			
Group 9 (37-40)			
0 0 0			
Summary			
0 0 0			
lotal 0% 0% 0%			

The AP/ES Overview provides a single view into the maintenance state and alarm state of all Application Processors (APs) and Ethernet Switches (ESs) within an FxApx.

#### **AP** status icons

The AP status icons are described in the following table:

Status	lcon
Indeterminate	
Unequipped	
Out of service Manual	
Isolated	
Out of Service Faulted	<b>~</b>

Active	
Standby	

For details on the AP/ES Overview, refer to the *Configuration Management*, 401-380-197.

#### **BTS** Overview

Access the BTS Overview from the Network Manager menu bar by selecting  $\underline{V}iew$  then **<u>BTS</u> Overview** from the list of menu options.

This is a sample of the BTS Overview.



The BTS Overview allows you to select specific views based upon the maintenance state and alarm state of the BTSs (Base Transceiver System) within an FxApx.

For details on the BTS Overview, refer to the *Configuration Management*, 401-380-197.

.....

#### **Signaling Path View**

Access the Signaling Path View from BTS group by selecting a cell in the NE tree. It can also be invoked from the Mod1bts cell, BTS Overview screen, ASMB managed object and the Carrier Path View. It can also be invoked from the **SGNL** button that is enabled on the Network Manager tool bar when a Mod1bts or an ASMB cell is selected.

There are three drawing areas distinguished in the Signaling Path View, namely *ASMB Drawing area*, *AP Drawing area* and *Filter and Navigation area*. Filters will be applied on the available APs shown in the AP area.

Different types of filters are available on the Filter and Navigation area:

- Primary
- Alternate
- All (default)

This is a sample of the Signaling Path view.



There can be a single instance of the Signaling Path in a GUI session. If the Signaling Path view is re-invoked with the already opened window, then the existing window shall be brought to the front and redrawn with the new context. The Signaling Path view defines two navigation buttons as **Previous** and **Next** ASMB. The Previous and Next ASMB buttons shall navigate to the previous and next provisioned ASMB instances. If a provisioned ASMB is not available to navigate to, a suitable error message shall be displayed.

The Signaling Path view defines the *directional links* from external CDMs to internal CDMs and a *non directional link* between the internal CRCs and the displayed APs.

The Signaling Path view is accessible to any user who has view permissions to a Mod1bts Cell. It is not required to have separate access permissions for this view.

NOTE: There can be only one Signaling Path view per GUI session.

#### **Carrier Path View**

Access the Carrier Path View from BTS group by selecting a cell in the NE tree. It can also be invoked from the Mod1bts cell, BTS Overview screen, ASMB managed object and the Carrier Path View. It can also be invoked from the **CP** button that is enabled on the Network Manager tool bar when a Mod1bts or an ASMB cell is selected.

There are three drawing areas distinguished in the Carrier Path View, namely *ASMB Drawing area*, *PAF (Physical Antenna Face) Drawing area* and *Filter and Navigation area*.

The Filters will be applied on the Radio1bts/RadioMod objects. The Carrier Path view will define 19 filters to each of the 18 carriers as applicable to the Radio1bts/RadioMod object. *All* will be the default filter available to all the carriers.

This is a sample of the Carrier Path view.



There shall be a single instance of the Carrier Path view in a GUI session. If the Carrier Path view is re-invoked with the already opened window, then the existing window shall be brought to the front and redrawn with the new context. The Carrier Paths view defines two navigation buttons as **Previous** and **Next** ASMB. The Previous and Next ASMB buttons shall navigate to the previous and next provisioned ASMB instances. If a provisioned ASMB is not available to navigate to, a suitable error message shall be displayed.

The Carrier Path view will display a *non directional link* between the displayed Mod1btsCrc instances and the Radio1bts / RadioMod instances.

A *directional link* between the following managed objects can be obtained from the Carrier Path view.

- From the Radio1bts / RadioMod object instances to the served MCA instances
- From the serving Mod1btsRxAmp instances to the Radio1bts / RadioMod object instances
- From the MCA+Mod1btsTxAmp component group(s) served by a Radio1bts / RadioMod instance to the served PAF
- From the PAF served to the serving Mod1btsRxAmp instances

The Carrier Path view is accessible to any user who has view permissions to a Mod1bts Cell. It is not required to have separate access permissions for this view.

NOTE: There can be only one Carrier Path view per GUI session.

## NE status icons

#### **Types of states**

The network element (NE) status icons available on the Lucent OMC-RAN are described in this section. The NE status icons are displayed in the tree views, the detail views, and also the All NEs table view. The NE status icons are displayed for the network elements and their managed objects.

#### Management state

The following table displays the management state icons that are available on the Lucent OMC-RAN GUI.

Name	lcon	Description
Managed	*	Indicates that the communication parameters for the network element have been specified.
Unmanaged	*	Indicates that the communication parameters for the network element have not been specified.

#### **Related information**

For more information on network management, refer to *Lucent OMC-RAN Configuration Management*, 401-380-197.

.....

## 5 Recent Change and Verify (RC/V) Manager

### Overview

#### Purpose

This chapter describes the Lucent OMC-RAN RC/V Manager interface.

#### Contents

About Recent Change and Verify (RC/V) Manager	5-2
Recent Change and Verify (RC/V) Manager menu bar	5-3
Recent Change and Verify (RC/V) Manager tool bar	5-5
About Recent Change and Verify (RC/V) Form Selection Wizard	5-6

## About Recent Change and Verify (RC/V) Manager

#### Overview

RC/V Manager is the interface or manager window that provides the back-end infrastructure and processes to support the RC/V operations through the Lucent OMC-RAN GUI.

Use RC/V Manager to:

- Insert a new RC/V form into the database
- Update an existing RC/V form
- Delete an RC/V form
- Print an RC/V form.

#### Permissions

To use RC/V Manager, you must have network management permissions assigned by the Lucent OMC-RAN administrator. The system administrator provides RCV Activate and RCV action functionality per form.

#### Accessing RC/V Manager



Currently, you can access the RC/V application using the following options:

- From the Lucent OMC-RAN Desktop menu, select <u>Network</u>, then <u>RC/V</u> Manager, or click the **RC/V** Manager icon (button) on the desktop tool bar.
- Right-clicking the managed object in the NE tree view on the Network Manager window, and selecting **RC/V Forms**.

401-380-093R27 Issue 1, November 2006

 $\square$ 

## Recent Change and Verify (RC/V) Manager menu bar

#### Overview

The Lucent OMC-RAN RC/V Manager window displays a menu bar that provides quick access to the RC/V Manager functionality.

The various menus, which are available on the Lucent OMC-RAN RC/V Manager menu bar are described in the following tables:

#### Form menu

Menu	Description
<u>N</u> ew	Opens a new RC/V form to insert into the database.
<u>O</u> pen	Opens an existing RC/V form.
Save	Saves updates to an existing RC/V form.
Save as	Saves the updates to a new RC/V form for insertion.
Delete	Deletes the selected form.
Print	Opens the Print dialog window for the operating system on your local network. The print option allows your to print a table or the text on a GUI window.
<u>C</u> lose RC/V Manager	Closes the RC/V Manager window.

#### View menu

Menu	Description
Toolbar	Displays or hides the toolbar on the RC/V Manager window. The toolbar is visible when you can see a checkmark to the left of the menu option, and is not visible when there is no checkmark.
Desktop	Brings forward the Lucent OMC-RAN desktop menu to the front of all windows currently opened on the Lucent OMC-RAN GUI.

#### **Tools menu**

Menu	Description
<u>F</u> ind Field	Launches the Find Field dialog box. Type the name of the field you want to find, and click the Find command button.

#### Windows menu

Menu	Description
Tile	Tiles the open windows within the RC/V Manager interface. The Tile command fits all open Lucent OMC-RAN GUI windows within the manager area, so that every window can be seen completely.
Casca <u>d</u> e	Cascades the open windows within the RC/V Manager interface. The windows are displayed The Cascade command places open GUI windows on top of one another, with the title bar of each window visible. Click the title bar of the window you want brought forward into full view.
Close	Closes the active window on the GUI.
Close <u>A</u> ll	Closes all open windows within the RC/V Manager interface.

#### Help menu

Menu	Description
On <u>W</u> indow	Opens the Help file for the window in focus within the RC/V Manager navigation window.
About Lucent OMC-RAN	Opens the About Lucent OMC-RAN window. This window contains software version, the components loaded, and their location information.

## Recent Change and Verify (RC/V) Manager tool bar

#### Overview

This section describes the RC/V Manager tool bar.

#### **Tool bar icons**

The tool bar icons and their functions are described in the following table:

Name	lcon	Description
Print	é	Opens the Print dialog window for the operating system on your local network. The print option allows your to print a table or the text on a GUI window.
New		Inserts a new form that is available to all users, with 'Insert' permission on at least one RC/V form.
Open	2	Retrieves an existing form that is available to all users.
Save		Saves an RC/V form.
Save As	<b>*</b>	Saves as a new RC/V form to the database.
Delete	×	Deletes the selected RC/V form.
Help	?	Opens the Help file for the active window in the RC/V Manager window.
		window.

# About Recent Change and Verify (RC/V) Form Selection Wizard

#### Overview

RC/V Form Selection Wizard is an interface that allows you to insert a new record or retrieve an existing record.

#### Permissions

To use RC/V Forms Selection Wizard, you must have permissions assigned by the Lucent OMC-RAN administrator.

#### Accessing RC/V Manager

The RC/V Forms Selection Wizard appears when you either:

- From the RC/V Manager window, you select File and then New
- From the RC/V Manager window, you select File and then Open

#### Form Select Wizard

* 🎼 Forr	n Selecti	ion					_ □	×
FxAp	×*	sim			\$			
мос	*	ALL			+	Moc/For	m List	
Form	*	a2tg			•			_
	<u>C</u> ancel	- A Bac	k ]	Next 🕨	Help		Finish	

The Form Selection window has the following feilds:

- FxApx: Flexent Autoplex (FxApx) is Mobile Switching Centre (MSC) monitored by Lucent OMC-RAN. Select the FxApx on which to run the RC/V.
- MOC: Managed Object Class (MOC) can be selected to list related RCV forms. Select MOC = All to see all RCV forms, select MOC = AP to view the AP RCV forms.

.....

## 6 Alarm Manager

### Overview

#### Purpose

This chapter describes the Lucent OMC-RAN Alarm Manager interface.

#### Contents

About Alarm Manager	
Alarm Manager menu bar	
Alarm Manager tool bar	6-8
Alarm Manager views	
Alarm status icons	6-12

.....

## About Alarm Manager

#### Overview

Alarm Manager window allows you to perform fault management tasks on the Lucent OMC-RAN GUI.

You can use Alarm Manager to perform the following types of tasks:

- Fault Management tasks
- Actions on alarms.

**Important!** To perform tasks in Alarm Manager, the Alarm Table should be open, and an alarm selected in the table.

#### Permissions

You can only see and manage those alarms for which you have been assigned permissions by the Lucent OMC-RAN administrator. To use Alarm Manager, you must have View Alarms permissions to open and view alarms in Alarm Manager. To manage and perform actions on alarms, you need to have Alarm Administration permissions assigned by the Lucent OMC-RAN system administrator.

#### Accessing Alarm Manager

Access Alarm Manager from the Lucent OMC-RAN GUI desktop **Alarms** menu, or click the **Alarm Manager** icon

#### Alarm Manager Interface

This is a sample of the Alarm Manager interface.

ê	s vka eet v ?						
۵	Narm Table - OpenAlarmsSystemDefault						
Nun	Number of records 2070 Stop						
	Severity			Correlation status	Create time	Last update time 🀺	Alarm ID
	Warning			Uncorrelated	9/22/2005 4:12 PM	9/23/2005 10:32 AM	Orca=6,Mod1bts=
$\diamond$	Minor			Uncorrelated	9/16/2005 11:39 PM	9/23/2005 10:01 AM	System=0,Alarm=
	Critical			Uncorrelated	9/22/2005 7:40 PM	9/23/2005 2:19 AM	Orca=2,Alarm=21
	Critical			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
1	Major			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
	Critical			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
1	Major			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
	Critical			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
1	Major			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
	Critical			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
$\sim$	Maior			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2.ApxS2=1 🔻
Alarm Table							
3							\$

Use Alarm Manager to access the following fault management windows:

- Alarm Tables for viewing alarms
- Alarm Summary for monitoring alarm severity and status on network elements
- Alarm Details for viewing the severity, status, NE Id, and log time
- Alarm Filters for specifying alarm characteristics and searching for alarms instances that match these characteristics on the network
- Alarm Analysis for viewing instances of alarm types on the network with specified behavior as defined in analysis settings
- The Analysis Setting dialog for specifying analysis settings for instances of alarm types.

