Overview:
Genesys SIP Server Core covers the purpose, architecture, deployment models, multi-site SIP Server, configuration and installation, basic usage, and call flows of Genesys SIP Server, Media Server, and Resource Manager, and SIP Server High Availability options. Lesson contents are reinforced with learning checks, instructor demonstrations and hands-on lab exercises. Framework and Routing components are pre-installed as are IP softphones.

Software Version:
This course uses Genesys SIP Server version 8.1

Course Objectives:
After completing this course, a student will be able to:
- Describe Genesys SIP Product Offerings
- Describe main configuration elements of Genesys SIP Server
- Identify common SIP Server DN
- Trace the call flows on Genesys SIP Server
- Identify Genesys SIP Server call model
- Describe call transfers
- Explain mapping data between SIP and Genesys protocols
- Describe Genesys SIP Server – Media Server integration
  - Treatments
  - Conference Calls
  - Call Supervision
  - Call Recording
- Describe Genesys SIP Server agent support
- Explain Genesys SIP Server features
- Describe Genesys SIP Server main deployment modes and installation
- Describe Genesys SIP Server multi-site support
- Identify Genesys SIP Server high availability options

Target Audience:
Genesys SIP Server Core is intended for SIP network architects, SIP consultants, IP integrators, system support specialists, system administrators responsible for installation and daily operations, and all other technical roles involved in the deployment planning, installation, configuration, support, and maintenance of Genesys SIP Server solutions.

Course Prerequisites:
- Framework Routing and Reporting 8.5 Foundation (FRR85-FND)
- Framework Routing and Reporting 8.5 Operation (FRR85-OPT)
- Framework Routing and Reporting 8.5 Administration (FRR85-ADM)
- Skills Required:
  - Familiarity with Voice Over IP and SIP concepts, can be acquired by attending Genesys SIP Server Basics (SIP81-BASICS)
Course Outline:

Course overview
- Genesys SIP Server
  - Describe Genesys SIP Server
- SIP Devices - DNs
  - Identify main DNs configured in SIP Server
  - Describe 1PCC and 3PCC
  - List Trunk DN features
  - Identify Trunk Group DNs
  - List VoIP Service DN features
  - Identify Route Points and ACD Queues
- Calls and Transfers
  - Identify SIP Server calls
  - Describe holding calls in SIP Server
  - Define Consultation Calls
  - Explain call transfers
  - Identify SIP Server internal call transfers
  - Identify SIP Server external call transfers and SIP Server in OOSP
- Mapping SIP Headers
  - Configure and explain SIP to TLib mapping
  - Configure and explain TLib to SIP mapping
  - Configure and explain SDP to TLib mapping
  - Describe Transport Prefix needed for mapping between SIP Server and GVP
- Media Server Integration
  - List Media Server functionalities and features
  - Identify the protocols used for providing media services
  - Identify the role of Resource Manager in Media Server integration
  - Configure Resource Manager elements
  - Explain NETANN and MSML
  - Configure VoIP Service DNs
  - Specify Media Server media file playback and tone generation feature
- Treatments
  - Identify the SIP Server treatment support
  - List the supported treatment
  - Describe treatment details
  - Explain Treatment Call Flow
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- Explain digit collection mechanism
- Practice treatments via sample routing applications

- Conference Calls
  - Explain call conference
  - Describe conference call flows per 1PCC and 3PCC
  - Identify establishing conference calls through NETANN and MSML
  - Identify SIP Server conference call participant management features
  - Describe push video functionality

- Call Supervision
  - Describe monitoring sessions
  - Describe and differentiate between call supervision modes
  - Identify options for
    - Remote supervision
    - Multi-site supervision

Call Recording
- Identify Genesys Recording Support
  - Genesys Interaction Recording
  - 3rd Party Recorder Integration
- Describe NETANN and MSML based recording
- Configure SIP Server and GVP for MSML based recording
- Explain SIP Server recording features

- Agent Configuration
  - Explain SIP Server emulated agent support
  - Describe SIP Server call classification
  - Configure business call options
  - Describe and configure Agent Logout options
  - Identify Agent/Customer greetings
  - Describe remote agents

- SIP Server Features
  - Explain Hunt Groups
  - Describe Shared Call Appearance
  - Identify Call Park/Retrieve
  - Identify Directed Call Pick Up
  - Explain Caller-ID and Network Asserted Identity
  - Describe out-of-Service Management
  - C-nfigure Class of Service and Dial Plan rules
  - Identify Quality of Service
  - Describe Early Media

- SIP Server Deployment
  - Explain SIP Server deployment considerations
  - Explain SIP Server deployment models
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- Deploy SIP Server
- Identify Softswitch Integration
- Identify Call Parking and Qualification

- Multi-Site operation
  - Explain SIP Server deployment models
  - Describe ISCC
  - Practice ISCC/Call overflow
  - Practice ISCC/Call Data Transfer Service
  - Identify multi-site Trunk optimization options
  - Describe Geo Location

- High Availability
  - Describe SIP Server Service Availability options
  - Describe SIP Server High Availability
  - Describe SIP Proxy Server
  - Deploy an HA pair of SIP Servers and SIP Proxy Server
  - Implement SIP Proxy Pool

- Appendix A – Genesys SIP Select and Agent Endpoints
- Appendix B – Voice Network Quality Standards
- Appendix C – DNS Settings
- Course Review