

# Oracle Session Monitor - Operations Monitor (Combo) Ed 1

Oracle Communications

DURATION

**4 Days**

MODULES

**8 Lectures**

COURSE CODE

—

## Course Overview

Oracle Session Monitor - Operations Monitor (Combo) Ed 1

## What You Will Learn

### Course Introduction

- Target Audience
- Course Objectives
- Course Duration And Content
- Tools for Lab Exercises

### Operations Monitor

- Objectives
- Topics
- Topic: Introduction to the SM
- Oracle Communications Session Monitor (SM)
- OCSM – Layered Architecture
- OCSM – Implementation Architecture
- OCSM – Supported Protocols And Extensions
- OCSM – OM GUI
- OCSM GUI Requirements
- Topic: Introduction to the OM
- Accessing the OM GUI
- Viewing the OM GUI Layout
- Viewing the Dashboard
- Defining Alerts
- Capturing Traces
- Packet Inspector
- Differences Between Traces And Packet Inspector

- Running Apps for Reporting
- Scheduling Apps for Reporting
- Accessing Active Help
- Practice
- Topic: Monitoring User Service
- Accessing the Registrations Statistics
- Monitoring Registration Activities
- Monitoring Calls
- Viewing Message Flow of a Call
- Viewing Call Report
- Viewing Voice Quality of an Individual Call
- Viewing Voice Quality Details of an Individual Call
- Recording Media
- Downloading Recorded Media Streams to PCAP
- Monitoring Voice Quality Statistics
- Viewing Voice Quality Chart
- Viewing User Device Statistics
- Practice
- Topic: Monitoring Network Devices
- Monitoring Devices
- Viewing Device Map
- Monitoring Trunks And Devices with Prefixes
- Monitoring KPIs/Metrics
- Adding Average KPIs/Metrics
- Personalizing an IETF KPI/Metric
- Customizing Metrics
- Monitoring Probe Metrics And Fraud Prevention Metrics
- Synthetic KPIs
- Defining a Synthetic API
- Viewing Alerts on Synthetic KPIs
- Measuring KPIs/Metrics by Device
- Restricting the Scope of KPIs/Metrics
- Practice
- Topic: Tracking Subscribers And Link Quality
- Tracking Subscribers
- Tracking Subscribers by IP Addresses
- Tracking Link Quality
- Practice
- Topic: Introductions to CPM
- What is CPM?
- Where is CPM?
- Monitoring Diameter KPI/Metrics
- Monitoring Diameter Transactions
- Monitoring Devices for Diameter Transactions
- Searching IMSI
- Summary

- 1 Course Introduction
- Target Audience 1-2
- Course Objectives 1-3
- Course Duration And Content 1-4
- Tools for Lab Exercises 1-5
- 2 Installation And Platform Setup
- Objectives 2-2
- Topics 2-3
- Topic: Installing OCSM 2-4
- OCSM Hardware Requirements 2-5
- OCSM Software Requirements 2-6
- Installing OCSM 2-7
- Topic: Setting Up OCSM 2-8
- OCSM Layered Architecture 2-9
- OCSM Connectivity 2-11
- Accessing the OCSM Platform Setup Application (PSA) 2-12
- Accepting License Terms 2-13
- Changing the Default Password 2-14
- Platform Setup Application Menus 2-15
- Selecting Machine Type - ME Only 2-16
- Configuring Call Capacity And Extensions - ME Only 2-17
- Configuring Disk Usage - ME Only 2-18
- ME Connection List - ME Only 2-19
- Specifying Trusted Certificate - ME Only 2-20
- Specifying Server Certificate - ME Only 2-21
- Enabling SMTP - ME Only 2-22
- Configuring Capture Settings - ME Only 2-23
- Specifying Data Retention - ME Only 2-24
- Installing the Applications - ME Only 2-25
- Selecting Machine Type - Probe Only 2-26
- Configuring Call Capacity And Extensions - Probe Only 2-27
- Specifying ME Connection List - Probe Only 2-28
- Configuring Capture Settings - Probe Only 2-29
- Selecting Machine Type - ME + Probe 2-30
- iii
- Configuring Call Capacity And Extensions - ME+Probe 2-31
- Configuring Disk Usage - ME+Probe 2-32
- Specifying ME Connection List - ME+Probe 2-33
- Configuring Capture Settings - ME+Probe 2-34
- Specifying Data Retention - ME+Probe 2-35
- Topic: Specifying Post-setup Settings 2-36
- Platform Setup Application: Post-setup Menu 2-37
- Software Version And Upgrade - Post ME or Probe Setup 2-38
- System Diagnostic Report - Post ME or Probe Setup 2-39
- Enabling Client-Side Add-ons - Post ME Setup 2-40
- Configuring Media Filters - Post Probe Setup 2-41

