



**Unified Communication Center
Advanced Speech Access
Release 1.0
Installation Guide**

585-313-230
Issue 1
June 2002

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Your comments are welcome. they can assist us in improving our documentation. Please address your comments to infodev@avaya.com.

Release 1.0
Edition 1
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About This Guide

Information in this guide is intended for the person responsible for installing Avaya Advanced Speech Access (ASA).

Using This Manual On Line

Following are guidelines for using this manual on line:

- Text that is underlined in [blue](#) links to a Web page
- Text that is underlined in [green](#) links to the underlined topic. Click the underlined text to jump to the topic.
- To jump to a topic from the Contents page, click the topic name or page number
- To jump to a topic from the Index, click the page number for the topic.
- To navigate forward and backward through the manual, use the tools provided by Acrobat Reader.

For Additional Information

For the latest product and support information, visit the Avaya Advanced Speech Access Web site at:

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

Install ASA

This guide provides step-by-step instructions for Avaya Advanced Speech Access (ASA) installers who want to implement a simple ASA installation as quickly as possible. To use this guide effectively, the listed hardware and software prerequisites should already be installed on the ASA server target system.

Follow the instructions in this guide in the order given. If you want more information about the ASA components, refer to the *Avaya Advanced Speech Access Administrator's Guide* (available on the Avaya Advanced Speech Access Application software CD-ROM).

Important: Updated information about ASA is provided in the product *Release Notes* (available on the Avaya Advanced Speech Access Application software CD). Be sure to read the *Release Notes* before performing any of the procedures in this guide.

ASA Components

When you complete the [ASA Installation Procedure](#) you will have a single-server implementation of ASA. The platform on which you install and run the ASA components is referred to as the *ASA controller node*. Whether your implementation remains a single-server implementation or, in the future, you upgrade to a multiple-server configuration, the ASA installation is collectively referred to as a *serverset*.

Procedures for installing the following components are provided in this guide:

- **Nuance 7.04.** Software that provides ASA speech recognition facilities.
- **SpeechWorks Speechify.** Software that provides ASA text-to-speech facilities.
- **ASA Server.** Software platform on which ASA runs.
- **VAOutlook.pub.** ASA application that runs on an ASA Server platform.
- **ASA Management Console.** Microsoft Management Console (MMC)-based utility from which you configure and manage ASA Server.
- **ASA Web Management.** Collection of the following browser-based utilities that support ASA administration over the Web:
 - **ASA Manager.** Enables you to perform many of the same ASA Server administration functions available on the ASA Management Console.
 - **ASA User Manager.** Enables you to perform user administration functions such as adding and deleting user accounts.
 - **ASA Reports.** Enables you to view system logs.
 - **ASA User Preferences.** Enables ASA subscribers to change their ASA settings.

Minimum Hardware Requirements

[Table 1](#) lists the minimum hardware components for the ASA platform on which you install Avaya Advanced Speech Access.

Table 1 ASA Server Minimum Hardware Requirements

Hardware Component	Requirement
Processor	1 GHz Intel Pentium III processor (dual-processor recommended)
Memory	<ul style="list-style-type: none">1 GB memory (up to 23 ports)3 GB memory (over 23 ports)
Drives	<ul style="list-style-type: none">40 GB SCSI hard disk driveCD-ROM drive
Network	100 Mbit PCI LAN Adapter
Slots	One available 32-bit PCI slot
Telephony Adapter	One of the following Natural Microsystems adapters is required: <ul style="list-style-type: none">NMS AG4000-2T1/800 (up to 23 sessions)NMS AG4000-2T1/1600 (up to 46 sessions)
Modem (optional)	Needed for remote troubleshooting of the ASA installation

Software Prerequisites

The following software must already be installed on the ASA server system before you begin the ASA installation:

- Windows 2000 Server Operating System, with Service Pack 2 or later

The operating system must be configured to use the NTFS file system and pagefile 3X memory. It must also be optimized for background services.

- Microsoft Outlook 2000, with the Collaboration Data Objects (CDO) option

-
- Microsoft Internet Explorer 5.5 or higher
 - Internet Information Server (IIS)
 - Windows 2000 Support Tools, available on the Windows 2000 Server installation media (optional tool for troubleshooting the ASA installation)
 - Adobe Acrobat Reader (for accessing the user documentation)
 - Remote access software, such as pcAnywhere (optional tool for remote administration)

Note: By default, IIS is added during the Windows 2000 Server operating system installation. If you are installing Windows 2000 just prior to beginning the ASA installation, do not disable this component. If the Windows 2000 installation on your ASA server does not include IIS, you must install it as a prerequisite before installing ASA.

What You Need Before You Begin

Make sure you have the following before you begin the ASA installation:

- Access to telephone network information, including
 - Telephone numbers associated with the ISDN circuit
 - Brand of switch to which the ISDN is connected (and type of protocol used)
 - Information from your PBX programmer regarding the framing format and zero-code-suppression mode
- The following Avaya Advanced Speech Access distribution media:
 - Avaya Advanced Speech Access Application software CD
 - Avaya Advanced Speech Access Automatic Speech Recognition software CD
 - Avaya Advanced Speech Access Text To Speech software CD

-
- Working knowledge of both Windows 2000 Server administration and Microsoft Exchange Server administration
 - Administrator login privileges on the ASA server, the Exchange server, and the domain controller platforms
 - The following information about your voicemail server:
 - Pilot number
 - IP address (Intuity voicemail servers only)
 - OAS configuration (Aria and Serenade voicemail servers only)

Pre-installation Procedures

Procedure	Step-by-step Instructions
<p>I.</p> <p>Create (Enable) a Test Account and an ASA Mailbox</p>	<p>Create (or enable) an Exchange mailbox for yourself so that you can test the ASA installation:</p> <ol style="list-style-type: none">1. Access the Exchange Administrator program (Exchange Server 5.5 users) or the Windows Active Directory Users and Computers program (Exchange 2000 Server users).2. Create a new test Domain User account. If you are using Exchange 5.5, next create your mailbox. If you are using Exchange 2000, mailbox-enable the test account.
<p>II.</p> <p>Create the ASA Service Account and Set Up a Mailbox</p>	<p>In this procedure, we use the name AvayaASA for the ASA service account; you can select a different name. Create a new domain user (with a password) called AvayaASA, using the following criteria:</p> <ol style="list-style-type: none">1. Create the user in the Windows domain in which the ASA platform servers will run.2. Select a password for the new user and set the password options as follows:<ol style="list-style-type: none">a. Make sure that the box for User Must Change Password at Next Logon is unchecked.b. Make sure the User Cannot Change Password and Password Never Expires boxes are checked.3. Create (for Exchange 5.5) or Enable (for Exchange 2000) a mailbox for the new service account.

Procedure	Step-by-step Instructions
<p>III.</p> <p>Set Permissions for the Service Account</p>	<ol style="list-style-type: none"> 1. If you are using Microsoft Exchange 2000 Server, skip this step and start with step 2. If you are using Microsoft Exchange Server 5.5, go to the Exchange Administrator screen and make the AvayaASA account a Service Account Admin for the ASA site. 2. If you are using Exchange Server 5.5, skip this step and proceed to step 3. For each Exchange Server that will have ASA-enabled accounts, perform the following steps: <ol style="list-style-type: none"> a. Go to the Exchange System Manager window and expand the Servers object. b. Right-click the server name and select Properties. c. Select the Security tab and add the AvayaASA account to the list. d. Ensure that only the following AvayaASA Allow boxes are checked (clear other boxes, as required): <p style="text-align: center;">Administer Information Store Receive As Send As</p> 3. If you are not already logged on as an administrator to the ASA server target system, log on now and make the AvayaASA account a member of the local Administrators group. 4. If you are using Active Directory, check the Group policy to ensure that the AvayaASA service account has permission to do the following: <ul style="list-style-type: none"> ■ Install software ■ Check the registry ■ Open the MMC in Author mode ■ Add and remove software

Procedure	Step-by-step Instructions
IV. Create an Outlook Profile for the ASA Service Account	<p>For this procedure, we use the service account name AvayaASA. If you called your service account anything other than AvayaASA, substitute your own profile name.</p> <ol style="list-style-type: none">1. Log on to the ASA server as the AvayaASA service account, using the password you selected earlier for that account.2. Launch Microsoft Outlook, select the Corporate or Workgroup option, and create a new Exchange profile for the AvayaASA mailbox.3. When the mailbox opens, answer Yes to the question about registering Outlook as the default manager for Mail, News, and Contacts.4. Click File, Exit and Log Off to end the Outlook session.5. From the Windows desktop, right-click the Outlook icon, choose Properties, and then click Show Profiles.6. If the profile is not already named AvayaASA, copy the profile and name it AvayaASA. Then click OK.7. Highlight the profile you copied and delete it. Then click Yes and Close; then log off the system.

ASA Installation Procedure

Make sure you have the *Avaya Advanced Speech Access Release Notes* on hand before beginning the installation.

Component Installation Procedure	Step-by-step Instructions
I. Install the NMS Software and Patch	<p>Note: If you have not yet installed the Natural Microsystems (NMS) Telephony Adapter, install it now before beginning this procedure.</p> <p>The NMS software and required software patch is provided on the Avaya Advanced Speech Access Application software CD. Proceed as follows to install this software:</p> <ol style="list-style-type: none">1. Log on as a local administrator to the ASA Server target system.2. Insert the Avaya Advanced Speech Access Application software CD into the CD-ROM drive. From the ASA installation menu, click Prerequisites, open the folder for the NMS software, and launch the setup.exe program. <p>Note: If Windows launches the auto-hardware detect Wizard, exit from the wizard.</p> <ol style="list-style-type: none">3. Follow the instructions that appear on the screen, accepting all defaults except those described in step 4.4. Select the following on the NMS installation dialog boxes:<ul style="list-style-type: none">■ Board Family: AG and CG■ Select Countries: Choose as appropriate from the dropdown list.■ Setup Type: Compact■ Setting Environment Variables: Let setup modify your settings.5. When the installation is complete, click Finish and exit the NMS setup program.

