Customer Interaction Management Platform 8.1 Troubleshooting

COURSE DETAILS

Course Description
The Customer Interaction Management Platform (CIM) 8.1 Troubleshooting workshop teaches techniques for maintaining and troubleshooting T-Server, Stat Server, Universal Routing Server (URS), and Orchestration Server (ORS)—all major components of Genesys CIM. Students use specialized technical support tools and utilities to analyze application logs and complete hands-on troubleshooting exercises. The course includes sufficient technical content and details on T-Server, Stat Server, URS, and ORS functionality to allow students the opportunity to understand how these components operate when functioning normally. Armed with this information, students can then attempt to tackle troubleshooting tasks related to these components when problems arise.

Target Audience
The Customer Interaction Management Platform (CIM) 8.1 Troubleshooting workshop is intended for Partners, Tier 1 Tech support, CTI administrators, engineers, and other technical staff involved in the maintenance and troubleshooting of Genesys solutions. In addition, this course is also of benefit to Genesys Professional Services and Solution Architects.

Delivery Methods

<table>
<thead>
<tr>
<th>Delivery Method</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Instructor Led, In Classroom</td>
<td>4 days</td>
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<tr>
<td>Instructor Led, Online</td>
<td>24 hours</td>
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Prerequisites:
- Courses Required
  - Framework 8 Foundation (FWK81-FND)
  - Framework 8 Deployment (FWK81-DPL)
  - Inbound Voice Routing and Solution 8 Reporting Deployment: Inbound Voice Routing 8 Foundation (Vol. 1), Routing Deployment (Vol. 2), and Solution Reporting Deployment (Vol. 3) (IRR8-DPL)
- Skills Required:
  - Familiarity with Genesys Framework
  - Prerequisite courses above
  - Working knowledge of the following Genesys server components in a production environment is strongly recommended to get the maximum benefit from the course content: T-Server, Stat Server, Universal Routing Server, and Orchestration Server.

Software Version
This course uses Genesys version 8.1.

Course Objectives
After completing this course, a student will be able to:
- Identify the parts of a log file and their intended functions.
- Describe the internal processes used by T-Server, Stat Server, Universal Routing Server (URS), and Orchestration Server (ORS)
- Interpret T-Server, Stat Server, URS, and ORS log files
- Troubleshoot common problems related to T-Server, Stat Server, URS, and ORS

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Course Topics

Course Overview

Component Overview
- CIM Platform/Magic Triangle
- Logging
- Connections and Connection Issues in the Components
- Licensing Issues
- ADDP

T-Server and ISCC Module

1 - T-Server Introduction
- Reference/T-Server Introduction
- T-Server Logging Options and Tips

2 - T-Server Internals
- Components of T-Server Device Dependent Part (DDP) and Common Part (TSCP)
- The Main Loop and Summary

3 - T-Library Messages
- T-Library
- T-Library Event Message in a Log
- Messages
- Requests and Responses
- What to Check

4 - T-Library Call Model
- Calls/Connection ID/Call Parties
- Party States and Events (Terminal, Queue, Agent)
- Inbound Call Example
- Two-Step Transfer Example

5 - T-Server Requests and Events
- Introduction
- T-Server Log and Tips
- Link Status/Server Information
- TRegisterAddress()
- TAnswerCall()
- THoldCall()
- TRouteCall()

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- TAttachUserData()
- TAgentLogin()
- TInitiateTransfer() and TInitiateConference()
- What to Check

6 - Stuck Calls
- Dealing with Stuck Calls
- T-Server Options Related to Stuck Calls
- SNMP Interface and Stuck Calls
- Management Layer Scripts

7 - ISCC Introduction
- Definition/Architecture/Fundamentals
- Configuring ISCC
- Access Codes
- ISCC Functions
- Reference

8 - ISCC Call Overflow (COF)
- Call Overflow vs. Call Flow
- ISCC Call Overflow Access Codes

9 - ISCC Call Data Transfer Service
- Active External Routing
- Detailed Call Flow Steps
  - Step 1: Invoke ISCC
  - Step 2: Routing Service Request
  - Step 3: Routing Service Check
  - Step 4: Routing Service Response
  - Step 5: Telephony Request to Move Call
  - Step 6: Call Passing
  - Step 7: Alerting Event Processing
  - Step 8: Call Arrival Processing
  - Step 9: Processing Result Notification