- Configuring Signaling Filters – Post Probe Setup 2-42
- Practice 2-44
- 3 Administration and Configuration
- Objectives 3-2
- Topics 3-3
- Topic: Managing General And Network Settings 3-4
- Accessing the OM GUI 3-5
- The OM GUI for Configuration And Administration 3-6
- The OM GUI for Settings 3-7
- Viewing General Settings – Status, Actions, External IP/hostname, FM 3-8
- Enabling REST API 3-9
- Examples of REST API Calls 3-10
- Viewing And Editing Probes 3-11
- Setting Probe KPIs 3-13
- Configuring ME Authentication Token 3-14
- Practice 3-15
- Topic: Administrating Platform Devices And Realms 3-16
- Administrating Platform Devices 3-17
- Adding a Platform Device – SBC/B2BUA 3-19
- About Device Identification 3-20
- About Number Determination Sources 3-21
- Example: Number Determination Sources 3-22
- Adding a Platform Device – Trunk 3-23
- Third-Party Call Control (3PCC) 3-24
- Realms 3-25
- Defining Realms 3-26
- Defining Realm Patterns 3-27
- Customizing Realm Assignment 3-28
- Specifying Devices Visibility 3-29
- iv
- Specifying Device Monitoring 3-30
- Specifying IP Tags 3-31
- Specifying Prefix Tags 3-32
- Practices 3-33
- Topic: Managing Users 3-34
- Managing Users 3-35
- Adding a User 3-36
- Adding a User (Continued) 3-37
- How much access does Cindy have? 3-38
- Adding More Rights to Cindy’s Access 3-39
- How much access does Cindy have now? 3-40
- Configuring Password Settings 3-41
- Adding a User Using User Roles (Enabling User Roles) 3-42
- Adding a User Using User Roles (Creating a User Role) 3-43
- Adding a User Using User Roles (Assigning a User Role to a User) 3-44
- Example: User And Realm 3-45

- Practice 3-46
- Topic: Managing External Devices 3-47
- Configuring RADIUS Authentication 3-48
- Configuring SNMP Options – SNMP v3 3-49
- Configuring SNMP Options – SNMP v2c 3-50
- Accessing Files on the ME via FTPS 3-51
- Configuring Voice Quality Collector 3-53
- Practice 3-55
- Topic: Managing the System 3-56
- Setting System Parameters 3-57
- Categories of System Settings Parameters 3-58
- Uploading Oracle SBC Configurations 3-62
- Creating the ME Configuration Savepoints 3-63
- Anonymizing Chat/Custom SIP Headers 3-64
- Practice 3-66
- Summary 3-67

## Session Monitor Call Merging

- Objectives 4-2
- Topics 4-3
- Topic: Call Merging And Call Merging Algorithms 4-4
- Call Merging 4-5
- Call Merging Algorithm 4-6
- Call Merging Algorithm Syntax 4-7
- Examples of Call Merging Algorithm Syntax 4-8
- v
- Default Call Merging Algorithm for SBC/B2BUA (SIP-SIP) 4-9
- Example: Call ID in the Default Call Merging Algorithm 4-13
- Example: Media IP and Port in the Default Call Merging Algorithm 4-14
- Example: Custom Header in the Default Call Merging Algorithm 4-15
- Example: User URI in the Default Call Merging Algorithm 4-16
- Example: Time Difference in the Default Call Merging Algorithm 4-17
- Default Call Merging Algorithm for SGW (SIP-ISUP) 4-18
- Call Merging for Third-Party Call Control (3PCC) 4-19
- Topic: System Settings for Call Merging 4-20
- System Settings for Merging Calls in General 4-21
- System Settings for Merging Calls with Redirection 4-22
- System Settings for Merging Calls with REFER 4-23
- System Settings for Correlating Calls with Call Transfer 4-24
- System Settings for Merging Calls with other Protocols 4-25
- Practice 4-26
- Summary 4-27

