# Oracle® Communications Performance Intelligence Center

**Quick Start Guide** 

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Oracle® Communications Performance Intelligence Center Quick Start Guide, Release 10.2.1

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# **Chapter 1: About This Help Text**

## Scope and Audience

This guide is designed to assist those users (individuals with roles NSPConfigManager, NSPAdministrator) to set up a basic system configuration using Centralized Configuration Manager (CCM) and be able to monitor traffic (xDRs and PDUs) using Troubleshooting. All basic procedures are described in this guide along with key concepts about using CCM to configure a system.

### **About the Performance Intelligence Center**

Oracle® Communications Performance Intelligence Center is a monitoring and data gathering system that provides network performance, service quality and customer experience - across various networks, technologies, protocols, etc. Beyond monitoring performance and gathering data, the solution can also provide customized Key Performance Indicators (KPI). It allows Service Providers to simultaneously look across the Data Link, Network, Transport and Application layer traffic to better correlate and identify the impact of network problems on revenue generating applications and services.

Performance Intelligence Center functionality is based on the following general flow. The Integrated Acquisition server is used to capture SS7, included over SigTran with priviledged interfaces from Eagle<sup>TM</sup>. The Probed Acquisition server is used to capture IP traffic.

Both products forward Packet Data Units (PDUs) to the Mediation server. The Mediation server correlates the PDU into detailed records (xDR a generic placeholder for CDR, TDR, IPDR, SDR, etc.) and forwards this data to storage servers for future use by applications. There are two types of storage servers: Data Record Storage servers run a database service that indexes xDRs, Packet Data Unit Storage servers manage a repository of large files.

The Management server provides applications that browse the xDRs to provide value-added services such call tracing and graphing KPI.

Performance Intelligence Center centralized configuration tasks fall into one of two categories:

- Data Acquisition and Mediation the configuration of the probes, routing of PDUs to the xDR builder setup, KPI generation, data feeds, etc.
- System Administration the configuration of monitoring sites, configuring servers, setting up permissions for users, etc.

Note: For more information see Centralized Configuration Guide...

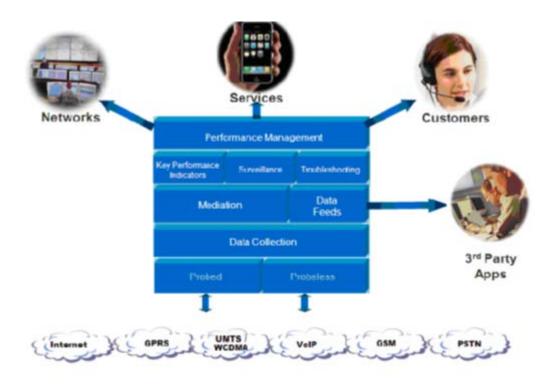


Figure 1: System Overview

# **Documentation Library**

Customer documentation and online help are updated with each new release. Revised editions of the documentation and online help are distributed and installed on the customer system. Consult your Installation Manual for details on how to update user documentation. Additionally, all customer documentation is available on the Oracle Help Center (OHC). The Release Notes lists the Bugs that have been resolved in the current release and the Bugs that are known to exist in the current release.

Listed below is the entire customer documentation library <u>PIC release 10.2.1</u>:

Title
Quick Start Guide
Alarm Forwarding Guide
Audit Viewer Guide
Centralized Configuration Guide
On Demand UP Guide
Data Feed Configuration Guide
Browser Export Guide
Security Guide

Alarm Configuration Guide
Alarm Application Guide
SS7 Surveillance Guide
Dashboard Configuration Guide
Dashboard Application Guide
Troubleshooting Application Guide
KPI Configuration Guide
Browser Export Scheduler Guide
Sigtran Surveillance Guide
System Alarms Guide
Reference Data Guide

Table 1: Performance Intelligence Center Documentation

## **Prerequisites**

#### **Workstation Description**

The following table identifies the minimum configuration for running applications:

Item	Value	Comments
RAM	2 GB or more	
CPU	64 bit processor @ 1 GHz or more	
Screen Size	Min 14"(1280 x 800)	17" or more recommended
Web Browser	Internet Explorer 11 or above Firefox 38 or above	
Flash Player	Version 19 or later	Make sure latest updates are applied

Table 2: Workstation description

#### **Browser Settings**

Before using Performance Intelligence Center, you should check the following settings:

- Turn off the browser pop up blocker for the Management Server.
- Set Force refresh option
  - Navigate to Internet Options
  - o Select General Tab
  - o Click on **Settings** button in the Browsing History section
  - Select radio button for Every time I visit the webpage
  - o Click on OK
  - o Click on OK on Internet Options window.
- Disable script debugging or notification of script error
  - Navigate to Internet Options
  - Select Advanced Tab
  - On Browsing part check the option Disable script debugging
  - Uncheck Display a notification about every script error
  - Click OK on Internet Options window
- Allow script intiated windows without size or position constraint
  - Navigate to Internet Options
  - Select Security tab
  - Select Internet zone
  - Click on Custom level button
  - o Set to enable to the parameter Allow script-initiated windows without size or position constraint
  - Click OK
- Enable Downloads
  - o Navigate to **Internet Options**
  - o Select Security tab
  - Select Internet zone

- o Click on Custom level button
- Set to enable all the settings under Downloads (i.e.set to enable the following parameters: Automatic prompting for file downloads, File download, Font download)
- Click OK
  - Allow more than 2 download session at a time

**Note**: The steps below describe how to configure Microsoft Internet Explorer or Windows Internet Explorer to have more than two download sessions.

- o Navigate to Start ➤ Run
- Type regedit and press <ENTER>
- Locate the following key in the registry:

 $HKEY\_CURRENT\_USER \setminus Microsoft \setminus Windows \setminus Current \\ Version \setminus Internet \\ Settings$ 

- On the Edit menu point to New
- o Click on DWORD Value and then add the following registry values:

Value name: MaxConnectionsPer1\_0Server

Value data: 10 Base: Decimal

Value Name: MaxConnectionsPerServer

Value data: 10 Base: Decimal

- Quit Registry Editor
  - Enable active scripting
- o Navigate to **Internet Options**
- Select Security tab
- Select Internet zone
- Click on Custom level button
- o Set to enable the option Active Scripting under Scripting
- Click OK
  - ActiveX Controls
- Navigate to Internet Options
- Select Security tab
- Select Internet zone
- Click on Custom level button
- Set to enable the options
  - Run ActiveX controls and plug-ins
  - Script ActiveX controls marked safe for scripting
  - ActiveX controls and plug-ins
- Click OK

# Logging into Management Server

Complete these steps to log-in:

With a supported Web browser, type following URL: <a href="http://management\_server\_IP/nsp">http://management\_server\_IP/nsp</a>

**Note**: Contact your system administrator to get communication of the *management\_server\_IP* address. Bookmark this URL to make future access fast and easy.

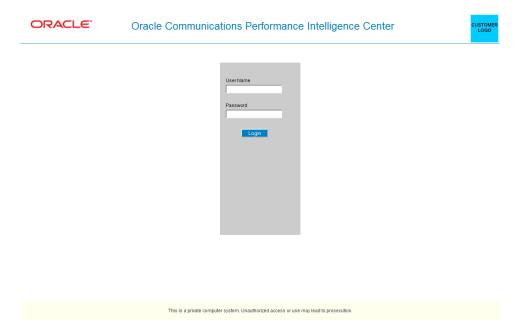


Figure 2: Login Page

- Log into the portal by typing:
  - o Your Userid
  - Your Password

**Note**: Check with your system administrator for your userid and initial password. At first connection, use change password, when clicking on you userid in portal page, and set your personal password.

The Application portal opens with a top frame banner and a page presenting all applications allowed for your user account.

## Logging out from Management Server

Please be careful and always log-out from the application portal when you are no more using application data. This is important for two aspects:

- Information security: People having physical access to your computer may get unauthorized permission to read or change Data
- Floating user licenses: license tokens are free to use by another user only once you are logged out from the portal.

To log out from the system perform following steps:

- Click your **UserID** at the right of the upper banner line .
- Select **Logout** in the popup menu. The login page displays, but with a special message confirming you are logged out. In case you or someone else would like to log in again:
- Click on the Login button.

#### **User Preferences**

Users can set User Preferences that apply across all applications. These include

- Time specifications (date format, time zone, etc.)
- Directory names (for exporting, uploading, and downloading)
- Enumeration values (numerals vs. text)
- Point code specifications
- CIC specifications
- Alarm severity colors
- Object privacy privileges

#### **Opening User Preferences**

User preferences are available from most applications and configuration pages.

- Click your UserID at the right of the upper banner line .
- Select User Preferences in the popup menu.
- First tab of User Preferences page is displayed.

#### **Setting Time Format**

- Open User Preferences
- Click the Date/Time tab.
- The Date/Time page is displayed. The red asterisk denotes a required field.

Note: Use the tips on the page to help you configure the time format.