#### **Related information**

For more information on fault management, refer to *Lucent OMC-RAN Fault Management*, 401-380-088.

## Alarm Manager menu bar

#### **Overview**

The Lucent OMC-RAN Alarm Manager window displays a menu bar that provides quick access to Lucent OMC-RAN Alarm Manager functionality.

The various menus, which are available on the Lucent OMC-RAN Alarm Manager menu bar are described in the following tables:

#### File menu

Menu	Description
<u>P</u> rint	Opens the Print dialog window for the operating system on your local network. The print option allows you to print the contents displayed on a GUI window.
Print Selection	Opens the Print dialog window for the operating system on your local network. The <b>Print Selection</b> option allows you to print the contents of a particular row or selected rows of a table.
<u>C</u> lose Alarm Manager	Closes the Alarm Manager window.

#### Action menu

Menu	Description
Delete	Enables you to delete a selected filter from the Alarm Analysis Table.
Synchronize	Allows you to synchronize alarms on NEs.
	Options avaliable:
	• <u>Alarms</u> - Opens the Alarm Synchronization window. Allows you to synchronize on all the NEs.
	• Alarms on associated NE - enable you to perform an alarm synchronization on the NE associated to the alarm.
Ac <u>k</u> nowledge	Acknowledges the selected alarm on an alarm table. This indicates to other users on the Lucent OMC-RAN system that the alarm is being identified and worked by the user who acknowledged it.

Menu	Description
<u>U</u> nacknowledge	Unacknowledges the selected alarm on an Alarm Table. This indicates that the alarm is pending review.
<u>C</u> lear	Clears the selected alarms on the Alarm Table. Cleared alarms can be viewed on reports.

#### View menu

Menu	Description
<u>A</u> larm Details	Opens the detail window for the selected alarm. Double-clicking on a specific alarm in the Alarm Table will also open the alarm detail window.
<u>O</u> bject in NM	Opens the detail window for the object that is causing the alarm (which is selected in the Alarm Table) in Network Manager.
Alarm Table	Opens an Alarm Table with default alarms filter. The default alarm filter is specified from the User Preferences window. If no filter is in place, all alarms are displayed.
Alar <u>m</u> Summary	Opens the Alarm Summary window if it is not already open. Only one instance of the Alarm Summary window can be open at a time.
Refresh	Reloads the active window.
Select All	Selects all the alarms in the list.
Toolbar	Displays or hides the tool bar on the Alarm Manager window.
Des <u>k</u> top	Brings forward the Lucent OMC-RAN desktop to the front, when you have a number of GUI windows opened at the same time.

#### Tools menu

Menu	Descriptions
Filter	Opens the Alarm Filter window that displays details of the filter used to generate the alarm information.
View Action Log	Opens the Log Manager window with the filter set for the selected alarm.

Menu	Descriptions		
Alarm Analysis	Allows you to create filter criteria and view alarm analysis.		
	Options available:		
	• <u>Setting</u> - Opens the Create Alarm Analysis Setting window. Allows you to set the filter criteria for the alarms.		
	• <b>Table</b> - Opens the Alarm Analysis table. Displays the alarms for which an analysis has been specified.		
Purge System Alarms	Opens the Alarm Purge window.		
	You can delete system alarms if you have the required permissions.		

#### Windows menu

Menu	Description
Tile	Tiles the open windows within the manager interface.
	The Tile command fits all open Lucent OMC-RAN GUI windows within the manager area, so that every window can be seen in full.
Cascade	Cascades the open windows within the manager interface.
	The Cascade command places open GUI windows on top of one another, with the title bar of each window visible. Click the title bar of the window you want brought forward into full view.
Close	Closes the active window on the GUI.
Close <u>A</u> ll	Closes all open windows within the manager interface.
Window Title 1 Window Title 2	Lists all open windows within the manager interface to enable access to minimized windows.

#### Help menu

Menu	Description
On Alarm	Opens the Online Documentation Set.
On <u>W</u> indow	Opens the Help file for the active window.

Menu	Description
About Lucent OMC-RAN	Opens the About Lucent OMC-RAN window. This window contains software version, and the components loaded and their location information.

#### **Related information**

For more information on fault management, please refer to *Lucent OMC-RAN Fault Management*, 401-380-088.

## Alarm Manager tool bar

#### **Overview**

The Alarm Manager tool bar enables quick access to fault management commands. You can click the appropriate icon to access a command.

#### **Tool bar icons**

Name	lcon	Description
Print	é	Opens the Print dialog window for the operating system on your local network. The print option allows you to send a selected list of items on a table to a file, or to the printer for printing.
		Select the items you want to print, choose <b>File</b> , then <b>Print</b> , and click <b>OK</b> .
Acknowledge	V	Acknowledges the selected alarm on an Alarm Table. This indicates to other users of the Lucent OMC-RAN system that the alarm is being identified and resolved.
Unacknowledge	s.	Unacknowledges the selected alarm on an Alarm Table. This indicates that the alarm is pending review.
Clear	<u>ت</u>	Clears the selected alarms on the Alarm Table.
Details	<b>2</b>	Opens the Alarm Details window. You can view the details of the selected alarm.
Alarm table		Opens the Alarm Table window.
Refresh	¢	Refreshes the current view.
Filter	7	Opens the Filter window. If the filter applied to the Alarm Table has been anchored, the Filter window will show the details of the filter used to generate the Alarm Table.
Help	?	Opens a Help file for the active window.

## Alarm Manager views

#### Overview

The different views in Alarm Manager are used to manage and monitor alarms that are raised by the Lucent OMC-RAN.

#### Alarm table view

The Alarm table view enables you to view a list of alarms and take action on those alarms on the network.

You can set a filter to define the type of alarms you want to see in the Alarm Table in the Filter dialog. For example, you can view alarms for a single network element, multiple network elements, or alarms for all network elements at a time.

**Note**: Alarm correlation is not supported in OMC-RAN. This option does not impact the graphical user interface.

This is a sample of the alarm table in Alarm Manager.

ê		) (	EI)	• • •			
Alarm Table - OpenAlarmsSystemDefault							
Num	Number of records 2070 Stop						
	Severity			Correlation status	Create time	Last update time 🎩	Alarm ID
	Warning			Uncorrelated	9/22/2005 4:12 PM	9/23/2005 10:32 AM	Orca=6,Mod1bts=
$\langle 0 \rangle$	Minor			Uncorrelated	9/16/2005 11:39 PM	9/23/2005 10:01 AM	System=0,Alarm=
	Critical			Uncorrelated	9/22/2005 7:40 PM	9/23/2005 2:19 AM	Orca=2,Alarm=21
	Critical			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
1	Major			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
	Critical			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
۸.	Major			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
	Critical			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
۸.	Major			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
1	Critical			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2,ApxS2=1
$\sim$	Maior			Uncorrelated	9/23/2005 2:19 AM	9/23/2005 2:19 AM	Orca=2.ApxS2=1
		-			¢		
Alarm	n Table	_					
3							\$

#### Alarm details view

The Alarm Details window enables you to modify the attributes or properties of the selected alarm.

				0
	Alarm Details: System=	U,Alarm=2002727114		0
NE n Obje Cres	ame: System ct: System=0,Component te time: 9/22/2005 1:49 AM	=LoqManager		
-Details	Jeet occarty notes Event	1		
Severity:	Critical			
Event type:	qualityOfService			
Probable cause:	thresholdCrossed			
Specific problem:	ActionLogFileSystemLimitR	eached		
Affected system:	, iems.Component1_0	Nature:	ADAC	
Fault type:		Analysis:		
Occurrences:	6	Correlation status:	Uncorrelated	
Time related				
Raised time:		Last update at:	9/23/2005 2:08 PM	
Change time:		Last updated by:	System_Related	
Acknowledge status		Alarm status		
Acknowledged by:	omcadm	Cleared by:		
Acknowledge time:	9/23/2005 11:09 AM	Cleared time:		
📃 Auto-acknowled	ge when cleared	Auto-clear if i	idle for 0 🕂 Hours	

This is a sample of the alarm details view in Alarm Manager.

Open the Alarm Details window in the following ways:

- In Alarm Manager select View, then Alarm Details for a selected alarm in the • Alarm Table
- In Alarm Manager double-click the alarm in the Alarm Table •
- In Alarm Manager right-click the alarm in the Alarm Table, and from the pop-up • list select Alarm Details.

Use the Alarm Details view to:

- Modify the attributes •
- Enter additional information on the alarm
- View alarms events.

#### Alarm summary view

Use the Alarm Summary to monitor alarms by severity and network element without opening the Alarm Table in Alarm Manager, or checking the tree view in Network Manager.

To access the Alarm Summary window, select **Alarm Summary** from the **View** menu in Alarm Manager.

This is a sample of the alarm summary view in Alarm Manager.

Counters		Net	work Eler	nent	
Alarms	Totals	S	Totals	NE 🏦	
			0	1:ApxS2::devfas	
Critical			0	1:ApxS2::kaushik_plz_dono	
Maior	15	?	0	1:ApxS2::mandeep	l l
,			0	1:ApxS2::mandeep	
Minor	2		0	1:ApxS2::mandeep	
Onen	58	?	0	1:ApxS2::mandeep	
open		?	0	1:ApxS2::mandeep	
Unack	58		0	1:ApxS2::mandeep	
			0	1:ApxS2::raj6	
View.	Alarms		0	1:ApxS2::satish	
		?	1	1:ORCA-OFC:raj6	
Ope	n AM		0	1:Rnc1x:devfas	

#### **Related information**

For more information on fault management, refer to *Lucent OMC-RAN Fault Management*, 401-380-088.

## Alarm status icons

#### Types of states

The different alarm states are represented by the reflected highest severity alarm (R.HSA) for a particular NE. These alarms are displayed on the Alarm Table, and the alarm detail view in Alarm Manager.

The highest severity alarm for a NE is also displayed on the Network Manager as the R.HSA, against the affected NE on the All NEs table, and the NE's detail view.

#### Status icons

The following table describes all alarm status icons.

Name	Icon	Indication
Cleared (No Alarm)	4	There is no alarm activated on a NE.
Indeterminate	C	There is an unknown instance of an alarm on a NE.
Suspect	?	There may be missing or incorrect alarm information for the specific NE.
Warning	۵	Possible alarm on an NE.
Critical Alarm	۵	The selected NE has a critical alarm associated with it on the network.
Major Alarm	۵.	The selected object has a Major alarm associated with it on the network.
Minor Alarm	40	The selected object has a Minor alarm associated with it on the network.

.....

## 7 Profile Browser

### Overview

#### Purpose

This chapter describes the Lucent OMC-RAN Profile Browser interface.

#### Contents

About Profile Browser

7-2

## About Profile Browser

#### Overview

The Profile Browser interface is used to view Default Parameter Profile (DPP) values associated with Managed Object Classes (MOCs) defined in the Lucent OMC-RAN system. DPPs allow you to store certain default values that are common among different windows and reuse these values to create or modify different Managed Objects (MO) of the same MOC.

DPPs are available system wide, and can be applied not only for CM objects such as cards, ports, but also for entities such as users and filters, that are managed by the system.

Lucent OMC-RAN supports only customized DPPs. That is, DDPs that are directly created by the users, based on their requirements.

Use the Profile Browser interface to:

- Save a DPP from existing configurations
- Load and apply DPP
- Browse and view DPP.

#### Permissions

You can view all DPPs defined in the system. Other tasks you can perform depend on the Lucent OMC-RAN GUI permissions assigned to you by the system administrator.

#### Accessing Profile Browser

Access the Profile Browser from the Lucent OMC-RAN desktop menu bar, by selecting **Tools**, then **Profiles**.

#### **Profile Browser Interface**

This is a sample of the Profile Browser interface.

Default	Name 🔺	Description	Date	Creator
•	User	Default user.	2005-03-22 16:04:59	omcadm
	User1	Backup.	2005-03-22 16:06:16	omcadm

#### **Related information**

For more information, refer to *Lucent OMC-RAN Configuration Management*, 401-380-197.

## 8 Technician's Interface Command Line Interface (TICLI)

### Overview

#### Purpose

This chapter describes the standard Lucent OMC-RAN Technician's Interface Command Line Interface (TICLI) which conforms to the Technicians Interface Application Protocol (TIAP).

