



Installation and Upgrades

for the

Avaya™ G700 Media Gateway

controlled by an

Avaya™ S8300 Media Server or an

Avaya™ S8700 Media Server

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Notice

Every effort was made to ensure that the information in this document was complete and accurate at the time of printing. However, information is subject to change.

Preventing Toll Fraud

“Toll fraud” is the unauthorized use of your telecommunications system by an unauthorized party (for example, a person who is not a corporate employee, agent, subcontractor, or is not working on your company’s behalf). Be aware that there may be a risk of toll fraud associated with your system and that, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services.

Avaya Fraud Intervention

If you suspect that you are being victimized by toll fraud and you need technical assistance or support, in the United States and Canada, call the Technical Service Center’s Toll Fraud Intervention Hotline at 1-800-643-2353.

How to Get Help

For additional support telephone numbers, go to the Avaya Web site:

<http://www.avaya.com/support/>

If you are:

- Within the United States, click *Escalation Lists*, which includes escalation phone numbers within the USA.
- Outside the United States, click *Escalation Lists* then click *Global Escalation List*, which includes phone numbers for the regional Centers of Excellence.

Providing Telecommunications Security

Telecommunications security (of voice, data, and/or video communications) is the prevention of any type of intrusion to (that is, either unauthorized or malicious access to or use of) your company’s telecommunications equipment by some party.

Your company’s “telecommunications equipment” includes both this Avaya product and any other voice/data/video equipment that could be accessed via this Avaya product (that is, “networked equipment”).

An “outside party” is anyone who is not a corporate employee, agent, subcontractor, or is not working on your company’s behalf. Whereas, a “malicious party” is anyone (including someone who may be otherwise authorized) who accesses your telecommunications equipment with either malicious or mischievous intent.

Such intrusions may be either to/through synchronous (time-multiplexed and/or circuit-based) or asynchronous (character-, message-, or packet-based) equipment or interfaces for reasons of:

- Utilization (of capabilities special to the accessed equipment)
- Theft (such as, of intellectual property, financial assets, or toll-facility access)
- Eavesdropping (privacy invasions to humans)
- Mischief (troubling, but apparently innocuous, tampering)
- Harm (such as harmful tampering, data loss or alteration, regardless of motive or intent)

Be aware that there may be a risk of unauthorized intrusions associated with your system and/or its networked equipment. Also realize that, if such an intrusion should occur, it could result in a variety of losses to your company (including but not limited to, human/data privacy, intellectual property, material assets, financial resources, labor costs, and/or legal costs).

Responsibility for Your Company’s Telecommunications Security

The final responsibility for securing both this system and its networked equipment rests with you - Avaya’s customer system administrator, your telecommunications peers, and your managers. Base the fulfillment of your responsibility on acquired knowledge and resources from a variety of sources including but not limited to:

- Installation documents
- System administration documents
- Security documents
- Hardware-/software-based security tools
- Shared information between you and your peers
- Telecommunications security experts

To prevent intrusions to your telecommunications equipment, you and your peers should carefully program and configure:

- Your Avaya-provided telecommunications systems and their interfaces
- Your Avaya-provided software applications, as well as their underlying hardware/software platforms and interfaces
- Any other equipment networked to your Avaya products.

Voice Over Internet Protocol (VoIP)

If the equipment supports Voice over Internet Protocol (VoIP) facilities, you may experience certain compromises in performance, reliability and security, even when the equipment performs as warranted. These compromises may become more acute if you fail to follow Avaya’s recommendations for configuration, operation and use of the equipment. YOU ACKNOWLEDGE THAT YOU ARE AWARE OF THESE RISKS AND THAT YOU HAVE DETERMINED THEY ARE ACCEPTABLE FOR YOUR APPLICATION OF THE EQUIPMENT. YOU ALSO ACKNOWLEDGE THAT, UNLESS EXPRESSLY PROVIDED IN ANOTHER AGREEMENT, YOU ARE SOLELY RESPONSIBLE FOR (1) ENSURING THAT YOUR NETWORKS AND SYSTEMS ARE ADEQUATELY SECURED AGAINST UNAUTHORIZED INTRUSION AND (2) BACKING UP YOUR DATA AND FILES.

Standards Compliance

Avaya Inc. is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by Avaya Inc. The correction of interference caused by such unauthorized modifications, substitution or attachment will be the responsibility of the user. Pursuant to Part 15 of the Federal Communications Commission (FCC) Rules, the user is cautioned that changes or modifications not expressly approved by Avaya Inc. could void the user’s authority to operate this equipment.

Product Safety Standards

This product complies with and conforms to the following international Product Safety standards as applicable:

Safety of Information Technology Equipment, IEC 60950, 3rd Edition including all relevant national deviations as listed in Compliance with IEC for Electrical Equipment (IECEE) CB-96A.

Safety of Information Technology Equipment, CAN/CSA-C22.2 No. 60950-00 / UL 60950, 3rd Edition

Safety Requirements for Customer Equipment, ACA Technical Standard (TS) 001 - 1997

One or more of the following Mexican national standards, as applicable: NOM 001 SCFI 1993, NOM SCFI 016 1993, NOM 019 SCFI 1998

The equipment described in this document may contain Class 1 LASER Device(s). These devices comply with the following standards:

EN 60825-1, Edition 1.1, 1998-01
21 CFR 1040.10 and CFR 1040.11.

The LASER devices operate within the following parameters:

- Maximum power output: -5 dBm to -8 dBm
- Center Wavelength: 1310 nm to 1360 nm

Luokan 1 Laserlaite
Klass 1 Laser Apparät

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposures. Contact your Avaya representative for more laser product information.

Electromagnetic Compatibility (EMC) Standards

This product complies with and conforms to the following international EMC standards and all relevant national deviations:

Limits and Methods of Measurement of Radio Interference of Information Technology Equipment, CISPR 22:1997 and EN55022:1998.

Information Technology Equipment – Immunity Characteristics – Limits and Methods of Measurement, CISPR 24:1997 and EN55024:1998, including:

- Electrostatic Discharge (ESD) IEC 61000-4-2
- Radiated Immunity IEC 61000-4-3
- Electrical Fast Transient IEC 61000-4-4
- Lightning Effects IEC 61000-4-5
- Conducted Immunity IEC 61000-4-6
- Mains Frequency Magnetic Field IEC 61000-4-8
- Voltage Dips and Variations IEC 61000-4-11
- Powerline Harmonics IEC 61000-3-2
- Voltage Fluctuations and Flicker IEC 61000-3-3

Federal Communications Commission Statement

Part 15:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Part 68: Answer-Supervision Signaling. Allowing this equipment to be operated in a manner that does not provide proper answer-supervision signaling is in violation of Part 68 rules. This equipment returns answer-supervision signals to the public switched network when:

- answered by the called station,
- answered by the attendant, or
- routed to a recorded announcement that can be administered by the customer premises equipment (CPE) user.

This equipment returns answer-supervision signals on all direct inward dialed (DID) calls forwarded back to the public switched telephone network. Permissible exceptions are:

- A call is unanswered.
- A busy tone is received.
- A reorder tone is received.

Avaya attests that this registered equipment is capable of providing users access to interstate providers of operator services through the use of access codes. Modification of this equipment by call aggregators to block access dialing codes is a violation of the Telephone Operator Consumers Act of 1990.

This equipment complies with Part 68 of the FCC Rules and the requirements adopted by the ACTA. On the rear of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. The digits represented by ## are REN without a decimal point (e.g., 03 is a REN of 0.3). If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs should not exceed 5.0. To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

REN is not required for some types of analog or digital facilities.

Means of Connection

Connection of this equipment to the telephone network is shown in the following table.

Manufacturer's Port Identifier	FIC Code	SOC/REN/A.S. Code	Network Jacks
Ground start CO trunk	02GS2	0.5A	RJ11C
Loop start CO trunk	02LS2	0.5A	RJ11C
DID CO trunk	02RV2-T	AS.2	RJ11C
1.544 Mbit digital interface	04DU9-BN	6.0Y	RJ48C
	04DU9-DN	6.0Y	RJ48C
	04DU9-IKN	6.0Y	RJ48C
	04DU9-ISN	6.0Y	RJ48C
Primary Rate Interface	04DU9-ISN(PRI)	6.0Y	RJ48C
Basic Rate Interface	02IS5	6.0F	RJ49C

If the terminal equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment, for repair or warranty information, please contact the Technical Service Center at 1-800-242-2121 or contact your local Avaya representative. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant.

It is recommended that repairs be performed by Avaya certified technicians.

The equipment cannot be used on public coin phone service provided by the telephone company. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

This equipment, if it uses a telephone receiver, is hearing aid compatible.

Canadian Department of Communications (DOC) Interference Information

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

DECLARATIONS OF CONFORMITY

United States FCC Part 68 Supplier's Declaration of Conformity (SDoC)

Avaya Inc. in the United States of America hereby certifies that the equipment described in this document and bearing a TIA TSB-168 label identification number complies with the FCC's Rules and Regulations 47 CFR Part 68, and the Administrative Council on Terminal Attachments (ACTA) adopted technical criteria.

Avaya further asserts that Avaya handset-equipped terminal equipment described in this document complies with Paragraph 68.316 of the FCC Rules and Regulations defining Hearing Aid Compatibility and is deemed compatible with hearing aids.

Copies of SDoCs signed by the Responsible Party in the U. S. can be obtained by contacting your local sales representative and are available on the following Web site:

<http://www.avaya.com/support> (select "Declarations of Conformity").

All MultiVantage™ system products are compliant with FCC Part 68, but many have been registered with the FCC before the SDoC process was available. A list of all Avaya registered products may be found at:

<http://www.part68.org/>

by conducting a search using "Avaya" as manufacturer.

European Union Declarations of Conformity



Avaya Inc. declares that the equipment specified in this document bearing the "CE" (*Conformité Européenne*) mark conforms to the European Union Radio and Telecommunications Terminal Equipment Directive (1999/5/EC), including the Electromagnetic Compatibility Directive (89/336/EEC, Class B) and Low Voltage Directive (73/23/EEC). This equipment has been certified to meet CTR3 Basic Rate Interface (BRI) and CTR4 Primary Rate Interface (PRI) and subsets thereof in CTR12 and CTR13, as applicable.

Copies of these Declarations of Conformity (DoCs) can be obtained by contacting your local sales representative and are available on the following Web site:

<http://www.avaya.com/support> (select "Declarations of Conformity").

Japan

This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may occur, in which case, the user may be required to take corrective actions.

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをして下さい。

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Write: Globalware Solutions
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Haverhill, MA 01835 USA
Attention: Avaya Account Management

E-mail: totalware@gwsmail.com

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About This Book

This document provides procedures to install, upgrade, or add to an Avaya™ G700 Media Gateway controlled by an Avaya™ S8300 Media Server or an Avaya™ S8700 Media Server to establish initial access to the full range of Avaya MultiVantage™ capabilities. Other documentation describes in detail the components and their functions.

This section tells you how to access more information and how to use the documentation. It lists the standards that have been met and discusses safety and security issues.

The section entitled Getting Started gives a brief description of the G700 Media Gateway with an S8300 or S8700 Web site Media Server.

The section entitled Installing Hardware for the G700 Media Gateway and S8300 Media Server contains information that you need to install the hardware and connect the power for the G700 with the S8300. The sections entitled Configuring a New Installation of a G700 Media Server with a S8300 (Primary Controller or Local Survivable Processor) and Configuring a New Installation of a G700 Media Gateway with an S8700 Primary Controller (No Local Survivable Processor), contain information you need for a new installation of the S8300 or S8700 Media Servers with a G700 Media Gateway. The sections entitled Upgrading a G700 Media Gateway with an S8300 (Either Primary Controller or Local Survivable Processor) and Upgrading an Existing G700 (with an S8700 Primary Controller and No Local Survivable Processor) provide information for upgrading an existing configuration. The section entitled Connecting Telephones and Adjunct Systems provides information on connecting telephones, the IA 770 INTUITY™ AUDIX® Messaging Application, the INTUITY™ LX Messaging System, the ASAI Co-Resident application, the G700 Sourced Announcements, the Avaya VisAbility Management Suite, the Uninterruptible Power Supply (UPS), and Universal Serial Bus (USB) Modems to the G700 with the S8300 or S8700.

Appendix A: Technical Data contains specifications and other technical information that you will need to install an S8300 Media Server with a G700 Media Gateway.

Appendix B: Checklists lists the planning forms and other documents you will need to make an installation.

Appendix C: Equipment List contains information necessary for ordering equipment.

Every effort has been made to ensure that the information in this book was complete and accurate at the time of printing. However, information is subject to change. Consult the Avaya web site to obtain the latest release notes and other information: <http://support.avaya.com>

Conventions used in this book

The following conventions are used in this document.

- Information is applicable for Avaya S8300 or S8700 Media Server with an Avaya G700 Media Gateway unless otherwise specified.
- Physical dimensions in this book are in inches followed by metric units (cm) in parentheses. Wire gauge measurements are in American Wire Gauge (AWG) followed by the cross-sectional area in square millimeters (mm²) in parentheses.

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Where to Call for Technical Support

If you need additional help, the following resources are available. You may need to purchase an extended service agreement to use some of these resources. See your Avaya representative for more information.

Table 1. Technical Support

DEFINITY® Helpline (for help with feature administration and system applications)	+1-800-225-7585
Avaya ITAC Hotline	+1-720-444-9990
Avaya CALA Hotline	+1-786-331-0860
Avaya National Customer Care Center Support Line (for help with maintenance and repair)	+1-800-242-2121
Avaya Toll Fraud Intervention	+1-800-643-2353
Avaya Corporate Security	+1-800-822-9009 +1-925-224-3401
Avaya Centers of Excellence	
North America	1-800-248-1111
Central/Latin America, Caribbean (for dealers only)	Contact your local representative
Bahrain	+973-218-266
Budapest	+36-1238-8334
Moscow	+7095-363-6701
Saumur	+33-241-534-000
UK	+44-1483-308-000
Australia	+612-9352-9151
Hong Kong	+852-3121-6423
Japan	+813-5575-8800
Shanghai	+8621-5459-4590

Trademarks and Service Marks

This document contains references to the following Avaya trademarked products:

- Avaya™ G700 Media Gateway
- Avaya™ S8300 Media Server and Avaya™ S8700 Media Server
- AUDIX®
- Cajun™ and CajunView™
- DEFINITY® and DEFINITY One™
- INTUITY™
- MultiVantage™
- Softconsole
- VisAbility™

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- Windows 95™, 98™, NT™, Millennium Edition™, and Windows 2000™ are trademarks, and Windows® is a registered trademark, of Microsoft® Corporation.
- Windows HyperTerminal™ is a trademark of Microsoft® Corporation.

Admonishments

Admonishments used in this book have the following meanings:

 **CAUTION:**

Indicates the presence of a hazard that will or can cause minor personal injury or property damage if the hazard is not avoided.

 **WARNING:**

Indicates the presence of a hazard that can cause death or severe personal injury if the hazard is not avoided.

 **DANGER:**

Indicates the presence of a hazard which will cause death or severe personal injury if the hazard is not avoided.

 **SECURITY ALERT:**

This sign is used to draw attention to possible toll-fraud issues.

Safety precautions

The intended audience for this manual is trained service personnel. When performing maintenance or translation procedures on the system, installers or maintenance personnel must observe certain precautions. Observe all caution, warning, and danger admonishments to prevent loss of service, possible equipment damage, and possible personal injury. In addition, the following precautions regarding electromagnetic interference (EMI) and static electricity must be observed.

Electromagnetic Interference

This equipment generates, uses, and can radiate radio frequency (RF) energy. Electromagnetic fields radiating from the switch may cause noise in the customer's equipment. If the equipment is not installed and used in accordance with the instruction book, radio interference may result.

 **CAUTION:**

To maintain the EMI integrity of the system, maintenance personnel must ensure that all cabinet panels, covers, and so forth, are firmly secured before leaving the customer's premises.

 **CAUTION:**

When handling any components of an S8300 or S8700 Media Server with a G700 Media Gateway, always wear an anti-static wrist ground strap. Connect the strap to an approved ground such as an unpainted metal surface on the system.

Customer safety responsibilities

The customer has the responsibility to provide the following:

- Properly installed standard 19-inch rack
- Adequate AC power
- Approved grounding
- Sufficient ventilation

1 Getting Started

Introducing the S8300 Media Server with a G700 Media Gateway

The Avaya™ S8300 Media Server with an Avaya™ G700 Media Gateway is part of a family of components that provides data, voice, fax, and messaging services over an IP network. Its standards-based, IP communications infrastructure allows high reliability of critical applications and multi-service networking with feature transparency. The S8300 Media Server with a G700 Media Gateway is able to support a variety of scalable, modular, and distributed configurations. The S8300 Media Server with a G700 Media Gateway will simplify installation and provisioning and reduce overall hardware costs. The S8300 Media Server with a G700 Media Gateway converges the power of Avaya MultiVantage™ software with the power of distributed switching from the Avaya™ P330 line to support stackable, redundant architectures. The S8300 Media Server with a G700 Media Gateway consists of three main elements: the G700 Media Gateway, the S8300 Media Server, and Avaya™ MultiVantage™ software.

Media Gateway

The Media Gateway elements are the Avaya™ G700 Media Gateway, the Media Modules, and the Avaya™ Data Expansion Modules.

Figure 1. Avaya™ G700 Media Gateway: Front View



- | | |
|---|-----------------------------|
| 1 Media Module Slot #1 (v1) | 7 Media Module Slot #3 (v3) |
| 2 S8300 Services Port (used with cross-over ethernet cable) | 8 Media Module Slot #4 (v4) |
| 3 S8300 USB-Series Modem connection | 9 Console Interface |
| 4 Avaya™ Expansion Module slot | |
| 5 10/100 Base-T Ethernet Ports (ext1, ext2) | |
| 6 Media Module Slot #2 (v2) | |

Avaya™ G700 Media Gateway

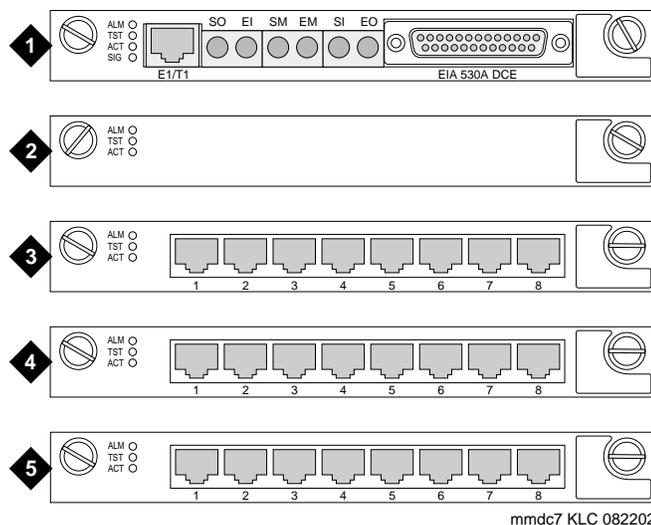
The Avaya™ G700 Media Gateway is a 19-inch, 2u rack-mountable unit modeled after the Avaya™ P330 stackable switching products. A partial list of technical specifications of the G700 Media Gateway appears in [Appendix A: Technical Information](#). You will also find a complete description of the G700 Media Gateway in “*Avaya MultiVantage™ Solutions Hardware Guide, 555-233-200*”.

Media Modules

Media Modules are optional, plug-in circuit assemblies. They provide traditional interfacing of service provider network access solutions (such as T1/E1) and connections to TDM-based endpoints (such as DCP digital phones and analog phones). The Media Modules available are (as shown in [Figure 2](#)):

1. Avaya™ MM710 T1/E1 Media Module
2. Avaya™ MM760 VoIP Media Module for additional VoIP resources
3. Avaya™ MM711 Analog Media Module for connection to 8 analog stations or CO trunks
4. Avaya™ MM712 DCP Media Module for connection to 8 DCP stations
5. Avaya™ MM720 BRI Media Module for connection to 8 ports for international BRI trunks

Figure 2. Media Modules



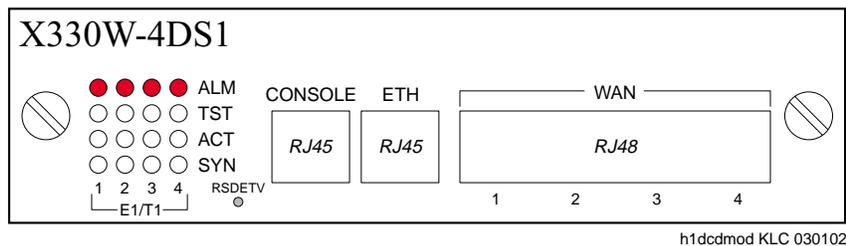
For detailed descriptions of the Media Modules see “*Avaya MultiVantage™ Solutions Hardware Guide, 555-233-200*”.

The Media Modules enable the S8300 Media Server with G700 Media Gateways to host a variety of functions, ranging from IP phones to traditional analog telephony ports. The Media Modules contain trunk or line interfaces and their associated circuitry. Each of the four Media Module slots has access to the 512-time-slot TDM bus, a 10/100 base T port, power (+5V, -48 V phantom) and ground. Each Media Module can be accessed and reset from the G700 Media Gateway Processor (MGP) or from the S8300 Media Server, and its status is indicated by an LED display.

Data Expansion Modules

The G700 Media Gateway can accommodate any of the Avaya™ Data Expansion Modules. With Expansion Modules, customers can add additional LAN and WAN access modules directly to the Avaya G700 Media Gateway.

Figure 3. Avaya™ Expansion Module (example).



Two Avaya expansion modules that the customer may purchase are:

- Avaya™ X330 WAN Access Routing Module
- Avaya™ P330 LAN Expansion Module

The Avaya X330 WAN Access Routing Module

Customers with multiple branch offices need network solutions that are simple, flexible, and scalable. These customers may purchase the Avaya™ X330 WAN Access Routing Module as part of their configuration. This WAN Access Module provides WAN routing to the P330. The Avaya X330 WAN Access Routing Module can be managed by three methods:

- Integrated Web-based management
- Avaya™ MultiService Network Manager
- Command Line Interface (CLI)

The Avaya X330 WAN Access Routing Module provides WAN access that can be used with external firewalls or VPN Gateways.

The Avaya P330 LAN Expansion Module

Another Data Expansion that customers might purchase as part of their network is the Avaya™ P330 LAN Expansion Module. Features of this Data Expansion Module include:

- Maximum flexibility to the data stack
- Standard auto-negotiation
- Link Aggregation Group (LAG)
- LAG redundancy
- Link redundancy
- Congestion control
- 802.1Q/p VLAN priority

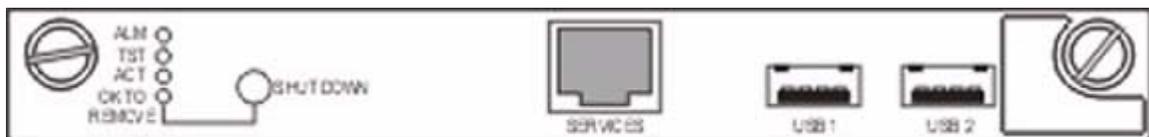
⚠ CAUTION:

Avaya Expansion Modules and Octaplane Stacking Modules are not hot-swappable. The G700 Media Gateway must be turned off before you remove or insert an Expansion Module. If there is an S8300 present that is also turned on, the S8300 should be shut down first, by pressing the Shutdown button until the OK to Remove LED shows a steady light.

Server(s)

In all three characteristic configurations (Small Office, Mid-Sized Office, Remote Office), you will install one or more G700 Media Gateways. These units may be controlled by the S8300 Media Server or by an External Media Server, such as the Avaya™ S8700 Media Server. You may install one or more S8300 Media Servers as Local Survivable Processors (LSP), and you may install the entire range of adjuncts and peripheral equipment supported by MultiVantage™ software.

Figure 4. Avaya™ S8300 Media Server



mvd ckc KLC 020402

Avaya™ S8300 Media Server

The Avaya™ S8300 Media Server is an Intel™ processor complex that mounts in the first Media Module slot (v1) of the G700 Media Gateway. The S8300 Media Server has:

- MultiVantage™ software (For a full description see: <http://www.avaya.com/support>)
- Administration and maintenance provisioning software
- 20 G hard drive
- 256 MB RAM
- Web server
- Linux OS (Redhat)
- Support of H.248 and H.323 Protocols
- TFTP server and other IP services

For a complete description of the S8300 Media Server and its capabilities, see “Access Procedures” in the “Welcome to the Avaya™ G700 Media Gateway controlled by an Avaya™ S8300 Media Server or an Avaya™ S8700 Media Server, 555-234-200”.

Local Survivable Processor (LSP)

The S8300 Media Server can act as a survivable call-processing server for remote or branch customer locations. As a backup, the S8300 Media Server carries a complete set of the MultiVantage software, and its license file allows it to function as a survivable call processor. If the link between the remote G700 Media Gateways and the main processing server is broken, those telephones and G700 Media Gateways that are designated to receive backup service from the S8300 Media Server in survivable mode (LSP) will register with the backup. The LSP will provide control to those registered devices in a license error mode for six days (see “Avaya MultiVantage™ Solutions Hardware Guide, 555-233-200”).

Avaya™ S8700 Media Server

The G700 Media Gateway can be controlled by an external Avaya™ S8700 Media Server. When the S8700 functions as the external communications controller (ECC), the configuration is called the ECC configuration. Both the Avaya™ S8700 Media Server with the G600 Media Gateway (IP Connect) and the Avaya™ 8700 Media Server with the SCC1 or the MCC1 Media Gateway (MultiConnect) can control the G700 Media Gateway.

Information on installing the G700 with the S8700 can be found in Chapters 4 and 6 in this book.

Software

The Avaya MultiVantage™ software that is installed on Avaya Media Servers provides a wide range of IP telephony capabilities, including the standard voice applications of call transfer, call coverage, and speed dialing; security applications such as E911; call center applications such as automatic call distribution and agent reports; and switch networking. Avaya MultiVantage™ is also scalable by supporting a wide range of media servers and software architectures such as ATM, LDAP, QSIG, and H.323.

Endpoint and Adjunct Components

Additional components and adjunct systems provide sets of tools that allow the customer to obtain the best possible performance. Other components and adjunct systems that make up the S8300 Media Server with a G700 Media Gateway include:

- Analog phones and fax machines
- DCP phones
- IP phones
- IP Softphones
- LAN Ethernet switches
- Avaya VisAbility™ Management Suite
- INTUITY AUDIX LX Messaging System
- IA 770 INTUITY AUDIX Messaging Application
- ASAI Co-Resident DEFINITY LAN Gateway (DLG)
- Call Center
- Uninterruptible Power Supply (UPS)
- Universal Serial Bus (USB) Modems

See "[Chapter 7, Connecting Telephones and Adjunct Systems](#)" or "*Avaya DEFINITY® Servers and Avaya™ S8100 Media Server Library CD, 555-233-823*", for more information on installing adjuncts.

Plan the Installation

In the following sections of this installation guide, you will be guided through the installation of several configurations. Before the S8300/S8700 Media Server with G700 Media Gateways solution is physically installed on the customer's site, several steps will already have been completed to assure that the actual installation will go smoothly:

- Sales personnel have verified that the product is suited to the customer's application.
- Planning and implementation personnel have conducted preliminary inspections of the site and of the other equipment to assure that the S8300/G700 solution will operate at its full potential.
- A data network readiness assessment has been completed to assure that the solution will function optimally within the customer's network.

Each of these processes have been documented before the installation. You should verify that you have all the necessary information before going to the site (see [Appendix B: Checklists](#)).

Use the Planning Documentation

To guide you in your preparations for the installation, use the Installer's Checklists (see [Appendix B: Checklists](#)) to verify that you have the tools, software, and information that you need to install the S8300 Media Server with G700 Media Gateways.

The planning documentation will provide you with information about:

- What equipment you will be installing
- What kind of system you will be integrating
- Whom to contact on site about delivery, system questions, or network concerns
- Whom to contact at your home office in case of questions
- Whether you need a special pass or an escort
- How to gain entrance to the installation location if it is locked
- Where to install equipment
- Where to find a telephone near the installation location

SSO Authentication Login

You should obtain a personal Single Sign-On (SSO) for Remote Feature Activation (RFA) website authentication login before going to the site for installation. You must complete the authentication process before you can be assigned an SSO authentication login.

As a first-time user:

- Business Partners should point their browsers to the Business Partner portal option sales_market, services-voice, training tools and procedures to select RFA (or go directly to: <http://rfa.avaya.com>).
- Associates should point their browsers to the Avaya Associate portal (or go directly to: <http://rfa.avaya.com>).
- Contractors should point their browsers to Avaya.com (or go directly to: <http://rfa.avaya.com>).

From that point, log into SSO and complete the process to obtain your personal login.

Site Verification

A pre-installation site inspection allows you to verify that the site requirements have been met for adequate environmental conditions, power and grounding availability, safety, and security conditions. If you find discrepancies between the specifications necessary for proper installation of equipment and the conditions on site, contact your Project Manager before proceeding with the installation.

Network Integration

Integration into the customer's network will require coordination with the network manager and the planning and implementation personnel. They will ascertain the customer's need for DHCP service and the intended network configuration and applications. In addition, Avaya offers Network Readiness services to assist in evaluating and preparing the network for all configurations.

The Project Manager will provide information to be used by the installers. The documentation must include dial plans and other telephony information, as well as IP addresses, IP masks, and other network information. This information will be specific to each customer. To install the solution in an efficient manner, you must collect and organize this information before going to the site.

The Avaya Installation Wizard

You may also use the Avaya Installation Wizard (AIW) as a tool to assist you in the installation process. The Installation Wizard is designed to get you up and running in a basic installation as quickly as possible. It is not designed for customization in the installation procedures. For customized procedures, you need to use information in this installation book.

The Avaya Installation Wizard will ship with the product. The documentation can be accessed online at <http://support.avaya.com/avayaaiw>

Note: To use the Avaya Installation Wizard, MultiVantage™ software Release 1.1.2 or later must be on the S8300 Media Server. If the correct release of MultiVantage™ software has not been installed on the S8300 Media Server, you need to upgrade the software before you begin using the Avaya Installation Wizard.

To use the Avaya Installation Wizard, perform the following steps:

- a. Power on the laptop PC.
- b. Verify the services network settings:
 - 1) IP address: **192.11.13.5**
 - 2) Subnet Mask: **255.255.255.252**
 - 3) Domain Name Service (DNS): **disabled**
 - 4) Windows Internet Name Service (WINS): **disabled**
- c. Open the Microsoft Internet Explorer and disable the Proxy Server.
- d. In the Browser Address field, launch the Avaya Installation Wizard by typing in lower case: **http://192.11.13.6/aiw**

Installation Roadmap and Task Lists

From your planning sheets, you can determine what type of installation or upgrade is involved with the G700 Media Gateway. Use the table that follows (Table 2) to determine which task list is most appropriate for your upgrade or installation.

Table 2. Installation and Upgrade Roadmap

	Remote G700 in S8700 Network	Remote G700 with Local Survivable Processor in S8700 Network	Local G700 with S8300 Primary Controller	Local G700 with S8300 and IA 770 INTUITY AUDIX Messaging
Upgrade of an Existing System	Use Chapter 6 with Table 6, "Task List to Upgrade an Existing G700 with an S8700 (No Local Survivable Processor)," on page 40	Use Chapter 5 with Table 5, "Task List to Upgrade a G700 Media Gateway (with an S8300 or Local Survivable Processor)," on page 37	Use Chapter 5 with Table 5, "Task List to Upgrade a G700 Media Gateway (with an S8300 or Local Survivable Processor)," on page 37	See Installation Checklists in the IA 770 INTUITY AUDIX Messaging documentation, available on the Avaya S8300 Media Server and Avaya G700 Media Gateway Library CD, 555-234-800
New Installation	Use Chapters 2 and 4 with Table 4, "Task List to Install a New G700 with an S8700 (No Local Survivable Processor)," on page 33	Use Chapters 2 and 3 with Table 3, "Task List to Install a New G700 (with an S8300 or Local Survivable Processor)," on page 27	Use Chapters 2 and 3 with Table 3, "Task List to Install a New G700 (with an S8300 or Local Survivable Processor)," on page 27	See Installation Checklists in the IA 770 INTUITY AUDIX Messaging documentation, available on the Avaya S8300 Media Server and Avaya G700 Media Gateway Library CD, 555-234-800

Note: In the following task lists, in order to avoid unnecessary confusion caused by changing terminology, references to the Layer 2 Switching Processor will be accompanied by the terminology that actually displays on the technician's laptop screen.

Task List to Install a New G700 (with an S8300 or Local Survivable Processor)

Use the following checklist to install a G700 Media Gateway with the following characteristics:

- The G700 has a Local Survivable Processor or an Internal S8300 Media Server.
- If the G700 has a Local Survivable Processor, the G700 is controlled primarily by an S8700 Media Server.

Table 3. Task List to Install a New G700 (with an S8300 or Local Survivable Processor)

Task	Subtasks (If any)
"Get Planning Forms from the Project Manager" on page 67	
"Get the Serial Number of the G700" on page 68	
"Check That the Customer Has an FTP Server for Backing up Data" on page 68	
"Complete the RFA and ART Processes and Download MultiVantage Update Software to Your Laptop" on page 68	"Complete and Download the License and Authentication Files to Your Laptop" on page 69
	"Run the ART Tool for the INADS IP Address" on page 69 NOTE: The ART process is available only to Avaya personnel. Non-Avaya personnel must contact their service support or customer care center for INADS addresses, if required.
	"Download the Latest MultiVantage Update Software" on page 69
"Set up a laptop for an S8300 Media Server direct Ethernet connection" on page 70	"Review Physical Access Methods" on page 70
	"Check Your Version of Windows" on page 72
	"Change TCP/IP Properties and Network Settings (Windows 2000 and XP)" on page 72 or "Change TCP/IP properties (Windows 95, 98, NT 4.0, and Millennium Edition [ME])" on page 73
	"Disable proxies in browser" on page 75

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Table 3. Task List to Install a New G700 (with an S8300 or Local Survivable Processor) *Continued*

Task	Subtasks (If any)
Perform "Environmental Verification" on page 44	
Perform "Power Verification" on page 44	
Perform "Grounding Verification" on page 44	
"Unpack and Check the Order" on page 45	
"Prepare the G700 Media Gateway" on page 47	"Affix Mounting Brackets to the G700" on page 47 or "Affix Feet on the Table-Top G700" on page 47
"Mount the G700 Media Gateway in the Rack" on page 48	
"Insert the Avaya™ S8300 Media Server (If Necessary for Standalone Service or LSP)" on page 49	
"Insert the Media Modules" on page 51	
"Insert an Avaya Expansion Module" on page 53	
"Insert an Avaya X330STK Stacking Module" on page 54	
"Cable Multiple Units" on page 55	"Connect Units within a Single Stack" on page 56 "Link Elements in Multiple Racks" on page 57
"Attach Ground Conductors" on page 58	Review "General Grounding Requirements" on page 59 and "Approved Grounds" on page 60 "Connect the Safety Ground" on page 61
"Connect AC Power" on page 62	Review "Power Requirements" on page 62 "Test the AC Outlet" on page 62 "Plug in AC Power" on page 64
Review "S8300 LED Indicators" on page 65	
"Install License and Authentication Files" on page 76	"Connect Laptop to Services Port of S8300" on page 76

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Table 3. Task List to Install a New G700 (with an S8300 or Local Survivable Processor) Continued

Task	Subtasks (If any)
	"Log in to the S8300 from Your Laptop using Telnet" on page 77
	"Log in to the MultiVantage SAT Screens" on page 78
	"Log in to the S8300 Web Interface from Your Laptop" on page 79
	"Load License and Authentication Files (from Your Laptop)" on page 80
	"Install License and Authentication Files (from Your Laptop)" on page 81
	"Run Save Translations" on page 82
"Load New Software on the S8300" on page 82	"Determine Necessary Upgrades to the S8300" on page 82
	"Transfer Files from a CD or Hard Drive of Laptop" on page 83
"Install Software on the S8300" on page 84	"Set the Time and Date" on page 84
	"Install New Software" on page 85
	"Make the Upgrade Permanent" on page 90
	"Install MultiVantage Patch Files from Your Laptop" on page 91
"Configure the S8300" on page 92	
"Provide the keys.install File (If Necessary)" on page 103	"Create the keys file" on page 103
	"Upload the keys file" on page 103
	"Download or copy the keys file" on page 104
	"Set the media server's time now" on page 104
"Configure the G700 Media Gateway" on page 105	"Connect Your Laptop to the G700 Serial Port" on page 105
	"Log in to the Avaya P330 (Layer 2 Switching Processor) Command Line Interface" on page 105
	"Determine Necessary Firmware to Install on the G700" on page 106
	"Assign the IP Address to the P330 Stack Processor (Layer 2 Switching Processor)" on page 109

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Table 3. Task List to Install a New G700 (with an S8300 or Local Survivable Processor) *Continued*

Task	Subtasks (If any)
	"Establish the IP Routing for the Stack" on page 109
	"Check the Serial Number of the G700 Media Gateway Processor" on page 109
	"Assign the IP Address to the G700 Media Gateway Processor" on page 110
	"Assign the Default IP Route to the G700 Media Gateway" on page 112
	"Assign IP Addresses to the VoIP Resources" on page 112
"Configure an X330 Expansion Module (If Necessary)" on page 113	
"Check for IP Connections" on page 113	
"Load New Firmware on the G700 Media Gateway" on page 114	"Verify That the S8300 tftpboot Directory Has the Right Firmware Versions" on page 115
	"Install New Firmware on the P330 Stack Processor (Layer 2 Switching Processor)" on page 115
	"Install New Firmware on the G700 Media Gateway Processor" on page 116
	"Install New Firmware on the Media Modules" on page 117
	"Set SNMP Traps" on page 118
	"Set up the Controller List for the G700 Media Gateway" on page 118
	"Set the LSP Transition Points" on page 120
	"Configure Other G700 Media Gateways (Stack Configuration)" on page 121
	"Configure Other G700 Media Gateways (Remote, No Stack Configuration)" on page 122
"Administer MultiVantage Software on the S8300 (When Primary Controller Only)" on page 122	"Reboot the System" on page 123
	"Log in to the MultiVantage SAT Screens" on page 123
	"Define the IP Network Region for the G700 Media Gateway" on page 123

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Table 3. Task List to Install a New G700 (with an S8300 or Local Survivable Processor) *Continued*

Task	Subtasks (If any)
	"Assign the Network Region to the S8300 Media Server" on page 125
	"Add Media Gateways" on page 126
	"Verify Changes" on page 127
	"Enable Announcements, If Necessary" on page 128 NOTE: This should only be done if the customer has specifically requested an immediate enabling of announcements.
	"Save MultiVantage Translations" on page 129
"Administer MultiVantage Software on the S8700 (When the S8300 Is an LSP)" on page 129	"Assign the S8700's CLAN Node Name and IP Address" on page 130 NOTE: This assignment should have already been established as a part of normal S8700 installation.
	"Define the IP Network Regions for the G700 Media Gateway and the S8700 CLAN Board(s)" on page 131 NOTE: This definition should have already been established as a part of normal S8700 installation.
	"Define the IP Interfaces of the S8700 Port Network CLAN Boards" on page 133 NOTE: This definition should have already been established as a part of normal S8700 installation.
	"Add Media Gateways" on page 135
	"Verify Changes" on page 137
	"Enable Announcements, If Necessary" on page 138 NOTE: This should only be done if the customer has specifically requested an immediate enabling of announcements.
	"Save MultiVantage Translations" on page 138
Review "Considerations for IP Phones Supported by a Local Survivable Processor" on page 139	
"Set Up SNMP Alarming on the G700" on page 140	"Add INADS phone numbers and Enable alarms to INADS" on page 140
	"Configure an SNMP Community String for Traps" on page 141

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Table 3. Task List to Install a New G700 (with an S8300 or Local Survivable Processor) *Continued*

Task	Subtasks (If any)
	“Configure the Destination for G700 SNMP Traps” on page 142
“Complete the Installation Process (On S8300 Primary Controller Only)” on page 142	“Register the system” on page 143
	“Back up the System” on page 143
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Task List to Install a New G700 with an S8700 (No Local Survivable Processor)

Use the following checklist to install a G700 Media Gateway with the following characteristics:

- The G700 is controlled exclusively by an external S8700 Media Server.

Table 4. Task List to Install a New G700 with an S8700 (No Local Survivable Processor)

Task	Subtasks (If any)
"Get Planning Forms from the Project Manager" on page 145	
"Get the Serial Number of the G700" on page 145	
"Set Up the TFTP Server on Your Laptop or on a Customer PC" on page 146	
"Download the tar.gz File from CD-ROM to Your TFTP Directory and Unzip It" on page 147	"Download the tar.gz File from CD-ROM to Your TFTP Directory and Unzip It" on page 147 or "Download the Firmware Files from the Web to Your TFTP Directory" on page 148
Perform "Environmental Verification" on page 44	
Perform "Power Verification" on page 44	
Perform "Grounding Verification" on page 44	
"Unpack and Check the Order" on page 45	
"Prepare the G700 Media Gateway" on page 47	"Affix Mounting Brackets to the G700" on page 47 or "Affix Feet on the Table-Top G700" on page 47
"Mount the G700 Media Gateway in the Rack" on page 48	
"Insert the Avaya™ S8300 Media Server (If Necessary for Standalone Service or LSP)" on page 49	
"Insert the Media Modules" on page 51	
"Insert an Avaya Expansion Module" on page 53	

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Table 4. Task List to Install a New G700 with an S8700 (No Local Survivable Processor) *Continued*

Task	Subtasks (If any)
"Insert an Avaya X330STK Stacking Module" on page 54	
"Cable Multiple Units" on page 55	"Connect Units within a Single Stack" on page 56
	"Link Elements in Multiple Racks" on page 57
"Attach Ground Conductors" on page 58	Review "General Grounding Requirements" on page 59 and "Approved Grounds" on page 60
	"Connect the Safety Ground" on page 61
"Connect AC Power" on page 62	Review "Power Requirements" on page 62
	"Test the AC Outlet" on page 62
	"Plug in AC Power" on page 64
"Prepare to Configure the G700 Media Gateway" on page 149	"Review Physical Access Methods" on page 149
	"Connect Your Laptop to the G700 Serial Port" on page 150
	"Log in to the Avaya P330 (Layer 2 Switching Processor) Command Line Interface" on page 150
	"Determine Necessary Firmware to Install on the G700" on page 151
"Assign the IP Addresses of the G700 Media Gateway Components" on page 153	"Assign the IP Address to the P330 Stack Processor (Layer 2 Switching Processor)" on page 153
	"Establish the IP Routing for the Stack" on page 154
	"Check the Serial Number of the G700 Media Gateway Processor" on page 154
	"Assign the IP Address to the G700 Media Gateway Processor" on page 155
	"Assign the Default IP Route to the G700 Media Gateway" on page 156
	"Assign IP Addresses to the VoIP Resources" on page 157
"Configure an X330 Expansion Module (If Necessary)" on page 157	
"Check for IP Connections" on page 158	

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Table 4. Task List to Install a New G700 with an S8700 (No Local Survivable Processor) *Continued*

Task	Subtasks (If any)
"Set up a laptop for a direct Ethernet connection (If Necessary for Firmware Download)" on page 159	"Check Your Version of Windows" on page 160
	"Change TCP/IP Properties and Network Settings (Windows 2000 and XP)" on page 160 or "Change TCP/IP properties (Windows 95, 98, NT 4.0, and Millennium Edition [Me])" on page 161
	"Disable proxies in browser" on page 162
	"Verify That the tftpboot Directory Has the Right Firmware Versions" on page 163
"Install New Firmware on the G700 Media Gateway" on page 163	"Connect Laptop to the Customer's LAN (If Laptop Has the TFTP Server)" on page 163
	"Install New Firmware on the P330 Stack Processor (Layer 2 Switching Processor)" on page 164
	"Install New Firmware Files on the G700 Media Gateway Processor" on page 164
	"Install New Firmware on the Media Modules" on page 165
	"Set SNMP Traps" on page 166
	"Set up the Controller List for the G700 Media Gateway" on page 167
	"Configure Other G700 Media Gateways (Stack Configuration)" on page 168
	"Configure Other G700 Media Gateways (Remote, No Stack Configuration)" on page 169
"Administer MultiVantage Software on the S8700" on page 170	"Log in to the S8700 MultiVantage SAT Screens" on page 170
	"Assign the S8700's CLAN Node Name and IP Address" on page 171 NOTE: This assignment should have already been established as a part of normal S8700 installation.
	"Define the IP Network Regions for the G700 Media Gateway and the S8700 CLAN Board(s)" on page 172 NOTE: This definition should have already been established as a part of normal S8700 installation.

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Table 4. Task List to Install a New G700 with an S8700 (No Local Survivable Processor) *Continued*

Task	Subtasks (If any)
	<p>“Define the IP Interfaces of the S8700 Port Network CLAN Boards” on page 174</p> <p>NOTE: This definition should have already been established as a part of normal S8700 installation.</p>
	<p>“Add Media Gateways” on page 176</p>
	<p>“Verify Changes” on page 177</p>
	<p>“Enable Announcements, If Necessary” on page 178</p>
	<p>“Save MultiVantage Translations” on page 178</p>
<p>“Complete the Installation Process” on page 179</p>	
4 of 4	

Task List to Upgrade an Existing G700 (with an S8300 or Local Survivable Processor)

Use the following checklist to upgrade a G700 Media Gateway with the following characteristics:

- The G700 has a Local Survivable Processor or an S8300 Media Server.
- If the G700 has a Local Survivable Processor, the G700 is controlled primarily by an external S8700 Media Server.

Table 5. Task List to Upgrade a G700 Media Gateway (with an S8300 or Local Survivable Processor)

Task	Subtasks (If any)
“Get Planning Forms from the Project Manager” on page 182	
“Get the Serial Number of the G700, If Necessary” on page 182 NOTE: This step is necessary only if the customer is adding new features to their system.	
“Check That the Customer Has an FTP Server for Backing up Data” on page 182	
“Complete the RFA Processes and Download MultiVantage Update Software to Your Laptop” on page 182	“Complete and Download the License File to Your Laptop” on page 183 NOTE: This step is necessary only if the customer is adding new features to their system.
	“Download the Latest MultiVantage Update Software” on page 183
“Set up a Laptop for an S8300 Media Server Direct Ethernet Connection, If Local” on page 184 NOTE: If you are upgrading an S8300 LSP remotely, you do not physically connect your laptop to the S8300. However, you do need to set up your laptop for a connection to the customer’s LAN, which is the same process as that described in this section.	“Review Physical Access Methods” on page 184
	“Check Your Version of Windows” on page 186

1 of 4

Table 5. Task List to Upgrade a G700 Media Gateway (with an S8300 or Local Survivable Processor) *Continued*

Task	Subtasks (If any)
	“Change TCP/IP Properties and Network Settings (Windows 2000 and XP)” on page 186 or “Change TCP/IP properties (Windows 95, 98, NT 4.0, and Millennium Edition [ME])” on page 187
	“Disable proxies in browser” on page 188
“Install the New License File, If Necessary” on page 190 NOTE: This step is necessary only if the customer is adding new features to their system.	“Connect Laptop to Services Port of S8300” on page 190 NOTE: If you are upgrading an S8300 LSP remotely, you do not physically connect your laptop to the S8300.
	“Log in to the S8300 from Your Laptop using Telnet” on page 191
	“If Necessary, Remove old license and authentication files from S8300 FTP Directory” on page 192
	“Log in to the MultiVantage SAT Screens” on page 192
	“Log in to the S8300 Web Interface from Your Laptop” on page 193
	“Load License File (from Your Laptop)” on page 194 NOTE: This step is necessary only if the customer is adding new features to their system.
	“If Necessary, Install License and Authentication Files (from Your Laptop)” on page 195 NOTE: This step is necessary only if the customer is adding new features to their system.
	“Run Save Translations (Only If New License or Authentication Files Installed)” on page 196
“Shutdown MultiVantage Software (Only When the S8300 is an LSP)” on page 215	
“Prepare for the Upgrade (S8300 as Primary Controller Only)” on page 196	“Clear Alarms” on page 196
	“Back up the System” on page 196
	“Check Link Status” on page 197
	“Record All Busyouts” on page 197
	“Disable TTI” on page 197

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Table 5. Task List to Upgrade a G700 Media Gateway (with an S8300 or Local Survivable Processor) *Continued*

Task	Subtasks (If any)
	"Check TTI Status" on page 198
	"Disable Scheduled Maintenance" on page 198
	"Check for Translation Corruption" on page 198
"Load New Software on the S8300" on page 199	"Determine Necessary Upgrades to the S8300" on page 199
	"Transfer Files from a CD or Hard Drive of Laptop" on page 199
"Install Software on the S8300" on page 200	"Install New Software" on page 200
	"Make the Upgrade Permanent" on page 205
	"Install MultiVantage Patch Files from Your Laptop" on page 206
"Configure the G700 Media Gateway" on page 207	"Connect Your Laptop to the G700 Serial Port" on page 207 NOTE: If you are upgrading an S8300 LSP remotely, you do not physically connect your laptop to the S8300.
	"Log in to the Avaya P330 (Layer 2 Switching Processor) Command Line Interface" on page 208
	"Determine Necessary Firmware to Install on the G700" on page 209
"Install New Firmware on the G700 Media Gateway" on page 210	"Verify That the S8300 tftpboot Directory Has the Right Firmware Versions" on page 210
	"Install New Firmware on the P330 Stack Processor (Layer 2 Switching Processor)" on page 211
	"Install New Firmware on the G700 Media Gateway Processor" on page 212
	"Install New Firmware on the Media Modules" on page 213
"Shutdown MultiVantage Software (Only When the S8300 is an LSP)" on page 215	
"Upgrade the S8700 (Only When the S8300 Is an LSP)" on page 215	
"Start up MultiVantage Software (Only When the S8300 is an LSP)" on page 216	

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Table 5. Task List to Upgrade a G700 Media Gateway (with an S8300 or Local Survivable Processor) *Continued*

Task	Subtasks (If any)
"Complete the Upgrade Process (Only When S8300 is Primary Controller)" on page 216	"Check Media Modules" on page 216
	"Enable Scheduled Maintenance" on page 216
	"Enable TTI" on page 216
	"Check TTI Status" on page 217
	"Busy Out Trunks" on page 217
	"Resolve Alarms" on page 217
	"Check for Translation Corruption" on page 217
	"Back up the System" on page 217
4 of 4	

Task List to Upgrade an Existing G700 with an S8700 (No Local Survivable Processor)

Use the following checklist to upgrade a G700 Media Gateway with the following characteristics:

- The G700 is controlled exclusively by an external S8700 Media Server.

Table 6. Task List to Upgrade an Existing G700 with an S8700 (No Local Survivable Processor)

Task	Subtasks (If any)
"Get Planning Forms from the Project Manager" on page 219	
"Set Up the TFTP Server on Your Laptop or on a Customer PC" on page 220	
"Download the tar.gz File from CD-ROM to Your TFTP Directory and Unzip It" on page 221	"Download the tar.gz File from CD-ROM to Your TFTP Directory and Unzip It" on page 221 or "Download the Firmware Files from the Web to Your TFTP Directory" on page 222
1 of 2	

Table 6. Task List to Upgrade an Existing G700 with an S8700 (No Local Survivable Processor) *Continued*

Task	Subtasks (If any)
<p>“Prepare to Upgrade the G700 Media Gateway” on page 223</p> <p>NOTE: If you are upgrading a G700 remotely, you do not physically connect your laptop to the G700. However, you do need to set up your laptop for a connection to the customer’s LAN, which is the same process as that described in this section.</p>	<p>“Review Physical Access Methods” on page 223</p>
	<p>“Connect Your Laptop to the G700 Serial Port” on page 224</p> <p>NOTE: If you are upgrading a G700 remotely, you do not physically connect your laptop to the G700.</p>
	<p>“Log in to the Avaya P330 Command Line Interface” on page 224</p>
	<p>“Determine Necessary Firmware to Install on the G700” on page 225</p>
<p>“Set up a laptop for a direct Ethernet connection (If Necessary for Firmware Download)” on page 227</p>	<p>“Check Your Version of Windows” on page 228</p>
	<p>“Change TCP/IP Properties and Network Settings (Windows 2000 and XP)” on page 228 or “Change TCP/IP properties (Windows 95, 98, NT 4.0, and Millennium Edition [ME])” on page 229</p>
	<p>“Disable proxies in browser” on page 230</p>
	<p>“Verify That the tftpboot Directory Has the Right Firmware Versions” on page 231</p>
<p>“Install New Firmware on the G700 Media Gateway” on page 231</p>	<p>“Connect Laptop to the Customer’s LAN (If Laptop Has the TFTP Server)” on page 231</p>
	<p>“Install New Firmware for the P330 Stack Processor (Layer 2 Switching Processor)” on page 232</p>
	<p>“Install New Firmware Files to the G700 Media Gateway Processor” on page 232</p>
	<p>“Install New Firmware on Media Modules” on page 234</p>

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Terminal Emulation Function Keys for MultiVantage Software

When you log in to the MultiVantage SAT screens, your terminal emulation may not display function keys on the screen to help you determine which function keys to press. Use the following table as a guide for **ntt** terminal emulation.

Key Sequence	Function Key	Function
ESC (alpha O) P	F1	Cancel
ESC (alpha O) Q	F2	
ESC (alpha O) R	F3	Execute
ESC (alpha O) S	F4	
ESC (alpha O) T	F5	Help
ESC (alpha O) U	F6	Go to Page "N"
ESC (alpha O) V	F7	Next Page
ESC (alpha O) W	F8	Previous Page

The following table lists key presses for **w2ktt** terminal emulation.

Key Sequence	Function Key	Function
ESC x	F1	Cancel
ESC	F2	
ESC e	F3	Execute
ESC	F4	
ESC h	F5	Help
ESC	F6	
ESC n	F7	Next Page
ESC p	F8	Previous Page

2 Installing Hardware for the G700 Media Gateway and S8300 Media Server

The Avaya™ S8300 Media Server with Avaya™ G700 Media Gateways may be installed in a variety of configurations: as a standalone unit with one G700, with multiple G700 Media Gateways, or in combinations of Media Gateways and Avaya P330 family devices. Up to ten G700 Media Gateways and/or Avaya P330s can be combined in a single stack. These configurations can also be controlled by an external controller, such as an S8700 Media Server.

