

(GEN10) C20-GENiUS Solution Overview

Course Description:

The GEN10 is a one day leader led C20-GENiUS Solution Overview course. Each component will be discussed to show its role in the solution. Component hardware and user interfaces will be discussed as well.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the C20-GENiUS solution. It is a pre-requisite course for advanced courses in the curriculum. This course was designed for both technical and managerial personnel.

Key Topics:

Overview of GENBAND's C20-GENiUS network components:

- C20-GENiUS Solution Overview
- GENView Manager (GVM)
- C20 on GENiUS
- Application Server (AS)
- Session Server Trunks (SST)
- Signaling Point 2000 (SP2000)
- Gateway Controller (GWC)
- Media Server
- G6 Media Gateway
- G5 Media Gateway
- G9 Media Gateway

Objectives:

- Describe the C20-GENiUS Solution
- Identify the role of the GENView Manager
- Identify the C20-GENiUS hardware and software components
- Understand the Application Server SIP lines application
- Describe the purpose of the Session Server Trunks application
- Describe and identify the Signaling Point 2000
- Describe and identify the function of the Gateway Controller
- Describe the function of the Media Server
- Understand the function of the G6 Media Gateway
- Describe the function of the G5 Access Lines Gateway
- Describe the function of the G9 Media Gateway

Course Length and Delivery Method

1 Day Leader led

(GEN11) C20-GENiUS Solution Overview

Course Description:

The GEN11 is a one day self-paced C20-GENiUS Solution Overview course. Component content is provided to show its role in the solution. Component hardware and user interfaces are provided as well.

Intended Audience:

The Learning audience for the GEN11 GENBAND Solution Network Overview includes those responsible for maintaining the network. This course is targeted for both technical and managerial personnel.

. Key Topics:

Overview of GENBAND's C20-GENiUS network components:

- C20-GENiUS Solution Overview
- GENView Manager (GVM)
- C20 on GENiUS
- Application Server (AS)
- Session Server Trunks (SST)
- Signaling Point 2000 (SP2000)
- Gateway Controller (GWC)
- Media Server
- G6 Media Gateway
- G5 Media Gateway
- G9 Media Gateway

Objectives:

- Describe the C20-GENiUS Solution
- Identify the role of the GENView Manager
- Identify the C20-GENiUS hardware and software components
- Understand the Application Server SIP lines application
- Describe the purpose of the Session Server Trunks application
- Describe and identify the Signaling Point 2000
- Describe and identify the function of the Gateway Controller
- Describe the function of the Media Server
- Understand the function of the G6 Media Gateway
- Describe the function of the G5 Access Lines Gateway
- Describe the function of the G9 Media Gateway

Prerequisite Skills:

Knowledge and basic understanding of communications.

Prerequisite Courses:

None

Course Length and Delivery Method:

1 Days Self-Paced

(C20RMS10) C20 on RMS Solution Overview

Course Description:

The C20RMS10 is a one-day leader led C20 on RMS Solution Overview course. Each component is discussed to show its role in the solution as well as its hardware platform and associated user interfaces.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the C20 on RMS solution. It is a pre-requisite course for advanced courses in the curriculum. This course was designed for both technical and managerial personnel.

Key Topics:

Overview of GENBAND's C20 on RMS network components:

- C20 on RMS Solution Overview
- GENView Manager (GVM)
- C20 on GENiUS
- Application Server (AS)
- Session Server Trunks (SST)
- Signaling Point 2000 (SP2000)
- Gateway Controller (GWC)
- Media Server
- G6 Media Gateway
- G5 Media Gateway
- G9 Media Gateway

Objectives:

- Describe the GENBAND RMS Solution
- Identify the role of the GENView Manager
- Identify the C20 on RMS hardware and software components
- Understand the GENBAND SIP lines Application Server
- Describe the purpose of the Session Server Trunks application
- Describe and identify the Signaling Platform 2000
- Describe and identify the function of the Gateway Controller
- Describe the function of the Media Server
- Understand the function of the G6 Universal Gateway
- Describe the function of the G5 Line Access Gateway
- Describe the function of the G9 Converged Gateway
- Describe the function of the G5 SIP ESA

Course Length and Delivery Method

1 Day Leader led

(C20RMS11) C20 on RMS Solution Overview

Course Description:

The C20RMS11 is a one-day Self-Paced C20 on RMS Solution Overview course. Each component is discussed to show its role in the solution as well as its hardware platform and associated user interfaces.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the C20 on RMS solution. It is a pre-requisite course for advanced courses in the curriculum. This course was designed for both technical and managerial personnel.

Key Topics:

Overview of GENBAND's C20 on RMS network components:

- C20 on RMS Solution Overview
- GENView Manager (GVM)
- C20 on GENiUS
- Application Server (AS)
- Session Server Trunks (SST)
- Signaling Point 2000 (SP2000)
- Gateway Controller (GWC)
- Media Server
- G6 Media Gateway
- G5 Media Gateway
- G9 Media Gateway

Objectives:

- Describe the GENBAND RMS Solution
- Identify the role of the GENView Manager
- Identify the C20 on RMS hardware and software components
- Understand the GENBAND SIP lines Application Server
- Describe the purpose of the Session Server Trunks application
- Describe and identify the Signaling Platform 2000
- Describe and identify the function of the Gateway Controller
- Describe the function of the Media Server
- Understand the function of the G6 Universal Gateway
- Describe the function of the G5 Line Access Gateway
- Describe the function of the G9 Converged Gateway
- Describe the function of the G5 SIP ESA

Course Length and Delivery Method

1 Day Self-Paced

(GEN15) C20-GENiUS Solution Fault Management

Course Description:

The purpose of this course is to familiarize the student with the process of basic troubleshooting techniques to locate and resolve network faults on the C20-GENiUS platform. This is accomplished through the understanding of element management systems and the use of network element specific documentation.

Intended Audience:

The learning audience for the GEN15 course includes Tier I/Tier II engineers responsible for maintaining the health of the network.

Key Topics:

GENBAND C20-GENiUS Solution Fault Management

- C20-GENiUS Solution Overview
- Working with Documentation
- GENView Manager Navigation
- C20-GENiUS User Interfaces
- Application Server (AS)
- G6 MG Client Interfaces
- G9 MG Client Interfaces

Objectives:

In the GENBAND C20-GENiUS Solution Fault Management course, you will learn to:

- Understand the C20-GENiUS solution
- Access and navigate the GENBAND documentation website
- Use the GENView Manager (GVM) application to manage alarms
- Navigate the ATCA Call Server Manager (ACSM) GUI to manage service groups
- Navigate the GENWare CLI to manage the GENiUS components
- Utilize the Application Server System Manager to manage alarms
- Navigate the G6 GENView GUI
- Navigate the G9 GENView GUI
- Apply troubleshooting techniques to locate and resolve network faults

Prerequisite Skills:

Knowledge and basic understanding of communications.

Prerequisite Courses:

GEN10 or GEN11

Course Length and Delivery Method:

3 Day Leader Led

(C20RMS15) C20-RMS Solution Fault Management

Course Description:

The purpose of this course is to familiarize the student with the process of basic troubleshooting techniques to locate and resolve network faults on the C20-RMS platform. This is accomplished through the understanding of element management systems and the use of network element specific documentation.

Intended Audience:

The learning audience for the C20RMS15 course includes Tier I/Tier II engineers responsible for maintaining the health of the network.

