



Course: Movius Interactive 3 Live Online (MI3L) (Formerly IP 101)

Course Description: This course is designed for switch technicians responsible for day to day operations. The topics to be covered include operations, configuration, administration and fault analysis.

Audience: System Engineers, Administrators, Operations (NOC)

Prerequisites:

Basic Solaris
Basic knowledge of Oracle

Course Objectives: After completing this course, the student should be able to:

- understand the media server, unified messaging, and conference bridge systems, architecture, applications, features, and hardware
- understand and apply various media server communications protocols and configurations
- perform various media server operations, administration and troubleshooting functions
- perform advanced media server configurations, statistics and traffic monitoring, and troubleshooting
- understand media server call flows and Voice XML architecture
- perform various unified messaging configuration tasks
- perform unified messaging operations and maintenance tasks
- understand the unified messaging customizations and advanced call flows
- perform unified messaging troubleshooting
- perform some conference bridge system configurations
- perform various conference bridge user tasks
- perform various conference bridge operations, administration, and maintenance tasks
- understand conference bridge call flows, data collaboration, port sharing, application program interfaces, and multiple media servers
- perform conference bridge troubleshooting

ASSUMPTION: With self-directed eLearning and virtual labs, the students must have a mentor/instructor to answer questions. This does not have to be real-time, but there must be a schedule available when the instructor can be online (Centra?) to answer any questions.

Module 1: Movius Media Server Fundamentals (14 hrs)

Topic Breakdown:

1) Movius Media Server Overview

- a) System overview
- b) Applications supported
- c) Tech support (note to client – do we want this at all?)

Objectives:

- Describe the Movius Media Server system
- List some of the applications that Movius supports

Delivery Mode: Self-paced eLearning

Duration: 2 hrs

2) MS Hardware Overview

- a) Components overview
- b) Network connectivity
- c) Call flows

Objectives:

- Describe the MS components
- Describe the network connectivity
- Describe the media server call flows

Delivery Mode: Self-paced eLearning, flash movie/tour to show hardware.

Duration: 1.5 hrs

3) Communications Protocols

Objectives: Recognize common communication protocol requests and responses

Delivery Mode: Self-paced eLearning

Duration: 1 hr

4) Configuration Management

- a) Command Line Interface (CLI)
- b) Displaying and changing configurations
- c) User account management

Objectives:

- use various commands to manage configurations
- use various commands to display and change configurations
- use various commands to manage user accounts

Delivery Mode: Instructor led in a virtual lab setting

Duration: 2 hrs

Labs: 0.5 hr

5) Security Management and Licensing

- a) SSH
- b) SNMP

- c) IPSec
- d) IKE
- e) Licensing

Objectives:

- differentiate between the four types of security features
- understand the license update process

Delivery Mode: Self-paced eLearning

Duration: 1 hr

6) Operations and Administration

- a) Statistics Monitoring
- b) Fault and Alarm Management
- c) Performance Management

Objectives:

- display and interpret statistics
- perform audit tests

Delivery Mode: Instructor led in a virtual lab setting

Duration: 2 hrs

7) Alarms, Debug Commands, and Troubleshooting

Objectives:

- recognize various failure and alarm notifications
- interpret event logs
- troubleshoot various alarm issues

Delivery Mode: Instructor led in a virtual lab setting

Duration: 2 hrs

Labs: 2 hrs

Module 1 Lecture Duration: 11.5 hrs

Module 1 Lab Duration: 2.5 hrs

Module 2: Media Server Advanced Troubleshooting(14.5 hrs)

NOTE: Depending on the time lapse between MS Level 1 and MS Level 2, students may need to do a review of topics 1 & 2 of MS Level 1 before taking MS Level 2.

Topic Breakdown

- 1) **Media Server Configuration** (this is redundant from level 1, but recommend that this be reviewed in Level 2)

Objectives: Perform various media server configurations.

Delivery Mode: Self-paced eLearning with virtual lab.

Duration: 1.5 hrs

Labs: 0.5 hr

- 2) **SCC-CP Configuration**

Objectives: Perform SCC-CP configuration.

Delivery Mode: Self-paced eLearning with virtual lab.

Duration: 0.5 hr

Lab: 0.5 hr

3) **Customization and Troubleshooting**

- a) Loading new announcements
- b) Changing announcement instruction file
- c) Identifying and fixing missing announcements

Objectives:

Delivery Mode:

Duration:

4) **Operations, Administration, and Maintenance (OAM)**

- a) MS File system details
- b) Synchronizing Redundant systems

Objectives:

- perform various operations, administration, and maintenance tasks

Delivery Mode: Instructor led in a virtual lab setting

Duration: 2 hrs

Labs: 1 hr

5) **Statistic and Traffic Monitoring**

Objectives: Recognize the graphs used for statistic and traffic monitoring.

Delivery Mode: Self-paced eLearning.

Duration: 0.5 hr

6) **Call Flow**

- a) announcements and IVR call flow
- b) BAU and SDP parameters
- c) MGCP call flow

Objectives:

- describe various call flows
- perform call flow tasks

Delivery Mode: Instructor led in a virtual lab setting

Duration: 2 hrs

Labs: 1 hr

11) **Voice XML Architecture**

Objectives:

- describe the Voice XML architecture
- define the Voice XML debug commands

Delivery Mode: Self-paced eLearning.

