Job Aid: What Wizard and Provisioning Tools Should I Use?

Avaya Media Servers, Media Gateways, Wireless Gateways, and Data Switches

Please disregard any references to the S8710 Media Server in this document. The S8700 Media Server is the currently available product. If you need additional information, please contact your Avaya representative or Avaya authorized business partner.

To save time on installations and upgrades of the Avaya media servers, media gateways, data switches, and wireless gateways and access points, there are four tools available for your use:

- The Installation Wizard (with the Electronic Preinstallation Worksheet and other templates)
- The Gateway Installation Wizard (with the Electronic Preinstallation Worksheet)
- The Software Update Manager
- The Upgrade Tool

To save time and to simplify initial configurations of devices in large networks, there are two additional tools available for your use:

- The Network Configuration Manager
- The Network Region Wizard

The following table shows at-a-glance when you would use each of the standard tools (IW=Installation Wizard, UT = Upgrade Tool, GIW = Gateway Installation Wizard, SUM = Software Update Manager, NCM = Network Configuration Manager, NRW = Network Region Wizard):

Component	Use	New Installation	Upgrade Firmware	Upgrade Software	Configure Devices
G350 or G700	with an S8300	IW	SUM[3], IW, UT[1]		NCM, NRW[2]
	without an S8300	GIW	SUM[3], UT		NCM
S8300	as an LSP	IW		IW, UT[4]	
	as a Primary Controller	IW		IW	NRW
S8500, S8700, or S8710	as a Primary Controller	IW		IW	NRW
W310	WLAN Gateway	GIW	SUM[3],GIW		NCM
P330, M770, P580, P882, C360, C460, P120, P130, and X330	Any		SUM		NCM

1 Use the UT to schedule upgrades of multiple gateways. Use the IW on site for an immediate upgrade of a single gateway or G700 stack

2 Use the Network Region Wizard (from the primary controller) only to configure network regions, which includes assigning gateways to regions.

3 The Software Update Manager, if available from the customer, is the preferred tool because it can automatically filter the necessary firmware required from the Avaya support Web site and perform multiple gateway upgrades.

4 Use the UT from the primary controller to schedule upgrades of multiple LSPs. Use the IW on site for an immediate upgrade of a single LSP.

The following table summarizes when you would use each of the standard tools and what it does for you.

If you need to:	Then use:
Install a new or upgrade a single existing S8300, S8500, S8700, or S8710 Media Server, including: **1** The G350 or G700 Media Gateway that contains an S8300 **2** Other G700s in the stack **3** G350/G700 media modules	The Installation Wizard (IW) on site, with a laptop connection to the media server. **NOTE:** Since the source files for an upgrade are large, the IW requires that these source files be accessible (to the media server running the IW) over a high-bandwidth connection. The files could be on the media server's hard drive (var/home/ftp/pub directory), on a CD-ROM drive connected to the media server, or on the CD-ROM drive or hard drive on a technician's laptop directly connected to the media server. If the source files are available on one of these media, you could use the IW from a remote location using a dialup PPP connection to the media server (with modem enabled) running the IW. This wizard installs new (or upgrades existing) software on media servers and performs the initial configuration. It upgrades firmware on new or existing media gateway processors and media modules. You will also use the Electronic Preinstallation Worksheet (EPW), which you get from your project manager. You may also use the Name and Number List (for S8300/G700 or S8300/G350 only) and the Custom Template (for S8300/G700 or S8300/G350 only) with the wizard for more comprehensive custom installations.
Install a new G350 or G700 that does not contain an S8300	The Gateway Installation Wizard (GIW) on site, with a laptop connection to the G350 or G700. You will also use the Electronic Preinstallation Worksheet (EPW), which you get from your project manager. This wizard configures the IP addresses for the gateway, including the gateway processors, the controller list, and the VoIP engine.
Install a new W310 WLAN Gateway and its access points	The Gateway Installation Wizard (GIW) on site, with a laptop connection to the W310 WLAN Gateway. You will also use the Electronic Preinstallation Worksheet (EPW), which you get from your project manager. The GIW is used to install firmware for the W110 Light Access Point and firmware that makes the AP-4, 5, or 6 into light access points.
Schedule upgrades of multiple, geographically-distributed LSPs or G350/G700 gateways: all of which have the same remote primary controller, either an S8300, S8500, S8700, or S8710	The Software Update Manager from a customer's Enterprise Converged Management server connected to the customer's WAN/LAN. This is the preferred tool for upgrading firmware. The Software Update Manager, however, *cannot* upgrade LSPs. OR The Upgrade Tool on the primary controller, using a remote network connection. This tool upgrades the software on LSPs and the firmware for the gateway processors and media modules.