Key Topics:

- C20-RMS Solution Overview
- Hardware and Software
- GENView Manager
- C20-RMS User Interfaces
- Application Server (AS)
- G6 Media Gateway Element Manager
- G9 Media Gateway Element Manager
- Working with GENBAND Documentation

Objectives:

In the GENBAND C20-GENiUS Solution Fault Management course, you will learn to:

- Understand the C20 on RMS solution
- Describe the Hardware and Software for the C20 RMS
- Use the GENView Manager (GVM) application to manage alarms
- Navigate the GENWare CLI to manage the Solution components
- Navigate the Core Element Manager GUI to manage the C20 RMS
- Utilize the Application Server System Manager to manage alarms
- Navigate the G6MM GENView GUI to view Fault Data
- Navigate the G9 GENView GUI to view Fault Data
- Access and navigate the GENBAND documentation website
- Apply troubleshooting techniques to locate and resolve network faults

Prerequisite Skills: None

Prerequisite Courses: C20RMS10 or C20RMS11

Course Length and Delivery Method: 3 Day Leader Led

(GEN16) C20 on GENiUS Operations and Maintenance

Course Description:

The purpose of course GEN16, “C20 on GENiUS Operations and Maintenance” is to provide knowledge and understanding about the C20 Call Session Controller Solution for Voice over IP (VoIP) Networks. This course will focus on the GENiUS platform implementation using the new Sandy Bridge hardware, and how it is configured and maintained. It is delivered in the context of being at the core of a CONTINUUM solution

Intended Audience:

This course is designed for personnel responsible for maintaining the GENiUS shelf in the C20 Call Session Controller environment with Sandy Bridge based hardware.

Key Topics:

- C20 Call Session Controller Purpose
- Hardware Architecture
- Software Architecture
- User Interfaces
- Fault Management Tasks
- Routine Maintenance Tasks
- Software Patching
- Backup and Restore
- Security Architecture

Objectives:

Upon completion of this course, you will be able to:

- Define the C20 Call Session Controller purpose.
- Define the C20 Call Session Controller hardware architecture.
- Define the C20 Call Session Controller software architecture.
- Navigate the C20 Call Session Controller user interfaces.
- Perform C20 Call Session Controller fault management tasks.
- Perform C20 Call Session Controller routine maintenance tasks.
- Describe the C20 Call Session Controller software patching
- Describe the C20 Call Session Controller backup and restore procedures.
- Discuss C20 Call Session Controller security management procedures

Prerequisite Skills:

This course assumes that the student has a working knowledge of L2 switching and L3 IP routing.

Prerequisite Courses:

GEN10 or GEN11 C20 - Solution Fundamentals

Course Length and Delivery Method

3 Day – Leader Led

(C20RMS16) C20-RMS Operations and Maintenance

Course Description:

The purpose of course C20RMS16 “C20-RMS Operations and Maintenance” is to provide knowledge and understanding about the C20 Call Session Controller Solution for Voice over IP (VoIP) Networks. This course will focus on the C20-RMS platform implementation using the MA-RMS (Multi Application – Rack Mount Server) hardware, and it’s Operational aspects, Maintenance, and Configuration.

Intended Audience:

This course is designed for personnel responsible for operating and maintaining the MA-RMS Server in the C20 Call Session Controller environment.

Key Topics:

Overview
Hardware and Software
User Interfaces
Application Provisioning
Routine Maintenance
Fault Management

Objectives:

Upon completion of this course, you will be able to:

- Understand the Solution Architecture and Components
- Understand the RMS Hardware and Connectivity and view detail from the CLI
- Manage the C20 with the Core Element Manager
- Navigate the C20-RMS Command Line Interface
- Manage the C20-RMS Administrative Users
- View Service Groups, Units, and High Availability Status
- Manage the C20 Management Module Application Set
- Manage the C20 Virtual Call Agent
- Provision and Maintain Applications on the C20-RMS Platform
- Manage the Data Manager File System
- Execute System Level Health Check on the C20-RMS Platform
- Execute Routine Exercise Testing on the C20-RMS Platform
- Manage Software Patching
- Backup the C20-RMS Platform
- Manage Events, Alarms, and Security Logs

Prerequisite Skills: None

Prerequisite courses: - C20RMS10 or C20RMS11 C20 - Solution Fundamentals

Course Length and delivery method: 3 Days - Leader Led

(GEN35) GENiUS Class 5 Planning and Capacities

Course Description:

The purpose of this course is introduce you to the basic considerations when configuring a C20 on GENiUS platform by reviewing the System Engineering Bulletin, SEB_09-00-003 (C20 on GENiUS Capacity Engineering) and other related SEBs.

Intended Audience:

The learning audience for the GEN35 GENBAND Class 5 Planning and Capacities course are engineers responsible for managing the network architecture.

Key Topics:

- C20 on GENiUS Overview
- C20 on GENiUS Capacities, including:
 - Call Agent (CA)
 - Gateway Controllers (GWC)
 - Session Server Trunks (SST)
 - A2 Converged Application (A2)
 - SP2000 (Signaling Platform 2000)
- G9 & G6 Overview and Capacities

Objectives:

In this course, you will learn how to:

- Identify the components and topology of a GENiUS deployment
- Understand the limitations of GENiUS ATCA components:
 - Call Agent (CA)
 - Gateway Controllers (GWC)
 - Session Server Trunks (SST)
 - A2 Converged Application (A2)
 - SP2000 (Signaling Platform 2000)
- Describe the G9 Trunk and G6 Trunk / Packet Line Gateways

Prerequisite Skills:

Knowledge and basic understanding of communications.

Prerequisite Courses:

GEN10 or GEN11

Course Length and Delivery Method:

2 Days Leader Led

(C20RMS35) C20 on RMS Solution Planning and Capacities

Course Description:

The purpose of this course is introduce you to the basic considerations when configuring a C20 on RMS platform by reviewing the System Engineering Bulletin, SEB_09-00-021 (C20 on RMS Engineering Rules) and other related SEBs.

Intended Audience:

The learning audience for the C20RMS35 GENBAND C20 on RMS Planning and Capacities course are engineers responsible for managing the network architecture.

Key Topics:

- C20 on RMS Overview
- C20 on RMS Capacities, including:
 - Call Agent (CA)
 - Gateway Controllers (GWC)
 - Session Server Trunks (SST)
 - Application Server (AS)
 - SP2000 (Signaling Platform 2000)
- Media Servers: GMS and MAS Capacities
- G9, G6 and G5 Overview and Capacities

Objectives:

In this course, you will learn how to:

- Identify the components and topology of a C20 on RMS deployment
- Understand the limitations of the C20 on RMS components:
 - Call Agent (CA)
 - Gateway Controllers (GWC)
 - Session Server Trunks (SST)
 - Application Server (AS)
 - SP2000 (Signaling Platform 2000)
- Describe the G9 Trunk, G6 Trunk / Packet Line and G5 Gateways

Prerequisite Skills:

Knowledge and basic understanding of communications.

Prerequisite Courses:

C20RMS10 or C20RMS11

Course Length and Delivery Method:

2 Days Leader Led

(GMS15) GENBAND Media Server (MS) Operations, Maintenance and Configuration

Course Description:

The purpose of this course is to provide you with the skills and knowledge to understand the operations, configuration, and maintenance of the GENBAND Media Server (MS) in a C20 hosted office.

Intended Audience:

This course is designed for individuals who are responsible for installing and maintaining the GENBAND MS in a C20 solution.

Key Topics:

- Introduction to the GENBAND Media Server (MS)
- Hardware and Software Architect
- Management Interfaces
- IP Network Integration
- Base Configuration
- C20 integration configuration
- AS integration configuration
- Fault and Performance Management

Objectives:

In this course, you will learn how to:

- Describe the purpose of the GENBAND Media Server (MS).
- Identify the hardware and software requirements for GENBAND MS.
- Identify the different GENBAND MS management interfaces.
- Understand the IP network integration for the GENBAND MS.
- Define the GENBAND MS – Base Configuration
- Identify the GENBAND MS – C20 integration configuration.
- Understand the GENBAND MS – AS integration configuration.
- Examine and use fault and performance management tools available for the GENBAND MS.

Prerequisite Skills:

Knowledge and basic understanding of communications.

Prerequisite Courses:

GEN10 or GEN11 or C20RMS10 or C20RMS11

Course Length and Delivery Method:

2 Days Self-Paced

(GMS16) GENBAND Media Server (MS) Operations, Maintenance and Configuration

Course Description:

The purpose of this course is to provide you with the skills and knowledge to understand the operations, configuration, and maintenance of the GENBAND Media Server (MS).

Intended Audience:

This course is designed for individuals who are responsible for installing and maintaining the GENBAND MS hosted by an EXPERiUS Application Server in a Voice over IP network.

