

(G210) Compact Gateway – Basic Overview

Course Description:

The G210 Compact Gateway Basic Overview, which is 3 hours in length, will provide the student with a high level understanding of the G2's Basic Hardware, Provisioning, Alarms, Events and the Packet Line Gateway. The course is divided into three lessons. Each lesson contains a quiz to determine if the user needs to review any information. At the completion of the course, a final test is presented. The user must achieve an 85% on the final test to pass the course. The G210 Basic Overview is the pre-requisite to all future G2 classes.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the Design, Architecture, Features and Capabilities of the GENBAND G210 Compact Gateway Product

Key Topics:

Hardware

- Hardware Specification
- Modules
- Ports & Connectors
- Redundancy

Basic Provisioning & Alarms

- Basic Provisioning
- Command Line Interface (CLI)
- Element Management System (EMS)
- Alarm & Events

Packet Line Gateway (PLG)

- Digital Line Unit (DLU)
- CLI Command Details
- DLU Provisioning
- Add DLU Portmap
- Activate DCC & RGMG Equipment
- Download SASC Software
- Element Management System (EMS)
- EMS Provisioning Prerequisites
- DLU Provisioning Procedures
- Emergency Services Module (ESM)

Prerequisite Skills:

- Basic Windows skills
- Basic telephony knowledge

Prerequisite Courses: - None

Course Length and Delivery Method 3 Hours Self-Paced

(G215) Compact Gateway Operations, Administration and Maintenance

Course Description:

This 2-day Leader Led G215 Compact Gateway - Operations, Administration and Maintenance course provides the skills required to perform operational, maintenance, and provisioning tasks on the G2, either via the command line interface (CLI) or GENView.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the Design, Architecture, Features and Capabilities of the GENBAND G2 Compact Gateway Product.

Objectives:

- Understand Cooling Maintenance
- Understand Cable Management
- Understand Basic Gateway Provisioning
- Understand Basic Provisioning via the CLI
- Understand Running Diagnostics
- Understand Loopback and continuity
- Understand Sigtrace and PM CLI Commands
- Understand Troubleshooting Overview
- Understand Troubleshooting with GENView
- Understand Troubleshooting Faults
- Understand GPON Application
- Understand Jitter Tuning
- Understand Card Maintenance
- Understand Customer Support
- Understand NSA Upgrade

Prerequisite Skills:

- Basic Understanding of TDM or IP Theory
- Basic Unix or Linux commands.

Prerequisite Courses:

G210 Overview

Course Length and Delivery Method

2 Day Leader led

(G5SE10) G5 SIP ESA

Course Description:

The G5SE10 SIP ESA is a half day, Self-Paced, G5 SIP ESA course that is geared toward Service Personnel, Administrators and Maintenance personnel who require an understanding of the G5 SIP ESA.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the GENBAND G5 SIP ESA.

Key Topics:

- Identify the differences between G5 SIP ESA and G5 SIP Monitor
- Access and log into the G5 SIP GENBAND Compact Server
- Navigate the G5 SIP ESA View functional areas
- Navigate the G5 SIP ESA Configure functional areas
- Navigate the G5 SIP ESA Update functional areas
- Navigate the G5 SIP ESA Support functional areas

Objectives:

- Identify the purpose and modes of the G5 SIP ESA
- Identify the Hardware components of the GENBAND Compact Server
- Access the G5 SIP ESA GUI and CLI
- Identify the key G5 SIP ESA GUI commands
- Basic Provisioning
- Software Update
- Backup and Restore

Course Length and Delivery Method

Half day Self-Paced

(G515) Line Access Gateway

Course Description:

This 2-day Leader Led G515 Line Access Gateway course provides the skills required to deploy the G5 Line Access Gateway by understanding the physical connections and interfaces. It also will discuss how the features of the G5 Line Access Gateway will fit in the network.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the Design, Architecture, Features and Capabilities of the G5 Line Access Gateway.

Objectives:

- Understand the benefits of deploying the G5 Line Access Gateway
- Understand the physical connections and interfaces on the system
- Understand the features of the G5 Line Access Gateway and how it fits in the network
- Understand how to connect a PC to the G5 Line Access Gateway
- Understand how to access the TL1 Interface
- Understand how to access the Web Interface
- Learn how to do basic provisioning on the G5 Line Access Gateway
- Learn how to monitor and troubleshoot the G5 Line Access Gateway

Prerequisite Skills:

- Basic Understanding of TDM or IP Theory
- Basic Unix or Linux commands.