Component Installation Procedure	Step-by-step Instructions
<p>I. (Continued)</p> <p>Install the NMS Software and Patch</p>	<ol style="list-style-type: none"> 6. From the ASA installation menu, click Prerequisites, open the folder labeled NMS 2001-1 Patch, and launch the patch4449.exe program. 7. When prompted, enter the directory name where you installed the NMS software (c:\NMS by default). 8. When the installation is complete, click Finish, exit the setup program, and remove the Avaya Advanced Speech Access Application software CD from the CD-ROM drive.
<p>II.</p> <p>Install Text to Speech Software</p>	<ol style="list-style-type: none"> 1. Insert the Avaya Advanced Speech Access Text To Speech software CD into the CD-ROM drive, launch the setup.exe program, and select the Complete installation setup type. 2. Follow the instructions on the screen, and click Finish when the installation completes (select No if you are prompted to restart the system). 3. Move to the directory where you installed the Speechify software (c:\Speechify 2.0 by default). Then open the en-US directory and select either the male vice (rick_8) or the female voice (mara_8) from the appropriate folder. 4. Access the Speechify Management console, as follows: <ul style="list-style-type: none"> <li style="text-align: center;">Start->Program->Speechify->Speechify Server Management 5. From the right pane of the Speechify console, right-click the voice you chose in step 3 (mara_8 or rick_8). Then select Properties. 6. On the General tab, configure the voice as follows: <ol style="list-style-type: none"> a. In the Port field, make sure the port is set to 5556. b. In the Number of children to prestart field, change the value to 4.

Component Installation Procedure	Step-by-step Instructions
II. (Continued) Install Text to Speech Software	<ol style="list-style-type: none"> 7. Click OK. Answer Yes if you are asked if you want to save the console settings. 8. Remove the Speechify CD from the CD-ROM drive.
III. Install Speech Recognition Software	<ol style="list-style-type: none"> 1. Insert the Avaya Advanced Speech Access Automatic Speech Recognition software CD into the CD-ROM drive, move to the Nuance\7.0.4 directory, and launch the setup.exe program. 2. Accept all defaults, with the following exception: from the Setup Type screen, choose the Compact installation. 3. When the installation is complete, click Finish and remove the Avaya Advanced Speech Access Text To Speech software CD from the CD-ROM drive. 4. Restart the ASA target system.
IV. Install Nuance Service Pack and Language Module	<ol style="list-style-type: none"> 1. Log on to the ASA target system as a local administrator. 2. Insert the Avaya Advanced Speech Access Application software CD into the CD-ROM drive. From the ASA installation menu, click Prerequisites and open the folder labeled Nuance 7.0.4 Patches. 3. Open the Service Pack folder and run the following program: <p style="text-align: center;">NUANCE-7-0-4-SP21-NT.EXE</p> When prompted, enter the directory where you installed the Nuance 7.0.4 software (c:\Nuance\7.0.4 by default) and run the following program: <p style="text-align: center;">LanguageModule-EnglishAmerica-v7-0-v1.exe</p>

Component Installation Procedure	Step-by-step Instructions
IV. (Continue) Install Nuance Service Pack and Language Module	4. Move to the folder entitled Nuance7.0.4.Patches\English Language and open the English Language Pack Module folder. When prompted, enter the directory where you installed the Nuance 7.0.4 software (c:\Nuance\7.0.4 by default).
V. Install Windows Media Encoder 7.0	1. From the ASA installation menu, click Prerequisites and open the folder labeled Windows Media Encoder 7.0 . 2. Double-click wmencoder.exe to install the software. 3. Accept all installation defaults. 4. Select Yes if you are prompted to create a new folder. 5. When the installation is complete, select the Exit Setup radio button and click OK .
VI. Install Microsoft XML Parser 3.0 Service Pack 1	1. From the ASA installation menu, click Prerequisites and open the folder labeled MSXML Parser 3.0 SP1 . 2. Double-click msxml3sp1.exe to install the software. Accept all installation defaults. 3. When the installation is complete, click Finish .
VII. Install DAO 2.1	1. From the Microsoft Services window, stop the Windows Media Station service if it is present. 2. From the ASA installation menu, click Prerequisites and open the folder labeled DAO 2.1 . 3. Open the folder labeled DISK1 and run the SETUP.EXE program. Accept all defaults when prompted.

Component Installation Procedure	Step-by-step Instructions
<p>VII. (Continued)</p> <p>Install DAO 2.1</p>	<ol style="list-style-type: none"> 4. When you see the successfully installed message, click OK. 5. Remove the Avaya Advanced Speech Access Application software CD from the CD-ROM drive. Then log off and restart the ASA target system.
<p>VIII.</p> <p>Install ASA Server Software</p>	<p>Notes:</p> <p><small>All Microsoft Exchange and ASA servers in a serverset must be located in the same domain.</small></p> <p>All Microsoft Exchange and ASA server in a serverset must be located in the same domain.</p> <p>When installing a member server (non-controller node), you are not prompted to install the MSDE database.</p> <ol style="list-style-type: none"> 1. Log on to the ASA target system using the service account you created in procedure II of the Pre-Installation Procedures (Create the ASA Service Account and Set Up a Mailbox). 2. Insert the Avaya Advanced Speech Access Application software CD software CD in the CD-ROM drive. From the ASA main installation menu, click Install Components. From the ASA Components screen, select ASA Server. 3. From the Setup Type screen, select Avaya ASA Server, and click Next. 4. From the Serverset Controller Decision screen, select Yes, this is the Serverset Controller and click Next. 5. At the Choose Destination Location screen, accept the default destination folder, or browse to select a new folder. Click Next. 6. At the Install MSDE Decision screen, make sure the Install MSDE radio button is selected; then click Next.

Component Installation Procedure	Step-by-step Instructions
<p>VIII. (Continued)</p> <p>Install ASA Server Software</p>	<ol style="list-style-type: none"> 7. You are prompted for the directory in which to install the database (C:\Program Files\MSSQL7 by default). Click Next to accept the default directory. Or click Browse, select a new folder, and then click Next. 8. On the Enter Information screen, enter the name for the ASA service account you created in procedure II of the Pre-Installation Procedures Create the ASA Service Account and Set Up a Mailbox (for example, AvayaASA) and click Next. 9. At the Enter Avaya Service Password screen, enter the password for the service account and click Next. 10. At the Enter Information screen, enter the domain for the ASA service account. 11. You are prompted to select the program folder into which the ASA Server start menu icons are installed. Click Next to accept the default directory. Or click Browse, select a new folder, and then click Next. 12. Click OK if you are prompted with the SQL Service Pack 3 query. 13. You see a series of progress messages as the Server software installs. When the installation is complete, click Finish->MENU->EXIT. 14. Remove the CD from the CD-ROM drive and restart the ASA Server system.

Component Installation Procedure	Step-by-step Instructions
<p>IX.</p> <p>Install SQL Server Service Pack 3</p>	<ol style="list-style-type: none"> 1. Log on to the ASA Server system as the service account you created in procedure II of the Pre-Installation Procedures (Create the ASA Service Account and Set Up a Mailbox). 2. Bring up the Windows Services screen and stop the following services in the order given: <ul style="list-style-type: none"> VAManager SQLServerAgent VAServerManager 3. Point to the SQL Service Manager icon (next to the clock); right-click the icon and choose Exit. 4. Insert the Avaya Advanced Speech Access Application software CD into the CD-ROM drive. From the main menu, click Prerequisites, open the SQL Server Service Pack 3 folder, and launch the sql70sp3i.exe file. <p>The executable file uncompresses the SP3 files and extracts them to the C:\70SP3 directory. When this extraction process is complete, click Finish.</p> 5. Open the folder C:\70SP3 and run the setup.bat file. Accept all defaults until you see the following on the Connect to Server screen: <ul style="list-style-type: none"> The Windows NT account information I use to log on to my computer with (Windows NT authentication) <p>Note: Ignore any password error message that appears. Accept Windows Authentication mode.</p> 6. Click Finish.

Component Installation Procedure	Step-by-step Instructions
<p>X.</p> <p>Install the ASA Application</p>	<ol style="list-style-type: none"> 1. From the ASA main installation menu, click Install Components. From the ASA Components screen, select ASA Application. 2. Click Next at the Welcome and licensing screens. 3. Follow the instructions that appear on the screen. When you are prompted to select the directory into which the ASA application files install (C:\Program Files\ASA Application by default), click Next to accept the default directory. Or click Browse, select a new folder, and then click Next. 4. When the installation is complete, click Finish. 5. If prompted to restart the system, select No.
<p>XI.</p> <p>Install the ASA Web Interface</p>	<ol style="list-style-type: none"> 1. From the Install ASA Components screen, select ASA Web Management. 2. Click Next at the Welcome and licensing screens. 3. Follow the instructions that appear on the screen. At the Enter Information screen, type the name of the service account you created in procedure II of the Pre-Installation Procedures (Create the ASA Service Account and Set Up a Mailbox); use the password you created for that service account. 4. When prompted, enter the domain name for the service account (for example, AvayaASA). 5. At the Choose Destination Location screen, accept the default folder (C:\Program Files\ASA Web Management) or click Browse and select a different location. Click Next. 6. When the installation is complete, click Finish. 7. Remove the Avaya Speech Access Application software CD from the drive and then restart the system.