In a typical installation, you will arrive at the site equipped with all the tools and information you will need to install an S8300 Media Server with a G700 Media Gateway, and you will complete the following process:

Installation Process Steps
“On Site Checklist” on page 43
“Unpack and Check the Order” on page 45
“Install the G700 Media Gateway” on page 46
“Cable Multiple Units” on page 55
“Attach Ground Conductors” on page 58

Note: When installing a G700, complete all tasks in this chapter to administer the gateway before doing the media server administration (e.g., `add media-gateway`).

On Site Checklist

When you reach the customer’s site, you should have each item on the Checklist for S8300 Media Server with G700 Media Gateways Installation. (Consult [Appendix B: Checklists](#).) However, it is recommended that you consult with the customer network manager for IP and DNS addressing, as well as for testing the installation. Also, before proceeding with the installation, you should verify that the proper environmental and safety conditions exist.

Environmental Verification

Verify that temperatures and clearances are within the recommended technical parameters. Consult the table of Technical Specifications in Appendix A.

⚠ CAUTION:

Verify that temperature and clearance ranges are within tolerable limits. The thermal sensors may shut down equipment if it is subjected to conditions beyond the recommended limits. Equipment can be damaged if these restrictions are not respected.

Power Verification

Check that an adequate number of power outlets are available. Verify that the G700 Media Gateways and the other equipment in the rack do not present a possible overcurrent or overload to the customer's branch circuit and/or power distribution strip. Power requirements are listed in [Appendix A: Technical Information](#).

⚠ WARNING:

Do not overload the power circuit.

Grounding Verification

Ensure that the installation site has access to approved grounds and that either a trained technician or a licensed electrician will be verifying all grounds and installing the Supplementary Ground Conductor (consult "[Attach Ground Conductors](#)").

⚠ WARNING:

Installation in a Restricted Access Location and secure access are required in Finland and Norway.

The G700 Media Gateway relies on two ground connections (mains plug with an earth contact and a permanent Supplementary Ground Conductor). Because of unreliable earthing concerns in Finland and Norway, the G700 Media Gateway must be installed in a Restricted Access Location (RAL). An RAL is defined as an access that can be gained only by trained service personnel or customers who have been instructed about the reasons for the restricted access and any safety precautions that must be taken. In these cases, access to the G700 Media Gateway is gained by the use of a tool (such as a lock and key) or other means of security.

If you have any questions about the safety conditions, contact your Project Manager. When you have verified that the site is ready for a safe installation, proceed with the installation.

Unpack and Check the Order

Cross-check your customer's order with the planning documentation you have been given. Media Modules, telephones and other equipment are listed on your planning and shipping documentation. Placement for the Media Modules and other equipment are indicated, as well.

Verify that all necessary elements have been received and are in good condition. If there are missing or damaged elements, contact the Project Manager for instructions. The planning documentation will list contact information for the Project Manager and other key personnel.



CAUTION:

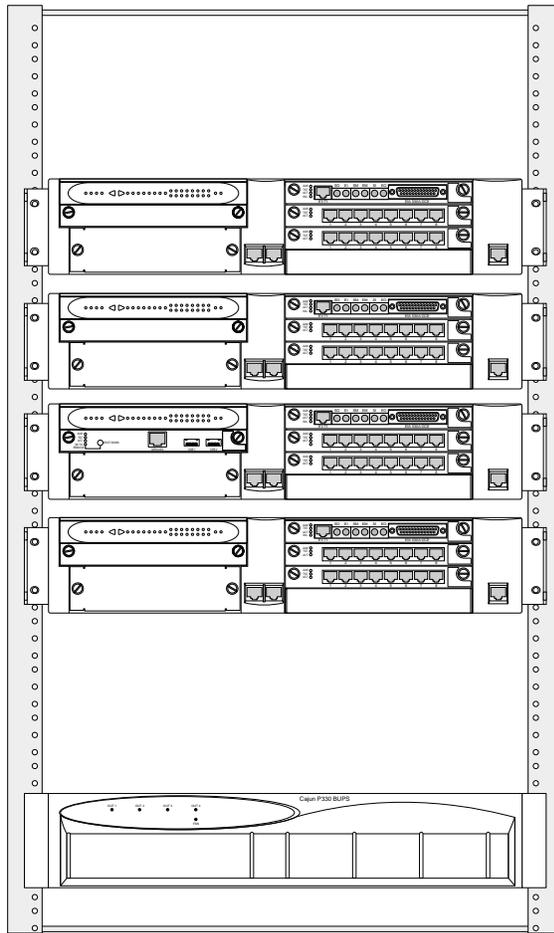
Wear an anti-static wrist ground strap whenever handling components of an Avaya™ G700 Media Gateway. Connect the strap to an approved ground, such as an unpainted metal surface.

If you have any questions about the equipment order, or if the equipment has been damaged, contact your Project Manager. When you have verified that the order is complete and that you have all of the necessary components and tools, proceed with the installation.

Install the G700 Media Gateway

After you have verified the site conditions and the shipment, you will proceed with the installation of the hardware.

Figure 5. Avaya G700 Media Gateways



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Figure 5 shows a stack of four G700 Media Gateways installed in a rack-mounted configuration, plus one UPS unit. Of the four G700s, only one contains an S8300 Media Server in slot v1 (second up from the bottom).

Prepare the G700 Media Gateway

The instructions that follow guide you through a process of preparing the Avaya™ G700 Media Gateway after you have mounted the empty chassis in the rack. It is possible to equip an empty G700 chassis before positioning it in the rack. If you are working where space is limited, you may wish to prepare the G700 before rack insertion.



CAUTION:

When handling any components of an S8300 Media Server with G700 Media Gateways, wear an anti-static wrist ground strap. Connect the strap to an approved ground such as an unpainted metal surface.

The G700 can stand on a flat surface or be mounted in the standard 19-inch rack. If the G700 is to be mounted in a rack, you have the choice of fastening the unit to the rack either at the front of the unit or at the middle. This positioning choice will depend on space arrangements. In either case, mounting brackets must be attached to the sides of the chassis, either at the center or to the front of the chassis.

Affix Mounting Brackets to the G700

Begin _____

1. Remove the screws from the bracket kit.
2. Position a bracket over the desired mounting position.
3. Affix the bracket to the chassis with the screws provided.
4. Tighten with the screwdriver.
5. Repeat on the other side.

End _____

If the G700 is to be a table-top unit, four feet must be attached to the bottom of the unit. The procedure to do this is the following:

Affix Feet on the Table-Top G700

Begin _____

Use this procedure only if the G700 will be installed as a table-top unit (not in a data rack).

1. Remove the four feet from their packaging.
1. Turn the G700 Media Gateway over to allow the feet to be mounted.
2. Position one foot into the mounting site near the corner of the chassis.
3. Press the plastic rivet into the foot with a stylus until it is firmly seated on the chassis.

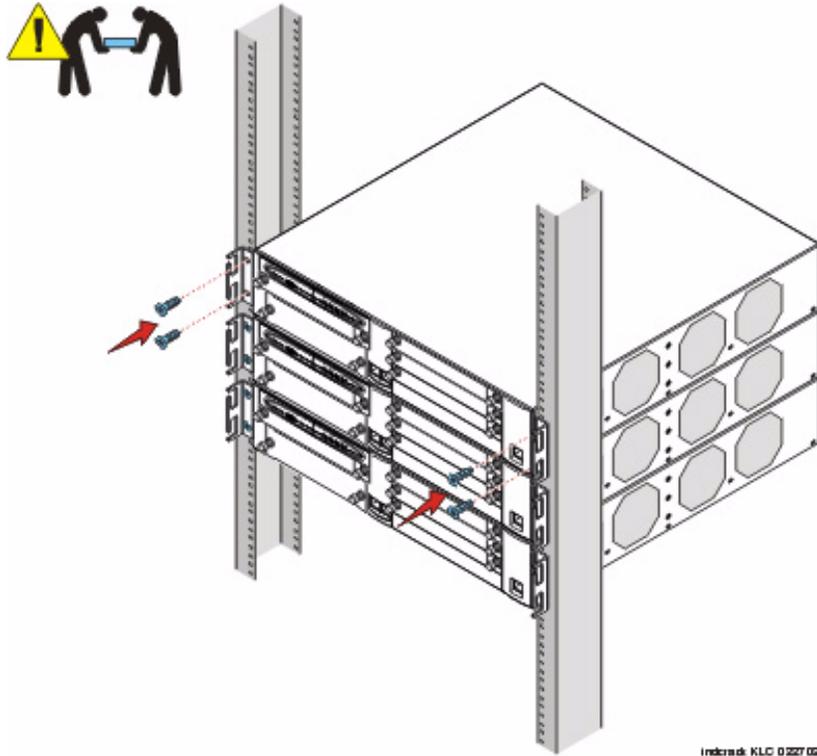
End _____

You have now prepared the G700 Media Gateway for mounting, and, assuming you are going to use a data rack, you are ready to mount the chassis in the rack.

Mount the G700 Media Gateway in the Rack

The G700 Media Gateway mounts in a standard 19-inch rack. It is held in place by screws through the two mounting ears. The unit can be mounted either in the center of the unit or at the front of the unit; however, only the front mount has guides for electrical cables. To avoid balancing problems and cabling complications, the racks should be filled from the bottom; that is, mount units in the lower positions first. If the rack is not securely fixed in place, do not proceed with the installation. If the G700 is being mounted in a rack with other equipment already installed, the G700 must be positioned to avoid imbalance.

Figure 6. Rack Mounting



Mount the G700 Media Gateway in the Rack

Begin

Note: The G700 weighs 22.5 pounds (10 kg) empty and between 27 and 34 pounds (between 12 and 16 kg) when equipped with Media Modules. Two people may be needed to mount the G700 Media Gateway in the rack.

1. Position the G700 in the rack. Assure that there is adequate ventilation.
2. Verify that the screw holes are aligned with the rack hole positions.
3. Insert the mounting screws. Use two screws on each side.

2 Installing Hardware for the G700 Media Gateway and S8300 Media Server: Insert the Avaya™ S8300 Media Server (If Necessary for Standalone Service or LSP)

4. Tighten the mounting screws. Avoid overtightening.
5. Verify that ventilation vents are not obstructed.
6. Repeat to add other G700 Media Gateways to the rack as described in the planning documents.

End _____

If you are installing multiple G700s, continue building the stack. Up to 10 units can be linked together (Figure 13); these may be G700s or Avaya P330 family switches.

At this point, you have mounted the G700 chassis in the rack and are ready to insert S8300 Media Servers and Media Modules as required in the planning documentation.

Insert the Avaya™ S8300 Media Server (If Necessary for Standalone Service or LSP)

The S8300 Media Server is inserted into the G700 Media Gateway slot #1 (v1), whether it is the primary server or configured as a Local Survivable Processor (LSP). The S8300 can only be inserted in the slot (v1) on the left side of the G700 Media Gateway. The LED module must be pulled from its housing to provide clearance for the S8300 Media Server.

⚠ CAUTION:

If you are removing an S8300, use the shutdown button to stop the operating system. The OK to Remove LED will flash while the shutdown is in progress and will turn steady green when it is safe to remove the S8300.

Insert the S8300 into Slot #1 of the G700 Media Gateway

Begin _____

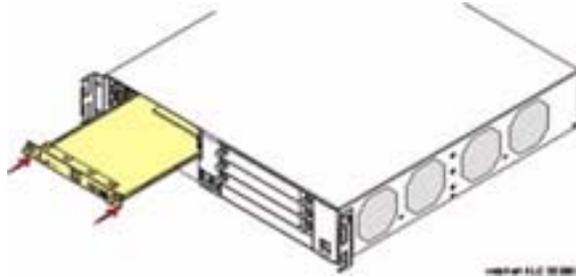
1. Clear the left side of the G700 Media Gateway.
 - a. Remove the blank plate from slot #1.
 - b. Then, disengage the LED module and remove it from the G700 Media Gateway.
2. Line up the Avaya S8300 Media Server module squarely with its bay opening.

Figure 7. Clear the left side of the G700 Media Gateway



- Engage both sides of the S8300 Media Server module in the interior guides and guide the module halfway into the chassis.

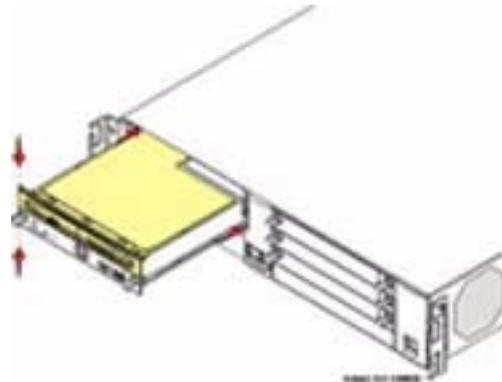
Figure 8. Insert S8300



- Align the LED module in its guides and gently push it into place, keeping the LED module safely within its guides and maintaining an even pressure to assure that the module does not become twisted or disengage from the guides.

Guide the longer, left side of the LED module into the chassis until the shorter, right edge of the module can engage in its guides.

Figure 9. Align the LED module and the S8300 Media Server

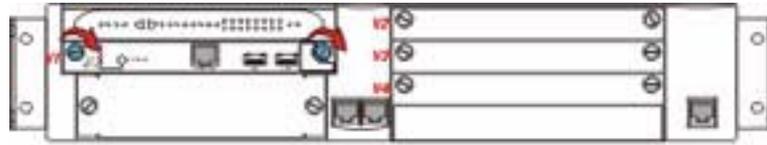


- Push steadily and firmly until the faceplates of the S8300 Media Server and the LED module are even and then push the two units into the housing together.
- Apply firm pressure to engage the connectors.
The connector has different length pins. The long pins will engage first to provide grounding. Medium length and short pins will provide power and signal.
- Tighten the captive screws on the S8300 Media Server module.

⚠ WARNING:

To prevent access to electrical hazards by unauthorized personnel and to ensure continued compliance to radiated emissions requirements, all captive screws must be securely tightened such that they cannot be loosened without the use of a tool.

Figure 10. Tighten screws



Insert the Media Modules

Following the planning documentation, you can insert the required Media Modules into their designated bays. The G700 Media Gateway can accommodate up to four Media Modules, or plug-in circuit packs. The choice of Media Modules is dictated by the offer selected by the customer and the configuration of the system.

Consult the planning documentation and the order form to determine which modules you will be installing. The planning documents also indicate into which slots the modules are to be inserted. The Media Modules available at this time are:

- Avaya™ MM710 T1/E1 Media Module
- Avaya™ MM760 VoIP Media Module
- Avaya™ MM711 Analog Media Module
- Avaya™ MM712 DCP Media Module
- Avaya™ MM720 BRI Media Module

For detailed descriptions of the Media Modules see "*Avaya MultiVantage™ Solutions Hardware Guide, 555-233-200*".

⚠ WARNING:

The Avaya G700 Media Gateway must not be operated with any slots open. Failure to cover empty slots with the supplied blank plates can cause overheating due to inadequate air distribution.

⚠ CAUTION:

The connector pins can be bent or damaged if the module is handled roughly, or if misaligned and then forced into position.

⚠ CAUTION:

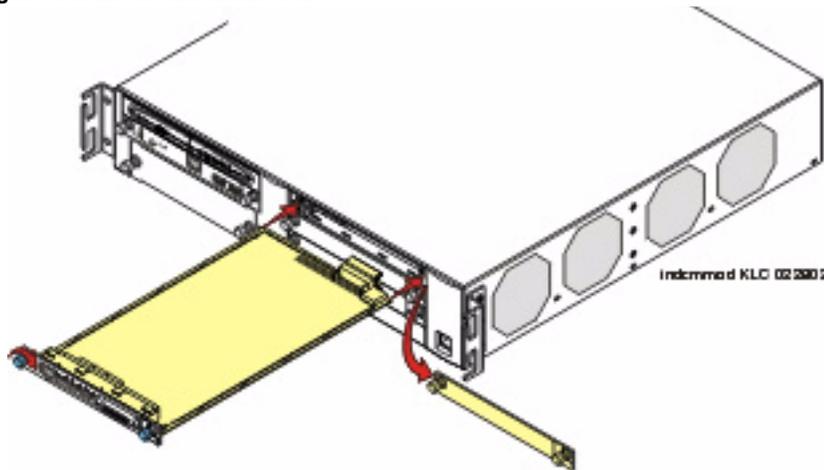
Separate ESD paths to the chassis ground connect to the Media Modules at the spring-loaded captive screws. Ensure the captive screws are securely tightened to prevent damage to the equipment.

Insert Media Modules

Begin

1. Remove the blank plate from the empty bay.
2. Position the Media Module squarely before the selected bay on the front of the G700 Media Gateway chassis and engage both sides of the module in the interior guides.
3. Slide the module slowly into the chassis, maintaining an even pressure to assure that the module does not become twisted or disengaged from the guides.

Figure 11. Insert Media Module



4. Apply firm pressure to engage the connectors.
The Media Module connector has different length pins. The long pins will engage first to provide grounding. Medium length and short pins will provide power and signal.
5. Lock the Media Module into the chassis by tightening the spring-loaded captive screws on the front of the module.

End

⚠ WARNING:
To prevent access to electrical hazards by unauthorized personnel and to ensure continued compliance to international radiated emissions requirements, all captive screws must be securely tightened such that they cannot be loosened without the use of a tool.

⚠ WARNING:
After you have connected telephones to the various Media Modules, be sure to add circuit protection to the lines (See “Complete the Telephone Installation Process” on page 241).

At this point, you have readied the G700 inserted the S8300 if required, and inserted the Media Modules, as described in the planning documentation. Next, if required, the Expansion Module should be inserted into its bay.

Insert an Avaya Expansion Module

The Expansion Modules provide increased networking and connectivity capabilities. These modules may be mounted on the G700 Media Gateway in the slot on the lower left side of the unit below slot v1 (see “Avaya™ G700 Media Gateway: Front View” on page 17).

 **CAUTION:**

The Expansion Module is not hot-swappable. That is, the G700 must be powered off before you insert or remove an Expansion Module. If there is an S8300 present that is also turned on, the S8300 should be shut down first, by pressing the Shutdown button until the OK to Remove LED shows a steady light. Then, the G700 should be powered off.

Insert an Expansion Module into the G700 Media Gateway

Begin _____

Turn off the power to the unit if the equipment has been in operation.

1. Remove the blank plate covering the bay.
2. Align the printed circuit board with the interior guide rails.

Note: The printed circuit board fits into the guide rail. The metal base plate does not.

3. Firmly press the Expansion Module into the G700 Media Gateway until it is completely inserted.
4. Tighten the two screws on the front panel of the Expansion Module.

End _____

 **WARNING:**

To prevent access to electrical hazards by unauthorized personnel and to ensure continued compliance to international radiated emissions requirements, all captive screws must be securely tightened such that they cannot be loosened without the use of a tool.

 **WARNING:**

The Avaya G700 Media Gateway must not be operated with any slot open. Empty slots must be covered with the supplied blank plates.

At this point, you have readied the G700, inserted the S8300, if required, inserted the Media Modules and the Expansion Module, as required in the planning documents. If more than one unit (G700 and/or Level 2 switches and routers) will be connected in the configuration you are installing, the next step will be to insert an Avaya X330STK Stacking Sub-Module .

Insert an Avaya X330STK Stacking Module

G700 Media Gateways can be mounted in equipment stacks with routers, switches, or other G700s. The stack is limited to ten elements. To link multiple units, each G700 must be equipped with an Avaya X330STK Stacking Module, which is mounted through the rear panel (back view) of the G700.

⚠ CAUTION:

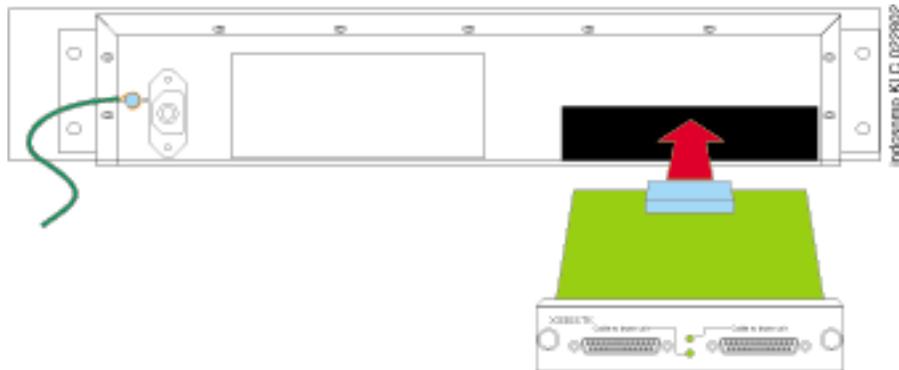
The Stacking Sub-Module is not hot-swappable. That is, the G700 must be powered off before you insert or remove a Stacking Module. If there is an S8300 present that is also turned on, the S8300 should be shut down first, by pressing the Shutdown button until the OK to Remove LED on the front faceplate of the S8300 shows a steady green light. Then, the G700 should be powered off.

Insert an Avaya X330STK Stacking Module

Begin

1. Remove the blank plate from the back of the G700.
2. Insert the Avaya X330STK Stacking Module gently in the bay in the back of the G700, ensuring that the metal base plate is aligned with the guide rails.

Figure 12. Insert Stacking Module in G700 (back view)



3. Press the Avaya X330STK Stacking Module in firmly until the connector at the back of the module is completely inserted into the internal connector on the G700.
4. Tighten the screws on either side of the module.

End

At this point, the required modules and cabling units have been inserted into the G700 Media Gateway. The next step will be to install cabling.

Cable Multiple Units

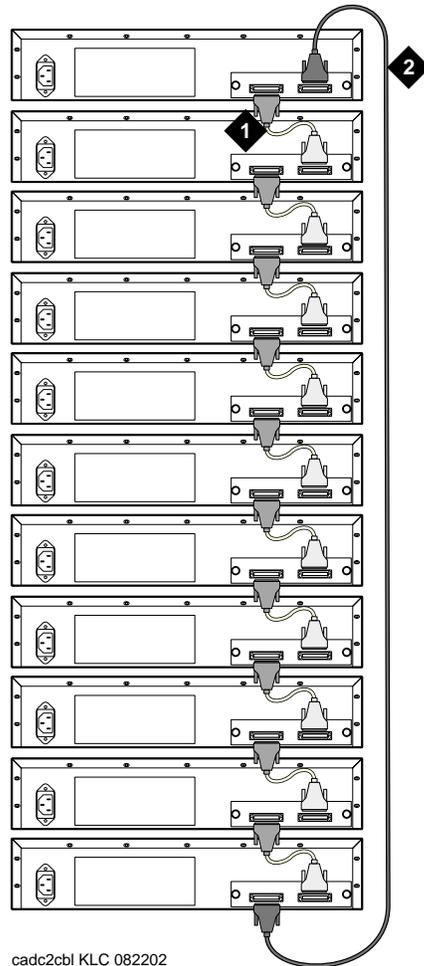
Avaya™ G700 Media Gateways can be mounted in equipment stacks with routers, switches, or other Media Gateways. These elements are all compatible and are installed similarly. Consult Avaya™ P333T User Guide for installation and cabling information. To link multiple units, each G700 Media Gateway must be equipped with an Avaya X330STK Stacking Module on the rear panel. Then, each unit in the stack is linked to the one above it. Finally, the bottom unit is linked to the top unit. Stacks should always be built from the bottom, and new units should be added at the top. Up to 10 units can be stacked in this way. When deciding where to position the unit, ensure that:

- It is accessible and cables can be connected easily.
- Cabling is away from sources of electrical noise such as radio transmitters, broadcast amplifiers, power lines and fluorescent lighting fixtures.
- Water or moisture cannot enter the case of the unit.
- There is a free flow of air around the unit and the vents in the sides of the case are not blocked.

The two ends of the Octaplane cables incorporate different connectors. Each connector can only be connected to its matching interface. The following cables are used to connect stacked units:

- Short Octaplane cable (Avaya X330SC) - light, ivory-colored cable used to connect adjacent units.
- Long Octaplane and Extra-Long Octaplane cables (Avaya X330LC/X330L-LC) - light, ivory-colored cable used to connect units from two different physical stacks or those separated by more than 12 inches (30 cm).
- Redundant and Long Redundant cables (Avaya X330RC/X330L-RC) - black cable used to connect the top and bottom switches of a stack.

Figure 13. Cabling Multiple Units in a Single Rack



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Connect Units within a Single Stack

Begin

1. Connect the light grey connector of the short Avaya X330SC cable (12 in, 30 cm) to the port marked “to upper unit” in the bottom-most stack element.
2. Connect the dark grey connector of the same short X330SC cable to the port marked “to the lower unit” in the unit above.
3. Repeat until you reach the top element in the stack. Up to ten units can be stacked together.

To implement stack redundancy:

4. Use the Redundant Cable to connect the port marked “to lower unit” on the bottom element to the port marked “to upper unit” on the top element of the stack.

End

If you have elements of a stack in two racks, you must use the Avaya X330LC cable to connect them. You may not link more than 10 units to form a stack, but those units can be mounted in more than one rack.

Link Elements in Multiple Racks

Begin _____

1. Use the long (6ft, 2 m) Avaya X330LC cable to connect elements in two racks.
2. Connect the Avaya X330LC cable (dark grey connector) to the port on first unit of the stack marked “to the lower unit.”
3. Connect the Avaya X330LC cable (light grey connector) to the port on the last unit in the stack marked “to the upper unit.”

To implement stack redundancy:

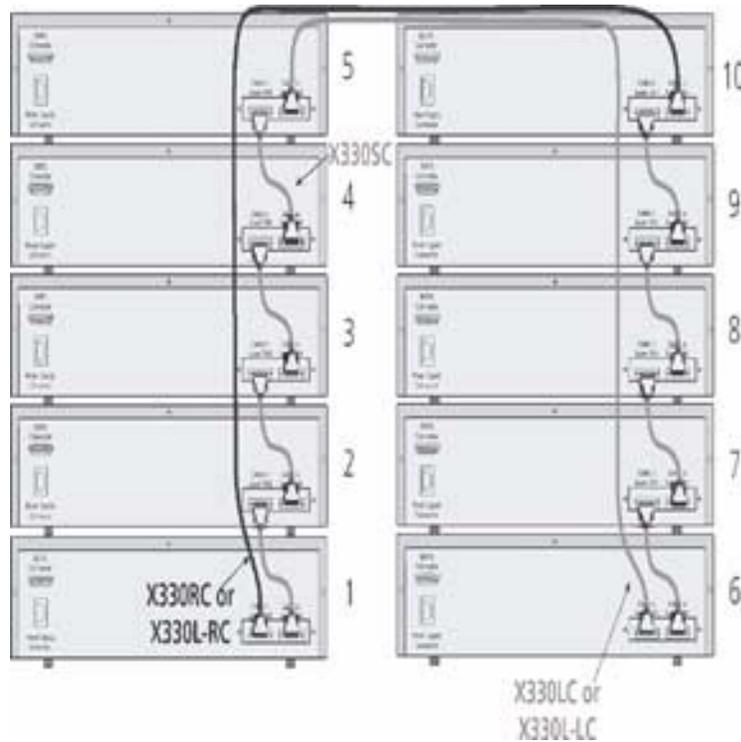
4. Connect the dark grey connector of the black Redundant Cable to the port marked “to lower unit” on the bottom unit of the stack.
5. Connect the light grey connector of the black Redundancy Cable to the port marked “to upper unit” on top unit of the stack.

CAUTION:

Do not cross-connect two stack elements with two Octaplane (light-colored) cables. If you wish to cross-connect for redundancy, use a black redundancy cable.

End _____

Figure 14. Linking Units in Multiple Racks



You have now mounted the fully equipped Avaya G700 Media Gateway in the rack, and cabled units together as described in the planning documents. When all the units are mounted, and cabled, you are ready to connect to electrical ground conductors.

Attach Ground Conductors

To assure safe installation and operation, carefully read all requirements, recommendations and instructions. Pay special attention to all CAUTION, WARNING, and DANGER statements.

⚠ CAUTION:

System grounding must comply with the general rules for grounding provided in Article 250 of the National Electrical Code (NEC), National Fire Protection Agency (NFPA) 70, or the applicable electrical code in the country of installation.

General Grounding Requirements

Two safety grounds are required to ensure safe operation of the G700 Media Gateway: the ground conductor that is part of the AC power cord and the field-installed green/yellow conductor referred to as the Supplementary Ground Conductor. Both safety grounds must be connected to an approved ground. If a power cord accompanies the G700, use that cord whenever possible.

The customer must select a location for the G700 Media Gateway installation that is no more than 50 feet (15 m) from an approved ground. If this location requirement is not met, the customer must contact a licensed electrician to install a Supplementary Ground Conductor per Article 250 of the National Electrical Code (NEC).

⚠ WARNING:

If the installation location is greater than 50 feet (15 m) from an approved ground, do not install the Avaya G700 Media Gateway until a licensed electrician is present to install a Supplementary Ground Conductor.

A 55-foot (16-m) Supplementary Ground Conductor is provided with the equipment, and is constructed of 10 AWG (4.0 mm²) wire, with an insulated ring terminal crimped to one end that is suitable for the #8 (M4) stud/screw on the rear of the G700 chassis.

The customer will need to provide a means of connecting this Supplementary Ground Conductor to an approved ground according to Article 250 of the National Electrical Code (NEC).

A ground block is available for use when multiple G700 Media Gateways are being installed. The ground block, intended for rack mounting, has ten terminals available for terminating Supplementary Ground Conductors. Up to ten G700 Media Gateways can be grounded at the block installed close to the equipment (on a rack) and then a single ground conductor can be routed from the same block to an approved ground. If the ground block is to be used, it must be ordered separately and will include a 10 AWG (4.0 mm²) green/yellow wire to route between the ground block installed on the rack and an approved ground.

⚠ WARNING:

Failure to install both grounds will void the Product Safety certifications (UL and the CE Mark) on the product, as well as allow a hazard to be present that could result in death or severe personal injury.

Because of unreliable earthing concerns in Finland and Norway, the G700 Media Gateway must be installed in a restricted access location. A restricted access location is defined as access that can be gained by only Service Personnel or Customers who have been instructed about the reasons for the restricted access and any safety precautions that must be taken. In these cases, access to the G700 Media Gateway is gained by the use of a tool (such as a lock and key) or other means of security.

⚠ WARNING:

For Installations in Finland and Norway, the Avaya G700 Media Gateway relies on two ground connections (mains plug with an earth contact, and a Supplementary Ground Conductor).

Approved Grounds

An approved ground is the closest acceptable medium for grounding the building entrance protector, entrance cable shield, or a single-point ground of electronic telephony equipment. If more than one type of approved ground is available on the premises, the grounds must be bonded together as required in Section 250-81 of the NEC for the US or per the local electrical code regulations in the country of installation.

- **Grounded Building Steel:** The metal frame of the building where it is effectively grounded by one of the following grounds: acceptable metallic water pipe, concrete encased ground, or a ground ring.
- **Acceptable Water Pipe:** A metal underground water pipe, at least 1/2-in. (1.3 cm) in diameter, in direct contact with the earth for at least 10 ft. (3m). The pipe must be electrically continuous (or made electrically continuous by bonding around insulated joints, plastic pipe, or plastic water meters) to the point where the protector ground wire connects. A metallic underground water pipe must be supplemented by the metal frame of the building, a concrete-encased ground, or a ground ring. If these grounds are not available, the water pipe ground can be supplemented by one of the following types of grounds:
 - Other local metal underground systems or structures - Local underground structures such as tanks and piping systems.
 - Rod and pipe electrodes - A 5/8-in. (1.6 cm) solid rod or 3/4-in. (2 cm) conduit or pipe electrode driven to a minimum depth of 8 ft. (2.4 m).
 - Plate electrodes - Must have a minimum of 2 sq. ft. (0.185 sq. m) of metallic surface exposed to the exterior soil.
- **Concrete Encased Ground:** An electrode encased by at least 2 in. (5.1 cm) of concrete and located within and near the bottom of a concrete foundation or footing in direct contact with the earth. The electrode must be at least 20 ft. (6.1 m) of one or more steel reinforcing bars or rods, 1/2-in. (1.3 cm) in diameter, or at least 20 ft. (6.1 m) of bare solid copper, 4 AWG (26mm²) wire.
- **Ground Ring:** A buried ground that encircles a building or structure at a depth of at least 2.5 ft (0.76 m) below the earth's surface. The ground ring must be at least 20 ft. (6.1 m) of 2 AWG (35 mm²), bare copper wire.
- **Approved Floor Grounds:** Floor grounds are those grounds on each floor of a high-rise building that are suitable for connection to the ground terminal in the riser closet and to the cabinet single-point ground terminal. Approved floor grounds may include the following:
 - Building steel
 - The grounding conductor for the secondary side of the power transformer feeding the floor
 - Metallic water pipes.
 - Power-feed metallic conduit supplying panel boards on the floor.
 - A grounding point specifically provided in the building for that purpose.



WARNING:

If the approved ground or approved floor ground can only be accessed inside a dedicated power equipment room, then connections to this ground must be made by a licensed electrician.

Connect the Safety Ground

Proper grounding of the G700 Media Gateway installation safeguards the system, users and service personnel by providing protection from lightning, power surges, AC mains faults, power crosses on central office trunks, and electrostatic discharge (ESD).

Local electrical installation codes must be followed when installing G700 Media Gateways.

⚠ WARNING:
Connection of both grounds (through the AC Power Cord and the Supplementary Ground Conductor) is required for safe operation of the G700 Media Gateway.

⚠ WARNING:
An improper ground can cause electrical shock as well as equipment failures and service outages.

Attach the Ground Wires

Begin _____

1. Remove the ground screw on the rear of the chassis adjacent to the ground symbol:



2. Place the ring terminal of the 10 AWG (4.0 mm²) Supplementary Ground Conductor on the screw.
3. Replace the ground screw to the chassis and securely tighten the screw such that it cannot be loosened without the use of a tool.

If the ground block is being used: The ground block is usually provided and mounted by the customer electrician.

4. Cut the Supplementary Ground Conductor (which has one end attached to the grounding screw on the chassis) to the length needed to terminate it into one of the terminals of the ground block. Do not coil the Supplementary Ground Conductor.
5. Attach one end of the additional 10 AWG (4mm²) ground wire to one of the terminals in the ground block and the other end to an approved ground.
6. Cut this ground wire to the length needed to reach the approved ground. Do not coil this wire.

If the ground block is not being used, simply:

7. Attach the Supplementary Ground Conductor to an approved ground.
8. Connect the AC power cable to the inlet receptacle on the rear of the chassis.

End _____

You have now mounted the fully equipped G700 Media Gateway in the rack, cabled units together as described in the planning documents, and connected to electrical ground conductors. When all the units are mounted, cabled, and grounded, you are ready to apply power.

Connect AC Power

For North American installations, the AC Power Cord terminates on one end with a NEMA-15P plug to connect to the AC main socket-outlet at the wall. For installations in other regions, the plug to be used must comply with the local regulations and be marked as such, be suitable for the current and voltage being used, and contain an earthing pin for connection to ground at the AC mains socket-outlet through the cord.

To prevent accidental interruption of power to the G700 Media Gateway, do not connect the G700 Media Gateway to a switch-controlled AC wall socket-outlet. In addition, Avaya Inc. highly recommends that the customer use a UPS for back-up power.

Advise your customer to verify through a licensed electrician that the ground connection at the AC outlet to be used is attached to an approved ground.

Power Requirements

The G700 Media Gateway uses an auto-ranging 100-240 VAC power supply, 50 to 60 Hz, 5 A maximum at 100-120 VAC and 2 A maximum at 200-240 VAC. The AC power source is to be single phase, 3-conductor (Line, Neutral and Ground) with a 15 A circuit breaker for 100-120 VAC or a 10 A circuit breaker for 200-240 VAC.

Test the AC Outlet

WARNING:

The following recommended test equipment, tests and diagrams are intended only for North American installations at 110 to 125 Volts AC. For installations in other regions, have a licensed electrician verify the ground and voltages.

WARNING:

If the AC outlet tests indicate that the power requirements are not met, your customer must contact a licensed electrician. **DO NOT** install the system until all requirements are met.

Fault Conditions

If the AC outlet tests that follow reveal any of the following conditions, they must be corrected **BEFORE** the system is to be installed.

- Open ground
- Hot and neutral reversed
- Open hot
- Open neutral
- Hot and ground reversed

⚠ WARNING:
 Hazardous voltages are present during this test. Follow all instructions carefully when working the AC power line voltages.

Verify Ground Using an Ideal 61-035 Circuit Tester (or equivalent)

Begin _____

1. Plug the circuit tester into the outlet that you want to test.
 If the circuit is properly grounded, the yellow and white lights on the tester illuminate
2. Unplug the tester.

⚠ WARNING:
 If the tester indicates any type of ground fault, your customer must contact a licensed electrician. DO NOT install the system.

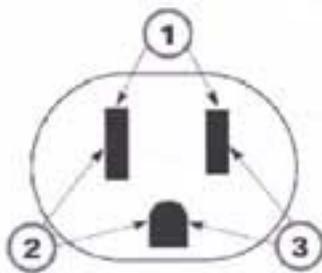
End _____

Verify Voltages Using a Volt-Ohm Millimeter (VOM) (U.S. and countries using 110 to 125 V AC power)

Begin _____

⚠ WARNING:
 Hazardous voltages are present during this test. Follow all instructions carefully when working with AC power line voltages.

1. Ensure that the VOM is set to read Volts AC
2. Set the VOM to the lowest scale on which you can read 130 V AC.
3. Measure the AC voltages in the following order:



1. Phase to neutral should be 110 to 125 V AC.
2. Neutral to ground should be less than 1 V AC.
3. Phase to ground should be 110 to 125 V AC.

If the voltage readings do not measure the values given, the AC outlet is improperly wired. DO NOT INSTALL THE SYSTEM. Advise the customer to have a licensed electrician correct the problem.

End _____

You are ready to power the system.

Plug in AC Power

Once the ground and voltages have been verified to be correct for the installation, connect to AC power.

Begin

1. Plug the power cord into the outlet that was tested.

Note: There is no On/Off power switch on the G700 Media Gateway. The AC inlet serves as the disconnect device. To disconnect power from the G700 Media Gateway, remove the power cord plug from the AC inlet.

The G700 Media Gateway will power up. The LEDs on the Media Modules, the S8300 Media Server, and the G700 Media Gateway will flash at power-up. Each element will conduct a series of self-tests.

2. The LEDs on the G700 LED panel will flash, and the red ALM LED will light up until the self-tests on the G700 Media Gateway have completed.
3. The LEDs on the S8300 Media Server will light as described in the following sequence:
 - a. ALM - RED - lights up, then turns off
 - b. OK To REMOVE - GREEN - lights up, then turns off
 - c. LEFT LED in SERVICES port - GREEN (10 MB link speed) lights up, then turns off
 - d. LEFT LED in SERVICES port - YELLOW (100 MB link speed) lights up, then turns off
 - e. RIGHT LED in SERVICES port - GREEN lights up, then turns off

When you first power up the S8300, the red Major Alarm LED will be lit. During startup, self-tests will run, after which all LEDs will be off. At this point, you can connect to the S8300. There will be another flash of LEDs when MultiVantage software starts.

4. Verify that:
 - Media Modules: all LEDs are extinguished.

Note: If the initial administration of all MMs is not completed, an alarm LED will light.

- The system (labeled SYS) or master LED (labeled MSTR) lights on one and only one module in the stack.
- G700 Media Gateway: the green CPU LED is illuminated when both the Layer 2 Switching Processor and the G700 Media Gateway Processor are in a normal operational state.

The red ALM LED is illuminated whenever an alarm exists in the G700 Media Gateway Processor. The ALM LED might signal either a hardware failure or a software or firmware condition that could be cleared by resetting the processor. It will also be illuminated because the license file for the S8300 has not yet been installed.

You have now completed the initial installation of the G700 Media Gateway.

End

S8300 LED Indicators

On the faceplate of the S8300 Media Server is a set of LED indicators that are separate from those of the G700 Media Gateway. Also on the faceplate is a button that when depressed for two seconds, will shut down the system, including the operating software on the S8300 Media Server. The LED flashes when shutdown is in progress and remains on when it is safe to remove the S8300 Media Server or to power down.

The functions of the other LEDs are:

- The red Major Alarm indicator on the S8300 Media Server is off when the system is operational unless a Major Alarm has been raised.
- The green OK-to-Remove LED on the S8300 Media Server indicates that shutdown is complete and that it is safe to remove the server or power down the system.

When the S8300 is a local survivable backup (LSP), no LEDs will be lit during normal operations. In case of a network failure or loss of contact with the primary S8300 (or S8700), the G700 Media Gateway will register with the LSP. At that time, the red Alarm LED will light.

When you first power up the S8300, the red Major Alarm LED will be lit. During startup, an LED test will run, after which all LEDs will be off. At this point, you can connect to the S8300. There will be another flash of LEDs when MultiVantage software starts.

3 Configuring a New G700 with an S8300 (Primary Controller or Local Survivable Processor)

The steps to install a new G700 Media Gateway with an S8300 primary controller and the steps to install a new G700 with an S8300 configured as a local survivable processor (LSP) are almost identical, with the following exceptions:

- While running the Configure Server wizard, you specify the S8300 as either a primary controller or an LSP.
- For an LSP, you administer MultiVantage software on the S8700 primary controller, *not* on the S8300. The S8700 then copies the MultiVantage translations to the S8300. For complete information on installing an S8700 Media Server, see the Installation documentation on the “*Avaya S8300 and S8700 Media Server Library CD*, 555-233-825.”

For a new installation, to obtain new software for the Avaya™ G700 Media Gateway or the Avaya™ S8300 Media Server, you may do one of the following:

- Upload the software from a CD on-site
- Download the software directly onto your services computer before going on-site

However, the full load of update software for the S8300 (the .tar file) is available only on CD-ROM.

If you are installing a G700 Media Gateway with either an S8300 or LSP, load and install the license, authentication file, and new S8300 software first. Then use the S8300/LSP server for TFTP services. The new software file for the S8300 (and G700) has a .tar extension and contains both the S8300 and G700 software. The release letter for the installation, which should be shipped with the G700, or available from your Project Manager, will tell you what files you need to load.

Note: A P330 processor is built into the G700 Media Gateway. This P300 processor is also known as the Layer 2 Switch Processor. You normally access the G700 for configuration by first accessing the P300 processor. Configuration and firmware updates of this processor are a required part of most installations and upgrades.

Get Planning Forms from the Project Manager

The project manager should provide you with forms that contain all the information needed to prepare for this installation. The information primarily consists of IP addresses, subnet mask addresses, logins, passwords, people to contact, the type of system, and equipment you need to install.

Verify that the information provided by the project manager includes all the information requested in [“Appendix B: Checklists” on page 257](#).

Get the Serial Number of the G700

You need the serial number of the G700 Media Gateway you are installing or upgrading in order to complete the creation of the customer's license file on the rfa.avaya.com website. To get this number, open the box of the G700 Media Gateway and look for the serial number sticker on the back of the unit. This task will require a preliminary trip to the customer site, if the unit is delivered directly to the customer and you will not have phone or LAN line access from the customer site to access the rfa.avaya.com website.

Check That the Customer Has an FTP Server for Backing up Data

When you complete the installation of the S8300 and G700, you will backup the data. To do this, you will need an FTP address and directory from the customer to which to perform the backup. Check with your project manager or the customer for this information.

Complete the RFA and ART Processes and Download MultiVantage Update Software to Your Laptop

Every S8300 media server and local survivable processor requires a current and correct version of a license file and an Avaya authentication file in order to provide the expected call-processing service.

The license file specifies the features and services that are available on the S8300 media server, such as the number of ports purchased. The license file contains a software version number, hardware serial number, expiration date, and feature mask. The license file is reinstalled to add or remove call-processing features. New license files may be required when upgrade software is installed.

The Avaya authentication file contains the logins and passwords to access the S8300 media server. This file is updated regularly by Avaya services personnel, if the customer has a maintenance contract. A valid authentication file must be present on the S8300 media server, or *all* access to MultiVantage™ software from *any* login is blocked.

A new license file and the Avaya authentication file may be installed independently of each other or any other server upgrades.

License File and MultiVantage Versions of a Local Survivable Processor

The license file of the S8300 as a local survivable processor must have a feature set that is equal to or greater than that of the S8700 media server that acts as primary controller. This is necessary so that if control passes to the LSP, it can allow the same level of call processing as that of the S8700.

Additionally, the S8300 as a local survivable processor must have a version of MultiVantage software that is identical to that of the S8700.

Both the license and MultiVantage software needs of the S8300 as local survivable processor should be identified in your planning documentation.

Complete and Download the License and Authentication Files to Your Laptop

Begin _____

1. Use Windows File Explorer or another file management program to create a directory on your laptop for storing license and authentication files (for example, C:\licenses).
2. Access the Internet from your laptop.
3. Go to **rfa.avaya.com**.
4. Use the System ID or the SAP ID of the customer to locate the license and authentication files for the customer.
5. Check that the license and authentication files are complete. You might need to add the serial number of the customer's G700.
6. If the files are not complete, complete them.
7. Use the download or email capabilities of the rfa web site to download the license and authentication files to your laptop.

End _____

Run the ART Tool for the INADS IP Address

Begin _____

The ART tool is a software tool that generates an IP address for a customer's INADS alarming modem. This IP address is required for configuring the S8300's modem for alarming.

Note: You must generate a license and authentication file before you use the ART tool. Also, the ART process is available *only* to Avaya personnel. Non-Avaya personnel must contact their service support or customer care center for INADS addresses, if required.

1. Access the ART website on your laptop at the URL: <http://spiexp1.cng.avaya.com:8000/cgi-bin/ART/ARTstart.cgi>
2. Run the ART program and write down the IP address for the customer's INADS line.

End _____

Download the Latest MultiVantage Update Software

Begin _____

To install the latest update software for the MultiVantage software that resides on the S8300, you first download the software file to your laptop. Use the following steps:

1. On your laptop, create a directory to store the file (for example, c:\S8300download).
2. Connect to the LAN using a browser on your laptop or the customer's PC and access <http://www.avaya.com/support> on the Internet to copy the required MultiVantage software file to the laptop.

3. At the Avaya support site, select the following sequence of menu options:

```
> Online Services
```

```
> Software/Firmware Downloads
```

4. Scroll down the Software Downloads list on the web page, and double-click **Avaya MultiVantage Software Patches**.

The list of patches appears.

5. Locate the file name that matches the load listed in your planning documentation. The file name ends with **.tar.gz** (*for example only*, 01.0.0.065.4-0006.tar.gz).
6. Double-click the file name.
A File Download window appears.
7. Click on **Save this file to disk**.
8. Save the file to an appropriate directory on your laptop.

End _____

Set up a laptop for an S8300 Media Server direct Ethernet connection

Review Physical Access Methods

Begin _____

1. Check [Figure 15](#) for the location of the S8300 Services port and the G700 Serial Port.
2. If you are installing or upgrading a G700 that does not have an internal S8300 or local survivable processor, check [Figure 15](#) for the location of the ethernet ports. You will need to connect one of the ports to the customer's LAN for loading the latest software.

Figure 15. Summary of S8300 and G700 access methods and tasks

Initial Configuration and Maintenance S8300

Onsite Tasks:

1. Configure media server
2. Install license and authentication files, and upgrade software
3. Verification testing
4. Run diagnostics
5. Upgrade software and configuration

Tool:

Media server web interface

Remote Access of S8300 and G700

1. Diagnosis of media server
2. Alarm notification

System Admin Computer Administration via Corporate LAN

Tasks:

1. Backup and restore data
2. Upgrade and configuration
3. Administer network
4. Admin Telephony features

Tools:

1. Media Server Web Interface
2. Avaya Site Administration
3. Avaya Device Manager
4. System Access Terminal

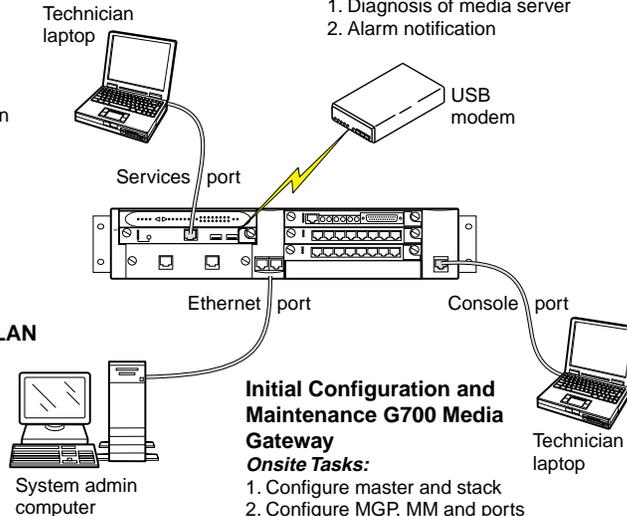
Initial Configuration and Maintenance G700 Media Gateway

Onsite Tasks:

1. Configure master and stack
2. Configure MGP, MM and ports
3. Update configuration
4. Run diagnostics

Tool:

Command Line Interface



cydcacc KLC 082202

A laptop connected directly to the Services Ethernet interface on the S8300 Media Server requires a specific setup. This section covers:

- “General settings”
- “Set TCP/IP properties on Windows systems”
- “Disable proxies in browser”

General settings

On any operating system, the network settings need to reflect the following:

- *TCP/IP properties.* Set the laptop's TCP/IP properties as follows:
 - IP address: 192.11.13.5
 - Subnet mask: 255.255.255.252
- *Browser settings.* Configure the browser for a direct connection to the Internet. Do *not* use proxies.
- *Server address.* Access the S8300 media server using the URL `http://192.11.13.6`

The names of the dialog boxes and buttons vary on different operating systems and browser releases. Use your computer's help system if needed to locate the correct place to enter this information.

Note: Avaya Service technicians can use the NetSwitcher program to configure alternate network profiles so they can easily connect to a number of different systems. NetSwitcher configures a profile for each type of system for easy future access without requiring you to reset TCP/IP properties or browser settings manually. NetSwitcher is available from an Avaya Services CTSA.

The S8300 Media Server uses the same access configuration as an Avaya S8100 Media Server with CMC1 Media Gateway. If you already have a NetSwitcher profile for the S8100 Media Server (formerly called DEFINITY One), try using that profile first before configuring a new one.

Set TCP/IP properties on Windows systems

TCP/IP administration varies among Windows systems as described below.

Note: Make a record of any IP addresses, DNS servers, or WINS entries that you change when you configure your services computer. Unless you use the NetSwitcher program or an equivalent, you will need to restore these entries to connect to other networks.

Check Your Version of Windows

Begin _____

1. Log in to your laptop, and double-click the **My Computer** icon on your desktop.
The My Computer window opens.
2. Click Help on the My Computer window's toolbar.
The Help menu opens and displays the version of Windows installed on your laptop.
3. Follow the appropriate procedure, "[Change TCP/IP Properties and Network Settings \(Windows 2000 and XP\)](#)" on page 72 or "[Change TCP/IP properties \(Windows 95, 98, NT 4.0, and Millennium Edition \[ME\]\)](#)" on page 73.

End _____

Change TCP/IP Properties and Network Settings (Windows 2000 and XP)

Begin _____

1. Right-click My Network Places on your desktop or under the Start menu in XP.
2. Select **Properties** to display the Network and Dial-up Connections window.
Windows should have automatically detected the Ethernet card in your system and created a LAN connection for you. More than one connection may appear.
3. Right-click the correct **Local Area Connection** from the list in the window.
4. Select **Properties** to display the Local Area Connection Properties dialog box.

5. Select **Internet Protocol (TCP/IP)**
6. Click the **Properties** button. The Internet Protocol (TCP/IP) Properties screen appears.
7. On the General tab, select the radio button **Use the following IP address**. Enter the following:
 - IP address: 192.11.13.5
 - Subnet mask: 255.255.255.252

Note: Record any IP addresses, DNS settings, or WINS entries that you change. You may need to restore them later to connect to another network.

8. **Disable DNS service as follows:**
 - a. Click the radio button labeled **Use the following DNS server addresses**. The entries for Preferred DNS server and Alternate DNS server should both be blank.
 - b. Click the **Advanced** button at the bottom of the screen. The Advanced TCP/IP Settings screen appears.
 - c. Click the **DNS** tab. Verify that no DNS server is administered (the address field should be blank).
9. **Disable WINS Resolution as follows:**
 - a. Click the **WINS** tab. Make sure WINS is not administered (the address field should be blank).
 - b. Click **OK**. If warned about an empty primary WINS address, click **Yes** to continue.
10. Click **OK** twice to accept the address information and close the TCP/IP and Local Area Connection Properties dialog boxes.
11. Reboot the system if directed to do so.

After you have made these changes to your computer's network configuration information, the Network and Dial-up Connections window shows the status of the Local Area Connection:

- Enabled appears when the laptop's Ethernet cable is connected to the server.
- Disabled or unplugged appears if the NIC is not connected to anything.

End _____

Change TCP/IP properties (Windows 95, 98, NT 4.0, and Millennium Edition [ME])

Begin _____

1. Access your computer's network information. On your desktop:
 - *Windows 95, 98, and NT:* Right-click Network Neighborhood.
 - *Windows ME:* Right-click My Network Places.
2. Select **Properties** to display the Network dialog box.

3. Locate the TCP/IP properties as follows:
 - *Windows 95, 98, and ME*: On the **Configuration** tab, scroll through the installed network components list to the TCP/IP part of the devices list. Select the TCP/IP device that corresponds to your Ethernet card.
 - *Windows NT*: On the Protocols tab, select **TCP/IP** in the installed network components list.
4. Select the **Properties** button.
5. In the TCP/IP Properties box, click the **IP Address** tab.
6. Click the radio button to **Specify an IP address**, and enter the following:
 - IP address: 192.11.13.5
 - Subnet mask: 255.255.255.252

Note: Record any IP addresses, DNS settings, or WINS entries that you change. You may need to restore them later to connect to another network.