Prerequisite Courses:

N/A

Course Length and Delivery Method

2 Day Leader led

(G610) – Universal Media Gateway Basic Overview

Course Description:

The G610 Universal Media Gateway Basic Overview, which is 4 hours in length, will provide the student with a high level understanding of the G6's Basic Hardware, Provisioning, Alarms, Events and the Packet Line Gateway. The course is divided into six lessons. Each lesson contains a quiz to determine if the user needs to review any information. At the completion of the course, a final test is presented. The user must achieve an 85% on the final test to pass the course. The G610 Basic Overview is the pre-requisite to the G6 classes.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the Design, Architecture, Features and Capabilities of the GENBAND G6 Universal Media Gateway Product

Key Topics:

Product Architecture

- Carrier Class Chassis Design
- Carrier Class Redundancy
- Carrier Class System Architecture
- Carrier Class Central Office Design
- Access Gateway Functionality
- Low – High Scalability
- Universal Media Gateway Interfaces
- Anatomy of a G6 – The Midplane

Module Types

- System Controller Module (SCM)
- SCM2
- SCM1 & SCM2 Comparison
- Access to Network Module (ANM)
- GbE1 ANM
- GbE2 ANM
- GbE ANM – IP Capabilities
- GbE2 LACP Implementation
- Link Aggregation Modules
- OC3 / STM-1 and DS3 Cards
- Telephony Port Modules (TPM)
- TPM Functions
- SCM1 & STS-1 / chDS3 TPM
- SCM2 & STS-2 / chDS3 TPM
- Module Redundancy

Platform Enabling Multiple Solutions

- Class 5 Voice over Broadband
- Trunking Media Gateway
- Reverse Media Gateway
- Wide Array of Internetworking
- Interoperability
- Security Summary
- Release 10.2 Security Feature Enhancements

GENView EMS Manager

- System Integration & Network Elements
- Advanced Client / Server Framework
- G6 Management – CLI
- GENView Benefits
- Fault Management
- Configuration Management
- Performance Management
- Security Management
- GENView Server Recommendation
- GENView Solaris Workstation Recommendation
- GENView Windows Workstation Recommendation

Maintenance

- SCM LEDs
- ANM LEDs
- DS3 LEDs
- OC3 / STM-1 and Gbe ANM LEDs
- ANM CIM LEDs
- T1 / E1 TPM LEDs
- Differentiating Between a TPM1 & a TPM2
- T1 / E1 TPM CIM
- TPM Redundancy
- STS-1 TPM
- Fan Control Module
- Power Source
- BITS or Composite Clock Installation

Cabling

- SCM Craft Port Connector
- DS3 ANM connectors
- OC3 / STM-1 ANM connectors
- GbE ANM connectors
- TPM T1 Connector / Pin outs
- STS-1 TPM Connectors
- E1 TPM Connectors

Prerequisite Skills:

Basic Windows Skills

Basic Telephony Knowledge

Prerequisite Courses:

None

Course Length and Delivery Method

4 hours Self-Paced

(G616) Universal Media Gateway Operations, Administration and Maintenance for Packet Line Gateway and Trunk Gateway

Course Description:

The G616 is a 3-day, Leader Led, G6 Universal Gateway - Operation, Administration & Maintenance for Packet Line and Trunk Gateway Course that describes and illustrates the ability of the G6 to function as a Packet Line Gateway to support physical and logical interfaces for the G5 Line Access Gateway and Access Bridging Interface for legacy GENBAND XPM migration. This course will also address the capability of the G6 Universal Gateway to function as a Trunk Gateway in support of ISUP, PRI and CAS trunk circuits. The student is equipped with an understanding of the G6 Hardware, H.248 Softswitch Interface Virtual Media Gateway, Interface Groups, Fault Management, Security, Performance and C20 Call Session Controller and Gateway Controller associations to support the Packet Line Gateway (PLG) and Trunk Gateway (TGW) applications defined on the G6.

Intended Audience:

This course is intended for Service Personnel, Administrators and Maintenance personnel who require an understanding of the G6 Universal Gateway deployed with GENBAND C20 Converged Softswitch that provides the G6 Gateway Call Control.

Important Note: This course is based on G6 Universal Gateway deployment with the GENBAND C20 Softswitch. Customers deploying the G6 without a C20 should not attend this course; they should attend the G615 Course.