Key Topics:

- Introduction to the GENBAND Media Server (MS)
- Hardware and Software Architect
- Management Interfaces
- IP Network Integration
- Base Configuration
- AS integration configuration
- Fault and Performance Management

Objectives:

In this course, you will learn how to:

- Describe the purpose of the GENBAND Media Server (MS).
- Identify the hardware and software requirements for GENBAND MS.
- Identify the different GENBAND MS management interfaces.
- Understand the IP network integration for the GENBAND MS.
- Define the GENBAND MS – Base Configuration
- Understand the GENBAND MS – AS integration configuration.
- Examine and use fault and performance management tools.

Prerequisite Skills:

Knowledge and basic understanding of communications.

Prerequisite Courses:

GEN10 or GEN11 or C20RMS10 or C20RMS11

Course Length and Delivery Method:

2 Days Self-Paced

(OSSG20) C20 - OSSGate and Servord+

Course Description:

An Introduction to OSSGate and Servord+ provides a brief understanding of the OSSGate server and it's functionality in provisioning and testing CVoIP lines using SERVORD+.

Intended Audience:

This course is designed for anyone that needs to provision CVoIP lines.

Key Topics:

- Introduction to OSSGate; what it is and its physical connectivity
- Review of Servord; Servord compared to OSSGate's Servord
- Explanation of OSSGate Servord + ; Server access, Commands and the Construction of Servord+ commands
- Explanation of the OSSGate's line test interface for the MG9000
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Objectives:

Upon completion of this course, you will be able to:

- Identify OSSGate as an application for CVoIP provisioning and testing
- Understand differences between OSSGate SERVORD+ and Legacy SERVORD
- Distinguish OSSGate as part of the C20 Management Tools application
- Understand OSSGate Connections
- Define OSS/Telnet Secure and Non-secure connections
- Recognize commonly used SERVORD+ commands
- Understand command provisioning for lines using CI and SERVORD +
- Configure new lines using OSSGate commands

Prerequisite Skills:

Data entry or Service Order administration skills

Prerequisite Courses:

GEN10 or GEN11 or C20RMS10 or C20RMS11 - C20 Solution Fundamentals

Course Length and Delivery Method:

1 Day Self Paced

(XLA35) C20 - Basic Translations

Course Description:

This course assumes you have no previous DMS translations experience. It gives you the ability to create translations that are used to process line-to-line, line-to-trunk, and trunk-to-line calls. You will have hands-on practice creating the information necessary to process these call types.

Intended Audience:

Translations engineers and support personnel, maintenance technicians, anyone who needs to understand basic translations for the Voice over IP network.

Key Topics:

- Table Editor
- Introduction to SERVORD
- Introduction to Documentation
- Introduction to Translations
- TRAVER Syntax
- Line Tables
- Standard Pretranslator Screening Tables
- Code Validation Screening Tables
- Operator Services Traffic Screening Tables
- Class-of-Service Screening Tables
- Local Calling Area Screening Tables
- Treatment Tables
- Office Route Tables
- Trunk Group Tables
- Announcement Tables
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Objectives:

Upon completion of this course, you will be able to:

- Apply Table Editor commands to maneuver, manipulate, and locate information in the data tables.
- Put phones in service for verification purposes and to identify the appropriate pointer tables for call processing.
- Explain how to locate procedures in GENBAND documentation.
- Describe how data tables are used to process the following types of calls: line-to-line, line-to-trunk, trunk-to-line
- Identify the proper syntax for initiating a TRAVER.
- Describe the purpose of the translations data tables that relate to lines, screening, routing, and trunks.
- Create datafill used for line-to-line, line-to-trunk, and trunk-to-line translations.
- Initiate TRAVERs through the Communication Server's translations data tables to verify tuple datafill.

Prerequisite Skills:

None.

Prerequisite Courses:

GEN10 or GEN11 or C20RMS10 or C20RMS11 - C20 Solution Fundamentals

Course Length and Delivery Method:

5 Day Leader Led

(TRKS20) Carrier Voice over IP Operations - Trunk Group Provisioning

Course Description:

This course is designed to help you learn trunk group provisioning in a Carrier Voice over IP solution. The course also introduces you to trunk group concepts that are a part of a Carrier VoIP solution. Covered in this course are ISUP, PRI, PTS, and DPT trunk group types. This course illustrates and describes the implementation of the Media Gateway (MG) 15000 trunk gateway (ANSI and ETSI implementations) and Session Server Trunk application. The trunk group data tables involved in a Carrier VoIP solution are essentially the same as the trunk group data tables used in legacy DMS deployments. This course identifies any differences.

Intended Audience:

This course is intended for support staff that already has a good knowledge of DMS 100/250/500 trunk group tables and MAPCI table editor.

Key Topics:

- Overview of different Carrier Voice over IP deployments
- Network elements that support Carrier Voice over IP trunk groups
- Media Gateway 15000 application to support ISUP, PRI, and PTS trunk groups
- Session Server application to support DPT trunk groups
- Gateway Controller responsibility for trunk groups
- Communication Server trunk group tables
- Provisioning steps to put trunk groups into service

Objectives:

Upon completion of this course, you will be able to:

- Describe the general similarities and differences between trunk group provisioning in a DMS switch and a Carrier Voice over IP solution.
- Provision MG 15000 trunk groups.
- Provision Session Server DPT trunk groups.

Prerequisite Skills:

Good knowledge of DMS 100/250/500 trunk group tables and MAPCI table editor.

Prerequisite Courses:

None

Course Length and Delivery Method:

2 Day Self Paced

(CMPCT15) C20 - Compact Operations and Maintenance

Course Description:

This course is designed to help you learn the operation, hardware components, and user interfaces (SAM21 Manager, Compact Call Agent Manager, Compact Command Interpreter, and STORM Manager), involved in the C20 Compact.

This course also gives you the opportunity to use information generated by individual nodes to identify faults.

Intended Audience:

This course is intended for support staff and management that require the knowledge and skills to operate, support, and maintain the C20 - Compact.

Key Topics:

- C20 - Compact purpose
- SAM21 hardware
- C20 – Compact hardware
- SAM21 Manager for the Call Agent
- Compact Call Agent Manager with hands-in exercise
- Compact Command Interpreter with hands-in exercise
- STORM Manager

Objectives:

Upon completion of this course, you will be able to:

- Identify the purpose of the C20 - Compact.
- Identify the components of the SAM21 hardware.
- Identify the components of the C20 – Compact hardware.
- Access and identify key information in the SAM21 card view screens for the Call Agent cards.
- Access and navigate the Compact Call Agent Manager.
- Access and navigate the Compact Command Interpreter.
- Identify how to access the STORM Manager and explain each of its panels.
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Prerequisite Skills:

- Switching knowledge and experience
- Data basics knowledge
- Basic knowledge of the components and their main functions in the Voice over IP solution

Prerequisite Courses:

None

Course Length and Delivery Method:

2 Day Self-Paced

(SST15) Session Server Trunks Provisioning and Maintenance

Course Description:

This course provides you with the skills and knowledge to install and configure the SIP Gateway Application on Session Server Trunks. You will also learn basic fault and performance management methods. To reinforce learning, you will complete a number of exercises based on the topics covered.

Intended Audience:

This course is designed for individuals responsible for installing and maintaining SIP Gateways in a Carrier VoIP network.

Key Topics:

- SIP protocol
- Dynamic packet trunking
- Hardware platform
- Software architecture
- Network interfaces and connectivity
- Understanding Session Server IP addressing
- Overview of the GUI & provisioning framework
- Set office parameters for Session
- Datafill dynamic packet trunks
- Add SIPT gateway controllers
- Configure Application Parameters
- Add and Manage Remote SIP Servers
- Add and Manage SIP-T GWC's
- Add and Manage Telephony Profiles
- Add and Manage Access Link Maps
- Set specific Remote SIP Server parameters
- Add and Manage NOA/NPI's to Phone Context maps
- Add and Manage ISUP to SIP maps
- Add and Manage SIP Redirection maps
- Add and Manage ISUP Variant maps
- Add and Manage Circuit Code assignments
- Add NCAS links
- View operational status of the SIP Gateway Application
- View operational status of the Session Server Trunks platform
- Use the SIPTRACE Tool
- View Operational Measurements
- CLI Commands

Objectives:

Upon completion of this course, you will be able to:

- Describe the role and function of the SIP Gateway Application on the Session Server Trunks.
- Identify the hardware components required for Session Server Trunks.
- Demonstrate proper use of the user interfaces required for Session Server Trunks.
- Datafill Dynamic Packet Trunks used with Session Server Trunks.
- Perform basic Session Server Trunks configuration.