Configure ASA Server

This section provides information about the configuration tasks you must perform immediately after installing the ASA software. For additional information about ASA server configuration, see the *Avaya Advanced Speech Access Administrator's Guide* (available on the Avaya Advanced Speech Access Application software CD-ROM)

What You Need to Configure the ASA Server

- Name or IP address of the Microsoft Exchange server
- Name or IP address of the UCC licence server
- Name of the ASA server (controller node)
- Name of the ASA service account
- ASA service account login privileges
- The following LDAP information:
 - Name of the LDAP server
 - Parameters supported on the LDAP server (see your LDAP server administrator)

Server Configuration Procedure

ASA Server Configuration Procedure	Step-by-step Instructions
I Launch the ASA Management Console	<ol style="list-style-type: none">1. Log on to the ASA server as a member of either the Administrators group or the Domain Administrators group.2. From the desktop, click Start->Programs->Avaya ASA Server->Avaya ASA Management Console.
II. Add Serverset Processes	<ol style="list-style-type: none">1. From the left pane of the ASA Management Console, expand ASA Management. You are prompted to add several processes (prompts appear only the first time you expand this node).2. If prompted, click OK at the Ad Controller Server dialog box.3. Add the Telephony Server process:<ol style="list-style-type: none">a. At the Add Telephony Server dialog box, enter a name for the telephony server process (TelephonyProvider by default).b. From the drop-down list, select Natural Microsystems Telephony Server.c. Click OK.4. Add the Text-to-Speech process:<ol style="list-style-type: none">a. At the Add TTS Server dialog box, enter a name for the text-to-speech process (for example, ASA TTS).b. From the drop-down list, select Speechify TTSServer.c. Click OK.

ASA Server Configuration Procedure	Step-by-step Instructions
<p>II. (Continued)</p> <p>Add Serverset Processes</p>	<ol style="list-style-type: none"> 5. Add the Speech Recognition Server process: <ol style="list-style-type: none"> a. At the Add Recognition Server dialog box, enter a name for the speech recognition server (Recognition Server for example). b. From the drop-down list, select Nuance Manager. c. Click OK 6. Add the VAServer Process: <ol style="list-style-type: none"> a. At the Add VAServer Process dialog box, enter a name for the process that monitors Microsoft Exchange (VAServer by default). b. From the drop-down list, select VAServer. c. Click OK 7. Add the Names Download Application process: <ol style="list-style-type: none"> a. At the Names Download Application dialog box, enter a name for the Names Download process (NamesDownload by default). b. From the drop-down list, select NamesDownload. c. Click OK.

ASA Server Configuration Procedure	Step-by-step Instructions
<p>II. (Continued)</p> <p>Add Serverset Processes</p>	<p>8. Add ASA Telephony Engines:</p> <ol style="list-style-type: none"> a. At the Add ASA Engine dialog box, enter a name for the Telephony Engine process (for example, ASA TelephonyEngine). b. From the drop-down list, select Telephony Engine. c. Click OK to add one engine (single-port ASA system only) or click Multiple to add more than one engine. <p>The number of ASA engines you need is equivalent to the number of ports you are licensed for (for example, you would add 6 engines for 6 ports).</p> <ol style="list-style-type: none"> d. In the Number of processes to create field, select the number of ASA engines to create. e. In the Name Prefix field, type a prefix for the process names (for example, type Engine_ to create processes called Engine_1, Engine_2, and the like). f. Accept all other defaults and click OK. g. Click OK at the Done dialog box.
<p>III.</p> <p>Add the Application to the ASA Serverset</p>	<ol style="list-style-type: none"> 1. In the left pane of the ASA Management Console, click ASA Manager. Then click ASA Applications. 2. Right-click and select New-> ASA Application. 3. In the Set Application File dialog box, click Browse and highlight VAOutlook.vapub. Then click Open. 4. In the Set Application File dialog box, click OK to accept the default path for the application. <p>If the Set Application File dialog box appears again, ignore this dialog and proceed to the next procedure.</p>

ASA Server Configuration Procedure	Step-by-step Instructions								
IV. Associate Telephony Engines with the ASA Application	<ol style="list-style-type: none"> 1. On the left panel of the ASA Management Console, expand the Server Set node. Then click the name of your ASA Server node. The list of telephony engines displays. 2. Click the first telephony engine in the serverset. 3. From the Default Application dropdown list, select VAOutlook. 4. Repeat steps 2 and 3 for every telephony engine in the serverset. 								
V. Associate the ASA Application process with the VAServer process	<ol style="list-style-type: none"> 1. On the left panel of the ASA Management Console, select the name of your ASA Server node. 2. Right-click VAServer; then click All Tasks. 3. Select Associate with Application. 4. On the Select Application Instance dialog box, select VAOutlook from the dropdown list. 5. Click OK. 								
VI. Configure General Information	<ol style="list-style-type: none"> 1. In the left pane of the ASA Management Console, expand the Configuration node; then click General Information. 2. Complete the General Information fields as follows: <table border="0" data-bbox="727 1419 1427 1839"> <thead> <tr> <th data-bbox="727 1419 1036 1451"><u>For this Field</u></th> <th data-bbox="1040 1419 1427 1451"><u>Take this Action</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="727 1472 1036 1503">Exchange Server</td> <td data-bbox="1040 1472 1427 1566">Enter the name of the fully qualified Exchange e-mail server.</td> </tr> <tr> <td data-bbox="727 1587 1036 1650">Time Zone of Exchange Server</td> <td data-bbox="1040 1587 1427 1682">Select from the dropdown list the time zone used on the Exchange mail server.</td> </tr> <tr> <td data-bbox="727 1703 1036 1766">Avaya ASA Service Account</td> <td data-bbox="1040 1703 1427 1839">Enter the name of the Service Account you created in Step III of the Pre-installation Procedures.</td> </tr> </tbody> </table> 	<u>For this Field</u>	<u>Take this Action</u>	Exchange Server	Enter the name of the fully qualified Exchange e-mail server.	Time Zone of Exchange Server	Select from the dropdown list the time zone used on the Exchange mail server.	Avaya ASA Service Account	Enter the name of the Service Account you created in Step III of the Pre-installation Procedures .
<u>For this Field</u>	<u>Take this Action</u>								
Exchange Server	Enter the name of the fully qualified Exchange e-mail server.								
Time Zone of Exchange Server	Select from the dropdown list the time zone used on the Exchange mail server.								
Avaya ASA Service Account	Enter the name of the Service Account you created in Step III of the Pre-installation Procedures .								

ASA Server Configuration Procedure	Step-by-step Instructions	
VI. (Continued) Configure General Information	<p><u>For this Field</u></p> <p>User Feedback E-mail Address</p> <p>Company Name</p> <p>Company Domain</p> <p>Site Name</p> <p>UCC License Server</p> <p>ASA Account Number Length</p> <p>Use LDAP for people searches</p> <p>(Note: This field is also found on the LDAP Setup screen)</p> <p>Use Voice Server Directory</p>	<p><u>Take this Action</u></p> <p>Enter the e-mail account to which ASA users can provide feedback on their ASA usage (usually the ASA administrator's e-mail address).</p> <p>Enter the name of your company</p> <p>(Not currently used)</p> <p>Enter the name to use for this ASA site (for example ASA Denver).</p> <p>Enter the name of the UCC base server. (server on which the UCC license manager runs).</p> <p>Enter the number of digits to use for ASA account numbers. For example, if this site will use the ASA user's telephone number for the account number, the length would be 7</p> <p>Check this box if this site will use an LDAP-based corporate directory to generate a list of the names ASA subscribers can call and send messages to.</p> <p>Check this box if this site will use the names from the Voice Mail Serve to map names to voice mail addresses.</p> <p>Note: If you check this box you must also check the "Use LDAP for people searches" box.</p>

ASA Server Configuration Procedure	Step-by-step Instructions								
VI. (Continued) Configure General Information	3. Click Accept to record your configuration information. 4. If prompted, click OK to start Web Services.								
VII. Set Up the Corporate Directory	<p>Note: The LDAP configuration you set up using ASA must match the configuration on the corporate directory you are accessing. If you have questions about the values you should use on the ASA LDAP Setup screen, contact the administrator of the company's corporate directory.</p> <ol style="list-style-type: none"> In the left pane of the ASA Management Console expand the Configuration node and click LDAP Setup. Complete the following fields on the LDAP Setup screen: <table border="0" data-bbox="727 947 1427 1787"> <thead> <tr> <th data-bbox="727 947 971 982">For this Field</th> <th data-bbox="1003 947 1247 982">Take this Action</th> </tr> </thead> <tbody> <tr> <td data-bbox="727 1003 971 1066">Use LDAP for people searches</td> <td data-bbox="1003 1003 1427 1339"> Check the box to indicate that ASA should access the corporate directory. ASA uses the corporate directory to build the list of names that subscribers can call and send messages to. ASA also gathers information about a person's telephone number and e-mail address. Note: The alternate method for configuring LDAP is to check the Use LDAP for people searches box when you Configure General Information. </td> </tr> <tr> <td data-bbox="727 1549 971 1577">Server</td> <td data-bbox="1003 1549 1427 1612">Enter the machine name or IP address of the LDAP server.</td> </tr> <tr> <td data-bbox="727 1633 971 1661">Port</td> <td data-bbox="1003 1633 1427 1787">Leave blank to use LDAP standard port 389. Or type the number of the port on which the LDAP server can be accessed.</td> </tr> </tbody> </table> 	For this Field	Take this Action	Use LDAP for people searches	Check the box to indicate that ASA should access the corporate directory. ASA uses the corporate directory to build the list of names that subscribers can call and send messages to. ASA also gathers information about a person's telephone number and e-mail address. Note: The alternate method for configuring LDAP is to check the Use LDAP for people searches box when you Configure General Information .	Server	Enter the machine name or IP address of the LDAP server.	Port	Leave blank to use LDAP standard port 389 . Or type the number of the port on which the LDAP server can be accessed.
For this Field	Take this Action								
Use LDAP for people searches	Check the box to indicate that ASA should access the corporate directory. ASA uses the corporate directory to build the list of names that subscribers can call and send messages to. ASA also gathers information about a person's telephone number and e-mail address. Note: The alternate method for configuring LDAP is to check the Use LDAP for people searches box when you Configure General Information .								
Server	Enter the machine name or IP address of the LDAP server.								
Port	Leave blank to use LDAP standard port 389 . Or type the number of the port on which the LDAP server can be accessed.								