#### Contents

	About Technician's Interface Command Line Interface (TICLI)	8-2
--	---	-----

## About Technician's Interface Command Line Interface (TICLI)

#### Overview

The Lucent OMC-RAN command line interface is also known as the TICLI. Lucent OMC-RAN GUI supports TIAP commands when a user logs on to TICLI. The commands are of two types: Technicians Interface (TI) and Application Protocol (AP). The commands are targeted at and sent to specific objects in the Lucent OMC-RAN network.

The user is provided with a TI wizard interface to build the command and Lucent OMC-RAN checks to ensure the accuracy of the commands.

When the user launches TICLI, the command line window is split into two sections. The upper section displays the responses from the commands entered and the lower section displays the commands that the user enters.

The TICLI should be used only by experienced users.

Note that every TICLI command does not have an equivalent GUI action.

You can run the TICLI on any of the following when logged on to that hardware:

- Lucent OMC-RAN Client Solaris
- Lucent OMC-RAN Server
- Lucent OMC-RAN Client PC

Use the TICLI for the following type of tasks:

- Network configuration tasks (including commands to create and delete objects, administrative state management, and attribute management)
- Fault management tasks

#### Permissions

Lucent OMC-RAN GUI permissions assigned to the user by the system administrator.

Users without the necessary permissions to run a particular command, will be informed that the command has failed.

#### Accessing TICLI

Access the TICLI from the Lucent OMC-RAN desktop menu bar, by selecting **Tools**, then **TICLI**.



You can also launch the command line by clicking the TICLI icon on the Lucent OMC-RAN desktop tool bar or from a standalone machine.

#### Interface

🔐 Lucent OMC-RAN - TICLI Console	<u>_                                    </u>
Command responses will be saved in file C:\Documents and	
Settings\jsugandna\TIResponse_135_254_225_23_3_omcadm Executing target command	
Please select the FxApx:[sumaiya, vijay, devika, netsnmp, sankar, sim, ver4 srinath, cool]:	з,

You can have multiple instances of the TICLI running (maximum of 6) at the same time from a single Lucent OMC-RAN GUI desktop, or start multiple separate TICLI sessions. Each TICLI session operates independently of other sessions.

#### **Related information**

For more information on the TICLI:

- Flexent Mobility Manager Technicians Interface Reference Guide 401-710-211.
- Flexent Mobility Manager Technicians Interface Implementation Guide 401-710-210.

## 9 Report Manager

### Overview

#### Purpose

This chapter describes the Lucent OMC-RAN Report Manager interface.

#### Contents

About Report Manager	9-2
Report Manager menu bar	9-4
Report Manager tool bar	9-9
Report Manager tabs	9-10

## About Report Manager

#### Permissions

Report task permissions assigned by the Lucent OMC-RAN system administrator.

#### Accessing Report Manager

Access Report Manager from the Lucent OMC-RAN desktop by selecting **Tools**, then **<u>Report Manager</u>**.

You can also access Report Manager by clicking the **Report Manager** icon in the Lucent OMC-RAN desktop.

#### **Report Manager interface**

This is a sample of the Report Manager interface:

<u>File Actions View Generate H</u> elp
Report type:
Default CSV HTML
Report information
Report name:
Report date:
Description:

The Report Manager interface displays the following:

- Report type Specifies the report type for the generated report
- Default, CSV, HTML tabs Lists the reports in the respective formats
- Report information Specifies the report information such as, report name, report date, and description for a selected report.

.....
#### **Related information**

For more information on reports, refer to *Lucent OMC-RAN System Administration*, 401-380-085.

### Report Manager menu bar

### Overview

The Lucent OMC-RAN report manager window displays a menu bar that provides quick access to Lucent OMC-RAN reports functionality. Use the menu bar to generate, view, and transform reports on Report Manager.

The View menu has a listing of all the report types, which are available on the Lucent OMC-RAN GUI.

Activate all menu options on the menu bar, using single selection (one click) on the menu option required.

Activate Report Manager menus from your keyboard, by holding down the ALT key and pressing the underlined letter in the menu.

For example, to open the Configuration Reports menu in Report Manager, press ALT and V to open the View menu, and then C to open the available list of Configuration Reports from the keyboard.

The various menus, which are available on the Lucent OMC-RAN report manager menu bar are described in the following tables:

### File

Menu	Description
S <u>a</u> ve As	Saves the report selected in the Report Type window of Report Manager to disk. You can save a copy of any report to your computer.
<u>C</u> lose Report Manager	Closes the Report Manager window.

### Actions

Menu	Description
Delete	Deletes the report that is selected in the Report Type window.

Menu	Description
Transform	Enables you to convert report formats to CSV or HTML.
	Available options:
	• <b>CSV</b> - Allows you to convert a report from the default XML format to a CSV format.
	• <b><u>HTML</u></b> - Allows you to convert a report from the default XML format to HTML format.

### View

Menu	Description
Details	Opens the report that was selected in the Report Type window, on a web browser.
Configuration Reports	Displays configuration reports.
	Options available:
	• <u>1.</u> <b>Summary by NE Type</b> - Displays all the Summary by NE Type reports in the Report Type window.
	• <u>2. Network Element Configuration</u> - Displays all the Network Element Configuration reports stored on the Lucent OMC-RAN server, in the Report Type window.
	• <u>3.</u> Network State - Displays all the Network State reports stored on the Lucent OMC-RAN server, in the Report Type window.
	• <b><u>4.CM Operation</u></b> - Displays all the Configuration Management (CM) Operation reports stored on the Lucent OMC-RAN server, in the Report Type window.
	• <u>5.</u> State Change - Displays all the State Change reports stored on the Lucent OMC-RAN server, in the Report Type window.
	• <u>6.</u> AVCR - Displays all the Attribute Value Change Reports (AVCR) stored on the Lucent OMC-RAN server, in the Report Type window.

Menu	Description
Alarm Reports	Displays alarm reports.
	Options available:
	• <u>1. Alarms Arrival Summary</u> - Displays all the Alarms Arrival Summary reports stored on the Lucent OMC-RAN server, in the Report Type window
	• <u>2. Alarms Arrival by NE</u> - Displays all the Alarms Arrival by NE reports stored on the Lucent OMC-RAN server, in the Report Type window.
	• <u>3. Alarms Arrival by NE Type</u> - Displays all the Alarms Arrival by NE Type reports stored on the Lucent OMC-RAN server, in the Report Type window
	• <u>4.</u> Daily Alarms - Displays a list of alarms that have been opened, modified, and cleared for the specified date on the Lucent OMC-RAN server, in the Report Type window. It displays modifications caused by both NE event and user intervention
System Admin Reports	Displays system administration reports.
	Options available:
	• <u>1. System Parameters Status</u> - Displays all the System Parameter Status reports stored on the Lucent OMC-RAN server, in the Report Type window.
	• <u>2.</u> System Admin Operations - Displays all the System Admin Operations reports stored on the Lucent OMC-RAN server, in the Report Type window.
	• <u>3.</u> User Groups Summary - Displays all the User Groups Summary reports stored on the Lucent OMC-RAN server, in the Report Type window.
	• <u>4.</u> Authentication Failed Attempts - Displays all the Authentication Failed Attempts reports stored on the Lucent OMC-RAN server, in the Report Type window.
	• <u>5.</u> User Activity by User Group - Displays all the User Activity by User Group reports stored on the Lucent OMC-RAN server, in the Report Type window.
	• <u>6.</u> TI Responses - Displays responses received for the scripts that had been scheduled using the TICLI. Note: You can only view these responses. You can not generate TI responses.

Menu	Description
<u>R</u> CV Reports	Displays RC/V reports.
	Options available:
	• Login Summary - The Login Summary report gives a report of all login permissions currently assigned to users on the Lucent OMC-RAN RC/V GUI on a "per-login" basis.
	• <b>Form Summary</b> - The Form Summary report gives a report of all permissions currently assigned to forms on the Lucent OMC-RAN RC/V interface on a "per-form" basis.
	• <b>Profile Summary</b> - The Profile Summary report gives a report of the Default Parameter Profile (DPP) associated to every form.
Refresh	Refreshes the current view.
Toolbar	Displays or hides the toolbar on the Report Manager window.
	The toolbar is visible when you can see a check-mark to the left of the menu option, and is not visible when there is no check-mark.
Desktop	Brings forward the Lucent OMC-RAN desktop to the front, when you have a number of GUI windows opened at the same time.

#### Generate

Refer to the "View" (p. 9-5). The menu options on the **Generate** menu are the same as those on the **View** menu.

### Help

Menu	Description
On <u>W</u> indow	Opens the Help file for the active window on the Lucent OMC-RAN GUI.
About Lucent OMC-RAN	Opens the About dialog box with Lucent OMC-RAN software version, and component location information.

### **Related information**

For more information on reports, refer to *Lucent OMC-RAN System Administration*, 401-380-085.

## Report Manager tool bar

### Overview

The tool bar on the Report Manager window, enables quick access to commands, by clicking on a particular tool bar icon.

### Tool bar

Name	lcon	Description
Details		Opens the report selected in the Report Type window in a web browser window.
Refresh		Refreshes the current view.
Help	?	Opens a Help file for the active window.

### Report Manager tabs

### Overview

The Report Manager tabs enable a report to be generated in more than one format.

### Tabs

The following table lists the tabs and provides a short description for each.

Name	Description
Default	This is the default XML format, which is available on the Lucent OMC-RAN.
CSV	This tab enables you to convert a report from the default XML format to the Comma Separated Value (CSV) format. You can set the parameters to generate reports in a CSV format, which is available on the Lucent OMC-RAN.
HTML	This tab enables you to convert a report from the default XML format to the HTML format. You can set the parameters to generate reports in HTML format, which is available on the Lucent OMC-RAN.

# 10 Log Manager

### Overview

### Purpose

This chapter describes the Lucent OMC-RAN Log Manager interface.

### Contents

Log Manager menu bar	10-2
Log Manager tool bar	10-4
Log Manager views	10-5

### Log Manager menu bar

### Overview

The Lucent OMC-RAN log manager window displays a menu bar that provides quick access to Lucent OMC-RAN logs functionality.

Use the menu bar to select, filter, view, and print the contents of log files in Log Manager.

The various menus, which are available on the Lucent OMC-RAN log manager menu bar are described in the following tables:

Menu	Description
Print	Opens the Print dialog window that allows you to print the contents from a view on a GUI window.
Print <u>S</u> election	Opens the Print dialog window that allows you to print the contents of a particular row or the selected rows of a table.
<u>C</u> lose Log Manager	Closes the Log Manager window.

#### File menu

### View menu

Menu	Description
Details	Displays the Log Action Details window.
<u>R</u> efresh	Reloads the active window.
<u>T</u> oolbar	Displays or hides the Log Manager tool bar.
Des <u>k</u> top	Brings the desktop window in front of other open windows on the GUI.

### Tools menu

Menu	Description
Filter	Opens the Log Filter window. The Log Filter window allows you to choose a filter for viewing the log files in Log Viewer.

.....

### Windows menu

Menu	Description			
Tile	Tiles the open windows within the Log Manager interface.			
	The Tile command fits all open GUI windows within the manager window area, enabling you to view all the windows.			
Casca <u>d</u> e	Cascades the open windows within the Log Manager interface.			
	The Cascade command places open GUI windows on top of one another, with the title bar of each window visible. Click the title bar of the window you want to view.			
Close	Closes the active window on the GUI.			
Close <u>A</u> ll	Closes all the open windows in Log Manager.			
Window Title 1 Window Title 2	Lists all the open windows within the Log Manager interface to enable access to hidden windows.			

### Help menu

Menu	Description
On <u>W</u> indow	Opens the Help file for the active window within the Log Manager navigation window.
About Lucent OMC-RAN	Opens the About Lucent OMC-RAN window, which contains information about the software version, components loaded, and location of components.

### **Related information**

For more information on logs, refer to *Lucent OMC-RAN System Administration*, 401-380-085.

## Log Manager tool bar

### Overview

The tool bar on the Log Manager window, enables quick access to commands, by clicking on a particular tool bar icon.

### Tool bar

Name	lcon	Description
Print	ê	Prints the contents displayed on the GUI window.
Details		Opens the Log Details window. You can view the details of the log record.
Refresh		Refreshes the current view.
Filter	7	Opens the Log Filter window.
Help	?	Opens a Help file for the active window.

### Log Manager views

### Overview

The log view and the log entry details view are the views that are available in Log Manager.

