Fax Server & Auto Attendant IVR

Interactive Voice Response (IVR)

Session Initiation Protocol (SIP)

Installation Guide

Microsoft Partner
Gold Communications

Skype for Business

AudioCodes

Version 2.1

April 2016

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This document shows how to install the Fax Server application and the Auto Attendant IVR.

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Each abbreviation, unless widely used, is spelled out in full when first used.

Related Documentation

Manual Name
Fax Server and Auto Attendant Administrator's Guide

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1 Introduction

Note: Microsoft has rebranded Lync as Skype for Business and therefore, whenever the term Skype for Business appears in this document, it also applies to Lync Server 2013.

1.1 Fax Server

AudioCodes' Fax Server (Fax to Mail and Mail to Fax) application is a powerful and flexible software application used to manage inbound fax calls and outbound mail-to-fax calls, delivering them efficiently to their correct destination.

As part of AudioCodes' One Voice for Microsoft Skype for Business offering, the Fax Server application can be deployed on AudioCodes' Mediant Gateways and Survivable Branch Appliances (SBAs) in branch offices of distributed enterprises.

As a pure software application, AudioCodes' Fax Server can also be deployed on a standard server.

For enterprises with multiple branch offices, the application can be deployed per local branch, or as a centralized application in the datacenter that serves all remote branches.

1.1.1 Features and Benefits

Features and benefits of the Fax Server application are as follows:

- Support for corporate fax, a dedicated fax number for specific users, and a combined voice/fax mailbox
- Support of corporate mail to fax services
- Always-available service, 24/7/365
- Reliable, no fax machine maintenance required, no more 'Out of paper', 'Out of toner'", 'Paper Jam' or 'Faxes Getting Lost' notifications
- Convenient and easy to use mail-to-fax services
- Go Green: Eliminates massive paper consumption and annoying piles of spam faxes
- Savings on DID lines: One DID per user for both voice and fax calls
- Available on AudioCodes' Mediant 800B and Mediant 1000B SBA platforms
- Fax is received as email with PDF attachments and can be viewed on PCs and smartphones and printed, archived and forwarded to others
- Incoming faxes can be routed to one or multiple destinations
- Automatic Fax Detection supporting T.38 and T.30 fax protocols
- Email is sent to fax destination with attachments if required, and the user receives an email notification of the Send operation
- Easy-to-use web interface for managing system service
- Easy to set up: Integrates with the enterprise's Active Directory (LDAP) and the enterprise's mail server (SMTP)
- Scalable from a few fax ports to dozens of fax ports

1.2 Auto Attendant IVR

AudioCodes' Auto Attendant IVR (AA IVR) is an Interactive Voice Response system that provides enterprises with a powerful and flexible tool to manage inbound calls and deliver them to intended destinations, based on buttons pressed by callers, using DTMF detection or speech activated.

Auto Attendant IVR supports advanced Call Queue for Automatic Call Distribution (ACD) based on different routing modes and agents availability.

As part of AudioCodes' One Voice for Microsoft Skype for Business offering, Auto Attendant IVR can be deployed together with AudioCodes' Survivable Branch Appliances (SBAs) in branch offices to replace Skype for Business's Response Group Service (RGS) when the connection with the central Skype for Business server is lost.

Auto Attendant IVR is a pure software application which can also be deployed on standard server hardware.

The ACD routes and queues incoming calls to a group of people, called agents, such as for a help desk or a customer service desk.

The ACD comprises the following components:

- Agents
- Groups
- Queues
- ACD Flows
- IVR
- Holidays
- Business Working Hours

1.2.1 Features and Benefits

Features:

- Automatically plays voice prompts to callers
- Transfers callers to additional menus and extensions based on caller input
- Supports different IVR behavior for working hours, non-working hours and holidays
- Automatic Call Distribution (ACD) to Skype for Business agents
- Multi-Language support and localization
- Allows direct extension reach with minimal DID
- Graphical User Interface for managing IVR menus and call flow
- Voice activation and Text to Speech

Benefits:

- Maximizes employee productivity by automating inbound enterprise call routing
- Reduces Direct Inward Dialing / Direct Dial-In (DID / DDI) requirements through direct extension dialing
- Increases customer satisfaction through reduced waiting times
- Suitable for main offices and remote branches
- Supports application survivability at branch offices
- Replaces Skype for Business Response Group Service (RGS) or as a standalone solution
- Multi-language support for global enterprise Skype for Business deployments
- Saves on operational costs by reducing the number of operator calls

1.3 About this Guide

This guide shows how to install AudioCodes' Fax Server and Auto Attendant IVR software applications. The guide also shows how to set up the AudioCodes Gateway fax detection and fax reroute mechanisms.