ASA Server Configuration Procedure	Step-by-step Instructions	
VII. (Continued) Set Up the Corporate Directory	<p><u>For this Field</u></p> <p>Suffix</p> <p>User ID</p> <p>User Password</p> <p>Static Grammar Filter</p>	<p><u>Take this Action</u></p> <p>Enter the type of data for ASA to retrieve from the LDAP server. In LDAP, this value is also known as the Base Domain Name (DN) or Search Root.</p> <p>Enter the account name (if any) for ASA to use to access the LDAP server.</p> <p>Enter the password (if any) for the User ID account.</p> <p>Leave this field blank if the corporate directory contains fewer than 5000 people (all names will be included in the ASA grammar).</p> <p>If the corporate directory contains more than 5000 people, use this field to limit the grammar to the 5000 people you want ASA subscribers to call or send messages to.</p> <p>All field names included in the filter (telephonenumber, for example) must be valid fields in the LDAP directory. For example, if the directory contains employee addresses, you can filter based on zip code, rather than on telephone area code as shown in the examples.</p>

ASA Server Configuration Procedure	Step-by-step Instructions						
<p>VII. (Continued)</p> <p>Set Up the Corporate Directory</p>	<table border="0"> <thead> <tr> <th data-bbox="727 373 961 403"><u>For this Field</u></th> <th data-bbox="1003 373 1243 403"><u>Take this Action</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="727 428 961 487">Static Grammar Filter (continued)</td> <td data-bbox="1003 428 1406 520"> <p>The syntax for this field string is defined by LDAP. Following are some sample field entries:</p> <p>telephonenumber=+1408* Returns all people in the corporate directory whose phone number is in area code 408.</p> <p>((telephonenumber=+1 408*)(telephonenumber=+1 303*)) Returns all people in the corporate directory whose phone number is either in area code 408 or in area code 303.</p> <p>(&(telephonenumber=+1 408*)(sn=Smith)) Returns all people in the corporate directory whose phone number is in area code 408 and whose last name is Smith.</p> </td> </tr> <tr> <td data-bbox="727 1213 961 1243">DTMF Filter</td> <td data-bbox="1003 1213 1421 1877"> <p>Leave this field blank to permit ASA subscribers to address by spelling when making calls or addressing messages to anyone in the corporate directory. (The 5000-name limit imposed on the Static Grammar Filter does not apply to DTMF filtering.)</p> <p>To limit the list of people that subscribers can call by spelling the name to the same list that they can call by speaking the name, set the value here to match that of the Static Grammar Filter.</p> <p>The syntax for this filter is identical to that of the Static Grammar Filter.</p> </td> </tr> </tbody> </table>	<u>For this Field</u>	<u>Take this Action</u>	Static Grammar Filter (continued)	<p>The syntax for this field string is defined by LDAP. Following are some sample field entries:</p> <p>telephonenumber=+1408* Returns all people in the corporate directory whose phone number is in area code 408.</p> <p>((telephonenumber=+1 408*)(telephonenumber=+1 303*)) Returns all people in the corporate directory whose phone number is either in area code 408 or in area code 303.</p> <p>(&(telephonenumber=+1 408*)(sn=Smith)) Returns all people in the corporate directory whose phone number is in area code 408 and whose last name is Smith.</p>	DTMF Filter	<p>Leave this field blank to permit ASA subscribers to address by spelling when making calls or addressing messages to anyone in the corporate directory. (The 5000-name limit imposed on the Static Grammar Filter does not apply to DTMF filtering.)</p> <p>To limit the list of people that subscribers can call by spelling the name to the same list that they can call by speaking the name, set the value here to match that of the Static Grammar Filter.</p> <p>The syntax for this filter is identical to that of the Static Grammar Filter.</p>
<u>For this Field</u>	<u>Take this Action</u>						
Static Grammar Filter (continued)	<p>The syntax for this field string is defined by LDAP. Following are some sample field entries:</p> <p>telephonenumber=+1408* Returns all people in the corporate directory whose phone number is in area code 408.</p> <p>((telephonenumber=+1 408*)(telephonenumber=+1 303*)) Returns all people in the corporate directory whose phone number is either in area code 408 or in area code 303.</p> <p>(&(telephonenumber=+1 408*)(sn=Smith)) Returns all people in the corporate directory whose phone number is in area code 408 and whose last name is Smith.</p>						
DTMF Filter	<p>Leave this field blank to permit ASA subscribers to address by spelling when making calls or addressing messages to anyone in the corporate directory. (The 5000-name limit imposed on the Static Grammar Filter does not apply to DTMF filtering.)</p> <p>To limit the list of people that subscribers can call by spelling the name to the same list that they can call by speaking the name, set the value here to match that of the Static Grammar Filter.</p> <p>The syntax for this filter is identical to that of the Static Grammar Filter.</p>						

ASA Server Configuration Procedure	Step-by-step Instructions						
<p>VII. (Continued)</p> <p>Set Up the Corporate Directory</p>	<p>3. Verify that the following fields contain the names that the LDAP server uses to identify various information accessed by ASA. The default names are part of the LDAP standard; you should not need to change them.</p> <p style="padding-left: 40px;">First Name Attribute Last Name Attribute Display Name Attribute Email Attribute Telephone Number Attribute Fax Attribute</p>						
<p>VIII.</p> <p>Configure Dialing Information</p>	<p>Note: Refer to Dialing Parameters for additional information about the parameters and examples used in this procedure.</p> <p>Important: After completing this procedure, be sure to stop and then restart the Telephony Provider Process.</p> <ol style="list-style-type: none"> From the ASA Server Management Console, expand the Configuration node and click Telephony Setup to display the Telephony Setup details pane. Complete the Telephony Setup Details Pane as follows: <table border="0" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left; width: 50%;"><u>For this Field or Button</u></th> <th style="text-align: left; width: 50%;"><u>Take This Action</u></th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top; padding-top: 10px;">Output Level (toggle bar)</td> <td style="vertical-align: top; padding-top: 10px;">Move the bar left or right to set the volume of the ASA discourse (try -3 for the initial setting)</td> </tr> <tr> <td style="vertical-align: top; padding-top: 10px;">The Country Code for the ASA</td> <td style="vertical-align: top; padding-top: 10px;">Enter the country code at the ASA Server location (should match the numbering plan for the T1/E1).</td> </tr> </tbody> </table> <p style="text-align: right; margin-top: 10px;">For example, the code for the United States is 1.</p> 	<u>For this Field or Button</u>	<u>Take This Action</u>	Output Level (toggle bar)	Move the bar left or right to set the volume of the ASA discourse (try -3 for the initial setting)	The Country Code for the ASA	Enter the country code at the ASA Server location (should match the numbering plan for the T1/E1).
<u>For this Field or Button</u>	<u>Take This Action</u>						
Output Level (toggle bar)	Move the bar left or right to set the volume of the ASA discourse (try -3 for the initial setting)						
The Country Code for the ASA	Enter the country code at the ASA Server location (should match the numbering plan for the T1/E1).						

ASA Server Configuration Procedure	Step-by-step Instructions						
<p>VIII. (Continued)</p> <p>Configure Dialing Information</p>	<p>The Country Code for the ASA (con't)</p> <p>Note: When the field is set to 1, the following settings are internally defaulted:</p> <p>National Number Prefix = 1 International National Prefix = 011 Subscriber Number Template = RRRRRR National Number Template = RRRRRRRRRR</p> <table border="0"> <thead> <tr> <th data-bbox="727 659 922 722"><u>For this Field or Button</u></th> <th data-bbox="1049 659 1289 690"><u>Take this Action</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="727 743 922 806">The Area Code for the ASA</td> <td data-bbox="1049 743 1419 869">Enter the area code at the ASA Server location. For example, the area code for San Jose, CA is 408.</td> </tr> <tr> <td data-bbox="727 890 951 953">Local Numbering Plan Prefixes</td> <td data-bbox="1049 890 1419 1772"> Enter the digits to prefix to a telephone number for various type of calls: <p>Off PBX ("P" in the dialing tables) Digits to prefix to a local number before it is dialed. In the United States, this number is often 9.</p> <p>National Prefix ("N" in the dialing tables) Digits to prefix to a number for domestic long distance calls made from the ASA Server location. From the United States, this number is usually 1.</p> <p>International Prefix ("I" in the dialing tables) Digits to prefix to an international call made from the ASA Server location. For example, the international prefix for calls to the United States is 011.</p> </td> </tr> </tbody> </table>	<u>For this Field or Button</u>	<u>Take this Action</u>	The Area Code for the ASA	Enter the area code at the ASA Server location. For example, the area code for San Jose, CA is 408 .	Local Numbering Plan Prefixes	Enter the digits to prefix to a telephone number for various type of calls: <p>Off PBX ("P" in the dialing tables) Digits to prefix to a local number before it is dialed. In the United States, this number is often 9.</p> <p>National Prefix ("N" in the dialing tables) Digits to prefix to a number for domestic long distance calls made from the ASA Server location. From the United States, this number is usually 1.</p> <p>International Prefix ("I" in the dialing tables) Digits to prefix to an international call made from the ASA Server location. For example, the international prefix for calls to the United States is 011.</p>
<u>For this Field or Button</u>	<u>Take this Action</u>						
The Area Code for the ASA	Enter the area code at the ASA Server location. For example, the area code for San Jose, CA is 408 .						
Local Numbering Plan Prefixes	Enter the digits to prefix to a telephone number for various type of calls: <p>Off PBX ("P" in the dialing tables) Digits to prefix to a local number before it is dialed. In the United States, this number is often 9.</p> <p>National Prefix ("N" in the dialing tables) Digits to prefix to a number for domestic long distance calls made from the ASA Server location. From the United States, this number is usually 1.</p> <p>International Prefix ("I" in the dialing tables) Digits to prefix to an international call made from the ASA Server location. For example, the international prefix for calls to the United States is 011.</p>						