#### Log view

The log view lists logs based on your filter criteria.

This is a sample of the log view.



### Log entry details view

In the log entry details view, a particular log record's details are listed. Double click on an alarm in the Log view to open Log entry details view.

Ð	Log Entry Details - Action - 9/2/2006 11:22 AM	00
Log Entry Paramet	ters	
Log Type	Action	
Date & Time	9/2/2006 11:22 AM	
Login	System	
System	FMALARMINTERFACE	
Object	Spf=7	
Action	deleteAgentComm	
Status	START	
Cause		
Severity		
Remarks		
Close		

This is a sample of the log entry details view when the action is being executed.

This is a sample of the log entry details view when the action has been successfully completed.

Ð	Log Entry Details - Action - 4/5/2006 1:37 PM	00
Log Entry Paramete	ers	
Log Type	Action	
Date & Time	4/5/2006 1:37 PM	
Login	omcadm	
System	OMACTION	
Object	Group=0	
Action	GetSubscriberTraceLogFilesOnAlINEs	
Status	SUCCESS	
Cause		
Severity		
Remarks		
Close		

This is a sample of the log entry details view of an action that could not be completed due to an error.

Ð	Log Entry Details - Action - 9/2/2006 11:22 AM	00
Log Entry Parameters		
Log Type	Action	
Date & Time	9/2/2006 11:22 AM	
Login	System	
System	FMALARMINTERFACE	
Object	Orca=2	
Action	deleteAgentComm	
Status	ERROR	_
Cause	Action owner has returned ActionResult = null.	_
Severity	NON-FATAL	
Remarks		
Close		

# 11 Scheduler

### Overview

### Purpose

This chapter describes the Lucent OMC-RAN Scheduler interface.

### Contents

About Scheduler	11-2
Scheduler menu bar	11-4
Scheduler tool bar	11-6

.....

### About Scheduler

### **Overview**

The Scheduler interface enables you to modify or delete schedule tasks.

Use Scheduler to perform the following tasks:

- View a list of scheduled tasks.
- Delete a scheduled task.
- Cancel a scheduled task. •
- Enable a scheduled task. •
- Disable a scheduled task.
- View task logs by opening the Log Viewer window.
- Open the Scheduled Task Details window and modify task attributes.

### Permissions

To manage tasks on the Scheduler, you need scheduler management permissions assigned by the Lucent OMC-RAN GUI system administrator. To view scheduled tasks, you need Scheduler viewing permissions.

Tasks on Scheduler can be managed only by the owner or creator. Therefore, you cannot disable, delete, or cancel system tasks created by other users.

If permissions are revoked from your user profile by the administrator, and you have a pending task on Scheduler, the task will not run. The Scheduler logs this as a failed task, and will not attempt a retry. In the case of periodic tasks, the tasks are rescheduled to run on the next scheduled date, but will only run if the owner has the required permissions.

### Accessing the Scheduler

Access Scheduler from the Lucent OMC-RAN GUI Desktop by selecting Tools, then Scheduler.

Double-click a task row to open Scheduler Task Details window.

Lucent OMC-RAN GUI windows have Schedule buttons to allow you to open the Schedule Information Details window, which you can use to schedule a task.

### Scheduler interface

This is a sample of the Scheduler window.

File Actions View Tools Help							
a D: ?							
State	Task ld	Task name	System action	Task State	Retry count	Last result	Last date and time
Ð	SchedulerTask=3	GetSubscriberTraceLogFilesOnAllHCFs	GetSubscriberTrace	Scheduled	1	Unsuccess	5/9/2006 3:47 PM
€P.	SchedulerTask=6	OMCHGetAllStatistics TaskALL	GetStatFilesOnAlINEs	Scheduled	0	Success	5/9/2006 4:17 PM
Ð	SchedulerTask=7	SMDeleteStatistics Task	DeleteStatistics	Scheduled	0	Success	5/8/2006 5:47 PM
€ <b>P</b>	SchedulerTask=2	purgeExecution	purgeExecution	Scheduled	0	Success	5/9/2006 3:00 AM
€P.	SchedulerTask=1	purgeExecution	purgeExecution	Scheduled	0	Success	5/9/2006 3:00 AM
<b>€</b> P	SchedulerTask=4	PurgeSDHLRLogs	PurgeSDHLRLogs	Scheduled	0	Success	5/9/2006 12:47 PM
		88					24 1
lă [							÷

At any point in time, you can have only one opened instance of the Scheduler table. It displays the complete list of tasks scheduled on the system. The information on each task is spread over 10 columns, and sorted by the default Next Date & Time field.

Click the column headings to see the sort arrow. You can sort columns in ascending or descending order. Double-click on a task in the Scheduler table to open the Scheduler detail window. The detail window gives you access to information on an individual task.

Tasks are dynamically updated online.

Use the pop-up menu on Scheduler for quick access to commands. Right-click a task in the Scheduler table window to view a pop-up menu. The pop-up menu options are Details, Delete, Cancel, Disable/Enable, Reassign and Video Action Log.

### **Related information**

For more information on tasks and scheduling, refer to *Lucent OMC-RAN System Administration*, 401-380-085.

### Scheduler menu bar

### Overview

The Lucent OMC-RAN Scheduler window displays a menu bar that provides quick access to the Lucent OMC-RAN scheduling functionality.

Use the Scheduler menu bar to perform scheduling tasks on the Lucent OMC-RAN GUI.

Activate all the menu options on the menu bar, using single selection (one click) on the required menu option.

You can also activate Scheduler menus from your keyboard, by holding down the **ALT** key and pressing the underlined letter in the menu.

For example, to open the Print dialog in Scheduler, press ALT and F to open the File menu, and then P to open the Print dialog from the keyboard.

### File menu

Menu	Description
Print	Opens the Print dialog window that allows you to print the contents of a table, and the text on a GUI window.
Print Selection	Opens the Print dialog window that allows you to print the contents of a particular row or selected rows of a table.
<u>C</u> lose Scheduler	Closes the Scheduler window.

### Actions menu

Menu	Description
<u>D</u> elete	Deletes one or several selected tasks on the Scheduler table. These tasks should be scheduled, completed, or disabled before deletion. The Lucent OMC-RAN system displays a confirmation dialog window for confirmation to continue the delete action.
<u>C</u> ancel	Cancels the selected task on the schedule table. The Lucent OMC-RAN system displays a confirmation dialog window for confirmation to continue the cancel action.

.....

Menu	Description
E <u>n</u> able/Disabl <u>e</u>	Enables or disables the selected task on the Scheduler table. The Lucent OMC-RAN system displays a confirmation dialog window for confirmation to continue the enable or disable action.
Reassign	Reassigns the selected task on the Scheduler table.

### View menu

Menu	Description
<u>D</u> etails	Opens the Scheduler detail window for the selected task on the Scheduler.
<u>R</u> efresh	Reloads the Scheduler window.
Toolbar	Displays or hides the tool bar on the Scheduler window.
Des <u>k</u> top	Brings the Lucent OMC-RAN desktop to the front of other open windows on the GUI.

### **Tools menu**

Menu	Description
View Action Log	Opens the Log Viewer window showing the action logs for the selected task in the Scheduler table.

### Help menu

Menu	Description
On <u>W</u> indow	Opens the Help file for the active window on the Lucent OMC-RAN GUI.
About Lucent OMC-RAN	Opens the About Lucent OMC-RAN window, which contains information about the software version, components loaded, and the release number.

### **Related information**

For more information refer to Lucent OMC-RAN System Administration, 401-380-085.

401-380-093R27 Issue 1, November 2006

### Scheduler tool bar

### Overview

The tool bar on the Scheduler window, enables quick access to commands, by clicking on a particular tool bar icon.

### Tool bar

Name	lcon	Description
Print	ð	Prints the contents displayed on the GUI window.
Details		Opens the Scheduler detail window for the selected task on the Scheduler.
Refresh		Refreshes the current view.
Help	?	Opens a Help file for the active window.

# 12 Action History

### Overview

### Purpose

This chapter provides information about the Lucent OMC-RAN Action History window.

### Contents

About Action History	12-2
Re-invoke, cancel and clear actions	12-4

.....

### About Action History

### Overview

The Action History displays the record of most actions initiated during a single session on the Lucent OMC-RAN.

Actions in the list can be re-invoked, cancelled or cleared on a particular object or network element. It is important to note that some actions will fail when re-invoked, such as creating a user, since re-invoking would attempt to create a duplicate user.

**Note**: Recent Change and Verify (RC/V) and Technician's Interface Command Line Interface (TICLI) actions are not stored in the Action History.

### Permissions

If the actions need to be actions tracked by the Action History, you need to have permissions on the Lucent OMC-RAN GUI assigned by the system administrator.

### Accessing Action History

Access the Action History window from the Lucent OMC-RAN desktop, by selecting **Tools**, then **Action History**.

### **Action History Interface**

This is a sample of the Action History window.

State 🐺	Time	Action	Target name	Status/Result	Cause
$\checkmark$	Mon Apr 03 14:26:04 IST 2006	systemprefs.modify	SystemPreference=1	Succeeded	
	Mon Apr 03 14:26:06 IST 2006	systemprefs.modify	SystemPreference=1	Succeeded	
$\checkmark$	Mon Apr 03 14:26:07 IST 2006	systemprefs.modify	SystemPreference=1	Succeeded	
$\mathbf{\nabla}$	Mon Apr 03 14:26:22 IST 2006	systemprefs.modify	SystemPreference=1	Succeeded	
	Mon Apr 03 14:26:23 IST 2006	systemprefs.modify	SystemPreference=1	Succeeded	
	Mon Apr 03 14:26:23 IST 2006	systemprefs.modify	SystemPreference=1	Succeeded	
	Mon Apr 03 14:26:23 IST 2006	systemprefs.modify	SystemPreference=1	Succeeded	
Ð	Mon Apr 03 14:42:18 IST 2006	systemprefs.modify	SystemPreference=1	Executing	
		Re-invoke	Cancel Action	Clear	Close

The Action History window can display a maximum of 500 actions. The administrator can set the preferred number of actions in **User Preferences** window in the **General** tab.

You can only have one instance of the Action History window open at a time.

The contents of the Action History table are dynamically or immediately updated online.

Click the column headings to see the sort arrow. You can sort columns in ascending or descending order.

The Action History fields are represented as follows:

- State represents the initial state of an action
- Time represents the time the action was requested
- Action indicates the name of the invoked action
- Target name the object on which the action was performed
- Status/Result indicates the current mode of the action performed
- Cause provides the reason for the failure of a particular action.

#### Possible State and Status/result values

State	Status/result
• Running +	• Executing
• Success 🗹	• Succeeded
• Cancel 🧕	• Cancelled
• Pending 😱	• Pending
• Failed 🔀	• Failed

### Re-invoke, cancel and clear actions

#### Purpose

This procedure provides instructions on how to re-invoke, cancel and clear actions from the Action History window

#### **Related information**

There is no related information required for this procedure.

#### Before you begin

You must have permissions on the Lucent OMC-RAN GUI assigned by the system administrator.

#### To re-invoke actions

Complete the steps below to re-invoke actions:

.....

1 From the Lucent OMC-RAN desktop, click on **Tools**, and select **Action History**.

Result The Action History window is displayed

2 Select the actions that you want to re-invoke, from the Action History window and click **Re-invoke**.

**Result** The selected actions are re-invoked.

NOTE: All actions can be re-invoked. However, some may fail, such as re-invoking an action to create a new user, since the user had been previously defined.

END OF STEPS

### To cancel actions

Complete the steps below to cancel actions:

.....

1 From the Lucent OMC-RAN desktop, click on **Tools**, and select Action History.

**Result** The Action History window is displayed

2 Select the actions that you want to cancel, from the Action History window and click **Cancel Action**.

Result The selected actions are cancelled.

NOTE: Only actions in the *Pending* and *Executing* states can be cancelled. The Cancel option will be disabled for tasks in other states.

END OF STEPS

#### To clear actions

Complete the steps below to clear actions:

1 From the Lucent OMC-RAN desktop, click on **Tools**, and select Action History.

Result The Action History window is displayed

- ------
- 2 Select the actions that you want to clear, from the Action History window and click **Clear**.

**Result** The selected actions are cleared.

NOTE: Any action can be cleared, irrespective of the states in which they are present.

END OF STEPS

# 13 User and Session Manager

### Overview

### Purpose

This chapter provides information about the Lucent OMC-RAN User and Session Manager interface.

