Oracle® Communications Diameter Signaling Router

IDIH Audit Viewer Administrator's Guide

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ORACLE®

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Introduction

Topics:

This chapter contains an overview of the Audit Viewer application of the Integrated Diameter Intelligence Hub. The contents include sections on the organization, scope, and audience of the documentation, as well how to receive customer support assistance.

Revision History

Date	Description
August 2011	Initial Release
June 2016	Updated to include accessibility changes

Overview

This documentation describes the functionality of the Audit Viewer application within the Integrated Diameter Intelligence Hub.

Note: The Audit Viewer application is only available to a user logging into IDIH as "idihadmin."

Scope and Audience

This documentation is intended for personnel who maintain operation of IDIH. It provides information about Audit Viewer and is designed around performing common tasks to efficiently and effectively monitor applications and user's activities as well as alarm status.

Manual Organization

Introduction contains general information about this document, how to contact *My Oracle Support (MOS)*, and *Locate Product Documentation on the Oracle Help Center Site*.

Working in Audit Viewer provides basic information to begin using the Audit Viewer application.

Related Specifications

For information about additional publications related to this document, refer to the Oracle Help Center site. See *Locate Product Documentation on the Oracle Help Center Site* for more information on related product publications.

My Oracle Support (MOS)

MOS (*https://support.oracle.com*) 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 *http://www.oracle.com/us/support/contact/index.html*. 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 one of the following options:
   - For Technical issues such as creating a new Service Request (SR), Select **1**
   - For Non-technical issues such as registration or assistance with MOS, Select **2**

You will be connected to a live agent who can assist you with MOS registration and opening a support ticket.

MOS is available 24 hours a day, 7 days a week, 365 days a year.

Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support (CAS) main number at 1-800-223-1711 (toll-free in the US), or by calling the Oracle Support hotline for your local country from the list at *http://www.oracle.com/us/support/contact/index.html*. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) site, *http://docs.oracle.com*. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at *http://www.adobe.com*.

1. Access the Oracle Help Center site at *http://docs.oracle.com*.
2. Click **Industries**.
3. Under the Oracle Communications subheading, click the **Oracle Communications documentation** link.
   The Communications Documentation page appears. Most products covered by these documentation sets will appear under the headings "Network Session Delivery and Control Infrastructure" or "Platforms."
4. Click on your Product and then the Release Number.
   A list of the entire documentation set for the selected product and release appears.
5. To download a file to your location, right-click the **PDF** link, select **Save target as** (or similar command based on your browser), and save to a local folder.

Chapter 2

Working in Audit Viewer

Topics:

This chapter provides information about procedures used when working in the Audit Viewer application.

Overview

Audit Viewer is a specific-purpose application. It allows the App Server to monitor the activities of logged-in users and displays records of those activities.

Accessing Audit Viewer

To open Audit Viewer, follow these steps:

1. Log in to IDIH .
   The IDIH Application board is displayed.
2. Click **Audit Viewer**.
   The Audit Viewer home page is displayed.

Setting User Preferences on IDIH Dashboard

Once inside IDIH, a user can set User Preferences. These include:

- Time specifications (such as date format, time zone)
- Enumeration values (numerals vs. text)

Setting Time Format

Follow these steps to set the time format:

1. Click **User Preferences** on the Application board.
   The User Preferences screen is displayed.
2. Click the **Date/Time** tab.
   The Date/Time screen is displayed. The red asterisk denotes a required field.

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

3. Enter the format for these time-related displays.
   - **Date format**
   - **Time format**
   - **Date and time fields**
4. Select the formats for these time-related displays by using the drop-down arrow.
   - **Duration fields** - how the hours, minutes, seconds, and milliseconds of the Time format is displayed
   - **Time zone**

     Note: The local time zone must be chosen to get local time.

5. To reset the time-related displays to default settings, click **Reset**.
6. Click **Apply** to save settings.

Setting Mapping Preferences

The user can set the Mapping settings using the User Preferences feature.

Follow these steps to set Mapping preferences.

1. Click **User Preferences** in the Application board.
   The User Preferences screen is displayed.
2. Click the **Mapping** tab.
   The Mapping screen is displayed.
3. Check **Translate ENUM values** to display text instead of numerals.
   Enumeration is used by TDRs to display text values instead of numeric. Rather than showing the numeral for Alarm Severity, the user interface will show the actual word, such as Major or Critical.
4. Check **IP Address to Node Name** to translate an IP Address to a textual Node Name.
5. To reset the Mapping values to the default, click **Reset**.
6. Click **Apply** to save the changes.