7. Disable DNS service as follows:
 - *Windows 95, 98, and ME*: Click the **DNS Configuration** tab. Verify that the **Disable DNS** radio button is selected.
 - *Windows NT*: Click the **DNS** tab.
 - If any IP addresses appear under DNS Service Search Order, make a note of them in case you need to restore them later.
 - Select each IP address in turn and click the **Remove** button.
8. Disable WINS Resolution as follows:
 - *Windows 95, 98, and ME*: Click the **WINS Configuration** tab. Verify that the **Disable WINS Resolution** radio button is selected.
 - *Windows NT*: Click the **WINS Address** tab.
 - If any IP addresses appear for the Primary and Secondary WINS servers, make a note of them in case you need to restore them later.
 - Clear each server entry.
 - Clear the checkbox for **Enable DNS for WINS Resolution**.
9. Click **OK** twice to accept the address information and close the Network dialog box.
10. Reboot the system if directed to do so.

End _____

Disable proxies in browser

Begin

If you are connecting a laptop directly to the Services Ethernet interface on the S8300 Media Server faceplate, you must disable proxies as described below.

Note: You may not have to disable using a proxy server if you instruct your browser to not use the proxy server when accessing address 192.11.13.6 from a directly connected laptop. Otherwise, you need to remember to turn proxy usage on or off as needed.

To check or change proxy settings:

1. Open your Internet browser.
2. Verify that you have a direct connection with no proxies as follows:
 - **Internet Explorer**
 - a. Select **Tools > Internet Options**.
 - b. Click the **Connections** tab.
 - c. Click the **LAN Settings** button.
 - d. Deselect **proxy server** if selected, and click **OK**.
 - e. Click **OK** again to close the Internet Options dialog box.
 - **Netscape**
 - a. Select **Edit > Preferences**.
 - b. Under Category, click **Advanced**.
 - c. Click **Proxies**.
 - d. Make sure **Direct connection to the Internet** is selected.
 - e. Click **OK**.

If there is a proxy server you normally use with your Internet browser, you can automatically exclude proxy servers when you are directly connected to the S8300 via the services port (192.11.13.6) interface:

1. Open your Internet browser.
2. Create an exception to using proxy servers using the following steps:
 - **Internet Explorer**
 - a. Select **Tools > Internet Options**.
 - b. Click the **Connections** tab.
 - c. Click the **LAN Settings** button.
 - d. If **Use a proxy server** is already selected, click **Advanced**.
 - e. In the Exceptions box, type **192.11.13.6**. If there are any existing entries in this box, add to the list of entries and separate entries with a ";".
 - f. Click **OK** to close the Proxy Settings dialog box.
 - g. Click **OK** again to close the LAN settings dialog box.
 - h. Click **OK** again to close the Internet Options dialog box.

- **Netscape**
 - a. Select **Edit > Preferences**.
 - b. Under Category, click **Advanced**.
 - c. Click **Proxies**.
 - d. Click **Manual Proxy Configuration**.
 - e. Click View.
 - f. In the Exceptions box, type **192.11.13.6**. If there are any existing entries in this box, add to the list of entries and separate entries with a ";".
 - g. Click **OK** to close the Manual Proxy Configuration dialog box.
 - h. Click **OK** again to close the Preferences dialog box.

End _____

Install License and Authentication Files

You load new license or authentication files from the services laptop or another computer on the network.

Note: If your S8300 Media Server is already set up for remote access, Avaya services personnel can copy new license and authentication file information directly into the FTP directory on the server. Avaya personnel will notify you when the new files are in place as agreed (for example, by telephone or email). To install the files, use the **Install License** and **Install Avaya Authentication** screens from the S8300 main menu Web page.

Note: Before an upload or download, be sure the S8300 FTP directory contains no files with a .pwd or.lic extension. Only one of these files can exist in a directory. If one exists, move, rename, or delete it.

CAUTION:

After you install the license and authentication files, be sure to perform [“Run Save Translations” on page 82](#). This task saves the official passwords for the customer’s system in the MultiVantage software. If you fail to perform this step, you may be irretrievably locked out of the system later in the installation when the system reboots.

Connect Laptop to Services Port of S8300

Begin _____

To connect your laptop directly to the S8300 Media Server:

1. Make sure your laptop meets the hardware and software requirements.
2. Plug an Ethernet crossover cable (MDI to MDI-X) into the 10/100 BaseT Ethernet network interface card (NIC) on your laptop.
 - Crossover cables of various lengths are commercially available.
 - See [Table 7](#) for pinout connections if needed. Crossover of the transmit and receive pairs (as shown) is required

3 Configuring a New G700 with an S8300 (Primary Controller or Local Survivable Processor):

3. Connect the other end of the laptop's Ethernet cable to the Services port on the front of the S8300 media server (see [Figure 15 on page 71](#)).
4. If your laptop is already configured with the correct network settings, you can now open your Internet browser and log in.
 - When accessing the server from a directly connected laptop, always type the following IP address in the browser's Address or Location field to access the server: 192.11.13.6
 - If you have never connected this laptop directly to an S8300 Media Server before, see ["Set up a laptop for an S8300 Media Server direct Ethernet connection"](#) on page 70.

End

Table 7. Crossover cable pinout chart

Pin to Avaya™ S8300 Media Server's Services Ethernet interface	connects to	Pin to laptop's Ethernet card
8		8
7		7
6		2
5		5
4		4
3		1
2		6
1		3

Log in to the S8300 from Your Laptop using Telnet

Begin

Note: You may access the S8300 using telnet in other ways as well. See *"Welcome to Avaya™ S8300 Media Server and Avaya™ G700 Media Gateway, 555-234-200"* for details.

To run the telnet program:

1. Make sure you have a valid Ethernet or serial connection from your computer to the S8300 Media Server.
2. Access the telnet program as follows:
 - If you are not yet logged in, open a telnet program on your computer. For example, on a Windows system, go to the **Start** menu and select **Run**.
3. Type `telnet` to begin a telnet CLI session. An example is:
 - Type `telnet 192.11.13.6` to access the S8300 CLI.
4. When the **login** prompt appears, type the appropriate user name (such as **cust** or **craft**).

5. When prompted, enter the appropriate password.

Note: This password will change to an ASG challenge after you install the authentication files and “[Run Save Translations](#)” on [page 82](#). Business partners should check with their Avaya service support group for the proper passwords for the ASG challenge.

6. *If you log in as **craft***, you are prompted to suppress alarm origination. Generally you should accept the default value (yes).
7. Enter your terminal type. Accept the default value, or enter the appropriate type for your computer. For example, you may use type **ntt**, a terminal type available for Windows NT4.0 or Windows 98. For Windows 2000, use **w2ktt**.

The telnet prompt appears. It may take the form `<username@devicename>`.

End _____

Log in to the MultiVantage SAT Screens

Begin _____

1. *If you already have a valid telnet session in progress*, access the SAT program by typing **sat** or **dsat**.

2. Log in to the MultiVantage software as **craft**.

Enter your login confirmation information as prompted:

- *Password prompt.* Type your password in the Password field, and click Login or press Enter again.
- *ASG challenge.* If the login is Access Security Gateway (ASG) protected, you will see a challenge screen. Enter the correct response and click Login or press Enter.

3. Enter your terminal type. Accept the default value, or enter the appropriate type for your computer. For example, you may use type **ntt**, a terminal type available for Windows NT4.0 or Windows 98. For Windows 2000, use **w2ktt**.

The SAT interface appears.

4. Enter SAT commands as appropriate.

End _____

Log in to the S8300 Web Interface from Your Laptop

Begin

Note: You may access the S8300 web interface in other ways as well. See “Welcome to Avaya™ S8300 Media Server and Avaya™ G700 Media Gateway, 555-234-200” for details.

1. Open a compatible Internet browser on your computer. Currently only Internet Explorer 5.x (5.5 with Service Pack 2 is recommended) and Netscape 4.7x are supported.
2. In the Address (or Location) field of your browser, type the **192.11.13.6** and press **ENTER**.

If your browser does not have a valid security certificate, you will see a warning screen and instructions to load the security certificate.

3. Accept the server security certificate to access the Login screen.

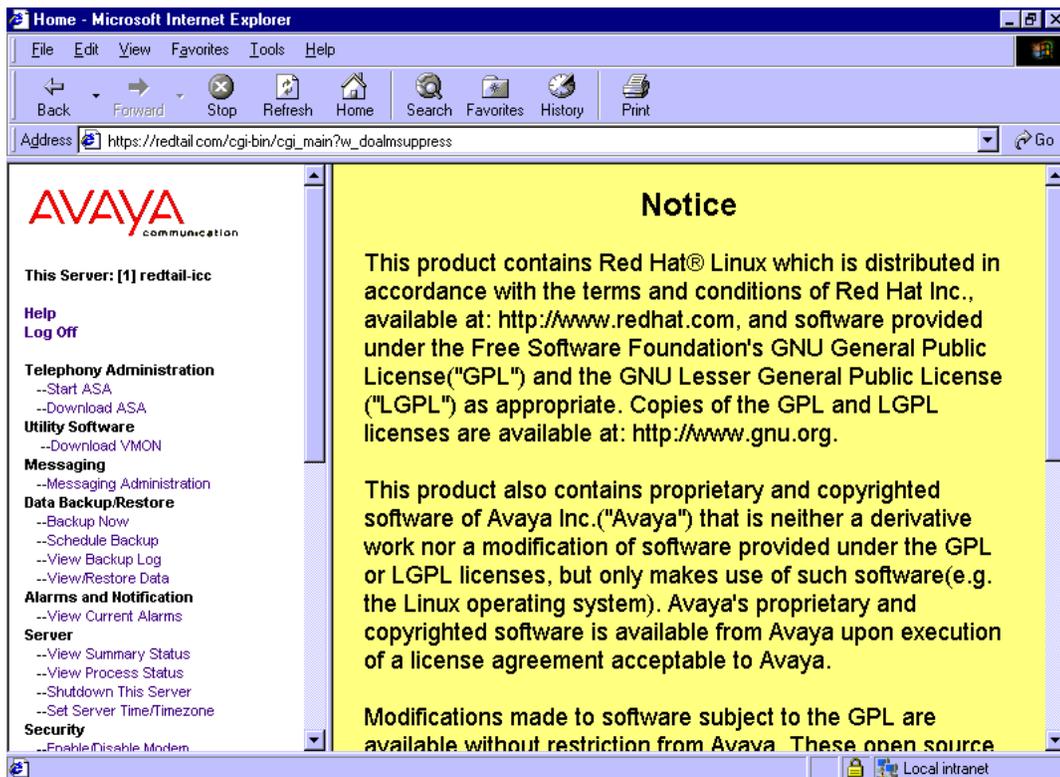
The Login screen appears.

4. Log in as **craft** using the initial installation password for craft.

Note: This password will change to an ASG challenge after you install the authentication files and “Run Save Translations” on page 82.

The S8300 main menu appears in the left panel and a usage-agreement notice in the right window.

Figure 16. S8300 Main Menu



5. Check the top of the left panel.
 - The Avaya Media Server you are logged into is identified by name and server number.
 - The S8300 media server number is always 1.

End _____

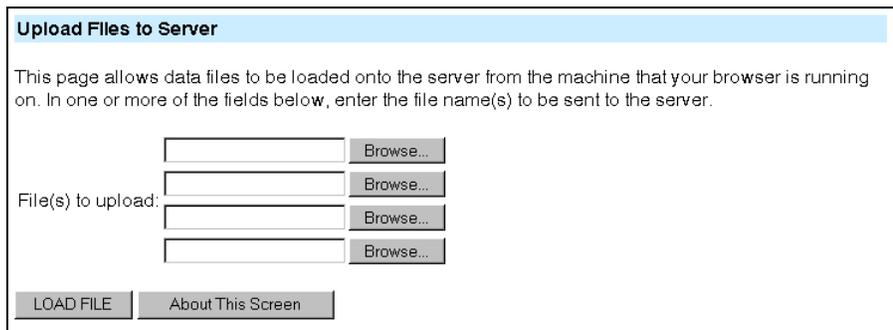
Load License and Authentication Files (from Your Laptop)

Begin _____

1. In the main menu under **Miscellaneous**, click the **Upload Files to Server (via browser)** link.

The system displays the Upload Files to Server window.

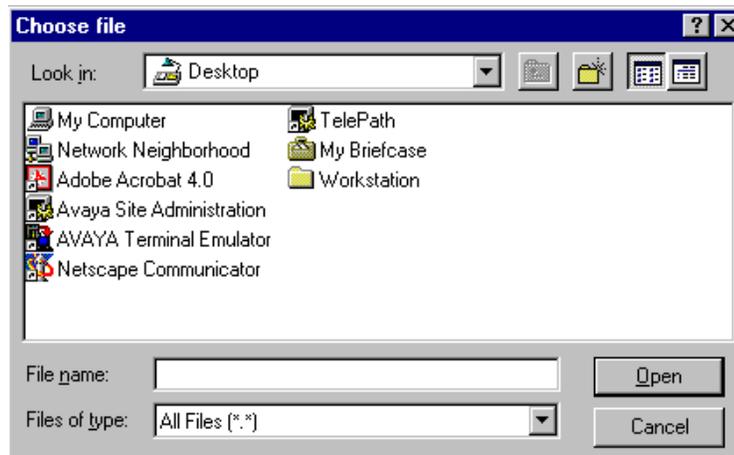
Figure 17. Upload Files to Server Window



2. Click the Browse button for the first field.

The S8300 displays the Choose File window, which allows you to select files from your laptop.

Figure 18. Choose File Window



3. Locate the customer's .lic file.
4. When you have selected the .lic file, click **Open** in the dialog box.

5. Click the **Browse** button for the second field.
6. Locate the customer's .pwd file on your laptop.
7. When you have selected the .pwd file, click **Open** in the dialog box.
8. Click **Load File**.

When the files are successfully transferred, the system displays the status screen.

9. Check that the Status box displays OK.

End _____

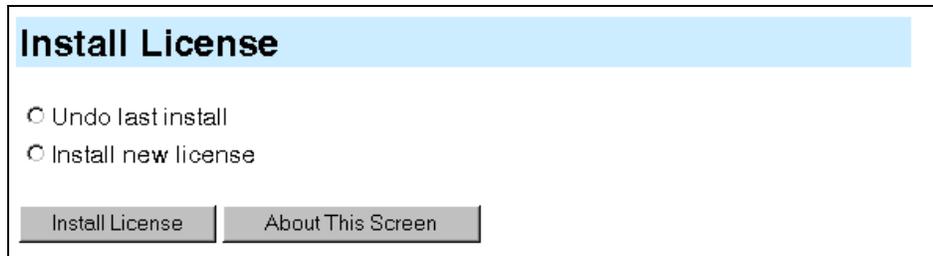
Install License and Authentication Files (from Your Laptop)

Begin _____

1. From the S8300 main menu, under the Security heading, select **Install License**.

The S8300 displays the Install License window.

Figure 19. Install License Window



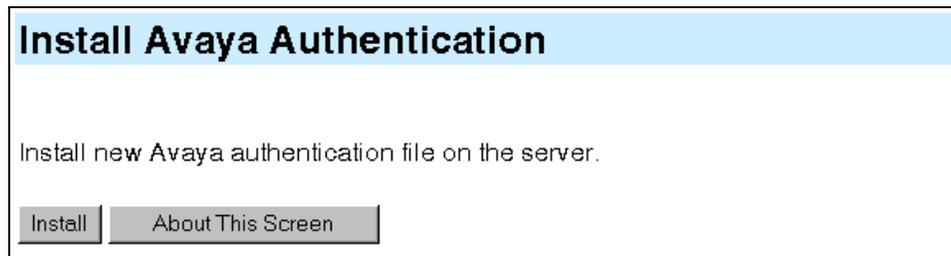
2. Click the **Install new license radio** button, then click the **Install License** button at the bottom of the screen.

The system tells you the license is installed successfully.

3. From the S8300 main menu, under the Security heading, select **Install Avaya Authentication**.

The S8300 displays the Install Avaya Authentication window.

Figure 20. Install Authentication Window



4. Click the Install button.

The system tells you the authentication is installed successfully.

End _____

Run Save Translations

Begin _____

CAUTION:

This procedure saves the official passwords for the customer's system in the MultiVantage software. If you fail to perform this step now, you may be irretrievably locked out of the system later in the installation when the system reboots.

1. At the prompt in the telnet window, type **sat** and press **ENTER**.
2. Log in again as craft.
3. At the SAT prompt, type **save translations** and press **ENTER**.

The system displays the message **Command successfully completed**.

End _____

Load New Software on the S8300

Although this is a new installation and software already exists on the S8300, there may be new software loads available that you may need to install. Follow the steps in this section to bring the S8300 to the most recent load of software.

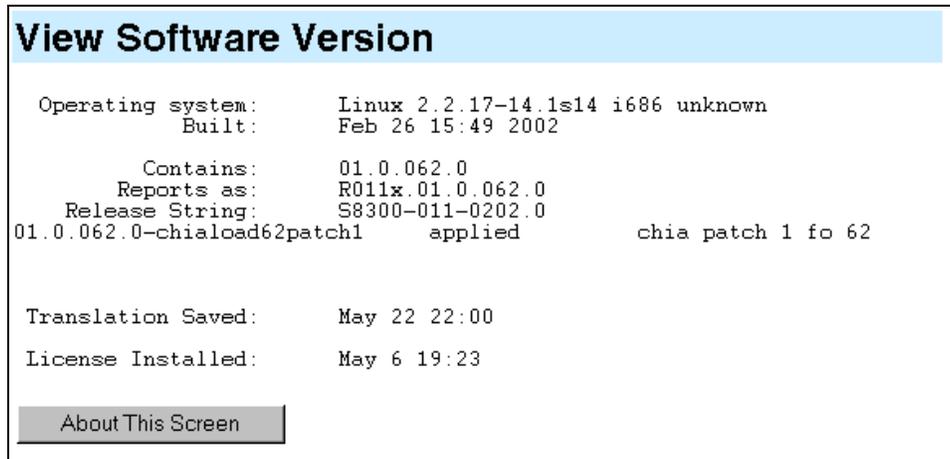
Determine Necessary Upgrades to the S8300

Begin _____

1. Choose **View Software Version** under **Server Configuration and Upgrades** on the left pane of the S8300 main menu.

The S8300 displays the **View Software Version** screen.

Figure 21. View Software Version Window



2. Check the **Contains** field for the version number of the MultiVantage software. If your Release Letter has a higher number, you must install new software.
3. Check the **Release String** field for the version number of the S8300 software. If your Release Letter has a higher number, you must install new software.

End _____

Transfer Files from a CD or Hard Drive of Laptop

Begin _____

Normally, during a new installation, you will have the CD-ROM that contains the latest software to install. The latest software for the S8300 has a file name that reflects the most recent load of software and a **.tar** extension (*for example only*, S8300-11.2-0209.3.tar). This **.tar** file will also contain the most recent software for the G700 Media Gateway, the various Media Modules, and the Layer 2 Switching Processor. The latest update software for MultiVantage has a file name that reflects the most recent load of software and **.tar.gz** extension (*for example only*, 01.0.065.4-0006.tar.gz).

CAUTION:

You cannot use the S8300 as a TFTP server for IP Softphone software installations. The customer is responsible for establishing a TFTP server on a PC in the customer's network.

1. Log in to the S8300 Web interface (see "[Log in to the S8300 Web Interface from Your Laptop](#)" on [page 79](#)).
2. Choose **Upload Files to Server** under **Miscellaneous** on the left pane of the main menu.
The S8300 displays the **Upload Files to Server** window.

Figure 22. Upload Files to Server Window

Upload Files to Server

This page allows data files to be loaded onto the server from the machine that your browser is running on. In one or more of the fields below, enter the file name(s) to be sent to the server.

File(s) to upload:

Browse...

Browse...

Browse...

Browse...

LOAD FILE About This Screen

3. Click the **Browse** button for the first field.

The S8300 displays the **Choose File** window, which allows you to select files from your laptop.

4. Locate the **.tar** file for the latest S8300 software.
5. Click the **Browse** button for the second field.
6. Locate the **.tar.gz** file for the latest MultiVantage software.
7. Click **Load File**.

When the files are successfully transferred, the system displays the status screen.

8. Check that the Status box displays **OK**.

End _____

Install Software on the S8300

Once you have transferred the updated S8300 software file (with a **.tar** extension) to the S8300 Media Server, the software is then available to be installed.

Note: You cannot install the MultiVantage software in the same way.

Set the Time and Date

Begin _____

1. Choose **Set Server Time/Time Zone and Date** from the menu on the left pane of the main menu.

The S8300 displays the Set Server Time/Timezone window.

Figure 23. Set Server Time/Timezone Window

Set Server Time / Timezone

This page allows you to set the server time and timezone information. If a time is entered, it will be interpreted within the timezone selected. You may select a time and/or a timezone, then click Submit to activate the change.

The current time is Tue Aug 6 11:22:18 MDT 2002

Select time (hours:minutes) set time : 0 0

Select a date (month, day, optional year) set date

Select a timezone

- US/Mountain
- US/Central
- US/East-Indiana
- US/Aleutian
- US/Eastern
- US/Indiana-Starke
- UTC
- Universal

Submit About This Screen

2. Set the media server's time close enough to the NTS's time, date, and time zone that synchronization can occur (within about 5 minutes).

End _____

Install New Software

Begin _____

CAUTION:

Be sure to set the time and timezone first. Failure to do so may cause network problems later.

1. Choose **Install New Software Release** from the left pane of the main menu.

The S8300 displays the **Choose Software** screen.

Figure 24. Choose Software Window

Install New Software	
Progress:	Choose Software:
Choose Software	
Choose License Source	The following Web pages guide you through the process of installing a new software release. To correctly install the software, you must complete all the steps in this sequence. If you do not complete all the steps, this server will not function properly.
Review Notices	
Begin Installation	
Install in Progress	
Reboot Server	The software installation process runs in a separate browser window in the front of the main browser window. The list to the left shows the steps in this process. The blue bar highlights the step you are currently completing. You can return to the main browser window at any time.
Reboot In Progress	
Install License Files	
Installation Complete	
	This server is currently running release: S8300-011-0205.5
	<input type="radio"/> Release 0021.1 in the FTP directory
	<input type="radio"/> Release S8300-11.2-0205.5 in the FTP directory
	<input checked="" type="radio"/> Release S8300-11.2-0207.1 in the FTP directory
	<input type="radio"/> Release S8300-11.2-0204.0 on the hard drive
	Click Continue to proceed. Click Cancel to cancel the install.
	<input type="button" value="Continue"/> <input type="button" value="Cancel"/> <input type="button" value="About This Screen"/>

2. On the **Choose Software** screen, select the software release number that matches your release letter. Click **Continue**.

The S8300 displays the **Choose License Source** window.

Figure 25. Choose License Source Window

Choose License Source	
Progress:	Choose License Source:
Choose Software	
Choose License Source	You must have a software license file before you install this software release. If you do not have this file available, use tools in the main window to transfer it to the system. DO NOT continue this installation until it is available.
Review Notices	
Begin Installation	
Install in Progress	
Reboot Server	Select a source for the license files:
Reboot In Progress	<input type="radio"/> I will supply the license files myself when prompted later in this process.
Install License Files	<input checked="" type="radio"/> I want to reuse the license files from the currently active partition on this server.
Installation Complete	
	It is not normally necessary to update the authentication information, but if the new software documentation instructs you to, you may update it as well.
	<input checked="" type="radio"/> Do not update authentication information.
	<input type="radio"/> Update authentication information as well as license information.
	Click Continue to proceed. Click Cancel to cancel the install.
	<input type="button" value="Continue"/> <input type="button" value="Cancel"/> <input type="button" value="About This Screen"/>

3. On the **Choose License Source** screen, click the radio button next to the following:
 - **I want to reuse the license files from the currently active partition on this server.**
 - **Do not update authentication information.**

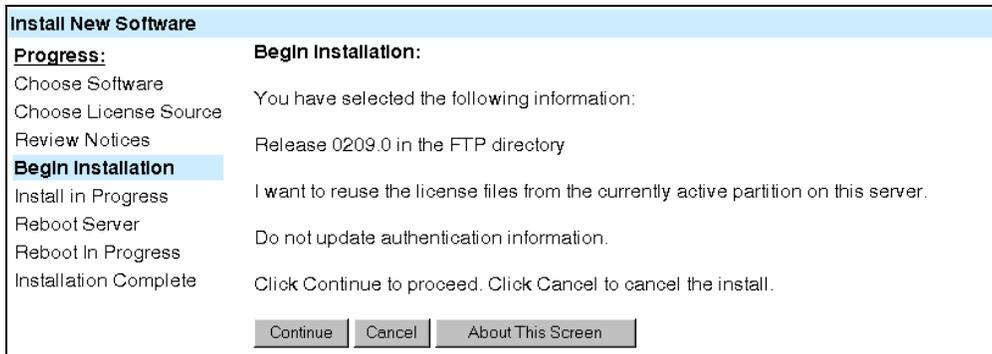
⚠ CAUTION:

If you did *not* install the authentication and license files and “Run Save Translations” on page 82, you **must** select the following options and follow instructions to select the license and authentication files from the ftp directory. Failure to do so may cause you to be locked out of the S8300 after the next reboot. This may force replacement of the S8300.

- **I will supply the license/authentication files myself when prompted later in this process.**
 - **Update authentication information as well as license information.**
4. Click **Continue**.

The S8300 displays the **Begin Installation** screen, which summarizes the request you have made.

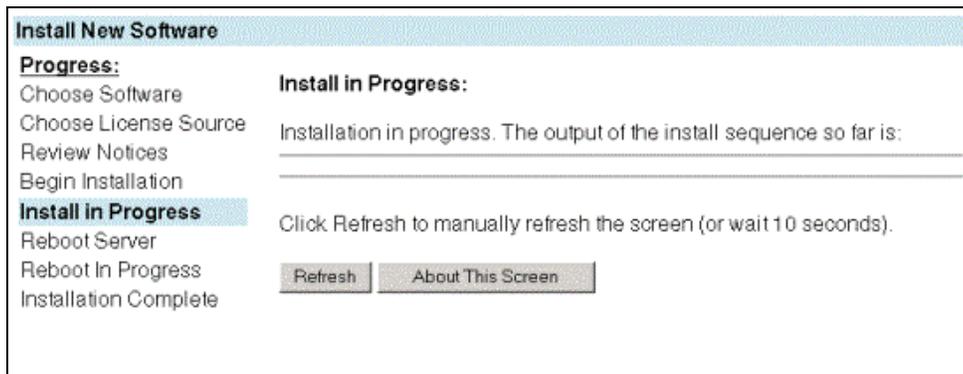
Figure 26. Begin Installation Screen



5. At the **Begin Installation** screen, click **Continue**.

The S8300 displays the **Install in Progress** screen.

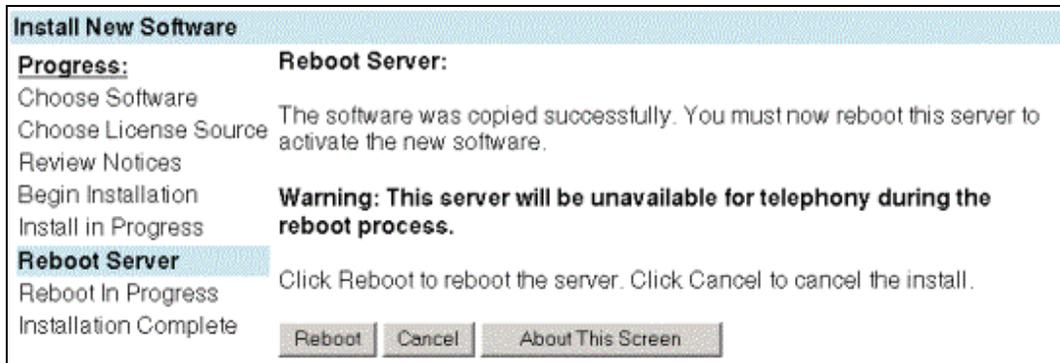
Figure 27. Install in Progress Window



6. Watch the progress of the installation.

The **Install in Progress** screen refreshes every 5 seconds or on demand by clicking the **Refresh** button. The installation will take approximately 10 to 20 minutes. When complete, the S8300 displays the **Reboot Server** screen.

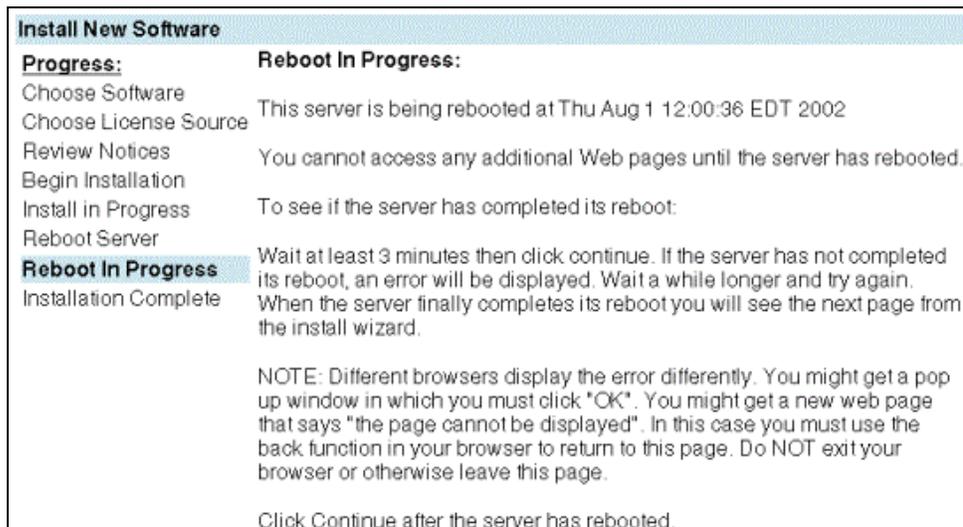
Figure 28. Reboot Server Window



7. Click **Reboot**.

The S8300 displays the **Reboot in Progress** screen.

Figure 29. Reboot in Progress Screen



CAUTION:

The reboot can take up to 20 minutes. However, the system does not automatically tell you when the reboot is complete. **Do not click Continue** until you are sure the reboot is complete, otherwise the installation will fail.

8. You can ping the S8300 continuously to see when the installation is complete. To ping the S8300, do the following:

- a. Open a DOS window.
- b. At the command prompt, type **ping -t 192.11.13.6**.

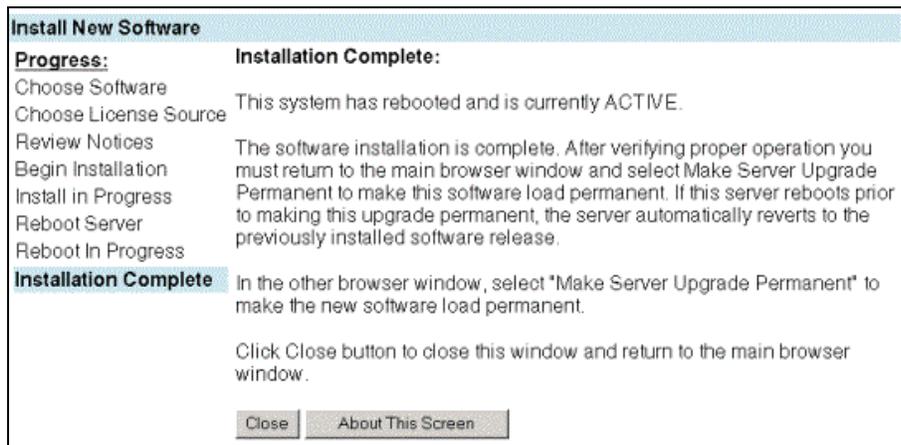
The ping will succeed only when the reboot is complete.

Alternatively, you can wait three minutes or more and press the Refresh button to see if the reboot is complete. Monitor the LEDs on the S8300 for progress on the installation. The Services port jack should have one yellow LED on the left that stays lit. The green LED on the right flashes until the reboot is complete.

9. When the pinging of the S8300 is successful a dozen times, or pressing the Refresh button shows that the reboot is complete, click **Continue**.

The S8300 displays the **Installation Complete** screen.

Figure 30. Installation Complete Screen



10. Click **Close**.

You will be returned to the main menu where you must make the upgrade permanent.

End _____

Make the Upgrade Permanent

Begin

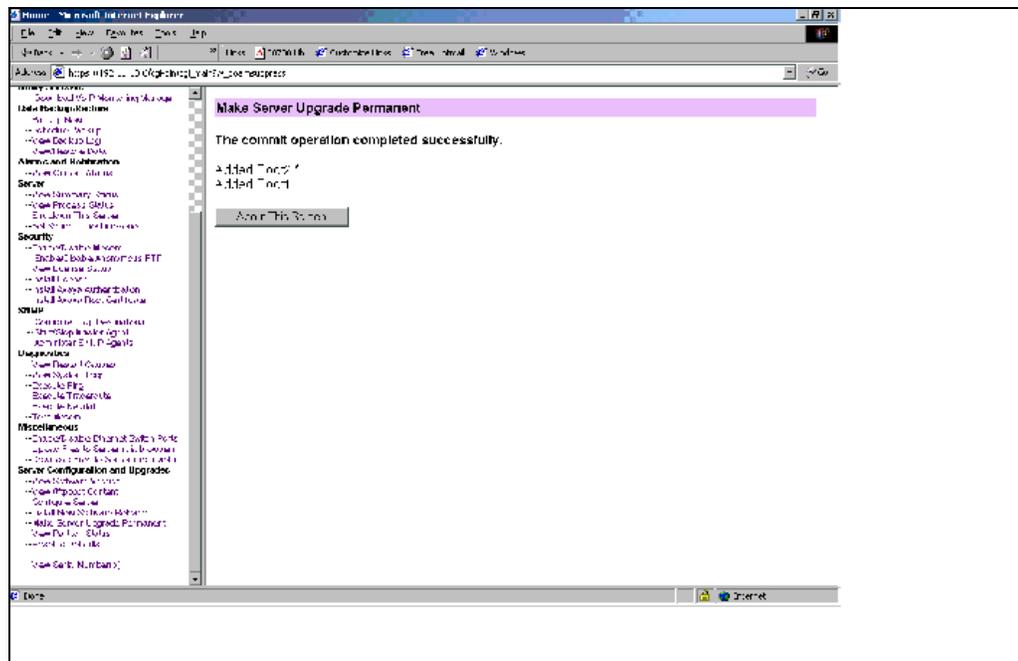
CAUTION:

You must make the installation of the software permanent so that the software is recognized and kept on the S8300. If you fail to make software permanent, then the next time you reboot, old software will become active.

1. Choose **Make the Upgrade Permanent** from the left pane of the S8300 main menu.

The S8300 displays the Make Server Upgrade Permanent window.

Figure 31. Make Server Upgrade Permanent Screen



2. Click **ENTER**.

When the new S8300 software is permanent, the S8300 displays the message: **The commit operation completed.**

End

Note: The next time you log in, the craft password will change to an ASG challenge if you installed the authentication files and performed [“Run Save Translations” on page 82](#). Business partners should check with their Avaya service support group for the proper passwords.

Install MultiVantage Patch Files from Your Laptop

Begin _____

1. From your laptop, start a telnet session to the S8300. (See the final steps in “[Install New Software](#)” on page 85.)
2. At the telnet prompt, type **cd /var/home/ftp** and press **ENTER** to access the FTP directory.
The directory path changes to **/var/home/ftp**.
3. At the prompt, type **ls -ltr** and press **ENTER** to list files in the FTP directory.
The S8300 displays a list of files in the FTP directory.
4. Verify that the directory contains the MultiVantage software **.tar.gz** file you just uploaded.
5. Type **patch_show** and press **ENTER** to list MultiVantage software files that were previously installed.
The S8300 displays a list of software files currently installed, if any.

 **CAUTION:**

Do not remove any of the files in the list.

6. Type **sudo patch_install <patch>.tar.gz**, where **<patch>** is the release or issue number of the latest software file. Press **ENTER**.
7. Type **patch_show** again and press **ENTER** to list MultiVantage software files to verify the new software file was installed.
8. Type **sudo patch_apply <patch>**, where **<patch>** is the release or issue number of the latest software file. Press **ENTER**.

Note: Do *not* use the .tar.gz extension on the back of the file name.

The S8300 goes through a software reset system 4. The S8300 also may display the message **/opt/ecs/sbin/drestart 1 4 command failed**. Ignore this message. You must wait until the restart/reset has completed before entering additional commands.

The S8300 displays a message that the patch was applied.

9. Type **patch_show** again and press **ENTER** to list MultiVantage software files to verify the new software file was applied.

End _____

Configure the S8300

CAUTION:

Be sure to set the time and timezone first. Failure to do so may cause network problems later.

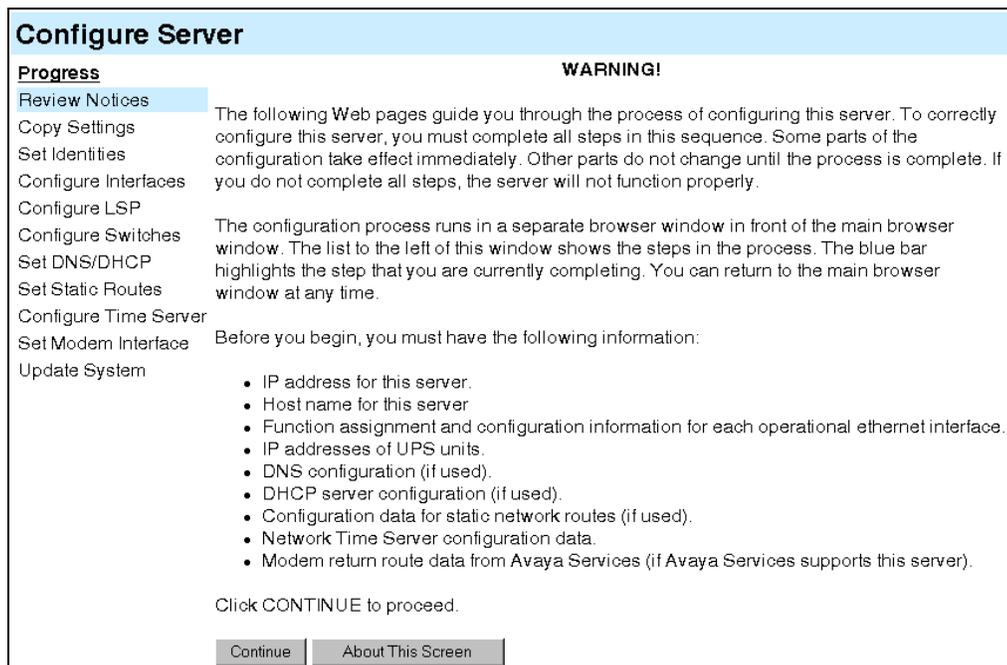
Begin

Note: Do *not* confuse the configuration web pages in this section with the Avaya Installation Wizard (AIW). AIW is an optional tool for new installations only and helps you install both S8300 and G700 software. After the initial installation of software, however, you must modify S8300 configuration with the S8300 Configuration web pages.

1. Under the Server Configuration and Upgrades on the S8300 main menu, click **Configure Server**.

The Configure Server screen appears.

Figure 32. Configure Server Screen

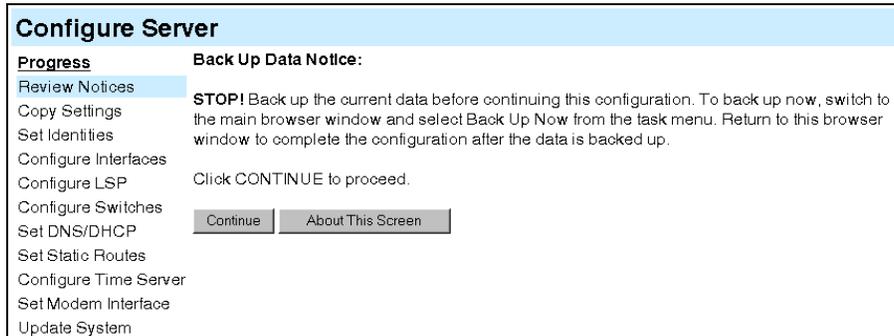


Progress	WARNING!
Review Notices	<p>The following Web pages guide you through the process of configuring this server. To correctly configure this server, you must complete all steps in this sequence. Some parts of the configuration take effect immediately. Other parts do not change until the process is complete. If you do not complete all steps, the server will not function properly.</p> <p>The configuration process runs in a separate browser window in front of the main browser window. The list to the left of this window shows the steps in the process. The blue bar highlights the step that you are currently completing. You can return to the main browser window at any time.</p> <p>Before you begin, you must have the following information:</p> <ul style="list-style-type: none">• IP address for this server.• Host name for this server• Function assignment and configuration information for each operational ethernet interface.• IP addresses of UPS units.• DNS configuration (if used).• DHCP server configuration (if used).• Configuration data for static network routes (if used).• Network Time Server configuration data.• Modem return route data from Avaya Services (if Avaya Services supports this server). <p>Click CONTINUE to proceed.</p> <p><input type="button" value="Continue"/> <input type="button" value="About This Screen"/></p>
Copy Settings	
Set Identities	
Configure Interfaces	
Configure LSP	
Configure Switches	
Set DNS/DHCP	
Set Static Routes	
Configure Time Server	
Set Modem Interface	
Update System	

2. Click **Continue**.

The **Back Up Data Notice** screen appears. On a new installation, a backup is unnecessary.

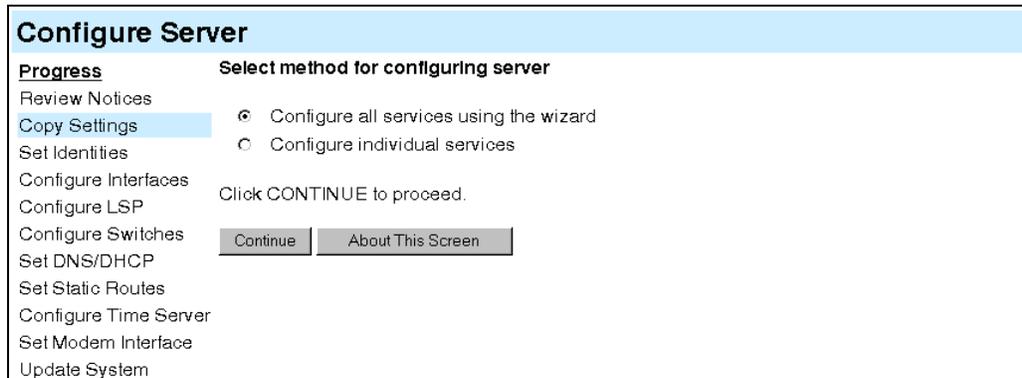
Figure 33. Back Up Data Notice Screen



3. Click **Continue**.

The **Select Method** screen appears.

Figure 34. Select Method Screen



4. If you are installing a new system, click **Configure all services using the wizard**. With this option, the wizard will guide you through the screens to configure all of the IP services. You can also use this option if you are upgrading an existing system.

Note: This option is *not* to select the Avaya Installation Wizard. AIW is an optional tool you can use instead of the S8300 configuration wizard web pages.

If you are upgrading an existing system, you may also click **Configure individual services**. This method is useful after an initial configuration has been completed and one or more services need to be changed.

5. Click **Continue**.

The **Set Server Identities** screen appears.

Figure 35. Set Server Identities Screen

Configure Server	
Progress	Set Server Identities:
Review Notices	Server names must be unique.
Copy Settings	
Set Identities	Host Name: <input type="text" value="greyhawk"/>
Configure Interfaces	
Configure LSP	The following functions are assigned to the ethernet ports. Physical connections to the Ethernet ports must match these settings.
Configure Switches	
Set DNS/DHCP	
Set Static Routes	1. Services Port: Ethernet 0
Configure Time Server	2. Control Network: Ethernet 1
Set Modem Interface	
Update System	Click CONTINUE to proceed.
<input type="button" value="Continue"/> <input type="button" value="About This Screen"/>	

- Enter the host name for this server in the **Host Name** field (see your planning forms).
The host name uniquely identifies this server.



CAUTION:

If the S8300 on the G700 is hosting an IA 770 INTUITY AUDIX Messaging Application *with Digital Networking*, the name *must* be 10 characters or less.

The screen also lists the current physical cabling to the server. For example, the Services laptop is connected to Ethernet interface 0. Ethernet functions are fixed on the S8300 media server and cannot be changed.

- Click **Continue**.

The **Configure Ethernet Interfaces** screen appears.

Figure 36. Configure Ethernet Interfaces Screen

Configure Server	
Progress	Configure Ethernet Interfaces:
Review Notices	
Copy Settings	Ethernet 0:
Set Identities	IP address Laptop
Configure Interfaces	192.11.13.6
Configure LSP	Subnet mask 255.255.255.252
Configure Switches	
Set DNS/DHCP	Ethernet 1:
Set Static Routes	Control Network
Configure Time Server	IP address server1 (greyhawk-icc) <input type="text" value="135.9.83.196"/>
Set Modem Interface	Gateway <input type="text" value="135.9.83.254"/>
Update System	Subnet mask <input type="text" value="255.255.255.0"/>
	Speed (Current speed : 100 Megabit full duplex) <input type="text" value="AUTO SENSE"/>
Click CONTINUE to proceed.	
<input type="button" value="Continue"/> <input type="button" value="About This Screen"/>	

8. Use your planning forms to complete the fields for the:
 - **IP Address** assigned to the S8300 Media Server. Check your planning forms.
 - **Gateway** with the IP address of the default gateway of the subnet.
 - **Subnet Mask** with the value of the subnet mask of the hosting subnet.
 - **Speed** which should be set to Auto Sense.

⚠ CAUTION:

Do not guess on the addresses on this screen. If you enter the wrong addresses, service will be disrupted across the customer's network and may be difficult to correct.

9. Click **Continue**.

The **Configure Local Survivable Processor** screen appears.

Figure 37. Configure Local Survivable Processor Screen

Configure Server

Progress	Configure Local Survivable Processor
Review Notices	<input checked="" type="radio"/> This is NOT a local survivable processor.
Copy Settings	<input type="radio"/> This is a local survivable processor with a S8700 media server as the primary controller.
Set Identities	
Configure Interfaces	
Configure LSP	<input type="text"/> CLAN IP address of the primary controller (required)
Configure Switches	<input type="text"/> IP address of server 1 (required)
Set DNS/DHCP	<input type="text"/> IP address of server 2 (optional)
Set Static Routes	
Configure Time Server	<input type="radio"/> This is a local survivable processor with a S8300 media server as the primary controller.
Set Modem Interface	<input type="text"/> IP address of the primary controller (required)
Update System	

Click CONTINUE to proceed.

10. Select one of the following options:
 - This is NOT a survivable remote processor.
 - This is a local survivable processor (LSP) with an S8700 media server as the primary controller.
 - This is a local survivable processor with a S8300 media server as the primary controller.

11. If you clicked the LSP option with an S8700, complete the additional fields as follows:

CLAN IP address of the primary controller — Enter the IP address of any CLAN board in the S8700 media server configuration.

IP address of server 1 — Enter the IP address of the primary S8700 server.

IP address of server 2 — Enter the IP address of the duplicated S8700 server. If server 2 is present, this specific IP address must also be entered.

Note: The CLAN boards must be TN799DP running version 5 or greater firmware. Be sure to check the firmware version for these boards on the S8700. For

information on how to upgrade the firmware on the S8700, please see the section "Upgrade Firmware in Selected Port Cabinet Packs" in *Upgrading the Avaya Media Server Configuration* in the S8700 documentation portion of this documentation CD ("Avaya S8300 and S8700 Media Server Library CD, 555-233-825").

12. If you clicked the LSP option with an S8300, simply enter the IP address of the S8300 server.
13. Click **Continue**.

The **Ethernet Adjuncts** screen appears.

Figure 38. Ethernet Adjuncts Screen

Progress	Ethernet Adjuncts
Review Notices	
Copy Settings	UPS
Set Identities	Number of UPS Units <input type="text" value="0"/>
Configure Interfaces	UPS 1 IP Address <input type="text"/>
Configure LSP	UPS 1 SNMP GET <input type="text"/>
Configure Switches	UPS 1 SNMP SET <input type="text"/>
Set DNS/DHCP	
Set Static Routes	Click CONTINUE to proceed.
Configure Time Server	
Set Modem Interface	<input type="button" value="Continue"/> <input type="button" value="About This Screen"/>
Update System	

14. In the Number of UPS Units field, select the number of Uninterruptible Power Supplies (UPS) units connected to the S8300 Media Server. This number is usually **0** or **1**.
15. If you enter 1 in the Number of UPS Units field, enter its IP address in the UPS 1 IP address field. The system will use this address to trap power loss signals from the UPS.
16. (Optional) If you enter 1 in the Number of UPS Units field, enter the SNMP community strings for the UPS in the SNMP Get and Set fields.
17. Click **Continue**.

The **External DNS Server Configuration** screen appears.

Most corporate networks have one or more domain name service (DNS) servers that associate an IP address with a device's name. When the DNS is administered with the S8300 Media Server name, you will be able to access the S8300 server by name as well as IP address over the corporate network.

⚠ CAUTION:

If you configure an external DNS server, the DNS will be an extra device that, if not working properly, can cause delays in S8300 access.

Figure 39. External DNS Server Configuration Screen

Progress	External DNS Server Configuration: (If DNS is not used, leave these fields blank.)
Review Notices	
Copy Settings	Name Servers
Set Identities	IP Address1: <input type="text" value="135.9.1.39"/>
Configure Interfaces	IP Address2: <input type="text" value="135.9.1.2"/>
Configure LSP	IP Address3: <input type="text"/>
Configure Switches	
Set DNS/DHCP	DNS Domain: <input type="text" value="dr.evaya.com"/>
Set Static Routes	
Configure Time Server	Search Domain1: <input type="text" value="dr.evaya.com"/>
Set Modem Interface	Search Domain2: <input type="text"/>
Update System	Search Domain3: <input type="text"/>
	Search Domain4: <input type="text"/>
	Search Domain5: <input type="text"/>

Click CONTINUE to proceed.

18. Enter the appropriate IP addresses from your planning documentation. Then, click **Continue**.

In the **Name Servers** fields, enter the IP addresses for up to 3 DNS servers on the corporate network. The S8300 Media Server checks the DNS servers in the order in which their addresses are entered for name-to-IP address resolution.

In the **DNS Domain** field, enter the name for the part of the network on which the DNS server(s) reside (for example, mycompany.com). Internet domains are sets of addresses generally organized by location or purpose.

In the **Search Domain** fields, **1 to 5**, enter the names of the domains that will be searched, in order, if a user enters an unqualified or incomplete name (such as a host name only without its domain).

- Note:** For **Search Domain 1**, enter the *same domain name* you entered in the **DNS Domain** field above.

19. Click **Continue**.

The **Static Network Routes** screen appears.

Static Network Routes are used only if the customer has defined additional routes for IP packets other than through the default gateway.

Figure 40. Set Network Routes Screen

Configure Server

Progress

- Review Notices
- Copy Settings
- Set Identities
- Configure Interfaces
- Configure LSP
- Configure Switches
- Set DNS/DHCP
- Set Static Routes**
- Configure Time Server
- Set Modem Interface
- Update System

Static Network Routes (Optional):

Add routes by filling in the fields. Remove routes by deleting information from the fields.

	IP Address	Subnet Mask	Gateway	Interface
1.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
9.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Click CONTINUE to proceed.

20. Leave these entries blank, unless the planning documentation supplies routing information.

21. Click **Continue**.

The **Network Time Server** screen appears.

The **Network Time Server** screen allows you to set up the Network Time Protocol (NTP) Service.

Figure 41. Network Time Server Screen

The screenshot shows the 'Configure Server' window with a 'Progress' sidebar on the left. The 'Network Time Server' section is active, showing options for 'Time of Day Synchronization'. The 'Use these Network Time Servers' option is selected. Three servers are configured: Primary (drtime.dr.avaya.com), Secondary (curie.dr.avaya.com), and Tertiary (cortex.dr.avaya.com). Each server has a 'Trusted Key' field. There are also fields for 'Additional Trusted Keys', 'Requested Key', and 'Control Key'. The 'Multicast Client Support' is set to 'Yes'. At the bottom, there are 'Continue' and 'About This Screen' buttons.

You will be able to make the following choices, according to the planning documentation:

- Choose **Disable NTP** if the user does not want the Network Time Protocol to run on the S8300 Media Server. Select this option to disable Network Time Protocol (NTP) and use the media server's own clock as a time source. You typically choose this option if this is the only media server in the configuration and it will not be synchronized with an external time source.
 - Choose **Enable NTP** if the S8300 Media Server will be the primary NTP server. Optionally, you can provide the address of the survivable S8300 Media Server in the local survivable configuration. Select this option to enable NTP and use the media server's own clock as a time source. You typically choose this option if there is more than one media server in the configuration (for example, this or another media server may be acting as an LSP standby unit), and an external time source is not available to provide synchronization between the units. Select this option to enable NTP and use its own clock as a time source. You need to set up the time clock with Set Server Time/Timezone option. You need to set the server clock using the Set Server Time / Timezone screen. You can do this now, then return to the Configure Server window (see [“Set the Time and Date” on page 84](#)).
 - Choose **Use these Network Time Servers** to enter up to three time servers. Select this option to enable NTP and be synchronized with an external time source on the corporate network.
22. If you selected **Use these Network Time Servers**, complete the following fields. Specify up to three network time servers by IP address or DNS name in the order in which you want the S8300 Media Server to check them. You should always specify at least two.

If you did *not* select **Use these Network Time Servers**, click **Continue**.

Primary — Enter an IP address or DNS name. If a trusted key is required, enter a valid key number in the **Trusted Key** field.

Secondary — Enter an IP address or DNS name. If a trusted key is required, enter a valid key number in the **Trusted Key** field.

Tertiary — Enter an IP address or DNS name. If a trusted key is required, enter a valid key number in the **Trusted Key** field.

Multicast Client Support — Select **Yes** if the NTS routinely broadcasts its timing messages to multiple clients. Select **No** if the S8300 Media Server is to poll (directly request the time from) the NTS.

Additional trusted keys (optional) — If you want to encrypt the messages between an NTS and the S8300 Media Server, list the valid key numbers, up to 3, provided by your LAN administrator on the preinstallation worksheet. Trusted keys function like a checksum to make sure the time packets are valid. Use a blank space as a delimiter if there is more than one key (for example, 2 3 6 to specify valid keys 2, 3, and 6). These numbers are associated with encryption codes in a "keys" file.

Request key — Enter a key to send a remote query request. Only 1 key is allowed in this field.

Control key — Enter a key to query and request changes to an NTS. Only 1 key is allowed in this field.

Install keys from var/home/ftp/keys.install — You must provide a file named **keys.install** to allow the media server to communicate with the NTS, if any.