### Contents

About User and Session Manager	13-2
User and Session Manager menu bar	13-4
User and Session Manager tool bar	13-8
User and Session Manager views	13-9
User and Session Manager status icons	13-15

## About User and Session Manager

### Overview

The User and Session Manager interface enables you to manage users, user sessions, and IP address and subnetwork access on the Lucent OMC-RAN.

You can perform the following user administration tasks from User and Session Manager:

- Create users, user groups, entity groups, task groups
- Delete users, user groups, entities, entity groups, tasks, task groups
- Assign users to user groups
- Assign entities to entity groups
- Assign tasks to task groups
- Assign entities or entity groups to user groups
- Assign tasks or task groups to user groups
- Monitor user sessions using the monitoring tool
- Enable or disable IP address and subnetwork access to the Lucent OMC-RAN.

### Permissions

Only those who have been assigned user management permissions have User and Session Manager menu options available to them.

### Accessing User and Session Manager

Access the User and Session Manager from the Lucent OMC-RAN desktop, by selecting **System**, then **User & Session Manager**.

#### **User and Session Manager interface**

This is a sample of the User and Session Manager window.

<u>File Actions View Tools Windows Help</u>			
2 2 2			
<b>.</b>	Monitoring User:	s and IP Addresses	000
User sessions IP addre	User sessions IP addresses and sub-networks		
User name 🏦	IP address	Client type	Log in date and time
amitl	135.254.211.221	GUI	12/27/2005 10:16 AM
amitl	135.254.227.26	GUI	12/26/2005 11:22 AM
nbiuser	135.254.225.23	NBI	12/24/2005 6:25 PM
Monitoring U.,			
View Users completed successfully			

Use User and Session Manager to open the following user administration windows:

- Users table to see a list of all users on the Lucent OMC-RAN
- User Groups table to see a list of all the user groups
- Entities table to see a list of all the entities
- Entity Groups table to see a list of entity groups
- Tasks table to see a list of all the tasks that can be carried out
- Task Groups table to see a list of all the task groups
- Monitoring Users to manage user sessions, and enable or disable IP addresses and subnetwork access to the Lucent OMC-RAN
- User Permissions Overview to view and modify a selected user's assigned permissions
- User Groups Overview to view and modify a selected users assigned permissions.

You can access these windows by selecting the **View** or the **Tools** menus on the User and Session Manager menu bar. To access the Permissions Overview windows, you need to open the User or User Group table in the View menu, and select a user name or group name on the list, so that these menu options are available.

### **Related information**

For more information on user administration, refer to *Lucent OMC-RAN System* Administration, 401-380-085.

### User and Session Manager menu bar

### Overview

The Lucent OMC-RAN User and Session manager window displays a menu bar that provides quick access to Lucent OMC-RAN User and Session Manager functionality.

Use the menu bar to perform user management tasks in the User and Session Manager interface.

The menu bar options available on User and Session Manager are dependent on:

- The item you select in the browsers in the View menu
- The state of the selected item
- Selection constraints imposed by User and Session Manager.

Activate all menu options on the menu bar, using single selection (one click) on the menu option required.

You can also activate User and Session Manager menus from your keyboard, by holding down the **ALT** key and pressing the underlined letter in the menu.

For example, to open the Print dialog in User and Session Manager, press **ALT** and  $\underline{F}$  to open the File menu, and then  $\underline{P}$  to open the Print dialog from the keyboard.

The various menus, which are available on the Lucent OMC-RAN user and session manager menu bar are described in the following tables:

Menu	Description
Print	Depending on the driver of the printer that is installed on your system, the Lucent OMC-RAN either prints or opens the Print dialog window that allows you to print the contents of the GUI window.
Print <u>S</u> election	Opens the Print dialog window that allows you to print the contents of a particular row or the selected rows of a table.
<u>C</u> lose User & Session Manager	Closes the User and Session Manager navigation window.

### File menu

### Actions menu

Menu	Submenu	Description	
<u>C</u> reate	<u>U</u> ser	Opens the Create User : User Profile window, to create a new user.	
	User <u>G</u> roup	Opens the Create User Group : Assign Tasks window.	
	Entity Group	Opens the Create Entity Group window.	
	Task Gr <u>o</u> up	Opens the Create Task Group window.	
<u>D</u> elete	Deletes the selected user or user group.		
Lock	Blocks the selected user.		
	NOTE:		
	This option would be displayed only when the user is unlocked.		
<u>U</u> nlock	Unblocks the selected user.		
	NOTE:		
	This option would be displayed only when the user is locked.		

Use Online Help for information on individual fields on the Create windows.

### View menu

Menu	Description
Details	Opens the details of the item selected in the table.
<u>U</u> sers	Opens the Users window table in the User and Session Manager window. This is a list of all the authorized users on the Lucent OMC-RAN.
User <u>G</u> roups	Opens the Users Groups table window in the User and Session Manager navigation window. This is a list of all the user groups on the Lucent OMC-RAN.
Entities	Opens the Entities window table in the User and Session Manager navigation window. This is a list of all the entities on the Lucent OMC-RAN.
Entity Groups	Opens the Entity Group window table in the User and Session Manager navigation window. This is a list of all the entity groups on the Lucent OMC-RAN.

Menu	Description	
Ta <u>s</u> ks	Opens the Tasks window table in the User and Session Manager navigation window. This is a list of all the tasks that can be carried out on the Lucent OMC-RAN.	
Task Gr <u>o</u> ups	Opens the Tasks Groups window in the User and Session Manager navigation window. This is a list of all the task groups on the Lucent OMC-RAN.	
User <u>P</u> ermissions Overview	Opens the User Permissions Overview window. Use this tool to quickly see the permissions assigned to an individual user.	
User Group Overview	Opens the User Groups Overview window. Use this tool to quickly see the entities and tasks assigned to an individual user group.	
<u>R</u> efresh	Refreshes or reloads the User and Session Manager window.	
Toolbar	Displays or hides the tool bar on the User and Session Manager window.	
Desktop	Displays the Lucent OMC-RAN desktop on top of the other windows displayed on the GUI.	

### Tools menu

Menu	Description	
Monitoring Users	Opens the Monitoring Users window. Use this tool to monitor and control user sessions on the OMC, and add or remove IP addresses and subnetworks on the Lucent OMC-RAN.	

### Windows menu

Menu	Description
Tile	Tiles the open windows within the User and Session Manager interface.
	The Tile command fits all the open GUI windows within the navigation area, so that you can view all the windows.

Menu	Description	
Casca <u>d</u> e	Cascades the open windows within the User and Session Manager interface.	
	The Cascade command places open GUI windows on top of one another, with the title bar of each window visible. Click the title bar of the window you want brought forward into full view.	
Close	Closes all the window in focus within the User and Session Manager window.	
Close <u>A</u> ll	Closes all the open windows within the User and Session Manager window.	
Window Title 1 Window Title 2	Lists all the open windows within the User and Session Manager interface to enable access to hidden windows.	

### Help menu

Menu	Description	
On <u>W</u> indow	Opens the Help file for the active window on the Lucent OMC-RAN GUI.	
<u>A</u> bout Lucent OMC-RAN	Opens the About Lucent OMC-RAN window, which contains information about the software version, components loaded, and location of components.	

### **Related information**

For more information on user administration, refer to *Lucent OMC-RAN System* Administration, 401-380-085.

## User and Session Manager tool bar

### **Overview**

The tool bar on the User and Session Manager window, enables quick access to commands, by clicking on a particular tool bar icon.

### **Tool bar icons**

Name	lcon	Description
Print	ê	Depending on the driver of the printer that is installed on your system, the Lucent OMC-RAN either prints or opens the Print dialog window that allows you to print the contents of the GUI window.
Details	<b>a</b>	Allows you to view and edit details of the selected object such as user, user group and so on.
Refresh	¢	Refreshes the current view.
Monitoring Users		Opens the Monitoring Users window. Use this tool to monitor and control user sessions, add or remove IP addresses and subnetworks on the Lucent OMC-RAN.
Help	?	Opens the Help file for an open window in focus on the Lucent OMC-RAN GUI.

### **Related information**

For more information on user administration, refer to Lucent OMC-RAN System Administration, 401-380-085.
# User and Session Manager views

# Overview

The User and Session Manager views enable you to manage users, user groups, entities, entity groups, tasks, and task groups on the Lucent OMC-RAN.

# **Users view**

All the users are displayed in this view. Right-click to open a pop-up menu and you can delete users, switch the state of users from locked to unlocked and vice versa, to view the user permissions overview.

This is a sample of the users view in User and Session Manager.

File Actions View 1	ools <u>W</u> indows <u>H</u> elp		
2 🍇 ?			
÷	Users		$\Theta \odot \Theta$
State	Name 🏦	Description	
	TestUser	Test User for Usr Mgmt Issue	
	glen		
	internaliems	The internaliems user	8
	mandeep		1
<b>a</b>	naresh	panda123	
	nbiuser	The NBI System user	, U
	omcadm		Ť
Monitoring U Users			
📓 🛛 Switch State on	User=naresh completed succes	sfully	\$

# User groups view

All the user groups are displayed in this view. Right-click to open a pop-up menu and you can delete user groups and view the user permissions overview.

This is a sample of the user groups view in User and Session Manager.

<u>File Actions View T</u> ools <u>Wi</u> ndows <u>H</u> elp					
*	🛔 User Groups 😑 😔				
Name 🏦	Description	Predefined			
Customer Techni	The Customer Technical Support user group				
Manage DPP Group					
NBI System	The NBI System user group	U 🛛			
No DPP	DPP				
Only RCV	RCV				
RCVDPP					
Read Only	The Read Only user group				
System Administr	Users in this user group have full permissions on				
TestTGsampath	task group for testing				
abc1					
abc2					
noDpp					
testakhil		□ <b>↓</b>			
Monitoring U Users User Groups					
View User Groups completed successfully					

# **Entities view**

All the entities are displayed in this view. Double-click a particular entity and the Assigned Entity Groups window opens.

File Actions View Tools Windows Help \$ **H** ? ÷  $\Theta \otimes \Theta$ Entities Name 🏦 Orca=1,ApxS2=193 Orca=1,ApxS2=223 Orca=1,ApxS2=310 Orca=1,ApxS2=311 Orca=1,ApxS2=312 Orca=1,ApxS2=533 Orca=1,Cdbs=12 Orca=1,Cdbs=32 Orca=1,Cdbs=374 Orca=1,Dcs5ess=2 Orca=1,Dcs5ess=3 Orca=1,Dcs5ess=13 Orca=1 Dcs5ess=14 Entities \$ View Entities completed successfully

This is a sample of the entities view in User and Session Manager.

#### Entity groups view

All the entity groups are displayed in this view. Double-click a particular entity group and the Edit Entity Group window opens.

This is a sample of the entity groups view in User and Session Manager.

<u>F</u> ile <u>A</u> ctions ⊻iew	<u>T</u> ools <u>W</u> indows <u>H</u> elp			
2 0 0 2 2 2				
+	Entity Groups 😔 😣			
Name 🏦	Description			
ORCA entity group	ORCA entity group			
SPF EG	SPF entity group			
Monitoring U Entity Groups Entities				
Create entity group completed successfully				

# Tasks view

You can view all the tasks and a short description of each task in this view. Double-click a particular task and the Assigned Task Groups window opens.

<u>File Actions View Tools Windows Help</u>				
*	Tasks 😁 😁	8		
Name 🏦	Description			
AP alw ap	Allow call processing on a MMA.			
AP alw cell	Allows a specific software or hardware action	8	8	
AP alvv mscdbms	Allow AP-based AUTOPLEX daily comprehensiv		<u> </u>	
AP alw tos	Allows the routine execution of one or all Traffic			
AP aud mscdbms	Audits AP and ECP database tables and synchro			
AP aud tos	Requests one or all Traffic Control Server (TCS)			
AP bkup rncdb	Requests that a backup occur for the active RNC			
AP cfr ap	Configure the AP			
AP cfr ss7	Toggles the SS7LSL between the normal (NO LO			
AP commit ap	Commits the AP to the version of platform softw		<u> </u>	
AP copy rncdb	Requests a copy of the RNC application database.		Ŧ	
Tasks				
View Tasks completed successfully				

This is a sample of the tasks view in User and Session Manager.

# Task groups view

You can view all the task groups and a short description of each task in this view. Double-click a particular task group and the Edit Task Group window opens. Right-click to open a pop-up menu and you can delete task groups. This is a sample of the task groups view in User and Session Manager.