Alarm Status Indicator

When logged in to IDIH, either directly or from DSR launch, the portal header displays a count of current alarms, as shown in *Figure 1: Alarm Status Indicator*. The alarm status indicator is a count of the highest severity of all open alarms and the alarm status indicator (circle) is the color (user defined, idihadmin) of the highest severity. For example, if there are zero critical, two major, one minor, and three warnings, then the alarm status indicator contains 2+ and the color is the user-defined color for major severity. The + is used to indicate that there are additional alarms at a lesser severity. The + does not appear if, for example, there are zero critical, two major, zero minor, and zero warnings.

Initially, the alarm status is empty (non-visible). Then, after a short interval, the system queries for open alarms and updates the alarm status indicator. After the first update, the system updates the alarm status indicator every 30 seconds.

Figure 1: Alarm Status Indicator

Selecting the alarm status indicator shows a brief description of the open alarms. The system displays the list of open alarms in tabular form, as shown in *Figure 2: Alarm List*. This list can be dismissed by pressing the **Close** on the **Open Alarm** dialog window.

Note: Only open alarms may be viewed. No other actions are provided such as clear or acknowledge.

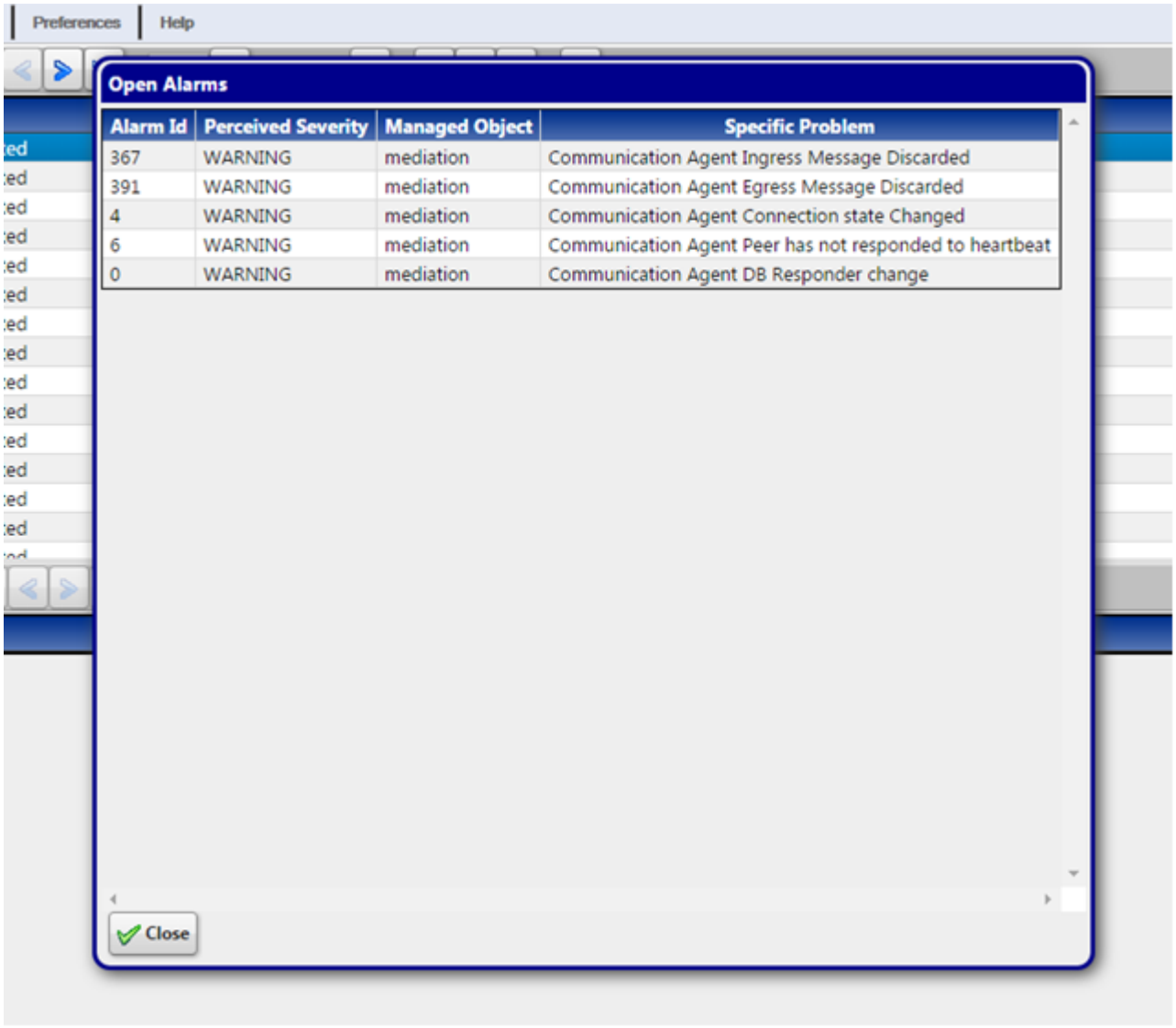

Figure 2: Alarm List

User Activity Table

The table consists of five headings:

- Time stamp - The time and date the log record was generated.
- User Id - Name of user
- Severity - Relative importance of the log record: Fatal, Error, Warn, Info and Debug.
- Application Id - IDIH application being used.
- Message - Log record information line.

The default display order for records is based on Audit Time stamps from most-recent-to-oldest. Clicking the column heading reverses the sort order. Selecting the column heading again toggles back