- Perform advanced Session Server Trunks configuration.
- Perform basic fault management of the SIP Gateway Application and the Session Server Trunks platform.
- Examine advanced fault management tools available for the SIP Gateway Application and the Session Server Trunks platform.

Prerequisite Skills:

- Basic user interface navigation skills
- Basic understanding of DMS technology and MAPCI
- Familiarity with IP and other technology protocols
- Basic understanding of purpose, hardware, and connectivity of each network component in the PT-IP solution

Prerequisite Courses:

None

Course Length and Delivery Method:

3 Day Leader Led

(SST16) C20 on GENiUS/RMS - Session Server Trunks Provisioning and Maintenance

Course Description:

The purpose of this course is to provide you with the skills and knowledge to configure and maintain Session Server Trunks on GENiUS ATCA platform.

You will also learn basic fault and performance management methods. To reinforce learning, you will complete a number of exercises based on the topics covered.

Intended Audience:

This course is designed for individuals responsible for installing and maintaining Session Server Trunks in a Carrier VoIP network.

Key Topics:

- Session Server Trunks Overview
- Session Server Trunks hardware
- Session Server Trunks User Interfaces
- DPT Trunk provisioning requirements
- Basic Session Server Trunks configuration
- Advanced Session Server Trunks configuration
- Basic Session Server Trunks fault management
- Session Server Trunks fault management tools

Objectives:

Upon completion of this course, you will be able to:

- Describe the purpose of the Session Server Trunks.
- Identify the hardware components required for Session Server Trunks.
- Navigate the different Session Server Trunks user interfaces.
- Datafill Dynamic Packet Trunks used with Session Server Trunks.
- Perform basic Session Server Trunks configuration.
- Perform advanced Session Server Trunks configuration.
- Perform basic fault management of the SIP Gateway Application and the Session Server Trunks platform.
- Examine advanced fault management tools available for the SIP Gateway Application and the Session Server Trunks platform.

Prerequisite Skills:

- Basic user interface navigation skills
- Basic understanding of DMS technology and MAPCI
- Familiarity with IP and other technology protocols
- Basic understanding of purpose, hardware, and connectivity of each network component a VoIP network solution

Prerequisite Courses:

GEN10 or GEN11 or C20RMS10 or C20RMS11

Course Length and Delivery Method:

3 Day Leader Led

(MS2K15) Media Server 2000 Series Basic Operations and Administration

Course Description:

Media Server 2000 Series Basic Operations and Administration introduces you to the hardware, network topology, protocols, and user interfaces associated with MS 2000 Series components.

Intended Audience:

Maintenance personnel, Tier I and II support personnel, Network managers

Key Topics:

- MS 2000 Series Overview
- Hardware
- MS 2000 Series Protocols
- MS 2000 Series Access and User Interfaces
- Process Flows

Objectives:

Upon completion of this course, you will be able to:

- Identify the primary functions of the MS 2000 Series system.
- Identify APS Administration key concepts and terms.
- Identify APS Audio Management Overview key concepts and terms.
- Identify the similarities and differences between the MS 2010, MS 2020, and APS hardware platforms.
- Identify the hardware features of the MS 2010.
- Identify the hardware features of the MS 2020.
- Identify the hardware features of the APS.
- Identify the protocols used by the MS 2000 Series.
- Describe how to log into the MS 2000 Series Configuration Tool and the MS 2000 Series Embedded Web Server Utility and access configuration data.
- Describe the access methods and basic screen layout for the Audio Provisioning Server (APS) graphical user interface.
- Describe how to login to the C20 Management Tools (CMT) and access MS 2000 Series configuration data.
- Describe the high level call flow for audio announcements.
- Describe the high level call flow for conference bridging and 3-way calls.
- Describe the high level call flow for Lawful Intercept.

Prerequisite Skills:

Familiarity with telecommunications; an understanding of network fundamentals

Prerequisite Courses:

None

Course Length and Delivery Method:

1 Day Self Paced

(SP2K15) Signaling Platform 2000 Operations, Administration, Maintenance, & Provisioning

Course Description:

The SP2000 Operations, Administration, Maintenance, & Provisioning course familiarizes the student with the Architecture, Configuration, Administration, Fault Management and Maintenance of the Signaling Platform 2000 as a signaling gateway with R3 hardware and software.

The students are presented with structured hands-in exercises to practice the commands and Navigating both the Menu Driven and Graphical User Interfaces (GUIs).

Intended Audience:

The learning audience for the SP2K15 OAMP course includes those responsible for maintaining and updating the SP2000 platform components and the SS7 network. This course targets both maintenance technicians and technical support personnel.

Key Topics:

- Course Contents:
 - Lesson 1 Architecture
 - Lesson 2 Access
 - Lesson 3 Configuration
 - Lesson 4 Administration and Security
 - Lesson 5 Fault Management
 - Lesson 6 Maintenance
 - Appendix A Glossary
 - Appendix B MSU Tracing Reference

Objectives

- Identify key concepts of the SP2000 architecture.
- Access and log in to an SP2000.
- Identify the configurations of the SP2000 to function as an SG.
- Configure a system with links and routeset.
- Perform security and administration functions.
- Perform fault management and troubleshooting tasks.
- Perform maintenance tasks

Prerequisite Skills:

Knowledge and basic understanding of SS7 messaging.

Prerequisite Courses:

None

Course Length and Delivery Method:

3 Days - Leader Led

(NPM35) CVoIP: Network Patch Manager

Course Description:

The Network Patch Manager (NPM) utility is used to patch selected components of a customer's Carrier Voice over IP (CVoIP) network. CVoIP: Network Patch Manager explains patching generally, followed by an introduction to the NPM and hands-in practice using NPM.

Intended Audience:

Operations and Maintenance personnel

Key Topics:

- How a patch works
- NPM patching architecture and applications
- Patching sequence
- Manual patching using NPM
- Automatic patching using NPM
- Troubleshooting
- Hands-in exercises for patching and troubleshooting

Objectives:

Upon completion of this course, you will be able to use NPM from GUI or command line to:

- launch NPM, retrieve and apply patches
- remove patches
- restart devices
- verify results
- setup automatic patching
- troubleshoot patching

Prerequisite Skills:

Basic knowledge of hardware and software architecture of GENBAND CVoIP networks

Prerequisite Courses:

None

Course Length and Delivery Method:

½ day Self Paced

(CBM15) C20 - Core Billing Manager (CBM) Operation

Course Description:

The Core and Billing Manager (CBM) is the network management system for the Communication Server. The Core and Billing Manager Operations course covers the operations, maintenance, administration, and troubleshooting of the CBM. This course also covers CBM applications support and configuration (including billing) for the Communication Server.

Intended Audience:

Those responsible for supporting network element support applications as well as billing in the Succession environment

Key Topics:

- CBM purpose
- CBM hardware
- CBM software
- CBM user interface
- CBM maintenance and administration
- CBM fault management
- CBM high speed logs
- CBM file transfer
- CBM operational measurements
- CBM applications
- CBM billing interface
- CBM billing configuration
- CBM billing records
- CBM billing fault analysis

Objectives:

Upon completion of this course, you will be able to:

- Describe the purpose and function of the CBM.
- Identify the CBM hardware platform.
- Define the CBM software platform.
- Work with the CBM interfaces and tools.
- Maintain user IDs for the CBM.
- Identify faults and troubleshoot problems on the CBM.
- Configure log collection and delivery on the CBM.
- Transfer files between the CBM and other network elements.
- Configure operational measurements collection and transfer.
- Understand the key applications that are supported by the CBM.
- Work with the billing application.
- Configure the billing application.
- Search and view billing records.
- Analyze billing faults on the CBM.