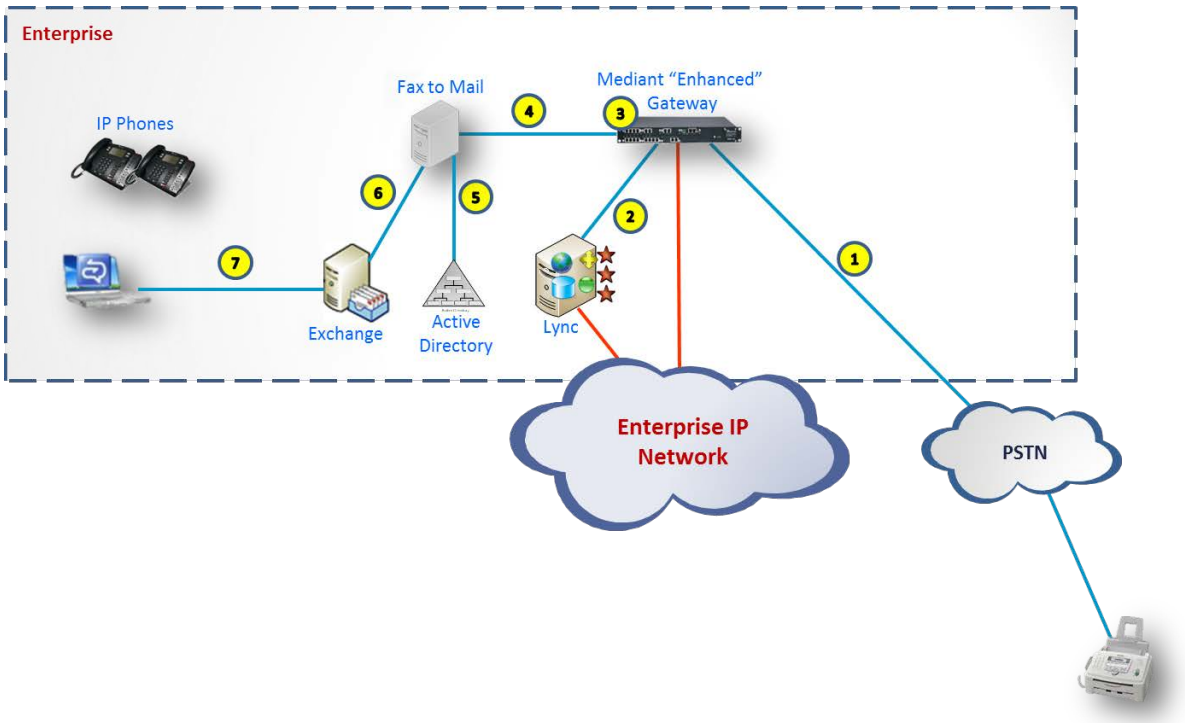
1.4 Call Flow Descriptions

The procedure below describes the call flow for incoming and outgoing faxes and for an incoming call from the PSTN to a Skype for Business agent controlled by the Auto Attendant application.

1.4.1 Incoming Fax2Mail Flow with Fax Detection

The figure below shows the typical call flow for an incoming fax call to an enterprise. In this configuration, the call is sent to the Microsoft Skype for Business user. If it is a fax call, the call will be routed to the Fax server.

Figure 1-1: Call Flow - Incoming Fax2Mail with Fax Detection



The table below describes the call flow for an incoming Fax2Mail with Fax Detection.

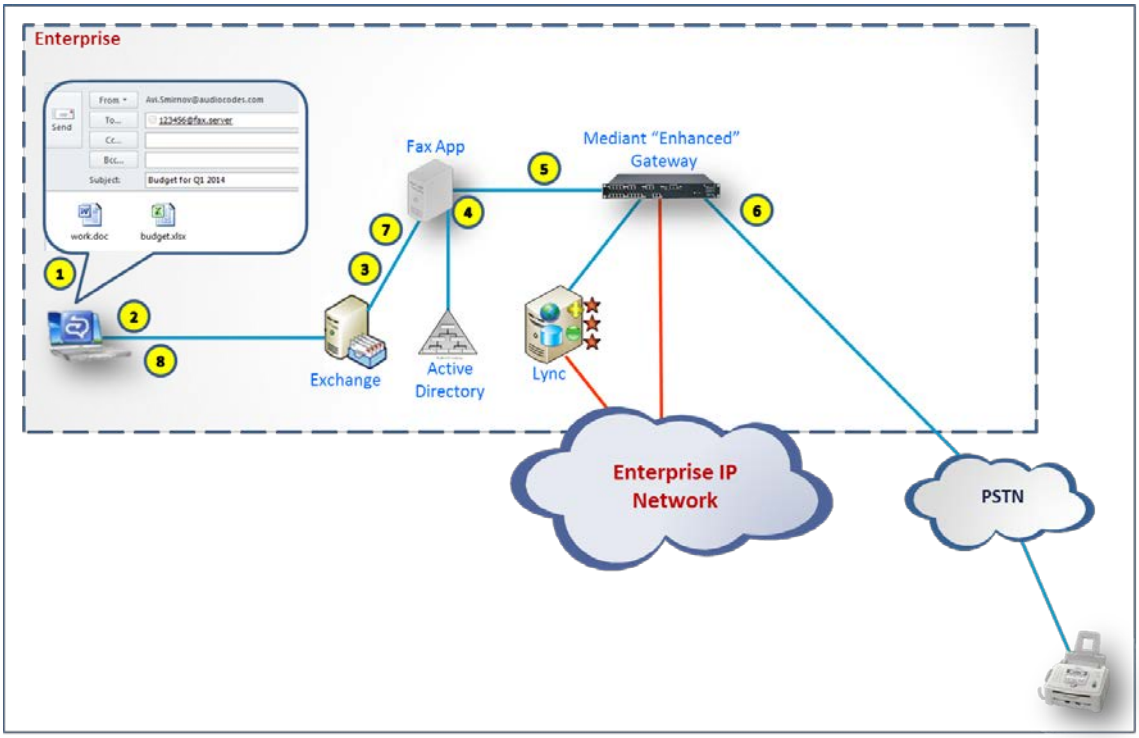
Table 1-1: Call Flow - Incoming Fax2Mail with Fax Detection Description

Step #	Description
1	The incoming Fax Call from PSTN to the AudioCodes Gateway (T.38 or G.711).
2	The call is routed to the Skype for Business server. The Skype for Business user answers the call.
3	Gateway Fax Detection monitors the call. If the fax call is detected, the call is re-routed to the Fax server (T.38).
4	The Fax server terminates the fax call.
5	The Fax2Mail service finds the destination user email in the company Active Directory (LDAP).
6	The Fax server sends an email with a PDF attachment to the mail server (SMTP).
7	The user receives a fax message in Microsoft Outlook.

1.4.2 Outgoing Mail2Fax Flow

The diagram below illustrates the call flow for an outgoing fax call from the user.

Figure 1-2: Call Flow - Outgoing Mail2Fax



The table below describes the call flow for an Outgoing Mail2Fax.

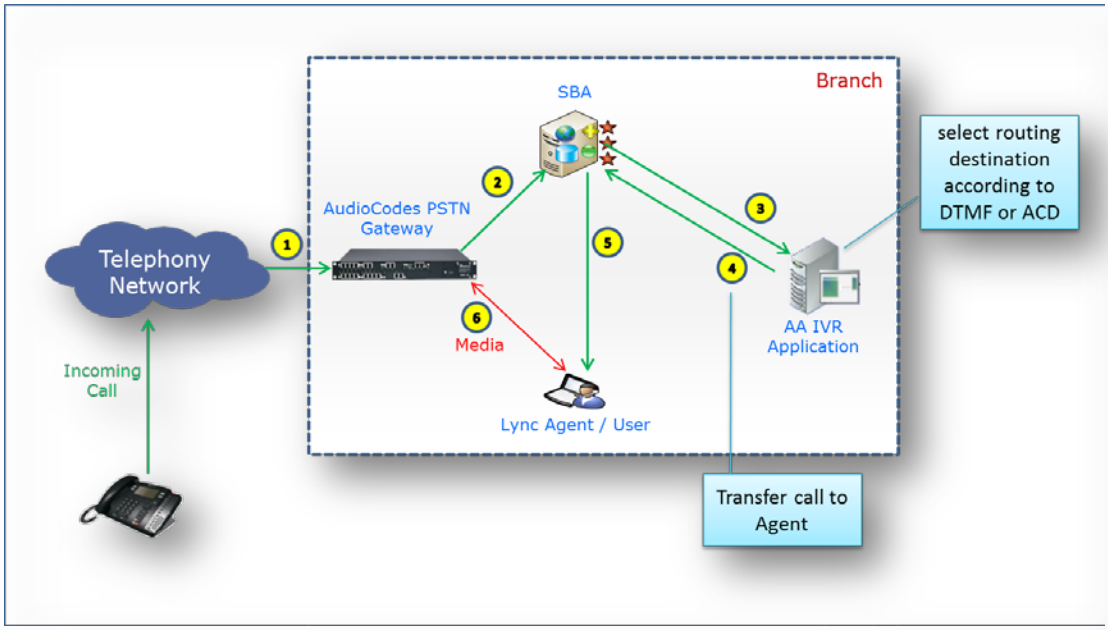
Table 1-2: Call Flow - Outgoing Mail2Fax Description

