

# Oracle® Communications Session Monitor

What's New

Release 3.3.93

E80830-02

March 2017

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This document describes the enhancements that are delivered in Oracle Communications Session Monitor release 3.3.93 patches.

## Enhancements in Session Monitor 3.3.93.3.0

The following section describes the enhancement delivered in this patch.

### Session Monitor Now Supports Customizing Call Detail Record (CDR) Generation

You can now customize **Call Detail Record Generation** by adding more columns to CSV files based on the values from Session Initiation Protocol (SIP) request headers. A new system setting, **Custom SIP headers in CDR file** has been added to the list of SIP header field names. For each SIP header field in the list, there exists a corresponding column with the same name, with the prefix, *Custom-* exists. You can view a comma-separated list of unique SIP header field values for all the SIP requests for a call.

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**Note:** Creating CDRs by enabling the **Custom SIP headers in CDR** setting impacts the performance of Session Monitor.

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When you enable **CDR Interim Update Interval**, each custom header field value appears in only one of the interim CDRs for a specific call, unless the header field value is present in more than one SIP message for the specific call. If the header field value is present in more than one SIP message for a specific call, it might appear in more than one CDR for that call.

## Enhancements in Session Monitor 3.3.93

The following section describes the enhancement delivered in this patch.

- [Improved Voice Quality Calculations](#)
- [Oracle SBC Probes Now Create Voice Quality Records](#)
- [MGCP Correlation Enhancements](#)
- [New Supported Hardware](#)

## Improved Voice Quality Calculations

Oracle Communications Operations Monitor and Oracle Communications Enterprise Operations Monitor can now calculate voice quality scores for additional scenarios:

- For intervals where one of the RTP packets has the RTP Marker Bit set.
- For non-constant packet intervals. This can occur with silence suppression, especially in audio codecs, such as the Adaptive Multi-Rate (AMR) used in VoLTE networks.

## Oracle SBC Probes Now Create Voice Quality Records

Operations Monitor can now create voice quality records for Oracle session border controller (SBC) probes. Also, a stream direction parameter is now included in the media data records (MDRs), which are located in the *OCOM\_home/var/vsi/ftp/mdr* directory. Where *OCOM\_home* is the directory in which Operations Monitor is installed.

## MGCP Correlation Enhancements

The Media Gateway Control Protocol (MGCP) has been enhanced as follows:

- Operations Monitor can now capture MGCP transactions before CRCX or after DLCX events that request and notify on-hook and off-hook events, caller IDs, and DTMF collections.
- An MGCP protocol leg transaction can now be correlated with SIP when the SIP RTP IP address does not match the MGCP RTP IP address by using a provisioned table that maps MGCP endpoint IDs to phone numbers.
- Transactions on special MGCP endpoints with the **disp** prefix (used by MGCP-controlled business phones) can now be correlated with SIP.

For more information on these MGCP enhancements and how they can be configured, see ["Configuring the MGCP Correlation Enhancements"](#).

## New Supported Hardware

The following Oracle and HP servers are now supported:

- Oracle Server X6-2
- Oracle Server X6-2L
- Oracle Server X5-2
- Oracle Server X5-2L
- HP DL580 G9
- HP DL380 G9
- HP DL380p G8
- HP DL580 G7

## Configuring the MGCP Correlation Enhancements

This section describes how to configure the MGCP enhancements.

- [Understanding MGCP NCS Signalling](#)

- [Mapping Endpoint IDs to Phone Numbers](#)
- [Understanding MGCP NCS Signalling](#)
- [Endpoint Utilities Reference](#)

### Understanding MGCP NCS Signalling

Network-based Call Signalling (NCS) is a variant of the Media Gateway Control Protocol (MGCP) that is defined by the **PacketCable** standards for MGCP-controlled terminal adapter access gateways. These gateways process on-hook and off-hook events, caller IDs, and dual tone multi frequency (DTMF) collections. Operations Monitor captures the MGCP protocol leg whether it starts with an on-hook or an off-hook event in a MGCP NTFY transaction and whether the CRCX transaction is before or after the NTFY transaction.

No configuration is required.

### Mapping Endpoint IDs to Phone Numbers

When the Session Initiation Protocol (SIP) Real-time Transport Protocol (RTP) IP address does not match the MGCP RTP IP address, correlation based on the session description protocol (SDP) cannot be achieved.

Correlation is achieved by creating a provisioned table that maps the MGCP endpoint identifiers (endpoint ID) with the subscribers phone numbers and making the table available during processing.

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**Important:** Only one phone number can be assigned to one MGCP endpoint ID.