Prerequisite Skills:

Basic Knowledge of DMS

Prerequisite Courses:

None

Course Length and Delivery Method:

3 Days Self-Paced

(GVBDS15) GENView Billing Data Server (GVB-DS) on IA-RMS Operations.

Course Description:

The GENView Billing Data Server (GVB-DS) is the TDM network management system for the Communication Server. The GENView Billing Data Server Operations course covers the operations, maintenance, administration, and troubleshooting of the GVB-DS IA-RMS. This course also covers GVB-DS applications support and configuration (including billing) for the Communication Server.

Intended Audience:

Those responsible for supporting network element applications as well as billing in the TDM environment.

Key Topics:

- GVB-DS purpose
- GVB-DS hardware
- GVB-DS software
- GVB-DS user interface
- GVB-DS maintenance and administration
- GVB-DS fault management
- GVB-DS high speed logs
- GVB-DS file transfer
- GVB-DS operational measurements
- GVB-DS applications
- GVB-DS billing interface
- GVB-DS billing configuration
- GVB-DS billing records
- GVB-DS billing fault analysis

Objectives:

Upon completion of this course, you will be able to:

- Describe the purpose and function of the GVB-DS.
- Identify the GVB-DS hardware platform.
- Define the GVB-DS software platform.
- Work with the GVB-DS interfaces and tools.
- Maintain user IDs for the GVB-DS.
- Identify faults and troubleshoot problems on the GVB-DS.
- Configure log collection and delivery on the GVB-DS.
- Transfer files between the GVB-DS and other network elements.
- Configure operational measurements collection and transfer.
- Understand the key applications that are supported by the GVB-DS.
- Work with the billing application.
- Configure the billing application.
- Search and view billing records.
- Analyze billing faults on the GVB-DS.

Prerequisite Skills:

Basic Knowledge of TDM Networks

Prerequisite Courses:

N/A

Course Length and Delivery Method:

1.5 Days Self-Paced

(GVBDS16) C20 – GENview Billing Data Server (GVB-DS) Operations

Course Description:

The GENview Billing Data Server (GVB-DS) is the network management system for the C20 on GENiUS Communication Server. The GENview Billing Data Server Operations course covers the operations, maintenance, administration, and troubleshooting of the GVB-DS. This course also covers CBMg applications support and configuration (including billing) for the Communication Server.

Intended Audience:

Those responsible for supporting network element support applications as well as billing in the C20 on GENiUS environment.

Key Topics:

- GVB-DS purpose
- GVB-DS hardware
- GVB-DS software
- GVB-DS user interface
- GVB-DS maintenance and administration
- GVB-DS fault management
- GVB-DS high speed logs
- GVB-DS file transfer
- GVB-DS operational measurements
- GVB-DS applications
- GVB-DS billing interface
- GVB-DS billing configuration
- GVB-DS billing records
- GVB-DS billing fault analysis

Objectives:

Upon completion of this course, you will be able to:

- Describe the purpose and function of the GVB-DS on GENiUS.
- Describe applications of the CBMg
- Define the GVB-DS hardware & software platform.
- Identify the ways to log in to the CBMg, NDM, and Core.
- Maintain user IDs for the GVB-DS and CBMg.
- Identify methods of file transfer.
- Transfer files to the GVB-DS and the Core.
- Perform CBMg applications manual patching.
- Configure log collection and delivery from the CBMg.
- Configure operational measurements collection and transfer.
- Configure the billing application.
- Search and view billing records using amadump.
- Analyze billing faults.

Prerequisite Skills:

Basic Knowledge of UNIX operations.

Prerequisite Courses:

GEN10 or GEN11 or C20RMS10 or C20RMS11 C20 - Solution Fundamentals

Course Length and Delivery Method:

3 Days Leader Led

(IEMS15) C20 - Integrated Element Manager System (IEMS) Operations

Course Description:

Integrated Element Manager System (Integrated EMS) Operations covers basic Integrated EMS operations including alarms, logs, performance management, launching applications, administration, and topology management. It also covers topics related to system administration and management of the IEMS network management system. Lab exercises help to reinforce the course topics.

Intended Audience:

Personnel responsible for supporting network elements and managers in the Carrier Voice over IP environment.

Key Topics:

- Overview
- Hardware and Software
- Clients
- Alarms and Logs
- Performance Management
- Application Launching
- Topology Management
- Administration

Objectives:

Upon completion of this course, you will be able to understand and interpret:

- The Integrated EMS Application and its functionality
- Both the Integrated EMS JWS and Web based clients
- Alarms, events, and logs
- How to configure the collection of and viewing performance data for network elements
- How to launch CLI and GUI based applications for accessing network elements
- How to perform topology management operations on the Integrated EMS
- How to perform administrative tasks in support of the Integrated EMS application and environment

Prerequisite Skills:

None

Prerequisite Courses:

None

Course Length and Delivery Method: - 2 Day Self-Paced

(GVM15) – GENView Manager Operations

Course Description:

The GENView Manager (GVM) Operations course covers the usage of the GVM application for working with alarms, logs, performance management, launching applications, administration, and topology management. It also covers topics related to system administration and management of the network. Lab exercises help to reinforce the course topics. The course is currently based on software release 19 GVM 4.0.

Intended Audience:

Personnel responsible for supporting network elements and managers in the Carrier Voice over IP environment.

Key Topics:

- Lesson 1: GVM Purpose
- Lesson 2: GVM Platform
- Lesson 3: GVM User Interfaces
- Lesson 4: GVM Fault Management
- Lesson 5: GVM Performance Management
- Lesson 6: GVM Application Launching
- Lesson 7: GVM Inventory Management
- Lesson 8: GVM Maintenance
- Lesson 9: GVM Security
- Lesson 10: GVM Administration

Objectives:

Upon completion of this course, you will be able to understand and perform as follows:

- Understand the architecture of the GENView application
- Understand the GENView Manager Platform
- Login and navigate the GENView Manager clients
- Utilize GENView Manager for managing faults
- Create and manage performance jobs
- Launch element management systems and command lines
- Manage the GENView Manager Inventory
- Perform maintenance actions on network elements
- Understand the GENView Security (GSEC) application
- Perform Administrative actions on the GENView Manager application

Prerequisite Skills: - None

Prerequisite Courses:

GEN10 or GEN11 or C20RMS10 or C20RMS11 - C20 - Solution Fundamentals

Course Length and Delivery Method:

2 Day Leader Led

(CALLP26) C20 on GENiUS/C20 on RMS - Advanced Call Processing Tools

Course Description:

This course introduces Tools for customers to use to capture Signaling Protocol messaging involved in Call Processing for Call Session Control. This course will focus on SIP based call scenarios based on GENBAND Application Server lines, Session Server Trunks and the C20 Call Session Controller deployed within the C20 on GENiUS and C20 on RMS platforms. In addition, this course will also cover H.248 message capture on the G9 Media gateway.

You will understand the resource relationship between the AS lines and SIP/SIP-T DPT trunks, their associated Gateway Controllers and gateway endpoints definitions.

C20 Call Agent, AS and Session Server Trunk GUI and CLUI/CLI tools are introduced to discover relevant IP addressing, to locate key data and to capture various call flow messages. SIP/SIP-T, GCP and PPVM protocol messages are explored as they relate to captured messages and to the phases of line to line, line to trunk, trunk to trunk call scenarios in a Carrier VoIP environment. Activities are included to reinforce all the concepts introduced in this course.

Intended Audience:

Tier II/III and NOC level engineers responsible for troubleshooting the CVoIP solution.

Key Topics:

Base network topologies, signaling hops, bearer paths and protocols supporting the CVoIP line environments involving the C20 Call Agent, AS and Session Server Trunks gateways.