Step #	Description
1	The user creates a new email with attachments and sends to *number@fax.server* (e.g. +972123456@fax.server).
2	The Email is sent to the company mail server.
3	The company mail server forwards email to Fax server.
4	The Fax server converts the email and attachments to fax format.
5	The Fax server sends the fax via T.38 to the PSTN gateway.
6	The Fax is sent to PSTN via AudioCodes gateway (T.38 or G.711).
7	The Fax server sends a success/fail delivery email to the Mail server.
8	The user receives success/fail report for the fax send operation.

1.4.3 Incoming Call Controlled by Auto Attendant Call Flow

The figure below shows the typical flow of an incoming call from the PSTN to a Skype for Business agent controlled by the Auto Attendant application.

Figure 1-3: Call Flow – Incoming Call Controlled by Auto Attendant



The table below describes the call flow for a call controlled by the Auto Attendant.

Table 1-3: Call Flow - Call Controlled by Auto Attendant

Step #	Description
1	A caller dials the enterprise's leading number.
2	The gateway sends the call to the SBA.
3	The SBA identifies the number as an Auto Attendant number and sends the call to the Auto Attendant application.
4	The Auto Attendant application answers the call and - according to IVR settings and caller interactions - the call is transferred to a Skype for Business user or agent.
5	The SBA sends the call to the Skype for Business user/agent.
6	The call is established and a Media path is established between the gateway and the Skype for Business client.

2 Prerequisites

The following describes the hardware and software prerequisites for the following installation types:

- Installation on customer's server
- Installation on SBA

2.1 Installation on the Customer's Server

For customers with SBA, installations, you must first enable Hyper-V and define a virtual machine that will host the Fax/ATT applications. Before you install the Fax server, make sure you meet the following prerequisites:

- Minimum server specifications:
  - CPU: Dual Core
  - Memory: 2 GB RAM
  - Hard Disk: 80G
- Operating System requirements:
  - Windows Server 2008 R2 Standard with Service Pack 1, 64-bit version

    -OR-
  - Windows Server 2012 R2, 64-bit version

Note: The Operating System should be "clean" with no additional software/applications previously installed.

For installation on the customer's server, do the following:

- Download the FaxIvr installation file from https://audiocodes.sharefile.com/d-s3d2f85764084f6da Since the file is zipped, you need to unzip to C:\.
- Install Microsoft .Net 3.5. library by opening the Microsoft Server Manager and navigating to **Add Features** and enabling the .NET Framework 3.5 feature.
- **For Windows 2008 R2 server only**, install Microsoft Desktop Experience by opening the Microsoft Server Manager and navigating to **Add Features**. Enable the **Desktop Experience** feature.
- **For Windows 2012 R2 server only**, install Microsoft Media Foundation by opening the Microsoft Server Manager and navigating to **Add Features.** Enable the **Media Foundation** feature.
- Install Microsoft .Net 4.5 library from the installation directory ..\data\NDP451-KB2858728-x86-x64-AllOS-ENU.exe (or you can download it from http://www.microsoft.com/en-us/download/details.aspx?id=40779).

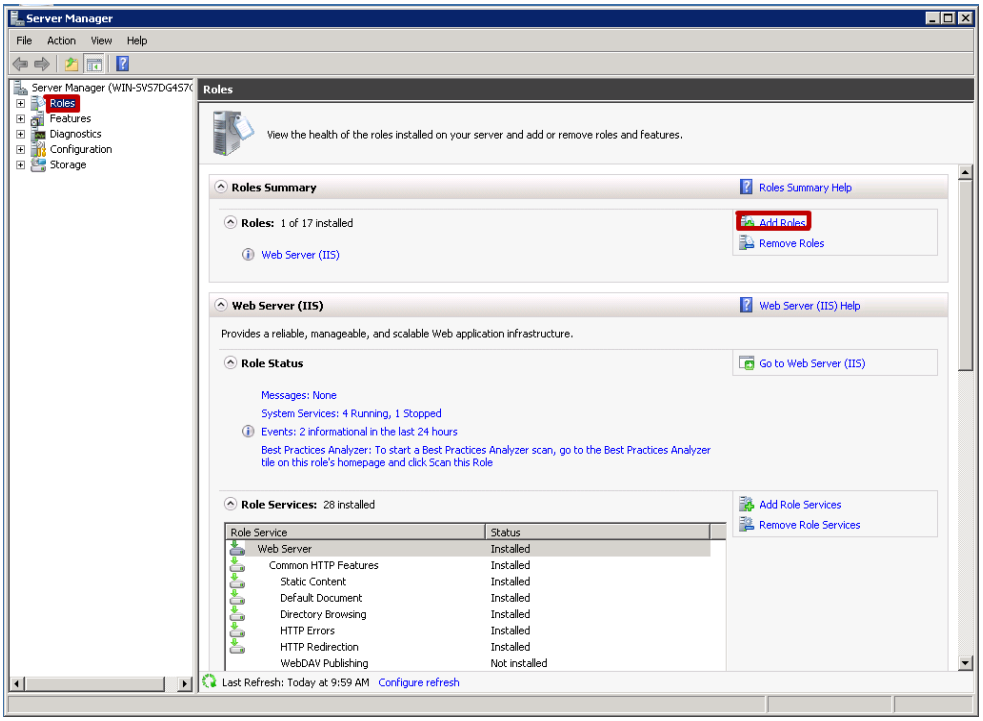
2.2 Adding Fax AA IVR Application VM to the SBA

The procedure below shows how to define the Fax server / Auto Attendant IVR application as a Virtual Machine on the OSN module using the Microsoft's Hyper-V Manager.