If you need to:	Then use:
Upgrade multiple, geographically-distributed G350/G700 gateways, X330 WAN Expansion modules, data switches, and wireless switches and endpoints	The Software Update Manager from a customer's Enterprise Converged Management server connected to the customer's WAN/LAN.
Configure gateways or data switches that have already been installed and initially configured and are accessible over the LAN.	The Network Configuration Manager from a customer's Enterprise Converged Management server connected to the customer's WAN/LAN. The NCM uses configuration files that have been backed up and stored in a configuration library.
Configure a large VoIP network with multiple network regions, including codec sets and call admission control via bandwidth limits (CAC-BL)	The Network Region Wizard, on the primary controller, using a remote network connection. Use the Electronic Preinstallation Worksheet for Network Regions (EPW-NR) with the Network Region Wizard, which allows you to automatically fill in the administration parameters in the Network Region Wizard.

Access to the Wizards and Provisioning Tools

The Installation Wizard, Network Region Wizard, and Upgrade Tool are accessed from the Avaya Integrated Management web interface, which is embedded in Communication Manager. The Gateway Installation Wizard is downloadable from the support.avaya.com/avayaiw Web site and runs on a laptop. The Network Configuration Manager is installed on and run from a PC connected to the customer's LAN. The Software Update Manager is part of the Network Configuration Manager, which is installed as part of the Enterprise Converged Management server.

NOTE:
These tools do not replace all normal installation or upgrade procedures. And, for Communication Manager software installations and upgrades, the Maintenance Web Pages embedded in the server are always an available tool. However, the wizard tools automate some or many of the tasks associated with an installation or an upgrade. For information on additional tasks required for an installation or upgrade, see:

- *Quick Start: Avaya G700 Media Gateway Hardware Installation*
- *Installation and Upgrades for the Avaya G700 Media Gateway and S8300 Media Server,* 555-234-100
- *Installation of the Avaya G350 Media Gateway*
- *Avaya W310 WLAN Gateway Installation and Configuration Guide*
- The appropriate installation documents for data switches available at http://avaya.com/support under the LAN, Backbone, and Edge Access Switches section

The Installation Wizard

You can use the Avaya Installation Wizard (IW) as a tool to assist you in the installation and upgrade processes for S8300, S8500, S8700, and S8710 Media Servers and G350 and G700 Media Gateways. The Installation Wizard is designed to get you up and running in a basic installation as quickly as possible.

The Avaya Installation Wizard ships with the media server software and is accessable on the home page of the Integrated Management web interface. The most recent version of Avaya Installation Wizard, as well as its documentation, can be accessed online at http://support.avaya.com/avayaiw.

NOTE:
To use the Installation Wizard, Communication Manager Release 2.1 or later must be running on the media server. If an earlier release of Communication Manager is running, upgrade to 2.1 or later before using the IW.

What the Wizard Can and Cannot Do

You can use the Avaya Installation Wizard to do the following:

NOTE:
To install or upgrade software on a media server, the IW must be running on that media server. To install or upgrade firmware on a media gateway, IW must be running on the S8300 that resides in the media gateway; or, for a G700 stack, IW must be running on an S8300 that resides in a G700 in the stack.

- Install a new S8500, S8700, or S8710 Media Server
- Install an S8300/G700 stack with S8300 configured as a primary controller or Local Survivable Processor (LSP).
- Install an S8300/G350 with S8300 configured as a primary controller or Local Survivable Processor (LSP).
- Install patches to Communication Manager software
- Upgrade Communication Manager software on an S8300, S8500, S8700, or S8710 primary controller

NOTE:
For an upgrade, the system you are upgrading must already be running Communication Manager software, release 2.0 or higher.