Access of key data resources across the following components in support of the CVoIP line call environment:

- C20 Call Session Controller
 - SIP-T Trunks GWCs
 - SIP Line GWCs
 - Session Server Trunks
 - Application Server

Tools to capture key data and call messages:

- CallTrak/MSGTRACE/GWTRACE
- GWAdmin
- AS Debug CLUI capture tools
- SST CLUI capture tools
- GWCTRACI

Discussion of protocols supporting SIP line / trunk call environment and the information flow between protocols for the call phases.

Protocols include:

- PPVM - Peripheral Processor Virtual Machine
- GCP - Generic Call Processing
- SIP / SIP-T - Session Initiation Protocol / Session Initiation Protocol-Trunks
- H.248 messages on the G9

Objectives:

Upon completion of this course, you will be able to:

- Describe signaling protocols supporting various call path scenarios within the CVoIP environment supporting AS and the Session Server Trunks (SST).
- Use data gathering tools in the C20 Call Agent and the Gateway Controller to locate connectivity information and other key endpoint data in support of call processing.
- Access and capture key data across the SST gateway, the related GWC and the C20 in support of connectivity and troubleshooting the SIP trunks environment in the CVoIP network.
- Use specific tools to capture and view signaling protocol messages associated with Call Processing on the AS and Session Server Trunks.
- Interpret key fields within SIP and GCP messages captured by trace tools in the AS and SST gateway and associate these messages to the basic phases of a SIP/SIP-T call.
- Access the CallTrak utility in the C20 Call Agent to trace data during active calls with the CallTrak tools MSGTRACE.
- Interpret key fields within PPVM messages captured by the C20 CA CallTrak MSGTRACE tool, and align the PPVM messages with the basic phases of a SIP/SIP-T call.
- Identify and define individual components that define an endpoint and use selected tools to display nodes, terminal identifiers and endpoints.
- Identify how to use CALLTRAK GWTRACE to capture H.248 messages on the G9

Prerequisite Skills:

This course requires students to have the basic fundamental knowledge of the Network Elements taught in this course. Shown are the three major elements. Fundamental knowledge can be obtained from the Prerequisite courses shown below.

- Functional knowledge of the C20 Call Agent
- Functional knowledge of Application Server (AS)
- Functional knowledge of Session Server Trunks

Prerequisite Courses:

C20 on GENiUS Prerequisite courses:

GEN16: C20-GENiUS Operations and Maintenance

SST16: C20 on GENiUS – Session Server Trunks Provisioning and Maintenance

A213: Application Server (AS) C20 Hosted Overview

C20G915: G9 Converged Gateway – Operations, Administration and Maintenance

C20 on RMS Prerequisite courses:

C20RMS16: C20-RMS Operations and Maintenance

SST16: C20 on GENiUS – Session Server Trunks Provisioning and Maintenance

A213: Application Server (AS) C20 Hosted Overview

C20G915: G9 Converged Gateway – Operations, Administration and Maintenance

NOTE: the C20G915 is optional and is not necessary if the customer does not have the G9 in the network.

Course Length and Delivery Method: - 4 Days Leader Led

(UXLA37) C20 Universal Translations

Course Description:

This course provides the students with the key skills to implement the datafill required to support a C20 Universal Translations scheme.

The course is instructor led with a high degree of practical content and student activity.

Intended Audience:

Personnel responsible for the initial datafill and database management of C20 Universal Translations.

Key Topics:

- Centrex Translations overview
- Trunk group tables
- Route tables
- Universal Translations overview
- Universal Translations datafill
- Call Control and Universal Screening datafill\

Objectives:

On successful completion the student will be able to:

- Explain the function of a customer group and datafill customer group tables
- Describe the function of trunk tables and datafill trunk groups
- Describe the function of the route tables and datafill route lists using appropriate selectors
- Describe the function of Universal Translations tables
- Apply Universal Translations to resolve - Line to Trunk - Trunk to Line -Line to Line calls -Trunk to Trunk calls
- Describe screening of CLI's in Universal Translations and the use of White v Black lists.
- Datafill Tables to screen CLI's in Universal Translations
- Datafill Tables to screen calls using Call Control and Universal Screening
- Use TRAVER and TRANSVER to verify correct call routing through translations

Prerequisite Skills:

Knowledge and basic understanding of Centrex Translations is desirable.

Prerequisite Courses:

GEN10 or GEN11 or C20RMS10 or C20RMS11 - C20 - Solution Fundamentals

Course Length and Delivery Method:

5 Days Leader Led

(C310) C3 Signaling Controller Overview

Course Description:

This self-paced overview course provides the basic understanding of the functions and capabilities of the GENBAND C3 Signaling Controller. It provides general information of the configurations and scenarios where the C3 Signaling Controller can be utilized and the services it can provide as Media Gateway Controller, Signaling Gateway and Application Gateway. It describes the hardware, modules and software that enable its operation.

Intended Audience:

This course is purposed for anybody that needs to engage in any discussion related to the GENBAND C3 Signaling Controller. It is the course for business or administrative associates that requires a general understanding of the solution, and is the foundation for those to become technical experts with the equipment.

Key Topics:

- C3 Functions
- C3 Hardware
- C3 Scalability
- C3 Management

Objectives:

Upon successful completion of this course, you will be able to:

- Position Genband C3 in a VoIP network as Application Gateway
- Position Genband C3 in a VoIP network as Signaling Gateway
- Position Genband C3 in a VoIP network as Media Gateway Controller
- Identify the hardware that supports Genband C3 Signaling Controller and its optional modules
- Identify minimum and maximum configuration of a Genband C3 Signaling Controller
- Describe GenView as the Graphical User Interfaces and its functional modules
- Describe the Command Line Interface, the structure of commands and navigation
-

Prerequisite Skills:

Enrollees are also expected to have a basic understanding of switching and networks

Prerequisite Courses:

None

Course Length and Delivery Method

3 hours Self-Paced

(C3G915) – C3 Hosted Converged Gateway – Operation, Administration, Provisioning and Maintenance

Course Description:

The C3G915 – C3 Hosted Converged Gateway - Operation, Administration, Provisioning & Maintenance Course is geared toward Service Personnel, Administrators and Maintenance personnel who require an understanding of the G9 Converged Gateway System when hosted with a C3 call controller. The student is equipped with an understanding of hardware, Operating System as well as software and database for the C3 hosted G9 system.

Note: this course is only required for C3 controller implementations. For C20 controllers and third party controllers, customers should register for the G915 course.

Key Topics:

- Overview of the Element Management System (EMS) Graphical User Interface (GUI)
- System hardware and software on the G9 gateway
- System Administration and applications
- Events and Alarms
- Security
- Performance Management
- Accounting Management
- System Status reporting tools
- Configuration Database
- Trunk Database

Objectives:

- Understanding standard G9 Media Gateway Documentation and usage
- Understanding basic utilization with the Genband C3 Media Gateway Controller
- Understanding the design, navigation and operations of the Genview EMS in conjunction with the C3/G9 products
- Understanding EMS functional areas
- Understanding Ancillary Equipment used in conjunction with the G9 product
- Understand the architecture of the G9 Converged Media Gateway
- Understanding operation and functionality of gateway cards
- G9 call flow examples
- Understanding gateway maintenance
- Discussion of G9 Fault monitor and reporting sub-system
- Security management understanding
- Understanding of performance statistical reports and their operations
- Understanding of G9 status displays and their meaning
- Call trace operations and execution
- Call Detail Record retrieval and understanding
- Create Configuration Database for a variety of interface components
- Create Physical Facilities

Prerequisite Skills:

Enrollees are also expected to have a basic understanding of switching and networks

Prerequisite Courses:

G910 Media Gateway Basic Overview

C310 Media Gateway Controller Basic Overview

Course Length and Delivery Method

5-days, Leader Led

(C335) Signaling Controller – Basic Translations

Course Description:

This 5-day Leader-Led C335 Signaling Controller Basic Translations Course is designed to teach students basic skills needed to create translations that are used to process line-to-line, line-to-trunk, and trunk-to-line calls. You will have hands-on practice creating the information necessary to process these call types.