Key Topics:

- G6 Universal Gateway Command Line Interface (CLI) and Element Management System (EMS) to manage and maintain G6 operations
- System hardware and configuration on the G6 Universal Gateway
- Description and illustration of the Interface Groups for PLG and TGW
- C20 Call Session Controller associations to support G6 PLG and TGW functions
- G6 Events and Alarms
- Emergency Service Module (ESM) and Emergency Stand Alone (ESA) capability
- G6 Maintenance and Testing capabilities

Objectives:

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

- Provide an Overview of the GENBAND C20 Solution to support G6 Packet Line Gateway (PLG) and Trunk Gateway (TGW) applications
- Identify and describe the G6 Gateway hardware and protection schemes
- Describe the navigation and operations of the G6 Command Line Interface (CLI)
- Describe the navigation and operations of the G6 GenView Element Management System (EMS)
- Describe the operation and function of the G6 H.248 Softswitch Interface (SSI) Virtual Media Gateway (VMG) to support Call Control signaling in support of Packet Line Gateway (PLG) and Trunk Gateway (TGW) functionality on the G6 Gateway

- Describe the operation and function of GR-303 Interface Groups (IG) to support the G6 PLG application to support the G5 Line Access Gateway
- Describe the operation and function of ABI Interface Groups (IG) to support the G6 PLG application to support the legacy GENBAND XPM via Access Bridging Interfaces (ABI)
- Describe the Trunk Gateway (TGW) functionality of the G6 Universal Gateway to support Interface Groups (IG); CCS for ISUP or PRI, CAS for CAS-R1.
- Identify Gateway Controller (GWC) profiles to support G6 PLG and TGW
- Identify C20 Tables used in conjunction for PLG and TGW applications
- Describe the Emergency Service Modules and Emergency Stand Alone capabilities of the G6 Gateway
- Discussion of G6 Alarm and Event monitoring for Fault clearing
- Understanding G6 Universal Gateway maintenance and testing capabilities
- Understanding of G6 and EMS Security management
- Understanding of performance statistical reports and their operations

Prerequisite Courses:

N/A

Course Length and Delivery Method

3-day, Leader Led

(G910) Media Gateway – Basic Overview

Course Description:

The G910 Media Gateway Basic Overview, which is 4 hours in length, is intended as an overview to the G9 product line, architecture, features, capabilities and physical equipment for the G9 in both Class 4 and Class 5 offices. It is divided into five lessons which provide a basic understanding of the components that make up the G9 Media Gateway. After completion of the CBT, a final test is presented. The user must achieve an 85% score or better to achieve a passing grade and credit for completing this course. The user must have a passing grade to enroll in any other G9 courses.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the Design, Architecture, Features and Capabilities of the GENBAND G9 Media Gateway Product

Key Topics:

Hardware

- Provides a basic understanding of the Chassis Design
- Provides a basic understanding of the Chassis Cooling
- Provides a basic understanding of the Card Layout
- Provides a basic understanding of the Front Panel
- Provides a basic understanding of the Rear Panel
- Provides a basic understanding of the Shelf Interface Unit
- Provides a basic understanding of the G9 Gateway Architecture

Media Gateway Technology

- Provides a System Level Overview
- Provides a Product Level Overview
- Provide a basic understanding of the G9 Media Gateway
- Provide a basic understanding of the G9 Media Gateway Supported Applications
- Provide a basic understanding of the Management of the G9 Media Gateway
- Provide a basic understanding of the Control of the G9 Media Gateway
- Provide a basic understanding of the Signaling Gateway Functionalit

Signaling Protocols

- Provides an overview of the Wireless Protocols
- Provides an overview of the Wireline Protocols
- Provides an overview of the IP Protocols
- Provides an overview of the Control Protocols
- Provides an overview of the Management Protocols

- Provides an overview of the Signaling Gateway Protocols

Traffic Flow

- Provides a understanding of the wireline voice Traffic Path
- Provides a understanding of the TDM Traffic
- Provides a understanding of the Packet Traffic
- Provides a understanding of the Signaling Traffic
- Provides a understanding of the Wireless Traffic

Product Redundancy & Protection

- Provides a basic understanding of the Redundancy Design
- Provides a basic understanding of the Protection Schemes
- Provides a basic understanding of the Card Protection
- Provides a basic understanding of the Interface Protection Schemes

Prerequisite Skills:

Basic understanding of switching and networks

Prerequisite Courses:

None

Course Length and Delivery Method

4 Hours Self-Paced

(C3G915) C3 Media Gateway Controller and G9 Converged Media Gateway – Operation, Administration and Maintenance

Course Description:

The C3G915 is a 5-day, Leader Led - Operation, Administration & Maintenance Course is geared toward Service Personnel, Administrators and Maintenance personnel who require an understanding of the C3G9 Converged Gateway System. The student is equipped with an understanding of hardware, Operating System as well as software, configuration database, and trunking for the C3/G9 system.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the Design, Architecture, Features and Capabilities of the GENBAND C3/G9 Product

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 Day Leader led

C20G915 – G9 Converged Gateway – Operation, Administration and Maintenance

Course Description:

The C20G915 is a 3-day, Leader Led, G9 Converged Gateway - Operation, Administration & Maintenance Course that is geared toward Service Personnel, Administrators and Maintenance personnel who require an understanding of the G9 Converged Gateway deployed with a GENBAND C20 Call Session Controller for Gateway Call Control. The student is equipped with an understanding of the G9 Hardware, Virtual Media Gateway, Fault Management, Security, Performance and C20 Call Session Controller association for Trunk Group application and support.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the Design, Architecture, Features and Capabilities of the GENBAND G9 Converged Gateway Product when deployed with a GENBAND C20 Call Session Controller.