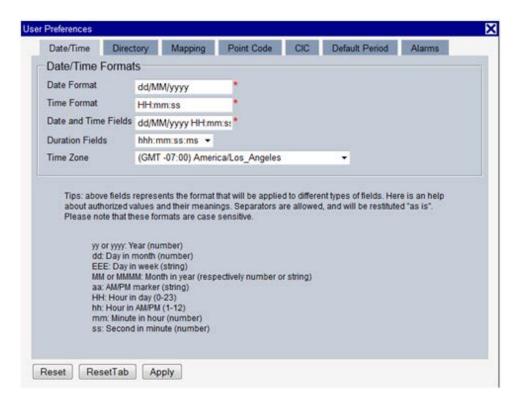


Figure 3: Date/Time Tab

Field	Description
Date Format	Required field - Sets general date format.
Time Format	Required field - Sets general time format.
Date and time fields	Required field - Sets the format for date and time fields.
Duration fields	Select a duration format.
Time Zone	Pull-down list for selecting your local time zone.
Reset Button	Resets all the tabs to default values.
ResetTab Button	Resets to default values for the specific tab (Date/Time)
Apply Button	Applies any changes to the system.
[x]	Exits the dialog box not applying recent changes

Table 3: Time Tab

#### **Setting Directory Preferences**

Use the User Preferences feature to set the Export, Upload and Download directory paths for your system. These paths define where xDRs, dictionary files and other elements are stored. Follow these steps to set the directory preferences.

- Open User Preferences
- Click the **Directory** tab.
- The Directory page **is** displayed. The red asterisk denotes a required field.

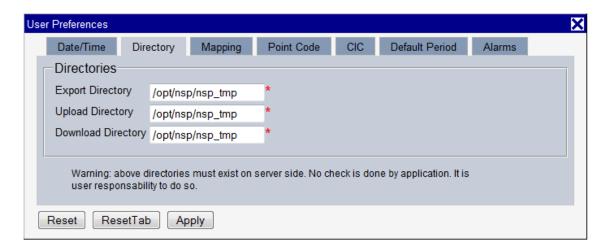


Figure 4: Directory Tab

Field	Description
Export Directory	Enables you to set the default directory for exporting.
Upload Directory	Enables you to set the default directory for uploads.
Download Directory	Enables you to set the default directory for downloads.
Reset Button	Resets all the tabs to default values.
ResetTab Button	Resets to default values for the specific tab (Directory)
Apply Button	Applies any changes to the system.
[x]	Exits the dialog box not applying recent changes

Table 4: Directory Tab

**Note:** The directories must be present on the Management server side. See *warning* at the bottom of the *Directory* tab.

## **Setting Mapping Preferences**

You can set the Mapping settings using the User Preferences feature. Follow these steps to set Mapping preferences.

- Open User Preferences.
- Click the **Mapping** tab . The Mapping page is displayed.

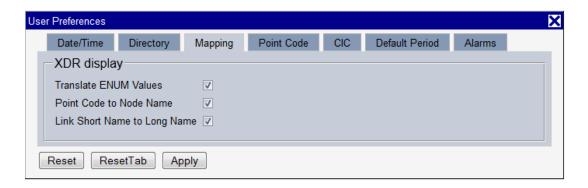


Figure 5: Mapping Tab

Field	Description
Translate ENUM values	Selects whether ENUM values are translated or not Default is to
	select ENUM values translation.
Point Code to Node Name	Select this if you want to use the Node Name instead of the Point
	Code name in the xDR display. Default is to use Node Name.
Link Short Name to Long Name	Selects whether you can use long name (Eagle) for linksets. Default
	is to use Long Name.
Reset Button	Resets all the tabs to default values.
Reset Tab Button (Reset for	Resets to default values for the specific tab.
Enumeration)	
Apply Button	Applies any changes to the system.
[x]	Exits the dialog box not applying recent changes

Table 5: Mapping Tab

#### **Setting Point Code Preferences**

The User Preferences feature enables you to set the Point Code preferences for your system. A Point Code is a unique address for a node (Signaling Point), used to identify the destination of a message signal unit (MSU).

Follow these steps to set the Point Code preferences.

- Open User Preferences.
- Click the Point Code tab. The red asterisk denotes a required field.