- Upgrade firmware on G350 and G700 Media Gateways and their media modules
- Configure alarming strategy
- Set Product ID and install unicode files
- For the S8300/G700 only, configure telephony and trunking parameters and trunk diagnostics

You cannot use the Avaya Installation Wizard to do the following:

- Install a G700 Media Gateway that is not in a stack containing an S8300 Media Server, acting either as a primary controller or as LSP.
- Install a G350 that does *not* contain an S8300 Media Server, acting either as a primary controller or as LSP.
- Install or upgrade an LSP or a G350 or G700 Media Gateway from a remote primary controller.
- Install a P330 Expansion Module in a G700 or an X330WAN Module

In addition, there are some installation tasks that you must still perform manually following instructions in *Installation and Upgrades for the Avaya G700 Media and S8300 Media Server*, 555-234-100, or *Installation of the Avaya G350 Media Gateway*, 555-245-104, or, *Upgrade and Service Guide for the Avaya G350 Media Gateway*, 555-245-106. These are tasks such as completing the RFA process for acquiring license and authentication files.

Electronic Pre-installation Worksheets and Templates

To speed the installation process, use the following electronic worksheets (as Microsoft Excel files) with the Installation Wizard:

- Electronic Preinstallation Worksheet (EPW)
- Name and Number List (for S8300/G700 or S8300/G350 only)
- Custom Template (for S8300/G700 or S8300/G350 only)

These worksheets provide a way of collecting critical information before going on site. If these worksheets are populated and downloaded onto your laptop, then the data in these worksheets can be imported directly into the wizard at the appropriate time.

EPW, Name and Number List and Custom Template spreadsheets can be downloaded from http://support.avaya.com/avayaiw. Information on how to use these files is contained within the files themselves.

Electronic Preinstallation Worksheet (EPW)

For greatest efficiency, obtain the Electronic Preinstallation Worksheet (EPW), which is filled in by the customer and the Avaya project manager. This worksheet is an Excel spreadsheet from which the Avaya Installation Wizard imports IP address-related data to configure and install the S8300/S8500/S8700/S8710 Media Servers, G350/G700 Media Gateways, P330 Stack Processor, and VoiP Engines. The EPW also can be used to supply basic translations for the S8300/G700 and S8300/G350 configurations.

Once the EPW has been imported, all the values from the EPW appear as defaults in the wizard.

Name and Number List (for S8300/G700 or S8300/G350 only)

The Name and Number List, like the EPW, is an Excel spreadsheet that contains user administration data. The Avaya Installation Wizard imports this data to automatically administer users on the new system. This administration includes users' names, extensions, telephone types, classes of service, languages, locations, and voice mail capability. The native display name (unicode) is included.

As each user's name and accompanying data is imported, the wizard will administer the station using the provided information along with default values for other station fields. After the import has completed, each station will be ready to be plugged into the wall jack and activated. Analog and digital phones will be ready for a TTI registration sequence. IP phones will be ready for an IP registration sequence.

The default values used by the wizard can be viewed at http://support.avaya.com/avayaiw under the "View Default Parameters" link. If the wizard defaults do not meet the customer's needs, you can use a custom template.

Custom Template (for S8300/G700 or S8300/G350 only)

The Custom Template is a third Excel spreadsheet that allows automatic administration of key custom Communication Manager translations. These are:

- Classes of Service
- Feature Access Codes
- Trunk Access Codes
- Telephone button assignments
- TTI codes
- Voice mail hunt group number and coverage path
- You can use a custom template in the following countries:
- United States and Canada
- France
- Japan
- United Kingdom

If multiple installations can use similar default translations, you can use a single Custom Template for all installations.

The Gateway Installation Wizard

Use the Avaya Gateway Installation Wizard to install or upgrade the following:

- A new G350 or G700 Media Gateway that is controlled by a remote media server but does *not* have an S8300.
- A W310 WLAN Gateway and its access points, including the W110, AP600, and AP2000.

The Gateway Installation Wizard allows you to configure the gateway IP addresses without having to enter CLI commands. It also allows you to install firmware that has been made available on either a TFTP or an FTP server.