to the default order. Other columns also can be used as sort criteria. Clicking on a column heading the first time puts the records in alphabetical order. Clicking again toggles to the reverse alphabetical order. In all cases an arrowhead symbol in one of the column headings defines the column which controls the sort and whether the sort is first-to-last or last-to-first.

Tool Bar

The tool bar contains icons used to scroll up and down through lists of records larger than the display can accommodate in a single page, to sort or filter records in the table according to various criteria, and to count records on demand.

Toolbar

The toolbar has several function buttons:

Figure 3: Audit Viewer Toolbar

Filter - enables the user to create filters for data records to make searches convenient.

Navigation Arrows - allows the user to move back and forth among the records.

Set Size - text box and check button allows the user to set a number of records to be displayed.

Refresh - enables the user to refresh the current screen to see all recent changes.

Execute Query - allows the user to set begin and end date parameters to run a query of the records.

Message - displays a dialog box showing the record's message.

Selecting Blocks of Records

If the user wants to select a block of records, press the Shift key while clicking the first and last records of the block being selected.

Audit Viewer Functionality

Audit Viewer supports various functions:

- Listing audit records - The records contain date and time, user login, IDIH application, problem severity and message information.
- Filtering audit records - Displayed audit logs can be filtered by user-defined queries.

Creating or Modifying a Query for Filtering

To create or modify a query for use in filtering audit records, click **Filter**. The Query Dialog box opens.