Key Topics:

- Central office call translations
- Call routing hierarchy
- Table routing
- Operational characteristics
- Genview EMS
- Documentation
- Types of Groups
- Digit fences
- Translators
- Country and city codes
- Routes
- Trunk termination

Objectives:

After completing the C335 course a participant should be able to:

- Understand the layout, entry and configuration for Complex Central office call translations
- Have a Basic understanding of Call Routing hierarchy
- Understand supporting tables, parameters, variations and call flows
- Understand the Operational Characteristics for,
 - Customer Groups
 - Trunk groups
 - Prefix Translations
 - Digit Fence
 - Call Screening
 - National translation
 - International Country code and City Cod
 - Originator Routing, Originator Route modifier, Operator Route Modifier, Emergency Route Modifier
 - Route List
 - Call treatment
 - Trunking tables
- Identify the Genview EMS Architecture
- Launch Genview EMS
- Navigate the GENVIEW EMS functional areas in relationship to translations
- Access documentation
- Locate Specific documentation
- Identify different groups

- Identify customer group, trunk group, prefix group pointers and Subscriber group pointers
- Identify a Trunk group
- Identify the significant fields of a trunk group
- Define a customer group
- Find where the customer data is located
- Identify trunk type features
- Define the purpose of a prefix group
- Locate the prefix group
- Locate the prefix tree
- Define a digit fence
- Define digit fence properties
- Identify the purpose of a National translator
- Identify the fields in national translations
- Identify country codes
- Identify city codes
- Identify the purpose of call screening
- Understand Origination Based Routing
- Identify the function of Route Descriptors
- Identify the purpose of Route modifiers
- Identify the function of Route list
- Understand Trunk termination options

Prerequisite Courses:

C310 Media Gateway Controller Basic Overview

Course Length and Delivery Method

5 Day – Leader Led

(C1510) C15 Product Overview and Fundamentals

Course Description:

The purpose of this course is to provide the learner with a comprehensive overview of the C15 system including how the C15 fits into the network. Other topics include the C15 hardware architecture, input/output system, password security, documentation, as well as the available services and features. Instructions are provided for using the C15 documentation and communicating with the C15 via the Command Line Interface (CLI) and Graphical User Interface (GUI).

Intended Audience:

This course is intended for anyone needing a general overview of the GENBAND C15 product.

Key Topics:

- C15 Hardware Overview
- C15 Documentation
- C15 Features and Services
- Basic Input/output
- Password Security
- VoIP – SIP Gateway and Gateway Line
- Vendor Hardware

Objectives:

Upon completion of this course, you will be able to:

- Describe the C15 hardware architecture
- Use the C15 documentation
- List features and services available on the C15
- Describe vendor hardware used in the C15
- Perform basic input/output on the C15
- Access the Graphical User Interface (GUI), and perform basic tasks
- Configure C15 password security options
- Configure VoIP - SIP subscriber lines on the C15

Prerequisite Skills:

None

Prerequisite Courses:

None

Course Length and Delivery Method:

1 Day Leader Led

(C1511) C15 Product Overview and Fundamentals

Course Description:

The purpose of this course is to provide the learner with a comprehensive overview of the C15 system including how the C15 fits into the network. Other topics include the C15 hardware architecture, input/output system, password security, documentation, as well as the available services and features. Instructions are provided for using the C15 documentation and communicating with the C15 via the Command Line Interface (CLI) and Graphical User Interface (GUI).

Intended Audience:

This course is intended for anyone needing a general overview of the GENBAND C15 product.

Key Topics:

- C15 Hardware Overview
- C15 Documentation
- C15 Features and Services
- Basic Input/output
- Password Security
- VoIP – SIP Gateway and Gateway Line
- Vendor Hardware

Objectives:

Upon completion of this course, you will be able to:

- Describe the C15 hardware architecture
- Use the C15 documentation
- List features and services available on the C15
- Describe vendor hardware used in the C15
- Perform basic input/output on the C15
- Access the Graphical User Interface (GUI), and perform basic tasks
- Configure C15 password security options
- Configure VoIP - SIP subscriber lines on the C15

Prerequisite Skills:

None

Prerequisite Courses:

None

Course Length and Delivery Method:

1 Day Self-Paced

(C1520) C15 Line Administration

Course Description:

The purpose of this course is for the student to learn the process for configuring subscriber lines, as well as basic information for configuring VoIP phones. Topics include logging into the C15, loading programs and entering commands, using the documentation, and interpreting output messages. Instructions will be provided for using both the Graphical User Interface (GUI), and the Command Line Interface (CLI).

Intended Audience:

This course is intended for anyone responsible for performing administrative tasks on subscriber lines in the C15.

Key Topics:

- C15 Service Order Procedures (SOPs)
- C15 Station Options
- Graphical User Interface
- Station Profiles
- Directory Number Hunt Groups
- Voice Mail
- Lines
- Gateways and Gateway Lines
- Stations

Objectives:

Upon completion of this course, you will be able to:

- Configure subscriber lines in the C15
- List the station options available to subscribers in the C15
- Use Service Order Procedures (SOPs) to perform data modifications in the C15
- Use the C15 Command Line Interface (CLI) to configure subscriber lines
- Configure VoIP phones for use with the C15
- Use the C15 Graphical User Interface (GUI) to configure subscriber lines

Prerequisite Skills:

None

Prerequisite Courses:

None

Course Length and Delivery Method:

2 Day Leader Led or 1 Day Self-Paced

(C1521) C15 Business VoIP Configuration and Provisioning

Course Description:

The purpose of this course is to introduce the student to C15 Enhanced Business Services and Centrex EBS and IBS. Students will create EBS groups and lines, configure services on IP Phones. Students will also learn about APMAX, SAC and MADN.

Intended Audience:

This course is designed for those who need to have a better understanding of Enhanced Business Services (EBS) or Centrex on C15.

Key Topics:

- C15 Hosted services overview
- SIP Attendant Console and ACD features
- Service Bundles
- Centrex – Enhanced Business Services (EBS)
- Centrex – Integrated Business Services (IBS)
- APMAX Automated Configuration Services (ACS)
- C15 Service Order Procedures (SOP)

Objectives:

Upon completion of this course, you will be able to:

- Understand Enhanced Business Services (EBS) on the C15
- Create an EBS Group and Lines
- Configure SIP Phones via APMAX Automated Configuration Service (ASC)
- Create a Multiple Appearance Directory Number (MADN)
- Create C15 SIP Lines using the C15 GUI
- Understand how a SIP Attendant Console (SAC) is configured

Prerequisite Skills:

None

Prerequisite Courses:

None

Course Length and Delivery Method:

3 Days Leader Led

(C1515) C15 Operations, Maintenance and Fault Management

Course Description:

The purpose of this course is to provide the learner with the skills required to perform maintenance activities on the C15 system. Topics include the Core Controllers, IP Switching Fabric, SIP Lines, SIP Trunks, CCS7, AIN, and LNP. The lab exercises equip the learner to conduct maintenance activities and perform troubleshooting procedures.

Intended Audience:

This course is intended for anyone responsible for performing maintenance on the C15.

Key Topics:

- Troubleshooting
- Routine Maintenance
- Replace Core Controller
- Replace Port Controller
- System Initialization
- System Reload
- Alarm Indicators
- Gateways and Gateway Lines – Configure
- Gateways and Gateway Lines – Troubleshoot registration issues
- C15 Call History Recording Server

Objectives:

Upon completion of this course, you will be able to:

- Use appropriate documentation and trouble-shooting techniques to clear faults in a C15 office
- Verify the Ethernet physical layer connections between C15 components, including cable color coding
- Identify cables connecting from the Rear Transition Modules (RTMs) to Time Division Multiplex (TDM) equipment
- Troubleshoot problems with configuring VoIP lines
- Configure alarm indicators in a C15 office, which requires making configuration changes in the NetGuardian and in the C15
- Replace Core Controllers and Port Controllers, both Copper and Optical
- Add DS1 spans and Trunks including returning to service
- Use Translations Verification (TRVR) to troubleshoot basic call issues
- Launch queries to databases on the CCS7 network
- Use the Call History Recording Server to access C15 call history files.

