Deploying and Troubleshooting Cisco SIP Solutions

Table of Content

Module 5: Implementing SIP URI Calling on CUCM

- Implementing URI calling in CUCM for calls within a cluster and between clusters
- Provide an overview of URI call routing in CUCM
- Describe Directory URIs in CUCM
- Describe the URI call routing process in CUCM
- Describe how CUCM routes SIP URI calls to other call control systems using SIP route patterns and SIP trunks
- Describe what needs to be considered when implementing URI call routing in CUCM

Module 6: Deploying ILS and GDPR

- Describe how to implement ILS between CUCM clusters and enable GDPR This lesson
- Describe global dial plan issues
- Describe the characteristics of ILS and its services
- Describe the components of GDPR and their interaction
- Describe how calls are routed using GDPR
- Describe how to implement PSTN backup for intercluster calls when using GDPR

Module 7: Deploying Cisco SIP Voice Gateways

- Describe the function, purpose, and configuration of the Cisco SIP ISR gateway
- Describe Cisco Voice Gateways
- Describe SIP gateways
- Describe Call Legs and Dial Peers
- Describe Digital Signaling Processors
- Explore the DSP Calculator

Module 8: Configuring Session Border Controllers (CUBEs)

- Configure and troubleshoot Cisco Unified Border Element (CUBE)
- Describe the Cisco Unified Border Element
- Describe the call-routing logic in CUBE for numeric and URI calls
- Understand the advanced options for CUBE
- Describe how to manipulate SIP header and SDP elements in CUBE using SIP profiles
- Understand CUBE signaling and media bindings

Module 9: Configuring Additional SIP CUBE Settings

- Describe how to implement digit manipulation, Early Offer, and OPTIONS on a Cisco SIP CUBE
- Configuring Voice translation profiles on CUBE
- Configuring SIP Early offer on the CUBE
- Configuring MTP on SIP Trunk to support early offer
- Configuring SIP OPTIONS keepalives on CUBE

Module 10: Configuring CUBE based URI Call Routing

- Configuring inbound URL dial-peer matching
- Configuring outbound URL dial-peer matching
- Configuring SIP Calling and Connected Party Info
- Configuring Provisioning Policies
- Normalizing SIP Messages

Module 11: Configuring the Summary Lab

- Configuring SIP trunks, CUBE, dial plan, and a variety of other settings students learned during the class
- There is a list of requirements that students will fulfil and SIP related problems that students will solve
- This lab helps students solidify concepts and demonstrates their proficiency in building SIP deployments