➢ To add the Fax / AA IVR application to the OSN module:

1. Connect to the OSN module using a Remote Desktop Connection (**Start** > **Remote Desktop Connection**).
2. On the Remote Desktop Connection screen, click the **Server Manager** icon; the Server Manager opens:

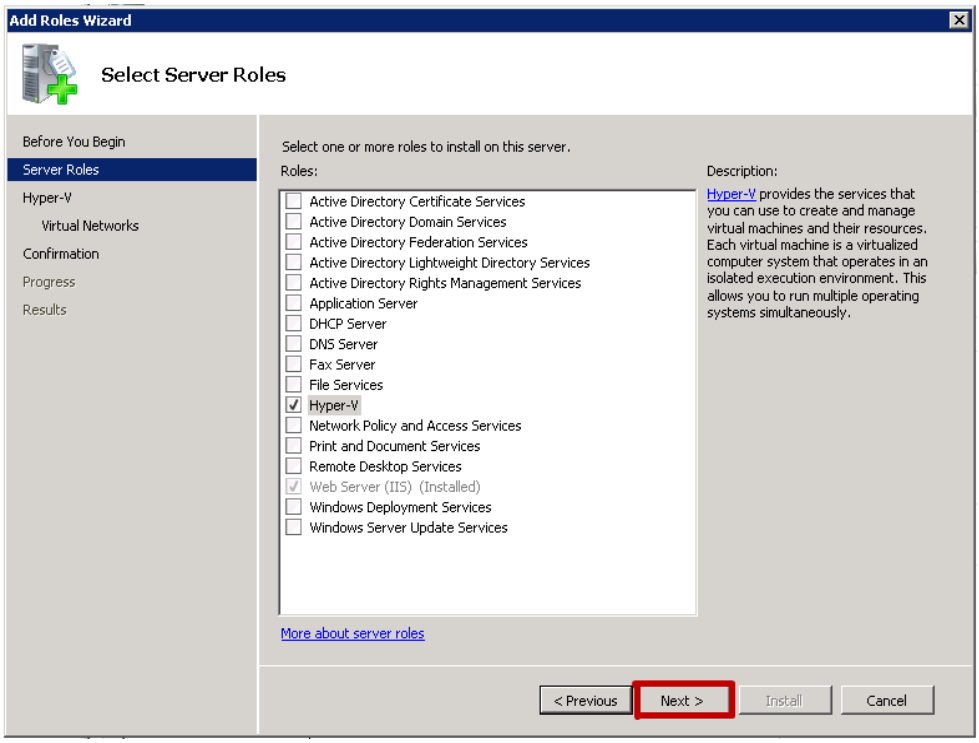
Figure 2-1: Server Manager



3. In the Navigation tree, select the **Roles** menu option; the Roles pane opens.

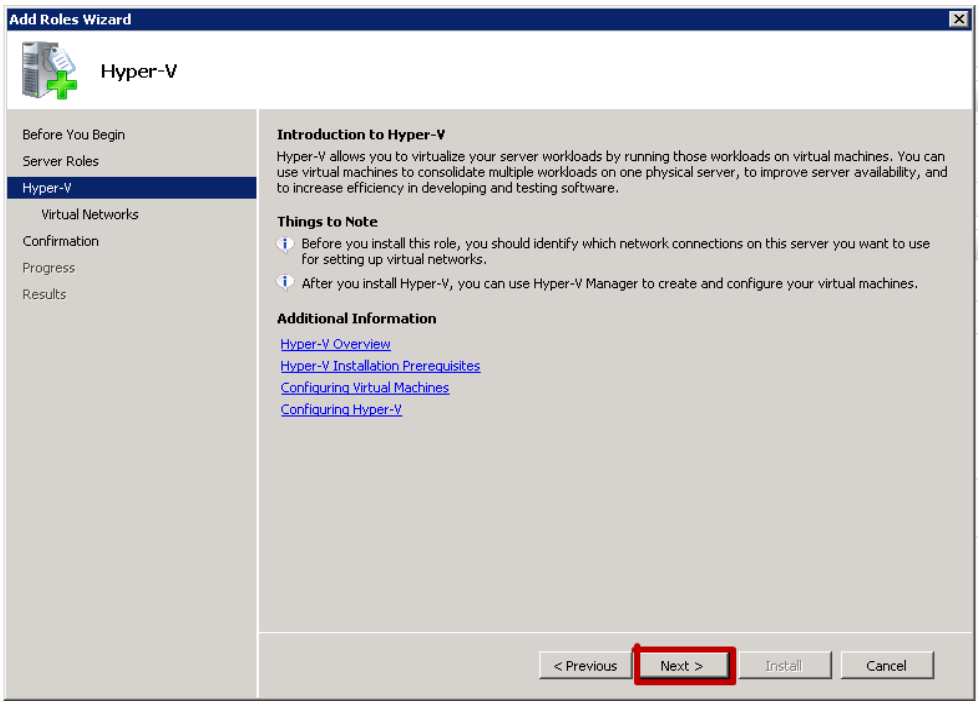
4. In the Roles pane, click **Add Roles**; the Add Roles Wizard opens:

Figure 2-2: Add Roles Wizard - Select Server Roles



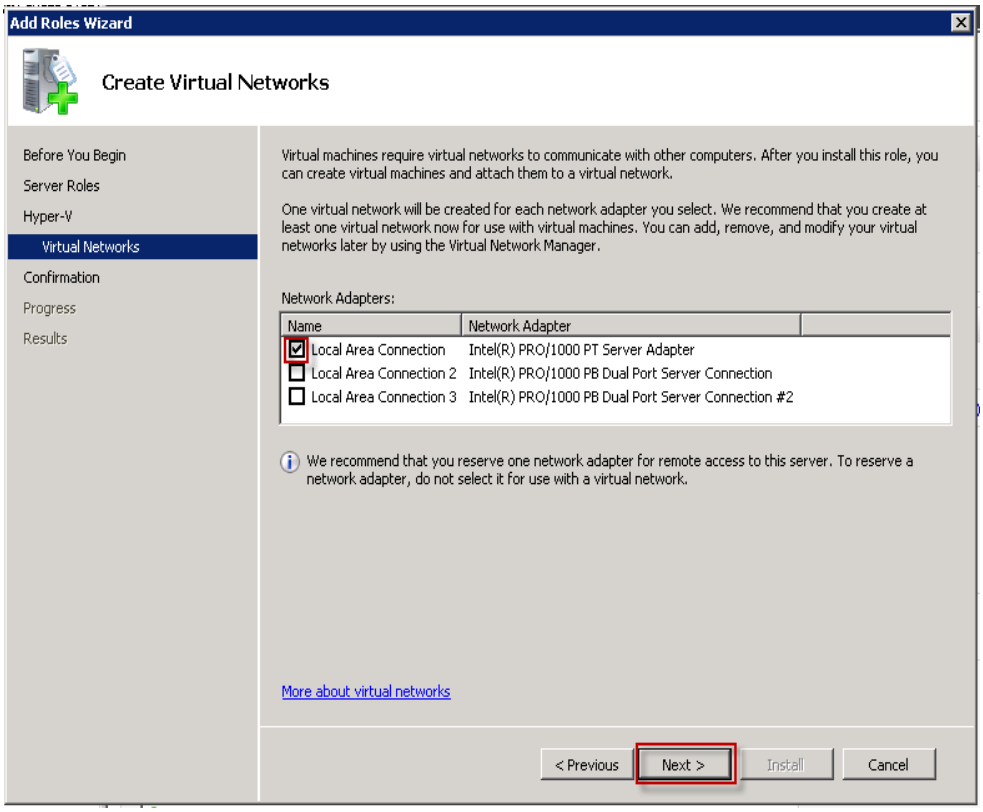
5. In the **Roles** list, select the **Hyper-V** check box.
6. Click **Next**; the Hyper-V screen opens.