ASA Server Configuration Procedure	Step-by-step Instructions												
<p>VIII. (Continued)</p> <p>Configure Dialing Information</p>	<p>This feature is useful in ASA environments that employ standardized dialing conventions for dialing plans such as intra-company or extension dialing.</p> <p>For example:</p> <table border="1"> <thead> <tr> <th data-bbox="834 617 922 680">Text Input</th> <th data-bbox="938 617 1026 680">Table Substitution</th> <th data-bbox="1130 617 1318 680">Substitution Example</th> </tr> </thead> <tbody> <tr> <td data-bbox="834 701 922 732">VNET</td> <td data-bbox="993 701 1018 732">8</td> <td data-bbox="1130 701 1354 764">VNT111-2222 to 81112222</td> </tr> <tr> <td data-bbox="834 800 891 831">ext.</td> <td data-bbox="993 800 1018 831">,</td> <td data-bbox="1130 800 1419 863">978-2555 ext. 421 to 9782555,421</td> </tr> <tr> <td data-bbox="834 915 859 947">x</td> <td data-bbox="993 915 1018 947">,</td> <td data-bbox="1130 915 1377 978">978-2555 x421 to 9782555,421</td> </tr> </tbody> </table> <p>Notes:</p> <p>Avoid using ambiguous input such as EXT and EXTENSION.</p> <p>Avoid using numbers at the end of input text (such as EXT1)</p>	Text Input	Table Substitution	Substitution Example	VNET	8	VNT111-2222 to 81112222	ext.	,	978-2555 ext. 421 to 9782555,421	x	,	978-2555 x421 to 9782555,421
Text Input	Table Substitution	Substitution Example											
VNET	8	VNT111-2222 to 81112222											
ext.	,	978-2555 ext. 421 to 9782555,421											
x	,	978-2555 x421 to 9782555,421											

ASA Server Configuration Procedure	Step-by-step Instructions																					
VIII. (Continued) Configure Dialing Information	<p><u>For This Field or Button</u></p> <p>Private Numbers Table</p>	<p><u>Take This Action</u></p> <p>Click to configure one or more templates used to define the set of numbers considered private (not part of the local, public numbering plan). For detailed information about completing the Private Numbers Table dialog box, see Private Numbers Table in the "Dialing Parameters" section.</p> <p>The following example defines 4-digit extensions as private numbers. Therefore, when ASA receives an instruction to dial a 4-digit number, no area code or prefix is dialed (just the 4 digits are dialed).</p> <table border="0" data-bbox="857 1052 1084 1115"> <tr> <td><u>Ext</u></td> <td><u>Dial</u></td> </tr> <tr> <td>RRRR</td> <td>XXXX</td> </tr> </table> <p>The next example defines the range of extensions owned by the company where you are installing ASA (the 408 area code and 555 prefixes belong to the company). Therefore, if an ASA user says, "Dial 408 577 1234," ASA dials only 1234. When you add users, ASA see this range of extensions as private numbers.</p> <table border="0" data-bbox="857 1415 1373 1507"> <tr> <td><u>Area Code</u></td> <td><u>Prefix</u></td> <td><u>Ext</u></td> <td><u>Dial</u></td> </tr> <tr> <td>408</td> <td>577</td> <td>RRRR</td> <td>XXXX</td> </tr> </table> <p>The next example defines the range of prefixes, and the first number of the 4-digit extensions, owned by the company. Therefore, if an ASA user says, "Dial 408 953 9234," ASA dials only 234. When you add users, ASA see this range of extensions as private numbers.</p> <table border="0" data-bbox="857 1776 1373 1869"> <tr> <td><u>Area Code</u></td> <td><u>Prefix</u></td> <td><u>Ext</u></td> <td><u>Dial</u></td> </tr> <tr> <td>408</td> <td>953</td> <td>9RRR</td> <td>9XXX</td> </tr> </table>	<u>Ext</u>	<u>Dial</u>	RRRR	XXXX	<u>Area Code</u>	<u>Prefix</u>	<u>Ext</u>	<u>Dial</u>	408	577	RRRR	XXXX	<u>Area Code</u>	<u>Prefix</u>	<u>Ext</u>	<u>Dial</u>	408	953	9RRR	9XXX
<u>Ext</u>	<u>Dial</u>																					
RRRR	XXXX																					
<u>Area Code</u>	<u>Prefix</u>	<u>Ext</u>	<u>Dial</u>																			
408	577	RRRR	XXXX																			
<u>Area Code</u>	<u>Prefix</u>	<u>Ext</u>	<u>Dial</u>																			
408	953	9RRR	9XXX																			

ASA Server Configuration Procedure	Step-by-step Instructions													
<p>VIII. (Continued)</p> <p>Configure Dialing Information</p>	<p>Local Numbers Table</p>	<p>Click to configure numbers that must be matched to be assigned to the LOCAL dial type. For detailed information about completing the Local Numbers dialog box, see Local Numbers Table in the "Dialing Parameters" section</p> <p>In the following example, P represents the PBX prefix (usually 9). Local numbers can contain any 7 digits. Therefore, an ASA user with Local Number privileges can ask ASA to dial any 7-digit number. When such a request is made, ASA dials only P followed by 7 digits.</p> <table border="0"> <thead> <tr> <th><u>Area Code</u></th> <th><u>Number</u></th> <th><u>Dial</u></th> </tr> </thead> <tbody> <tr> <td></td> <td>RRRRRRR</td> <td>PXXXXXX</td> </tr> </tbody> </table> <p>In the next example, P represents the PBX prefix (usually 9). The local area code is 408, and local numbers can contain any 7 digits. An ASA user with Local Number privileges can ask ASA to dial any 7-digit number. When such a request is made, ASA dials only P followed by 7 digits.</p> <table border="0"> <thead> <tr> <th><u>Area Code</u></th> <th><u>Number</u></th> <th><u>Dial</u></th> </tr> </thead> <tbody> <tr> <td>408</td> <td>RRRRRRR</td> <td>PXXXXXXX</td> </tr> </tbody> </table>	<u>Area Code</u>	<u>Number</u>	<u>Dial</u>		RRRRRRR	PXXXXXX	<u>Area Code</u>	<u>Number</u>	<u>Dial</u>	408	RRRRRRR	PXXXXXXX
<u>Area Code</u>	<u>Number</u>	<u>Dial</u>												
	RRRRRRR	PXXXXXX												
<u>Area Code</u>	<u>Number</u>	<u>Dial</u>												
408	RRRRRRR	PXXXXXXX												

ASA Server Configuration Procedure	Step-by-step Instructions	
<p>VIII. (Continued)</p> <p>Configure Dialing Information</p>	<p>Long Distance Numbers Table</p>	<p>Click to configure numbers that will be considered by ASA as LONG DISTANCE dial types. For detailed information about completing the Long Distance Numbers Table dialog box, see Long Distance Numbers Table in the "Dialing Parameters" section.</p> <p>In the following example, any 10-digit number is a long distance number. The ASA user must have long distance privileges to dial this number. When ASA receives a request to dial a long distance number, it dials P (Off PBX prefix), then it dials N (national prefix), then it dials the 10-digit number.</p> <p style="text-align: center;"> <u>Area Code</u> <u>Number</u> <u>Dial</u> RRR RRRRRRR PXXXXXXXXXX </p> <p>3. Stop, and then restart, the Telephony Provider Process</p>
<p>IX.</p> <p>Set Up Voice Mail</p>	<ol style="list-style-type: none"> 1. In the left pane of the ASA Management Console, expand Configuration and click Voicemail Setup. 2. Right-click and select New-> Voicemail Server. 3. Enter the necessary information and click OK. 4. Click the voicemail server you added in step 3. The voicemail server form appear in the details pane. 	