Important Note: Customers that deploy the G9 CMG with the GENBAND C3 Call Session Controller should not attend this course; instead they require the C3G915 Course.

Key Topics:

- Overview of the Element Management System (EMS) Graphical User Interface (GUI)
- System hardware and configuration on the G9 Converged Gateway
- G9, GWC and C20 Trunk Group and Carrier associations
- C20 Call Session Controller associations to support G9 Converged Gateway
- System Administration and applications
- Events and Alarms
- Security
- Performance Management
- System Status reporting tools

Objectives:

- Understanding the design, navigation and operations of the Genview EMS in conjunction with the G9 Converged Gateway
- Understanding G9 Genview EMS functional areas
- Understanding C20 and GWC associations used in conjunction with the G9 Converged Gateway
- Understand the architecture of the G9 Converged Gateway
- Understand Megaco (H.248) Call Control of the G9 Converged Gateway
- Understand G9 Signaling Gateway functionality to support IUA and M3UA backhaul
- Understanding operation and functionality of Interface, Service and Control cards

- Understanding G9 Converged 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

Course Length and Delivery Method

3 Day Leader led

(C20TMG15) – C20/TelcoBridges Media Gateway (TMG) – Essentials and Configuration

Course Description:

The C20TMG is a 3-day, Leader Led, C20/TelcoBridges Media Gateway (TMG) – Essentials and Configuration course that is geared toward Service Personnel, Administrators and Maintenance personnel who require an understanding of the TMG deployed with a GENBAND C20 Call Session Controller for Gateway Call Control. The student is equipped with an understanding of the TMG Hardware, Virtual Media Gateway, Fault Management, Security, Performance and C20 Call Session Controller association for Trunk Group application and support.

Intended Audience:

This course is intended for anyone requiring a basic understanding of the Design, Architecture, Features and Capabilities of the TMG product when deployed with a GENBAND C20 Call Session Controller.

Key Topics:

- Product Overview
- System hardware and configuration on the TMG
- TMG, GWC and C20 Trunk Group and Carrier associations
- C20 Call Session Controller associations to support TMG
- User Interface
- SIP
- TDM
- SS7
- Routing
- Maintenance

Objectives:

- Understanding C20 and GWC associations used in conjunction with the TMG
- Understand the architecture of the TMG
- Understand Megaco (H.248) Call Control of the TMG
- Understanding operation and functionality of Interface, Service and Control cards
- Understanding TMG maintenance

Prerequisite Skills:

Basic understanding of Voice over IP Networks.

Prerequisite Courses:

None

Course Length and Delivery Method:

3 Days Leader Led

(mG36K15) MG3600 Installation Operations and Maintenance

Course Description:

This course will provide the student with an understanding of installation, planning and engineering, provisioning, operations, maintenance and troubleshooting activities needed to support the MG3600 in their network.

Intended Audience:

Anyone responsible for implementing and maintaining the MG3600.

Key Topics:

- Overview
- Installation
- Engineering
- CLI Commands
- EMS
- Trouble Shooting

Objectives:

Upon the completion of this course, the student will be able to perform the following:

- Install and commission the MG3600
- Plan and Engineer the MG3600
- Learn CLI Command structures
- Provision services on the MG3600
- Maintain the MG3600
- Trouble shoot fault scenarios on the MG3600

Prerequisite Skills:

Basic understanding of Voice over IP Networks.

Prerequisite Courses:

C2011- C20 Solution Fundamentals

Course Length and Delivery Method:

2 Days Leader Led

TelcoBridges Gateways – Essentials and Configuration

Course Description:

This course will provide the student with an skills necessary to configure, monitor and maintain the TelcoBridges Tmedia Gateway in their network.

Intended Audience:

Anyone responsible for implementing and maintaining the TelcoBridges Tmedia Gateway

Key Topics:

- Product Overview
- User Interface
- SIP
- TDM
- SS7
- Routing
- TB Analytics
- Maintenance and Accounting
- Roadmap

Objectives:

- Speed-up deployments and lower operational costs by providing the skills needed to efficiently configure, monitor and maintain a TelcoBridges Tmedia VoIP Gateway.
- Focus on a SIP to SS7 configuration while being generic enough to be used for different configurations.

Prerequisite Skills:

Basic understanding of Voice over IP Networks.

Prerequisite Courses:

None

Course Length and Delivery Method:

3 Days Leader Led