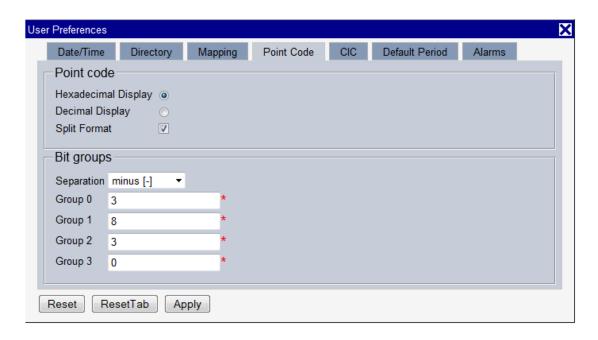


Figure 6: Point Code Tab

Field	Description
Hexadecimal display	European defaults are hexadecimal and display with Group
	0-3, Group 1-8, Group 2-3, Group 3-0.
Decimal display	North American defaults are decimal and display with
	Group 0-7 and Group 1-5.
Split format	Select or deselect Split format.
Separation	Select a Bit Group Separation.
Group 0	Type a value. (0-7 or 1-5 see hexadecimal or decimal display)
Group 1	Type a value. (0-7 or 1-5 see hexadecimal or decimal display)
Group 2	Type a value. (0-7 or 1-5 see hexadecimal or decimal display)
Group 3	Type a value. (0-7 or 1-5 see hexadecimal or decimal display)
Reset Button	Resets all the tabs to default values.
ResetTab Button	Resets to default values for the specific tab (Point Code)
Apply Button	Applies any changes to the system.
[x]	Exits the dialog box not applying recent changes

Table 6: Point Code Tab

## **Setting CIC Preferences**

The Circuit Identification Code (CIC) provides a way to identify which circuit is used by the Message Signaling Unit (MSU). This is important in Troubleshooting applications. Use the User Preferences feature to set the CIC settings for your system.

Complete these steps to set the CIC preferences:

- Open User Preferences.
- Click the CIC tab. The CIC page is displayed. The red asterisk denotes a required field.

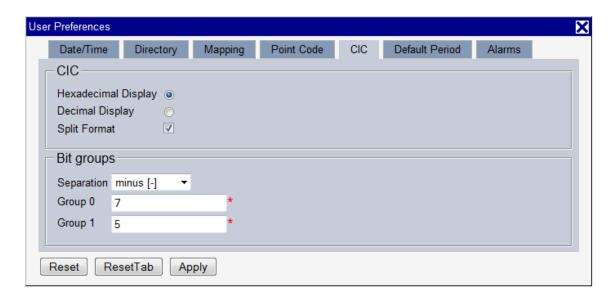


Figure 7: CIC Tab

Field	Description
Hexadecimal display	European defaults are hexadecimal and display with Group 0-7
	and Group 1-5.
Decimal display	European defaults are hexadecimal and display with Group 0-7
	and Group 1-5.
Split format	Select or deselect Split format.
Separation	Select a Bit Group Separation: Group 0:8, Group 1:8.
Group 0	Type a value. (0-7 or 1-5 see hexadecimal or decimal display)
Group 1	Type a value. (0-7 or 1-5 see hexadecimal or decimal display)
Reset Button	Resets all the tabs to default values.
ResetTab Button	Resets to default values for the specific tab (CIC).
Apply Button	Applies any changes to the system.
[x]	Exits the dialog box not applying recent changes

Table 7: CIC Tab Field Descriptions

#### **Setting Alarms Preferences**

Use the Alarms tab in User Preferences to define the default colors that indicate alarm severity. The colors are displayed in the Perceived Severity column of alarms tables and on object icons in maps. Follow these steps to modify alarm status colors.

- Open User Preferences
- Click the **Alarms** tab.
- The Alarms page is displayed. The red asterisk denotes a required field.

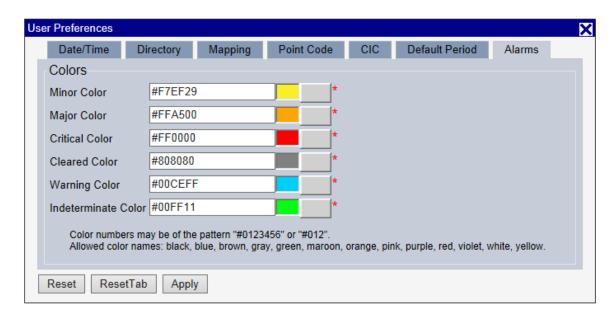


Figure 8: Alarms Tab

Field	Description
Minor Color	Color used for minor alarm in alarm display application
Major Color	Color used for major alarm in alarm display application
Critical Color	Color used for critical alarm in alarm display application
Cleared Color	Color used for cleared alarm in alarm display application
Warning Color	Color used for warning in alarm display application
Indeterminate Color	Color used for unknown event in alarm display
	application
Reset Button	Resets all the tabs to default values.
ResetTab Button	Resets to default values for the specific tab (Alarms)
Apply Button	Applies any changes to the system.
[x]	Exits the dialog box not applying recent changes

Table 8: Alarm Color Field Descriptions

**Note**: Click the color palette (icon on the right side of the page) associated with the alarm status color(s) you want to modify or enter its RGB code

Note: This panel may not appears in some application

#### **Setting Traces Period**

Select the Default Period tab, for setting the default time period for beginning and ending time for traces (Troubleshooting only).