ASA Server Configuration Procedure	Step-by-step Instructions																		
IX. Set Up Voice Mail	5. Configure the voicemail server as follows: <table border="1" data-bbox="727 380 1403 1316"> <thead> <tr> <th data-bbox="727 380 971 415">For This Field</th> <th data-bbox="997 380 1247 415">Take This Action</th> </tr> </thead> <tbody> <tr> <td data-bbox="727 436 971 472">Voicemail Server</td> <td data-bbox="997 436 1403 499">Enter the name of the voicemail server.</td> </tr> <tr> <td data-bbox="727 520 971 556">VM Pilot Number</td> <td data-bbox="997 520 1403 583">Enter the pilot number for the voicemail server.</td> </tr> <tr> <td data-bbox="727 604 971 640">VM Server Type</td> <td data-bbox="997 604 1403 667">Enter the type of voicemail server installed at this site.</td> </tr> <tr> <td data-bbox="727 688 971 724">Network Address</td> <td data-bbox="997 688 1403 751">Enter the network address for the voicemail server.</td> </tr> <tr> <td data-bbox="727 772 971 808">Download Enabled</td> <td data-bbox="997 772 1403 867">Select this option if you want to schedule names downloads from the voicemail server.</td> </tr> <tr> <td data-bbox="727 888 971 924">Perform Retrieval</td> <td data-bbox="997 888 1403 1014">Select the frequency, and the day and time for the names download from the voicemail server.</td> </tr> <tr> <td data-bbox="727 1035 971 1071">Retrieval Time</td> <td data-bbox="997 1035 1403 1161">Schedule the time of day at which the names download from the voicemail server should occur.</td> </tr> <tr> <td data-bbox="727 1182 971 1218">Mailbox ID</td> <td data-bbox="997 1182 1403 1308">If your voicemail server requires a mailbox ID, enter the ID to use during the names download.</td> </tr> </tbody> </table>	For This Field	Take This Action	Voicemail Server	Enter the name of the voicemail server.	VM Pilot Number	Enter the pilot number for the voicemail server.	VM Server Type	Enter the type of voicemail server installed at this site.	Network Address	Enter the network address for the voicemail server.	Download Enabled	Select this option if you want to schedule names downloads from the voicemail server.	Perform Retrieval	Select the frequency, and the day and time for the names download from the voicemail server.	Retrieval Time	Schedule the time of day at which the names download from the voicemail server should occur.	Mailbox ID	If your voicemail server requires a mailbox ID, enter the ID to use during the names download.
For This Field	Take This Action																		
Voicemail Server	Enter the name of the voicemail server.																		
VM Pilot Number	Enter the pilot number for the voicemail server.																		
VM Server Type	Enter the type of voicemail server installed at this site.																		
Network Address	Enter the network address for the voicemail server.																		
Download Enabled	Select this option if you want to schedule names downloads from the voicemail server.																		
Perform Retrieval	Select the frequency, and the day and time for the names download from the voicemail server.																		
Retrieval Time	Schedule the time of day at which the names download from the voicemail server should occur.																		
Mailbox ID	If your voicemail server requires a mailbox ID, enter the ID to use during the names download.																		

ASA Server Configuration Procedure	Step-by-step Instructions									
IX. (Continued) Set Up Voice Mail	<table border="1"> <thead> <tr> <th data-bbox="727 321 1019 352">For This Field</th> <th data-bbox="1052 321 1409 352">Take This Action</th> </tr> </thead> <tbody> <tr> <td data-bbox="727 373 1019 405">Password</td> <td data-bbox="1052 373 1409 531">If your voicemail server requires a password for the mailbox ID, enter the password to use during the names download</td> </tr> <tr> <td data-bbox="727 552 1019 583">Last Download Time</td> <td data-bbox="1052 552 1409 646">Displays the time of the last names download from the voicemail server.</td> </tr> <tr> <td data-bbox="727 667 1019 699">Last Download Status</td> <td data-bbox="1052 667 1409 762">Displays the status of the last names download from the voicemail server.</td> </tr> </tbody> </table>	For This Field	Take This Action	Password	If your voicemail server requires a password for the mailbox ID, enter the password to use during the names download	Last Download Time	Displays the time of the last names download from the voicemail server.	Last Download Status	Displays the status of the last names download from the voicemail server.	
For This Field	Take This Action									
Password	If your voicemail server requires a password for the mailbox ID, enter the password to use during the names download									
Last Download Time	Displays the time of the last names download from the voicemail server.									
Last Download Status	Displays the status of the last names download from the voicemail server.									
X. Publish the Application	<ol style="list-style-type: none"> <li data-bbox="678 783 1409 888">1. In the left pane of the ASA Management Console, expand ASA Applications and click VA Outlook. <li data-bbox="678 909 1409 982">2. Check the Rebuild dynamic grammar database box. <li data-bbox="678 1003 1409 1119">3. Click Publish. The application is published when you see a message similar to the following: VAOutlook: Done publishing application VAOutlook <li data-bbox="678 1224 1409 1264">4. Restart the ASA Server. 									

Test the ASA Installation

In this section, you first create an Outlook account from which you can test the Avaya Advanced Speech Access application. You then use ASA common commands to access and manage your Outlook account.

Create an ASA Test Account Environment

1. If you are using Exchange 5.5, log on to one of the Exchange Servers in the Exchange site. If you are using Exchange 2000, access the machine running Active Directory Users and Computers from which you want to administer ASA subscribers.
2. Insert the Avaya Advanced Speech Access Application software CD in the CD-ROM drive. From the main menu, click **Install ASA Components**. From the ASA Components screen, select **ASA Exchange Extensions**.
3. Select the appropriate Exchange version for your installation (**Exchange 5.5** or **Exchange 2000**). Proceed through the installation, entering details when prompted.
4. Open the properties for the mailbox (account) you created in component installation procedure XIII. Click the **Avaya Advanced Speech Access** tab. Then click the **Enable Avaya Advanced Speech Access** box and enter a 7-digit account number and a 4-digit password.

-
5. Do the following to create an Outlook environment in which you can test the ASA application:
 - Create for yourself a new Outlook profile for the mailbox.
 - Send yourself some e-mail messages.
 - Send yourself some voice mail messages.
 - Create some tasks in the Outlook **Tasks** folder.
 - Create a few additional contacts, using valid mailbox addresses from the Exchange environment.
 6. Arrange for someone at the ASA installation site to participate with you in testing ASA. Make sure to select a contact that is
 - Part of the Exchange Users group
 - Has an Exchange alias name
 - Has a valid mailbox number and password

Test ASA Voice Commands

1. Call the ASA pilot number for your system and enter your account number and password when prompted.
2. Record your name and greeting.
3. Speak a variety of voice commands to ASA and make sure you obtain the expected result. At a minimum, perform the following interactions using ASA:
 - Say "**Read my messages.**" Then check your Inbox to make sure that your e-mail messages have changed from bold/unread to unbold/read.
 - Say "**How many tasks do I have?**"
 - Say "**Read my appointments,**" then follow the prompts.

-
- Say "**Send a message**" and send a message to yourself. Then send a message to the test participant.
 - Say "**Create an appointment**," then follow the prompts.
 - Say "**Read my voice mail**."
 - Say "**Dial a number**" and speak the telephone number of your test participant. While the telephone is ringing, say "**Cancel**." The Avaya personal assistant should come back.
 - Say "**Goodbye**" and hang up to end the ASA session.

If You Have A Problem

If you encounter difficulties with the installation or test process, first try reading [Troubleshoot the ASA Installation](#). Next, refer to the troubleshooting chapter in the *Avaya Advanced Speech Access Administrator's Guide* (available on the Avaya Advanced Speech Access Application software CD). If you still have problems, contact your ASA support representative.

What To Do Next

If you are an administrator who wants to remotely manage ASA, you can create a separate Administration Station by installing the ASA Server Management Console on a machine not running the ASA server software. Or, you can use the optional ASA Web-based administration tool, called ASA Manager, which is part of the ASA Web Interface. See the *Avaya Advanced Speech Access Administrator's Guide* for more information.

The *Avaya Advanced Speech Access Administrator's Guide* also provides a conceptual overview of ASA, includes detailed instructions about managing and troubleshooting the ASA system, and explains how to use the Web-based User Manager to add and delete users.

ASA subscribers are provided a Web-based tool from which they can customize their ASA accounts. You can

install the ASA User Preferences Web interface on any system in the Exchange Server domain, but we highly recommend that you install it on a system running ASA Server software (see [Install the ASA Web Interface](#)).

Troubleshoot the ASA Installation

Check VAServerManager Status

The most important step in checking an ASA installation is to ensure that the VAServerManager service started. To verify that this service started, click

Start->Settings->Control Panel ->Administrative Tools ->Services

and check that the word **Started** appears on the services list next to VAServerManager.

Installation Log Files

If the VAServerManager service does not display a status of **Started**, an error probably occurred during **ASA** installation. The ASA installation program generates a set of log files that are useful for diagnosing a failed installation. These files can be found in the following location:

<installroot> \Log

where *<installroot>* is the path to which the ASA Server software was installed (**C:\Program Files\ASA Server** by default).

If you received a warning or saw error messages during installation, check the log files first to see whether they contain more detailed messages. [Table 2](#) describes the log files in the Log directory.

Table 2. Installation Log Files

File Name	Description
ASAIInstallLog_Server.log	The primary installation log file. This file should be checked first.
VAServiceControl_VAMGR0.log	Contains a log of the install routine's NT Service operations (e.g. creating the VA Manager and VAServerManager services)
VAServiceControl_SS.log	Contains logging of the install routine's NT Service operations for the MSSQLServer service
VAServiceControl_SSA.log	Contains logging of the install routine's NT Service operations for the SQL Server Agent service
VLADCOM.log	Contains a log of the install routine's setting of DCOM permissions for the various platform objects
VAServiceControl_VASM0.log	Contains output from the install routine's configuration of NT service characteristics of the VAServerManager service
VAServiceControl_VASM1.log	Contains output from the install routine's configuration of NT service characteristics of the database service (MSDE or SQL Server)
SetDBSec.log	Contains a log of the install routine's database security configuration
VADatabaseManager.log	Contains output from the install routine's initialization and maintenance of the VADB Manager

Common Installation Problems

The most common installation problems, and their solutions, are listed on [Table 3](#).

Table 3. Common Installation Problems

Problem	Description	Comments
Software Prerequisites Not Installed	The ASA install program does not check for the presence of all the prerequisite software packages.	See Software Prerequisites to determine if all necessary software components have been installed.
Out of Space Errors	The installation of ASA requires approximately 800 MB for a Controller Node with the MSDE database.	Increase the amount of available disk space by adding or upgrading hard disks; then run the installation again.
Improperly Configured Service	If the service account does not have the proper domain, the installation could fail.	See Create the ASA Service Account and Set Up a Mailbox and Set Permissions for the Service Account . Ensure that the service account was set up properly. Note: The ASA installation program enables certain local rights on the ASA service account. If you did not create the account, or you created the account incorrectly, you must rerun the ASA installation.
Speech Recognition DLLs fail to register during installation	You probably did not restart the system after installing the Nuance software.	Restart the system, then run the ASA installation again.
Processes start okay, but the service account cannot connect to TTS server (TTS server is running)	You may have assigned an empty password to the service account.	See the ASA Installation Procedure . Run the ASA installation again and select a password for ASA service account.