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### Creating an MGCP Endpoints Table

To create an MGCP endpoints table:

1. Create an **endpoints.tab** text file that contains a table with two columns. Where each row defines the mapping for one MGCP endpoint ID and the row consists of the phone number and the MGCP endpoint ID separated by spaces or a tab, and where:
  - The phone number must contain digits or A, B, C, D (lower or upper case).
  - The MGCP endpoint ID is case-insensitive.

For example:

```
0305551234    aaln/1@gw1.domain.com
0305551235    aaln/2@gw1.domain.com
03315556666   aaln/1@gw2.domain.com
```

2. Save the **endpoints.tab** file to the *OCOM\_home/var/vsi/ftp/mgcp* directory.  
Where *OCOM\_home* is the directory in which Operations Monitor is installed.
3. Open the *OCOM\_home/etc/iptego/mgcp\_probe.local.conf* file and add the following lines:

```
[endpoint_table]
enabled = 1
file = OCOM_home/var/vsi/ftp/mgcp/endpoints.tab
```

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**Note:** The default path for the **endpoints.tab** file is *OCOM\_home/var/vsi/ftp/mgcp*.

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4. Save the file.
5. Open a command terminal and run the following command, which loads the **endpoints.tab** file dynamically without restarting the module:

```
OCOM_home/usr/share/pld/mgcp_probe/load_endpoint_table.py
```

### Updating the MGCP Endpoints Table

To update an MGCP endpoints table:

1. Open the *OCOM\_home/var/vsi/ftp/mgcp/endpoints.tab* file, make your changes, and save the file.
2. Open a command terminal and run the following command, which loads the **endpoints.tab** file dynamically without restarting the module:

```
OCOM_home/usr/share/pld/mgcp_probe/load_endpoint_table.py
```

### Working with MGCP Endpoints With a disp Prefix

Some MGCP-controlled business phones use the following MGCP endpoint IDs:

- An MGCP endpoint ID that controls analog lines named **aaln/1@host**. This MGCP endpoint ID controls RQNT and NTFY transactions for signals and events and CRCX, MDCX, DLCX transactions that manage the RTP connection.
- An MGCP endpoint ID named **disp/aaln/1@host**. This MGCP endpoint ID controls the XML package that is used for transactions that send **xml/xml** events to and from the phone in NTFY and RQNT messages respectively.

There are no off-hook events and no CRCX transactions on **disp** endpoints. The **disp** endpoint ID is a prefixed variant of the normal (**non-disp**) endpoint.

If you require correlation of the NTFY and RQNT transactions that are related to a call, you can add a configuration option that ignores the given prefix and captures and correlates all **disp** transactions between off-hook or CRCX and on-hook or DLCX on **non-disp** endpoints. The **disp** endpoints are processed as if they were **non-disp** endpoints and are included in the correlation.

Additionally, the **disp** endpoints can send an event to the call agent when the user dialed a number. In this case, a NTFY with an **xml** event that contains a parameter string, such as **post?invk?DIAL?num=0305551234** is sent instead of the usual NTFY **with an off-hook** event. Operations Monitor can use this **xml** event as an indication that an MGCP call has started (in addition to **off-hook** events and CRCX).

### Configuring disp Endpoints

To configure **disp** endpoints:

1. Open the *OCOM\_home/etc/iptego/mgcp\_probe.local.conf* file and add one or more of the following:
  - To configure a **disp** endpoint as part of a **non-disp** endpoint, add:

```
[mgcp]
ignore_endpoint_prefix = disp/
```

- To configure the **xml/xml** (post?invk?DIAL?num=0305551234) event as an indication that an MGCP call has started, add:

```
[mgcp]
xml_dial = post?invk?DIAL?num=
```

2. Save the file.

## Endpoint Utilities Reference

The **load\_endpoint\_table.py** utility reads the MGCP endpoints mapping table when the SIP RTP IP address does not match the MGCP RTP IP address.

### Location

*OCOM\_home/usr/share/pld/mgcp\_probe/load\_endpoint\_table.py*

### Syntax

```
load_endpoint_table.py [-h] [-p PORT] [-f FILE | -c]
```

### Parameters

- **-h**  
Displays the syntax and parameters for this utility.
- **-p PORT**  
The mgcp\_probe XMLRPC port name (default=10005).
- **-f FILE**  
The input file name and path (default=/var/vsi/ftp/mgcp/endpoints.tab).
- **-c**  
Clears the endpoint table by removing all existing table entries that are currently running. The **endpoints.tab** file is not changed.

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Oracle Communications Session Monitor What's New, Release 3.3.93.  
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