Figure 9: Default Period Tab

Field	Description
Default Period (in hours)	Sets the default run time period for running traces. Default is 24 hours.
	Range 1-7200
Reset Button	Resets all the tabs to default values.
Reset Tab Button	Resets to default values for the specific tab.
Apply Button	Applies any changes to the system.
[x]	Exits the dialog box not applying recent changes

Table 9: Default Period Tab Field Descriptions

# **Chapter 3: Setting Up a Basic System**

## **Basic Setup**

This outline represents the main steps in configuring a basic system with traffic. For detailed on configuring a system, refer to the Centralized Configuration Manager (CCM) online help.

• Using the Security application, set up a user with NSPAdministrator privileges. (See Security online help for setting up users, groups and privileges.)

**Note**: If setting up time format, directory and mapping preferences, point code format, CIC and alarm preferences is needed, see Setting User Preferences

**Note**: In a typical initial deployment, it is advisable to start the configuration effort by implementing the security scheme first. The reason is based on object manageability. As the configuration progresses more and more objects are created. A large system may eventually have over 12,000 objects. Each object has an owner and a privacy/privilege assignment. If changes have to be made at a later date on a large system, it is a considerable task to change owners or privacy settings on such a large number of objects.

- Configure sites and subsystems. You have to refer to Centralized Configuration Guide at
  - o Chapter 5: Equipment Registry Perspective

**Note:** After a site is created, subsystems with their components are either discovered, as with Integrated Acquisition servor or Mediation server, or manually configured as with Probed Acquisition server.

- Configure Network Elements: You have to refer to Centralized Configuration Guide at
  - Chapter 6: Network Element configuration,
  - o Chapter 7 Network view Configuration and

**Note:** After this step, monitored network will be registered (along Acquisition server coverture) and organized .

- Configure Acquisition: You have to refer to Centralized Configuration Guide at
  - o Chapter 8: Acquisition

**Note:** After this step, monitored networked elements will be selected to filter and generate PDU dataflows. Additionnally network alarms (OAM, SLOR, Q752) will be selected

- Configure mediation You have to refer to Centralized Configuration Guide at
  - o Chapter 9: Mediation

**Note:** After this step, PDU dataflows will be processed to generate XDR according to some predefined dictionaries.

• Display xDRand PDU using Troubleshooting and perform some trace. You have to refer to Troubleshooting Guide.

## **Additional Setup**

This outline represents the main steps in configuring an advanced system with realtime monitoring

• Configure KPI and custom alarms (based on thresholds for each KPI) using KPI Configuration: You have to refer to KPI Configuration Guide for more details

**Note:** After this step, xDR will be post-processed to generate KPIs and alarms on the flow. Those KPI will be stored in dedicated sessions.

- Display KPI using Troubleshooting and perform some trace. You have to refer to Troubleshooting Guide.
- Configure Dashoard with charts and tables with Dashboard Configuration. You have to refer to Dashoard User Guide.
- Display live KPI in charts using Dashoard Application
- Configure Alarm groups using Alarm Configuration. You have to refer to Alarm Configuration Guide.

Note: After this step, alarm could be displayed in dedicated graphical maps in addition to standard lists.

 Monitor alarms (from system and custom threshold) with Alarm. You have to refer to Alarm Application Guide.

# **APPENDIX A: My Oracle Support**

MOS (<a href="https://support.oracle.com">https://support.oracle.com</a>) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with MOS registration.

Call the CAS main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at <a href="http://www.oracle.com/us/support/contact/index.html">http://www.oracle.com/us/support/contact/index.html</a>. When calling, make the selections in the sequence shown below on the Support telephone menu:

- 1. Select 2 for New Service Request
- 2. Select 3 for Hardware, Networking and Solaris Operating System Support
- 3. Select 2 for Non-technical issue

You will be connected to a live agent who can assist you with MOS registration and provide Support Identifiers. Simply mention you are a Tekelec Customer new to MOS.

MOS is available 24 hours a day, 7 days a week.