23. If a new keys.install file is to be used, upload or create it now, if possible. See [“Provide the keys.install File \(If Necessary\)”](#) on page 103.

Note: If you upload the keys file later, you have to run the Configure Server wizard again to have the system recognize it. To do this, click **Continue** to page through the wizard until you come to this screen. Specify the keys file location, then Continue through the end of the wizard to update the system files.

At the next screen, **Set Modem Interface**, you may set up the Modem Interface IP Address for Avaya-provided service.

Figure 42. Set Modem Interface Screen

Configure Server

Progress	Set Modem Interface:		
Review Notices	Avaya services must assign the following IP addresses and return routes if Avaya services maintains this product.		
Copy Settings	IP Address: <input style="width: 100px;" type="text" value="10.3.0.1"/>		
Set Identities	Return Routes:		
Configure Interfaces			
Configure LSP			
Configure Switches			
Set DNS/DHCP			
Set Static Routes			
Configure Time Server			
Set Modem Interface	Network	Mask	Interface
Update System	1. <input style="width: 80px;" type="text" value="135.9.0.0"/>	<input style="width: 80px;" type="text" value="255.255.0.0"/>	PPP
	2. <input style="width: 80px;" type="text" value="135.17.0.0"/>	<input style="width: 80px;" type="text" value="255.255.0.0"/>	PPP
	3. <input style="width: 80px;" type="text" value="135.39.0.0"/>	<input style="width: 80px;" type="text" value="255.255.0.0"/>	PPP
	4. <input style="width: 80px;" type="text" value="135.60.0.0"/>	<input style="width: 80px;" type="text" value="255.255.0.0"/>	PPP
	5. <input style="width: 80px;" type="text" value="198.152.171.0"/>	<input style="width: 80px;" type="text" value="255.255.255.0"/>	PPP
	6. <input style="width: 80px;" type="text"/>	<input style="width: 80px;" type="text"/>	PPP

Click CONTINUE to proceed.

The Modem IP Address and Return Routes for the Avaya INADS alarming are assigned by the ART tool. You should have obtained these addresses when you performed [“Run the ART Tool for the INADS IP Address”](#) on page 69.

Click **Continue**.

The next **Warning** screen indicates that the data entry process has concluded and that the system is ready to be configured.

Figure 43. Warning Screen

Configure Server

Progress	WARNING!
Review Notices	You are about to modify server configuration files. This process will take several minutes and will continue running even if your browser loses network connectivity to the server.
Copy Settings	
Set Identities	Click CONTINUE to proceed.
Configure Interfaces	
Configure LSP	<input type="button" value="Continue"/> <input type="button" value="Cancel"/> <input type="button" value="About This Screen"/>
Configure Switches	
Set DNS/DHCP	
Set Static Routes	
Configure Time Server	
Set Modem Interface	
Update System	

This is the final step in configuring the system. When you click Continue, all the configuration information will be written to disk and implemented. This step normally completes in about 5 minutes.

This is your last chance to cancel or correct the configuration.

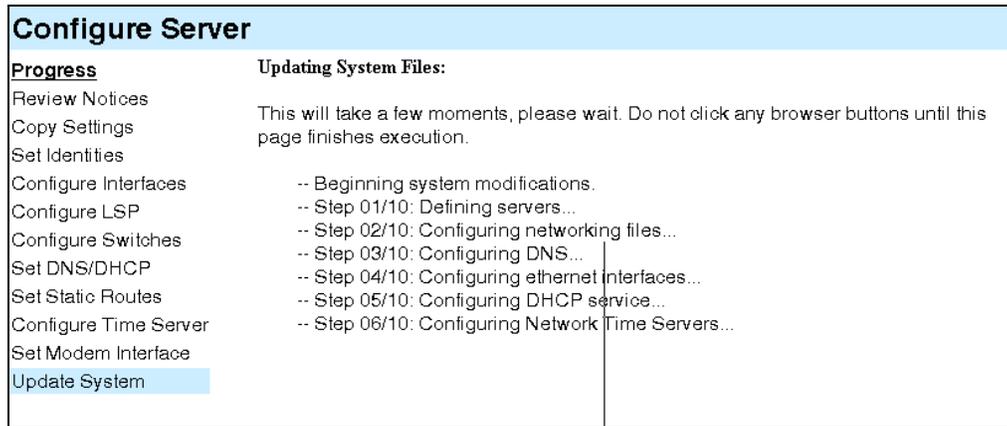
24. To check, or possibly change, something you entered on a previous screen, use your browser's **Back** button to page back through the Configure Server screens.

- 25. Check or change the items in question.
 - 26. Click the **Continue** button to move forward again, whether you change anything or not. If you don't do this, information in the wizard may not be processed correctly.
- Note:** For any configuration, it is always safe to Cancel the configuration, and run the Configure Server wizard again later from the beginning. You might use this option if you are checking or modifying settings on a server that has already been configured, and there is not a huge amount of new information to enter.
- 27. If you are satisfied that everything is set correctly, click **Continue**.

If the configuration status stops at some point and the screen appears to freeze, you may have lost contact with the server.

You can watch the progress of the configuration at the **Updating System Files** screen.

Figure 44. Updating System Files Screen



When the process is complete, you will receive a notification. Click **Close Window** and continue the configuration of the G700 Media Gateway on the command line interface.

End _____

You have now configured the Avaya S8300 Media Server. If this is *a new installation*, you may also have to load new software.

Note: You will also have to setup the INADS alarm via a command line. Call your service support center.

Provide the keys.install File (If Necessary)

Use this procedure only if you selected one of the customer-provided keys options in the previous procedure.

Create the keys file

Begin _____

If encryption between the NTS and S8300 Media Server is to be used for additional security, you *must* provide a keys.install file that specifies for each key:

- The key number
- The encryption type
- The key code

If the keys file is short, the network administrator can create one now during configuration if needed:

1. On a directly connected laptop or other computer, create a flat-text file named **keys.install** with the correct keys information using any ASCII application.
2. Next, upload the keys.install file using the **Upload Files to Server** screen as described earlier.
3. When finished, click on the Configure Server wizard window to resume server configuration.

End _____

Load the Keys File

The keys file can be loaded in one of the following ways.

Upload the keys file

Begin _____

If a keys.install file was previously created on or downloaded to the services laptop or another computer on the network, it can be installed now as follows.

1. In the main menu under **Miscellaneous**, click the **Upload Files to Server** link.
2. Locate the **keys.install** file on your computer or network, then click **Load File**. The file is uploaded to the media server's FTP directory.
3. When finished, click on the Configure Server wizard window to resume server configuration.

End _____

Download or copy the keys file

Begin _____

Longer files may be transferred from the network time server to the S8300 Media Server as follows:

1. Using either the **Download Files to Server** screen or the Transfer files using an FTP procedure to access the keys file listed on your preinstallation worksheet.

In both cases, the file is transferred to the media server's FTP directory.

2. When finished, click on the Configure Server wizard window to resume server configuration.
3. After the keys.install file is uploaded, select the location where it resides, usually in the **/var/home/ftp** subdirectory.

Note: Occasionally services personnel may direct you to use the /tmp directory.

4. If a keys file is not used, or if the correct keys.install file is already installed, select the option to not install a new keys file.

End _____

Set the media server's time now

Begin _____

1. In the main main menu under Server, click **Set Server Time / Timezone**.

The S8300 displays the Set Server Time/Timezone window.

2. Set the media server's time close enough to the NTS's time, date, and time zone that synchronization can occur (within about 5 minutes).
3. When finished, click on the Configure Server wizard window to continue.

After NTP is enabled, time changes greater than 15 minutes will disrupt the synchronization with the NTS and NTP will shut down. You need to set the server's clock now so that synchronization can take place.

4. When finished, click Continue.

End _____

Configure the G700 Media Gateway

Conduct the following procedure in order to compare software versions running on the G700/Media Modules with the Release Letter. If the versions do not match, new firmware for those components is necessary.

Connect Your Laptop to the G700 Serial Port

Begin

To connect a laptop directly to the serial port on the G700 Media Gateway:

1. *For a stacked configuration:* locate the device that contains the master controller for the stack. Check the LED panel on the upper left of each G700 or P330 device in the stack as follows:
 - G700 Media Gateway: a lit **MSTR** LED indicates that this unit is the stack master.
 - P330 device: a lit **SYS** LED indicates that this unit is the stack master.
2. Use the RS-232 serial cable and DB-9 adapter cable provided with the G700 Media Gateway.
3. Attach one end of the RS-232 cable to the RJ-45 jack on the front of the unit that is the stack master. The serial port is on the lower right side of the chassis.
 - On a G700, this serial port is labeled **Console**.
 - The name of the serial port varies on P330 devices, but it is located on the lower right.
4. Plug the other end of the RS-232 cable into the RJ-45 jack on the DB-9 adapter cable.
5. Connect the other end of the DB-9 adapter cable to the 9-pin serial port on your laptop.
6. Use a serial-connection program such as HyperTerminal to access the Layer 2 Switching Processor.

End

Log in to the Avaya P330 (Layer 2 Switching Processor) Command Line Interface

Begin

1. Launch Windows® HyperTerminal or any other terminal emulation program.

Note: For most Windows-based PCs, you access the HyperTerminal program from the **Start** menu by selecting **Programs**, then **Accessories**.

2. Choose **Call - Connect** (for HyperTerminal) or the appropriate call command for your terminal emulation program.
3. Login at the **Welcome to Avaya P330** screen.

Login: *xxx from the planning documentation*

Password: *xxx from the planning documentation*

You are now logged-in at the Supervisor level. The prompt appears as **P330-1(super)#**. In order to use the commands necessary to configure the P330 Stack Processor (Layer 2 Switching Processor), you must reset to the Configure level.

4. Type configure

The prompt appears as **P330-1(configure)#**.

End _____

Note:

To check the syntax of a command in the command line interface, type as much of the command as you know followed by `help`. For example:

```
P330-1(configure)#> set help
```

you will be given the current list of `set` commands available. If you type:

```
P330-1(configure)#> set interface help
```

you will be given a much more restricted list of command possibilities that address the possible interfaces to be set.

For a complete list of command line interface commands, refer to the "Avaya™ P330 ManagerUser's Guide".

Determine Necessary Firmware to Install on the G700

Begin _____

The first steps determine if new firmware for the P330 Stack Processor (Layer 2 Switching Processor) is necessary.

1. Login to the Avaya P330 command line interface.
2. At the `P330-1(super)#` prompt, type `configure`.
3. At the `P330-1(configure)#` prompt, type `dir`.

The list of software appears.

Figure 45. Directory List for P300 Processor

M#	file description	ver num	file type	file location	file
1	module-config Configuration	N/A	Running Conf	Ram	Module
1	stack-config Configuration	N/A	Running Conf	Ram	Stack
1	EW_Archive	3.8.6	SW Web Image	Nv-Ram	WEB Download
1	Booter_Image	3.2.5	SW BootImage	Nv-Ram	Booter Image

4. Check the version number of the `EW_Archive` file to see if it matches the Release Letter. If not, you must upgrade the P330 Stack Processor (Layer 2 Switching Processor).

- At the P330-1(configure)# prompt, type `show image version`

The list of software appears.

Figure 46. Show Image Version List for P330 Processor

```
P330-1(configure)# show image version 3
```

Mod	Module-Type	Bank	Version
3	Avaya G700 Media Gateway	A	0.0.0
3	Avaya G700 Media Gateway	B	3.8.2

- Check the version number of the stack software image file to see if it matches the Release Letter. If not, you must upgrade the P330 Stack Processor (Layer 2 Switching Processor).

The next steps determine if new firmware is required for the G700 Media Gateway Processor (MGP), the VoIP Module, and the installed Media Modules.

- At the P330-1(configure)# prompt, type `session mgp`
- At the MG-???-1(super)# prompt, type `configure`
- At the MG-???-1(configure)# prompt, type `show mg list_config`

The list of software appears.

Figure 47. Configuration List for G700 Media Gateway

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

- Refer to the output of [step 9](#) to check the FW vintage number of the G700. In the TYPE column, find G700, then check the matching field in the FW VINTAGE column to see if it matches the Release Letter. If not, you must install new firmware on the G700 Media Gateway MGP. Also check if the release number in the FW VINTAGE column contains an A or B to indicate the software bank. If the list shows B, you will upgrade A. If the list shows A, you will upgrade B.
- Refer to the VOIP FW column and row for slot v0 to see if the number matches the VoIP firmware identified in the Release Letter. If not, you must also upgrade the G700 Media Gateway motherboard VoIP module.

12. Check the FW VINTAGE column for vintages of each of the installed Media Modules: MM710, MM711, MM712, MM720, and/or MM760 to see if they match the FW vintages in the Release Letter. If not, you must upgrade them, as well.

End _____

Assign the IP Addresses of the G700 Media Gateway Components

You will now assign the IP address to the P330 Stack Processor (Layer 2 Switching Processor). This address has been provided to you on the IP Addressing Planning Form. The command arguments you will be supplying include:

inband	–the interface of the Avaya P330 Stack Processor that requires an IP address
vlan	–Virtual Local Area Network: a defined network segment that allows users on that segment to have priority services in sharing information with each other. If the network is not using VLANs, the VLAN should be 1. Otherwise, use the VLAN numbers indicated in your planning forms. The Avaya G700 Media Gateway should be assigned the same VLAN as the VLAN to which the Ethernet ports are connected. The Avaya P330 Stack Processor might or might not be assigned to the customer’s network management VLAN.
IP address	–the unique identifier assigned to an entity on the Internet
netmask	–the subnet mask for the customer’s LAN segment
IP route	–specifies the gateway to use to access distant networks
destination	–distant networks that the IP route command needs to send packets to. Usually generalized to 0.0.0.0 for networks other than the local segment.
nvramp init	–the P330/MGP CLI command that ensures configuration information is cleared so you can enter the IP address and IP route information.
gateway	–the gateway the ip route command specifies to get to the distant networks

Assign the IP Address to the P330 Stack Processor (Layer 2 Switching Processor)

Begin _____

1. Type `set interface inband <vlan> <ip_address> <netmask>` at the **P330-1(configure)#** prompt. <vlan> is the vlan, usually 1, to be established on the S8300 for the G700 Media Gateways. The <ip_address> <netmask> are the assigned addresses for the P330 Stack Processor (Layer 2 Switching Processor).

2. Type `reset` and press **Enter** to reset the stack.
3. Select **Yes** at the dialog box that asks if you want to continue.

All LEDs will flash. As the unit powers up, self-tests will be run. When the G700 Media Gateway or P330 Stack Processor (Layer 2 Switching Processor) has reset, login again to continue.

4. Login at the **Welcome to P330** menu.
The prompt **P330-1(super)#** appears.
5. Type `configure` to obtain the **P330-1(configure)#** prompt.

End _____

Establish the IP Routing for the Stack

Begin _____

1. Type `show interface inband` to verify that the Avaya P330 stack server (Layer 2 Switching Processor) has the correct address.
2. Type `set ip route 0.0.0.0 <default-gateway>` to set the destination and gateway IP addresses. You will find these addresses in the planning documentation. <default-gateway-IP> is the IP address of the customer's network gateway.
3. Press **Enter** to save the destination and gateway IP addresses.
4. Type `show ip route`

The route net and route host tables appear. Verify that the information is correct.

End _____

Check the Serial Number of the G700 Media Gateway Processor

Begin _____

After you have configured the Avaya P330 Stack Processor (Layer 2 Switching Processor), you will assign an IP address to the G700 Media Gateway Processor (MGP). Your first step is to check the serial number of the MGP.

1. At the **P330-1(configure)#** prompt, type `session mgp`.
2. At the **MG-???-1(super)#** prompt, type `show system` to list various attributes of the G700.

A list of attributes appears, as shown in the following example:

Figure 48. Show System List for G700 Media Gateway

```
MG-001-1(super)# show sys

Uptime(d,h:m:s): 1, 08:17:12

System Name      : -- Empty --
System Location: -- Empty --
System Contact   : -- Empty --
MAC Address      : 00-04-0D-02-04-EF
Serial No        : 02DR07428721
Model No         : G700
HW Vintage       : 00
HW Suffix        : A
FW Vintage       : 230

Media Gateway Power Supplies
                VOLTAGE(V) ACTUAL(V)  STATUS
-----
DSP Complex     3.4          3.359   OK
MGP              5.1          5.000   OK
Fans             1.2          0.000   OK
Media Modules   -48.0         -47.259 OK
VoIP DSP        1.6          1.570   OK
VoIP 8260       2.5          2.470   OK
Aux             -48.0         0.000   OK
--type q to quit or space key to continue--

MG-???-1(super)#
```

3. Write the serial number on your planning document. Make sure it matches the serial number sticker on the back of the G700 Media Gateway chassis. If there is a difference, the serial number on the list of attributes in [Figure 48](#) is correct. You will need this later.

End _____

Assign the IP Address to the G700 Media Gateway Processor

Begin _____

If, after you have assigned an IP address to the G700 processor, you telnet directly to the G700 Media Gateway processor, you will need to login, and the login name and password will be provided in the planning documentation.

1. At the **MG-???-n(super)#** prompt, type `configure` to reach the configuration level of the command line interface.
2. Type `nvramp init` to recondition the processor.

The system prompts you to verify that you want to erase the configuration.

3. Answer the prompt by typing `y(es)`.

This procedure reinitializes the G700 software back to factory defaults so new IP addresses can be stored correctly in the software. It also clears all configuration and administration on the G700 Media Gateway.

The G700 Media Gateway reinitializes.

4. At the **P330-1(configure)#** prompt, type `session mgp`.
5. At the **MG-???-1(super)#** prompt, type `configure` to reach the configuration level of the command line interface.
6. Type `set interface mgp <vlan> <ip_address> <mask>` to assign an IP address to the G700 Media Gateway. `<vlan>` is the vlan to be established on the customer's local network. This is usually `1`. The `<ip_address> <netmask>` are the assigned addresses for the G700 Media Gateway.

 **CAUTION:**

If the S8300 is an LSP, you use the VLAN administered on the S8700 Media Server.

7. At the **MG-???-n(configure)#** prompt, type `reset mgp`.

A system prompt asks to confirm the reset.

8. Select **Yes** at the dialog box that asks if you want to continue.

The G700 Media Gateway processor will reset. The LEDs on the G700 Media Gateway and the Media Modules will flash. These elements will each conduct a series of self-tests. When the LEDs on the Media Modules are extinguished and the active status LEDs on the G700 Media Gateway are on, the reset is complete.

9. Log in again at the **Welcome to P330** menu.
10. At the **P330-1(configure)#** prompt, type `session mgp`.
11. At the **MG-???-1(super)#** prompt, type `configure` to reach the configuration level of the command line interface.
12. Type `show interface mgp` to verify that the G700 Media Gateway has the correct IP address.

End _____

Assign the Default IP Route to the G700 Media Gateway

Begin _____

1. At the **MG-???-n(configure)#** prompt, type `set ip route 0.0.0.0 0.0.0.0 <gateway_ip_address>`. Both the destination and mask are **0.0.0.0** for the default gateway. `<gateway_ip_address>` is the IP address of the local network segment.
2. Type `show ip route mgp` to view the results.
3. Repeat [step 1](#) for additional ip routes, if needed. Usually, only a default route is needed. Refer to your planning document.

End _____

Assign IP Addresses to the VoIP Resources

Begin _____

From the G700 Media Gateway Processor command line interface, you will assign IP addresses to the VoIP resource resident on the G700 Media Gateway and to any installed MM760 VoIP Media Modules.

1. At the **MG-???-n(configure)#** prompt, type `set interface voip <number> <ip address>`

For `<number>`, v0 designates the VoIP resource resident on the G700 Media Gateway motherboard. The MM760 VoIP Media Modules are designated according the slot (for example, **v1, v2, v3, v4**) in which the Media Module has been installed. `<ip address>` is the IP address of the VoIP resource.

Forexample: `set interface voip v0 132.236.73.3`

2. Type `show interface` to display a table of all configured interfaces, including all VoIP Media Modules.
3. Type `show voip v0` to display the VoIP resource on the motherboard.

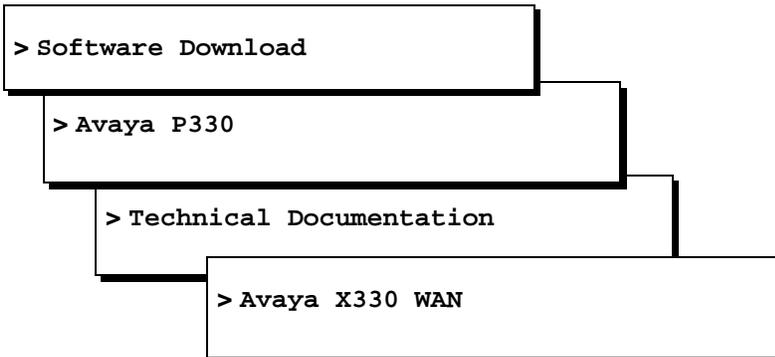
End _____

Note: It is not necessary to configure the VLAN, netmask, or IP routes for VoIP engines. The media gateway parameters are applied automatically.

Configure an X330 Expansion Module (If Necessary)

Begin _____

1. See the *Avaya X330W-2DS1 Access Router Module Quick Start Guide*. This document is available at <http://avayanetwork.com>. Once there, select:



2. Select the Quick Start Guide for X330WAN 2DS1.

End _____

Check for IP Connections

Begin _____

After you have assigned IP addresses to the P330 Stack Processor (Layer 2 Switching Processor), the G700 Media Gateway MGP, Media Modules, and the VoIP resources, do the following to check for IP connections:

1. At the **MG-???-n(config)#** prompt, type `ping mgp <IP_address>`

where `<IP_address>` is the address of an S8300 or S8700 server, the VoIP engine, or any other functioning endpoint accessible on the customer's LAN. It is recommended to ping endpoints on both the same subnet and a different subnet.

Ping results appear on the screen, similar to the following example.

Figure 49. Ping Results

```
MG-???-1(configure)# ping mgp 135.122.49.55

PING 135.122.49.55: 56 data bytes
64 bytes from 135.122.49.55: icmp_seq=0. time=0. ms
64 bytes from 135.122.49.55: icmp_seq=1. time=0. ms
64 bytes from 135.122.49.55: icmp_seq=2. time=0. ms
64 bytes from 135.122.49.55: icmp_seq=3. time=0. ms
64 bytes from 135.122.49.55: icmp_seq=4. time=0. ms
----135.122.49.55 PING Statistics----
5 packets transmitted, 5 packets received, 0% packet loss
round-trip (ms) min/avg/max = 0/0/0
```

2. Check that the same number of packets transmitted were also received.
3. Type `ping voip v0 <IP_address>`
<IP_address> is the address of the G700, or any other functioning endpoint on the customer's LAN.

Ping results appear on the screen, similar to the following example.

```
MG-???-1(configure)# ping voip v0 135.122.49.55

----135.122.49.55 PING Statistics----
5 packets transmitted, 5 packets received, 0 packet loss
round-trip(ms) min/avg/max = 0/1/0
```

4. Leave the login session up with the G700 Media Gateway while you check the S8300 for available firmware.

End _____

Load New Firmware on the G700 Media Gateway

To load new firmware for the G700 Media Gateway and the Media Modules, you will first need to transfer the new firmware files from the S8300 TFTP server to the G700 Media Gateway. Consult the Release Letter for the most recent information and instructions for upgraded firmware.



CAUTION:

You cannot use the S8300 as a TFTP server for IP Softphone software installations. The customer is responsible for establishing a TFTP server on a PC in the customer's network.

Verify That the S8300 tftpboot Directory Has the Right Firmware Versions

Begin

The **.tar** S8300 software you installed on the S8300 also included firmware for the G700 Media Gateway. This firmware should be stored in the /tftpboot directory of the S8300. You should check this directory to make sure the firmware version match those listed in the Release Letter.

Note: Leave the login session up with the G700 Media Gateway while you check the S8300 for available firmware.

1. Access the S8300 via telnet (see “[Log in to the S8300 from Your Laptop using Telnet](#)” on page 77).
2. At the command prompt, type **cd /tftpboot** and press **ENTER**.
The /tftpboot prompt appears.
3. Type **ls -l** and press **ENTER** to list the files.
The list of files appears.
4. Check the list of files to ensure that the version numbers match those of the Release Letter.
Use the following legend to help understand which files are for the different G700 Media Gateway components.

End

Note: You are unlikely to need all of the files. If the customer does not have a particular Media Module, you will not need to load the file.

Table 8. Firmware File Formats

Component	Firmware Version Format	Example
P330 Stack Processor	viisa<version id>	viisa3_12_1.exe
P330 Stack Processor	p330<version id>	p330Tweb.3.8.6.exe
G700 Media Gateway	mgp<version id>	mgp_3_0.bin
VoIP Media Module and Motherboard VoIP	mm760<version id>	mm760v3.fdl
DCP Media Module	mm712<version id>	mm712v2.fdl
Analog Port/Trunk Media Module	mm711<version id>	mm711v4.fdl
E1/T1 Media Module	mm710<version id>	mm710v3.fdl
BRI Media Module	mm720<version id>	mm720v2.fdl

Install New Firmware on the P330 Stack Processor (Layer 2 Switching Processor)

Begin

1. On your laptop, return to the HyperTerminal window. At the **MG-mmm-n(config)#** prompt, type **exit** and press **ENTER**.
The **P330-1(config)#** prompt appears.

Note: If necessary, open the HyperTerminal window, and login to the P330 Stack Processor (Layer 2 Switching Processor) command line interface.

2. At the **P330-1(configure)#** prompt, type
`copy tftp SW_image<file> EW_archive <ew_file>
<tftp_server_address> <Module#>`
where
<file> is the image file with format and vintage number similar to viisa3_8_2.exe,
<ew_file> is an embedded web application file with format similar to p330Tweb.3.8.6.exe,
<tftp_server_ip_address> is the ip address of the S8300, and
<Module#> is the number, 1 through 10, of the media gateway in the stack. If there is only one
G700 Media Gateway, the number is **1**.
3. Verify that the download was successful when the prompt returns. Type `show image version`.

End _____

Install New Firmware on the G700 Media Gateway Processor

Begin _____

1. At the **P330-1(configure)#** prompt, type `session mgp` to reach the G700 Media Gateway processor.
2. Type `configure` at the **MG-???-1(super)#** prompt to enter configuration mode, which will change the prompt to **MG-???-1(configure)#**.
3. At the **MG-???-1(configure)#** prompt, type `show mgp bootimage` to determine which disk partition (bank) is Active Now. You will update the bank that is *not* listed as Active Now. For example, if the G700 vintage listed when you performed [“Determine Necessary Upgrades to the S8300” on page 82](#) showed A, you will upgrade B.
4. At the **MG-???-1(configure)#** prompt, type
`copy tftp mgp-image <bank> <filename> <tftp_server_ip_address>`
to transfer the mgp image from the tftp server to the G700, where
<bank> is the bank that is *not* Active Now.
<filename> will begin with mgp and will be similar to a name like mgp_230_0.bin.
<tftp_server_ip_address> is the ip address of the S8300. See the following example:
`copy tftp mgp-image a mgp_230_0.bin 195.123.49.54.`
The screen will show the progress.
5. Verify that the download was successful when the prompt returns.
Type `show mg list_config`.

Figure 50. List Configuration for G700 Media Gateway

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

6. Type `set mgp bootimage <bank>`. <bank> is the same letter you entered in [step 4](#).

7. At the **MG-???-1(configure)#** prompt, type `reset mgp`.

A system prompt asks to confirm the reset.

8. Select **Yes** at the dialog box that asks if you want to continue.

The G700 Media Gateway processor will reset. The LEDs on the G700 Media Gateway and the Media Modules will flash. These elements will each conduct a series of self-tests. When the LEDs on the Media Modules are extinguished and the active status LEDs on the G700 Media Gateway are on, the reset is complete.

End _____

Install New Firmware on the Media Modules

Begin _____

1. Be sure that you have checked for the current vintage of the VoIP Module for the v0 slot (on the G700 motherboard) (see [“Determine Necessary Firmware to Install on the G700” on page 106](#)). This VoIP module does not occupy a physical position like other Media Modules.

2. At the **P330-1(configure)#** prompt, type `session mgp`

3. At the **MG-???-1 (super) #** prompt, type `configure` to reach the configuration level of the command line interface.

4. Type `copy tftp mm-image v<slot #> <filename mm> <tftp_server_ip_address>`

where

<slot #> is the slot of the specific media module as identified when you performed [“Determine Necessary Firmware to Install on the G700” on page 106](#),

<filename mm> is the media module software in a format such mm712v58.fdl, and

<tftp_server_ip_address> is the ip address of the S8300.

Two or three minutes will be required for most upgrades. The VoIP Media Module upgrade takes approximately 5 minutes. Screen messages indicate when the transfer is complete.

5. At the **MG-???-1(configure)#** prompt, type `show mg list_config`

The list of software appears.

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

6. Refer to the output of [step 5](#). In the TYPE column, find the particular media module (v2 through v4), then check the matching field in the FW VINTAGE column to see if it matches the Release Letter.
7. Refer again to the output of [step 5](#). Check the VOIP FW column and row for slot v0 to see if the number matches the VoIP firmware identified in the Release Letter.

End _____

Set SNMP Traps

Begin _____

Set SNMP traps on the G700 Media Gateway so that the S8300 MultiVantage Maintenance software can detect problems with the G700 Media Gateway's network traffic.

At the **MG-???-1(configure)#** prompt, type `set snmp trap <primary_controller_IP_address>`

where `<primary_controller_IP_address>` is the IP address of the S8300 Media Server or the S8700 Media Server. If the S8300 acts as a Local Survivable Processor, the address is for an S8700 server. The address is *not* the S8300 TFTP address.

End _____

Set up the Controller List for the G700 Media Gateway

Begin _____

To complete the configuration of the G700 Media Gateway, you will establish a list of controllers. This list begins with the IP address of the primary controller. In the event that the G700 Media Gateway loses contact with its primary controller, it will seek to register with the other controllers on this list. These other controllers are the S8300 Media Servers configured as Local Survivable Processors (LSPs).

Up to four IP addresses separated by commas can be entered to form the controller list.

Note: After you set up a controller list for the G700 Media Gateway, the G700 will reset every 30 minutes in order to contact the controller. This is normal operation, and does not indicate a problem.

3 Configuring a New G700 with an S8300 (Primary Controller or Local Survivable Processor):

1. At the **MG-???-n(configure)#** prompt, type one of the following `set mgp list` commands to designate the primary and secondary servers, depending on the controller for this G700:

Server	Command
S8300 (primary)	<code>set mgc list <ip_address></code> where the <code>ip_address</code> is the address of the S8300
S8700 (primary)	<code>set mgc list <ip_address>,<ip_address></code> where the first address is for the first CLAN board in the S8700 port network and the second <code>ip_address</code> is the address of a second CLAN board in the S8700 port network, if one has been included for redundancy
Local Survivable Processor (LSP)	<code>set mgc list <ip_address>,<ip_address>,<ip_address></code> where the first and second <code>ip_addresses</code> are for the first and second CLAN boards on the S8700, and the third address is for the S8300 configured as an LSP. If a second CLAN board does not exist, then the LSP would be the second address. In any circumstance, however, the LSP address is always listed last.

2. Type `reset mgp` at the **MG-???-n(configure)#** prompt to reset the G700 Media Gateway processor.
A system prompt asks to confirm the reset.
 3. Select **Yes** at the dialog box that asks if you want to continue.
The G700 Media Gateway processor will reset. The LEDs on the G700 Media Gateway and the Media Modules will flash. These elements will each conduct a series of self-tests. When the LEDs on the Media Modules are extinguished and the active status LEDs on the G700 Media Gateway are on, the reset is complete.
The system ultimately returns you to the `P330-1 (configure)` prompt.
 4. At the **P330-1(configure)#** prompt, type `session mgp`
 5. At the **MG-001-1 (super) #** prompt, type `configure` to reach the configuration level of the command line interface.
- Note:** Because the G700 media gateway has registered with its primary controller, the prompt name has changed to `MG-001-1`.
6. Type `show mgc` to display the list of available servers and their IP addresses.
For example:

Figure 51. Show Call Controller Status Screen

```
MG-001-1(configure)# show mgc
CALL CONTROLLER STATUS
-----
Registered           : YES
Active Controller    : 135.9.71.95
H248 Link Status     : UP
H248 Link Error Code: 0x0
MGC List Management  : Static

CONFIGURED MGC HOST           DHCP SPECIFIED MGC HOST
-----
135.9.71.95                   -- Not Available --
- Not Available --           -- Not Available --
- Not Available --           -- Not Available --
- Not Available --           -- Not Available --
```

The Gateway will have registered with the S8300, if present. If the S8300 or S8700 is running and has been administered properly, the Registered field says **YES** and the H248 Link Status says **UP**. If the server is not running, the Registered field says **NO** and the H248 Link Status says **DOWN**.

End _____

Set the LSP Transition Points

Begin _____

You must set the time that the G700 searches, in the event of a network problem, for primary controllers (for example, additional CLAN connections) with which to register. After this search time has elapsed, the G700 will search for an LSP with which to register. You must also set the total time the G700 searches for either a primary controller and an LSP, after which the G700 resets. And finally, you must define how many primary controllers, from 1 to 4, are in the controller list you just defined.

1. At the **MG-001-1(configure)#** prompt, type `set mgp reset-times primary-search <search-time>`

where *<search-time>* is the time in minutes that the G700 searches for a primary controller before looking for an LSP. The range is from **1** to **60**.

2. At the **MG-001-1(configure)#** prompt, type `set mgp reset-times total-search <search-time>`

where *<search-time>* is the time in seconds that the G700 searches for both primary controllers or LSP. The range is from **1** to **60**.

3. At the **MG-001-1(configure)#** prompt, type `set mgp reset-times transition-point <#_of_primary>`

where *<#_of_primary>* is the number of primary controllers in the controller list. The range is from **1** to **4**.

Configure Other G700 Media Gateways (Stack Configuration)

Begin _____

If the customer has multiple G700 Media Gateways connected in an IP stack, you can stay connected to the P330 console port of the master G700/L2 Processor and "session" over from the master Layer 2 Switching Processor to the next G700 in the stack. You should have plugged your laptop into the stack master L2 Processor, which you can identify by the LED panel on the upper left of each G700 or Avaya P330 device in the stack as follows:

- On the G700 Media Gateway: a lit **MSTR** LED indicates that this unit is the stack master.
- On the Avaya P330 device: a lit **SYS** LED indicates that this unit is the stack master.

The G700 and Avaya P330 at the bottom of the stack is module number 1, the next module up is number 2, and so on. However, the stack master can be any module in the stack, depending on the actual model, the vintage firmware it runs, and whether the S8300 is inserted into it.

- Note:** You do not need to configure the other L2 Processors in the stack. These will use the IP address and IP route of the master Layer 2 Switching Processor. However, you will need to check firmware on all devices of the other G700s in the stack, including the G700s themselves, and update the firmware as required.

You may also use the "session stack" command to access extra standalone Avaya P330 device processors in the stack (those that are not part of a G700 unit).

1. At the **MG-001-1(configure)#** prompt, type **session stack**

The P330 configure prompt appears.

2. At the **P330-1(configure)#** prompt, type `session <mod_num> mgp`

<mod_num> is the next L2 Processor in the stack. If you are currently logged in to the master stack processor, *<mod_num>* would be **2**, for the second G700/L2 Processor in the stack.

3. Repeat the steps in the sections, "[Configure the G700 Media Gateway](#)" on page 105 and "[Load New Firmware on the G700 Media Gateway](#)" on page 114 for other G700 Media Gateways in the stack. However, do *not* assign IP addresses or IP routes to the other Avaya P330 device processors in the stack.

End _____

Configure Other G700 Media Gateways (Remote, No Stack Configuration)

Begin _____

If additional G700 Media Gateways are supported in the configuration, but they are not attached as a stack, then you must configure each G700, with all of its devices, including the Avaya P330 device processors. Additionally, you must check firmware and update the firmware as required.

1. Repeat the steps in the sections, “[Configure the G700 Media Gateway](#)” and “[Load New Firmware on the G700 Media Gateway](#)” for other G700 Media Gateways in the stack.

End _____

Administer MultiVantage Software on the S8300 (When Primary Controller Only)

 **CAUTION:**

This administration applies only to an S8300 that serves as the primary controller, which can be either an internal or an external S8300. If the S8300 is an LSP, do *not* administer MultiVantage software on it. Translations are automatically copied to the S8300 LSP from the S8700.

To continue administration of various features available to the S8300 Media Server with G700 Media Gateways, you will use the SAT tools. Among many other tasks, you will use the SAT interface to:

- Provide Ethernet access to MultiVantage
- Define the IP Network Region
- Add a Media Gateway

Note: This document covers only the administration of MultiVantage software required for the G700 Media Gateway to communicate with the primary controller over a customer’s network. For the majority of administration required, see “*Administrator’s Guide to MultiVantage Software, 555-233-506*,” or “*Administration for Network Connectivity for MultiVantage Software, 555-233-504*.”

 **CAUTION:**

Before continuing, be sure you have saved translations in MultiVantage software (see “[Run Save Translations](#)” on page 82).

Reboot the System

Begin _____

1. Log in to the S8300 using telnet. You may already have a live telnet session available.
2. At the command prompt, type **reset system 4**

The system reboots.

End _____

Log in to the MultiVantage SAT Screens

Begin _____

1. *If you already have a valid telnet session in progress*, access the SAT program by typing **sat** or **dsat**. Go to step 4.
2. *If you are not yet logged in*, open a telnet program on your computer. For example:
 - On a Windows system, go to the **Start** menu and select **Run**.
 - To log in directly to the SAT program, type `telnet <IP address> 5023`
3. Log in to the MultiVantage software as **craft**.

Enter your login confirmation information as prompted:

- Password prompt. Type your password in the Password field, and click Login or press Enter again.
 - ASG challenge. If the login is Access Security Gateway (ASG) protected, you will see a challenge screen. Enter the correct response and click Login or press Enter.
4. Enter your terminal type. Accept the default value, or enter the appropriate type for your computer. For example, you may use type **ntt**, a terminal type available for Windows NT4.0 or Windows 98. For Windows 2000, use **w2ktt**.

The SAT interface appears.

5. Enter SAT commands as appropriate.

End _____

Define the IP Network Region for the G700 Media Gateway

Begin _____

You must define an IP network region according to the planning documentation. Use the system defaults if the planning documentation does not specify otherwise.

For a G700 Media Gateway with an S8300 Media Server as primary controller, there will usually be one network region, defined as **1**. You normally define this network region on the S8300 MultiVantage software, using the system defaults. You then assign the network region to the G700 Media Gateway.

! CAUTION:

Defining IP network regions can be quite complex. For detailed information on the use and administration of IP network regions, see “*Administration for Network Connectivity for MultiVantage Software, 555-233-504.*”

1. At the SAT prompt, type `change ip-network-region 1`.

The S8300 displays the IP Network Region screen.

Figure 52. IP Network Region Screen

```

change ip-network-region 1                                     Page 1 of 2
                                                              IP Network Region

Region: 1
Name:

Audio Parameters                                           Direct IP-IP Audio Connections? n
Codec Set: 1                                               IP Audio Hairpinning? y
Location:
UDP Port Range                                             RTCP Enabled? n
Min: 2048                                                   RTCP Monitor Server Parameters
Max: 65535                                                 Use Default Server Parameters? y

DiffServ/TOS Parameters
Call Control PHB Value: 34
VoIP Media PHB Value: 0
BBE PHB Value: 43                                         Resource Reservation Parameters
                                                           RSVP Enabled? n

802.1p/Q Enabled? N
    
```

2. If necessary, complete the fields as described in “*Administration for Network Connectivity for MultiVantage Software, 555-233-504.*”

Note: It is strongly recommended to use the defaults in the screen. However, for the **RTCP Enabled** and **RSVP Enabled** fields, the entry should be **n** (no).

3. Press **F3 (ENTER)** when complete.

End _____

Assign the Network Region to the S8300 Media Server

Begin _____

1. At the SAT prompt, type `change ip-interfaces`.

The S8300 displays the **IP Interfaces** screen.

Figure 53. IP Interfaces Screen

```
display ip-interfaces Page 1 of 6 SPE B
```

IP INTERFACES										
Enable	Eth Pt	Type	Slot	Code	Sfx	Node Name	Subnet Mask	Gateway	Address	Net Rgn
y		PROC				135.122.49.55	255.255.0 .0	172.23	.23 .254	1
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.
n							255.255.255.0	.	.	.

2. The option **Ethernet Port** should indicate **Y** (yes) and the IP identity of the S8300 Media Server is provided. The **Network Region** should be **1**.

End _____

Add Media Gateways

Begin

When you are logged in to MultiVantage via SAT, you will be able to add G700 Media Gateways to the system.

⚠ CAUTION:

Be sure the serial number for the G700 Media Gateway you enter in this procedure matches *exactly* the serial number displayed in [“Get the Serial Number of the G700” on page 68](#). The serial number is case-sensitive, and if entered incorrectly, will prevent the S8300 Media Server from communicating with the G700 Media Gateway. In this case, the phones won't work.

1. At the SAT prompt, type `add media-gateway <number>` where `<number>` is the gateway number from 1 to 9.

The S8300 displays the Media Gateway screen.

Figure 54. Add Media Gateway Screen

```
Change media-gateway 1                               Page 1 of 1
-----
                MEDIA GATEWAY
Number: 1
Name: Swainsons                                     Identifier: 01ZX06230551
IP Address: . . . . .                               MAC Address: : : : : :
Network Region: 1                                   Location: 1
Site Data:                                          Registered? n

                Slot      Module Type
                U1:
                U2:
                U3:
                U4:

                U8:
                U9:
```

2. Complete the **Name** field with the hostname assigned to the G700 Media Gateway.
3. Complete the **Identifier** field with the serial number of the G700 Media Gateway. You can obtain the serial number by using the `show system Media Gateway Processor` CLI command at the "super" prompt. See [“Check the Serial Number of the G700 Media Gateway Processor” on page 109](#) for details.

⚠ CAUTION:

Be sure the serial number for the G700 Media Gateway you enter in this procedure matches *exactly* the serial number displayed in [“Get the Serial Number of the G700” on page 68](#). If entered incorrectly, the serial number will prevent the S8300 Media Server from communicating with the G700 Media Gateway.

4. Complete the **Network Region** field with the value supplied in the planning documentation. This number will usually match the region of the S8300, but depending on the location of the G700 and the type of endpoints connected to it, the region number may differ.

5. If specifically requested by the customer or your planning documents, type **gateway-announcements** in the **V9** field. This field allows you to enable announcements on the G700 Media Gateway. V9 is a virtual slot. There is no announcement board associated with it. The announcements for the G700 are available in the G700 firmware and are administered in the same way as announcements on the TN2301 circuit pack used on S8700 port networks.

If there are multiple G700 Media Gateways sharing announcements, then enable announcements on the G700 whose trunks will receive the announcements most often.

6. Press **F3 (ENTER)** to save your changes.

Note: The IP Address, MAC Address, and Module Type fields are populated automatically after the G700 Media Gateway registers with the server.

Figure 55. Media Gateway Screen (After Registration with S8700)

```
change media-gateway 1                                     Page 1 of 1
                MEDIA GATEWAY
Number: 1
Name: Swainsons                Identifier: 012X06230551
IP Address: 145.9 .73 .101      MAC Address: 00:04:0d:02:05:0a
Network Region: 1                Location: 1
Site Data:                        Registered? y

                Slot      Module Type
                U1:       icc
                U2:       ds1
                U3:       analog
                U4:       dcp

                U8:       messaging-analog
                U9:
```

The Media Modules installed in the G700 are listed next to their slot numbers.

End _____

Verify Changes

Begin _____

To verify that a G700 Media Gateway has been successfully added:

1. At the SAT prompt, type `list media-gateway`.

Figure 56. List Media-Gateway Screen

```
list media-gateway

                                MEDIA-GATEWAY REPORT

Number      Name           Identifier      IP Address      Registered?
1           LabA MG1       01DR07128730  135.177.49.57   y
2           Data MG2       02DR01130356  135.177.49.90   n

Command successfully completed
```

2. Verify that the G700 Media Gateway has registered.

The **y** in the registered field signifies that the G700 Media Gateway has registered. If the G700 should become unregistered, the **y** will become an **n**, but the IP address will remain assigned to the G700 Media Gateway. If the G700 has never been registered, the IP Address field will be blank.

If the G700 fails to register, two common causes might be:

- The serial number added as the identifier for the G700 is wrong. To check, log back into the G700 gateway and type `show system`. Check the serial number that appears.
- There is no IP connection between the G700 and the S8300. To check, type `show mgc` and then `ping mgp <controller_address>`.

End _____

Enable Announcements, If Necessary

Begin _____

1. *Only if specifically requested by the customer or your planning documents*, at the SAT prompt, type `enable announcement-board <gateway_number>V9`, where `<gateway_number>` is the number of the G700 Media Gateway you just added and **V9** is the virtual slot (for example, **2V9** means Media Gateway number 2, slot V9).
2. Press **ENTER** to enable announcements.

The system displays the message **Command successfully completed**.

End _____

Save MultiVantage Translations

Begin _____

Save translations again after all MultiVantage administration is complete.

- At the SAT prompt, type `save translations`.

End _____

Administer MultiVantage Software on the S8700 (When the S8300 Is an LSP)

CAUTION:

This administration applies only to an S8700 that serves as the primary controller. If the S8300 is an LSP, do *not* administer MultiVantage software on it. Translations are automatically copied to the S8300 LSP from the S8700 primary controller after a **save translations** command or a data backup.

To continue administration of various features available to the S8700 Media Server with G700 Media Gateways, you will use the SAT tools. Among many other tasks, you will use the SAT interface to:

- Provide Ethernet access to MultiVantage (this should have already been established as a part of normal S8700 installation)
- Define the IP Network Region (this should have already been established as a part of normal S8700 installation)
- Add a Media Gateway

Note: This document covers only the administration of MultiVantage software required for the G700 Media Gateway to communicate with the primary controller over a customer's network. For the majority of administration required, see "*Administrator's Guide to MultiVantage Software, 555-233-506*," or "*Administration for Network Connectivity for MultiVantage Software, 555-233-504*."

Note: For information on installing the CLAN boards on the S8700 port networks and complete information on installing an S8700 Media Server, see the Installation documentation on the "*Avaya S8300 and S8700 Media Server Library CD, 555-233-825*."

Assign the S8700's CLAN Node Name and IP Address

Begin _____

Note: This should have already been established as a part of normal S8700 installation.

Note: The CLAN boards must be TN799DP running version 5 or greater firmware. Be sure to check the firmware version for these boards on the S8700. For information on how to upgrade the firmware on the S8700, please see the section "Upgrade Firmware in Selected Port Cabinet Packs" in *Upgrading the Avaya Media Server Configuration* in the S8700 documentation portion of this documentation CD, "Avaya S8300 and S8700 Media Server Library CD, 555-233-325."

1. At the S8700 SAT prompt, type **change node-names ip** to open the Node Names screen.
2. Go to page 2

Figure 57. Node Names Screen.

change node-names ip of 2		Page 2	
NODE NAMES			
Name	IP Address	Name	IP Address
default_____	0_.0_.0_.0__	_____	_._._._.__
<u>node-1</u> _____	<u>192.168.1</u> _. <u>124</u>	_____	_._._._.__
<u>node-2</u> _____	<u>192.168.1</u> _. <u>97</u>	_____	_._._._.__
<u>node-4</u> _____	<u>192.168.1</u> _. <u>51</u>	_____	_._._._.__
_____	_._._._.__	_____	_._._._.__

3. Enter the appropriate values for the Media Gateway (node-4 in this example).

Field	Conditions/Comments
Name	The node names for the following two nodes were already on the screen: <ul style="list-style-type: none"> • <i>node-1</i>: C-LAN Ethernet port on the S8700 switch. • <i>node-2</i>: Interface on the router to the subnet of the S8700 switch.
IP Address	The unique IP address for the C-LAN node named in the previous field. See the description of the Subnet Mask field in the next task for information on valid IP addresses.

4. Press **F3 (ENTER)** when complete.

End _____

Define the IP Network Regions for the G700 Media Gateway and the S8700 CLAN Board(s)

Begin _____

Note: This should have already been established as a part of normal S8700 installation.

You must define an IP network region according to the planning documentation. Use the system defaults if the planning documentation does not specify otherwise.

For a G700 Media Gateway with an S8300 local survivable processor and an S8700 as the primary controller, there may be more than one network region, since there can be up to 30 G700 Media Gateways connected to it with thousands of telephones in the network. In this case, you define a network region for each CLAN board on the S8700 port networks, though they may also have the same network region.

The G700 Media Gateway, in this case, may also share the same network region as the CLAN board(s). However, it may have a different network region because of the geographic distances of the connections between the G700 and the S8700. The G700 network region may also differ because of the nature of the endpoints connected to it.

CAUTION:

Defining IP network regions can be quite complex. For detailed information on the use and administration of IP network regions, see “*Administration for Network Connectivity for MultiVantage Software*, 555-233-504.”

1. On the S8700 primary controller for the G700 Media Gateway, type `change ip-network-region <network_region>`, where the `<network_region>` is the region you will assign to the G700 Media Gateway. This region number might or might not match the network region of the S8700 CLAN boards.

The S8700 displays the IP Network Region screen.

Figure 58. IP Network Region Screen

```
change ip-network-region 1                                     Page 1 of 2
                                                              IP Network Region

Region: 1
Name:

Audio Parameters                                           Direct IP-IP Audio Connections? n
Codec Set: 1                                             IP Audio Hairpinning? y
Location:
UDP Port Range                                           RTCP Enabled? n
  Min: 2048                                             RTCP Monitor Server Parameters
  Max: 65535                                           Use Default Server Parameters? y

DiffServ/TOS Parameters
Call Control PHB Value: 34
VoIP Media PHB Value: 0
  BBE PHB Value: 43   Resource Reservation Parameters
                                                              RSVP Enabled? n

802.1p/Q Enabled? N
```

2. Complete the fields as described in “*Administration for Network Connectivity for MultiVantage Software, 555-233-504.*”

Note: It is strongly recommended to use the defaults in the screen.

3. If the network region of the G700 is different than that of the S8700 CLAN board(s), press NextPage to complete page 2, Inter Network Region Connection Management.

The S8700 displays page 2 of the IP Network Region screen.

Figure 59. IP Network Region Screen, Page 2

```
display ip-network-region 1                                     Page 2 of 2
                    IP Network Region
                    Inter Network Region Connection Management

Region (Group Of 32)
 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2
001-032 1                                                    4
033-064
065-096
097-128
129-160
161-192
193-224
225-250
```

4. For the region of the CLAN board(s), type the number of the codec set that the S8700 will use to interconnect the G700 and the CLAN board(s). For more detail, see “*Administration for Network Connectivity for MultiVantage Software, 555-233-504.*”
5. Press **F3 (ENTER)** when complete.
6. Repeat [step 1](#) through [step 5](#) for the S8700 CLAN board(s).

End _____

Define the IP Interfaces of the S8700 Port Network CLAN Boards

Begin _____

Note: This should have already been established as a part of normal S8700 installation.

1. Enter **change ip-interfaces** to open the IP Interfaces screen.

Figure 60. IP Interfaces Screen

```

change ip-interfaces                                     Page 1 of 6   SPE B

                                     IP INTERFACES

Enable
Eth Pt  Type  Slot  Code Sfx Node Name          Subnet Mask      Gateway Address  Net
      y  C-LAN  02C18 TN799  C  st7clan          255.255.0 .0  172.23 .23 .254 6
      n  MEDPRO 02C08 TN802  B  st7mpl           255.255.255.0  192.168.22 .254 6
      y  MEDPRO 02C11 TN2302   st7_prowler1    255.255.0 .0  172.23 .23 .254 7
      y  MEDPRO 02A12 TN2302   st7_prowler2    255.255.0 .0  172.23 .23 .254 7
      y  MEDPRO 02A13 TN2302   st7_prowler3    255.255.0 .0  172.23 .23 .254 6
      y  MEDPRO 02A14 TN2302   st7_prowler4    255.255.0 .0  172.23 .23 .254 1
      y  MEDPRO 02A15 TN2302   st7_prowler5    255.255.0 .0  172.23 .23 .254 7
      y  C-LAN  02A16 TN799  C  st7clan2         255.255.0 .0  172.23 .23 .254 6
      y  C-LAN  02B17 TN799  C  st7clan3         255.255.0 .0  172.23 .23 .254 6
      y  C-LAN  01A06 TN799  C  st7clan4         255.255.0 .0  172.23 .23 .254 6
      y  MEDPRO 02C13 TN2302   st7_prowler6    255.255.0 .0  172.23 .23 .254 1
      n  MEDPRO 02C15 TN2302   st7_prowler7    255.255.0 .0  172.23 .23 .254 6
      n  MEDPRO 02C16 TN2302   st7_prowler8    255.255.0 .0  172.23 .23 .254 6
      n  MEDPRO 02D06 TN2302   st7_prowler9    255.255.0 .0  172.23 .23 .254 6
      n  MEDPRO 02D07 TN2302   st7_prowler10   255.255.0 .0  172.23 .23 .254 7
    
```

2. Complete the fields as described the in the following table.

Field	Conditions/Comments
Enable Eth Pt	The Ethernet port must be enabled (y) before it can be used. The port must be disabled (n) before changes can be made to its attributes on this screen.
Type	Either C-LAN.
Slot	The slot location for the circuit pack.
Code	Display only. This field is automatically populated with TN799 for C-LAN.
Sfx	Display only. This field is automatically populated.
Node name	The unique node name for the IP interface. The node name here must already be administered on the Node Names screen.

1 of 2

Field	Conditions/Comments
Subnet Mask	The subnet mask associated with the IP address for this IP interface. For more information on IP addresses and subnetting, see <i>“Administration for Network Connectivity for Avaya MultiVantage™ Software, 555-233-504”</i> .
Gateway Addr	The address of a network node that serves as the default gateway for the IP interface.
Net Rgn	The region number for this IP interface.

2 of 2

3. Close the screen.

End _____

Add Media Gateways

Begin _____

When you are logged in to MultiVantage via SAT, you will be able to add G700 Media Gateways to the system.

 **CAUTION:**

Be sure the serial number for the G700 Media Gateway you enter in this procedure matches *exactly* the serial number displayed in [“Get the Serial Number of the G700” on page 68](#). If entered incorrectly, the serial number will prevent the S8700 Media Server from communicating with the G700 Media Gateway.