Problem	Description	Comments
Processes start okay, but VA Engine displays the message Can't load XML	XML Parser not installed	Using the Install Microsoft XML Parser 3.0 Service Pack 1 procedure, install the XML Parser. Then re-run the ASA server installation (see Install ASA Server Software).
RecServer process will not start	License server not configured OR Invalid UCC license file on the UCC Base Server	Specify UCC license server location on the General Information screen. Verify that a valid license file is properly installed on the UCC Base Server.
Publication process fails	The following error appears during the publication process: Error extracting directory <directory name> from storage--0x80070003	This message occurs if the disk is full. It can also appear if the entire path to the application's .vapub file, or the path to one of the files in the application's directory, exceeds the system limit of 256 characters. If you receive this message, delete the application instance you just created and recreate the application with a shorter name. If you still receive this error, you might need to modify the directory structure to shorten the file path.

Dialing Parameters

The [Configure ASA Server](#) section provides step-by-step instructions for configuring ASA dialing information (see [Configure Dialing Information](#)). This section describes the parameters you can use to set rules for your ASA outcall numbering plan.

Number Table Characteristics

Each ASA number table (see [Private Numbers Table](#), [Local Numbers Table](#), [Long Distance Numbers Table](#)) provides a sequence of entries (consisting of two to four fields) that match a particular series of numbers. Matched numbers are then marked as private, local, or long distance.

Number Template Fields

You use a Number Template field to describe a series of digits to match a number. These fields consist of a sequence of digits or wildcards, and are restricted by the rules explained on Table [Table 3](#)

Table 3 Number Template Rules

Digit or Character	Description	Example(s)
0 through 9	Valid digits	
R	Represents the <i>any digit</i> wildcard. Matches any digit (0-9), but must be present in the matched number	RRR Matches any 3-digit number, and <i>only</i> 3-digit numbers.
[and]	Sets a conditional wildcard. The characters between the brackets can consist of 0-9 , and - , to specify the digits or range of digits that must be matched.	[159RR] Matches 3-digit numbers that start with 1,5, or 9 [16-8]RR Matches 3-digit numbers that start with 1,6,7,or 8
?	Follows any digit or wildcard to make it optional. Allows numbers to be of variable length.	[12]?RR Matches 3-digit numbers beginning with 1 or 2,; also matches any 2-digit number
O	Optional digit wildcard; shorthand notation for R? , which optionally matches any digit.	ORR Matches any 3-digit number or any 2-digit number (same as R?RR)

Dial Template Fields

A Dial template field is a companion to one or more Number Template fields, and specifies how a matched number will be dialed. Valid characters are described on [Table 4](#)

Table 4 Dial Template Rules

Digit or Character	Description
0 through 9 A through D	Each character represents a single explicit DTMF digit to be dialed.
X	Replaced by a digit matched by a wildcard in an associated Number Template. Each wildcard is assigned an order and a series of Xs is replaced in the order in which they match wildcards. (See Sample Template Entries for more information.)
S	Used to skip a wildcard field. If a matched wildcard is not needed in the final dialed number, this character can be used to skip it. (See Sample Template Entries for more information.)
G	Replaced by the value of the Area code for ASA field on the main Telephony Setup screen.
I	Replaced by the value of the International Prefix field on the main Telephony Setup screen.
N	Replaced by the value of the National Prefix field on the main Telephony Setup screen.
P	Replaced by the value of the Off PBX Prefix field on the main Telephony Setup screen.

Digit or Character	Description
U	Replaced by the value of the Country code for ASA field on the Telephony Setup screen.
Z	Replaced by the authorization code administrated for the user performing the outcall.

Sample Template Entries

[Table 5](#) provides a list of sample Number and Dial Templates entries, and their results.

Table 5 Template Input/Output Information

If this number is input...	And the Number Template is set to...	And the Dial Template is set to...	Then this number is output...	Notes
123	RRR	XXX	123	
155	[157]5R	X5X	155	
555	ORR	XXX	555	Optional digit matched '5'.
55	ORR	XXX	55	Optional digit matched nothing.
1255	[147]ORR	XXXX	1255	Optional digit matched '2'.
1255	[147]ORR	222SSXX	22255	Skipped first and second wild cards.
155	[147]ORR	SXXX	55	Optional digit matched nothing.

Important: As the last sample shows, you must take care when more than one match is possible. The **1** could have matched the **O** wildcard, but the **[147]** was matched first. Wildcards are evaluated in left to right order.

Private Numbers Table

[Figure 1](#) illustrates the Private Numbers Table. This table describes both Private and On PBX numbers. Any number that matches an entry in this table is assigned the PRIVATE dial type. The Area Code, Prefix, and Extension columns are associated Number Template fields. Dial is a Dial Template (specifies how the entry should be dialed).

Figure 1. Private Numbers Table.

Area Code	Prefix	Extension	Dial
408	555	43RR	01843XX
303	77	4RRR	4XXX
		3RRRR	0193XXXX

As configured, the Area Code and Prefix are optionally matched. A single entry in the table can match all possible permutations of a private extension.

Following are Private Numbers Table examples. For examples 2 and 3, assume that the Telephony Setup screen is configured as follows:

Country Code = 1
Area Code = 408
Off PBX Prefix = 9
National Prefix = 1
International Prefix = 011

Private Numbers Table, Example 1

For the first entry in [Figure 1](#) (Extension **43RR** and Dial **01843XX**) only 4-digit extensions starting with 3 would be matched.

Although the entry **43RR** is a subset of the following example, it is evaluated first; because **43RR** is listed first.

If a number matches this entry, further entries are not checked. Thus, the number dialed will be the 4-digit extension that starts with **43**, prefixed by a trunk access code of **018**.

Private Numbers Table, Example 2

For the second entry in [Figure 1](#) (Area Code **408**, Prefix **555**, Extension **4RRR**, Dial **4XXX**), the following list of numbers are matched:

4***	4 digits starting with 4
5554***	7 digits starting with 5554
4085554***	10 digits starting with 4085554
14085554***	10 digits starting with 4085554 and prefixed by the National Dialing prefix
14085554***	10 digits starting with 4085554 and prefixed by the Country Code
01114085554***	10 digits starting with 4085554 and prefixed by the International Dialing Prefix and Country Code
95554***	7 digits starting with 5554 and prefixed by the Off PBX prefix
94085554***	10 digits starting with 4085554 and prefixed by the Off PBX prefix
914085554***	10 digits starting with 4085554 and prefixed by the Off PBX prefix and the National Dialing Prefix
914085554*** 40855454	10 digits starting with and prefixed by the Off PBX prefix and Country Code
901114085554***	10 digits starting with 4085554 and prefixed by the Off PBX prefix, International prefix, and Country Code

Any number that matches this list is dialed as a 4-digit extension that begins with **4** (as per the Dial field).

Private Numbers Table, Example 3

For the third entry in [Figure 1](#) (Area Code **303**, Prefix **77**, Extension **3RRRR**, Dial **0193XXXX**), non-local numbers can be dialed using the private network. The following list of numbers are matched:

3****	5 digits starting with 3
303773****	10 digits starting with 303773
1303773****	10 digits starting with 303773, prefixed by the national dialing prefix
1303773****	10 digits starting with 303773, prefixed by the country code
0111303773****	10 digits starting with 303773, prefixed by the international dialing prefix and country code
9303773****	10 digits starting with 303773, prefixed by the off PBX prefix
91303773****	10 digits starting with 303773, prefixed by the off PBX prefix and national dialing prefix
91303773****	10 digits starting with 303773, prefixed by the off PBX prefix and country code
90111303773****	10 digits starting with 303773, prefixed by the off PBX prefix, international dialing prefix and country code

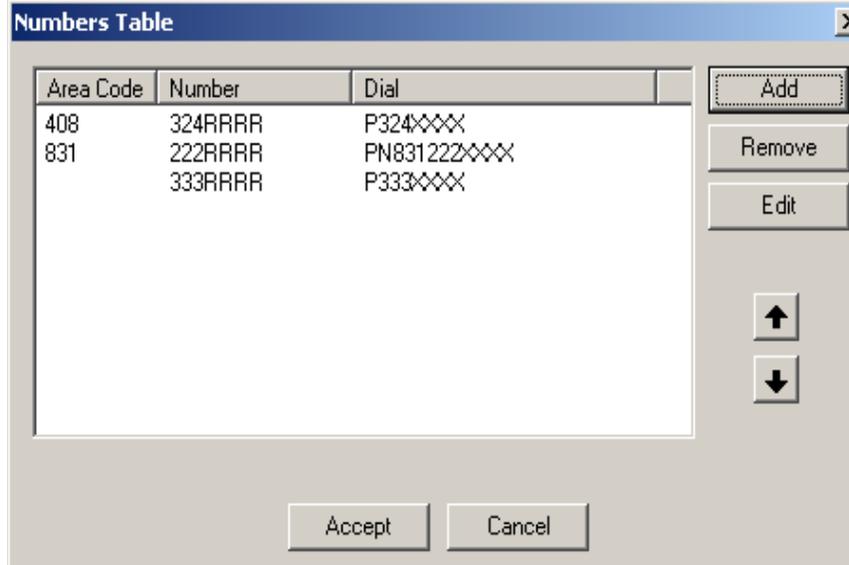
Any number matching this configuration is dialed using the private network, as a 5-digit extension starting with **3**, and using the trunk access code **019**. 7-digit numbers are not accepted, because the Area Code field does not match what you entered in the main Telephony Setup screen.