Duration: 1 hr

Labs: (possibly)

8) **Alarms, Debugs, and Troubleshooting**

Objectives:

- list the alarm states, output devices, and types
- clear an alarm
- interpret an alarm log
- interpret call statistics
- troubleshoot various issues
- list some media server troubleshooting tips

Delivery Mode: Instructor led in a virtual lab setting

Duration: 2 hrs

Labs: 2 hrs

Module 2 Lecture Duration: 9.5 hrs

Module 2 Labs Duration: 5 hrs

Module 3: Movius Unified Messaging Fundamentals (15 hrs)

Topic Breakdown:

1) UM System Overview

- System Overview
- Component Overview
- Applications Supported
- UM & HA Architecture
- NAS – no content yet but needs to be addressed
- Call Flows

Objectives:

- describe the Movius solution
- describe the UM system overview
- define the components of the UM system
- describe the UM and HA architecture
- describe the most common UM call flows

Delivery Mode: Self-paced eLearning

Duration: 3.5 hrs

2) Unified Messaging Features

Objectives:

- describe some of the features provided in unified messaging

Delivery Mode: Self-paced eLearning

Duration: 3 hrs

3) Provisioning

- System Administrator
- Organization Administrator
- Subscriber

Objectives:

- perform some system configuration tasks such as adding and managing system accounts
- perform some organization configuration tasks such as distribution lists and phone recording for announcements
- perform some subscriber tasks such as reviewing new messages

Delivery Mode: Self-paced eLearning with virtual lab.

Duration: 4 hrs

Labs: 2 hrs

4) Operations and Maintenance

Objectives:

- perform application server maintenance
- restart the framework
- display framework management statistics
- display the application server log files

Delivery Mode: Self-paced eLearning with virtual lab.
Duration: 2 hrs
Labs: 1 hr

Module 3 Lecture Duration: 12 hrs
Module 3 Labs Duration: 3 hrs

Module 4: Unified Messaging Advanced Troubleshooting (10 hrs)

Topic Breakdown:

1) Customizations

Objectives:

- describe some of the UM customizations

Delivery Mode: Self-paced eLearning

Duration: 1 hr

2) Advanced Call Flows

Objectives:

- describe the four different types of calls

Delivery Mode: Self-paced eLearning

Duration: 1 hr

3) Troubleshooting

Objectives:

- perform various troubleshooting tasks

Delivery Mode: Instructor led in a virtual lab setting

Duration: 6 hrs

Labs: 2 hrs

Lecture Duration: 8 hrs

Labs Duration: 2 hrs

Module 5: Movius Conference Bridge Fundamentals(12.5 hrs)

Topic Breakdown:

1) Introduction to the Conference Bridge Server

- Architecture
- Components
- Features

Objectives:

- describe the conference bridge architecture
- list the conference bridge components
- describe some of the conference bridge features

Delivery Mode: Self-directed eLearning

Duration: 2 hrs

2) System Configuration and Provisioning

- System Administrator

- Sub-System Administrator
- Organization Administrator

Objectives: Recognize the different configurations and provisions for system, sub-system, and organization administrator.

Delivery Mode: Self-directed eLearning

Duration: 3 hrs

Labs: 0.5 hr

3) User Overview

- Service Provisioning – Subscriber
- Operator Console

Objectives:

- Create a member profile
- Make a conference reservation
- Attach a presentation
- Participate in a conference
- Manage address book
- Change a profile
- As an operator, log in and monitor a conference

Delivery Mode: Self-directed eLearning

Duration: 2 hrs

Labs: 1 hr

4) Operations, Administration, and Maintenance (OAM)

Objectives:

- Add an administrator
- View, edit, and update a subsystem configuration
- List the parameters that can be modified
- Check current active calls
- Perform a manual switchover
- Restart all subsystems
- Restart the framework

Delivery Mode: Instructor led in a virtual lab setting

Duration: 1.5 hrs

Labs: 0.5 hr

5) Troubleshooting

Objectives:

- shut down and start up the application server
- interpret the billing and call detail records
- troubleshoot various alarm issues

Delivery Mode: Instructor led in a virtual lab setting

Duration: 1 hr

Labs: 1 hr

Module 5 Lecture Duration: 9.5 hrs

Module 5 Lab Duration: 3 hrs

Module 6: Movius Conference Bridge Advanced Troubleshooting (11 hrs)

Topic Breakdown:

1) Call Flow

Objectives: Understand the basic call flow procedure.

Delivery Mode: Self-directed eLearning

Duration: 1.5 hr

Labs: 0.5 hr

2) Framework State Machine and High Availability (FSM & HA)

Objectives: label the network topology of the FSM HA

Delivery Mode: Self-directed eLearning

Duration: .5 hr

3) Data Collaboration

Objectives:

- understand the data collaboration architecture
- understand the data collaboration process

Delivery Mode: Self-directed eLearning

Duration: 1 hr

4) Port Sharing

Objectives:

- differentiate between the types of port sharing (no port sharing, with port sharing, not supported, with oversubscription)
- describe merged port sharing

Delivery Mode: Self-directed eLearning

Duration: 1 hr

Labs: 0.5 hr

5) Application Program Interfaces

- Enterprise Java Bean
- Web Conference

Objectives: Describe the API usage, log files, and setup problems.

Delivery Mode: Self-directed eLearning

Duration: 1 hr

6) Multiple Media Servers

Objectives: Describe the multiple media server feature.

Delivery Mode: Self-directed eLearning

Duration: .5 hr

Labs: 0.5 hr

7) Troubleshooting

- Identify Logging files
- Available Tools
- Alarms and Event Logs
- Troubleshooting Tips
- System Trouble Solutions

Objectives:

- identify logging files
- identify the available troubleshooting tools
- troubleshoot alarms and event logs
- list some troubleshooting tips

- determine some system trouble solutions

Delivery Mode: Instructor led in a virtual lab setting

Duration: 3 hrs

Labs: 1 hr

Module 6 Lecture Duration: 8.5 hrs

Module 6 Lab Duration: 2.5 hrs