## Fraud Monitor

- Objectives 5-2

- Topics 5-3
- Topic: Introduction to Fraud Monitor 5-4
- What is Fraud Monitor? 5-5
- Where is Fraud Monitor? 5-6
- How does FM detect fraud? 5-7
- Example: What happens if Fraud is detected? 5-9
- Topic: Setting Up the Fraud Monitor 5-10
- Accessing the Platform Setup Application (PSA) for FM Setup 5-11
- Selecting Machine Type 5-12
- Installing Fraud Monitor 5-13
- Accessing the FM GUI for Configuration And Administration 5-14
- FM GUI Main Page – The Overview Page 5-15
- Connecting a Mediation Engine to the Fraud Monitor 5-16
- Checking the Connections Between the FM And the MEs 5-18
- Managing the FM Administrative Users 5-19
- Managing the FM Administrative Users (Continued) 5-20
- Topic: Configuring the Fraud Monitor 5-21
- Using the Settings Page to Configure the FM 5-22
- Configuring Notifications 5-23
- Configuring the FM Rules 5-25
- Configuring the Rule – Destination-based Traffic Spikes (DBTS) 5-27
- Example: Configuring DBTS – Static Point Type 5-29
- vi
- Example: Configuring DBTS – Dynamic Point Type 5-30
- Notes 5-31
- Configuring the Rule – Destination-based Call Volume (DBCV) 5-32
- Example: Configuring DBCV – Static Point Type 5-33
- Example: Configuring DBCV – Dynamic Point Type 5-34
- Configuring the Rule – Source-based Traffic Spikes (SBTS) 5-35
- Configuring the Rule – Source-based Call Volume (SBCV) 5-36
- Configuring the FM Lists 5-37
- Configuring the Automatic List 5-38
- Configuring the Rule – Blacklist 5-39
- Example: Configuring the Rule – Blacklist 5-40
- Example: Configuring the Rule – Blacklist (Continued) 5-41
- Configuring the Rule – Ratelimit List 5-42
- Configuring the Rule – Redirect List 5-43
- Configuring the Whitelist 5-44
- Importing And Exporting Lists 5-45
- Example: Imported Users in the Blacklist 5-47
- Topic: Fraud Monitor in Action 5-48
- Example: The Overview Page 5-49
- Example: The Learning Period Page 5-50
- Example: The Incidents Page 5-51
- Example: The Details Page 5-52
- Example: The Details Page (Continued) 5-53

- Example: Score Information vs Metric Information 5-54
- Example: Score Information of an Incident (Static Points) 5-55
- Example: Score Information of an Incident (Dynamic Points) 5-56
- Example: Metric Information on DBTS 5-57
- Example: Metric Information on Call Volume (CPS) 5-58
- Example: Metric Information on Call Volume (MAC) 5-59
- Points That Might be Confusing 5-60
- Case Study – 1 of 4 5-61
- Case Study – 2 of 4 5-62
- Case Study – 2 of 4 (Continued) 5-63
- Case Study – 3 of 4 5-64
- Case Study – 4 of 4 5-65
- Practices 5-66
- Summary 5-67

## Mediation Engine Connector

- Objectives 6-2
- Topics 6-3
- vii
- Topic: Introduction to the MEC 6-4
- What is the MEC? 6-5
- Where is the MEC? 6-6
- MEC Functionality 6-7
- Topic: Setting up the MEC 6-8
- Accessing the Platform Setup Application (PSA) for MEC Setup 6-9
- Selecting Machine Type 6-10
- Installing the MEC 6-11
- Accessing the MEC GUI for Configuration And Administration 6-12
- MEC GUI Main Page And the Settings Page 6-13
- Topic: Connecting MEs to the MEC 6-14
- Connecting a Mediation Engine to the MEC 6-15
- ME GUI: Settings – System Settings and MEC 6-16
- MEC GUI: Settings – ME Connector 6-17
- MEC GUI: Settings – ME Management 6-18
- MEC GUI: Settings – Connection Test 6-19
- Once an ME is Connected to an MEC ... 6-20
- Topic: Configuring the MEC 6-21
- MEC GUI: Dashboard 6-22
- MEC GUI: Dashboard – Regional Panels 6-23
- MEC GUI: Dashboard – Node Panels 6-24
- MEC GUI: ME Selection And View 6-25
- MEC GUI: Settings – Realms And Realm Patterns 6-26
- MEC GUI: Settings – Users 6-27
- MEC GUI: Settings – Password Settings 6-28
- MEC GUI: Settings – External Authentication 6-29
- MEC GUI: Settings – Default Language 6-30

- Topic: Viewing Correlated Calls on the MEC 6-31
- How does the MEC correlate calls? 6-32
- Configuring Multiple ME Nodes for Call Correlation 6-33
- Configuring Platform Devices on Each ME (Step 2a) 6-34
- Configuring Platform Devices on Each ME (Step 2b) 6-35
- Configuring Platform Devices on Each ME (Step 2c) 6-36
- Applying Configuration Changes of Platform Devices (Step 3) 6-37
- Setting Timeouts for Node Connection And Call Searches (Step 4) 6-38
- Viewing a Correlated Call from the MEC Dashboard (Step 5a) 6-39
- Viewing Call Info of a Correlated Call from the MEC (Step 5b) 6-40
- Viewing Call Flow of a Correlated Call from the MEC (Step 5c) 6-41
- Viewing the Correlated Call from an ME (Step 5d) 6-42
- Summary 6-43