1. At the SAT prompt, type `add media-gateway <number>`
where <number> is the gateway number from 1 to 250.

The S8700 displays the Media Gateway screen.

Figure 61. Media Gateway Screen

```

change media-gateway 1                                     Page 1 of 1
                                MEDIA GATEWAY
Number: 1
Name: Swainsons                                           Identifier: 01ZX06230551
IP Address: . . . . .                                     MAC Address: : : : : :
Network Region: 1                                         Location: 1
Site Data:                                               Registered? n

                                Slot      Module Type
                                U1:
                                U2:
                                U3:
                                U4:

                                U8:
                                U9:
    
```

2. Complete the **Name** field with the hostname assigned to the G700 Media Gateway.
3. Complete the **Identifier** field with the serial number of the G700 Media Gateway. You can obtain the serial number by using the `show system Media Gateway Processor` CLI command at the "super" prompt. See ["Check the Serial Number of the G700 Media Gateway Processor"](#) on page 109. for details.
4. Complete the **Network Region** field with the value supplied in the planning documentation.
5. *If specifically requested by the customer or your planning documents*, type **gateway-announcements** in the **V9** field. This field allows you to enable announcements on the G700 Media Gateway. V9 is a virtual slot. There is no announcement board associated with it. The announcements for the G700 are available in the G700 firmware and are administered in the same way as announcements on the TN2301 circuit pack used on S8700 port networks.

If there are multiple G700 Media Gateways sharing announcements, then enable announcements on the G700 that is connected to the trunks that will receive the announcements most often.
6. Press **F3 (ENTER)** to save your changes.

Note: The IP Address, MAC Address, and Module Type fields are populated automatically after the G700 media gateway registers with the server.

Figure 62. Media Gateway Screen (After Registration with S8700)

```
Change media-gateway 1 Page 1 of 1
                                MEDIA GATEWAY
Number: 1
Name: Swainsons                Identifier: 01ZX06230551
IP Address: 145.9 .73 .101      MAC Address: 00:04:0d:02:05:0a
Network Region: 1              Location: 1
Site Data:                     Registered? y

                                Slot      Module Type
                                U1:      icc
                                U2:      ds1
                                U3:      analog
                                U4:      dcp

                                U8:      messaging-analog
                                U9:
```

The Media Modules installed in the G700 are listed next to their slot numbers.

End _____

Verify Changes

Begin _____

To verify that a G700 Media Gateway has been successfully added:

1. At the SAT prompt, type `list media-gateway`

Figure 63. List Media-Gateway Screen

```
list media-gateway

                                MEDIA-GATEWAY REPORT

Number      Name          Identifier      IP Address      Registered?
-----
1           LabA MG1      01DR07128730  135.177.49.57  y
2           Data MG2      02DR01130356  135.177.49.90  n

Command successfully completed
```

2. Verify that the G700 Media Gateway has registered.

The **y** in the registered field signifies that the G700 Media Gateway has registered. If the G700 should become unregistered, the **y** will become an **n**, but the IP address will remain assigned to the G700 Media Gateway. If the G700 has never been registered, the IP Address field will be blank.

If the G700 fails to register, two common causes might be:

- The serial number added as the identifier for the G700 is wrong. To check, log back into the G700 gateway and type `show system`. Check the serial number that appears.
- There is no IP connection between the G700 and the S8300. To check, type `show mgc` and then `ping mgp <controller_address>`.

End _____

Enable Announcements, If Necessary

Begin _____

1. *Only if specifically requested by the customer or your planning documents*, at the SAT prompt, type `enable announcement-board <gateway_number>V9`, where `<gateway_number>` is the number of the G700 Media Gateway you just added and **V9** is the virtual slot (for example, **2V9** means Media Gateway number 2, slot V9).
2. Press **ENTER** to enable announcements.

The system displays the message **Command successfully completed**.

End _____

Save MultiVantage Translations

Begin _____

- At the SAT prompt, type `save translations`.

End _____

Considerations for IP Phones Supported by a Local Survivable Processor

A DHCP server assigns IP addresses to IP endpoints dynamically. Avaya IP phones perform a DHCP discover request to receive an IP address, as well as receive parameters necessary to function correctly. These parameters include the location of the call control server, the location of the TFTP server, as well as the directory on the TFTP server from where the phone receives its upgrades.

When preparing a DHCP server to work with Avaya IP phones, there is an option that must be administered to allow the Avaya phone to receive the DHCP offer. This option is “site-specific-option-number” (sson) 176. Different DHCP servers allow for this administration in different ways, but the sson option must be mapped to 176. Then the option can be set up to send the information desired to the Avaya phones for the intended activity.

The sson option should send a string. This string will include “MCIPADD=www.xxx.yyy.zzz”. MCIPADD defines the Avaya Call Controller with which the phone will register. In an S8700 system, this address should be a CLAN address, and in an S8300 system, this address will be the IP address of the S8300. Multiple addresses can be administered at this point to allow for LSP failover. The second address in the MCIPADD list may be an address for a second S8700 CLAN board or an LSP IP address. If a second CLAN board is used, then the third address must be the LSP, and any subsequent addresses should be alternate LSPs. Local LSPs should appear first in the list, with remote LSPs later in the list as possible back ups.

Also included in the sson option string is the “MCPORT=1719”. This is the port the phone will listen on for signalling traffic to the call controller. Next is the tftp server field. This field indicates to the phone where it is to receive firmware updates, along with the tftp directory field.

All phones for which the DHCP server has an LSP as the second address in the MCIPADD list should either be administered to be part of the same network region, or the network regions involved should be interconnected. On the primary controller in the ip-network-map form, a range of IP addresses can be specified to be part of the specified network region. This is where the phones of a specific subnet or range should be placed into the same network region. If it is not desired for all the phones receiving a controller list with the LSP to be in the same network region, the form “ip-network-region #” should interconnect all the network regions that contain those phones.

Transition of Control from Primary Controller to LSP

When the network connection between the G700 and the S8700 goes down, control of endpoints connected to the G700 goes to the next point in the primary controller list, which will be either a second CLAN board or the LSP. At this point, the S8700 alarms to notify the customer and services personnel that the network connection between the S8700 and G700 has problems. If control passes to the LSP, the LSP’s license allows it to support the G700 endpoints for up to 6 days, within which the network problems should be resolved.

The customer must pass control back to the S8700 manually, by selecting **Shutdown this server** from the S8300 web page (includes selecting the option to restart after shutdown), or a technician must run **reset system 4** from the Linux command line. When the system reboots, the G700 and its endpoints reregister with the primary controller, in this case the S8700.

Set Up SNMP Alarming on the G700

Setting up SNMP alarm reporting involves two main tasks:

- Configuring the primary server to report alarms to a services support agency
- Configuring the G700 Media Gateway to send its traps to a network management system (NMS), which can be the primary server (S8300/S8700).

The primary server may be either an Avaya™ S8300 Media Server or an Avaya™ S8700 Media Server. The Media Server supports two methods for reporting alarms. Either method, both, or no alarm-reporting method may be used at a given site.

- **OSS Method.** The server's software applications and hardware devices under its control can generate Operations Support System (OSS) alarms. These alarms are recorded in the server logs, and may be reported to Avaya's Initialization and Administration System (INADS) or another services support agency over the server's modem interface.

To activate OSS alarm notification: The server requires a USB connection to a modem that is connected to an analog line. The modem must be configured using the Web Interface, in the Set Modem Interface screen, and enabled to send and receive calls using the Enable/Disable Modem screen. Configuration of the OSS alarming method can only be done using Linux shell commands.

- **SNMP Method.** SNMP traps may be sent in User Datagram Protocol (UDP) to a corporate network management system (NMS) using the Configure Trap Destinations screen. The OSS and SNMP alarm-notification methods operate independently of each other; either or both may be used. Currently, the following NMSs are supported:
 - Avaya MultiVantage™ Fault and Performance Manager, as a standalone application, or integrated within
 - Avaya MultiService™ Network Manager
 - HP Openview

To activate SNMP alarm notification: On the server Web Interface, use the Configure Trap Destinations screen to set up SNMP destinations in the corporate NMS.

Add INADS phone numbers and Enable alarms to INADS

Begin

The following procedure using the primary server's Linux shell commands administers the dial-out modem to send alarms in the OSS method. In this example, the primary server is an S8300, and the services support agency is Avaya's Initialization and Administration System (INADS).

Perform this task after all MultiVantage administration is complete.

1. Connect your laptop to the Services port of the S8300 Media Server

Note: Do these steps only if the S8300 is the primary controller and the customer has a maintenance contract with Avaya. Use the information you acquired from the ART tool (see ["Run the ART Tool for the INADS IP Address" on page 69](#)). Also, a USB modem must have already been installed. See [Universal Serial Bus \(USB\) Modems in Chapter 7, Connecting Telephones and Adjunct Systems \(page 254\)](#).

1. Click **Start > Run** to open the Run dialog box

2. Type **telnet 192.11.13.6** and press **Enter**.
3. Log in as **craft**.
4. At the prompt, type **almcall -f INADS phone number -s second-number** and press **Enter**.
5. At the prompt, type **almenable -d b -s y** and press **Enter**.
6. Type **almenable** and press **Enter** to verify that the alarms are enabled.
7. Log off.

End _____

Configure an SNMP Community String for Traps

Begin _____

Configuring the Avaya™ G700 Media Gateway to send SNMP traps to the primary server can be accomplished by two commands:

- Layer 2 Switching Processor CLI command **set snmp community trap [community string]**
- Media Gateway Processor (MGP) CLI command **set snmp trap <IP address> enable**

SNMP requires community strings to be used for each SNMP 'request'. You can set only three community strings on the G700 — one each for read requests, write requests, and traps. The command for traps is **set snmp community trap [community string]**.

1. Open the Run dialog box.
2. Type **telnet <IP address of L2 Processor>** and press **Enter**.
3. Log in as **root**.
4. At the L2 Processor CLI prompt, type **set snmp community trap [community string]** and press **Enter**.
5. Type **exit**

End _____

Configure the Destination for G700 SNMP Traps

Begin

Events occurring on the G700 cause SNMP traps to be generated. The G700 MGP can be configured to send SNMP traps to any network management system (NMS) in the network, including the primary server (S8300/S8700). The MGP CLI **set snmp trap** command is the way to configure the NMS network element that will receive those traps. The traps are sent in User Datagram Protocol (UDP) on the customer's IP network.

The command syntax is:

```
set SNMP trap <IP address> {enable/disable}  
[[all/power/temp/app/module/config/voice/operations]]
```

where <IP address> is the IP address of the NMS trap receiver that will be receiving the traps from the G700, and

[[all/power/temp/app/module/config/voice/operations]] indicates the groups whose traps will be sent to the specified receiver. If no keywords follow the IP address entry, then 'all' traps will be enabled for the specified receiver.

If 'enable' or 'disable' is used without a trap designation keyword, then 'all' traps is assumed. Up to ten trap receivers can be configured.

1. From the L2 Processor CLI, type **session mgp**
2. At the **mg-xxx-n(super-user)** prompt, type **configure** and press **Enter**.
3. At the **mg-xxx-n(configure)** prompt, type **set snmp trap <IP address> enable** and press **Enter**.
4. Type **exit**

End

Complete the Installation Process (On S8300 Primary Controller Only)

Consult the planning documentation to obtain the necessary information to complete the installation. Part of the final process will be to:

- Connect and administer test endpoints
- Test the endpoints
- Administer MultiVantage for trunks, features, networking, or other items required by the customer.
- Complete the electrical installation
- Enable adjunct systems

Register the system

Begin _____

Follow the existing process and procedures to register the S8300.

Back up the System

Begin _____

1. Make sure you have the IP address of the customer's FTP backup server.
2. On the S8300 main menu, select **Backup Now**.
The system displays the Backup Now screen.
3. Select the type of data you want to back up by selecting the appropriate data set.
4. Select a backup method, normally **FTP**, to indicate the destination to which the system sends the backup data.
5. Complete the following fields:

User name. You must enter a valid user name to enable the media server to log in to the FTP server. If you want to use the anonymous account, type "anonymous" in this field. If you do not want to use the anonymous account, type the actual user name in this field.

Password. You must enter a password that is valid for the user name you entered. If you are using anonymous as the user name, you must use your email address as the password. However, the FTP site may have a different convention.

Host name. Enter the DNS name or IP address of the FTP server to which the backup data is sent. To enter an IP address, use the dotted decimal notation (for example, 192.11.13.6).

Directory. Enter the directory on the corporate repository to which you want to copy the backup file. When you enter a forward slash (/) in the directory field, the system copies the backup file to the default directory. The default directory for backup data on the FTP server is /var/home/ftp. If you do not want to use the default directory, you must enter the path name for the directory.

6. Click **Start Backup**.

The system displays the results of your backup procedure on the Backup Now results screen.

End _____

4 Configuring a New G700 with an S8700 (No Local Survivable Processor)

For an installation of a new system, to obtain new firmware for the Avaya™ G700 Media Gateway, you may do one of the following:

- Upload the firmware from a CD on-site
- Download the firmware directly onto your services computer before going on-site

If you are installing a G700 Media Gateway without an S8300 or LSP, you *must* use an external TFTP server. The new software file for the G700 has a .gz extension. The release letter for the installation, which should be shipped with the G700 or available from your Project Manager, will tell you what files you need to load.

Note: A P330 processor is built into the G700 Media Gateway. This P300 processor is also known as the Layer 2 Switch Processor. You normally access the G700 for configurations by first accessing the P300 processor. Configuration and firmware updates of this processor are a required part of most installations and upgrades.

Get Planning Forms from the Project Manager

The project manager should provide you with forms that contain all the information needed to prepare for this installation. The information primarily consists of IP addresses, subnet mask addresses, logins, passwords, people to contact, the type of system, and equipment you need to install.

Verify that the information provided by the project manager includes all the information requested in [“Appendix B: Checklists” on page 257](#).

Get the Serial Number of the G700

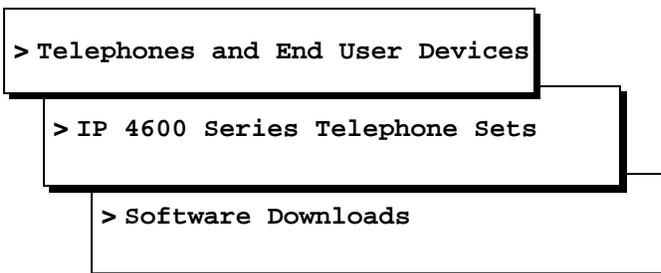
You need the serial number of the G700 Media Gateway you are installing to add the G700 Media Gateway to the S8700. To get this number, open the box of the G700 Media Gateway and look for the serial number sticker on the back of the unit.

Set Up the TFTP Server on Your Laptop or on a Customer PC

A tar.gz file, which you obtain from a CD-ROM or a website, contains new G700 software. To load this software on a G700 Media Gateway, you must place this tar.gz file either on your laptop or on a PC connected to the customer's LAN. Later, you will log in to the G700 and use its TFTP capability to pull the new software from your laptop or the customer's PC. As a result, either the customer must configure a TFTP server on a PC connected to the customer's LAN or you, the installer, must set up your laptop as a TFTP server and later connect it to the customer's LAN.

Note: A Linux or Unix TFTP server should be used only if the customer already has an existing one. In these cases, you download the tar.gz file to your laptop and give it to the customer for proper placement and execution.

1. On the hard drive of your laptop or the customer's PC, create a directory into which you will load the G700 software. It is recommended that you create a directory called C:\tftp.
2. Connect to the LAN using a browser on your laptop or the customer's PC and access <http://www.avaya.com/support> on the internet to copy the following file to the PC/laptop: **iptel_avaya_tftp.exe**.
3. At the Avaya support site, select the following sequence of menu options:



4. Select AVAYA 4630 IP Telephone Release 1.6 and TFTP Server or latest version.
5. Scroll to bottom of page to find **iptel_avaya_tftp.exe**.
6. Double-click on the program and download it to your laptop or the customer PC that will serve as the TFTP server. You may also wish to download and view or print the file **iptel.pdf**, which provides instructions on installing the iptel_avaya_tftp.exe for Windows servers.
7. Remember where the iptel_avaya_tftp.exe file is installed on your laptop or PC and write it down. By default, the download normally creates a directory **C:\Program Files\Walusoft\TFTPSuite** that contains the file.
8. After copying the **iptel_avaya_tftp.exe** file to the PC, double-click it to install it, and follow instructions.
9. When the file has been installed, go to the directory where the software was installed and open the program **tftpserver32.exe**.

The TFTP Server window appears. It reflects the IP address of the PC in the upper border, plus port 69.

10. Enable the TFTP server as follows:

For NT and Windows 2000 or higher operating systems, set the following:

a. Click on *System* from menu bar and select *setup*.

The server option window appears.

- Select the *Outbound* tab, and enter the outbound file path to C:\tftp - Enter this or your alternate tftp location in the *Outbound* tab.
- Under *Options* tab, enter **69** in the *Use Port* field (default).
- Select *No Incoming* (default). However, if you wish to copy files as a backup prior to performing an upgrade of software, leave this field unchecked.
- Select the *Inbound* tab, and enter the inbound file path to C:\tftp or your alternate tftp location in the *Inbound* tab.
- Click *OK*.

End _____

Download the tar.gz File or G700 Files to Your TFTP Directory

Note: Your laptop (or the customer's PC) must have WinZip or other file zipping software for this procedure.

Download the tar.gz File from CD-ROM to Your TFTP Directory and Unzip It

Begin _____

1. Insert the G700 software CD into your laptop or PC CD-ROM drive.
2. Use Windows File Explorer or another file management program to access the files on the CD-ROM drive.
3. Copy the tar.gz file (G700-11.2-0210.1.tar.gz or similar identifier) to the C:\tftp directory.
4. Use winZIP or another zipfile tool to unzip the file. You may need to unzip an additional tar.gz file embedded in the original file. You should continue to unzip tar.gz files until you see listed files with extensions as shown in [“Firmware File Formats” on page 148](#).

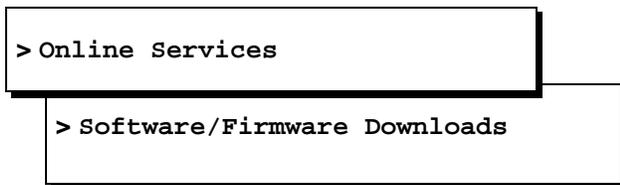
All file types for the components of the G700 are unpacked and listed.

End _____

Download the Firmware Files from the Web to Your TFTP Directory

Begin _____

1. Access the **avaya.com/support** website.
2. Use Windows File Explorer or another file management program to access the CD-ROM drive files.
3. At the Avaya support site, select the following sequence of menu options:



4. Scroll down the Software Downloads list on the Web page to **Avaya G700 Media Gateway and S8300 Media Server**, and double-click **Avaya Media Server and Media Gateway Firmware Downloads**.

The list of firmware patches appears.

5. Locate the file names that matches the load listed in your planning documentation. The file names will approximate those listed in the following table:

Table 9. Firmware File Formats

Component	Firmware Version Format	Example
P330 Stack Processor	viisa<version id>	viisa3_12_1.exe
P330 Stack Processor	p330<version id>	p330Tweb.3.8.6.exe
G700 Media Gateway	mgp<version id>	mgp_3_0.bin
VoIP Media Module and Motherboard VoIP	mm760<version id>	mm760v3.fdl
DCP Media Module	mm712<version id>	mm712v2.fdl
Analog Port/Trunk Media Module	mm711<version id>	mm711v4.fdl
E1/T1 Media Module	mm710<version id>	mm710v3.fdl
BRI Media Module	mm720<version id>	mm720v2.fdl

6. Double-click the file name.
A File Download window appears.
7. Click on **Save this file to disk**.
8. Save the file to the C:\tftp directory or another directory you created to store the download files for the TFTP server software.
9. Use Winzip or another zip file tool to unzip the file if necessary.

End _____

Prepare to Configure the G700 Media Gateway

Conduct the following procedure in order to compare software versions running on the G700/Media Modules with the Release Letter. If the versions do not match, new firmware for those components is necessary.

Review Physical Access Methods

Begin

1. Check [Figure 64](#) for the location of the G700 Serial Port.
2. Check [Figure 64](#) for the location of the Ethernet ports. You will need to connect one of the ports to the customer's LAN for loading the latest software.

Figure 64. Summary of S8300 and G700 access methods and tasks

Initial Configuration and Maintenance S8300

Onsite Tasks:

1. Configure media server
2. Install license and authentication files, and upgrade software
3. Verification testing
4. Run diagnostics
5. Upgrade software and configuration

Tool:

Media server web interface

Remote Access of S8300 and G700

1. Diagnosis of media server
2. Alarm notification

System Admin Computer Administration via Corporate LAN

Tasks:

1. Backup and restore data
2. Upgrade and configuration
3. Administer network
4. Admin Telephony features

Tools:

1. Media Server Web Interface
2. Avaya Site Administration
3. Avaya Device Manager
4. System Access Terminal

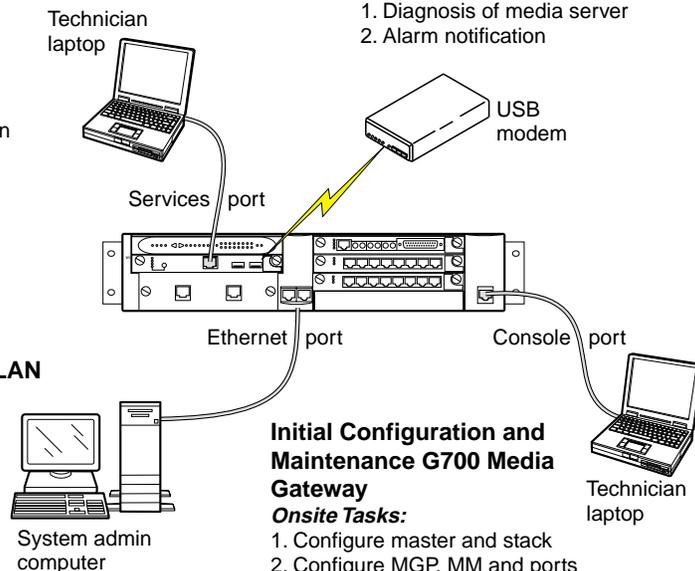
Initial Configuration and Maintenance G700 Media Gateway

Onsite Tasks:

1. Configure master and stack
2. Configure MGP, MM and ports
3. Update configuration
4. Run diagnostics

Tool:

Command Line Interface



cydcacc KLC 082202

Connect Your Laptop to the G700 Serial Port

Begin

To connect a laptop directly to the serial port on the G700 Media Gateway:

1. *For a stacked configuration:* locate the device that contains the master controller for the stack. Check the LED panel on the upper left of each G700 or P330 device in the stack as follows:
 - G700 Media Gateway: a lit **MSTR** LED indicates that this unit is the stack master.
 - P330 device: a lit **SYS** LED indicates that this unit is the stack master.
2. Use the RS-232 serial cable and DB-9 adapter cable provided with the G700 Media Gateway.
3. Attach one end of the RS-232 cable to the RJ-45 jack on the front of the unit that is the stack master. The serial port is on the lower right side of the chassis.
 - On a G700, this serial port is labeled **Console**.
 - The name of the serial port varies on P330 devices, but it is located on the lower right.
4. Plug the other end of the RS-232 cable into the RJ-45 jack on the DB-9 adapter cable.
5. Connect the other end of the DB-9 adapter cable to the 9-pin serial port on your laptop.
6. Use a serial-connection program such as HyperTerminal to access the P330 stack processor.

Log in to the Avaya P330 (Layer 2 Switching Processor) Command Line Interface

Begin

1. Launch Windows® HyperTerminal or any other terminal emulation program.

Note: For most Windows-based PCs, you access the HyperTerminal program from the **Start** menu by selecting **Programs**, then **Accessories**.

2. Choose **Call - Connect** or the appropriate call command for your terminal emulation program.
3. Log in at the **Welcome to Avaya P330** screen.

Login: *xxx from the planning documentation*

Password: *xxx from the planning documentation*

You are now logged-in at the Supervisor level. The prompt appears as **P330-1(super)#**. In order to use the commands necessary to configure the P330 Stack Processor, you must reset to the Configure level.

4. Type `configure`

The prompt appears as **P330-1(configure)#**.

End

Note:

To check the syntax of a command in the command line interface, type as much of the command as you know followed by `help`. For example:

```
P330-1(configure)#> set help
```

you will be given the current list of set commands available. If you type:

```
P330-1(configure)#> set interface help
```

you will be given a much more restricted list of command possibilities that address the possible interfaces to be set.

For a complete list of command line interface commands, refer to the "Avaya™ P330 User's Guide".

Determine Necessary Firmware to Install on the G700

Begin

The first steps determine if new firmware for the P330 Stack Processor is necessary.

1. Login to the Avaya P330 command line interface.
2. At the P330-1(super)# prompt, type configure.
3. At the P330-1(configure)# prompt, type dir.

The list of software appears

Figure 65. Directory List for P300 Processor

M#	file description	ver num	file type	file location	file
1	module-config Configuration	N/A	Running Conf	Ram	Module
1	stack-config Configuration	N/A	Running Conf	Ram	Stack
1	EW_Archive	3.8.6	SW Web Image	Nv-Ram	WEB Download
1	Booter_Image	3.2.5	SW BootImage	Nv-Ram	Booter Image

4. Check the version number of the EW_Archive file to see if it matches the Release Letter. If not, you must upgrade the P330 Stack Processor.

5. At the P330-1(configure)# prompt, type show image version

The list of software appears.

Figure 66. Show Image Version List for P330 Processor

```
P330-1(configure)# show image version 3
```

Mod	Module-Type	Bank	Version
3	Avaya G700 Media Gateway	A	0.0.0
3	Avaya G700 Media Gateway	B	3.8.2

Check the version number of the stack software image file to see if it matches the Release Letter. If not, you must upgrade the P330 Stack Processor.

The next steps determine if new firmware is required for the G700 Media Gateway Processor (MGP), the VoIP Module, and the installed Media Modules.

6. At the P330-1(configuration)# prompt, type `session mgp`
7. At the MG-???-1(super)# prompt, type `configure`
8. At the MG-???-1(configuration)# prompt, type `show mg list_config`

The list of software appears.

Figure 67. Configuration List for G700 Media Gateway

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

9. Refer to the output of [step 8](#) to check the FW vintage number of the G700. In the TYPE column, find G700, then check the matching field in the FW VINTAGE column to see if it matches the Release Letter. If not, you must install new firmware on the G700 Media Gateway. Also check if the release number in the FW VINTAGE column contains an A or B to indicate the software bank. If the list shows B, you will upgrade A. If the list shows A, you will upgrade B.
10. Refer to the VOIP FW column and row for slot v0 to see if the number matches the VoIP firmware identified in the Release Letter. If not, you must also upgrade the G700 Media Gateway motherboard VoIP module.
11. Check the FW VINTAGE column for vintages of each of the installed Media Modules: MM710, MM711, MM712, MM720, and/or MM760 to see if they match the FW vintages in the Release Letter. If not, you must upgrade them, as well.

End _____

Assign the IP Addresses of the G700 Media Gateway Components

You will now assign the IP address to the P330 Stack Processor. This address has been provided to you on the IP Addressing Planning Form. The command arguments you will be supplying include:

inband	–the interface of the Avaya P330 Stack Processor that requires an IP address
vlan	–Virtual Local Area Network: a defined network segment that allows users on that segment to have priority services in sharing information with each other. If the network is not using VLANs, the VLAN should be 1. Otherwise, use the VLAN numbers indicated in your planning forms. The Avaya G700 Media Gateway should be assigned the same VLAN as the VLAN to which the Ethernet ports are connected. The Avaya P330 Stack Processor might or might not be assigned to the customer's network management VLAN.
IP address	–the unique identifier assigned to an entity on the Internet
netmask	–the subnet mask for the customer's LAN segment
IP route	–specifies the gateway to use to get off of the local LAN segment to distant networks
destination	–distant networks that the IP route command needs to send packets to. Usually generalized to 0.0.0.0 for networks other than the local segment.
nvramp init	–the P330/MGP CLI command that ensures configuration information is cleared so you can enter the IP address and IP route information.
gateway	–the gateway the ip route command specifies to get to the distant networks

Assign the IP Address to the P330 Stack Processor (Layer 2 Switching Processor)

Begin

1. Type `set interface inband <vlan> <ip_address> <netmask>` at the **P330-1(configure)#** prompt. <vlan> is the vlan, usually 1, to be established on the S8700 for the G700 Media Gateways. The <ip_address> <netmask> are the assigned addresses for the P330 Stack Processor.
2. Type `reset` and press **Enter** to reset the stack.
3. Select **Yes** at the dialog box that asks if you want to continue.

All LEDs will flash. As the unit powers up, self-tests will be run. When the G700 Media Gateway or P330 Stack Processor has reset, log in again to continue.

4. Login at the **Welcome to P330** menu.

The prompt **P330-1(super)#** appears.

5. Type `configure` to obtain the **P330-1(configure)#** prompt.

End _____

Establish the IP Routing for the Stack

Begin _____

1. Type `show interface inband` to verify that the Avaya P330 stack server has the correct address.
2. Type `set ip route 0.0.0.0 <default-gateway>` to set the destination and gateway IP addresses. You will find these addresses in the planning documentation. `<default-gateway-IP>` is the IP address of the customer's network gateway.
3. Press **Enter** to save the destination and gateway IP addresses.
4. Type `show ip route`

The route net and route host tables appear. Verify that the information is correct.

End _____

Check the Serial Number of the G700 Media Gateway Processor

Begin _____

After you have configured the Avaya P330 Stack Processor, you will assign an IP address to the G700 Media Gateway Processor (MGP). Your first step is to check the serial number of the MGP.

1. At the **P330-1(configure)#** prompt, type `session mgp`.
2. At the **MG-???-1 (super) #** prompt, type `show system` to list various attributes of the G700.

A list of attributes appears, as shown in the following example:

Figure 68. Show System List for G700 Media Gateway

```

MG-001-1(super)# show sys

Uptime(d,h:m:s): 1, 08:17:12

System Name      : -- Empty --
System Location  : -- Empty --
System Contact   : -- Empty --
MAC Address      : 00-04-0D-02-04-EF
Serial No        : 02DR07428721
Model No         : G700
HW Vintage       : 00
HW Suffix        : A
FW Vintage       : 230

Media Gateway Power Supplies
                   VOLTAGE(V) ACTUAL(V) STATUS
-----
DSP Complex       3.4          3.359    OK
MGP                5.1          5.000    OK
Fans              1.2          0.000    OK
Media Modules     -48.0         -47.259  OK
VoIP DSP          1.6          1.570    OK
VoIP 8260         2.5          2.470    OK
Aux               -48.0         0.000    OK
--type q to quit or space key to continue--

MG-???-1(super)#

```

- Write the serial number on your planning document. Make sure it matches the serial number sticker on the back of the G700 Media Gateway chassis. If there is a difference, the serial number on the list of attributes in [Figure 68](#) is correct. You will need this later.

Assign the IP Address to the G700 Media Gateway Processor

Begin

If, after you have assigned an IP address to the G700 processor, you telnet directly to the G700 Media Gateway processor, you will need to login, and the login name and password will be provided in the planning documentation.

- At the **MG-???-n(super)#** prompt, type **configure** to reach the configuration level of the command line interface.
- Type `nvram init` to recondition the processor.
The system prompts you to verify that you want to erase the configuration.
- Answer the prompt by typing `y(es)`.

This procedure reinitializes the G700 software back to factory defaults so new IP addresses can be stored correctly in the software. It also clears all configuration and administration on the G700 Media Gateway.

The G700 Media Gateway reinitializes.

4. At the **P330-1(configure)#** prompt, type `session mgp`.
5. At the **MG-???-1 (super) #** prompt, type `configure` to reach the configuration level of the command line interface.
6. Type `set interface mgp <vlan> <ip_address> <mask>` to assign an IP address to the G700 Media Gateway. <vlan> is the vlan to be established on the customer's local network. This is usually **1**. The <ip_address> <netmask> are the assigned addresses for the G700 Media Gateway.
7. At the **MG-???-n(configure)#** prompt, type `reset mgp`.
A system prompt asks to confirm the reset.
8. Select **Yes** at the dialog box that asks if you want to continue.
The G700 Media Gateway processor will reset. The LEDs on the G700 Media Gateway and the Media Modules will flash. These elements will each conduct a series of self-tests. When the LEDs on the Media Modules are extinguished and the active status LEDs on the G700 Media Gateway are on, the reset is complete.
9. At the **P330-1(configure)#** prompt, type `session mgp`.
10. At the **MG-???-1 (super) #** prompt, type `configure` to reach the configuration level of the command line interface.
11. Type `show interface mgp` to verify that the G700 Media Gateway has the correct IP address.

End _____

Assign the Default IP Route to the G700 Media Gateway

Begin _____

1. At the **MG-???-n(configure)#** prompt, type `set ip route 0.0.0.0 0.0.0.0 <gateway_ip_address>`. Both the destination and mask are **0.0.0.0** for the default gateway. <gateway_ip_address> is the IP address of the customer's network gateway.
2. Type `show ip route mgp` to view the results.
3. Repeat [step 1](#) for additional ip routes, if needed. Usually, only a default route is needed. Refer to your planning document.

End _____

Assign IP Addresses to the VoIP Resources

Begin

From the G700 Media Gateway Processor command line interface, you will assign IP addresses to the VoIP resource resident on the G700 Media Gateway and to any installed MM760 VoIP Media Modules.

1. At the **MG-*mmm-n*(config)#** prompt, type `set interface voip <number> <ip address>`

For **<number>**, v0 designates the VoIP resource resident on the G700 Media Gateway motherboard. The MM760 VoIP Media Modules are designated according to the slot (for example, **v1, v2, v3, v4**) in which the Media Module has been installed. **<ip address>** is the IP address of the VoIP resource.

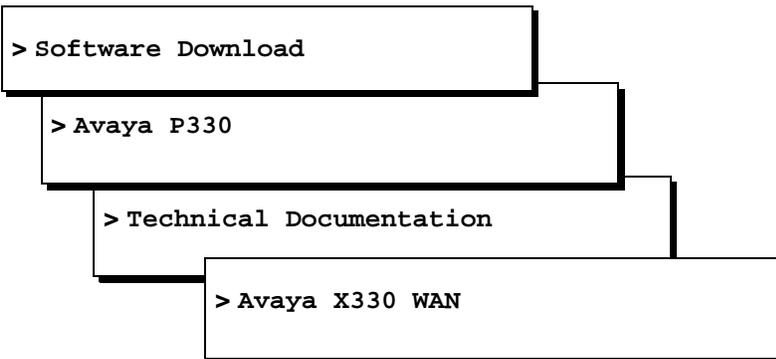
For example: `set interface voip v0 132.236.73.3`

2. Type `show interface` to display a table of all configured interfaces, including all VoIP Media Modules.
3. Type `show voip v0` to display the VoIP resource on the motherboard.

Note: It is not necessary to configure the VLAN, netmask, or IP routes for VoIP engines. The media gateway parameters are applied automatically.

Configure an X330 Expansion Module (If Necessary)

4. See the *Avaya X330W-2DS1 Access Router Module Quick Start Guide*. This document is available at <http://avayanetwork.com>. Once there, select:



5. Select the Quick Start Guide for X330WAN 2DS1.

End

Check for IP Connections

After you have assigned IP addresses to the Cajun Stack Processor, the G700 Media Gateway, and the VoIP resources, do the following to check for IP connections:

6. At the **MG-???-n(config)#** prompt, type `ping mgp <IP_address>`

where **IP_address** is the address of an S8700 CLAN board, the VoIP engine, or any other functioning endpoint accessible on the customer's LAN. It is recommended to ping endpoints on both the same subnet and a different subnet.

Ping results appear on the screen, similar to the following example.

Figure 69. Ping Results

```
MG-???-1(configure)# ping mgp 135.122.49.55

PING 135.122.49.55: 56 data bytes
64 bytes from 135.122.49.55: icmp_seq=0. time=0. ms
64 bytes from 135.122.49.55: icmp_seq=1. time=0. ms
64 bytes from 135.122.49.55: icmp_seq=2. time=0. ms
64 bytes from 135.122.49.55: icmp_seq=3. time=0. ms
64 bytes from 135.122.49.55: icmp_seq=4. time=0. ms
----135.122.49.55 PING Statistics----
5 packets transmitted, 5 packets received, 0% packet loss
round-trip (ms) min/avg/max = 0/0/0
```

7. Check that the same number of packets transmitted were also received.

8. Type `ping voip v0 <IP_address>`

where **IP_address** is the address of the G700, or any other functioning endpoint on the customer's LAN.

Ping results appear on the screen, similar to the following example.

```
MG-???-1(configure)# ping voip v0 135.122.49.55

----135.122.49.55 PING Statistics----
5 packets transmitted, 5 packets received, 0 packet loss
round-trip(ms) min/avg/max = 0/1/0
```

9. Leave the login session up with the G700 Media Gateway while you check the laptop or customer PC for available firmware.

End _____

Set up a laptop for a direct Ethernet connection (If Necessary for Firmware Download)

Note: Follow the procedures in this section if you have stored the G700 firmware files and TFTP server software on your laptop. Skip this section if you are using a PC on the customer's LAN for the G700 firmware download.

A laptop connected directly to the customer's LAN requires a specific setup. This section covers:

- “General settings”
- “Set TCP/IP properties on Windows systems”
- “Disable proxies in browser”

General settings

On any operating system, the network settings need to reflect the following:

- *TCP/IP properties.* Set the laptop's TCP/IP properties as follows:
 - IP address: static IP address from customer
 - Subnet mask: customer subnet mask
- *Browser settings.* Configure the browser for a direct connection to the internet. Do *not* use proxies.

The names of the dialog boxes and buttons vary on different operating systems and browser releases. Use your computer's help system if needed to locate the correct place to enter this information.

Note: Avaya Service technicians can use the NetSwitcher program to configure alternate network profiles so they can easily connect to a number of different systems. NetSwitcher configures a profile for each type of system for easy future access without requiring you to reset TCP/IP properties or browser settings manually. NetSwitcher is available from an Avaya Services CTSA.

Set TCP/IP properties on Windows systems

TCP/IP administration varies among Windows systems as described below.

Note: Make a record of any IP addresses, DNS servers, or WINS entries that you change when you configure your services computer. Unless you use the NetSwitcher program or an equivalent, you will need to restore these entries to connect to other networks.

Check Your Version of Windows

Begin

1. Log in to your laptop, and double-click the **My Computer** icon on your desktop.
The My Computer window opens.
2. Click Help on the My Computer window's toolbar.
The Help menu opens and displays the version of Windows installed on your laptop.
3. Follow the appropriate procedure, "[Change TCP/IP Properties and Network Settings \(Windows 2000 and XP\)](#)" on page 160 or "[Change TCP/IP properties \(Windows 95, 98, NT 4.0, and Millennium Edition \[Me\]\)](#)" on page 161.

End

Change TCP/IP Properties and Network Settings (Windows 2000 and XP)

Begin

1. Right-click My Network Places on your desktop or under the Start menu in XP.
2. Select **Properties** to display the Network and Dial-up Connections window.
Windows should have automatically detected the Ethernet card in your system and created a LAN connection for you. More than one connection may appear.
3. Right-click the correct **Local Area Connection** from the list in the window.
4. Select **Properties** to display the Local Area Connection Properties dialog box.
5. Select **Internet Protocol (TCP/IP)**.
6. Click the **Properties** button. The Internet Protocol (TCP/IP) Properties screen appears.
7. On the General tab, select the radio button **Use the following IP address**. Enter the following:
 - IP address: static IP address from customer
 - Subnet mask: customer subnet mask

Note: Record any IP addresses, DNS settings, or WINS entries that you erase. You may need to restore them later to connect to another network.

8. **Disable DNS service as follows:**
 - a. Click the radio button labeled **Use the following DNS server addresses**. The entries for Preferred DNS server and Alternate DNS server should both be blank.
 - b. Click the **Advanced** button at the bottom of the screen. The Advanced TCP/IP Settings screen appears.
 - c. Click the **DNS** tab. Verify that no DNS server is administered (the address field should be blank).

9. Disable WINS Resolution as follows:
 - a. Click the **WINS** tab. Make sure WINS is not administered (the address field should be blank).
 - b. Click **OK**. If warned about an empty primary WINS address, click **Yes** to continue.
10. Click **OK** twice to accept the address information and close the TCP/IP and Local Area Connection Properties dialog boxes.
11. Reboot the system if directed to do so.

After you have made these changes to your computer's network configuration information, the Network and Dial-up Connections window shows the status of the Local Area Connection:

- Enabled appears when the laptop's Ethernet cable is connected to the network.
- Disabled or unplugged appears if the NIC is not connected to anything.

Change TCP/IP properties (Windows 95, 98, NT 4.0, and Millennium Edition [Me])

Begin

1. Access your computer's network information. On your desktop:
 - *Windows 95, 98, and NT*: Right-click Network Neighborhood.
 - *Windows Me*: Right-click My Network Places.
2. Select **Properties** to display the Network dialog box.
3. Locate the TCP/IP properties as follows:
 - *Windows 95, 98, and Me*: On the **Configuration** tab, scroll through the installed network components list to the TCP/IP part of the devices list. Select the TCP/IP device that corresponds to your Ethernet card.
 - *Windows NT*: On the Protocols tab, select **TCP/IP** in the installed network components list.
4. Select the **Properties** button.
5. In the TCP/IP Properties box, click the **IP Address** tab.
6. Click the radio button to **Specify an IP address**, and enter the following:
 - IP address: static IP address from customer
 - Subnet mask: customer subnet mask

Note: Record any IP addresses, DNS settings, or WINS entries that you erase. You may need to restore them later to connect to another network.

7. Disable DNS service as follows:
 - *Windows 95, 98, and Me*: Click the **DNS Configuration** tab. Verify that the **Disable DNS** radio button is selected.
 - *Windows NT*: Click the **DNS** tab.
 - If any IP addresses appear under DNS Service Search Order, make a note of them in case you need to restore them later.
 - Select each IP address in turn and click the **Remove** button.
8. Disable WINS Resolution as follows:
 - *Windows 95, 98, and Me*: Click the **WINS Configuration** tab. Verify that the **Disable WINS Resolution** radio button is selected.
 - *Windows NT*: Click the **WINS Address** tab.
 - If any IP addresses appear for the Primary and Secondary WINS servers, make a note of them in case you need to restore them later.
 - Clear each server entry.
 - Clear the checkbox for **Enable DNS for WINS Resolution**.
9. Click OK twice to accept the address information and close the Network dialog box.
10. Reboot the system if directed to do so.

Disable proxies in browser

If you are connecting a laptop directly to the customer's LAN, you must disable proxies as described below.

To check or change proxy settings:

1. Open your Internet browser.
2. Verify that you have a direct connection with no proxies as follows:
 - **Internet Explorer**
 - a. Select **Tools > Internet Options**.
 - b. Click the **Connections** tab.
 - c. Click the **LAN Settings** button.
 - d. Deselect **proxy server** if selected, and click **OK**.
 - e. Click **OK** again to close the Internet Options dialog box.
 - **Netscape**
 - a. Select **Edit > Preferences**.
 - b. Under Category, click **Advanced**.
 - c. Click **Proxies**.
 - d. Make sure **Direct connection to the Internet** is selected.
 - e. Click **OK**.

Verify That the tftpboot Directory Has the Right Firmware Versions

Begin

The G700 Media Gateway firmware should be stored in the C:/tftpboot or other directory you created on your laptop or on the customer's PC, whichever has the TFTP server software running for the download of firmware. You should check this directory to make sure the firmware version match those listed in the Release Letter.

Note: Leave the login session up with the G700 Media Gateway while you check for available firmware.

- Check the list of files to ensure that the version numbers match those of the Release Letter.

Use the following legend to help understand which files are for the different G700 Media Gateway components.

Note: You are unlikely to need all of the files. If the customer does not have a particular media module, you will not need to load the file.

Table 10. Firmware File Formats

Component	Firmware Version Format	Example
P330 Stack Processor	viisa<version id>	viisa3_12_1.exe
P330 Stack Processor	p330<version id>	p330Tweb.3.8.6.exe
G700 Media Gateway	mgp<version id>	mgp_3_0.bin
VoIP Media Module and Motherboard VoIP	mm760<version id>	mm760v3.fdl
DCP Media Module	mm712<version id>	mm712v2.fdl
Analog Port/Trunk Media Module	mm711<version id>	mm711v4.fdl
E1/T1 Media Module	mm710<version id>	mm710v3.fdl
BRI Media Module	mm720<version id>	mm720v2.fdl

Install New Firmware on the G700 Media Gateway

To load new firmware for the G700 Media Gateway and the Media Modules, you will first need to transfer the new firmware files to the G700 Media Gateway using the TFTP server on your laptop or the customer's PC. Consult the Release Letter for the most recent information and instructions for upgraded firmware.

Connect Laptop to the Customer's LAN (If Laptop Has the TFTP Server)

Begin

If the TFTP server software and the firmware files reside on your laptop, you must connect your laptop to the customer's LAN. This connection requires that a customer LAN port is close to the location of the G700.

- Ask the customer's LAN administrator to give you a static IP address administered on the customer's LAN. Your laptop may also be give an address through a Dynamic Host Configuration Protocol (DHCP) service on the customer's LAN. Ask the customer how they want to make the connection.

Install New Firmware on the P330 Stack Processor (Layer 2 Switching Processor)

Begin

1. If the TFTP Server software and G700 firmware files reside on a PC already connected to the customer's LAN, get the IP address of this PC from the customer.
2. If necessary, connect an Ethernet cable to one of the two 10/100Base-T Ethernet interfaces in the bottom center of the G700 chassis. Either port EXT 1 or EXT 2 can be used.
3. Connect the other end of the Ethernet cable to an Ethernet Layer 2 switch to connect the G700 and its media modules to the corporate network. LAN topology varies per location.
4. On your laptop, return to the HyperTerm window. At the **MG-*mmm-n*(config)#** prompt, type **exit** and press **ENTER**.

The **P330-1(configure)#** prompt appears.

Note: If necessary, open the HyperTerm window, and login to the P330 Stack Processor command line interface.

5. At the **P330-1(configure)#** prompt, type

```
copy tftp SW_image<file> EW_archive <ew_file>
<tftp_server_address> <Module#>
```

where

<file> is the image file with format and vintage number similar to `viisa3_8_2.exe`,
<ew_file> is an embedded web application file with format similar to `p330Tweb.3.8.6.exe`,
<tftp_server_ip_address> is the ip address of the laptop or PC with the TFTP server, and
<Module#> is the number, 1 through 10, of the media gateway in the stack. If there is only one G700 Media Gateway, the number is **1**.

6. Verify that the download was successful when the prompt returns. Type `show image version`.
7. Type `reset <module#>`

The P330 Stack Processor resets. The LEDs flash and self-tests run.

End

Install New Firmware Files on the G700 Media Gateway Processor

Begin

1. At the **P330-1(configure)#** prompt, type `session mgp` to reach the G700 Media Gateway processor.
2. Type `configure` at the **MG-*???*-1(super)#** prompt to enter configuration mode, which will change the prompt to **MG-*???*-1(configure)#**.
3. At the **MG-*???*-1(configure)#** prompt, type `show mgp bootimage` to determine which disk partition (bank) is Active Now. You will update the bank that is *not* listed as Active Now. For example, if the G700 vintage listed when you performed [“Determine Necessary Firmware to Install on the G700” on page 151](#) showed A, you will upgrade B.

- At the **MG-???-1(configure)#** prompt, type
`copy tftp mgp-image <bank> <filename> <tftp_server_IP_address>`
to transfer the mgp image from the tftp server to the G700, where
<bank> is the bank that is *not* Active Now.

<filename> will begin with mgp and will be similar to a name like `mgp_230_0.bin`.
<tftp_server_IP_address> is the ip address of the laptop or customer PC. See the following
example:

`copy tftp mgp-image a mgp_230_0.bin 195.123.49.54.`

The screen will show the progress.

Verify that the download was successful when the prompt returns.
Type `show mg list_config`.

Figure 70. List Configuration for G700 Media Gateway

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

- Type `set mgp bootimage <bank>`. <bank> is the same letter you entered in [step 4](#).
- At the **MG-???-1(configure)#** prompt, type `reset mgp`.
A system prompt asks to confirm the reset.
- Select **Yes** at the dialog box that asks if you want to continue.

The G700 Media Gateway processor will reset. The LEDs on the G700 Media Gateway and the Media Modules will flash. These elements will each conduct a series of self-tests. When the LEDs on the Media Modules are extinguished and the active status LEDs on the G700 Media Gateway are on, the reset is complete.

End _____

Install New Firmware on the Media Modules

Begin _____

- Be sure that you have checked for the current vintage of the VoIP Module for the v0 slot (on the G700 motherboard) (see [“Determine Necessary Firmware to Install on the G700” on page 151](#)). This VoIP module does not occupy a physical position like other Media Modules.
- At the **P330-1(configure)#** prompt, type `session mgp`.
- At the **MG-???-1 (super) #** prompt, type `configure` to reach the configuration level of the command line interface.

4 Configuring a New G700 with an S8700 (No Local Survivable Processor):

4. Type `copy tftp mm-image v<slot #> <filename mm> <tftp_server_ip_address>` where `<slot #>` is the slot of the specific media module as identified when you performed “Determine Necessary Firmware to Install on the G700” on page 151, `<filename mm>` is the media module software in a format such `mm712v58.fdl`, and `<tftp_server_IP_address>` is the ip address of the laptop or customer PC.

Two or three minutes will be required for most upgrades. The VoIP Media Module upgrade takes approximately 5 minutes. Screen messages indicate when the transfer is complete.

5. At the `MG-???-1(configure)#` prompt, type `show mg list_config`

The list of software appears.

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

6. Refer to the output of [step 5](#). In the TYPE column, find the particular media module (v2 through v4), then check the matching field in the FW VINTAGE column to see if it matches the Release Letter.
7. Refer again to the output of [step 5](#). Check the VOIP FW column and row for slot v0 to see if the number matches the VoIP firmware identified in the Release Letter.

End _____

Set SNMP Traps

Begin _____

Set SNMP traps on the G700 Media Gateway so that the S8700 MultiVantage Maintenance software can detect problems with the G700 Media Gateway’s network traffic.

- At the **MG-???-1(configure)#** prompt, type **set snmp trap**
<primary_controller_IP_address>

where **<primary_controller_IP_address>** is the IP address of the S8700 Media Server.

Set up the Controller List for the G700 Media Gateway

Begin

To complete the configuration of the G700 Media Gateway, you will establish a list of controllers. This list begins with the IP address of the primary controller. In the event that the G700 Media Gateway loses contact with its primary controller, it will seek to register with the other controllers on this list.

Up to four IP addresses separated by commas can be entered to form the controller list.

Note: After you set up a controller list for the G700 Media Gateway, the G700 will reset every 30 minutes in order to contact the controller. This is normal operation, and does not indicate a problem.

1. At the **MG-???-n(configure)#** prompt, type `set mgc list <ip_address>, <ip_address>, <ip_address>`

where the first and second ip_addresses are for the first and second CLAN boards on the S8700, and the third address is for the S8300 configured as an LSP.

2. Type `reset mgp` at the **MG-???-n(configure)#** prompt to reset the G700 Media Gateway processor.

A system prompt asks to confirm the reset.

3. Select **Yes** at the dialog box that asks if you want to continue.

The G700 Media Gateway processor will reset. The LEDs on the G700 Media Gateway and the Media Modules will flash. These elements will each conduct a series of self-tests. When the LEDs on the Media Modules are extinguished and the active status LEDs on the G700 Media Gateway are on, the reset is complete.

4. At the **P330-1(configure)#** prompt, type `session mgp`.
5. At the **MG-001-1 (super) #** prompt, type `configure` to reach the configuration level of the command line interface.

Note: Because the G700 media gateway has registered with its primary controller, the prompt name has changed to MG-001-1.

6. Type `show mgc` to display the list of available servers and their IP addresses.

For example:

Figure 71. Show Call Controller Status Screen

```
MG-001-1(configure)# show mgc
CALL CONTROLLER STATUS
-----
Registered           : YES
Active Controller    : 135.9.71.95
H248 Link Status     : UP
H248 Link Error Code: 0x0
MGC List Management  : Static

CONFIGURED MGC HOST           DHCP SPECIFIED MGC HOST
-----
135.9.71.95                   -- Not Available --
- Not Available --           -- Not Available --
- Not Available --           -- Not Available --
- Not Available --           -- Not Available --
```

The Gateway will have registered with the S8700, if present. If the S8700 is running and has been administered properly, the Registered field says **YES** and the H248 Link Status says **UP**. If the server is not running, the Registered field says **NO** and the H248 Link Status says **DOWN**.

End _____

Configure Other G700 Media Gateways (Stack Configuration)

Begin _____

If the customer has multiple G700 media gateways connected in an IP stack, you can stay connected to the P330 console port of the master G700/P330 and "session" over from the master P330 stack processor to the next G700 in the stack. You should have plugged your laptop into the stack master P330, which you can identify by the LED panel on the upper left of each G700 or P330 device in the stack as follows:

- On the G700 Media Gateway: a lit **MSTR** LED indicates that this unit is the stack master.
- On the P330 device: a lit **SYS** LED indicates that this unit is the stack master.

The G700 and P330 at the bottom of the stack is module number 1, the next module up is number 2., and so on. However, the stack master can be any module in the stack, depending on the actual model, the vintage firmware it runs, and whether the S8300 is inserted into it.

Note: You do not need to configure the other P330 processors in the stack. These will use the IP address and IP route of the master P330 stack processor. However, you will need to check firmware on all devices of the other G700s in the stack, including the media gateways themselves, and update the firmware as required.

You may also use the "session stack" command to access extra standalone P330 processors in the stack (those that are not part of a G700 unit).

1. At the **MG-001-1(configure)#** prompt, type **session stack**

The P330 configure prompt appears.

2. At the **P330-1(configure)#** prompt, type `session <mod_num> mgp`

`<mod_num>` is the next P330 processor in the stack. If you are currently logged in to the master stack processor, `<mod_num>` would be **2**, for the second G700/P330 processor in the stack.

3. Repeat the steps in the sections, "[Prepare to Configure the G700 Media Gateway](#)" and "[Install New Firmware on the G700 Media Gateway](#)" for other G700 Media Gateways in the stack. However, do *not* assign IP addresses or IP routes to the other P330 processors in the stack.