NOTE:
You cannot use the Gateway Installation Wizard to configure an X330 Expansion module.

As with the Avaya Installation Wizard, obtain and use the Electronic Preinstallation Worksheet (EPW) for greatest efficiency. From the worksheet, the GIW imports IP address-related data to configure and install the G350/G700 Media Gateways, P330 Stack Processor, and VoiP Engines. The EPW also can be used to supply configuration data for the W310 WLAN Gateway.

Once the EPW has been imported, all the values from the EPW appear as defaults in the wizard.

For more information, see *Job Aid: Avaya Gateway Installation Wizard*.

The Software Update Manager

The Avaya Software Update Manager allows you to automatically upgrade software and firmware on a number of devices used in the customer's network, including:

- The G700 and G350 Media Gateways, including their media modules
- W310 WLAN Gateway and W110 Light Access Point
- The AP-4, AP-5, and AP-6 Access Points
- The C360 and C460 converged stackable switches
- The P882 and P580 Multiservice switches, P120/P130 Workgroup switches, and P330 switches
- The M770 Multifunction and M770 ATM switches

The software you can upgrade includes the following software types:

- Image
- Boot Loader
- Web Management

To use the Software Update Manager, the customer should have Enterprise Converged Management, an entitlement for almost all Communication Manager 2.1 customers (excluding very small Communication Manager installations, where multiple branch offices are not in use and would have no need for the tool).

Avaya Software Update Manager is launched from the Network Manager Console, the main control panel for the Enterprise Converged Management offer. Software Update Manager can be operated manually, where the operator specifies the firmware images to be downloaded, or automatically, by consulting the Avaya Support web site for the latest available version. To operate the upgrade automatically, the PC hosting Software Update Manager must have external Internet access.

In addition to being used for firmware upgrades on data devices, the Software Update Manager is normally preferable to the Upgrade Tool for upgrading firmware on G700 and G350 Media Gateways. The Software Update Manager, which can be run manually or scheduled to run, can perform both of the following two key functions:

- Automatically locate and download the most up-to-date firmware from the Avaya support Web site.
- Automatically upgrade firmware on the G700 and G350 Media Gateways in the network.

> **NOTE:**
> The Software Update Manager cannot upgrade LSPs. However, in a network with LSPs and G350 and G700 Media Gateways, you may find it most efficient to use the Upgrade Tool to upgrade LSPs only, and then use the Software Update Manager to upgrade the gateways, their media modules, as well as other Avaya devices, such as the wireless gateways, converged switches, etc.

For more information, see *Avaya Software Update Manager User Guide*.

The Upgrade Tool

The Upgrade Tool allows you to schedule automatic upgrades of Local Survivable Processors (LSPs) and G350 and G700 Media Gateways from the primary controller. The primary controller can be an S8300, S8500, S8700, or an S8710 Media Server.

You can schedule upgrades for:

- Any or all LSPs registered with the primary controller
- Any or all G350s and G700s currently or previously registered with the primary controller, including any media modules installed in the G350s and G700s.

> **NOTE:**
> The Software Update Manager is the preferred tool for firmware upgrades because it can automatically filter the necessary firmware required from the Avaya support Web site.

With the upgrade tool, you do not have to physically be at the LSP and gateway locations in order to perform the upgrades. Additionally, you do not have to run the upgrades one by one. You simply enter the needed information into the upgrade tool for the LSPs and G350s and G700s that you want to upgrade. Then, at the scheduled time, the Upgrade Tool automatically upgrades the software and firmware on all the specified LSPs and gateways.

> **NOTE:**
> You must still complete the normal prerequisite tasks such as completing the RFA process for license files and uploading the most recent .tar file (for an LSP) to the var/home/ftp/pub directory or uploading the most recent firmware (for a media gateway) to an FTP (G350 only) or TFTP server.