File <u>A</u> ctions <u>Vi</u> ew <u>T</u> ools <u>Wi</u> ndows <u>H</u> elp					
2 💷 🏙 ?					
÷	Task Groups 😔 😣				
Name 🏦	Description	Predefined			
Alarms	Contains the tasks related to the alarms		1		
Cell Technician	Contains tasks for users in the role of Cell Techn				
Customer Techni	Contains tasks for users in the role of Customer				
DPPManage					
DPPs	Contains tasks related to Default Parameter Profil		н		
Logs	Contains the tasks related to the logs		н		
Maintenance	Contains the tasks related to system maintenance		1		
Manage RCV rep Contains tasks for Generating the RCV reports					
NE Configuration	Contains the tasks related to NE configuration		н		
Network Administ	Contains tasks for users in the role of Network		н		
Network Configur	Contains tasks related to the network configurati		Ш		
OMC Administration	Contains tasks for users in the role of OMC Admi				
RCV ALLFORM o	RCV Task Group RCV ALLFORM open		21		
PO LIA offer VOR	RCV Task Group, RCV a2te ALLOPERN		ć.		
Task Groups					
View Task Groups completed successfully					

# User and Session Manager status icons

# Types of states

The tool bar on the User and Session Manager window, enables quick access to commands, by clicking on a particular tool bar icon.

# Status icons

Name	lcon	Description
Locked		This icon represents that the particular user is locked. This prevents users from accessing the system the next time they attempt to log on.

# **Related information**

For more information on user administration, refer to *Lucent OMC-RAN System* Administration, 401-380-085.

# 14 Maintenance

# Overview

# Purpose

This chapter provides information about the Lucent OMC-RAN Maintenace interface.

.....

# Contents

About Maintenance 14	-2

# About Maintenance

# Overview

The System Maintenance interface enables you to generate backups and archives of the Lucent OMC-RAN system, and delete alarms on the network.

Use the Archive and Backup windows to:

- Generate and save archives and backups of the Lucent OMC-RAN on the file system
- Schedule archives and backups.

Use the Purge windows to:

- Delete cleared system alarms
- Delete cleared network element (NE) alarms
- Schedule deletion of system and NE alarms.

# Permissions

The System Maintenance archive and backup options are only available to you if you have archive and backup permissions on the Lucent OMC-RAN. To delete cleared alarms, you need alarm management and administration permissions.

#### Access

Access System Maintenance from the Lucent OMC-RAN GUI desktop, by selecting **System** then **Maintenance**. Then select one of the following; **System** Archive, **System** Backup, or System Purge Alarms.

#### **Maintenance Interface**

This is a sample of the Lucent OMC-RAN archive window.

Destination path	/backup/archives/	Browse
Destination file name		
(If this field is left blank, the	file name will be automatically generated)	
🗹 Compress file		
Archive type	All	+
Sta	rt Stop Schedule Close	Help
		\$

You can generate separate archives for logs and reports or have both types of files in the same archive using the Archive window.

This is a sample of the Lucent OMC-RAN backup window.

Destination path	/backup/backups/
Destination file name	
(If this field is left blank, th	e file name will be automatically generated)
🗹 Compress file	
Backup type	Fuli
Ste	rt Stop Schedule Close Help
	•

This is a sample of the Lucent OMC-RAN Alarm Purge window.

Elements to purge from database   Image: Cleared alarms   Image: Elements   Image: Flat   Image: Purge selected items arising before					
Data	0400005	Time	00 00		
Date	19/10/2005	Time			
L	8				
	ок	Schedule	Close	Help	
				\$	

The Alarm Purge window enables you to delete or purge cleared system alarms, and cleared network element (NE) alarms on the network.

# **Related information**

For more information on archives, backups, and purging alarms refer to *Lucent OMC-RAN System Administration*, 401-380-085.

# Glossary

# Numerics

#### 1xRTT

Single carrier radio transmission technology

#### **3GPP**

*Third Generation Partnership Project* is a project set up to expedite the development of technical specifications for 3G.

#### 3GPP2

*Third Generation Partnership Project 2* is a collaborative 3G telecommunications standards-setting project comprising North American and Asian interests on the development of the next generation CDMA 2000 wireless communication.

# **5ESS DCS**

The 5ESS Digital Cellular Switch (DCS) is a switching processor of the Flexent/AUTOPLEX system. The DCS is part of the MSC and connects BTSs to the PSTN.

#### 100 Base-T

100 Base-T is a networking standard that supports data transfer rates that are 10 times faster than Ethernet, also known as Fast Ethernet.

#### A A/B-server

FMS computer hardware is available in two configurations called the A-server and B-server. The FMS A-server occupies one frame slot. The FMS B-server occupies two frame slots, supports mirrored disks, and additional I/O.

# AAL

ATM Adaptation Layer is a layer in the B-ISDN protocol hierarchy that adapts user traffic to a cell format.

# AFAC

DS1 AUTOPLEX FACility on the 5ESS DCS

# Alternate AP

The Application Processor (AP) that hosts a standby Application Virtual Machine (AVM) when the primary AP hosts the active Application. When an Application is added to a system with paired APs, it is assigned a primary and alternate AP. This is a term of static equipment configuration.

# AMA

Automated Message Accounting

# AMP

Amplifier. An electrical device which receives a signal at a low level and sends it out at a higher level, without appreciable distortion of the waveform.

# AMPS

Advanced Mobile Phone Service. A mobile communications system that uses Frequency Division Multiple Access (FDMA) technology to provide communications services to mobile units.

# ANT

Refers to Physical Antenna Face (PAF). PAF and ANT are used interchangeably with the same meaning.

# AP

**Application Processor** 

# APC

AP Cluster (also called GNP)

# APCC

APC Complex

# APNI

AUTOPLEX Packet Network Interface

# APXS2

AUTOPLEX® Series II

# ARLRCU

Audits all locate radios

# ARR

Automatic Radio Recognition. The ARR feature allows a BTS to automatically move the functionality of a SU, LC, BC, or DCCH radio to any digital voice radio.

# ARRTU

Audits Radio Test Unit

# ARSRCU

Audits all setup radios

# ARVRCU

Audits all voice radios

# AS

Alarm Scanning

# ASCII

American Standard Code for Information Interchange is the world-wide standard for the code numbers used by computers to represent all characters.

# ATM

Asynchronous Transfer Mode (ATM) is a dedicated-connection switching technology that transmits data in 53-byte units over a physical medium using digital signal technology.

# B B-ISDN

Broadband Integrated Services Digital Network

#### basic-state

The current operating condition of a managed resource in the Flexent/AUTOPLEX native information model. The basic-state can have source/reason qualifiers.

#### BBA

BCR-BIU-ACU. The logical combination of a baseband combiner and radio (BCR), it's associated Bus Interface Unit (BIU), and analog conversion unit (BCA) form a CDMA radio set.

#### BBU

Base Band Unit

#### BC

Beacon Channel radio. A BC radio uses a voice channel to transmit a known power level signal to TDMA mobiles in the coverage area. The mobiles use this signal to report the strength of the BTS face to the serving BTS and it is used in hand-off decisions.

# BCR

Baseband Combiner Radio. A CDMA cluster, RF processing unit that combines and up-converts baseband signals from multiple analog conversion units in the transmit direction and down-converts RF to IF in the receive direction. Station

### BER

*Bit Error Rate* represents the percentage of bits that have errors relative to the total number of bits received in a transmission, usually expressed as ten to a negative power. For example, a transmission might have a BER of 10 to the minus 6, which means out of 1,000,000 bits transmitted, one bit was in error.

### bfc

Blocking From Cell

# bfd

Blocking from DCS

#### bfm

Blocking from MSC

# BHCA

Busy Hour Call Attempts. the total number of originating and terminating call attempts handled by the system in a typical one-hour period.

#### BMA

Base station Management Application. An application to support the LU IOS BSC.

# BSC

Base Station Controller is the network node that connects the BTS and the MSC.

# BTS

Base Transceiver System. A logical node responsible for radio transmission/reception to/from the user equipment. The meaning of BTS is equivalent to the legacy term "cell site" in the Flexent/AUTOPLEX system. These terms are used interchangeably in this document.

#### busy hour

A one-hour period within a specified interval of time (typically 24 hours) in which the traffic load in a network is greatest.

# C C-PVM

Critical Platform Virtual Machine. Contains a static set or group of platform software under RCC control.

#### cartoon pages

Commonly used term for SDP

# CAT

Clock And Tone. A circuit pack that provides the clock signals necessary for the transfer of data on the TDM bus. The board also provides maintenance tone generation and detection.

# CBR

CDMA Baseband Radio

# CCC

CDMA Cluster Controller. The control and data interface in an AUTOPLEX Series II between the CCUs and the RCC which supports call processing and also terminates the packet pipes. The CCC manages the CCUs.

# CCPINT

CDMA Call Processing Internal Data

# CCTMR

Call Control Timer

# CCU

CDMA Channel Unit. A generic term for a unit that holds channel elements in a CDMA system.

# CDBS

Flexent CDMA Distributed Base Station. A modular, extendable multi-sector, multi-carrier BTS. Its minimal configuration consists of one BBU hosting up to three remotely located RFUs by means of dedicated fiber-optic link. each BBU represents one carrier, and each RFU represents one sector carrier. Its maximum configuration consists of 3 BBUs, for a total of 9 RFUs.

#### CDM

CDMA Digital Module. Each Modular cell CDM contains a set of CRCs, CCUs, and CBRs.

#### **CDMA**

*Code Division Multiple Access* is a technique for spread-spectrum, multiple-access digital communications that creates channels through the use of unique code sequences.

# **CDMA** channel

Refers to a single digital communication path for transferring information between the mobile and the BTS. It may be a traffic channel, pilot channel, sync channel, or a setup channel (page and access).

# CDMA Spectrum Swap

A feature providing the ability to switch between two configurations, one supporting only analog AMPS and one supporting CDMA in addition to AMPS.

#### CDN

Call Processing/Database Node. A node which is responsible for call processing activity.

#### CDPD

Cellular Digital Packed Data. Wireless data communications service that utilizes existing cellular voice channels, when they are not in use, to transport packet data.

# CE

Channel Element. A CDMA CE contains the circuitry necessary to perform forward and reverse link CDMA spread spectrum processing to support one CDMA channel. It can be configured as an overhead channel (pilot, sync, access or page) or a traffic (for example, voice) channel, or for test purposes, as an OCNS channel. The pilot, sync, and access channels are all supported on a single CE.

# CFR

An abbreviation of "configure", CFR is a command used to test the output spectrum of the transmitters for FCC compliancy and the load capacity of the amplifiers. They are often performed after installing radios and amplifiers, and after replacing failed radios and amplifiers, to help measure and adjust the RF performance of these components. CFR sessions are also referred to as Manual Configuration and Test (MCAT) sessions.

# CGSA

Cellular Geographic Service Area. A basic coverage area served by a cellular system. A BTS is assigned to one and only one CGSA. Database provisioning parameters may be assigned globally to the BTSs assigned to a CGSA. If necessary, the parameters may be overridden at the per-BTS level.

# CLAC

Cellular LAC

# CLAM/PLAM

Cellular/PCS linear Amplifier Module. Used to amplify the CDMA carrier(s) in the cell. Several of these units can be combined to maintain the output power as carriers are added to the cell.

# СМ

Configuration Management

# CNI

Common Network Interface/Interprocessor Message Switch Ring

# CONFIG

Configure a voice radio/BBA.

# CORBA

*Common Object Request Broker Architecture* is an architecture and specification for creating, distributing, and managing distributed program objects in a network.

# CPAVAIL

Audits channel availability for CP

# CPC

Common Power Converter. Provides a power supply to the OneBTS Macrocell.

# CRAPI

Command Response API

# CRC

CDMA Radio Controller

# CRTU

CDMA Radio Test Unit

# CS

Cell Site (see BTS)

# CSC

Cell Site Controller. A control unit in the AUTOPLEX Series II primary frame consisting of a core processing unit, a memory board, one or two network control interfaces, a communications processor interface, an alarm interface, and a system bus. The CSC is duplexed for reliability. The duplexed unit is sometimes referred to as the Radio Control Complex (RCC).

# CSCP

Audits call processing software

# CSDL

Cell Site Data Link

# CSN

Cell Site Node. A node that provides data link connections to AUTOPLEX Series II.