End _____

Configure Other G700 Media Gateways (Remote, No Stack Configuration)

Begin _____

If additional G700 media gateways are supported in the configuration, but they are not attached as a stack, then you must configure each G700, with all of its devices, including the P330 processors. Additionally, you must check firmware and update the firmware as required.

- Repeat the steps in the sections, "[Prepare to Configure the G700 Media Gateway](#)" and "[Install New Firmware on the G700 Media Gateway](#)" for other G700 Media Gateways in the stack.

End _____

Administer MultiVantage Software on the S8700

To continue administration of various features available to the S8700 Media Gateway with G700 Media Gateways, you will use the SAT tools. Among many other tasks, you will use the SAT interface to:

- Provide Ethernet access to MultiVantage Software (this should have already been established as a part of normal S8700 installation)
- Define the IP Network Region (this should have already been established as a part of normal S8700 installation)
- Add a Media Gateway

This document covers only the administration of MultiVantage Software required for the G700 Media Gateway to communicate with the primary controller over a customer's network. For the majority of administration required, see “*Administrator's Guide to MultiVantage Software, 555-233-506,*” or “*Administration for Network Connectivity for MultiVantage Software, 555-233-504.*” For information on installing the CLAN boards on the S8700 port networks, see “*Installing the Avaya S8700 Media Server with Avaya MCC1 or SCC1 Media Gateways*” on the “*Avaya S8300 and S8700 Media Server Library CD, 555-233-825.*”

Log in to the S8700 MultiVantage SAT Screens

Begin

1. *If you already have a valid Telnet session in progress,* access the SAT program by typing **sat** or **dsat**. Go to step 4.
2. *If you are not yet logged in,* open a telnet program on your computer. For example:
 - On a Windows system, go to the **Start** menu and select **Run**.
 - To log in directly to the SAT program, type `telnet <IP address> 5023`
3. Log in to the MultiVantage Software as **craft**.

Enter your login confirmation information as prompted:

- Password prompt. Type your password in the Password field, and click Login or press Enter again.
 - ASG challenge. If the login is Access Security Gateway (ASG) protected, you will see a challenge screen. Enter the correct response and click Login or press Enter.
4. Enter your terminal type. Accept the default value, or enter the appropriate type for your computer. For example, you may use type **ntt**, a terminal type available for Windows NT4.0 or Windows 98. For Windows 2000, use **w2ktt**.

The SAT interface appears.

5. Enter SAT commands as appropriate.

Assign the S8700's CLAN Node Name and IP Address

Begin _____

Note: This should have already been established as a part of normal S8700 installation.

Note: The CLAN boards must be TN799DP running version 5 or greater firmware. Be sure to check the firmware version for these boards on the S8700. For information on how to upgrade the firmware on the S8700, please see the section "Upgrade Firmware in Selected Port Cabinet Packs" in *Upgrading the Avaya Media Server Configuration* in the S8700 documentation portion of this documentation CD, "Avaya S8300 and S8700 Media Server Library CD, 555-233-825.)"

1. At the SAT prompt, **change node-names ip** to open the Node Names screen.
2. Go to page 2.

Figure 72. Node Names Screen.

change node-names ip		Page 2 of 2	
NODE NAMES			
Name	IP Address	Name	IP Address
default_____	0__ . 0__ . 0__ . 0__	_____	__ . __ . __ . __
<u>node-1</u> _____	<u>192.168.1</u> . <u>124</u>	_____	__ . __ . __ . __
<u>node-2</u> _____	<u>192.168.1</u> . <u>97</u>	_____	__ . __ . __ . __
<u>node-4</u> _____	<u>192.168.1</u> . <u>51</u>	_____	__ . __ . __ . __
_____	__ . __ . __ . __	_____	__ . __ . __ . __

3. Enter the appropriate values for the Media Gateway (node-4 in this example).

Field	Conditions/Comments
Name	The node names for the following two nodes were already on the screen: <ul style="list-style-type: none"> • <i>node-1</i>: C-LAN Ethernet port on the S8700 switch. • <i>node-2</i>: Interface on the router to the subnet of the S8700 switch.
IP Address	The unique IP address for the C-LAN node named in the previous field. See the description of the Subnet Mask field in the next task for information on valid IP addresses.

4. Press **F3 (ENTER)** when complete.

End _____

Define the IP Network Regions for the G700 Media Gateway and the S8700 CLAN Board(s)

Begin _____

Note: This should have already been established as a part of normal S8700 installation.

You must define an IP network region according to the planning documentation. Use the system defaults if the planning documentation does not specify otherwise.

For a G700 Media Gateway with an S8700 as the primary controller, there may be more than one network region, since there can be up to 30 G700 Media Gateways connected to it with thousands of telephones in the network. In this case, you define a network region for each of the CLAN board(s) on the S8700 port networks, though they may also have the same network region.

The G700 Media Gateway, in this case, may also share the same network region as the CLAN board(s). However, it may have a different network region because of the geographic distances of the connections between the G700 and the S8700. The G700 network region may also differ because of the nature of the endpoints connected to it.

CAUTION:

Defining IP network regions can be quite complex. For detailed information on the use and administration of IP network regions, see “*Administration for Network Connectivity for MultiVantage Software*, 555-233-504.”

1. On the S8700 primary controller for the G700 Media Gateway, type `change ip-network-region <network_region>`, where the `<network_region>` is the region you will assign to the G700 Media Gateway. This region number might or might not match the network region of the S8700 CLAN boards.

The S8700 displays the IP Network Region screen.

Figure 73. IP Network Region Screen

```
change ip-network-region 1                                     Page 1 of 2
                                                              IP Network Region

Region: 1
Name:

Audio Parameters                                           Direct IP-IP Audio Connections? n
Codec Set: 1                                               IP Audio Hairpinning? y
Location:
UDP Port Range                                             RTCP Enabled? n
  Min: 2048                                                RTCP Monitor Server Parameters
  Max: 65535                                               Use Default Server Parameters? y

DiffServ/TOS Parameters
Call Control PHB Value: 34
VoIP Media PHB Value: 0
  BBE PHB Value: 43                                       Resource Reservation Parameters
                                                              RSVP Enabled? n

802.1p/Q Enabled? N
```

2. Complete the fields as described in “*Administration for Network Connectivity for MultiVantage Software, 555-233-504.*”

Note: It is strongly recommended to use the defaults in the screen.

3. If the network region of the G700 is different than that of the S8700 CLAN board(s), press NextPage to complete page 2, Inter Network Region Connection Management.

The S8700 displays page 2 of the IP Network Region screen.

Figure 74. IP Network Region Screen, Page 2

```
display ip-network-region 1                                     Page 2 of 2
                                     IP Network Region
                                     Inter Network Region Connection Management

Region                                     (Group Of 32)
 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2
001-032 1                                     4
033-064
065-096
097-128
129-160
161-192
193-224
225-250
```

4. For the region of the CLAN board(s), type the number of the codec set that the S8700 will use to interconnect the G700 and the CLAN board(s). For more detail, see “*Administration for Network Connectivity for MultiVantage Software, 555-233-504.*”

5. Press **F3 (ENTER)** when complete.

6. Repeat [step 1](#) through [step 5](#) for the S8700 CLAN board(s).

End _____

Define the IP Interfaces of the S8700 Port Network CLAN Boards

Begin _____

Note: This should have already been established as a part of normal S8700 installation.

1. Enter **change ip-interfaces** to open the IP Interfaces screen.

Figure 75. IP Interfaces Screen

```

change ip-interfaces                                     Page 1 of 6   SPE B

                                     IP INTERFACES

Enable
Eth Pt Type Slot Code Sfx Node Name Subnet Mask Gateway Address Rgn
y C-LAN 02C18 TN799 C st7clan 255.255.0 .0 172.23 .23 .254 6
n MEDPRO 02C08 TN802 B st7_mp1 255.255.255.0 192.168.22 .254 6
y MEDPRO 02C11 TN2302 st7_prowler1 255.255.0 .0 172.23 .23 .254 7
y MEDPRO 02A12 TN2302 st7_prowler2 255.255.0 .0 172.23 .23 .254 7
y MEDPRO 02A13 TN2302 st7_prowler3 255.255.0 .0 172.23 .23 .254 6
y MEDPRO 02A14 TN2302 st7_prowler4 255.255.0 .0 172.23 .23 .254 1
y MEDPRO 02A15 TN2302 st7_prowler5 255.255.0 .0 172.23 .23 .254 7
y C-LAN 02A16 TN799 C st7clan2 255.255.0 .0 172.23 .23 .254 6
y C-LAN 02B17 TN799 C st7clan3 255.255.0 .0 172.23 .23 .254 6
y C-LAN 01A06 TN799 C st7clan4 255.255.0 .0 172.23 .23 .254 6
y MEDPRO 02C13 TN2302 st7_prowler6 255.255.0 .0 172.23 .23 .254 1
n MEDPRO 02C15 TN2302 st7_prowler7 255.255.0 .0 172.23 .23 .254 6
n MEDPRO 02C16 TN2302 st7_prowler8 255.255.0 .0 172.23 .23 .254 6
n MEDPRO 02D06 TN2302 st7_prowler9 255.255.0 .0 172.23 .23 .254 6
n MEDPRO 02D07 TN2302 st7_prowler10 255.255.0 .0 172.23 .23 .254 7
    
```

2. Complete the fields as described in the following table.

Field	Conditions/Comments
Enable Eth Pt	The Ethernet port must be enabled (y) before it can be used. The port must be disabled (n) before changes can be made to its attributes on this screen.
Type	Either c-lan.
Slot	The slot location for the circuit pack.
Code	Display only. This field is automatically populated with TN799 for C-LAN.
Sfx	Display only. This field is automatically populated.
Node name	The unique node name for the IP interface. The node name here must already be administered on the Node Names screen.
Subnet Mask	The subnet mask associated with the IP address for this IP interface. For more information on IP addresses and subnetting, see <i>“Administration for Network Connectivity for Avaya MultiVantage™ Software, 555-233-504”</i> .
Gateway Addr	The address of a network node that serves as the default gateway for the IP interface.
Net Rgn	The region number for this IP interface.

3. Close the screen.

Add Media Gateways

Begin

When you are logged in to MultiVantage via SAT, you will be able to add G700 Media Gateways to the system.

1. At the SAT prompt, type `add media-gateway <number>` where `<number>` is the gateway number from 1 to 250.

The S8300 displays the Media Gateway screen.

Figure 76. Media Gateway Screen

```
change media-gateway 1                                     Page 1 of 1
MEDIA GATEWAY
Number: 1
Name: Swainsons                                           Identifier: 01ZX06230551
IP Address: . . . . .                                     MAC Address: : : : : :
Network Region: 1                                         Location: 1
Site Data:                                                Registered? n

Slot      Module Type
U1:
U2:
U3:
U4:

U8:
U9:
```

Figure 77. Add Media Gateway Screen

2. Complete the **Name** field with the hostname assigned to the G700 Media Gateway.
3. Complete the **Identifier** field with the serial number of the G700 Media Gateway. You can obtain the serial number by using the `show system Media Gateway Processor` CLI command at the "super" prompt. See ["Check the Serial Number of the G700 Media Gateway Processor"](#) on page 154 for details.

⚠ CAUTION:

Be sure the serial number for the G700 Media Gateway you enter in this procedure matches *exactly* the serial number displayed in ["Get the Serial Number of the G700"](#) on page 145. If entered incorrectly, the serial number will prevent the S8700 Media Server from communicating with the G700 Media Gateway. In this case, the phones won't work.

4. Complete the **Network Region** field with the value supplied in the planning documentation.
5. *Only if specifically requested by the customer or your planning documents*, type **gateway-announcements** in the **V9** field. This field allows you to enable announcements on the G700 Media Gateway. V9 is a virtual slot. There is no announcement board associated with it. The announcements for the G700 are available in the G700 firmware and are administered in the same way as announcements on the TN2301 circuit pack used on S8700 port networks.

If there are multiple G700 Media Gateways sharing announcements, then enable announcements on the G700 that is connected to the trunks that will receive the announcements most often.

6. Press **F3 (ENTER)** to save your changes.

Note: The IP Address, MAC Address, and Module Type fields are populated automatically after the G700 media gateway registers with the server.

Figure 78. Media Gateway Screen (After Registration with S8700)

```
change media-gateway 1                               Page 1 of 1
      MEDIA GATEWAY
      Number: 1
      Name: Swainsons                                Identifier: 012X06230551
      IP Address: 145.9 .73 .101                      MAC Address: 00:04:0d:02:05:0a
      Network Region: 1                               Location: 1
      Site Data:                                     Registered? y

      Slot      Module Type
      U1:       icc
      U2:       ds1
      U3:       analog
      U4:       dcp

      U8:       messaging-analog
      U9:
```

The Media Modules installed in the G700 are listed next to their slot numbers.

End _____

Verify Changes

Begin _____

To verify that a G700 Media Gateway has been successfully added:

1. Type `list media-gateway`

Figure 79. List Media-Gateway Screen

```
list media-gateway

                          MEDIA-GATEWAY REPORT

Number      Name          Identifier      IP Address      Registered?
-----
1           LabA MG1      01DR07128730  135.177.49.57   y
2           Data MG2      02DR01130356  135.177.49.90   n

Command successfully completed
```

Figure 80. List Media-Gateway Screen

2. Verify that the G700 Media Gateway has registered.

The **y** in the registered field signifies that the G700 Media Gateway has registered. If the G700 should become unregistered, the **y** will become an **n**, but the IP address will remain assigned to the G700 Media Gateway. If the G700 has never been registered, the IP Address field will be blank.

If the G700 fails to register, two common causes might be:

- The serial number added as the identifier for the G700 is wrong. To check, log back into the G700 gateway and type `show system`. Check the serial number that appears.
- There is no IP connection between the G700 and the S8700. To check, type `show mgc` and then `ping mgp <controller_address>`.

End _____

Enable Announcements, If Necessary

Begin _____

1. *Only if specifically requested by the customer or your planning documents*, at the SAT prompt, type `enable announcement-board <gateway_number>V9`, where `<gateway_number>` is the number of the G700 Media Gateway you just added and **V9** is the virtual slot (for example, **2V9** means Media Gateway number 2, slot V9).
2. Press **ENTER** to enable announcements.

The system displays the message **Command successfully completed**.

Save MultiVantage Translations

Begin _____

- At the SAT prompt, type `save translations`.

Complete the Installation Process

Consult the planning documentation to obtain the necessary information to complete the installation. Part of the final process will be to:

- Connect and administer test endpoints.
- Test the endpoints.
- Complete the electrical installation
- Enable adjunct systems

5 Upgrading an Existing G700 with an S8300 (Primary Controller or Local Survivable Processor)

The steps to upgrade a new G700 Media Gateway with an S8300 primary controller and the steps to upgrade a new G700 with an S8300 configured as a local survivable processor (LSP) are almost identical, with the following exceptions:

- The LSP and the S8700 must have the same version of MultiVantage Software. Therefore, the LSP must be upgraded at the same time as the S8700 and vice-versa. The LSP must be upgraded first, and then the S8700 is upgraded.
- For an LSP, the MultiVantage Software must be turned off during an upgrade and not turned on again until the S8700 has been upgraded.

For an upgrade of an existing G700 with an S8300, to obtain new software for the Avaya™ G700 Media Gateway or the Avaya™ S8300 Media Server, you may do one of the following:

- Upload the software from a CD on-site
- Download the software directly onto your services computer before going on-site

However, the full load of update software for the S8300 (the .tar file) is available only on CD-ROM.

If you are upgrading a G700 Media Gateway with either an S8300 or LSP, load and install the new S8300 software first, then use the S8300/LSP server for TFTP services. The new software file for the S8300 (and G700) has a .tar extension and contains both the S8300 and G700 software. The release letter for the upgrade, which should be shipped with the G700 or available from your Project Manager, will tell you what files you need to load.

Note: A P330 processor is built into the G700 Media Gateway. This P300 processor is also known as the Layer 2 Switch Processor. You normally access the G700 for configurations by first accessing the P300 processor. Configuration and firmware updates of this processor are a required part of most installations and upgrades.

Considerations for Upgrading an S8300 LSP from the S8700 Location

You may upgrade an S8300 LSP remotely from the S8700 location. In this case, you connect to the customer's LAN. Then, you use telnet and your browser to access the S8300 LSP IP address and telnet to access the P330 (also referred to as the Layer 2 Switch Processor) and G700 processors.

To connect to the customer's LAN, you must get a static IP address from the customer.

Get Planning Forms from the Project Manager

The project manager should provide you with forms that contain all the information needed to prepare for this upgrade. The information primarily consists of IP addresses, subnet mask addresses, logins, passwords, people to contact, the type of system, and equipment you need to install.

Verify that the information provided by the project manager includes all the information requested in [“Appendix B: Checklists” on page 257](#).

Get the Serial Number of the G700, If Necessary

If the customer is adding feature functionality (for example, adding BRI trunks), you need the serial number of the G700 Media Gateway you are upgrading in order to complete the creation of the customer’s license file on the rfa.avaya.com website. To get this number, ask the customer’s administrator to log in to the S8300 web page and select **View License Status** from the main menu. The View License Status window displays the serial number.

Check That the Customer Has an FTP Server for Backing up Data

When you complete the upgrade of the S8300 and G700, you will backup the data. To do this, you will need an FTP address and directory from the customer to which to perform the backup. Check with your project manager or the customer for this information.

Complete the RFA Processes and Download MultiVantage Update Software to Your Laptop

Every S8300 media server and local survivable processor requires a current and correct version of a license file in order to provide the expected call-processing service.

The license file specifies the features and services that are available on the S8300 media server, such as the number of ports purchased. The license file contains a software version number, hardware serial number, expiration date, and feature mask. The license file is reinstalled to add or remove call-processing features. New license files may be required when upgrade software is installed.

Note: For an upgrade, you do not normally need to install a new authentication file (with a .pwd extension). However, if one is required, you follow the same steps as with a license file.

License File and MultiVantage Versions of a Local Survivable Processor

The license file of the S8300 as a local survivable processor must have a feature set that is equal to or greater than that of the S8700 media server that acts as primary controller. This is necessary so that if control passes to the LSP, it can allow the same level of call processing as that of the S8700.

Additionally, the S8300 as a local survivable processor must have a version of MultiVantage Software that is identical to that of the S8700.

Both the license and MultiVantage Software needs of the S8300 as local survivable processor should be identified in your planning documentation.

Complete and Download the License File to Your Laptop

Begin _____

1. Use Windows File Explorer or another file management program to create a directory on your laptop for storing license and authentication files (for example, C:\licenses).
2. Access the Internet from your laptop.
3. Go to **rfa.avaya.com**.
4. Use the System ID or the SAP ID of the customer to locate the license and authentication files for the customer.
5. Check that the license and authentication files are complete. You might need to add the serial number of the customer's G700.
6. If the files are not complete, complete them.
7. Use the download or email capabilities of the rfa web site to download the license and authentication files to your laptop.

Download the Latest MultiVantage Update Software

Begin _____

To install the latest update software for the MultiVantage Software that resides on the S8300, you first download the software file to your laptop. Use the following steps:

1. On your laptop, create a directory to store the file (for example, c:\S8300download).
2. Connect to the LAN using a browser on your laptop or the customer's PC and access <http://www.avaya.com/support> on the Internet to copy the required MultiVantage Software file to the laptop.
3. At the Avaya support site, select the following sequence of menu options:

> Online Services

> Software/Firmware Downloads

4. Scroll down to the Software Downloads section on the web page, and double-click **Avaya MultiVantage Software Patches**.

The list of patches appears.

5. Locate the file name that matches the load listed in your planning documentation. The file name ends with **.tar.gz** (*for example only*, 01.0.0.065.4-0006.tar.gz).
6. Double-click the file name.
A File Download window appears.
7. Click on **Save this file to disk**.
8. Save the file to an appropriate directory on your laptop.

Set up a Laptop for an S8300 Media Server Direct Ethernet Connection, If Local

Note: If you are upgrading an S8300 LSP remotely, you do not physically connect your laptop to the S8300. However, you do need to set up your laptop for a connection to the customer's LAN, which is the same process as that described in this section.

Review Physical Access Methods

Begin

1. Check [Figure 81](#) for the location of the S8300 Services port and the G700 Serial Port.
2. If you are installing or upgrading a G700 that does not have an internal S8300 or local survivable processor, check [Figure 81](#) for the location of the ethernet ports. You will need to connect one of the ports to the customer's LAN for loading the latest software.

Figure 81. Summary of S8300 and G700 Access Methods and Tasks

Initial Configuration and Maintenance S8300

Onsite Tasks:

1. Configure media server
2. Install license and authentication files, and upgrade software
3. Verification testing
4. Run diagnostics
5. Upgrade software and configuration

Tool:

Media server web interface

Remote Access of S8300 and G700

1. Diagnosis of media server
2. Alarm notification

System Admin Computer Administration via Corporate LAN

Tasks:

1. Backup and restore data
2. Upgrade and configuration
3. Administer network
4. Admin Telephony features

Tools:

1. Media Server Web Interface
2. Avaya Site Administration
3. Avaya Device Manager
4. System Access Terminal

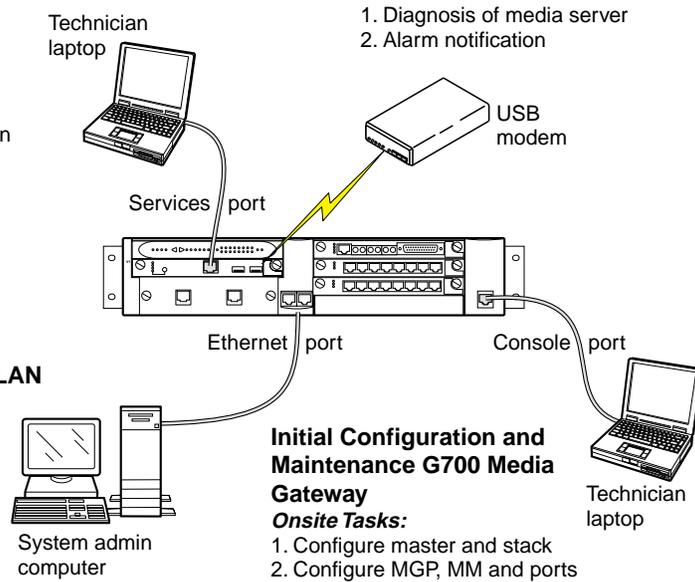
Initial Configuration and Maintenance G700 Media Gateway

Onsite Tasks:

1. Configure master and stack
2. Configure MGP, MM and ports
3. Update configuration
4. Run diagnostics

Tool:

Command Line Interface



cydcacc KLC 082202

A laptop connected directly to the Services Ethernet interface on the S8300 Media Server requires a specific setup. This section covers:

- “General settings”
- “Set TCP/IP properties on Windows systems”
- “Disable proxies in browser”

General settings

On any operating system, the network settings need to reflect the following:

- *TCP/IP properties.* Set the laptop's TCP/IP properties as follows:
 - IP address: 192.11.13.5
 - Subnet mask: 255.255.255.252
- *Browser settings.* Configure the browser for a direct connection to the Internet. Do *not* use proxies.
- *Server address.* Access the S8300 media server using the URL `http://192.11.13.6`

The names of the dialog boxes and buttons vary on different operating systems and browser releases. Use your computer's help system if needed to locate the correct place to enter this information.

Note: Avaya Service technicians can use the NetSwitcher program to configure alternate network profiles so they can easily connect to a number of different systems. NetSwitcher configures a profile for each type of system for easy future access without requiring you to reset TCP/IP properties or browser settings manually. NetSwitcher is available from an Avaya Services CTSA.

The S8300 Media Server uses the same access configuration as an Avaya S8100 Media Server with CMC1 Media Gateway. If you already have a NetSwitcher profile for the S8100 Media Server (formerly called DEFINITY One), try using that profile first before configuring a new one.

Set TCP/IP properties on Windows systems

TCP/IP administration varies among Windows systems as described below.

Note: Make a record of any IP addresses, DNS servers, or WINS entries that you change when you configure your services computer. Unless you use the NetSwitcher program or an equivalent, you will need to restore these entries to connect to other networks.

Check Your Version of Windows

Begin _____

1. Log in to your laptop, and double-click the **My Computer** icon on your desktop.
The My Computer window opens.
2. Click Help on the My Computer window's toolbar.
The Help menu opens and displays the version of Windows installed on your laptop.
3. Follow the appropriate procedure, "[Change TCP/IP Properties and Network Settings \(Windows 2000 and XP\)](#)" on page 186 or "[Change TCP/IP properties \(Windows 95, 98, NT 4.0, and Millennium Edition \[ME\]\)](#)" on page 187.

End _____

Change TCP/IP Properties and Network Settings (Windows 2000 and XP)

Begin _____

1. Right-click My Network Places on your desktop or under the Start menu in XP.
2. Select **Properties** to display the Network and Dial-up Connections window.
Windows should have automatically detected the Ethernet card in your system and created a LAN connection for you. More than one connection may appear.
3. Right-click the correct **Local Area Connection** from the list in the window.
4. Select **Properties** to display the Local Area Connection Properties dialog box.

5. Select **Internet Protocol (TCP/IP)**
6. Click the **Properties** button. The Internet Protocol (TCP/IP) Properties screen appears.
7. On the General tab, select the radio button **Use the following IP address**. Enter the following:
 - IP address: 192.11.13.5
 - Subnet mask: 255.255.255.252

Note: Record any IP addresses, DNS settings, or WINS entries that you change. You may need to restore them later to connect to another network.

8. **Disable DNS service as follows:**
 - a. Click the radio button labeled **Use the following DNS server addresses**. The entries for Preferred DNS server and Alternate DNS server should both be blank.
 - b. Click the **Advanced** button at the bottom of the screen. The Advanced TCP/IP Settings screen appears.
 - c. Click the **DNS** tab. Verify that no DNS server is administered (the address field should be blank).
9. **Disable WINS Resolution as follows:**
 - a. Click the **WINS** tab. Make sure WINS is not administered (the address field should be blank).
 - b. Click **OK**. If warned about an empty primary WINS address, click **Yes** to continue.
10. Click **OK** twice to accept the address information and close the TCP/IP and Local Area Connection Properties dialog boxes.
11. Reboot the system if directed to do so.

After you have made these changes to your computer's network configuration information, the Network and Dial-up Connections window shows the status of the Local Area Connection:

- Enabled appears when the laptop's Ethernet cable is connected to the server.
- Disabled or unplugged appears if the NIC is not connected to anything.

Change TCP/IP properties (Windows 95, 98, NT 4.0, and Millennium Edition [ME])

Begin _____

1. Access your computer's network information. On your desktop:
 - *Windows 95, 98, and NT:* Right-click Network Neighborhood.
 - *Windows Me:* Right-click My Network Places.
2. Select **Properties** to display the Network dialog box.
3. Locate the TCP/IP properties as follows:
 - *Windows 95, 98, and Me:* On the **Configuration** tab, scroll through the installed network components list to the TCP/IP part of the devices list. Select the TCP/IP device that corresponds to your Ethernet card.
 - *Windows NT:* On the Protocols tab, select **TCP/IP** in the installed network components list.

4. Select the **Properties** button.
 5. In the TCP/IP Properties box, click the **IP Address** tab.
 6. Click the radio button to **Specify an IP address**, and enter the following:
 - IP address: 192.11.13.5
 - Subnet mask: 255.255.255.252
- Note:** Record any IP addresses, DNS settings, or WINS entries that you change. You may need to restore them later to connect to another network.
7. Disable DNS service as follows:
 - *Windows 95, 98, and Me:* Click the **DNS Configuration** tab. Verify that the **Disable DNS** radio button is selected.
 - *Windows NT:* Click the **DNS** tab.
 - If any IP addresses appear under DNS Service Search Order, make a note of them in case you need to restore them later.
 - Select each IP address in turn and click the **Remove** button.
 8. Disable WINS Resolution as follows:
 - *Windows 95, 98, and Me:* Click the **WINS Configuration** tab. Verify that the **Disable WINS Resolution** radio button is selected.
 - *Windows NT:* Click the **WINS Address** tab.
 - If any IP addresses appear for the Primary and Secondary WINS servers, make a note of them in case you need to restore them later.
 - Clear each server entry.
 - Clear the checkbox for **Enable DNS for WINS Resolution**.
 9. Click OK twice to accept the address information and close the Network dialog box.
 10. Reboot the system if directed to do so.

Disable proxies in browser

Begin _____

If you are connecting a laptop directly to the Services Ethernet interface on the S8300 Media Server faceplate, you must disable proxies as described below.

- Note:** You may not have to disable using a proxy server if you instruct your browser to not use the proxy server when accessing address 192.11.13.6 from a directly connected laptop. Otherwise, you need to remember to turn proxy usage on or off as needed.

To check or change proxy settings:

1. Open your Internet browser.
2. Verify that you have a direct connection with no proxies as follows:
 - **Internet Explorer**
 - a. Select **Tools > Internet Options**.
 - b. Click the **Connections** tab.
 - c. Click the **LAN Settings** button.
 - d. Deselect **proxy server** if selected, and click **OK**.
 - e. Click **OK** again to close the Internet Options dialog box.
 - **Netscape**
 - a. Select **Edit > Preferences**.
 - b. Under Category, click **Advanced**.
 - c. Click **Proxies**.
 - d. Make sure **Direct connection to the Internet** is selected.
 - e. Click **OK**.

If there is a proxy server you normally use with your Internet browser, you can automatically exclude proxy servers are when you are directly connected to the S8300 via the services port (192.11.13.6) interface:

1. Open your Internet browser.
2. Create an exception to using proxy servers using the following steps:
 - **Internet Explorer**
 - a. Select **Tools > Internet Options**.
 - b. Click the **Connections** tab
 - c. Click the **LAN Settings** button.
 - d. If **Use a proxy server** is already selected, click **Advanced**.
 - e. In the Exceptions box, type **192.11.13.6**. If there are any existing entries in this box, add to the list of entries and separate entries with a ";".
 - f. Click **OK** to close the Proxy Settings dialog box.
 - g. Click **OK** again to close the LAN settings dialog box.
 - h. Click **OK** again to close the Internet Options dialog box.
 - **Netscape**
 - a. Select **Edit > Preferences**.
 - b. Under Category, click **Advanced**.
 - c. Click **Proxies**.
 - d. Click **Manual Proxy Configuration**.
 - e. Click View.

- f. In the Exceptions box, type **192.11.13.6**. If there are any existing entries in this box, add to the list of entries and separate entries with a ";".
- g. Click **OK** to close the Manual Proxy Configuration dialog box.
- h. Click **OK** again to close the Preferences dialog box.

Install the New License File, If Necessary

You load new license or authentication files from the services laptop or another computer on the network.

Note: If your S8300 Media Server is already set up for remote access, Avaya services personnel can copy new license and authentication file information directly into the FTP directory on the server. Avaya personnel will notify you when the new files are in place as agreed (for example, by telephone or email). To install the files, use the **Install License** and **Install Avaya Authentication** screens from the S8300 main menu web-page.

Note: Before an upload or download, be sure the S8300 FTP directory contains no files with a .pwd or.lic extension. Only one of these files can exist in a directory. If one exists, move, rename, or delete it.

CAUTION:

After you install new license and authentication files, be sure to perform [“Run Save Translations \(Only If New License or Authentication Files Installed\)”](#) on page 196. This task saves the official passwords for the customer’s system in the MultiVantage Software. If you fail to perform this step, you may be irretrievably locked out of the system later in the installation when the system reboots.

Connect Laptop to Services Port of S8300

Begin _____

Note: If you are upgrading an S8300 LSP remotely, you do not physically connect your laptop to the S8300.

To connect your laptop directly to the S8300 Media Server:

1. Make sure your laptop meets the hardware and software requirements.
2. Plug an Ethernet crossover cable (MDI to MDI-X) into the 10/100 BaseT Ethernet network interface card (NIC) on your laptop.
 - Crossover cables of various lengths are commercially available.
 - See [Table 11](#) for pinout connections if needed. Crossover of the transmit and receive pairs (as shown) is required
3. Connect the other end of the laptop’s Ethernet cable to the Services port on the front of the S8300 media server (see [Figure 81 on page 185](#)).
4. If your laptop is already configured with the correct network settings, you can now open your Internet browser and log in.

- When accessing the server from a directly connected laptop, always type the following IP address in the browser's Address or Location field to access the server: 192.11.13.6
- If you have never connected this laptop directly to an Avaya media server before, see [“Set up a Laptop for an S8300 Media Server Direct Ethernet Connection, If Local”](#).

Table 11. Crossover cable pinout chart

Pin to Avaya S8300 Media Server's Services Ethernet interface	connects to	Pin to laptop's Ethernet card
8		8
7		7
6		2
5		5
4		4
3		1
2		6
1		3

3

Log in to the S8300 from Your Laptop using Telnet

Begin

Note: You may access the S8300 using telnet in other ways as well. See *“Welcome to Avaya™ S8300 Media Server and Avaya™ G700 Media Gateway, 555-234-200”* for details.

To run the telnet program:

1. Make sure you have a valid Ethernet or serial connection from your computer to the S8300 Media Server.
2. Access the telnet program as follows:
 - If you are not yet logged in, open a telnet program on your computer. For example, on a Windows system, go to the **Start** menu and select **Run**.
3. Type `telnet` to begin a telnet CLI session. Variations are:
 - Type `telnet 192.11.13.6` to access the S8300 CLI.
4. When the **login** prompt appears, type the appropriate user name (such as **cust** or **craft**).
5. When prompted, enter the appropriate password.
6. *If you log in as **craft***, you are prompted to suppress alarm origination. Generally you should accept the default value (yes).

7. Enter your terminal type. Accept the default value, or enter the appropriate type for your computer. For example, you may use type **ntt**, a terminal type available for Windows NT4.0 or Windows 98. For Windows 2000, use **w2ktt**.

8. If prompted for a high-priority session, typically answer **n**.

The telnet prompt appears. It may take the form `<username@devicename>`.

If Necessary, Remove old license and authentication files from S8300 FTP Directory

Begin _____

1. At the Linux command line, type `cd /var/home/ftp` and press **ENTER**.

The ftp directory path appears.

2. Type `ls -l` and press **ENTER**.

A list of files appears.

3. Check the list of files to see if any files with `.lic` or `.pwd` suffixes are in the directory.

4. If any `.lic` or `.pwd` files exist, type `rm *.lic` or `rm *.pwd` and press **ENTER**.

The system removes the files.

5. Leave the telnet session open for a later task, [“Shutdown MultiVantage Software \(Only When the S8300 is an LSP\)” on page 215](#).

Log in to the MultiVantage SAT Screens

Begin _____

1. *If you already have a valid telnet session in progress*, access the SAT program by typing **sat** or **dsat**.

2. Log in to the MultiVantage Software as **craft**.

Enter your login confirmation information as prompted:

- *Password prompt*. Type your password in the Password field, and click Login or press Enter again.
- *ASG challenge*. If the login is Access Security Gateway (ASG) protected, you will see a challenge screen. Enter the correct response and click Login or press Enter.

3. Enter your terminal type. Accept the default value, or enter the appropriate type for your computer. For example, you may use type **ntt**, a terminal type available for Windows NT4.0 or Windows 98. For Windows 2000, use **w2ktt**.

The SAT interface appears.

4. Enter SAT commands as appropriate.

Log in to the S8300 Web Interface from Your Laptop

Begin

Note: You may access the S8300 web interface in other ways as well. See “Welcome to Avaya™ S8300 Media Server and Avaya™ G700 Media Gateway, 555-234-200” for details.

1. Open a compatible Internet browser on your computer. Currently only Internet Explorer 5.x (5.5 with Service Pack 2 is recommended) and Netscape 4.7x are supported.
2. In the Address (or Location) field of your browser, type the **192.11.13.6** (or, for a remote connection to an LSP, the IP address of the S8300) and press **ENTER**.

If your browser does not have a valid security certificate, you will see a warning screen and instructions to load the security certificate.

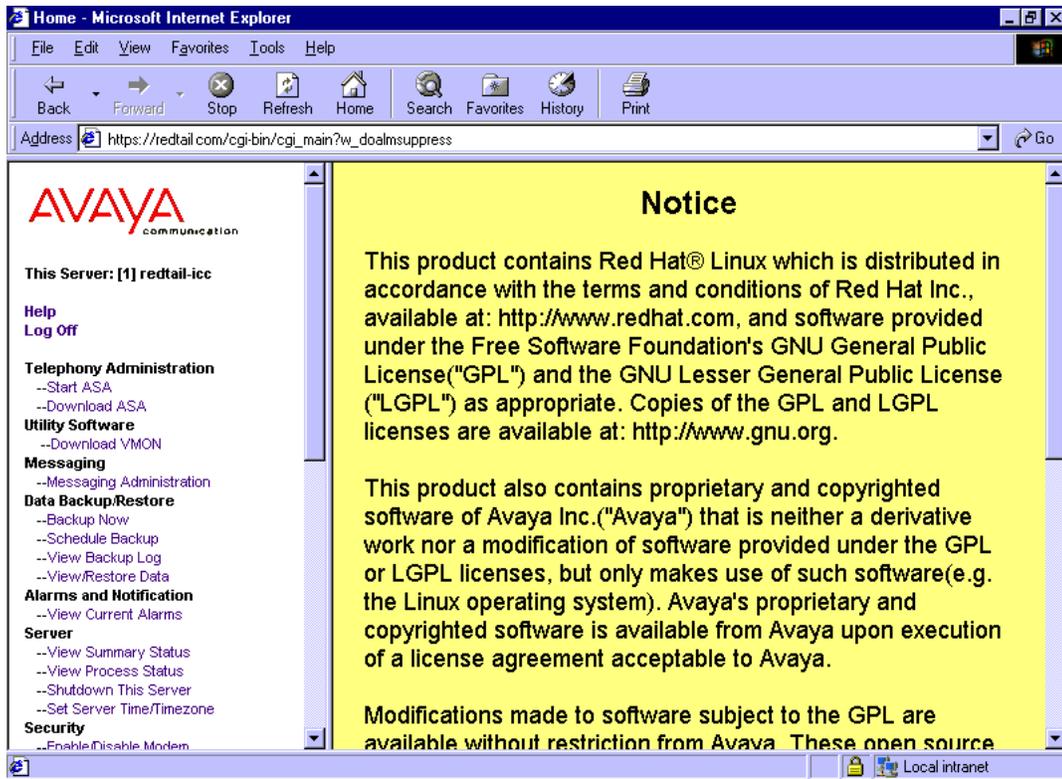
3. Accept the server security certificate to access the Login screen.

The Login screen appears.

4. Log in as **craft**.

The S8300 main menu appears in the left panel and a usage-agreement notice in the right window.

Figure 82. S8300 Main Menu



1. Check the top of the left panel.
 - The Avaya media server you are logged into is identified by name and server number.
 - The S8300 media server number is always 1.

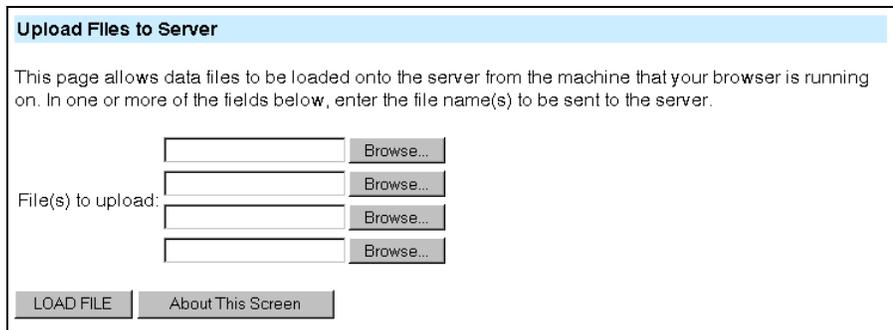
Load License File (from Your Laptop)

Begin

1. In the main menu under **Miscellaneous**, click the **Upload Files to Server (via browser)** link.

The system displays the Upload Files to Server screen.

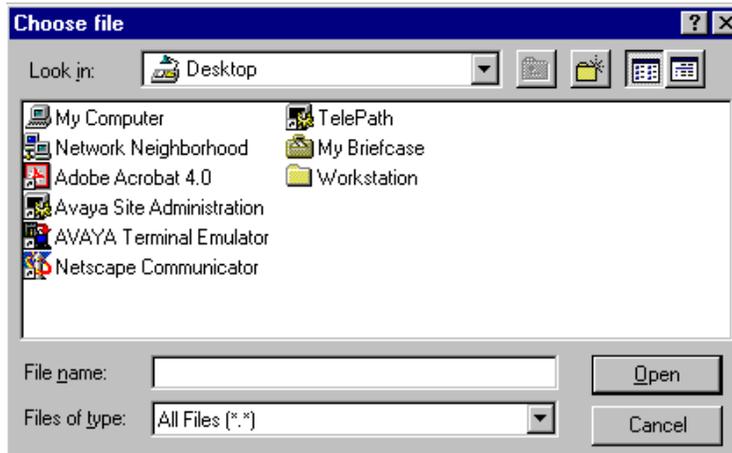
Figure 83. Upload Files to Server Screen



2. Click the Browse button for the first field.

The S8300 displays the Choose File screen, which allows you to select files from your laptop.

Figure 84. Choose File Screen



3. Locate the customer's .lic file.
4. When you have selected the .lic file, click **Open** in the dialog box.
5. Click the **Browse** button for the second field.

6. Locate the customer's .pwd file on your laptop.
7. When you have selected the .pwd file, click **Open** in the dialog box.
8. Click **Load File**.
When the files are successfully transferred, the system displays the status screen.
9. Check that the Status box displays OK. Then continue with Install the License File.

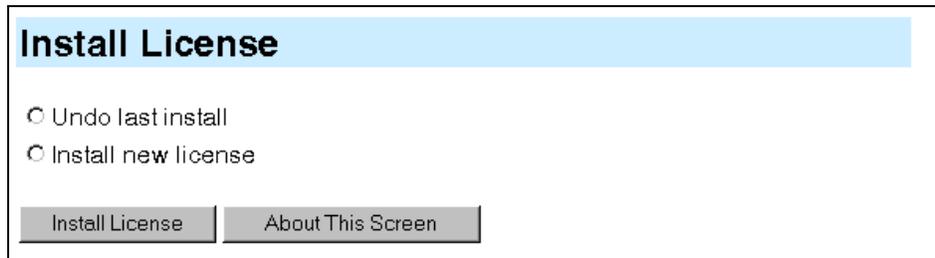
End _____

If Necessary, Install License and Authentication Files (from Your Laptop)

Begin _____

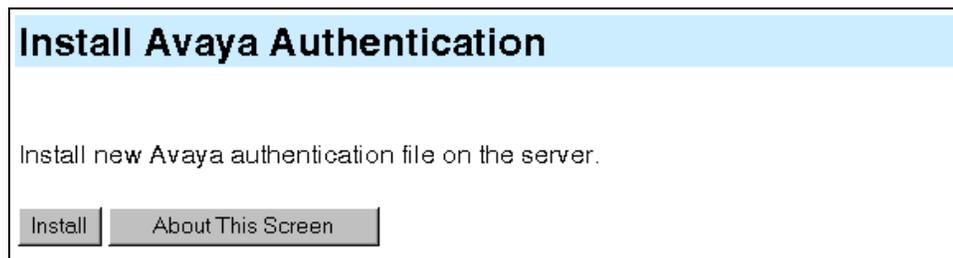
1. From the S8300 main menu, under the Security heading, select **Install License**.
The S8300 displays the Install License screen.

Figure 85. Install License Screen



2. Click the **Install new license radio** button, then click the **Install License** button at the bottom of the screen.
The system tells you the license is installed successfully.
3. From the S8300 main menu, under the Security heading, select **Install Avaya Authentication**.
The S8300 displays the Install Avaya Authentication screen.

Figure 86. Install Authentication Screen



4. Click the Install button.
The system tells you the authentication is installed successfully

Run Save Translations (Only If New License or Authentication Files Installed)

Begin _____

CAUTION:

This procedure saves the official passwords for the customers system in the MultiVantage Software. If you fail to perform this step now, you may be irretrievably locked out of the system later in the installation when the system reboots.

1. At the prompt in the telnet window, type **sat** and press **ENTER**.
2. Log in again as craft.
3. At the SAT prompt, type **save translations** and press **ENTER**.

Prepare for the Upgrade (S8300 as Primary Controller Only)

Clear Alarms

Begin _____

1. On the S8300 main menu under **Alarms and Notification**, click **View Current Alarms**.
2. Select the alarms to be cleared and click **Clear**.
3. Resolve any major alarms through the MultiVantage Software.

Back up the System

Begin _____

1. Make sure you have the IP address of the customer's FTP backup server.
2. On the S8300 main menu, select **Backup Now**.
The system displays the Backup Now screen.
3. Select the type of data you want to back up by selecting the appropriate data set.
4. Select a backup method, normally **FTP**, to indicate the destination to which the system sends the backup data.
5. Complete the following fields:

User name. You must enter a valid user name to enable the media server to log in to the FTP server. If you want to use the anonymous account, type "anonymous" in this field. If you do not want to use the anonymous account, type the actual user name in this field.

Password. You must enter a password that is valid for the user name you entered. If you are using anonymous as the user name, you must use your email address as the password. However, the FTP site may have a different convention.

Host name. Enter the DNS name or IP address of the FTP server to which the backup data is sent. To enter an IP address, use the dotted decimal notation (for example, 192.11.13.6).

Directory. Enter the directory on the corporate repository to which you want to copy the backup file. When you enter a forward slash (/) in the directory field, the system copies the backup file to the default directory. The default directory for backup data on the FTP server is /var/home/ftp. If you do not want to use the default directory, you must enter the path name for the directory.

6. Click **Start Backup**.

The system displays the results of your backup procedure on the Backup Now results screen.

Check Link Status

Begin _____

1. At the SAT prompt, enter **display communication-interface links** and press **Enter**.
2. Note all administered links.
3. Type **status link** number and press **Enter** for each administered link.
4. Check the following fields for the values listed:
 - Link Status = connected
 - Service State = in service
5. Type **list signaling group** and press **Enter**.
6. Note the signaling groups listed by number.
7. For each of the signaling groups listed, type **status signaling group <number>** and press **Enter**.
8. If any of the links are not up, make note of any that are down.

Record All Busyouts

Begin _____

1. At the SAT prompt, type **display errors** and press **Enter**. Look for type 18 errors and record any trunks that are busied out, so you can return them to their busy-out state after the upgrade.

Disable TTI

Begin _____

Note: Do this step only if Terminal Translation Initialization (TTI) is enabled.

CAUTION:

If you do not disable the TTI, the translations can be corrupted.

1. At the SAT prompt, type **change system-parameters features** and press **Enter**.
2. Scroll to the second page.
3. Set the Terminal Translation Initialization (TTI) Enabled? field to **n** and press **Enter** to de-activate the TTI feature. If the field is already n, cancel the command.

Check TTI Status

Begin _____

1. At the SAT prompt, type **status tti** and press **Enter**.
2. Check the Percent Complete field.
3. If the value is 100, then go on to the next section.
4. If the value is less than 100, repeat Steps 1 and 2, until the Percent Complete field reads 100.

Disable Scheduled Maintenance

Begin _____

To prevent scheduled daily maintenance from interfering with the upgrade:

1. At the SAT prompt, type **change system-parameters maintenance** and press **Enter**.
2. If scheduled maintenance is in progress, set the Stop Time field to 1 minute after the current time.

or

If scheduled maintenance is not in progress, set the Start Time field to a time after the upgrade will be completed.

For example, if you start the upgrade at 8:00 P.M. and the upgrade takes 90 minutes, set the Start Time field to 21:30.

CAUTION:

If you do not disable Alarm Origination, the system can generate alarms, resulting in unnecessary trouble tickets.

3. Type **neither** in the Alarm Origination to OSS Numbers field and press **Enter**.

Check for Translation Corruption

Begin _____

1. At the SAT prompt, type **newterm** and press **Enter**.

If you do not get a login prompt, but instead see the following message

Warning: Translation corruption detected

then follow the normal escalation procedure for translation corruption before continuing the upgrade.

Load New Software on the S8300

Follow the steps in this section to bring the S8300 to the most recent load of software.

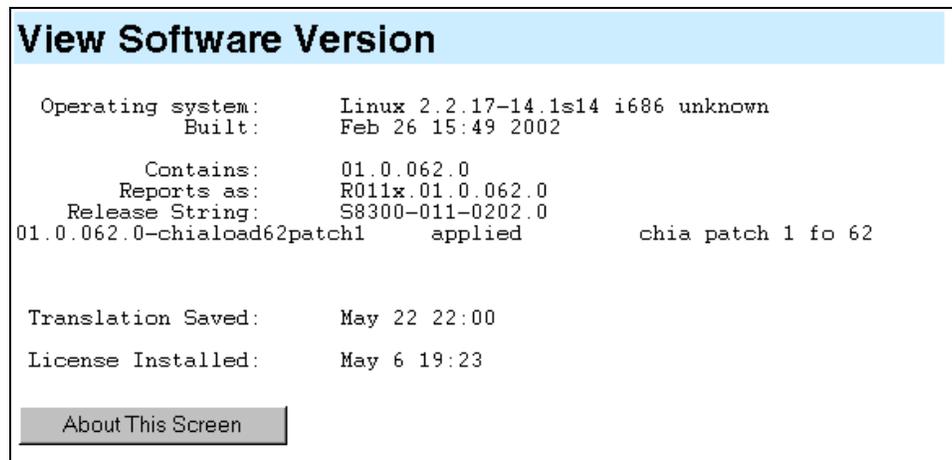
Determine Necessary Upgrades to the S8300

Begin

1. Choose **View Software Version** under **Server Configuration and Upgrades** on the left pane of the S8300 main menu.

The S8300 displays the **View Software Version** screen.

Figure 87. View Software Version Screen



2. Check the **Contains** field for the version number of the MultiVantage Software. If your Release Letter has a higher number, you must install new software.
3. Check the **Release String** field for the version number of the S8300 software. If your Release Letter has a higher number, you must install new software.

Transfer Files from a CD or Hard Drive of Laptop

Begin

Normally, during an upgrade, you will have the CD-ROM that contains the latest software to install. The latest software for the S8300 has a file name that reflects the most recent load of software and a **.tar** extension (*for example only*, S8300-11.2-0209.3.tar). This **.tar** file will also contain the most recent software for the G700 Media Gateway, the various Media Modules, and the P330 Stack Processor (also referred to as the Layer 2 Switch Processor). The latest update software for MultiVantage Software has a file name that reflects the most recent load of software and **.tar.gz** extension (*for example only*, 01.0.065.4-0006.tar.gz).

CAUTION:

You cannot use the S8300 as a TFTP server for IP Softphone software installations. The customer is responsible for establishing a TFTP server on a PC in the customer's network.

1. Log in to the S8300 Web interface (see “[Log in to the S8300 Web Interface from Your Laptop](#)” on page 193).
2. Choose **Upload Files to Server** under **Miscellaneous** on the left pane of the main menu.
The S8300 displays the **Upload Files to Server** screen.

Figure 88. Upload Files to Server Screen

Upload Files to Server

This page allows data files to be loaded onto the server from the machine that your browser is running on. In one or more of the fields below, enter the file name(s) to be sent to the server.

File(s) to upload:

Browse...

Browse...

Browse...

Browse...

LOAD FILE About This Screen

3. Click the **Browse** button for the first field.
The S8300 displays the **Choose File** window, which allows you to select files from your laptop.
4. Click directory names until you find the **.tar** file for the latest S8300 software.
5. Click the **Browse** button for the second field.
6. Click directory names until you find the **.tar.gz** file for the latest MultiVantage Software.
7. Click **Load File**.
When the files are successfully transferred, the system displays the status screen.
8. Check that the Status box displays **OK**.

End _____

Install Software on the S8300

Once you have transferred the updated S8300 software file (with a **.tar** extension) to the S8300 Media Server, the software is then available to be installed.

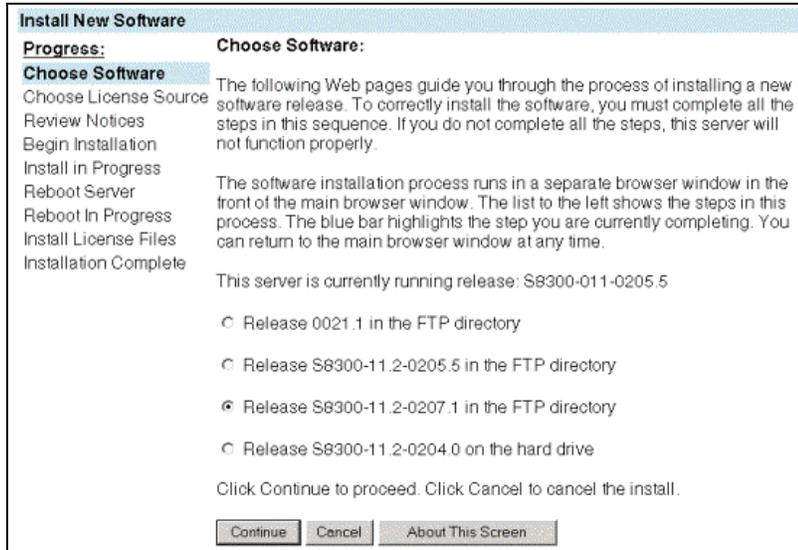
Note: You cannot install the MultiVantage Software in the same way.

Install New Software

Begin _____

1. Choose **Install New Software Release** from the left pane of the main menu.
The S8300 displays the **Choose Software** screen.