You **cannot** use the LSP/Gateway Upgrade Tool to do the following:

- Install a new LSP or G350 or G700 Media Gateway. For each new installation, you must be on site and use the Avaya Installation Wizard (for an LSP), the Avaya Gateway Installation Wizard (for a media gateway), or perform a manual installation.
- Upgrade LSPs to Avaya Communication Manager 2.1. An LSP must already have Communication Manager 2.1 or higher. Thus, the Upgrade Tool on Communication Manager R2.1 is used for upgrades to software higher than Communication Manager 2.1.
- Upgrade an active LSP (one that has taken control of calls because of a problem with the primary controller).
- Upgrade P330 Expansion modules.
- Upgrade G600, G650, CMC1, SCC1, or MCC1 Media Gateways.

To use the upgrade tool, both the primary controller must already have Communication Manager Release 2.1 or higher software. In addition, any LSPs to be upgraded must also have Communication Manager Release 2.1 or higher software.

The LSP/Gateway Upgrade Tool ships with the server software and is available on the home page of the media server's Maintenance Web Interface. For more information, see the *Job Aid: Upgrade Tool and Worksheets*.

The Network Configuration Manager

The Avaya Network Configuration Manager allows you to remotely configure media gateways, wireless gateways, and data switches, including:

- The G700 and G350 Media Gateways, including their media modules
- W310 WLAN Gateway and W110 Light Access Point
- The AP-4, AP-5, and AP-6 Access Points
- The C360 and C460 converged stackable switches
- The P882 and P580 Multiservice switches, P120/P130 Workgroup switches, and P330 switches
- The M770 Multifunction and M770 ATM switches

To use the Network Configuration Manager, the customer should have Enterprise Converged Management, an entitlement for almost all Communication Manager 2.1 customers (excluding very small Communication Manager installations, where multiple branch offices are not in use and would have no need for the tool).

With the Network Configuration Manager, you manage configuration files to configure and maintain the configuration of devices in your VoIP network. The Network Configuration Manager lets you perform the following tasks related to configuration files:

- Create configuration files for media gateways and data switches
- Copy and edit configuration files
- Download a single configuration file to one or multiple devices
- Simultaneously download multiple configuration files to multiple devices
- Compare the content of configuration files for different devices
- Back up and restore configuration files, including scheduled backups

You can choose secure copy protocol (SCP), file transfer protocol (FTP), or trivial file transfer protocol (TFTP) to transfer protocols for downloading, restoring, and backing up configuration files, depending on the devices you are configuring and the capabilities of the customer's PC and LAN. In addition, Network Configuration Manager checks configuration files for device applicability and will not install a configuration file to a device for which the configuration does not apply.

For more information, see *Avaya Network Configuration Manager User Guide.*

The Network Region Wizard

The Avaya Network Region Wizard guides you through the steps to configure network regions in your VoIP network and assign the media gateways in your network to those regions. The configuration includes defining:

- Codec sets
- Intra-region transmission parameters
- Inter-region parameters, including call admission control via bandwidth settings.

> **NOTE:**
> You cannot use the Network Region Wizard to define and assign network regions to data devices such as the P330 switches or C360 switch.

The following features of Network Region Wizard can make network region configuration much easier and faster than configuration using manual planning and the Communication Manager SAT command line interface.

- Default values that are commonly used for network regions. Any of these values can be modified within the NRW, as necessary. For most networks, the defaults are suitable.
- The Electronic Preinstallation Worksheet — Network Region Wizard (EPW-NRW), a separate Excel spreadsheet which allows network planners or design specialists to complete the configuration ahead of time. You can then simply run the Network Region Wizard, which can automatically load the parameters from the EPW-NRW into Communication Manager.
- A grid tool that allows you to create inter-region and intra-region connections by simply clicking on regions listed on the grid. After you select a source region and then click on any other desired region listed on the grid, the Network Region Wizard automatically creates a connection between the regions using appropriate codec sets and CAC bandwidth limits.
- Automatic creation of indirect connections between regions for which you did not specify direct connections. The Network Region Wizard also creates a table of indirectly connected regions so you can quickly see opportunities for better routing.

The Network Region Wizard allows you to configure up to 250 network regions on an S8500, S8700, or S8710 Media Server, and up to 50 network regions on an S8300 Media Server. It is available if the customer has the Standard Management Solutions package of the Integrated Management suite.

For more information, see *Network Region Job Aid.*

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