Figure 2-3: Add Roles Wizard - Hyper-V



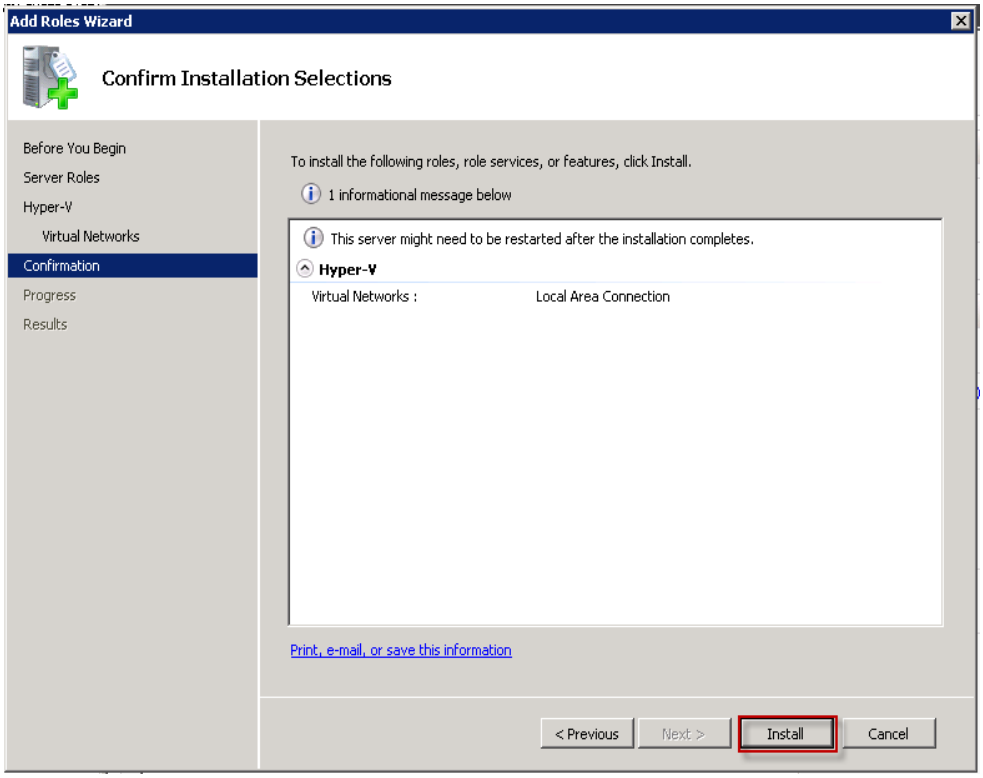
7. Click **Next**; the Create Virtual Networks screen is displayed.

Figure 2-4: Add Roles Wizard - Create Virtual Networks



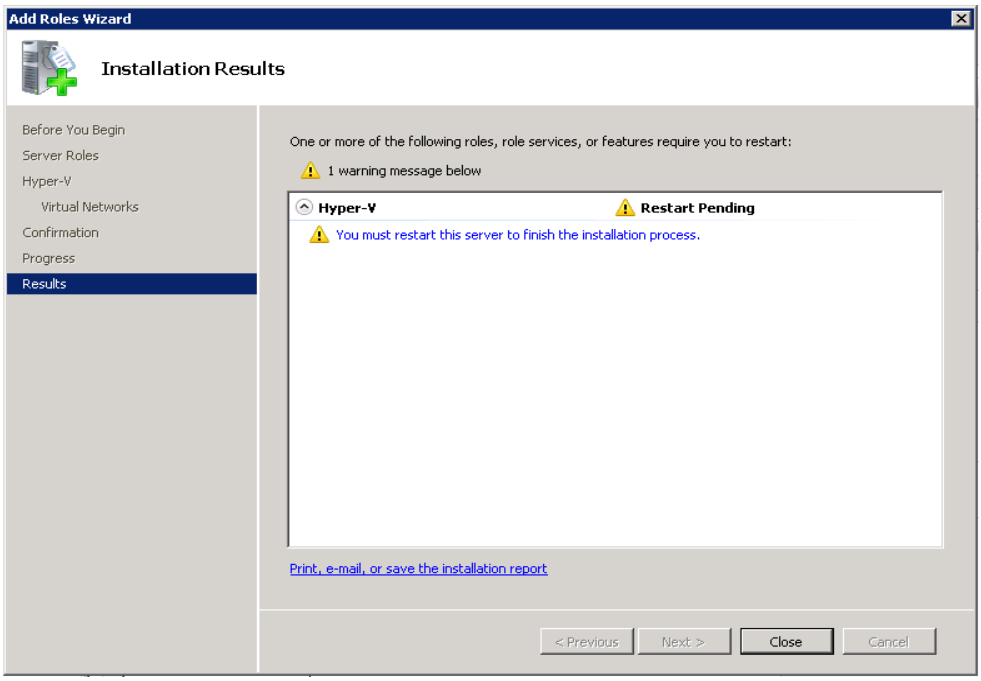
8. Select the appropriate Network Adapter (the Adapter used by the SBA and connected to the network), and then click **Next**; the Confirm Installation Selections screen opens.