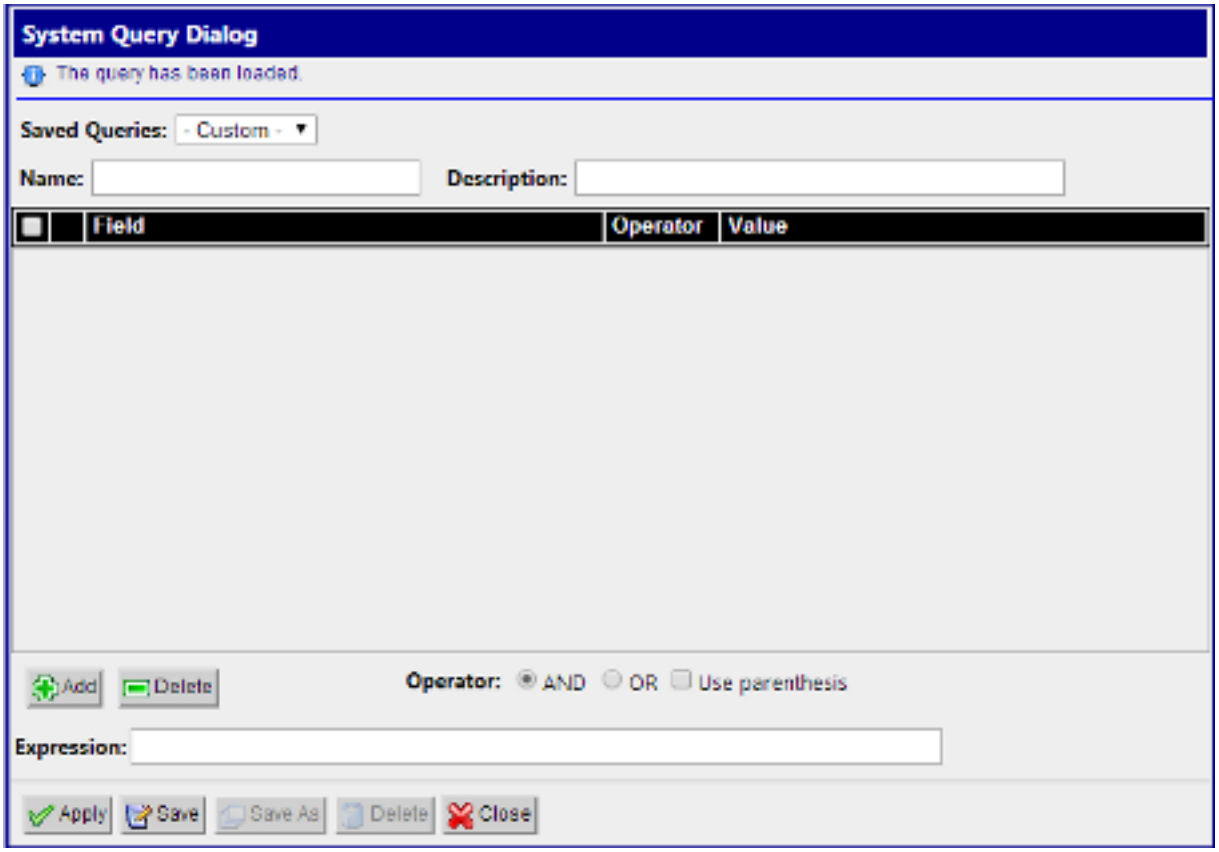

Figure 4: Audit Viewer Query Dialog

Click **Add** to create fields for a new query. The query can be deleted by clicking **Delete**.

When adding a condition, the corresponding label is added into the **Expression** field. It is added to the end of the expression with the selected **Operator** (AND or OR). Similarly, when the condition is removed from the query, the corresponding label is automatically removed from the expression and the expression is adjusted. When **Use Bracket** is selected, then the whole expression is closed in brackets before adding the new condition.

The query is validated before it is saved or executed. Several things are verified:

- Name is filled (verified for Save operation only, for Query Execution operation the name can be empty)
- All conditions have correct operator and correct value (empty value not allowed and must correspond to field type)
- Expression is well formed Boolean expression

Whenever any error occurs, the user is notified either in the Message Panel at the top of the Dialog box or next to the GUI element which caused the error (a condition or expression box).

Click **Save** to save a query for later use. The query appears in the Query List panel.

Click **Save As** to open a prompt asking for a new name. Confirms the name. A new query is created and saved for later use. The query appears in the Query List panel.

Now the query is ready for execution. Execute the query by clicking **Apply**.

Executing a Query

When a query is executed, it is always executed on the currently selected audit record. A query can be executed in two ways:

1. By clicking **Apply** in the **Query Dialog** window (when creating or modifying a query), or
2. By selecting the an audit record and clicking **Execute Query** in the toolbar

Enter the time in which the search is about to be performed. The Begin and End date are pre-populated with the real begin and end date of the selected trace. Click on the icons next to the date and time text boxes and select the date in calendar and time in time selection widgets for better convenience.

Click **Execute** and the query is executed.

D

DSR	Diameter Signaling Router A set of co-located Message Processors which share common Diameter routing tables and are supported by a pair of OAM servers. A DSR Network Element may consist of one or more Diameter nodes.

E

ENUM	T**E**lephone **NU**mber **M**apping - A technology for unifying various communications and telephone addresses for private and business numbers, facsimile and mobile phone numbers, SMS services, Instant Messaging and email. ENUM integrates legacy phone numbers with the Domain Name System (DNS). Users can access and maintain a directory that supports all forms of wired communication, mobile communications networks, and the Internet. ENUM allows for an end user to be reached on multiple devices via one phone number and allows the end user to determine which device to contact first or multiple devices simultaneously. E.164 Number Mapping

I

IDIH	Integrated Diameter Intelligence Hub