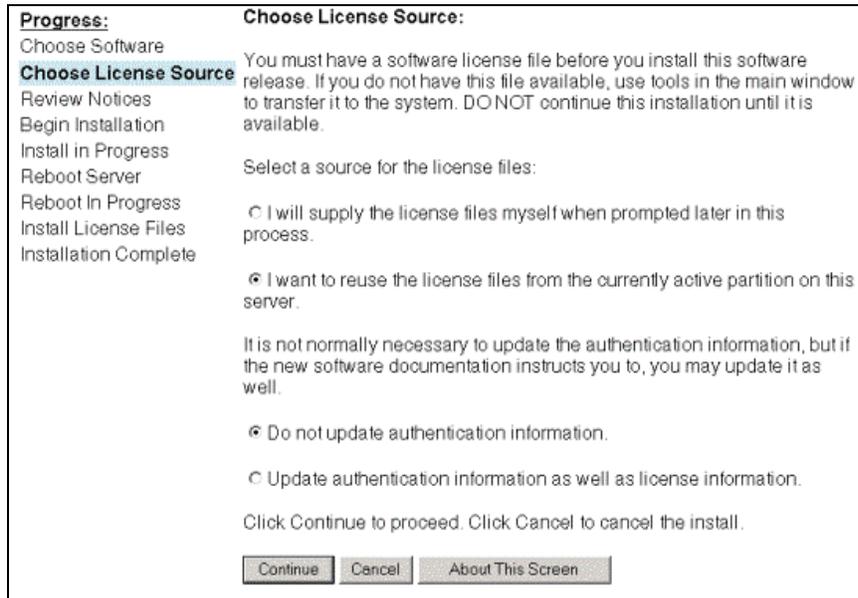
Figure 89. Choose Software Screen



2. On the **Choose Software** screen, select the software release number that matches your release letter. Click **Continue**.

The S8300 displays the **Choose License Source** screen.

Figure 90. Choose License Source Screen



3. On the **Choose License Source** screen, click the radio button next to the following:
 - **I want to reuse the license files from the currently active partition on this server.**
 - **Do not update authentication information.**

⚠ CAUTION:

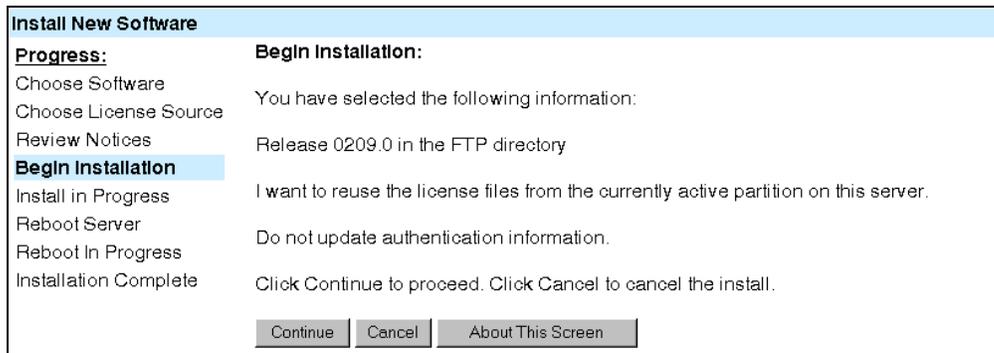
If you did *not* install the authentication and license files and “[Run Save Translations \(Only If New License or Authentication Files Installed\)](#)” on page 196, you **must** select the following options and follow instructions to select the license and authentication files from the ftp directory. Failure to do so may cause you to be locked out of the S8300 after the next reboot. This may force replacement of the S8300.

- **I will supply the license/authentication files myself when prompted later in this process.**
- **Update authentication information as well as license information.**

4. Click **Continue**.

The S8300 displays the **Begin Installation** screen, which summarizes the request you have made.

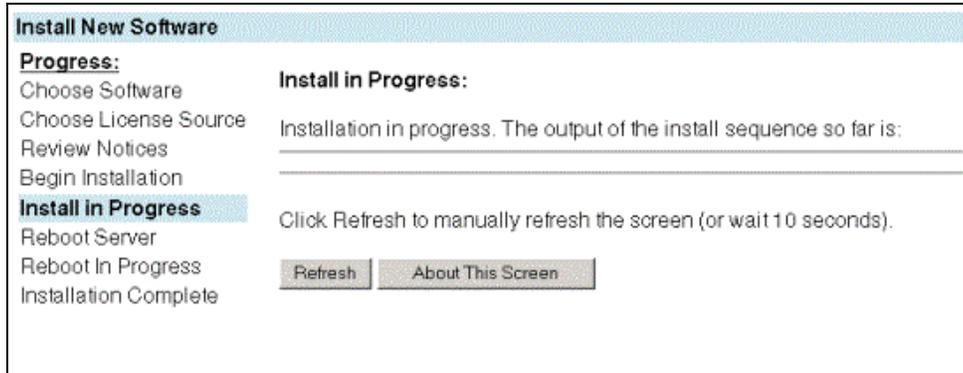
Figure 91. Begin Installation Screen



5. At the **Begin Installation** screen, click **Continue**.

The S8300 displays the **Install in Progress** screen.

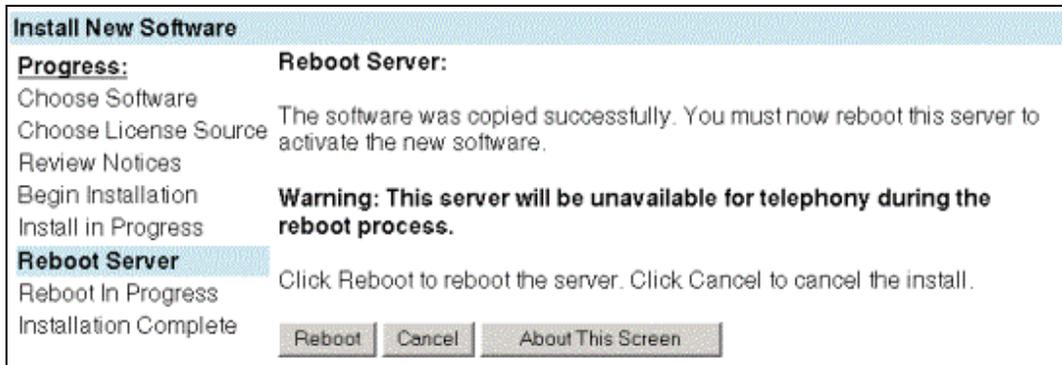
Figure 92. Install in Progress Screen



6. Watch the progress of the installation.

The **Install in Progress** screen refreshes every 5 seconds or on demand by clicking the **Refresh** button. The installation will take approximately 10 to 20 minutes. When complete, the S8300 displays the **Reboot Server** screen.

Figure 93. Reboot Server Window



7. Click **Reboot**.

The S8300 displays the **Reboot in Progress** screen.

Figure 94. Reboot in Progress Screen

Install New Software	
Progress:	Reboot In Progress:
Choose Software	This server is being rebooted at Thu Aug 1 12:00:36 EDT 2002
Choose License Source	
Review Notices	You cannot access any additional Web pages until the server has rebooted.
Begin Installation	
Install in Progress	To see if the server has completed its reboot:
Reboot Server	
Reboot In Progress	Wait at least 3 minutes then click continue. If the server has not completed its reboot, an error will be displayed. Wait a while longer and try again.
Installation Complete	When the server finally completes its reboot you will see the next page from the install wizard.
<p>NOTE: Different browsers display the error differently. You might get a pop up window in which you must click "OK". You might get a new web page that says "the page cannot be displayed". In this case you must use the back function in your browser to return to this page. Do NOT exit your browser or otherwise leave this page.</p>	
<p>Click Continue after the server has rebooted.</p>	

⚠ CAUTION:

The reboot can take up to 20 minutes. However, the system does not automatically tell you when the reboot is complete. **Do not click Continue** until you are sure the reboot is complete, otherwise the installation will fail.

8. You can ping the S8300 continuously to see when the installation is complete. To ping the S8300, do the following:
 - a. Open a DOS window.
 - b. At the command prompt, type **ping -t 192.11.13.6**.

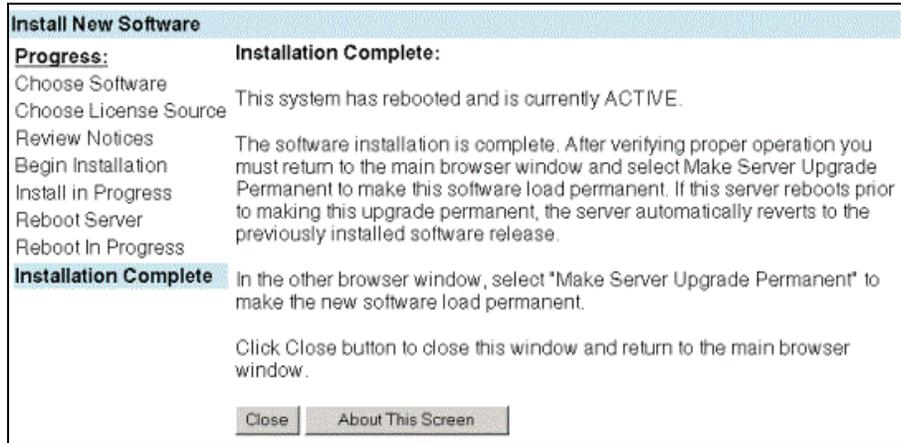
The ping will succeed only when the reboot is complete.

Alternatively, you can wait three minutes or more and press the Refresh button to see if the reboot is complete. Monitor the LEDs on the S8300 for progress on the installation. The Services port jack should have one yellow LED on the left that stays lit. The green LED on the right flashes until the reboot is complete.

9. When the pinging of the S8300 is successful a dozen times, or pressing the Refresh button shows that the reboot is complete, click **Continue**.

The S8300 displays the **Installation Complete** screen.

Figure 95. Installation Complete Screen



10. Click **Close**.

You will be returned to the main menu where you must make the upgrade permanent.

End _____

Make the Upgrade Permanent

Begin _____

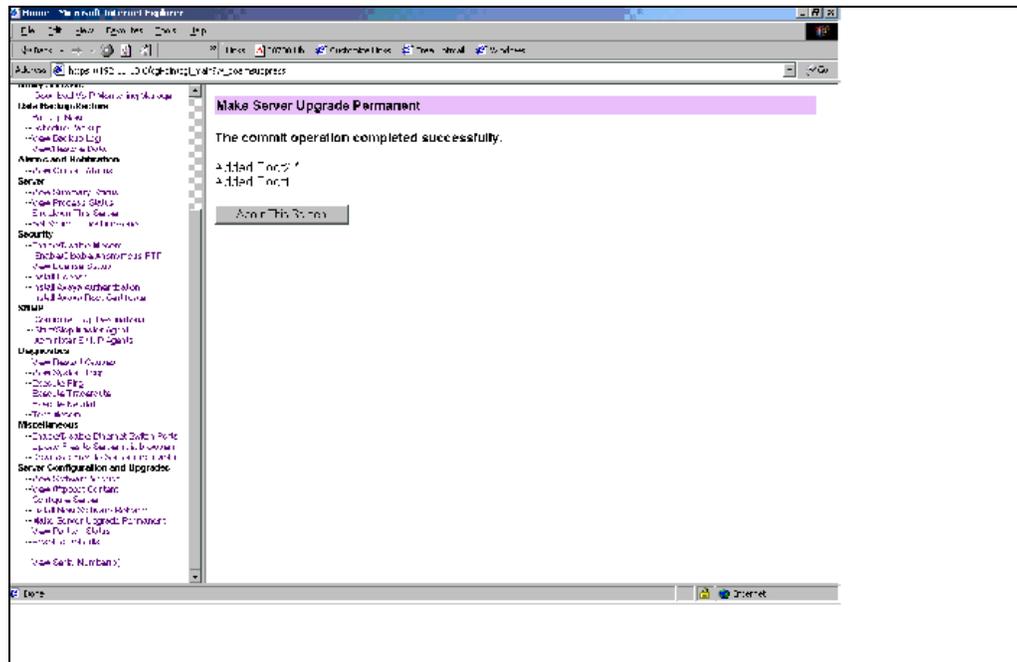
CAUTION:

You must make the upgrade of the software permanent so that the software is recognized and kept on the S8300. If you fail to make software permanent, then the next time you reboot, old software will become active.

1. Choose **Make the Upgrade Permanent** from the left pane of the S8300 main menu.

The S8300 displays the Make Server Upgrade Permanent window.

Figure 96. Make Server Upgrade Permanent Screen



2. Click **ENTER**.

When the new S8300 upgrade software is permanent, the S8300 displays the message: **The commit operation completed.**

Install MultiVantage Patch Files from Your Laptop

Begin

1. From your laptop, start a telnet session to the S8300. (See the final steps in “[Install New Software](#)” on page 200.)
2. At the telnet prompt, type **cd /var/home/ftp** and press **ENTER** to access the FTP directory.
The directory path changes to **/var/home/ftp**.
3. At the prompt, type **ls -ltr** and press **ENTER** to list files in the FTP directory.
The S8300 displays a list of files in the FTP directory.
4. Verify that the directory contains the MultiVantage Software **.tar.gz** file you just uploaded.
5. Type **patch_show** and press **ENTER** to list MultiVantage Software files that were previously installed.

The S8300 displays a list of software files currently installed, if any.

CAUTION:

Do not remove any of the files in the list.

6. Type **sudo patch_install <patch>.tar.gz**, where **<patch>** is the release or issue number of the latest software file. Press **ENTER**.
7. Type **patch_show** again and press **ENTER** to list MultiVantage Software files to verify the new software file was installed.
8. Type **sudo patch_apply <patch>**, where **<patch>** is the release or issue number of the latest software file. Press **ENTER**.

Note: Do *not* use the .tar.gz extension on the back of the file name.

The S8300 goes through a software reset system 4. The S8300 also may display the message **/opt/ecs/sbin/drestart 1 4 command failed**. Ignore this message. You must wait until the restart/reset has completed before entering additional commands.

The S8300 displays a message that the patch was applied.

9. Type **patch_show** again and press **ENTER** to list MultiVantage Software files to verify the new software file was applied.

End _____

Configure the G700 Media Gateway

Conduct the following procedure in order to compare software versions running on the G700/Media Modules with the Release Letter. If the versions do not match, new firmware for those components is necessary.

Note: If you are upgrading an S8300 LSP remotely, you do not physically connect your laptop to the G700 serial port.

Connect Your Laptop to the G700 Serial Port

Begin _____

To connect a laptop directly to the serial port on the G700 Media Gateway:

1. *For a stacked configuration:* locate the device that contains the master controller for the stack. Check the LED panel on the upper left of each G700 or P330 device in the stack as follows:
 - G700 Media Gateway: a lit **MSTR** LED indicates that this unit is the stack master.
 - P330 device: a lit **SYS** LED indicates that this unit is the stack master.
2. Use the RS-232 serial cable and DB-9 adapter cable provided with the G700 Media Gateway.
3. Attach one end of the RS-232 cable to the RJ-45 jack on the front of the unit that is the stack master. The serial port is on the lower right side of the chassis.
 - On a G700, this serial port is labeled **Console**.
 - The name of the serial port varies on P330 devices, but it is located on the lower right.

4. Plug the other end of the RS-232 cable into the RJ-45 jack on the DB-9 adapter cable.
5. Connect the other end of the DB-9 adapter cable to the 9-pin serial port on your laptop.
6. Use a serial-connection program such as HyperTerminal to access the P330 stack processor.

Log in to the Avaya P330 (Layer 2 Switching Processor) Command Line Interface

Begin _____

1. Launch Windows® HyperTerminal or any other terminal emulation program.

Note: If you are upgrading an S8300 LSP remotely, you connect using telnet and the IP address of the P300 Stack Master.

Note: For most Windows-based PCs, you access the HyperTerminal program from the **Start** menu by selecting **Programs**, then **Accessories**.

2. Choose **Call - Connect** or the appropriate call command for your terminal emulation program.
3. Login at the **Welcome to Avaya P330** screen.

Login: *xxx from the planning documentation*

Password: *xxx from the planning documentation*

You are now logged-in at the Supervisor level. The prompt appears as **P330-1(super)#**. In order to use the commands necessary to configure the P330 Stack Processor, you must reset to the Configure level.

4. Type `configure`

The prompt appears as **P330-1(configure)#**.

End _____

Note:

To check the syntax of a command in the command line interface, type as much of the command as you know followed by `help`. For example:

```
P330-1(configure)#> set help
```

you will be given the current list of `set` commands available. If you type:

```
P330-1(configure)#> set interface help
```

you will be given a much more restricted list of command possibilities that address the possible interfaces to be set.

For a complete list of command line interface commands, refer to the "Avaya™ P330 User's Guide".

Determine Necessary Firmware to Install on the G700

Begin

The first steps determine if new firmware for the P330 Stack Processor is necessary.

1. At the P330-1(configuration)# prompt, type dir.

The list of software appears.

Figure 97. Directory List for P300 Processor

M#	file description	ver num	file type	file location	file
1	module-config Configuration	N/A	Running Conf	Ram	Module
1	stack-config Configuration	N/A	Running Conf	Ram	Stack
1	EW_Archive	3.8.6	SW Web Image	Nv-Ram	WEB Download
1	Booter_Image	3.2.5	SW BootImage	Nv-Ram	Booter Image

2. Check the version number of the EW_Archive file to see if it matches the Release Letter. If not, you must upgrade the P330 Stack Processor.

3. At the P330-1(configuration)# prompt, type show image version

The list of software appears.

Figure 98. Show Image Version List for P330 Processor

```
P330-1(configuration)# show image version 3
```

Mod	Module-Type	Bank	Version
3	Avaya G700 Media Gateway	A	0.0.0
3	Avaya G700 Media Gateway	B	3.8.2

4. Check the version number of the stack software image file to see if it matches the Release Letter. If not, you must upgrade the P330 Stack Processor.

The next steps determine if new firmware is required for the G700 Media Gateway Processor (MGP), the VoIP Module, and the installed Media Modules.

5. At the P330-1(configuration)# prompt, type session mgp
6. At the MG-001-1(super)# prompt, type configure
7. At the MG-001-1(configuration)# prompt, type show mg list_config

The list of software appears.

Figure 99. Configuration List for G700 Media Gateway

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

8. Refer to the output of [step 7](#) to check the FW vintage number of the G700. In the TYPE column, find G700, then check the matching field in the FW VINTAGE column to see if it matches the Release Letter. If not, you must install new firmware on the G700 Media Gateway. Also check if the release number in the FW VINTAGE column contains an A or B to designate the software bank. If the list shows B, you will upgrade A. If the list shows A, you will upgrade B.
9. Refer to the VOIP FW column and row for slot v0 to see if the number matches the VoIP firmware identified in the Release Letter. If not, you must also upgrade the G700 Media Gateway motherboard VoIP module.
10. Check the FW VINTAGE column for vintages of each of the installed Media Modules: MM710, MM711, MM712, MM720, and/or MM760 to see if they match the FW vintages in the Release Letter. If not, you must upgrade them, as well.

End

Install New Firmware on the G700 Media Gateway

To load new firmware for the G700 Media Gateway and the Media Modules, you will first need to transfer the new firmware files from the S8300 TFTP server to the G700 Media Gateway. Consult the Release Letter for the most recent information and instructions for upgraded firmware.

CAUTION:

You cannot use the S8300 as a TFTP server for IP Softphone software installations. The customer is responsible for establishing a TFTP server on a PC in the customer's network.

Verify That the S8300 tftpboot Directory Has the Right Firmware Versions

Begin

The **.tar** S8300 software you installed on the S8300 also included firmware for the G700 Media Gateway. This firmware should be stored in the /tftpboot directory of the S8300. You should check this directory to make sure the firmware version match those listed in the Release Letter.

Note: Leave the login session up with the G700 Media Gateway while you check the S8300 for available firmware.

1. Access the S8300 via telnet (see “Log in to the S8300 from Your Laptop using Telnet” on page 191).
2. At the command prompt, type **cd /tftpboot** and press **ENTER**.
The /tftpboot prompt appears.
3. Type **ls -l** and press **ENTER** to list the files.
The list of files appears.
4. Check the list of files to ensure that the version numbers match those of the Release Letter.
Use the following legend to help understand which files are for the different G700 Media Gateway components.

Note: You are unlikely to need all of the files. If the customer does not have a particular media module, you will not need to load the file.

Table 12. Firmware File Formats

Component	Firmware Version Format	Example
P330 Stack Processor	viisa<version id>	viisa3_12_1.exe
P330 Stack Processor	p330<version id>	p330Tweb.3.8.6.exe
G700 Media Gateway	mgp<version id>	mgp_3_0.bin
VoIP Media Module and Motherboard VoIP	mm760<version id>	mm760v3.fdl
DCP Media Module	mm712<version id>	mm712v2.fdl
Analog Port/Trunk Media Module	mm711<version id>	mm711v4.fdl
E1/T1 Media Module	mm710<version id>	mm710v3.fdl
BRI Media Module	mm720<version id>	mm720v2.fdl

Install New Firmware on the P330 Stack Processor (Layer 2 Switching Processor)

Begin

1. On your laptop, return to the HyperTerm window. At the **MG-mmm-n(config)#** prompt, type **exit** and press **ENTER**.
The **P330-1(config)#** prompt appears.

Note: If necessary, open the HyperTerm window, and login to the P330 Stack Processor command line interface.

2. At the **P330-1(config)#** prompt, type

```
copy tftp SW_image<file> EW_archive <ew_file>
<tftp_server_address> <Module#>
```

where
 <file> is the image file with format and vintage number similar to viisa3_8_2.exe,
 <ew_file> is an embedded web application file with format similar to p330Tweb.3.8.6.exe,
 <tftp_server_ip_address> is the ip address of the S8300, and
 <Module#> is the number, 1 through 10, of the media gateway in the stack. If there is only one G700 Media Gateway, the number is 1.

3. Verify that the download was successful when the prompt returns. Type `show image version`.

End _____

Install New Firmware on the G700 Media Gateway Processor

Begin _____

1. At the **P330-1(configure)#** prompt, type `session mgp` to reach the G700 Media Gateway processor.
2. Type `configure` at the **MG-???-1(super)#** prompt to enter configuration mode, which will change the prompt to **MG-???-1(configure)#**.
3. At the **MG-???-1(configure)#** prompt, type `show mgp bootimage` to determine which disk partition (bank) is Active Now. You will update the bank that is *not* listed as Active Now. For example, if the G700 vintage listed when you performed “[Determine Necessary Upgrades to the S8300](#)” on page 199 showed **A**, you will upgrade **B**.
4. At the **MG-???-1(configure)#** prompt, type `copy tftp mgp-image <bank> <filename> <tftp_server_ip_address>` to transfer the mgp image from the tftp server to the G700, where `<bank>` is the bank that is *not* Active Now.

`<filename>` will begin with `mgp` and will be similar to a name like `mgp_230_0.bin`.
`<tftp_server_ip_address>` is the IP address of the S8300. See the following example:

`copy tftp mgp-image a mgp_230_0.bin 195.123.49.54`

 The screen will show the progress.
5. Verify that the download was successful when the prompt returns. Type `show mg list_config`.

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

6. Type `set mgp bootimage <bank>`. <bank> is the same letter you entered in [step 4](#).
7. At the **MG-???-1(configure)#** prompt, type `reset mgp`.
A system prompt asks to confirm the reset.
8. Select **Yes** at the dialog box that asks if you want to continue.
The G700 Media Gateway processor will reset. The LEDs on the G700 Media Gateway and the Media Modules will flash. These elements will each conduct a series of self-tests. When the LEDs on the Media Modules are extinguished and the active status LEDs on the G700 Media Gateway are on, the reset is complete.

End _____

Install New Firmware on the Media Modules

Begin _____

1. Be sure that you have checked for the current vintage of the VoIP Module for the v0 slot (on the G700 motherboard) (see [“Determine Necessary Firmware to Install on the G700” on page 209](#)). This VoIP module does not occupy a physical position like other Media Modules.
2. At the **P330-1(configure)#** prompt, type `session mgp`.
3. At the **MG-001-1 (super) #** prompt, type `configure` to reach the configuration level of the command line interface.
4. Type `copy tftp mm-image v<slot #> <filename mm> <tftp_server_ip_address>`
where <slot #> is the slot of the specific media module as identified when you performed [“Determine Necessary Firmware to Install on the G700” on page 209](#), <filename mm> is the media module software in a format such mm712v58.fdl, and <tftp_server_ip_address> is the ip address of the S8300.

Two or three minutes will be required for most upgrades. The VoIP Media Module upgrade takes approximately 5 minutes. Screen messages indicate when the transfer is complete.
5. At the **MG-???-1(configure)#** prompt, type `show mg list_config`

The list of software appears

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

6. Refer to the output of [step 5](#). In the TYPE column, find the particular media module (v2 through v4), then check the matching field in the FW VINTAGE column to see if it matches the Release Letter.
7. Refer again to the output of [step 5](#). Check the VOIP FW column and row for slot v0 to see if the number matches the VoIP firmware identified in the Release Letter.

End _____

Install New Firmware on Other G700 Media Gateways (Stack Configuration)

Begin _____

If the customer has multiple G700 media gateways connected in an IP stack, you can stay connected to the master G700/P330 and "session" over from the master P330 stack processor to the next G700 in the stack. If you are dialed in remotely, you should have automatically dialed in to the stack master. For a local installation, you should have plugged your laptop into the stack master P330, which you can identify by the LED panel on the upper left of each G700 or P330 device in the stack. The LEDs signal as follows:

- On the G700 Media Gateway: a lit **MSTR** LED indicates that this unit is the stack master.
- On the P330 device: a lit **SYS** LED indicates that this unit is the stack master.

The G700 and P330 at the bottom of the stack is module number 1, the next module up is number 2., and so on. However, the stack master can be any module in the stack, depending on the actual model, the vintage firmware it runs, and whether the S8300 is inserted into it.

Note: You do not need to configure the other P330 processors in the stack. These will use the IP address and IP route of the master P330 stack processor. However, you will need to check firmware on all devices of the other G700s in the stack, including the media gateways themselves, and update the firmware as required.

You may also use the "session stack" command to access extra standalone P330 processors in the stack (those that are not part of a G700 unit).

1. At the **MG-001-1(configure)#** prompt, type **session stack**
The P330 configure prompt appears.
2. At the **P330-1(configure)#** prompt, type `session <mod_num> mgp`
`<mod_num>` is the next P330 processor in the stack. If you are currently logged in to the master stack processor, `<mod_num>` would be **2**, for the second G700/P330 processor in the stack.
3. Repeat the steps in "[Install New Firmware on the G700 Media Gateway](#)" for other G700 Media Gateways in the stack.

End _____

Install New Firmware on Other G700 Media Gateways (Remote, No Stack Configuration)

Begin _____

If additional G700 media gateways are supported in the configuration, but they are not attached as a stack, then you must configure each G700, with all of its devices, including the P330 processors. Additionally, you must check firmware and update the firmware as required.

- Repeat the steps in the section “[Install New Firmware on the G700 Media Gateway](#)” for other G700 Media Gateways in the configuration.

End _____

Shutdown MultiVantage Software (Only When the S8300 is an LSP)

You upgrade the S8300 as an LSP at the same time as the S8700 primary controller because they must be running the same MultiVantage Software version. As a result, before you upgrade the S8700, you need to shut down the MultiVantage Software on the S8300. This prevents the phones and other endpoints attached to the G700 from trying to register with the S8300 LSP while you are upgrading the S8700.

Begin _____

1. Return to your telnet window.
2. At the Linux command line, type **stop -acfn** and press **ENTER**.

The S8300 shuts down MultiVantage Software.

End _____

Upgrade the S8700 (Only When the S8300 Is an LSP)

When upgrading an S8300 serving as an LSP, you first upgrade the LSP before you upgrade the S8700 primary controller. At this point, you are finished upgrading the S8300 LSP. Now you should upgrade the S8700.

CAUTION:

This administration applies only to an S8700 that serves as the primary controller. Because the S8300 is an LSP in an S8700 network, the S8300's MultiVantage Software must remain shutdown while you upgrade the S8700. When you complete the S8700 upgrade, run **save translations** on the S8700, which will automatically cause the G700's endpoints to reregister with the S8700.

Follow procedures in the S8700 documentation for upgrading the S8700 on the “*Avaya S8300 and S8700 Media Server Library CD, 555-233-825.*”

Start up MultiVantage Software (Only When the S8300 is an LSP)

Note: Since you shut down the MultiVantage Software on the S8300 LSP, you must start it again. Only do this when the S8700 primary controller upgrade is complete.

1. Return to your telnet window.
2. At the S8300 Linux command line, type **start -a** and press **ENTER**.

The S8300 starts up MultiVantage Software.

End _____

Complete the Upgrade Process (Only When S8300 is Primary Controller)

Check Media Modules

Begin _____

1. Type **list configuration all** and press **Enter**.
2. Verify that the software is communicating with all media modules and that all media modules are listed in the reports.
3. Make test telephone calls to verify that MultiVantage™ Software is working.

Enable Scheduled Maintenance

Begin _____

1. Type **change system-parameters maintenance** and press **Enter**.
2. Ensure that the `Start Time` and `Stop Time` fields' administration is the same as before the upgrade.

Enable TTI

Begin _____

Note: Perform this step only if you disabled TTI before the upgrade.

1. Type **change system-parameters features** and press **Enter** to change the TTI field back to its value before the upgrade.
2. Go to the second page and set the `Terminal Translation Initialization (TTI) Enabled?` field to **y** and press **Enter**.

Check TTI Status

Begin _____

1. Type **status tti** and press **Enter**.
2. Check the `Percent Complete` field.

If the value is 100, then go on to the next section.

If the value is less than 100, repeat Steps 1 and 2 until the `Percent Complete` field is 100.

Busy Out Trunks

Begin _____

1. Busy out trunks that were busied out before the upgrade (see [Record All Busyouts](#)).

Resolve Alarms

Begin _____

1. Click **View Current Alarms** to examine the alarm log.
2. Resolve new alarms since the upgrade through the MultiVantage Software using the appropriate maintenance book.

Check for Translation Corruption

Begin _____

1. Type **newterm** and press **Enter**.

If you do not get a login prompt and see the following message:

Warning: Translation corruption detected

follow the normal escalation procedure for translation corruption before continuing the upgrade.

Back up the System

Begin _____

1. Back up the system as you did before the upgrade.

6 Upgrading an Existing G700 with an S8700 (No Local Survivable Processor)

For an upgrade of an existing system, to obtain new firmware for the Avaya™ G700 Media Gateway, you may do one of the following:

- Upload the firmware from a CD on-site
- Download the firmware directly onto your services computer before going on-site

If you are upgrading a G700 Media Gateway without an S8300 or LSP, you *must* use an external TFTP server. The new software file for the G700 has a .gz extension. The release letter for the upgrade, which should be shipped with the G700 or available from your Project Manager, will tell you what files you need to load.

Note: A P330 processor is built into the G700 Media Gateway. This P300 processor is also known as the Layer 2 Switch Processor. You normally access the G700 for configurations by first accessing the P300 processor. Configuration and firmware updates of this processor are a required part of most installations and upgrades.

Considerations for Upgrading a G700 from the S8700 Location

You may upgrade a G700 remotely from the S8700 locations. In this case, you connect to the S8700. Then, you use telnet to access the P330 (also referred to as the Layer 2 Switch Processor) and G700 processors. In this case, there must be a TFTP server established on the customer's LAN into which the appropriate firmware has been downloaded.

You must still configure your laptop appropriately as in [“Set up a laptop for a direct Ethernet connection \(If Necessary for Firmware Download\)”](#) on page 227.

Get Planning Forms from the Project Manager

The project manager should provide you with forms that contain all the information needed to prepare for this upgrade. The information primarily consists of IP addresses, subnet mask addresses, logins, passwords, people to contact, the type of system, and equipment you need to install.

Verify that the information provided by the project manager includes all the information requested in [“Appendix B: Checklists”](#) on page 257.

Set Up the TFTP Server on Your Laptop or on a Customer PC

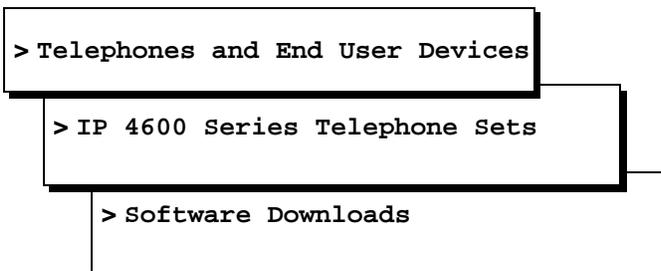
A tar.gz file, which you obtain from a CD-ROM or a website, contains new G700 software. To load this software on a G700 Media Gateway, you must place this tar.gz file either on your laptop or on a PC connected to the customer's LAN. Later, you will log in to the G700 and use its TFTP capability to pull the new software from your laptop or the customer's PC. As a result, either the customer must configure a TFTP server on a PC connected to the customer's LAN or you, the installer, must set up your laptop as a TFTP server and later connect it to the customer's LAN.

Note: A Linux or Unix TFTP server should be used only if the customer already has an existing one. In these cases, you download the tar.gz file to your laptop and give it to the customer for proper placement and execution.

Set up a TFTP Server on Your Laptop

Begin

1. On the hard drive of your laptop or the customer's PC, create a directory into which you will load the G700 software. It is recommended that you create a directory called C:\tftp.
2. Connect to the LAN using a browser on your laptop or the customer's PC. and access <http://www.avaya.com/support> on the internet to copy the following file to the PC/laptop: **iptel_avaya_tftp.exe**.
3. At the Avaya support site, select the following sequence of menu options:



4. Select AVAYA 4630 IP Telephone Release 1.6 and TFTP Server or latest version.
5. Scroll to bottom of page to find **iptel_avaya_tftp.exe**.
6. Double-click on the program and download it to your laptop or the customer PC that will serve as the TFTP server. You may also wish to download and view or print the file **iptel.pdf**, which provides instructions on installing the iptel_avaya_tftp.exe for Windows servers.
7. Remember where the iptel_avaya_tftp.exe file is installed on your laptop or PC and write it down. By default, the download normally creates a directory **C:\Program Files\Walusoft\TFTPSuite** that contains the file.
8. After copying the **iptel_avaya_tftp.exe** file to the PC, double-click it to install it, and follow instructions.

9. When the file has been installed, go to the directory where the software was installed and open the program `tftpserver32.exe`.

The TFTP Server window appears. It reflects the IP address of the PC in the upper border, plus port 69.

10. Enable the TFTP server as follows:

For NT and Windows 2000 or higher operating systems, set the following:

- a. Click on `System` from menu bar and select `setup`.

The server option window appears.

- Select the Outbound tab, and enter the outbound file path to `C:\tftp` - Enter this or your alternate tftp location in the Outbound tab.
- Under Options tab, enter **69** in the Use Port field (default).
- Select No Incoming (default). However, if you wish to copy files as a backup prior to performing an upgrade of software, leave this field unchecked.
- Select the Inbound tab, and enter the inbound file path to `C:\tftp` or your alternate tftp location in the Inbound tab.
- Click OK.

End _____

Download the tar.gz File or G700 Files to Your TFTP Directory

Note: Your laptop (or the customer's PC) must have WinZip or other file zipping software for this procedure.

Download the tar.gz File from CD-ROM to Your TFTP Directory and Unzip It

Begin _____

1. Insert the G700 software CD into your laptop or PC CD-ROM drive.
2. Use Windows File Explorer or another file management program to access the files on the CD-ROM drive.
3. Copy the tar.gz file (G700-11.2-0210.1.tar.gz or similar identifier) to the `C:\tftp` directory.
4. Use winZIP or another zip file tool to unzip the file. You may need to unzip an additional tar.gz file embedded in the original file. You should continue to unzip tar.gz files until you see listed files with extensions as shown in [“Firmware File Formats” on page 222](#).

All file types for the components of the G700 are unpacked and listed.

End _____

Download the Firmware Files from the Web to Your TFTP Directory

Begin

1. Access the **avaya.com/support** website.
2. Use Windows File Explorer or another file management program to access the CD-ROM drive files.
3. At the Avaya support site, select the following sequence of menu options:

> Online Services

> Software/Firmware Downloads

4. Scroll down the Software Downloads list on the Web page to **Avaya G700 Media Gateway and S8300 Media Server**, and double-click **Avaya Media Server and Media Gateway Firmware Downloads**.

The list of firmware patches appears.

5. Locate the file names that matches the load listed in your planning documentation. The file names will approximate those listed in the following table:

Table 13. Firmware File Formats

Component	Firmware Version Format	Example
P330 Stack Processor	viisa<version id>	viisa3_12_1.exe
P330 Stack Processor	p330<version id>	p330Tweb.3.8.6.exe
G700 Media Gateway	mgp<version id>	mgp_3_0.bin
VoIP Media Module and Motherboard VoIP	mm760<version id>	mm760v3.fdl
DCP Media Module	mm712<version id>	mm712v2.fdl
Analog Port/Trunk Media Module	mm711<version id>	mm711v4.fdl
E1/T1 Media Module	mm710<version id>	mm710v3.fdl
BRI Media Module	mm720<version id>	mm720v2.fdl

6. Double-click the file name.
A File Download window appears.
7. Click on **Save this file to disk**.
8. Save the file to the C:\tftp directory or another directory you created to store the download files for the TFTP server software.
9. Use winzip or another zip file tool to unzip the file if necessary.

End

Prepare to Upgrade the G700 Media Gateway

Note: If you are upgrading a G700 remotely, you do not physically connect your laptop to the G700. However, you do need to set up your laptop for a connection to the customer's LAN, which is the same process as that described in this section.

Conduct the following procedure in order to compare software versions running on the G700/Media Modules with the Release Letter. If the versions do not match, new firmware for those components is necessary.

Review Physical Access Methods

Begin

1. Check [Figure 100](#) for the location of the G700 Serial Port.
2. Check [Figure 100](#) for the location of the Ethernet ports. You will need to connect one of the ports to the customer's LAN for loading the latest software.

Figure 100. Summary of S8300 and G700 access methods and tasks

Initial Configuration and Maintenance S8300

Onsite Tasks:

1. Configure media server
2. Install license and authentication files, and upgrade software
3. Verification testing
4. Run diagnostics
5. Upgrade software and configuration

Tool:

Media server web interface

System Admin Computer Administration via Corporate LAN

Tasks:

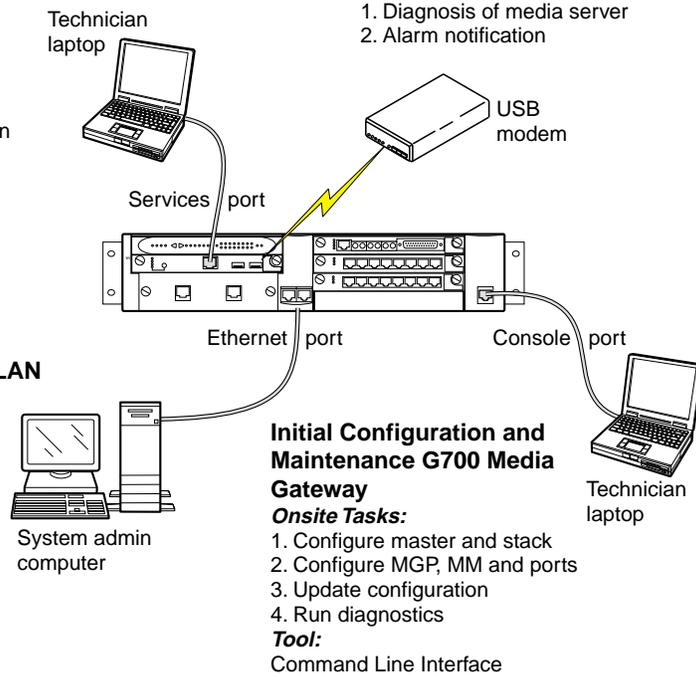
1. Backup and restore data
2. Upgrade and configuration
3. Administer network
4. Admin Telephony features

Tools:

1. Media Server Web Interface
2. Avaya Site Administration
3. Avaya Device Manager
4. System Access Terminal

Remote Access of S8300 and G700

1. Diagnosis of media server
2. Alarm notification



Initial Configuration and Maintenance G700 Media Gateway

Onsite Tasks:

1. Configure master and stack
2. Configure MGP, MM and ports
3. Update configuration
4. Run diagnostics

Tool:

Command Line Interface

cydcacc KLC 082202

Connect Your Laptop to the G700 Serial Port

Begin

To connect a laptop directly to the serial port on the G700 Media Gateway:

1. *For a stacked configuration:* locate the device that contains the master controller for the stack. Check the LED panel on the upper left of each G700 or P330 device in the stack as follows:
 - G700 Media Gateway: a lit **MSTR** LED indicates that this unit is the stack master.
 - P330 device: a lit **SYS** LED indicates that this unit is the stack master.
2. Use the RS-232 serial cable and DB-9 adapter cable provided with the G700 Media Gateway.
3. Attach one end of the RS-232 cable to the RJ-45 jack on the front of the unit that is the stack master. The serial port is on the lower right side of the chassis.
 - On a G700, this serial port is labeled **Console**.
 - The name of the serial port varies on P330 devices, but it is located on the lower right.
4. Plug the other end of the RS-232 cable into the RJ-45 jack on the DB-9 adapter cable.
5. Connect the other end of the DB-9 adapter cable to the 9-pin serial port on your laptop.
6. Use a serial-connection program such as HyperTerminal to access the P330 stack processor.

Log in to the Avaya P330 Command Line Interface

Begin

1. Launch Windows® HyperTerminal or any other terminal emulation program.

Note: For most Windows-based PCs, you access the HyperTerminal program from the **Start** menu by selecting **Programs**, then **Accessories**.

2. Choose **Call - Connect** or the appropriate call command for your terminal emulation program.
3. Log in at the **Welcome to Avaya P330** screen.

Login: *xxx from the planning documentation*

Password: *xxx from the planning documentation*

You are now logged-in at the Supervisor level. The prompt appears as **P330-1(super)#**. In order to use the commands necessary to configure the P330 Stack Processor, you must reset to the Configure level.

4. Type `configure`

The prompt appears as **P330-1(configure)#**.

End

Note:

To check the syntax of a command in the command line interface, type as much of the command as you know followed by `help`. For example:

```
P330-1(configure)#> set help
```

you will be given the current list of set commands available. If you type:

```
P330-1(configure)#> set interface help
```

you will be given a much more restricted list of command possibilities that address the possible interfaces to be set.

For a complete list of command line interface commands, refer to the "Avaya™ P330 User's Guide".

Determine Necessary Firmware to Install on the G700

Begin

The first steps determine if new firmware for the P330 Stack Processor is necessary.

1. Login to the Avaya P330 command line interface.
2. At the P330-1(super)# prompt, type configure.
3. At the P330-1(configure)# prompt, type dir.

The list of software appears.

Figure 101. Directory List for P300 Processor

M#	file description	ver num	file type	file location	file
1	module-config Configuration	N/A	Running Conf	Ram	Module
1	stack-config Configuration	N/A	Running Conf	Ram	Stack
1	EW_Archive	3.8.6	SW Web Image	Nv-Ram	WEB Download
1	Booter_Image	3.2.5	SW BootImage	Nv-Ram	Booter Image

4. Check the version number of the EW_Archive file to see if it matches the Release Letter. If not, you must upgrade the P330 Stack Processor.

5. At the P330-1(configure)# prompt, type show image version

The list of software appears.

Figure 102. Show Image Version List for P330 Processor

```
P330-1(configure)# show image version 3
```

Mod	Module-Type	Bank	Version
3	Avaya G700 Media Gateway	A	0.0.0
3	Avaya G700 Media Gateway	B	3.8.2

6. Check the version number of the stack software image file to see if it matches the Release Letter. If not, you must upgrade the P330 Stack Processor.

The next steps determine if new firmware is required for the G700 Media Gateway Processor (MGP), the VoIP Module, and the installed Media Modules.

7. At the `P330-1(configure)#` prompt, type `session mgp`
8. At the `MG-001-1(super)#` prompt, type `configure`
9. At the `MG-001-1(configure)#` prompt, type `show mg list_config`

The list of software appears.

Figure 103. Configuration List for G700 Media Gateway

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

10. Refer to the output of [step 9](#) to check the FW vintage number of the G700. In the TYPE column, find G700, then check the matching field in the FW VINTAGE column to see if it matches the Release Letter. If not, you must install new firmware on the G700 Media Gateway. Also check if the release number in the FW VINTAGE column contains an A or B. This is the software bank. If the list shows B, you will upgrade A. If the list shows A, you will upgrade B.
11. Refer to the VOIP FW column and row for slot v0 to see if the number matches the VoIP firmware identified in the Release Letter. If not, you must also upgrade the G700 Media Gateway motherboard VoIP module.
12. Check the FW VINTAGE column for vintages of each of the installed Media Modules: MM710, MM711, MM712, MM720, and/or MM760 to see if they match the FW vintages in the Release Letter. If not, you must upgrade them, as well.

End _____

Set up a laptop for a direct Ethernet connection (If Necessary for Firmware Download)

Note: Follow the procedures in this section if you have stored the G700 firmware files and TFTP server software on your laptop. Skip this section if you are using a PC on the customer's LAN for the G700 firmware download.

A laptop connected directly to the customer's LAN requires a specific setup. This section covers:

- “General settings”
- “Set TCP/IP properties on Windows systems”
- “Disable proxies in browser”

General settings

On any operating system, the network settings need to reflect the following:

- *TCP/IP properties.* Set the laptop's TCP/IP properties as follows:
 - IP address: static IP address from customer
 - Subnet mask: customer subnet mask
- *Browser settings.* Configure the browser for a direct connection to the internet. Do *not* use proxies.

The names of the dialog boxes and buttons vary on different operating systems and browser releases. Use your computer's help system if needed to locate the correct place to enter this information.

Note: Avaya Service technicians can use the NetSwitcher program to configure alternate network profiles so they can easily connect to a number of different systems. NetSwitcher configures a profile for each type of system for easy future access without requiring you to reset TCP/IP properties or browser settings manually. NetSwitcher is available from an Avaya Services CTSA.

Set TCP/IP properties on Windows systems

TCP/IP administration varies among Windows systems as described below.

Note: Make a record of any IP addresses, DNS servers, or WINS entries that you change when you configure your services computer. Unless you use the NetSwitcher program or an equivalent, you will need to restore these entries to connect to other networks.

Check Your Version of Windows

Begin

1. Log in to your laptop, and double-click the **My Computer** icon on your desktop.
The My Computer window opens.
2. Click Help on the My Computer window's toolbar.
The Help menu opens and displays the version of Windows installed on your laptop.
3. Follow the appropriate procedure, "[Change TCP/IP Properties and Network Settings \(Windows 2000 and XP\)](#)" on page 228 or "[Change TCP/IP properties \(Windows 95, 98, NT 4.0, and Millennium Edition \[ME\]\)](#)" on page 229.

End

Change TCP/IP Properties and Network Settings (Windows 2000 and XP)

Begin

1. Right-click My Network Places on your desktop or under the Start menu in XP.
2. Select **Properties** to display the Network and Dial-up Connections window.
Windows should have automatically detected the Ethernet card in your system and created a LAN connection for you. More than one connection may appear.
3. Right-click the correct **Local Area Connection** from the list in the window.
4. Select **Properties** to display the Local Area Connection Properties dialog box.
5. Select **Internet Protocol (TCP/IP)**.
6. Click the **Properties** button. The Internet Protocol (TCP/IP) Properties screen appears.
7. On the General tab, select the radio button **Use the following IP address**. Enter the following:
 - IP address: static IP address from customer
 - Subnet mask: customer subnet mask

Note: Record any IP addresses, DNS settings, or WINS entries that you change. You may need to restore them later to connect to another network.

8. **Disable DNS service as follows:**
 - a. Click the radio button labeled **Use the following DNS server addresses**. The entries for Preferred DNS server and Alternate DNS server should both be blank.
 - b. Click the **Advanced** button at the bottom of the screen. The Advanced TCP/IP Settings screen appears.
 - c. Click the **DNS** tab. Verify that no DNS server is administered (the address field should be blank).

9. Disable WINS Resolution as follows:
 - a. Click the **WINS** tab. Make sure WINS is not administered (the address field should be blank).
 - b. Click **OK**. If warned about an empty primary WINS address, click **Yes** to continue.
10. Click **OK** twice to accept the address information and close the TCP/IP and Local Area Connection Properties dialog boxes.
11. Reboot the system if directed to do so.

After you have made these changes to your computer's network configuration information, the Network and Dial-up Connections window shows the status of the Local Area Connection:

- Enabled appears when the laptop's Ethernet cable is connected to the network.
- Disabled or unplugged appears if the NIC is not connected to anything.

Change TCP/IP properties (Windows 95, 98, NT 4.0, and Millennium Edition [ME])

Begin

1. Access your computer's network information. On your desktop:
 - *Windows 95, 98, and NT*: Right-click Network Neighborhood.
 - *Windows Me*: Right-click My Network Places.
2. Select **Properties** to display the Network dialog box.
3. Locate the TCP/IP properties as follows:
 - *Windows 95, 98, and Me*: On the **Configuration** tab, scroll through the installed network components list to the TCP/IP part of the devices list. Select the TCP/IP device that corresponds to your Ethernet card.
 - *Windows NT*: On the Protocols tab, select **TCP/IP** in the installed network components list.
4. Select the **Properties** button.
5. In the TCP/IP Properties box, click the **IP Address** tab.
6. Click the radio button to **Specify an IP address**, and enter the following:
 - IP address: static IP address from customer
 - Subnet mask: customer subnet mask

Note: Record any IP addresses, DNS settings, or WINS entries that you change. You may need to restore them later to connect to another network.

7. Disable DNS service as follows:
 - *Windows 95, 98, and Me*: Click the **DNS Configuration** tab. Verify that the **Disable DNS** radio button is selected.
 - *Windows NT*: Click the **DNS** tab.
 - If any IP addresses appear under DNS Service Search Order, make a note of them in case you need to restore them later.
 - Select each IP address in turn and click the **Remove** button.
8. Disable WINS Resolution as follows:
 - *Windows 95, 98, and Me*: Click the **WINS Configuration** tab. Verify that the **Disable WINS Resolution** radio button is selected.
 - *Windows NT*: Click the **WINS Address** tab.
 - If any IP addresses appear for the Primary and Secondary WINS servers, make a note of them in case you need to restore them later.
 - Clear each server entry.
 - Clear the checkbox for **Enable DNS for WINS Resolution**.
9. Click OK twice to accept the address information and close the Network dialog box.
10. Reboot the system if directed to do so.

Disable proxies in browser

Begin

If you are connecting a laptop directly to the customer's LAN, you must disable proxies as described below.

To check or change proxy settings:

1. Open your Internet browser.
2. Verify that you have a direct connection with no proxies as follows:
 - **Internet Explorer**
 - a. Select **Tools > Internet Options**.
 - b. Click the **Connections** tab.
 - c. Click the **LAN Settings** button.
 - d. Deselect **proxy server** if selected, and click **OK**.
 - e. Click **OK** again to close the Internet Options dialog box.
 - **Netscape**
 - a. Select **Edit > Preferences**.
 - b. Under Category, click **Advanced**.
 - c. Click **Proxies**.
 - d. Make sure **Direct connection to the Internet** is selected.
 - e. Click **OK**.

Verify That the tftpboot Directory Has the Right Firmware Versions

Begin

The G700 Media Gateway firmware should be stored in the C:/tftpboot or other directory you created on your laptop or on the customer's PC, whichever has the TFTP server software running for the download of firmware. You should check this directory to make sure the firmware version match those listed in the Release Letter.

Note: Leave the login session up with the G700 Media Gateway while you check for available firmware.

- Check the list of files to ensure that the version numbers match those of the Release Letter.

Use the following legend to help understand which files are for the different G700 Media Gateway components.

Note: You are unlikely to need all of the files. If the customer does not have a particular media module, you will not need to load the file.

Component	Firmware Version Format	Example
P330 Stack Processor	viisa<version id>	
P330 Stack Processor	p330<version id>	p330Tweb.3.8.6.exe
G700 Media Gateway	mgp<version id>	mgp_3_0.bin
VoIP Media Module and Motherboard VoIP	mm760<version id>	mm760v3.fdl
DCP Media Module	mm712<version id>	mm712v2.fdl
Analog Port/Trunk Media Module	mm711<version id>	mm711v4.fdl
T1/E1 Media Module	mm710<version id>	mm710v3.fdl
BRI Media Module	mm720<version id>	mm720v2.fdl

Install New Firmware on the G700 Media Gateway

To load new firmware for the G700 Media Gateway and the Media Modules, you will first need to transfer the new firmware files to the G700 Media Gateway using the TFTP server on your laptop or the customer's PC. Consult the Release Letter for the most recent information and instructions for upgraded firmware.

Connect Laptop to the Customer's LAN (If Laptop Has the TFTP Server)

Begin

If the TFTP server software and the firmware files reside on your laptop, you must connect your laptop to the customer's LAN. This connection requires that a customer LAN port is close to the location of the G700.

- Ask the customer's LAN administrator to give you a static IP address administered on the customer's LAN. Your laptop may also be give an address through a Dynamic Host Configuration Protocol (DHCP) service on the customer's LAN. Ask the customer how they want to make the connection.

Install New Firmware for the P330 Stack Processor (Layer 2 Switching Processor)

Begin

1. If the TFTP Server software and G700 firmware files reside on a PC already connected to the customer's LAN, get the IP address of this PC from the customer.
2. If necessary, connect an Ethernet cable to one of the two 10/100Base-T Ethernet interfaces in the bottom center of the G700 chassis. Either port EXT 1 or EXT 2 can be used.
3. Connect the other end of the Ethernet cable to an Ethernet Layer 2 switch to connect the G700 and its media modules to the corporate network. LAN topology varies per location.
4. On your laptop, return to the HyperTerm window. At the **MG-*mmm-n*(config)#** prompt, type **exit** and press **ENTER**.

The **P330-1(configure)#** prompt appears.

Note: If necessary, open the HyperTerm window, and login to the P330 Stack Processor command line interface.

5. At the **P330-1(configure)#** prompt, type

```
copy tftp SW_image<file> EW_archive <ew_file>
<tftp_server_address> <Module#>
```

where

<file> is the image file with format and vintage number similar to `viisa3_8_2.exe`,
<ew_file> is an embedded web application file with format similar to `p330Tweb.3.8.6.exe`,
<tftp_server_IP_address> is the IP address of the laptop or PC with the TFTP server, and
<Module#> is the number, 1 through 10, of the media gateway in the stack. If there is only one G700 Media Gateway, the number is **1**.

6. Verify that the download was successful when the prompt returns. Type `show image version`.
7. Type `reset <module#>`

The P330 Stack Processor resets. The LEDs flash and self-tests run.

End

Install New Firmware Files to the G700 Media Gateway Processor

Begin

1. At the **P330-1(configure)#** prompt, type `session mgp` to reach the G700 Media Gateway processor.
2. Type `configure` at the **MG-001-1(super)#** prompt to enter configuration mode, which will change the prompt to **MG-001-1(configure)#**.
3. At the **MG-001-1(configure)#** prompt, type `show mgp bootimage` to determine which disk partition (bank) is Active Now. You will update the bank that is *not* listed as Active Now. For example, if the G700 vintage listed when you performed [“Determine Necessary Firmware to Install on the G700” on page 225](#) showed **A**, you will upgrade **B**.