# CSTDM

Audits TDM bus connection map

# CTRM

CDMA Test Radio Module

# CTU

CDMA Transmit Amplifier Unit

# D DACS

Digital Access Cross-connect System

# Data Link

A generic term for a dedicated supervision link for transmitting data messages between an MSC and another entity (for example, DCS, inter-MSC, Series II). for RCS-based BTSs, the Data Link is terminated at an Ethernet card on the RCS-AP and EIN on the ECP ring.

# DBMS

DataBase Management System. A system that receives and satisfies all requests for data base administration/access. A central repository of configuration data for a Flexent/AUTOPLEX system.

### DCI

Dual-Serial Channel (DSCH) Computer Interconnect. A proprietary interface between the ECP and OMP.

#### DHCP

The *Dynamic Host Configuration Protocol* is a communications protocol that lets network administrators manage centrally and automate the assignment of IP addresses in an organization's network.

# DL (AUTOPLEX Series II)

An AUTOPLEX Series II Data Link is a timeslot on a T1/E1 line that is used to carry control information between a Series II and an MSC. Each Series II can have 1 or 2 data links that terminate on 1 or 2 DS1/DFI boards. See also Data Link.

# DLN

Direct Link Node. A node which converts Operating System for Distributed Systems (OSDS) messages to X.25 or SS7 format and routes them to specific IMS user nodes.

#### DN

Distinguished Name. Used to uniquely identify a managed object within a name space. A DN is built from a series of "name components", referred to as Relative distinguished Names (RDNs). From a particular local context, the name of a managed object is the Local distinguished Name (LDN). From a global context, the name of the same managed object is the DN. LDN is a proper subset of DN. In a particular local context, a DN prefix is defined such that all LDNs in that particular context, if attached behind the DN prefix of that context, will yield the DNs of the managed objects.

#### DNS

Domain Name System translates alphabetic domain names into numeric IP addresses.

#### DPP

*Default Parameter Profile* is used to load the default values on the screen. Most of the screens will have a facility to create customized profiles. You can save the values that are entered into a profile and reuse the profile later to populate the specific screen.

# **Drive Testing**

Used to collect accurate RF path loss measurements in a network. Results are used to categorize the overall quality of a wireless network and perform root cause analysis of interference conditions in the network.

# DRU

Digital Radio Unit

GL-8

#### E E1

Wide-area digital transmission scheme used predominantly in Europe that carries data at a rate of 2.048 Mbps.

#### ECP

Executive Control/Cellular Processor. A 3B21 processor and software providing some call processing and OA&M functionality. The ECP provides ring node and link integrity.

#### ECPC

Executive Cellular Processor Complex

#### EDRU

Extended Digital Radio Unit

#### EESD

Enhanced Electronic Software Distribution

#### EINE

Ethernet Interface Node Enhanced. The interface between an AP and the IMS/CNI ring.

#### EML

*Element Management Layer* is an abstraction of the functions provided by systems that manage each network element on an individual basis.

#### EMS

*Element Management System* is a management system that provides functions at the *EML*.

#### entity

An abstract representation of a managed resource.

#### ES

Ethernet Switch is a10-baseT Ethernet hub with switching capability. Instead of contending for access on a shared medium, each packet is switched to its destination.

# ESID

Extended System ID. Contains a DSC ID, ECP ID, System ID.

#### eSM

enhanced Services Manager

# ETSI

European Telecommunications Standards Institute

#### **EVRC**

Enhanced Variable Rate Code

# **External (Scanned) Alarms**

Alarms gathered by dedicated monitoring circuits at the BTS. There is no automatic recovery for scanned alarms. Scanned alarms are classified as equipment alarms (for example transmit and receive amplifier alarms), frame alarms (for example, digital fan failure), and user-defined alarms.

### F FDMA

*Frequency Division Multiple Access* is a digital transmission technology that combines elements of *TDMA* and spread spectrum.

#### FΜ

Fault management

#### FMM

Flexent Mobility Manager

#### Folder

A folder is a directory or subdirectory in a file system.

#### FOM

Fiber Optic Module. A CDBS unit that provides near-end termination of the fiber optic links to the RFUs and also provides distribution of TFU clocking among the BBUs.

#### FOMP

Fiber Optic Module Port.

#### forward setup channel

a setup channel used to transmit information from the BTS to the mobile units in it's coverage area.

#### frame alarms

Frame alarms indicate the status of assemblage hardware that does not communicate on any data buses. This includes fans, heaters, temperature sensors, and door switches.

#### FTP

File Transfer Protocol is a protocol used on the Internet for exchanging files.

#### FxApx

Flexent Autoplex is MSC monitored by Lucent OMC-RAN.

#### G GGSN

Gateway GPRS Support Node

#### GPS

Global Positioning System. A navigational system employing high-altitude satellites that provides location and time information to users. CDMA systems utilize GPS timing to synchronize BTSs.

#### GUI

*Graphical User Interface* is a visual interface to an application with graphical elements, such as icons, menu bars, buttons, toolbars, and dialogs to interact with the application.

.....

# H H-VLR

Home-Visitor Location Register

#### ΗМ

Hierarchy Manager of Lucent OMC-RAN Network Manager.

#### HMLAC

High Power Modular Linear Amplifier Circuit

#### **HSPD**

High Speed Packet Data

#### HTPA

High-power Transmit Power Amplifier

#### HTTP

Hyper-Text Transfer Protocol

#### I IIA

Audits CSC interrupt inhibit administration

#### IIOP

*Internet Inter-ORB Protocol*, a protocol developed by the Object Management Group (OMG) to implement CORBA solutions over the World Wide Web. IIOP enables browsers and servers to exchange integers, arrays, and more complex objects, unlike HTTP, which only supports transmission of text.

#### IM

Inventory Management

#### IMEI

International Mobile Equipment Identity

#### IMS

Inter-processor Message Switch

# IMSI

International Mobile Subscriber Identity

# IMT-2000

International Mobile Telecommunications 2000

# IP

The *Internet Protocol* is the protocol by which data is sent from one computer to another on the Internet.

# IPv6

Internet Protocol Version 6 provides 128-bit IP addresses.

# IS136

Interim Standard 136. TDMA dual mobile specifications.

# IS634

ITA standard for MSC-Base Station interface.

# IS95

Interim Standard 95. The interim standards for intersystem operations as adopted by the Cellular Telecommunication Industry Association (CTIA).

# ISDN

*Integrated Services Digital Network* is a digital telephony scheme that allows users to connect to the Internet over standard phone lines at speeds higher than a 56K modem allows.

# ISO

International Standards Organization is an international organization responsible for setting international standards, such as the ISO Latin-1 character set.

# ITU

*International Telecommunication Union* is an international organization that sets standards for data communication.

# ITU-T

International Telecommunication Union — Telecommunication Standardization Sector, an advisory organization that is part of *ITU*, is responsible for communications, telecommunications, and networking standards throughout the world.

# IWF

Inter Working Function. A device that provides protocol conversion for data calls.

.....

# K Kbps

*Kilobits per second* is a unit of measurement of the transmission speed of data measured in 1,024 bits per second.

# L LAC

Linear Amplifier Circuit. An AUTOPLEX Series II circuit that includes a linear amplifier unit and linearizing unit.

#### LAF

Logical Antenna Face. A server group (SG) and physical antenna face (PAF or ANT) together uniquely identify a logical antenna face.

#### LAN

*Local Area Network* is a short-haul communications system that connects data processing devices in a building or group of buildings within a few square kilometers, including workstations, front-end processors, controllers, switches, and gateways.

#### LC

Locate Radio. Performs the analog locate function. The LC assists with handoffs when the established AMPS calls can be better served by an adjacent sector or BTS by measuring the signal strength and verifying the SAT of the mobile targeted for handoff.

#### LMT

Local Maintenance Terminal

#### LNA

Low Noise Amplifier. Performs signal amplification in the receive path.

#### LOM

The *Lights Out Management* prompt provides the Command Line Interface for the System Controller. It provides configuration control, environmental status, the ability to power on and off the system, the ability to change the System Controller password and access to other System Controller functions.

#### LSPD

Low Speed Packet Data.

#### Lucent OMC-RAN

Lucent Operations and Maintenance Center - RAN is a software that maintains the logical structure and administrative data of Radio Access Network.

#### LUN

Logical Unit Number is used to identify SCSI devices so the host can address and access the data on each disk drive in an array

#### M MAC address

*Media Access Control address* is the unique physical address of each device's network interface card.

#### maintenance object

A hardware unit, circuit pack, interface, logical entity, or software resource in a cell that has OA&M activities associated with it.

#### Mate AP

An active/standby application has two VMs running on Mate APs.

#### MB

Megabyte

#### Mbps

*Megabits per second* is a unit of measurement of the transmission speed of data measured in 1,048,576 bits per second.

### MCA

MicroCell Amplifer or Multi-Carrier Amplifier

#### MCAT

Manual Cell Configuration and Test (see CFR)

# MCC

Maintenance Control Console. An ASCII terminal that provides emergency access to the ECP.

#### MCRT

Maintenance Console request Terminal. An ASCII terminal that provides emergency access to the 5ESS DCS.

#### MEMATE

Mate memory

#### MIB

Management Information Base is a data store for management information.

#### Microcell

Flexent CDMA Microcell. A distributed BTS.

#### Microcell daisy chain

A group of Microcells that share a common DS1 interface with a switch.

#### MIM

Management Information Model

#### MIS

Management Information Server

# MLAC

Modular Linear Amplifier Circuit. A LAC with replaceable circuit packs.

#### MMA

CDBS amplifier or Message Mapping Application, an application that maps IOS standard messages to the AUTOPLEX Base Station Interface and vice-versa.

#### Mobile

Any kind of portable handset, consisting of a control unit, transceiver, and antenna.

#### MOC

Managed Object Class

#### Mod1bts

Modular OneBTS base station

#### MSC

Mobile Switching Center

#### MTSO

Mobile Telephone Switching Office. A generic term for the control and switching elements of a cellular system. In a Flexent/AUTOPLEX system, the MTSO consists of the ECP, IMS ring, and DCS.

#### N NAT

Network Address Translation

#### NBI

Northbound Interface

#### NE

Network Element

#### NML

Network Management Layer

#### NMS

Network Management System

#### NTP

*Network Time Protocol*, defined in IETF RFC 1305, is used for synchronizing the internal clock of the computers to a common time source.

#### NTS

Network Terminal Server

#### O OA&M

Operation, Administration, and Maintenance

# OC

CDMA Overhard Channel — paging, pilot, sync, and access channels.

### OCNS

Orthogonal Channel Noise Simulator. OCNS-configured CEs are used to generate radio signals that simulate the effect of multiple users, so that CDMA system capacity can be estimated in the presence of actual electrical noise from the environment.

# office alarms

Alarms that are generated in a central office.

# OIF

Optical Interface Frame

# OM

Oscillator Module

# OMP

Operations and Maintenance Processor

# OMP-FX

Flexent® Operations and Management Platform

# ORB

**Object Request Broker** 

# ORCA

OMC-RAN CORBA Agent. A group of processes in the FMM-APCC that provide an object-oriented interface to monitor and control AUTOPLEX Series II and Flexent BTSs and system-wide functions.

# ORCA-OFC

OMC-RAN Corba Agent - Office

# ORIG

Original radio that was being used prior to reconfiguration by ARR.

# osc

Oscillator

# oss

Operations Support System. The Flexent/AUTOPLEX system communicates through northbound interfaces to higher-level management systems called OSSs.

# οτυ

Optical Transceiver Unit

GL-16

#### **OVBTS**

Other Vendor BTS

### P PAF

Physical Antenna Face. See LAF and SG. PAF and ANT are used interchangeably with the same meaning.

#### paging

The act of seeking a mobile station when a call has been placed to that mobile station.

# PCA

PCS CDMA

# PCBR

Pre-distortion CDMA Baseband Radio. The PCBR has self-contained LNAs in the receive path, and a pre-distortion measurement module.

#### PCF

Packet Control Function

# PCS

Personal Communications System. A networking system that provides secure digital wireless communications in a high frequency range, around 1900 MHz. It uses small, low-powered base stations, and lightweight, compact handsets.

# PCU

Power Convertor Unit

#### PDN

Packet Data Network

#### PDS

Program Documentation Standards. Defines the Flexent/AUTOPLEX input commands and output reports.

#### phase level

Current initialization activity in a BTS.

# pilot channel

An unmodulated, direct-sequence, spread-spectrum signal transmitted continuously by each CDMA base station. The pilot channel allows a personal station to acquire the timing of the Forward CDMA Channel, provides a base reference for coherent demodulation, and provides a means for signal strength comparisons between base stations for determining when to handoff.