Figure 2-5: Add Roles Wizard - Confirm Installation Selections



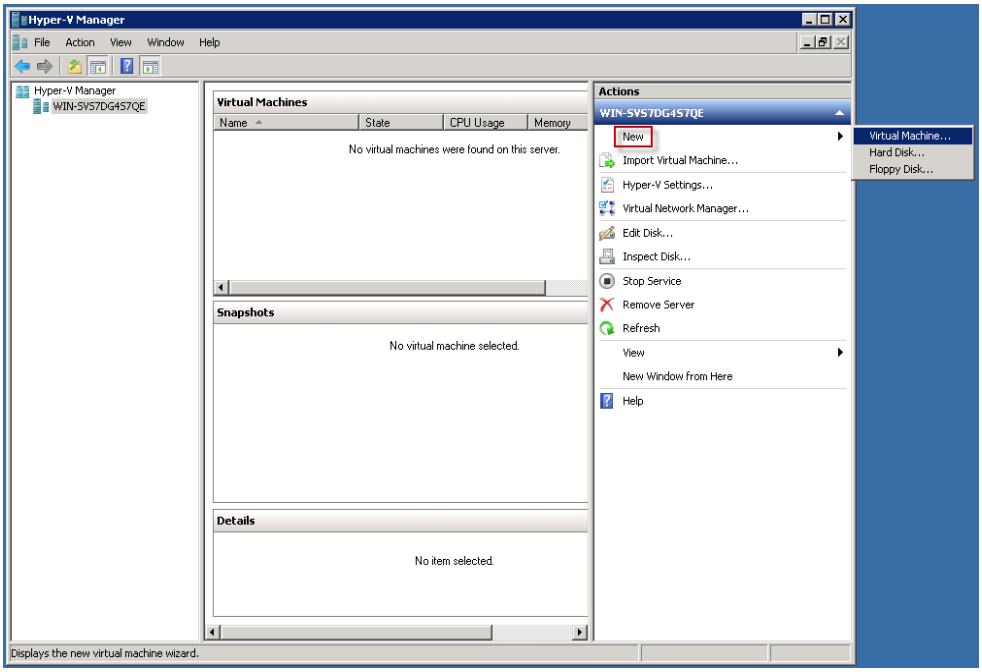
9. Click **Install**; the Installation Results screen opens.

Figure 2-6: Add Roles Wizard - Installation Results



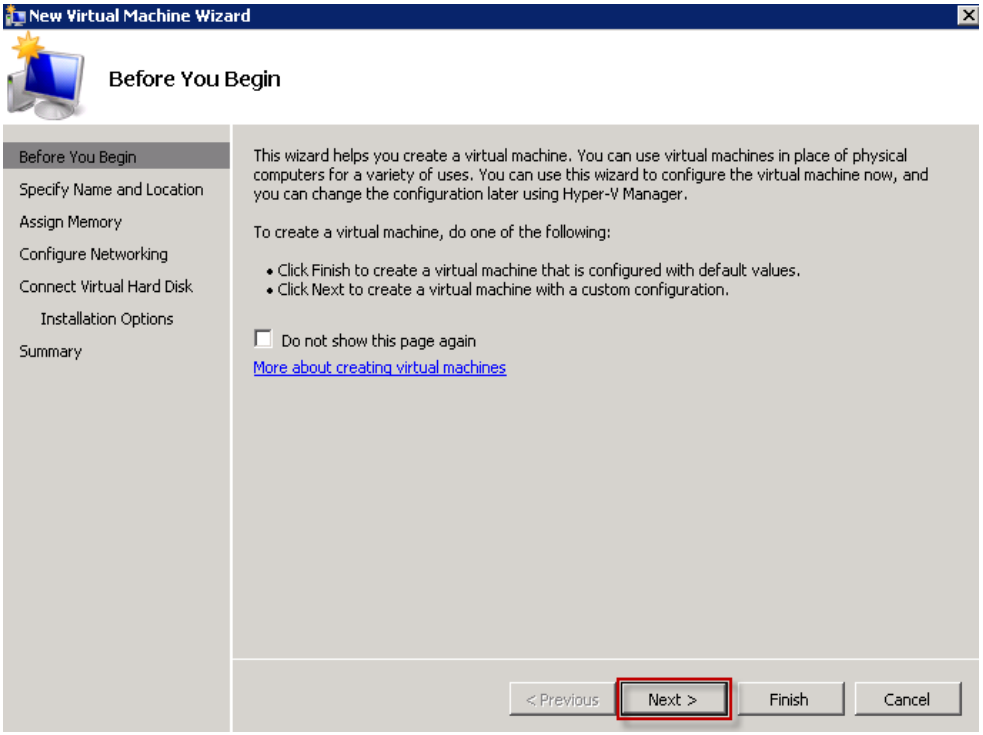
10. Restart the Fax AA IVR server.
11. Click **Start** > **Administrative Tools** > **Hyper-V Manager**; the Hyper-V Manager screen opens.

Figure 2-7: Hyper-V Manager



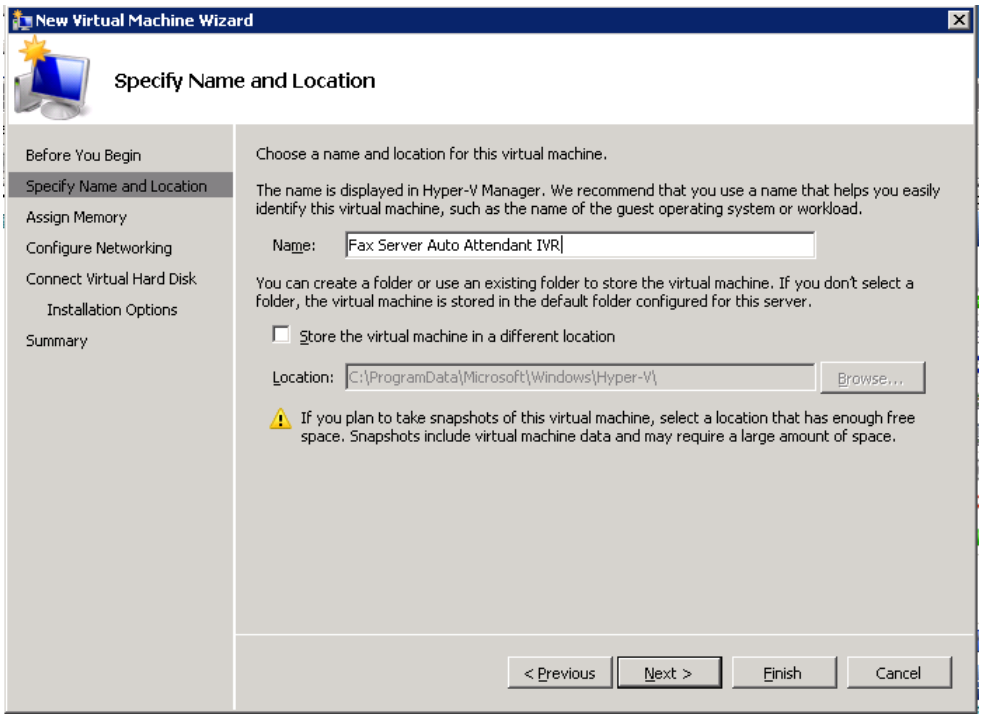
12. In the Actions pane, click **New** > **Virtual Machine**; the New Virtual Machine Wizard screen opens.