- At the **MG-001-1(configure)#** prompt, type
`copy tftp mgp-image <bank> <filename> <tftp_server_ip_address>`

to transfer the mgp image from the tftp server to the G700, where
 <bank> is the bank that is *not* Active Now.

<filename> will begin with mgp and will be similar to a name like mgp_230_0.bin.
 <tftp_server_IP_address> is the IP address of the laptop or customer PC. See the following
 example:

```
copy tftp mgp-image a mgp_230_0.bin 195.123.49.54.
```

The screen will show the progress.

- Verify that the download was successful when the prompt returns.
 Type `show mg list_config`.

The list of software appears.

Figure 104. Configuration List for G700 Media Gateway

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

- Type `set mgp bootimage <bank>`. <bank> is the same letter you entered in [step 4](#).
- At the **MG-001-1(configure)#** prompt, type `reset mgp`.

A system prompt asks to confirm the reset.

- Select **Yes** at the dialog box that asks if you want to continue.

The G700 Media Gateway processor will reset. The LEDs on the G700 Media Gateway and the Media Modules will flash. These elements will each conduct a series of self-tests. When the LEDs on the Media Modules are extinguished and the active status LEDs on the G700 Media Gateway are on, the reset is complete.

End _____

Install New Firmware on Media Modules

Begin

1. Be sure that you have checked for the current vintage of the VoIP Module for the v0 slot (on the G700 motherboard) (see “[Determine Necessary Firmware to Install on the G700](#)” on page 225). This VoIP module does not occupy a physical position like other Media Modules.
2. At the **P330-1(configure)#** prompt, type `session mgp`.
3. At the **MG-001-1 (super) #** prompt, type `configure` to reach the configuration level of the command line interface.
4. Type `copy tftp mm-image v<slot #> <filename mm> <tftp_server_ip_address>` where <slot #> is the slot of the specific media module as identified when you performed “[Determine Necessary Firmware to Install on the G700](#)” on page 225, <filename mm> is the media module software in a format such mm712v58.fdl, and <tftp_server_ip_address> is the ip address of the laptop or customer PC.

Two or three minutes will be required for most upgrades. The VoIP Media Module upgrade takes approximately 5 minutes. Screen messages indicate when the transfer is complete.

5. At the **MG-???-1 (configure) #** prompt, type `show mg list_config`

The list of software appears.

SLOT	TYPE	CODE	SUFFIX	HW VINTAGE	FW VINTAGE	VOIP FW
v0	G700	DAF1	A	00	230(B)	67
v1	ICC	S8300	A	72	86	N/A
v2	DCP	MM712	A	2	58	N/A
v3	ANA	MM711	A	2	57	N/A
v4	DS1	MM710	A	1	58	N/A

6. Refer to the output of [step 5](#). In the TYPE column, find the particular media module (v2 through v4), then check the matching field in the FW VINTAGE column to see if it matches the Release Letter.
7. Refer again to the output of [step 5](#). Check the VOIP FW column and row for slot v0 to see if the number matches the VoIP firmware identified in the Release Letter.

End

Install New Firmware on Other G700 Media Gateways (Stack Configuration)

Begin

If the customer has multiple G700 media gateways connected in an IP stack, you can stay connected to the master G700/P330 and "session" over from the master P330 stack processor to the next G700 in the stack. If you are dialed in remotely, you should have automatically dialed in to the stack master. For a local installation, you should have plugged your laptop into the stack master P330, which you can identify by the LED panel on the upper left of each G700 or P330 device in the stack. The LEDs signal as follows:

- On the G700 Media Gateway: a lit **MSTR** LED indicates that this unit is the stack master.
- On the P330 device: a lit **SYS** LED indicates that this unit is the stack master.

The G700 and P330 at the bottom of the stack is module number 1, the next module up is number 2, and so on. However, the stack master can be any module in the stack, depending on the actual model, the vintage firmware it runs, and whether the S8300 is inserted into it.

Note: You do not need to configure the other P330 processors in the stack. These will use the IP address and IP route of the master P330 stack processor. However, you will need to check firmware on all devices of the other G700s in the stack, including the media gateways themselves, and update the firmware as required.

You may also use the "session stack" command to access extra standalone P330 processors in the stack (those that are not part of a G700 unit).

1. At the **MG-001-1(configure)#** prompt, type **session stack**

The P330 configure prompt appears.

2. At the **P330-1(configure)#** prompt, type `session <mod_num> mgp`

`<mod_num>` is the next P330 processor in the stack. If you are currently logged in to the master stack processor, `<mod_num>` would be **2**, for the second G700/P330 processor in the stack.

3. Repeat the steps in ["Install New Firmware on the G700 Media Gateway" on page 231](#) for other G700 Media Gateways in the stack.

End

Install New Firmware on Other G700 Media Gateways (Remote, No Stack Configuration)

Begin

If additional G700 media gateways are supported in the configuration, but they are not attached as a stack, then you must configure each G700, with all of its devices, including the P330 processors. Additionally, you must check firmware and update the firmware as required.

1. Repeat the steps in the section ["Install New Firmware on the G700 Media Gateway" on page 231](#) for other G700 Media Gateways in the configuration.

7 Connecting Telephones and Adjunct Systems

To administer dial plans and trunks and other features, you will use Avaya MultiVantage Software, as usual. Consult the *Administrator's Guide for Avaya MultiVantage™ Software*, 555-233-506.

Your planning documentation specifies the equipment you will be installing. To locate installation instructions, use the documentation indicated below.

⚠ WARNING:
To reduce the risk of fire, use only 26 AWG or larger telecommunication line cords when installing telephones or adjuncts.

⚠ WARNING:
Attention: Pour réduire les risques d'incendie, utiliser uniquement des conductors de télécommunications 26 AWG ou de section supérieure.

Installation and Wiring Telephones and Power Supplies

The wiring procedures are the same for most Avaya telephones and other equipment.

This section provides wiring examples of similar installation procedures. These are examples only; actual wiring procedures may vary at each site. For a complete description of wiring procedures, refer to *Installing an Avaya™ S8700 Media Server with MCC1 or SCC1 Media Gateway, Installing and Wiring Telephones*. This reference will be located on the *Avaya S8300 and S8700 Media Server Library CD*, 555-233-825.

After installing the hardware, the data for the telephone features must be administered. These procedures are provided in the *Administrator's Guide for Avaya MultiVantage Software*.

Refer to the *Installation for Adjuncts and Peripherals for Avaya MultiVantage Solutions, on the Avaya S8300 and S8700 Media Server Library CD*, 555-233-825, to install the necessary peripheral equipment.

Connectable Telephones and Consoles

Table 14 lists the telephones and consoles supported by the Avaya S8300 Media Server with G700 Media Gateways (consult: <http://support.avaya.com>).

Table 14. Connectable Telephone and Consoles

Telephone and Console Models	Type
46xx series: 4602, 4606, 4612, 4620, 4624, 4630	Internet Protocol (IP)
2420	Digital
64xx series: 6402, 6402D, 6408D+, 6416D+M, 6424D+M	Digital
603F Avaya Callmaster IV	Digital
607A Avaya Callmaster V ACD Console	Digital
606A Avaya CallMaster VI ACD Console	Digital
Enhanced Attendant Consoles: 302D	Digital
62xx series: 6211, 6219	Analog
2500, 2554	Analog
9040 Avaya TransTalk	Wireless
3127 Avaya Soundstation/SoundPoint Speakerphones: 3127-ATR, -STD, -EXP, -APE, -APX, -MIC, -PMI	Analog
3127 Avaya Soundstation/SoundPoint Speakerphones: 3127-DCP, -DCS, -DCE, -DPE, -DPX, -DDP, -DDX, -MIC, -PMI	Digital

In addition, the S8300 Media Server supports the following adjunct systems or devices:

- [“IA 770 INTUITY AUDIX Messaging Application”](#)
- [“INTUITY AUDIX LX Messaging System”](#)
- [“ASAI Co- Resident DEFINITY LAN Gateway \(DLG\)”](#)
- [“Call Center”](#)
- [“Avaya VisAbility Management Suite”](#)
- [“Uninterruptible Power Supply \(UPS\)”](#)
- [“Universal Serial Bus \(USB\) Modems”](#)

Connect Telephones

Various analog, digital, and IP telephones can be connected to the Media Gateway. Typical examples of these procedures follow:

- [“Connect Adjunct Power”](#)
- [“Connect an Analog Station or 2-Wire Digital Station”](#)

Connect Adjunct Power

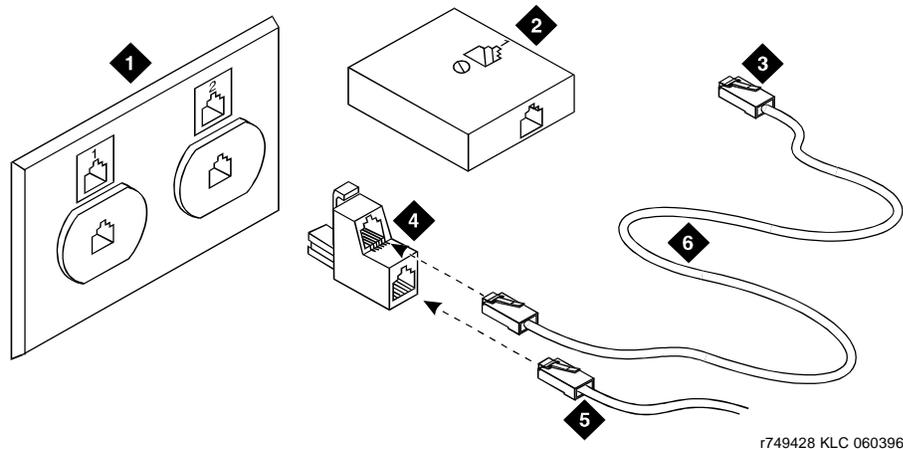
The 400B2 adapter is convenient for connecting local -48 VDC power to a modular plug. See “[400B2 Adapter Connecting to a Modular Plug](#)” on page 239.

Each port network can provide power for up to three attendant consoles. This source of power is preferred for the attendant consoles because it has the same battery backup as the G700 Media Gateway.

Adjunct power can be provided locally at the telephone or console by either the 1151A1 or 1151A2 power supply. The 1151A1 is a standard (no battery backup) power supply unit. The 1151A2 is a battery backup version of the 1151A1. Either power supply can support one telephone with or without an adjunct. The maximum loop range is 250 feet (76 meters). Two modular jacks are used. Power is provided on the PHONE jack, pins 7 and 8 (- and +, respectively). Adjunct power can be provided from the equipment room or equipment closet with the 1145B power unit.

Refer to *Installing the Avaya™ S8700 Media Server with G600 Media Gateway, on the Avaya S8300 and S8700 Media Server Library CD, 555-233-825*, for detailed power supply information and installation procedures.

Figure 105. 400B2 Adapter Connecting to a Modular Plug



r749428 KLC 060396

Figure notes

- | | | | |
|---|------------------------------------|---|--|
| 1 | Flush-Mounted Information Outlet | 4 | 400B2 Adapter |
| 2 | Surface-Mounted Information Outlet | 5 | To Telephone |
| 3 | To Individual Power Unit | 6 | Destination Service Access Point (DSAP) Power Cord |

Connect an Analog Station or 2-Wire Digital Station

This example is typical of the 2-wire digital stations (2420, 64xx, 302D), 2-wire analog stations (2500), analog Central Office (CO) trunks, Direct Inward Dial (DID) trunks, and external alarms.

1. Choose a peripheral to connect (such as a 2-wire digital station).
2. Choose the Media Module to use and its Media Gateway and slot number; for example, MM711 Analog Media Module, Media Gateway 002, Slot V2.
3. Choose a port circuit on the MM711 Media Module; for example, port 03.
4. Install cross-connect jumpers to connect the pins from the 2-wire digital station to the appropriate pins on the MM711 Media Module. [Table 15](#) shows a pinout chart for two-wire stations.

Table 15. Two-Wire Station Pinout Chart

Jack Name	1	2	3	4	5	6	7	8
BRI-T			+TX	+RX	-RX	-TX	-V	GND
ADJUNCT	+Vadj	T0	-V	GNDVoice	RRVoice	+V	S0	TTVoice
DSS (QUEST)	DTX		DRX			OKdig	-V	+V
DSS (ISDN)								
BRI-A			GND	TX	RX	-V		
BRI-U				TX	RX		-V	GND
DCP	TX1	TX2	RX1			RX2	-V	+V
ANALOG				TIP	RING			
HANDSET			-TX	+RX	-RX	+TX		

5. Administer using *Administrator's Guide for Avaya MultiVantage Software*.

Figure 7. 2500-Type Analog Telephone Wiring

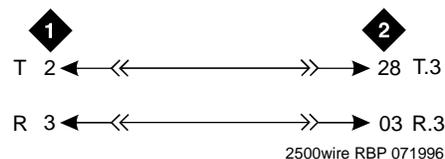


Figure notes

- 1 2500-Type Analog Station
- 2 MM711 Analog Media Module, Position 1V301

Complete the Telephone Installation Process

Consult the planning documentation to obtain the necessary information to complete the installation. Part of the final process will be to:

- Complete the electrical installation
- Enable adjunct systems

Install the Coupled Bonding Conductor

The Coupled Bonding Conductor (CBC) provides mutual inductance coupling between the CBC and the telephone cables that are exposed to lightning. The conductor can be a 10 AWG (4 mm²) wire tie wrapped to the exposed cables, a metal cable shield around the exposed cables, or six spare pairs from the exposed cable. In a high-rise building, connect the CBC to an approved building ground on each floor.

Before you begin, be sure the telephone lines are cross-connected to the appropriate media module(s).

Install the CBC

Begin _____

1. Connect one end of the conductor to a telephone cable building entrance protector ground that is connected to an approved ground.
2. Route the rest of the conductor next to the exposed telephone cables being protected until they reach the cross-connect nearest to the telephone system.
3. Terminate the other end to the single-point ground block provided for the telephone system.

End _____

Note: Position the non-exposed telephone cables at least 12 inches (30.5 cm) away from exposed telephone cables whenever possible.

Install Circuit Protection

Over-voltage and sneak fuse protection measures are necessary for the safe operation of the G700 Media Gateway system.

Over-Voltage and Sneak-Current Protection

Out-of-building installations of telephones or other standard (tip/ring) devices/terminals that connect to the Avaya G700 Media Gateway Media Modules require over-voltage and sneak current protection at both building entry points. Sneak current protectors must have a maximum of 350 mA and a minimum voltage rating of 600V. The following devices have been evaluated or tested and approved to protect the Media Modules from over-voltages and sneak current protection:

- Avaya MM712 DCP: either 146E IROB (In-Range Out-of-Building) or 4C3S-75 solid state protectors for surge and sneak current.
- Avaya MM710 T1/E1: over-voltage and sneak protection for the Avaya MM710 T1/E1 Media Module is provided on the Media Module itself.
- Avaya MM711 Analog: analog trunks use the 507B or 110-SCP-9 sneak current protectors. Over-voltage protection is normally provided by the local telephone company. Analog voice terminals use one of the following types of combined over-voltage and sneak current protection:
 - Gas tube with heat coil: 4B1E-W
 - Solid state with heat coil: 4C1S
 - IROB: 146C (4-lines) or 146F (25-lines)



WARNING:

Only service-trained personnel are to install these circuit protection devices.

IA 770 INTUITY AUDIX Messaging Application

Note: For complete information on IA 770 INTUITY AUDIX Installations, including the S8300 hard drive replacement, see the IA INTUITY AUDIX documentation on the *G700 Media Gateway and S8300 Media Server Documentation* CD-ROM, 555-234-800, or the *IA 770 INTUITY AUDIX Messaging Application Installation Checklist and Instructions*, 585-313-159. Both of these documents are included in the IA 770 INTUITY AUDIX Messaging Application Technician Kit.

The IA 770 INTUITY AUDIX Messaging Application runs only on a G700 Media Gateway controlled by an S8300 Media Server.

Shared Resources of Coresidency

Because it is coresident on the S8300, the INTUITY AUDIX system uses many of the S8300 resources for call processing, data storage, and access and use of administrative tools. Specifically, the INTUITY AUDIX system uses the following:

- The S8300 hard drive for data storage and retrieval
- The S8300 TFTP server
- License file downloads and updates
- Backup and restore of data
- Software updates and upgrades
- The IP address of the S8300 for remote administration access and TCP/IP networking functions such as Digital Networking, Message Manager, and Internet Messaging.
- The S8300 license file for feature activation
- The S8300 General Alarm Manager for alarm display

As a result, the administrator administers some functions of the INTUITY AUDIX system by directly administering the INTUITY AUDIX application, while the administrator administers other functions of the INTUITY AUDIX system by administering the S8300 platform. To access the INTUITY AUDIX administration screens and web pages, you simply click on the **Messaging Administration** link from the S8300 Main Menu.

CWY1Board and Software

The INTUITY AUDIX system software is loaded directly onto the S8300 hard drive. The INTUITY AUDIX system also requires the use of a CWY1 board. This board connects directly to the S8300 processor through the S8300 Time Division Multiplexing (TDM) bus. Once installed, this board hosts portions of the INTUITY AUDIX platform software. INTUITY AUDIX uses this board to convert messages to the code-excited linear prediction (CELP) format, convert text to speech, and process touchtones.

No Data Link and No Voice Ports to Connect

In earlier versions of INTUITY AUDIX that ran on a separate PC connected to a switch, the voice communication (messages, announcements, greetings, and so on) occurred over analog voice ports, while control messages (timestamps, called and calling party data, message-waiting signals, and so on) occurred over a data link on the LAN or through X.25 protocol connections.

Since the IA 770 INTUITY AUDIX system runs on a CWY1 circuit board that you plug directly into the S8300 processor, the analog voice ports and the data link do not use physical ports. Instead, the INTUITY AUDIX software and the switch software send voice signals to one another using virtual ports over the TDM bus connection of the CWY1 board and processor board.

AUDIX Hunt Group Still Necessary

The logic of voice ports, however, remains the same. This logic means that an INTUITY AUDIX hunt group must still be defined with 4 or 8 virtual voice ports and extension numbers. Other switch administration tasks that are associated with proper hunt group functions, such as creating COR, COS, and coverage paths, are also required. The S8300 and INTUITY AUDIX software applications send control messages to each other by using the same shared S8300 processor, and therefore, administration of a data link is not required.

IA 770 INTUITY AUDIX Installations and S8300 Upgrades for IA 770 INTUITY AUDIX

To install an IA 770 INTUITY AUDIX system, you must install the CWY1 board and install the INTUITY AUDIX software. The INTUITY AUDIX software is included in the S8300 software load (the **.tar** file), but it must be installed using INTUITY AUDIX installation tools.

To install the IA 770 INTUITY AUDIX system on an S8300 Release 1.1 system, you must first replace the hard drive of the S8300 and upgrade the S8300 software first. The hard drive replacement requires a backup of translations to your laptop and a subsequent restore of translations.

For complete information on IA 770 INTUITY AUDIX Installations, including the S8300 hard drive replacement, see the IA INTUITY AUDIX documentation on the *G700 Media Gateway and S8300 Media Server Documentation* CD-ROM, 555-234-800, or the IA 770 INTUITY AUDIX Messaging Application Installation Checklist and Instructions, 585-313-159. Both of these documents are included in the IA 770 INTUITY AUDIX Messaging Application Technician Kit

INTUITY AUDIX LX Messaging System

The process of integrating an INTUITY AUDIX LX system with an Avaya S8300 Media Server involves a series of tasks to prepare the switch to work with the INTUITY AUDIX LX system.

The procedures for this process are fully documented in *INTUITY™ AUDIX® LX Release 1.0 Documentation*, 585-313-818. The information is contained in a document with the title INTUITY™ AUDIX® LX Release 1.0 LAN Integration with S8300 and DEFINITY® Systems.

ASAI Co- Resident DEFINITY LAN Gateway (DLG)

The DEFINITY LAN Gateway (DLG) is an application that enables communications between TCP/IP clients and Avaya MultiVantage Software call processing. In more technical terms, the DLG application is software that both routes Internet work messages from one protocol to another (ISDN to TCP/IP) and bridges all ASAI message traffic (by way of a TCP/IP tunnel protocol).

The DLG listens for client connections (a specific IP Address) over a well-known TCP port (5678). The client accesses the DLG's services by connecting to TCP port 5678 at the IP address of the DLG's Ethernet interface, which can be a MAPD (TN801B), a Processor (TN2314), or a C-LAN (TN799). The client then exchanges TCP Tunnel Protocol messages with the DLG to request a connection to a specific CTI link. The DLG authenticates the client based on its administration and then establishes or refuses the connection. Once a connection is established, the ASAI layer 3 messages are transparently passed through the DLG (that is, the DLG does not process any message content). Each TCP connection to the DLG has a one-to-one correspondence with a CTI link.

The DLG application is packaged either **externally** on a separate circuit pack (the TN801 MAPD circuit pack) or **internally**, where it co-resides with MultiVantage Software. The externally packaged DLG is referred to as the **MAPD DLG**, and the internally packaged DLG is referred to as the **Co-Resident DLG**. The Co-Resident DLG and the MAPD DLG accomplish the same basic function (ASAI to Ethernet transport).

The Co-Resident DLG is application software that co-resides with Avaya MultiVantage Software on the Media Server running MultiVantage. No physical installation or MAPD-specific administration is required for the Co-Resident DLG. In terms of switch-based connectivity, the Co-Resident DLG is supported by the following platforms:

- Avaya MultiVantage Software S8100 Media Server configurations (formerly DEFINITY ONE and IP600)
- Avaya S8300 Media Server with Avaya G700 Media Gateway

Administration of the Co-Resident DLG is carried out on the switch using the **change ip-services SAT** command. When the service type DLG is specified on the IP Services form, the DLG administration page displays. The Co-Resident DLG does not rely on ports. Port allocation is not required for administering the Co-Resident DLG.

For Avaya S8100 Media Server configurations, the Co-Resident DLG can use the C-LAN (TN799), the Processor Card (TN2314), or both as its Ethernet interface. For Avaya S8300 Media Server with Avaya G700 Media Gateway, the Co-Resident DLG relies on the S8300 Media Server for Ethernet connectivity.

Administration Task Summary (for the S8300 Media Server)

On the SAT interface of the S8300 Media Server with G700 Media Gateway, follow these steps:

1. Type **display system-parameters customer-options**. Go to page 4 and make sure that Processor Ethernet is enabled.
2. Type **display ip-interfaces**, and make sure the PROCR is administered and its Ethernet port is enabled. If the PROCR is not listed (PROCR should appear in the Type option field), add the PROCR.

To administer CTI links:

1. Use the **display system-parameters customer-options** command and make sure the following option is set to yes:

```
Co-Res DEFINITY LAN GATEWAY    (y)
```

2. Use the **add cti-link** command to administer a CTI link.
3. Use the **change ip-services** command and specify a Service Type of **DLG**.

When Service Type **DLG** is entered, the system adds a DLG Administration page as the last of the form.

4. Complete the DLG Administration page to add your client information.

Note: A CTI link must be administered before a link number can be entered. For more information and detailed procedures, refer to "Avaya MultiVantage™ Release 11 CallVisor® ASAI Technical Reference, 555-230-220".

Supported Ethernet Interfaces

Table 16 summarizes Ethernet interfaces used by several current switching platforms:

Table 16. Ethernet Interfaces

Platform	Processor Ethernet Interface?	C-LAN (TN799) Ethernet Interface
DEFINITY Servers csi, si, and r	No	Yes
Avaya S8100 Media Server (formerly DEFINITY ONE/IP600)	Yes	Yes
Avaya S8300 Media Server with Avaya G700 Media Gateway	Yes	No

Call Center

The S8300 Media Server provides an excellent solution for a small call center. The S8300 Media Server with the G700 Media Gateway supports the following call center capabilities:

- All three Avaya call center packages:
 - Avaya Call Center Basic
 - Avaya Call Center Deluxe
 - Avaya Call Center Elite
- Up to 250 agents
- A maximum of 16 ASAI links
- Avaya G700 announcement software

Avaya G700 Announcement Software

Voice announcements are used in a call center environment to announce delays, direct customers to different departments, and entertain and inform calling parties. The announcement capability is standard and comes co-resident on the G700. The G700 announcement software has many of the functionalities of the TN2501AP VAL circuit pack.

See [Table 17](#) for differences between the Avaya G700 Announcement software and the VAL circuit pack. For more information on Avaya G700 Announcement software, see the *Administrator's Guide for Avaya MultiVantage™ Software, 555-233-506, Chapter 13, "Managing Announcements"*.

Table 17. Comparison between the G700 Announcement software and the VAL circuit pack

Area description	TN2501AP (VAL) circuit pack	Avaya G700 announcement software
Requires hardware	Yes	No
Maximum storage time per board for TN750 or TN2501AP	Up to 60 minutes at 64 Kbps sample rate	Up to 20 minutes at 64Kbps uncompressed speech
Concurrent Calls per Announcement	50 when using a DEFINITY Server SI or DEFINITY Server CSI 1,000 when using the DEFINITY Server R or S8700 Media Server	1,000
Backup and restore over LAN	Yes	Yes
Recording Method	Use PC or telephone	Use PC or telephone

1 of 2

Table 17. Comparison between the G700 Announcement software and the VAL circuit pack *Continued*

Area description	TN2501AP (VAL) circuit pack	Avaya G700 announcement software
File portability to multiple DEFINITY or MultiVantage servers	Yes	Yes
Playback quality	Toll quality	Toll quality
Backup speed	2.6 seconds for each 60 seconds of announcement time	2.6 seconds for each 60 seconds of announcement time
Reliability	High	High
Firmware downloadable	Yes	Yes
Number of boards per system	5 on the DEFINITY [®] CSI and DEFINITY SI 10 on the DEFINITY R and S8700 Media Server	10 per configuration
Announcements per board	256	256
Maximum number of announcements in a configuration	128 DEFINITY Server CSI or DEFINITY Server Si 1,000 DEFINITY Server R 3,000 S8700 Media Server	3,000 over multiple G700 Media Gateways
Format	CCITT A-law or u-law	CCITT A-law or u-law
Sample bits	8	8
Sample rate	8,000 KHz	8,000 KHz
Channels	Mono	Mono

2 of 2

Avaya VisAbility Management Suite

Avaya VisAbility Management Suite provides a comprehensive set of network and system management solutions for the converged voice and data environment. Avaya VisAbility Management Suite is available in several different offers. Each offer includes an appropriate set of applications to meet different business needs. Contact your client executive to learn which offer best meets the needs of your enterprise.

Avaya VisAbility Management Suite architecture provides standards-based infrastructure for integrated management applications. The individual applications over time will become integrated with a common look and feel. The available products include:

- “Avaya ATM WAN Survivable Processor Manager”
- “Avaya Directory Enabled Management”
- “Avaya MultiService Network Manager”
- “Avaya MultiService SMON Manager”
- “Avaya MultiVantage Fault and Performance Manager”
- “Avaya MultiVantage Proxy Agent”
- “Avaya MultiVantage Configuration Manager”
- “Avaya Site Administration”
- “Avaya Terminal Configuration”
- “Avaya Terminal Emulator”
- “Avaya Voice Announcement Over LAN Manager”
- “Avaya VoIP Monitoring Manager”

Avaya ATM WAN Survivable Processor Manager

Avaya ATM WAN Survivable Processor Manager is a Windows (98/NT/2000) client/server software tool with which administrators can upload translations from a main Media Server to the Avaya ATM WAN Survivable Processor Manager workstation. Once translations are uploaded, administrators can then download them from the workstation to a maximum of 15 separate ATM WSP Media Servers via LAN connectivity.

Avaya Directory Enabled Management

Avaya Directory Enabled Management is a web-based software solution that provides real-time Directory-based (LDAP) read/write access to Media Servers. Avaya Directory Enabled Management provides the capability to keep data, such as station and subscriber data, synchronized with its image in the LDAP data store, and provides a rules engine that facilitates the management of these servers/applications, based on events (add/delete/modify) that take place at servers or applications. Currently, Avaya Directory Enabled Management operates only with Microsoft Internet Explorer.

Avaya MultiService Network Manager

Avaya MultiService Network Manager provides customers with either a standalone product or one that can integrate with the HP OpenView NMS, and includes applications that allow customers to manage network devices. These applications include:

- Avaya MultiService Address Manager — displays a centralized list of hosts in the network, and correlates among IP addresses, MAC addresses, and device port connectivity.
- Avaya MultiService Configuration Manager — provides quick network setup and installation, fast recovery for faulty devices, downloading/uploading configuration data, backup of configuration files, and export of configuration files to other sources for reporting or analysis.

Accessible from within Avaya MultiService Configuration Manager, Avaya MultiService EZ2Rule Manager is a campus-wide application that provides Quality of Service (QoS) management for small sites with limited bandwidth resources. In addition, Avaya MultiService EZ2Rule Manager enables the user to preview the application of new rules before network deployment, ensuring accurate and consistent deployment of priorities in the network.

- Avaya MultiService Console — provides the discovery of IP-enabled devices, hierarchical map representation, device status, fault monitoring, and a launch point for device managers.
- Avaya MultiService Software Update Manager — downloads software to managed Avaya MultiService devices, and performs all necessary software maintenance operations. These operations include checking current software versions against the latest versions available from the Avaya Web site, recommending updates, and providing an inventory of Avaya MultiService data devices residing on the network.
- Avaya MultiService VLAN Manager — a graphical application for VLAN management that allows for configuration and monitoring of VLAN use. Avaya MultiService VLAN Manager assigns and maintains VLAN numbering and naming, tracks additions and changes to the network, validates VLAN name and tag values, and monitors the number of VLANs in order to assist in maintenance tasks.

Avaya MultiService Network Manager supports converged network environments composed of multi-vendor equipment from key vendors and will be enhanced to support all Avaya IP voice systems and data devices to create a full convergence solution.

Avaya MultiService SMON Manager

Avaya MultiService SMON Manager monitors the Ethernet and provides complete visibility of all switched traffic in the network. Although SMON Manager is an application provided with Avaya MultiService Network Manager, SMON Manager requires a license key before it can be used.

Avaya MultiVantage Fault and Performance Manager

Avaya MultiVantage Fault and Performance Manager operates standalone or with Avaya MultiService Network Manager and/or HP OpenView to provide a network map or system view of a converged network. Use it to view fault and performance data, busyout boards and ports, acknowledge exceptions, and configure collection times and information.

Avaya MultiVantage Proxy Agent

Avaya MultiVantage Proxy Agent is the SNMP proxy agent that provides an interface to Media Servers running DEFINITY® Release 9 software through and including Avaya MultiVantage software. Avaya MultiVantage Proxy Agent provides a protocol conversion between the proprietary OSSI protocol and SNMP.

Avaya MultiVantage Configuration Manager

Avaya MultiVantage Configuration Manager allows you to administer Media Servers running DEFINITY® Release 9 software through and including Avaya MultiVantage Software. Multiple administrators can access multiple Media Servers. Administrators can perform station moves/adds/changes, print button labels, as well as many other common administrative activities. Avaya MultiVantage Configuration Manager provides a web-based Graphical User Interface (GUI) client that runs in the supported browsers and allows administrators access MultiVantage from any workstation on the network.

Avaya Site Administration

Avaya Site Administration is a PC-based Windows (98/NT/2000) tool that lets you administer Media Servers running DEFINITY® Release 9 software through and including Avaya MultiVantage Software, and AUDIX Messaging Systems. Avaya Site Administration simplifies administration with an easy-to-use interface that offers wizards and GEDI (Graphically Enhanced DEFINITY Interface), as well as terminal emulation.

Avaya Terminal Configuration

Avaya Terminal Configuration is a new web-based client application that allows end users to access Media Servers in order to configure personal station set preferences and features. Avaya Terminal Configuration runs on top of Avaya Directory Enabled Management software, and therefore requires that Avaya Directory Enabled Management software be installed.

Avaya Terminal Emulator

Avaya Terminal Emulator is a Windows (98/NT/2000) application that provides direct connectivity capabilities. It can be run either as a standalone application or run from Avaya Site Administration. Avaya Terminal Emulator includes the following features:

Connection List — lets you store and organize information about the systems to which you regularly connect and allows you to connect to them by double-clicking.

FTP Manipulator — lets you transfer files to and from your computer to a remote system.

Icon Manager — lets you assign functionality to icons that come as part of Avaya Terminal Emulator or to your own icons.

Telnet connection — lets you launch a telnet session to remote systems that you are accessing over a LAN or WAN.

Terminal Emulator — lets you access systems using a modem, data module, PDM, or direct connection.

Avaya Voice Announcement Over LAN Manager

Avaya Voice Announcement over LAN Manager lets you use your LAN to transfer recorded announcements to the TN2501AP boards located in remote Media Servers. This product offers the following capabilities:

- View the current status of TN2501AP board announcements
- Simplified administration to add/change/remove announcements
- Copy/backup announcement files from a supported TN2501AP board to Avaya Voice Announcement over LAN Manager via a customer's LAN
- Copy/restore announcement files to a supported TN2501AP board from Avaya Voice Announcement over LAN Manager via a customer's LAN

Avaya VoIP Monitoring Manager

Avaya VoIP Monitoring Manager is Windows 2000 application that allows you to monitor real-time Quality of Service (QoS) measurements for VoIP systems. Avaya VoIP Monitoring Manager offers a client GUI accessible from your LAN or via remote access. Avaya VoIP Monitoring Manager can generate traps associated with VoIP QoS sent to any NMS, and can receive RTCP packets from IP telephones, IP soft phones, VoIP engines (on G700 Media Gateways), and Prowler boards. Avaya VoIP Monitoring Manager can operate as a standalone application, or it can be integrated with Avaya MultiService Network Manager.

Uninterruptible Power Supply (UPS)

Several varieties of the Avaya Uninterruptible Power Supply (UPS) are available. A typical example, the 700 VA 120 V Online UPS provides 700 VA/490 Watts/5.8 amps at 120 Volts AC and battery holdover of 9 minutes at full load. Two optional Extended Battery Modules (EBM24) extend the run time to 156 minutes at full load. The UPS groups the six available 5-15R receptacles into two groups of three to make it possible for customers to shutdown one set of loads to allow longer run times for more critical loads during a power failure. Power management is included. The UPS chassis can be installed in a tower or mounted in a data rack. Serial interface capabilities and alarm contacts are standard.

The types of UPS units available include:

- AS1 700VA 120V Online UPS
- AS1 700VA 230V Online UPS
- AS1 700VA 100V Online UPS Japan
- AS1 700VA 200V Online UPS Japan
- AS1 1500VA 120V Online UPS
- AS1 1500VA 230V Online UPS
- AS1 1500VA 100V Online UPS Japan
- AS1 1500VA 200V Online UPS Japan

UPS add-on modules include the following:

- Extended Battery Module - EBM24 700-1000 VA
- UPS Extended Battery Module - EBM48 1500-2000 VA
- SNMP MODULE 700-2000 VA
- BYPASS DISTRIBUTION MODULE 120V 700-1500 VA
- PWR UPS BYPASS DISTR MOD S1 700 VA - 2K VA

Full Details on these units can be found in "Avaya MultiVantage Solutions Hardware Guide".

Universal Serial Bus (USB) Modems

Each S8300 Media Server requires a Universal Serial Bus (USB) modem for maintenance access and to call out an alarm. An external modem may be connected to the S8300 Media Server through a universal serial bus (USB) connection, providing dial-up access. The modem requires an analog line to the remote location.

Note: The modem type is not optional and must be the specific modem that is shipped with the S8300.

To connect the external modem to a USB port on the S8300 Media Server:

1. Connect one end of the modem's USB cable to an available USB port on the S8300 Media Server's faceplate. Either USB1 or USB2 can be used.
2. Connect the other end of the cable to the external modem.
3. Connect the modem to an analog line.

Note: The modem that is shipped with the S8300 obtains its power from the ISB interface. There is no power connection.

4. Verify operation as instructed by the modem's documentation.

Appendix A: Technical Information

This appendix collects some of the detailed technical information you will need to install the Avaya S8300 Media Server with G700 Media Gateway. More complete information can be found in “*Avaya MultiVantage™ Solutions Hardware Guide, 555-233-200*”.

Avaya G700 Media Gateway Technical Specifications

The table of technical specifications provides detailed information on the physical dimensions and tolerances of the G700 Media Gateway.

Table 18. Technical Specifications

Chassis Dimensions					
Height	2U (3.5 in)	88 mm	Depth	17.7 in	450 mm
Width	19 in	482.6 mm	Weight empty	22.25 lbs	10 kg
			Weight	34-27 lbs	16-12 kg
Required Clearances					
Front	12 in	30 cm	consistent with EIA 464 data rack standards		
Rear	18 in	45 cm			
Temperature Tolerances					
Recommended		65 to 85 deg Fahrenheit		18 to 29 deg Celsius	
Continuous operation		+41 deg F to +104 deg F		5 deg C to 40 deg C	
Humidity Tolerances					
Recommended				20 to 60% relative humidity	
Relative humidity range				5% to 95% non-condensing	
Altitude					
Recommended				up to 10,000 feet or 3,000 meters	

Cabling Equipment

The G700 Media Gateway Cables and Peripherals chart lists the types and specifications of the cables used to connect the Media Gateway. See also “Avaya™ P333T User’s Guide”.

Table 19. Media Gateway Cables and Peripherals

Cable	Description	Length	Length (metric)
X330SC Short Octaplane™ Cable (30 cm) (Catalog No. CB0223)	Short Octaplane cable - light-colored, used to connect adjacent switches or switches separated by one Backup Universal Power Supply (BUPS) unit.	12 in	30 cm
X330LC Long Octaplane Cable (2 m) (Catalog No. CB0225)	Long Octaplane cable - light-colored, used to connect switches from two different physical stacks	6 ft	2 m
X330RC Redundant Octaplane Cable (2 m) (Catalog No. CB0222)	Redundant cable - black, used to connect the top and bottom switches of a stack.	6ft	2 m
X330L-LC Extra Long Octaplane Cable (8 m) (Catalog No. CB0270)	Extra-Long Octaplane cable - light-colored, used to connect switches from two different physical stacks	24 ft	8 m
X330L-RC Long Redundant Octaplane Cable (8 m) (Catalog No. CB0269)	Long Redundant cable - black, used to connect the top and bottom switches of a stack.	24 ft	8 m
Stacking Sub-Module X330STK	Stacking Sub-Module provides two backplane links		

Appendix B: Checklists

Planning Documentation

This appendix lists necessary information for the installation of an Avaya S8300 Media Server with G700 Media Gateways.

Planning Forms List

Customer Order Information	Completed by:
General Project Information	
Site Information	
Installation Location	
Network Readiness Assessment	
System Configuration: Lines	
Extension Settings	
Auxiliary Equipment	
System Configuration: Default Settings	
System Configuration: Lists	
System Speed Dial	
Disallowed Lists	
Allowed Lists	
Hunt Groups	
Forced Account Codes	
Pool Access Restrictions	
Security Notification & Checklist	

Installer's Checklist

You have:	
	tools
	laptop with 32 MB RAM
	40 MB available disk space
	RS-232 port connector
	cross-over Ethernet cables
	direct Ethernet cable
	serial cable and adapter
	Ethernet network connection (NIC card)
	screwdriver
	software
	Windows 95/98/ME/XP/NT/2000 operating system
	FTP Program
	TFTP Program
	Telnet Program
	Terminal emulation program: HyperTerminal or other
	TCP/IP networking software: bundled with Windows OS
	Web browser: Netscape 4.7x or Internet Explorer 5.0
	Ethernet connections
	laptop default address and mask: 192.11.13.5, 255.255.255.252
	Browser: no proxies
	Terminal type: VT 100
	Communications Properties: 9600 baud rate; no parity; 8 data bits, 1 stop bit; no flow control
	SSO login
	Obtaining this login will require that you complete the authentication process. You will not be able to obtain the license file or to perform remote feature activation without the SSO login.
	dial plan
	IP addressing plan
	List of customer-provided IP services

Site Verification Information

	Conditions	Verified by	Acceptable (check)
Temperature			
Space			
Power			
Approved Ground	located within 50 ft (15 m)		
Supplementary Ground Conductor (required when Approved Ground farther than 50 ft (15 m)	licensed electrician must install		
	customer provides approved attachment to ground		

Network Set-Up Information

Serial Numbers

G700 Media Gateways:		

Logins

Name & Password	
S8300 Media Server	
P330 Stack	
G700 Media Gateway	
SSO Authentication Login	
ftp	anonymous email address
MultiVantage SAT tool	

Set-Up for P330 Stack Processor

P330 Stack Processor: IP Information

Located in G700 Media Gateway#		
Prompt: P330-1(super)# type <code>configure</code> to change prompt to: P330-1(configure)#		
Command	Requested Field	Information to be Entered
set interface inband	vlan	1
	ip address	_____
	netmask	_____
set ip route	destination	_____
	gateway	_____
set time protocol	snmp-protocol time-protocol	
set time server	ip address of time server	
set timezone	zone name	_____
	- <hours>:30 (offset from GMT)	_____

Set Up for G700 Media Gateway Processor

G700 Media Gateway 860 Processor: IP Information

G700 Media Gateway

Prompt:

MG-???-n (super)# type `configure` to change prompt to **MG-???-n (configure)#**

G700 Media Gateway

Command	Requested Field	Information to be Entered
set interface mgp	vlan	1
	ip address	_____
	netmask	_____
	gateway	_____
set hostname	hostname	_____
set ip route	destination	_____
	gateway	_____
set mgc list	ip address	_____
	ip address	_____
	ip address	_____
show system	serial number	_____

Set Up for VoIP Resources

VoIP Resources: IP Information

G700 Media Gateway #		
Command	Requested Field	Information to be Entered
set interface voip	number	v0 for resident VoIP resource of the G700
	ip address	
	number (v + slot #)	
	ip address	
	number (v + slot #)	
	ip address	
	number (v + slot #)	
	ip address	
	number (v + slot #)	
	ip address	
	number (v + slot #)	
	ip address	

G700 Media Gateway #		
Command	Requested Field	Information to be Entered
set interface voip	number	v0 for resident VoIP resource of the G700
	ip address	
	number (v + slot #)	
	ip address	
	number (v + slot #)	
	ip address	
	number (v + slot #)	
	ip address	
	number (v + slot #)	
	ip address	
	number (v + slot #)	
	ip address	

Set Up for S8300 Media Server

Location: slot #1 of G700 _____		Survivable Backup?
Web Interface: 192.11.13.6 (default)		
Screen Title	Field	Information to be Entered
Welcome	Name	
	Password	
Main Menu: left pane		
Set Time and Date	Time & Date	
Main Menu: left pane		
Configure Server		
Set Server Identities	hostname	
	ip address	
	netmask	
	gateway	
Configure VLAN	VLAN ID	
	ip address	
	gateway	
	netmask	
DNS Server Configuration	Enable/Disable DHCP	Disable
Network Time Server	Enable/Disable NTP	
	ip addresses of designated Network Time Servers	_____
	Trusted Key, Requested Key, Control Key	leave blank
	Do Not Install a New Keys File	Default
Set Modem Interface	ip address	

Installation Site Information

Site Name	Main Phone
Installation Address	
Shipping Address	
Customer Contact	Name Title Phone: FAX: Mobile: Pager: email: Off-hours contact:
Salesperson/ Account Exec	Sales/AE phone: Other Contact Info:
Notes to installer: access procedures, safety/security procedures	
Access Contact	Name Title Phone: FAX: Mobile: Pager: email: Off-hours contact:
Installer Name	
Date of Installation	

Stack Layout

Label each unit in the stack. Make photocopies if needed. There can be no more than 10 units per stack.

Media Gateway #
or P330 switch #

v1	v2
	v3
Expansion Module	v4

Media Gateway #
or P330 switch #

v1	v2
	v3
Expansion Module	v4

Media Gateway #
or P330 switch #

v1	v2
	v3
Expansion Module	v4

Media Gateway #
or P330 switch #

v1	v2
	v3
Expansion Module	v4

Media Gateway #
or P330 switch #

v1	v2
	v3
Expansion Module	v4

Media Gateway #
or P330 switch #

v1	v2
	v3
Expansion Module	v4

Appendix C: Equipment List

The following lists contain information necessary for ordering Avaya™ S8300 Media Server and G700 Media Gateway equipment.

Table 20. Equipment List: Avaya S8300 Media Server with G700 Media Gateways

Avaya G700 Media Gateway		
<p>The Avaya G700 Media Gateway is a 19-inch 2u rack-mountable device with a physical design modeled after the Avaya P330 stackable switching products. The G700 Media Gateway contains VoIP resources, a layer 2 switch, modular interface connectivity for traditional trunk and station access and performs the function of a gateway/gatekeeper. It also houses four Media Module Bays as well as a single, standard Avaya Expansion Module interface slot. The Avaya G700 Media Gateway is designed to offer options and scalability. A customer will be able to mix and match Media Modules, as well as stack and/or add additional Avaya G700 Media Gateways as they grow in size.</p>		
<p>Material Code: 170896 Apparatus Code: MGW1 Not Optional</p>		
Avaya G700 Media Gateway ComCode (for Services Ordering Only)		
ComCode	Number of Items	Description
700018534	1	AVAYA G700 Media Gateway
700017932	1	Rack mount screw set (attach ears to rack)
700021769	2	Rack Mount Ears
901342105	6	Rack Mount screw set ear to box
700051055	4	Feet
700169998	1	Tech Laptop Cable
700057060	3	Media Module Blanks
700179195	1	Avaya Expansion Blank
700179203	1	Avaya Octaplane Blank
700179526	1	Documentation, CIB 3246 FCC/Safety G700

Table 21. Equipment List: G700 Media Gateway Power Cords

G700 Media Gateway Power Cords		
Supplies Power to the G700 Media Gateway. One cord per gateway is required, and there are various cords depending on the power required for the country in which the unit will be installed.		
Material Code: 170904	Apparatus Code: none	Not Optional
When you order this material code, a descriptive attribute will be required; the attributes are:		
Attribute	Option	Comcode: Description
CRD	30	405362641: PWR CORD 9X10 IN USA 17505
CRD	31	407786623: PWR CORD 98IN EUROPE 12013S
CRD	32	407786599: PWR CORD 98IN UNITED KINGDOM 14012
CRD	33	407786631: PWR CORD 98IN AUSTRALIA 15012
CRD	34	407790591: PWR CORD INDIA P250CIM
CRD	42	408161453: PWR CORD 96IN ARGENTINA

Table 22. Equipment List: Avaya S8300 Media Server

Server		
S8300 Media Server		
<p>The Avaya S8300 Media Server is an Intel™-based server complex that carries:</p> <ul style="list-style-type: none"> *Avaya MultiVantage *administration and maintenance provisioning software *20G Hard drive *256 MB RAM *Web serve *Linux OS (Redhat v6.X) *H.248 Media Gateway Signaling Protocol *CCMS messages tunneled over H.248 Signaling Protocol *TFTP server <p>The S8300 Media Server can act as the primary server of the G700 Media Gateway, or it can serve as a local survivable backup for remote/branch customer locations.</p>		
Material Code: 170902		Optional
ComCode (for Services Ordering Only): 108919994		

Table 23. Equipment List: Media Modules

Media Modules		
Avaya MM710 T1/E1 Media Module		
<p>The MM710 T1/E1 Media Module will offer the combined features of an existing DEFINITY DS1 circuit pack and will include the following:</p> <ul style="list-style-type: none"> *A built-in CSU *AMI-BASIC *Both A-law for E1 and μ-law for T1 *Line Coding: AMI, ZCS, B8ZS for T1 and HDB3 or AMI for E1 *Stratum 3 Clock compatibility *Trunk signaling for supporting US and International CO trunks and tie trunks as currently in existence <p>The MM710 T1/E1 Media Module supports the universal DS1 conforming to 1.544 Mbps T1 standard and 2.048 Mbps E1 standard</p> <p>ISDN PRI is also supported for T1 or E1 revenue-associated option</p>		
Material Code: 170900	Apparatus Code: DMM5	Optional
ComCode (for Services Ordering Only): 108919978		
DEF DS1 LOOPBACK JACK 700A		
<i>1 of 3</i>		

Table 23. Equipment List: Media Modules *Continued*

Media Modules		
Provides the ability to remotely troubleshoot the MM 710 T1/E1 Media Module. It is required for any customer with a maintenance contract and highly recommended for any other customer.		
Material Code: 107988867	Apparatus Code: None	Required for any customer with a maintenance contract and an MM710 T1/E1 Media Module, highly recommend for other customers to avoid expensive technician visits.
MM711 Analog Media Module		
<p>The MM711 Analog Media Module supports eight analog interfaces allowing the connectivity of Loop Start, Ground Start, Analog DID trunks, and 2-wire analog Outgoing CAMA E911 trunks. As well, the MM711 Analog Media Module allows connectivity of analog, tip/ring devices such as single line telephones, modems or group 3 fax machines. Each port may be configured as either a trunk interface or a station interface.</p> <p>Also included is support for caller ID signaling, ring voltage generation for a variety of international frequencies and cadences and administrable line termination styles.</p>		
Material Code: 170899	Apparatus Code: MM711	Optional
ComCode (for Services Ordering Only): 108919960		
MM712 DCP Media Module		
<p>The MM712 DCP Media Module allows connectivity of up to 8 two-wire DCP voice terminals. MM712 will not support 4-Wire DCP telephones.</p> <p>Signal timing specifications for the MM712 support TDM Bus Timing in receive and transmit modes. The G700 Media Gateway supplies only +5 VDC and -48 VDC to the MM712 Media Module. Any other required voltages must be derived on the module.</p> <p>Loop range secondary protection is provided on the MM712. The MM712 is also self-protecting from an over current condition on a tip and ring interface.</p>		
Material Code: 170898	Apparatus Code: MM712	Optional
ComCode (for Services Ordering Only): 108919952		
MM720 BRI Media Module		

2 of 3

Table 23. Equipment List: Media Modules *Continued*

Media Modules		
<p>The MM720 BRI Media Module contains eight ports that interface to the central office at the ISDN T reference point. Information is communicated in two ways:</p> <ul style="list-style-type: none"> Over two 64 Kbps channels called B1 and B2 that can be circuit-switched simultaneously Over a 16 Kbps channel called the D channel that is used for signaling. The D channel occupies one time slot for all eight D channels. <p>The circuit switched connections have a u-law or A-law option for voice operation. The circuit switched connections operate as 64 Kbps clear channels when in the data mode.</p> <p>The MM720 BRI Media Module does not support BRI stations, or combining both B channels together to form a 128 Kbps channel.</p>		
Material Code:	Apparatus Code: MM720	Optional
ComCode (for Services Ordering Only):		
MM760 VoIP Media Module		
<p>The MM760 VoIP Media Module is a clone of the motherboard VoIP engine. It provides an additional 64 VoIP channels with G.711 compression. Each chassis base system can support up to 64 G.711 single channel calls. If the desire is to have an essentially non-blocking system, an additional MM760 VoIP Media Module needs to be added if more than two MM710 T1/E1 Media Modules are used in a single chassis. This will provide for an additional 64 channels.</p> <p>This VoIP conversion resource in the G700 Media Gateway is an improved version of the Prowler board resource and from a configuration perspective, the two are the same. The capacity is 64 G.711 TDM/IP simultaneous calls, or 32 compression codec (G.729 or G.723) TDM/IP simultaneous calls. These call types can be mixed on the same resource, so we say that the simultaneous call capacity of the resource is 64 "G.711 Equivalent Calls".</p>		
Material Code: 170901	Apparatus Code: MM760	Optional
ComCode (for Services Ordering Only): 108919986		
3 of 3		

Table 24. Avaya P330 Equipment

Avaya P330 Equipment		
Avaya P330 Stacking Sub-Module (optional)		
Material Code: 108562943	P330 MOD P330 STACKING	
CASCADE CABLES		
Material code: 108592445	Avaya P330 CABLE OCTAPLANE STACKING 1FT	
Material code: 108592437	Avaya P330 CABLE OCTAPLANE STACKING 6FT	
Material code: 108563453	Avaya CABLE ASSY X330RC REDUN STACKING	
EXPANSION MODULES		
Material code: 108562927	Avaya MOD P330 1000BSX UPLINK 2PT	The X330-S2 provides 1000Base-SX connectivity with two Multimode Fiber ports (up to 550 m,1804 ft) with LAG and Load Sharing
Material code: 108563032	Avaya MOD P330 1000BLX UPLINK 2PT	The X330-L2 provides 1000Base-LX connectivity with two Single Mode Fiber ports (up to 5 km,3.11 miles) with Link Aggregation (LAG) and Load Sharing
Material code: 108562992	Avaya MOD P330 1000BSX UPLINK 1PT	The X330-S1 provides 1000Base-SX connectivity with one Multimode Fiber port (up to 550 m,1804 ft)
Material code: 108562976	Avaya MOD P330 1000BLX UPLINK 1PT	The X330-L1 provides 1000Base-LX connectivity with one Single Mode Fiber port (up to 5 km,3.11 miles)

1 of 2

Table 24. Avaya P330 Equipment *Continued*

Avaya P330 Equipment		
Material code: 108562968	Avaya MOD P330 10/100TX UPLINK 16PT	The X330-T16 adds 16 10/100Base-T ports. It allows up to 64 ports in a single switch and an impressive 640 per stack. Two LAGs can be created, with up to eight ports per group.
Material code: 108562950	Avaya MOD P330 100FX UPLINK 2PT	The X330-F2 adds two 100Base-FX ports which can be aggregated using LAG to provide a 200 Mbps link for backbone or high-speed server applications.
Material code: 108659178	Avaya P330 MOD EXP GBIC 2PT	The X330-G2 provides GBIC connectivity with an adapter for standard GBIC transceivers.
Material code: 700214612	Avaya X330 WAN-2DS1	The X330 WAN-2DS1 provides two T1/E1 ports and a 10/100BaseT port.
Material code: xxxxxxxxx	Avaya X330 WAN-2USP	The X330 WAN-2USP provides two serial ports supporting V.35, X.21, RS530 and a 10/100BaseT port.
Material code: 108659194	Avaya MOD DUAL SPEED OC12/OC3 SMF 15KM	
Material code: 108659186	Avaya MOD DUAL SPEED OC12 OC3 MMF 500M	

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