# PL

CDMA pilot level. A functional test run on all pilot channels for pilot power level checks.

#### **PM** files

Performance Measurement files.

#### PM tool

Process Management tool.

#### PP

Packet Pipe (or PP member). The linkage used to backhaul user traffic (and some call processing signalling messages) from a BTS to the DCS.

#### PPP

*Point-to-Point Protocol* is the most common Internet protocol for connection to *TCP/IP* networks through conventional and *ISDN* modems.

#### PPTG

Packet Pipe Trunk Group (or Packet Pipe Group). A subclass of TG, consisting of individual PP instances.

#### **Primary AP**

From the application perspective, the AP that hosts a particular application on system initialization or major system recovery events. This is a term of static equipment configuration.

#### **PSPDN**

Packet Switched Public Data Network

### PSTN

*Public Switched Telephone Network*, generic term for public dial-up telephone networks, is a collection of interconnected voice-oriented public telephone networks.

#### Q QoS

Quality of Service

# R RA

Voice Radio. Refers to AMPS and/or TDMA voice radio.

#### RAID

*Redundant Array of Independent Disks* provides a method of distributing data across a set of physical disks to prevent the loss of all data if a disk fails.

GL-18

# RAN

Radio Access Network

# RAP

Resource Administration Process. A set of processes executed on the AP to complete an administration request.

# RBCA

**RNC-BTS CORBA Agent** 

# RC/V

Recent Change/Verify

# RCC

Radio Control Complex. A set of control equipment located in shelf 0 of the primary Radio Channel Frame in an AUTOPLEX Series II. The RCC houses a duplexed CSC.

# RCG

Receiver Calibration Generator. The Series II RCG provides a known RF signal to radios to calibrate the receive path for Receiver Signal Strength Indicator measurements. The signal is injected into each of the receive filter panels.

# RCS

Radio Cluster Server. A call processing and OA&M application running on an AP that controls Flexent BTSs.

#### RCU

Radio Channel Unit. An RCU can be configured to either a voice, LC, or SU radio.

# RCVM

Recent Change and Verify Manager

# RF

Radio Frequency. A range of electromagnetic frequencies above sound and below visible light, used for broadcast transmission.

# **RF channel**

A pair of frequencies used for wireless communication. One is used for the uplink (mobile to base) transmission and the other for the downlink (base to mobile) transmission.

#### RFG

Reference Frequency Generator. A circuit that supplies a 15 MHz reference signal to all radios and RTUs in the Series II. A Series II can have either RFGs or RFTGs, but not both. If there are no CDMA radios present, then the RFG is installed. Otherwise the RFTG is installed.

# RFTG

Reference Frequency Timing Generator. A 15 MHz signal generator used in CDMA technology to provide modulation frequencies and timing signals to CDMA radios (see RFG).

# RFU

RF Unit. A CDMA RFU contains a PCBR and an MMA.

# RG

Reference Generator. A generic terms referring to an RFG unit or RFTG unit.

# RIP

*Routing Information Protocol* is a simple routing protocol that is part of the TCP/IP protocol suite. It determines a route based on the smallest hop count between source and destination.

# RJ-45

*Registered Jack-45* is an 8-pin connector used to attach data transmission devices to standard telephone wiring and is commonly used in *100 Base-T* connections.

# RMT

Remote Maintenance Terminal. The Flexent RMT functions as an installation and test tool and as an on-site maintenance terminal. The RMT is a PC-based tool that can be directly connected to a Flexent BTS through TCP/IP and communicate to the OMP. the RMT may also act as an RCS emulator to perform certain RCS functions for the Flexent BTS when there is no communication path to the RCS-AP. This emulation allows technicians to perform maintenance functions to facilitate fault management.

# RNC

Radio Network Controller. A logical collective network entity consisting of TCS, PCF applications, and TPUs. The RNC provides high-speed cell and packet processing capabilities, and supports multiple packet transport protocols, such as ATM, IP, and MPLS.

# RS-232C

RS-232C is a standard that describes the physical interface and protocol for serial data communication between computers and serial devices, such as modems.

# RTU

Radio Test Unit (analog). A maintenance RF switch assembly used to test radio transmit and receive paths in Series II.

# RU

Receiver Unit

#### S SAT

Supervisory Audio Tone. A tone transmitted by the BTS and transponded by a customer's mobile unit to indicate the mobiles presence on an AMPS channel. Presence of SAT implies continued use of the voice channel.

#### SBI

Southbound Interface

#### SBRCU

Single Board Radio Channel Unit (Series II)

#### SCSI

Small Computer System Interface

#### SCSM

Selectable Cell Site Message. A feature that allows a cell technician to have output messages associated with a particular cell site number routed back to their terminal.

#### SCT

Synchronized Clock and Tone. A Series II circuit pack that generates CDMA timing signals and has the dual capability of providing TDM bus timing, maintenance tone generation, and maintenance tone detection.

#### SEM

Solstice Enterprise Manager

#### SG

Server Group. An omni BTS has one set of antennas referred to as omni face 0 or face 0. The coverage of an omni sector is 360 degrees. All voice radios are said to be on SG 0. A 3-sector BTS has three faces; alpha, beta, and gamma (or 1, 2, and 3). Each face transmits to and receives from a roughly 120 degree sector. All the voice radios are said to be on SG 0. A 6-sector directional BTS has 6 faces; alpha, beta, gamma, delta, epsilon, and zeta (or 1, 2, 3, 4, 5, 6). Each face transmits to and receives from a roughly 60 degree sector, and all voice radios are said to be on SG 0. A dual BTS consists of 2 voice server groups (SG 0 and SG 1) and generally combines omni coverage with either 30sector or 6-sector coverage in 1 BTS, or it can have 2 sets of radios on each face, one for SG 0 and one for SG 1. The inner SG 0 uses lower power transmit levels and thus covers a smaller area than the outer SG 1.

#### SL

Signalling Link. Provides status and control information between the RCS-AP and a Flexent BTS. It is used in a similar manner to the Data Link for the Series II.

#### SNMP

Simple Network Management Protocol

#### SNMPE

SNMP Entity, consisting of an SNMP engine and SNMP applications.

# SPF

SNMP Proxy Forwarder

# SSH

Secure Shell

# SU

Setup Radio. Used for paging and access. It sends out pages to the mobiles in the coverage area to attempt to set up calls to those that have a call waiting. It allows access when a mobile responds to a page or wants to originate a call. Setup radios perform the receive and transmit functions required to set up an AMPS or TDMA call, but not a CDMA call.

# System Controller

The *System controller* is responsible for providing the *LOM* functions, which include power on sequencing, environmental monitoring, fault indication, and alarms.

# T T1

Basic rate for digital trunks in North America (rate 1.544 Mbits/s)

# TDM

Time Division Multiplexed bus. An 8-bit bus that provides the paths for control and data transfer within the RFS and to and from the RCC.

# TDMA

Time Division Multiple Access. Uses a time-slice technique on a radio channel to deliver digitized packets of speech or data.

# TDU

Test and Diagnostic Unit. Used to monitor and test aggregated carrier(s) at the output of the multi-carrier amplifiers associated with each antenna face in a frame.

# TFU

Timing and Frequency Unit

# TIAP

Technicians Interface Application

# Tlapip

**TIAP Input Processing** 

# Tlapop

TIAP Output Processing.

GL-22

# TICLI

A local command line interface for a Flexent/AUTOPLEX system that is accessible from the OMP and GNP-AP/NGN-AP which uses TIapip for command input processing.

#### TIIP

Technician Interface Input Process

#### TIOP

Technician Interface Output Process

#### TMN

Telecommunications Management Network. The TMN architecture is a reference model for a hierarchical telecommunications management approach. Its purpose is to divide the functional areas of management into layers.

#### TΡ

CDMA Traffic Path. A functional test run on all traffic CEs.

#### TPU

Traffic Processing Unit. An adjunct unit that provides a network interface function, transport protocol processing, application traffic processing, and transport plane resource management.

#### traffic channel

The path used to transport one circuit (for example, voice) call from the air interface through the DCS. A traffic channel may be uniquely identified by radio, carrier (if more than one carrier per physical radio), and user channel (TDMA traffic channels only) identifier.

#### U UE

User Equipment

#### UPS

Uninterruptible Power Supply

# UTC

Universal Time Coordinated is the mean solar time along the Earth's prime meridian  $(0^{\circ} \text{ longitude})$ . UTC was formerly known as Greenwich Mean Time (GMT).

#### V VCA

Voice Channel Administration

#### VCDX

Very compact digital exchange. A type of 5ESS consisting of 1 switch module and a Sun-based ECP.

# VCIP

Virtual Cluster IP. The FMS RCC uses the Virtual Cluster concept to support transparent fail-over of IP addresses in the case of processor failure. The VCIP is a dynamic resource that moves between physical machines as part of the virtual cluster. The VCIP address is assigned as a logical interface to the physical unit network interface. VCIP addresses are allocated in addition to physical port IP addresses. VCIP addresses do not have to be on the same subnet as the physical ports of the associated processors.

# VLAN

A virtual (or logical) LAN is a local area network with a definition that maps workstations on some other basis than geographic location (for example, by department, type of user, or primary application).

# VM

Virtual Machine. Refers to a set of related processes on one AP. VMs of the same type require the same activation and recovery strategies.

# VRADPC

Voice Radio Power Control

# X XML

Extensible Markup Language

### XPC

X.25 Level 2 Protocol Controller
## Index

A Action History, 12-1 Cancel actions, 12-4 Re-invoke actions, 12-4 Action History, About Access, Permissions, 12-2 Alarm Manager, 6-1 Alarm Manager menu bar, 6-4 Alarm Manager tool bar, 6-8 Alarm Manager views Alarm Table view, Alarm details view, Alarm Summary view, 6-9 Alarm Manager, About Access, Permissions, 6-2 Alarm status icons, 6-12 **C** Changing your GUI password, 2-5 conventions used in this guide, vii ..... **G** Getting Started, 2-1 **H** how to use this guide, vii ..... I intended audience, vii

## L launching

Lucent OMC-RAN client on Sun *Blade*<sup>™</sup>, 2-29

Log Manager, 10-1

Log Manager menu bar, 10-2

Log Manager tool bar, 9-9, 10-4, 11-6

Log Manager views, 10-5

Logging into the Lucent OMC-RAN client, 2-2

Lucent OMC-RAN

purpose, 1-2

Lucent OMC-RAN desktop menu bar, 3-4

Lucent OMC-RAN desktop tool bar, 3-9

Lucent OMC-RAN desktop, About the

Permissions, Access, 3-2

Lucent OMC-RAN Desktop, The, 3-1

Lucent OMC-RAN GUI, Introduction to the, 1-1

Lucent OMC-RAN GUI, Permissions

> User access, Access rights, Users, groups, entities and tasks, 1-7

Lucent OMC-RAN GUI, The, 1-5

.....

M Maintenance, 14-1
Maintenance, About, 14-2
menu bar

RC/V Manager, 5-3

.....

N NE status icons

Administrative state, Operational state, Availability state, Standby state, NE Link state, Management state, 4-22

Network Manager, 4-1, 5-1

Network Manager menu bar, 4-5

Network Manager tool bar, 4-10

Network Manager views

HM tree view, NE tree view, NE detail views, All NEs table view, 4-11

Network Manager, About

Access, Permissions, 4-2

**P** primary term text

secondary term text, 5-6

Profile Browser Access, Permissions, 7-2 purpose of this guide, vii ..... R RC/V Manager description, 5-2 menu bar, 5-3 tool bar. 5-5 reason for reissue, vii related documentation, viii Report Manager, 9-1 About, Access, Permissions, 9-2 Report Manager menu bar, 9-4 Report Manager, tabs, 9-10 ..... **S** Saving a GUI session Enabling a saved session, 2-7Scheduler, 11-1 Scheduler menu bar, 11-4 Scheduler, About Access, Permissions, 11-2 setting system preferences, 2-16 system preferences setting, 2-16 System Preferences window, 2 - 16.....

T Technician's Interface Command Line Interface (TICLI), 8-1

Technician's Interface Command Line Interface (TICLI), About Access, Permissions, 8-2 ..... **U** User and Session Manager, 13-1 User and Session Manager menu bar, 13-4 User and Session Manager status icons, 13-15 User and Session Manager tool bar, 13-8 User and Session Manager views, 13-9 User and Session Manager, About Access, Permissions, 13-2 User Preferences Adjusting elements, Default settings, User Preferences General tab, User **Preferences Applications** tab, 2-9 Also see: Interface elements