Figure 2-8: New Virtual Machine Wizard - Before You Begin



13. Click **Next**; the Specify Name and Location screen opens.

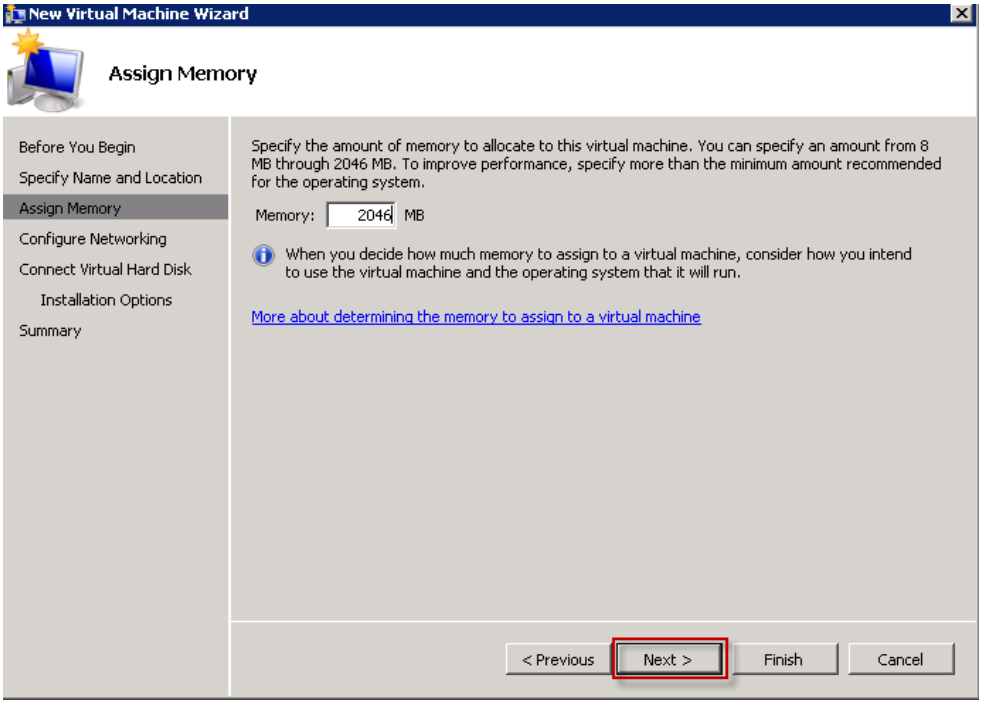
Figure 2-9: New Virtual Machine Wizard - Specify Name and Location



14. In the 'Name' field, enter **Fax Server Auto Attendant IVR** as the name for your virtual machine.

15. Click **Next**; the Assign Memory screen opens.

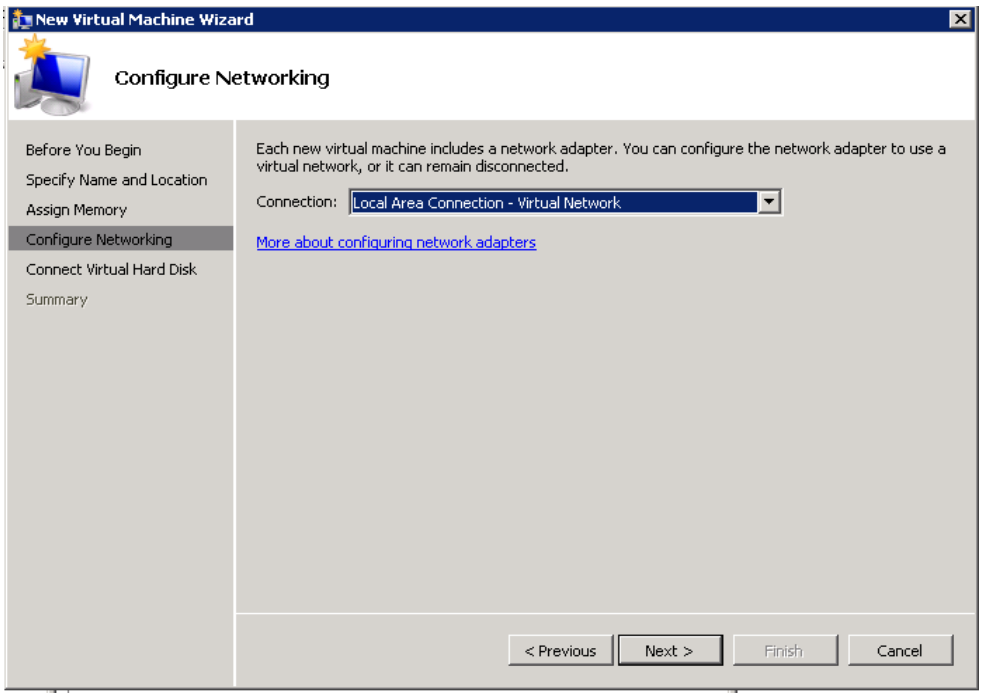
Figure 2-10: New Virtual Machine Wizard - Assign Memory



16. In the 'Memory' field, enter **2046** MB (assuming your machine has a total memory of 4 GB), or **750** MB (assuming your machine has a total memory of 2 GB).