Prerequisite Skills: - None

Prerequisite Courses:

C1510 C15 Product Overview and Fundamentals Leader Led **or** C1511 C15 Product Overview and Fundamentals Self-Paced

Course Length and Delivery Method:

5 Day Leader Led

(C1535) C15 Translations

Course Description:

The purpose of this course is to for the student to learn the fundamental aspects of C15 translations, including tracing calls and modifying office data. This course includes lecture and hands-on activities. The hands-on activities include, configuring VoIP phones, making changes in translations data, performing Translations Verification (TRVR), and making test calls to confirm the changes.

Digit translations is the process of taking any set of arbitrary dialed digits and defining a call process path to either a working line or a route. This course is designed to take the student through the C15 data blocks and translators required for digit translations.

Intended Audience:

This course is intended for anyone responsible for performing translations on the C15.

Key Topics:

- C15 Call Processing
- Prefix, Address, and Screening Translators
- Data Blocks
- Translations Verification (TRVR)
- Equal Access
- Local Number Portability
- Centrex – Business Applications
- ISDN Primary Rate Interface (PRI)

Objectives:

Upon completion of this course, you will be able to:

- Use the Command Line Interface (CLI) and appropriate documentation to query, add, and modify the data blocks and translators in the C15
- Configure Gateways and Gateway Lines in the C15
- Modify translators to support CLASS features
- Add an Equal Access carrier
- Port numbers in and out of a C15 office
- Add a Directory Number Hunt (DNH) group
- Add a Centrex business group
- Modify translators to support Centrex features
- Setup a Primary Rate Interface (PRI) Line Trunk Group (LTG)

Prerequisite Skills: - None

Prerequisite Courses:

C1510 C15 Product Overview and Fundamentals Leader Led **or** C1511 C15 Product Overview and Fundamentals Self-Paced

Course Length and Delivery Method:

5 Day Leader Led

EDGEWATER EdgeMarc Training

Course Description:

Training for Edgewater EdgeMarc devices

Training for EdgeMarc devices is provided by Edgewater Networks. To register for training related to EdgeMarc devices, please contact your GENBAND Account Representative for assistance.

Course Length and Delivery Method:

1 Day Leader Led

(IMS10) IMS Technical Overview (GENBAND Products/Solutions)

Course Description:

The IMS10 is a one day leader led GENBAND IP Multimedia Subsystem (IMS) Technical Overview course. Each component will be discussed to show its role in the solution. Component hardware and user interfaces will also be discussed.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the GENBAND IMS solution. It is a pre-requisite course for advanced courses in the curriculum. This course was designed for both technical and managerial personnel.

Key Topics:

Overview of GENBAND IMS Technical Overview components:

- IMS – The vision
- IMS Generic Architecture (refresher)
- GENBAND IMS Solution Elements/Architecture
- Application Server (AS)
- IMS C20 AGCF/MGCF
- SBC, P-CSCF
- IMS C20/G9
- C3 MGCF/MRFC
- G5 Media Gateway
- G6 Media Gateway
- G9 Media Gateway
- DSC
- Associated UI's (Element Management Systems/Command Line Interfaces)

Objectives:

- Understand IMS and the generic architecture
- Identify the GENBAND IMS Solution elements
- identify and understand the hardware and software strategy for GENBAND products within the IMS solution for the following;
 - Describe and understand the Application Server
 - Understand the function of the IMS C20 as a AGCF/MGCF
 - Understand the function of the SBC as a P-CSCF
 - Describe and understand the inter-relation of the IMS C20/G9
 - Understand the function of the C3 as a MGCF/MRFC
 - Understand the functions of the G5, G6 and G9 Media Gateways
 - Understand the function of the DSC
- View and identify the associated management User Interfaces

Course Length and Delivery Method

1 Day Leader led

(IPX15) – GENBAND IPX Solution – Operation, Administration and Maintenance

Course Description:

The IPX15 is a 5-day, Leader Led, Solution and elements - Operation, Administration & Maintenance Course that is geared toward Service Personnel, Administrators and Maintenance personnel who require an understanding of the IPX Solution as offered by GENBAND deployed with a GENBAND S3, C3, G9 and the optional NetNumber TITAN Call Routing Engine. The student is equipped with an understanding of the GENBAND hardware elements as used in the solution includes a high level overview of the role of TITAN Call Routing Engine.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the Design, Architecture, Features and Capabilities of the IPX solution as offered by GENBAND.

Key Topics:

- Overview of the IPX Solution as deployed by GENBAND
- System hardware and basic configuration on the C3 and G9
- Basic Operations and troubleshooting on the C3 G9
- System hardware and basic configuration on the S3
- Basic Operations and troubleshooting on the S3
- Basic solution call flow scenarios
- System Events and Alarm management

Objectives:

In this course, you will learn how to:

- Describe the GENBAND IPX Solution Overview and the C3/ G9/ SBC / CRE interworking.
- Define basic SBC / C3 / G9 configuration
- Describe basic call flows and the role of a Call Routing Engine (CRE).
- Demonstrate calls using SIPp and utilising C3 G9 SBC.
- Examine Logs, CDRs and Reporting procedures

Prerequisite Skills:

Enrollees are also expected to have a basic understanding of switching and networks

Prerequisite Courses:

SBC10 - GENBAND S3 Basic Overview

G910 Media Gateway Basic Overview

C310 Media Gateway Controller Basic Overview

Course Length and Delivery Method

5 Day Leader led

(C2018) C20 & CS2000 Transition to GVM 2.0

Course Description:

The *C20 & CS2000 Transition to GVM release 2.0* course covers the changes made when the Oracle/Sun based servers are migrated to either the GENiUS NDM blade for C20 or to the IA-RMS chassis for CS2000. Management differences and hardware differences are covered as well as a comparison of how management tasks were done before as to how tasks are done now.

The students are presented with structured hands-in exercises to practice the new commands and Navigating the new Graphical User Interfaces (GUIs)

Intended Audience:

This course is intended for Central Office technicians with CS2000 or C20 experience up to release CVM16 or 17 who need to understand the changes in GVM 2.0 where the physical servers are migrated to applications.

Topics:

- Transition changes
- Genware management commands
- IA-RMS chassis & GENiUS chassis based GVM
- Comparison of Sun based application commands vs. Genware application commands.
Differences of:
 - IEMS to GVM
 - CEM with own IP address
 - Security Server to GSEC
 - CMT to CMTg
 - CBM to CBMg
 - OAM Application Launcher

Lessons:

- GVM 2.0 Transition for C20 & CS2K Overview
- IA-RMS
- GENWare Interface
- Comparison of Tasks
- New GUIs

Objectives:

Upon completion of this course, you will be able to:

- Identify the changes required for transition from CVM16 or 17 to R18 on GVM.
- Identify the Fault Management changes in the transition to GVM
- Identify the Performance Management changes in the transition to GVM
- Identify the Billing Delivery changes in the transition to GVM
- Identify the access changes in the transition to GVM
- Identify the Provisioning changes in the transition to GVM
- Identify Trap changes to the Northbound feed in the transition to GVM
- Describe software of the IA-RMS.
- Describe the hardware of the IA-RMS.
- Identify characteristics of the front and back panels.
- Describe the methods of access using the IA-RMS.
- Identify the layers of software
- Describe GENWare Service Groups and Service Units
- Navigate Hardware and Software commands

- Identify backup and restore commands
- Navigate the Application Inventory Management (AIM) CLI commands
- Navigate disk maintenance commands
- Application status, swacting, and stopping
- Hard Disk Replacement
- Replacing IA-RMS units & NDM blades
- Accessing and configuring cbmg and cmtg applications
- On GSEC, Manage:
 - Security policies
 - RADIUS clients
 - Users
 - Role permissions
- Navigate the GVM Web Start Client and the HTML Web Client
- Navigate the Core Element Manager (CEM)

Pre-requisite Skills:

An understanding of CS2000 or C20 management at CVM17 or earlier.

Prerequisite Courses:

None

Course Length and Delivery Method

3 days, Leader Led