Local Numbers Table

The Local Numbers Table (see [Figure 2](#)) is similar in form and function to the Private Numbers Table. However, the Local Numbers Table has only two Number Template fields (Area Code and Number) and one Dial Template field.

Configure this table to match numbers that you assign to the LOCAL dial type.

Figure 2. Local Numbers Table



For this table, the Area Code need not match for the entry to be considered a match--provided that the Area Code matches the value on the main Telephony Setup screen. The following examples illustrate the rules for this table.

For the examples, assume the main Telephony Setup screen is configured as follows:

Country Code = 1
 Area Code = 408
 Off PBX Prefix = 9
 National Prefix = 1
 International Prefix = 011

Local Numbers Table, Example 1

For the first entry in [Figure 2](#) (Area Code **408**, Number **324RRRR**, and Dial **P324XXXX**), the following list of numbers are matched:

- 324**** 7 digits starting with 324
- 408324**** 10 digits starting with 408324
- 1408324**** 10 digits starting with 408324, prefixed by the country code.
- 0111408324**** 10 digits starting with 408324, prefixed by the international dialing prefix and country code.

9324****	7 digits starting with 324, prefixed by the off PBX prefix
9408324****	10 digits starting with 408324, prefixed by the off PBX prefix
91408324****	10 digits starting with 408324, prefixed by the off PBX prefix and national dialing prefix
91408324****	10 digits starting with 408324, prefixed by the off PBX prefix and country code
90111408324****	10 digits starting with 408324, prefixed by the off PBX prefix, international dialing prefix and country code

A numbers that matches (with the above restrictions) is dialed as a 7-digit number, starting with **324** and prefixed by the Off PBX prefix. Thus, if the number **4083245555** is input, ASA will dial **93245555**.

**Local Numbers
Table, Example 2**

The second entry in [Figure 2](#) (Area Code **831**, Number **222RRRR**, and Dial **PN831222XXXX**) represents a series of numbers that are outside the local area code, but that still should be considered local (they are non-toll calls).

Following is a list of matching numbers for this entry.

831222****	10 digits starting with 831222
1831222****	10 digits starting with 831222, prefixed by the National Dialing Prefix
1831222****	10 digits starting with 831222, prefixed by the Country Code
0111831222****	10 digits starting with 831222, prefixed by the International Dialing Prefix and Country Code
9831222****	10 digits starting with 831222, prefixed by the Off PBX prefix
91831222****	10 digits starting with 831222, prefixed by the Off PBX prefix and National Dialing Prefix

91831222**** 10 digits starting with 831222,
prefixed by the Off PBX prefix and
Country Code

90111831222**** 10 digits starting with 831222,
prefixed by the off PBX prefix,
International Dialing Prefix and
Country Code

Unlike Example 1, this entry matches only a 10-digit number, because the Area Code does not match the value on the Telephony Setup main screen. Thus, the number **8312221111** would be dialed as **918312221111**, a 10-digit number prefixed by the Off PBX prefix and National Dialing prefix, as specified in the Dial field.

Local Numbers Table, Example 3

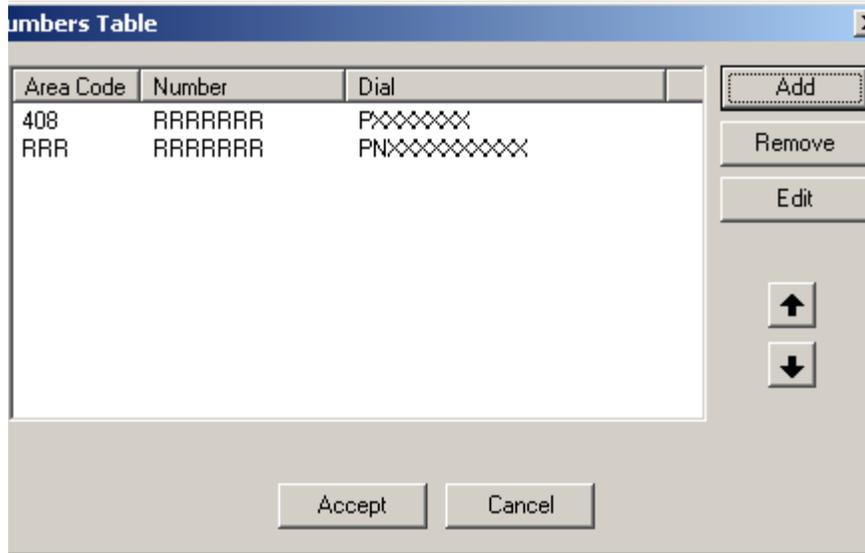
The third entry in [Figure 2](#) (blank Area Code field, Number **333RRRR**, and Dial **P333XXXXZ,,,1234**) matches only 7-digit numbers starting with **333**.

As per the Dial field, these numbers are dialed with the Off PBX prefix, followed by the 7-digit number, the users authorization code, and an extension of **,,,1234**. The extension is output as DTMF tones by ASA after the call is answered.

Long Distance Numbers Table

The Long Distance Numbers Table (see [Figure 3](#)) is a list of numbers considered by ASA as the LONG-DISTANCE dial type. This table has the same fields and functionality as the [Local Numbers Table](#).

Figure 3. Long Distance Numbers Table



Long Distance Numbers Table, Example 1

The first entry in [Figure 3](#) (Area Code **408**, Number **RRRRRRR**, and Dial **PXXXXXXX**) matches numbers for the local area code that were not matched by the rules in the Local Numbers Table. The following numbers are matched.

- ***** 7 digits
- 408***** 10 digits starting with 408
- 1408***** 10 digits starting with 408, prefixed by the National Dialing prefix
- 1408***** 10 digits starting with 408, prefixed by the Country Code
- 0111408***** ten digits starting with 408, prefixed by the International Dialing prefix and Country Code
- 9***** 7 digits, prefixed by the off PBX prefix
- 9408***** 10 digits starting with 408, prefixed by the Off PBX prefix
- 91408***** 10 digits starting with 408, prefixed by the Off PBX prefix and National Dialing prefix
- 91408***** 10 digits starting with 408, prefixed by the Off PBX prefix and Country Code

90111408***** ten digits starting with 408, prefixed by the Off PBX prefix, International Dialing prefix and Country Code

Numbers matching these restrictions are dialed with the Off PBX prefix followed by the 7-digit number.

Long Distance Numbers Table, Example 2

The second entry in [Figure 3](#) (Area Code **RRR**, Number **RRRRRRR**, and Dial **PNXXXXXXXXXX**) provides a description for all national numbers. This entry is last in the table, because previous entries are a subset of this entry.

The following numbers are matched with this entry:

- ***** 10 digits
- 1***** 10 digits, prefixed by the National Dialing prefix
- 1***** 10 digits, prefixed by the Country Code
- 0111***** 10 digits, prefixed by the international dialing prefix and country code
- 9***** 10 digits, prefixed by the off PBX prefix
- 91***** 10 digits, prefixed by the off PBX prefix and national dialing prefix
- 91***** 10 digits, prefixed by the off PBX prefix and country code
- 90111***** 10 digits, prefixed by the off PBX prefix, international dialing prefix and country code

Forbidden Numbers Table

The Forbidden Numbers Table (see [Figure 4](#)), is a list of Number Template fields that specify numbers that users should not be permitted to dial. This table is checked before and after the number is converted by the Number Tables. Numbers matching the entries in this table are marked with the DISALLOWED dial type.

Figure 4. Forbidden Numbers Table



How the Dialing Parameter Tables Operate

ASA verifies a number's dialing parameters as follows:

1. **Check the Text Substitution Table.** Apply to the number appropriate text substitutions.
2. **Determine if the number should be dialed.** Compare the number to Forbidden Numbers Table entries. If a match is found, do not dial the number. If no match is found, proceed to step 3.
3. **Check the Private Numbers Table.** If a match is found, convert the number by the appropriate Dial Template and set the type to PRIVATE. If no match is found, proceed to step 4.
4. **Check the Local Numbers Table.** If a match is found, convert the number by the appropriate Dial Template and set the type to LOCAL. If no match is found, proceed to step 5.
5. **Check the Long Distance Numbers Table.** If a match is found, convert the number by the appropriate Dial Template and set the type to LONG_DISTANCE. If no match is found, proceed to step 6.

6. Determine if this is an international number.

Check the number for an international dialing prefix (set on the Telephony Setup screen).

If an international dialing prefix is found, use the Country Code table to determine whether the number has a valid country code that does not match the site country code selected on the Telephony Setup screen.

7. Dial the number:

- a. If the country code is valid and does not match the site country code, set the number type to INTERNATIONAL and dial the number with the Off PBX prefix prepended.
 - b. If the country code matches the site country code, mark the number as UNKNOWN (a mistake has been made in the Number Tables). Dial the number as is.
 - c. If the number does not start with 011, determine if it starts with a valid country code (other than the one set on the Telephony Setup screen). If it has a valid country code, mark the number as international and dial the number with the Off PBX prefix and international dialing prefix prepended.
 - d. If the country code matches the site country, set the type to UNKNOWN and dial the number as is (a mistake has been made in the Number Tables).
 - e. If none of these conditions applies, mark the number as UNKNOWN and dial it as is.
8. Once the number has been converted, check the Forbidden Numbers Table again. If the number matches on the second attempt, mark the number DISALLOWED—regardless of it's previous demarcation.

Dialing Plan Default Values

If no values are set on the Telephony Setup screen, ASA uses the following default values:

Site Area Code None

Site Country Code **1**

Off PBX Prefix None

National Dialing Prefix **1**

International
Dialing Prefix **011**

Private Numbers Table Blank

Local Numbers Table	Area Code	Blank
	Number	RRRRRRR
	Dial	PXXXXXXX

Long Distance Number Table	Area Code	RRR
	Number	RRRRRRR
	Dial	PNXXXXXXXXXX

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