10 - Troubleshooting ISCC
- What You’ll Need
- Things to Look For
- Quick Tests

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Stat Server Module

11 - Introduction to Stat Server
   - Reference/Introductory Information
   - Debug-level Option
   - Architecture
   - Stat Server Objects and Hierarchy
   - Statistics
   - Database Tables
   - Building the Stat Server Model

12 - Stat Server Action and Status Model
   - Building the Stat Server Model
   - Stat Server Actions
   - Status
   - Special Actions

13 - Stat Server Statistical Model
   - Stat Server Model/Terminology/Parameter Structural Preview
   - Statistical Types (Stat Type)
     - Category
     - Object
     - MainMask and RelativeMask
     - Subject
     - Formula
     - Time Profile
     - Action-Based vs. Status-Based Subjects
     - Intervals
     - Time Range
     - Filter
     - Metric
     - Statistic Schema

14 - Stat Server API
   - Stat Server API Introduction
   - Requests
     - OpenServer()
     - CloseServer()
     - Openstat()
     - NewAPIOpenStat()
     - PeekStat()
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- CloseStat()
- GetProfile()
- Events
- ClientRegistered
- ServerProfile
- StatOpened
- Info
- StatClosed
- Error
- StatValid
- StatInvalid

15 - The Stat Server Log
- Stat Server Log: General and Startup Information
- Actions
- Status
- SQL
- Virtual Agent Groups
- Business Filters
- Common Problems
- Stuck Calls/Statuses
- First Things to Check in Log
- Scenarios

Universal Routing Server (URS) Module

16 - URS Intro and Log Basics
- Route Points
- Function of Router/Reference
- Architecture
- URS Debug-Level Logging Options
- Route Point-Level Logging
- URS Log Startup Messages
- Subsystems
  - External Modules
    - Custom Server
    - DB Server
    - T-Server
    - Stat Server
    - Configuration Server
    - Message Server

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- Internal (to URS) Modules
  - Configuration
  - Interpreter
  - Treatments
  - Targets
- URS Log Messages
  - Message Source and Type
  - DN Types

17 - URS Interaction Handling Basics
- Routing Call Models
  - Successful Routing
  - Routing Attempt Fails
  - Caller Abandons Call

18 - URS Strategy Execution
- Routing Message Review
- URS Call Routing Stages
  1. Receive EventRouteRequest
  2. Start Strategy
  3. Select a Target
  4. Request Target’s Current State
  5. Wait for Target Availability
  6. Identify the Number and Location for Routing
  7. Send RequestRouteCall
  8. EventRouteUsed

19 - URS Problem Scenarios
- Getting Started with URS Troubleshooting
- What You Need
- Where to Begin

Orchestration Server (ORS) Module

20 - Orchestration Introduction and Log Basics
- Orchestration Platform Architecture
  - Orchestration Server – Persistent Storage
  - Orchestration Server – Clusters
  - Orchestration Server – Super Nodes and Master Super Node
  - Orchestration Server – Failover
- A Closer Look at Orchestration Server
• Orchestration Server - Start-up Log Overview
  o Startup activities
  o Read the configuration
  o Start functional modules
  o Process clusters and start Persistence Manager
  o Elevate a node to Master Super Node (MSN) if needed

• Additional Orchestration Server Logging Options

21 - Orchestration – Executing a Routing Application
• Simple Routing Application Flow
• Route Request
• Interaction Flow: Simple Routing
• Orchestration Server – Overview of Processing a Voice Call
  1. Voice Call
  2. Session Added to IDX
  3. Claim Process
  4. Session Creation
  5. SCXML Compilation
  6. SCXML Application Execution
  7. Session Started
  8. Invoking URS
  9. Processing Events
 10. Routing Done
 11. Final State
 12. Events While Session Ending
 13. End of Session
 14. Events on Agent DN
 15. Final Clearing for Session

• Review of Sample Logs

22 - Orchestration Server Problem Scenarios
• Failure Scenarios
  o ORS will not start
  o Vector delays on Route Points (Avaya Switch Only)
  o IPD is not defined (no InteractionID)
  o SCXML is not found
  o SCXML is corrupted
  o Force Route

• Group Forum: CIM Component Troubleshooting
  o ORS
  o URS

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- Stat Server
- T-Server

Course Review

Additional Materials
- Sample Environment
- T-Server’s Role as Client and Server
- URS Function Codes

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