17. Click **Next**; the Configure Networking screen opens.

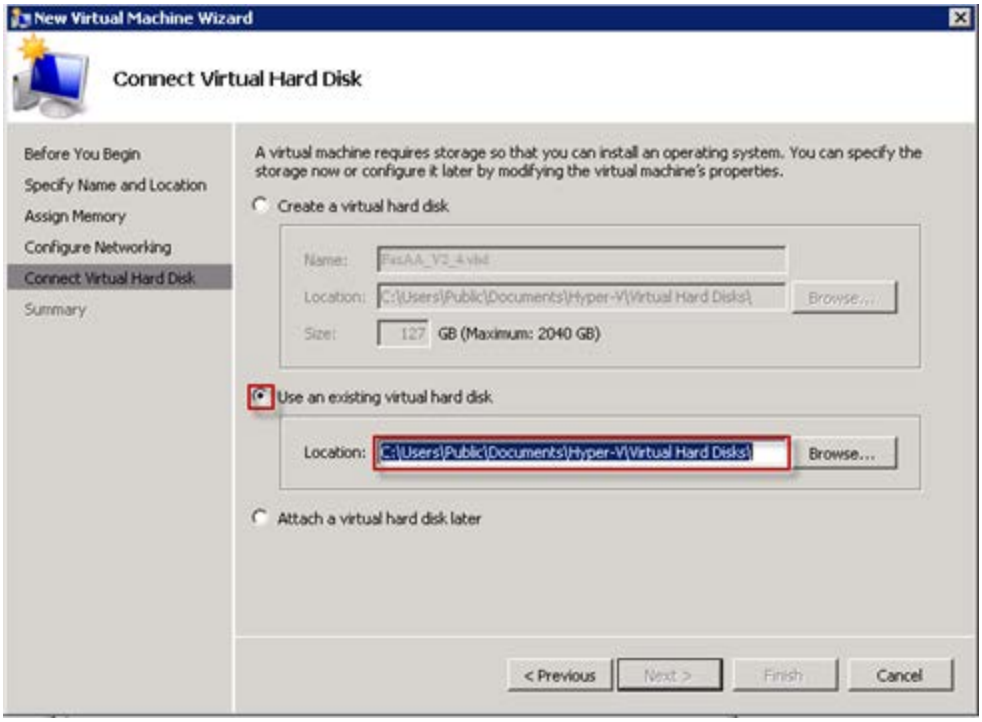
Figure 2-11: New Virtual Machine Wizard - Configure Networking



18. In the 'Connection' field, select the required network adapter.

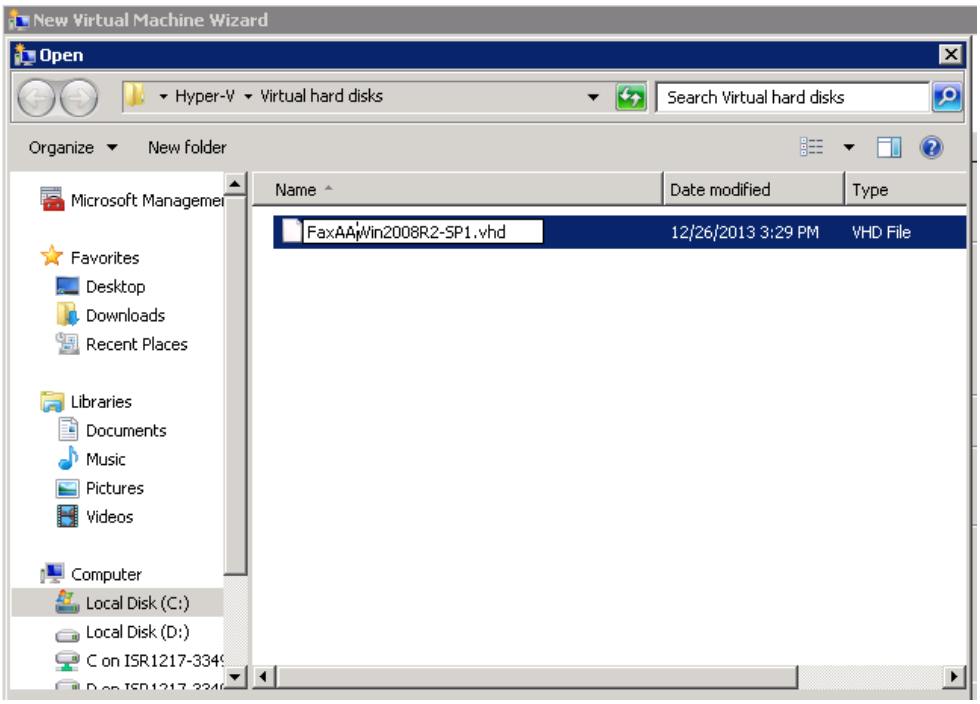
19. Click **Next**; the Connect Virtual Hard Disk screen opens.

Figure 2-12: New Virtual Machine Wizard - Connect Virtual Hard Disk



20. Click the **Use an existing virtual hard disk** option.
21. Click **Browse…**, and then navigate to the location of the vhd file: *C:\Users\Public\Documents\Hyper-V\Virtual hard disks\FaxAttWin2008R2-SP1.vhd*;
22. The Open screen is displayed.

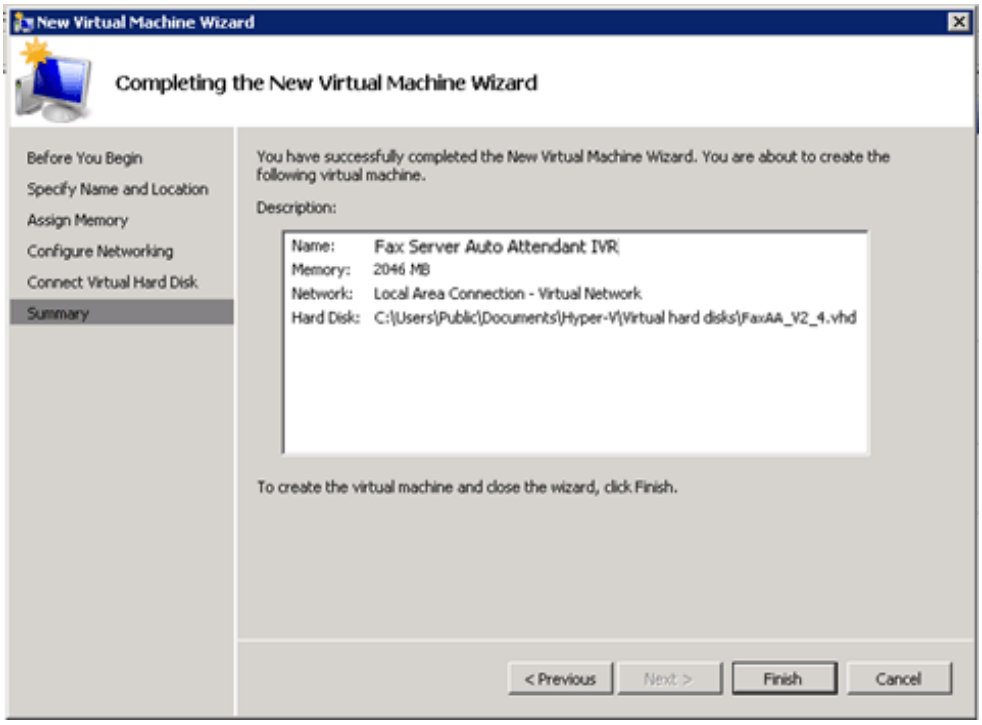
Figure 2-13: New Virtual Machine Wizard - Open



23. Select the Fax AA IVR VHD file, and then click **Open**; the Connect Virtual Hard Disk screen is displayed.

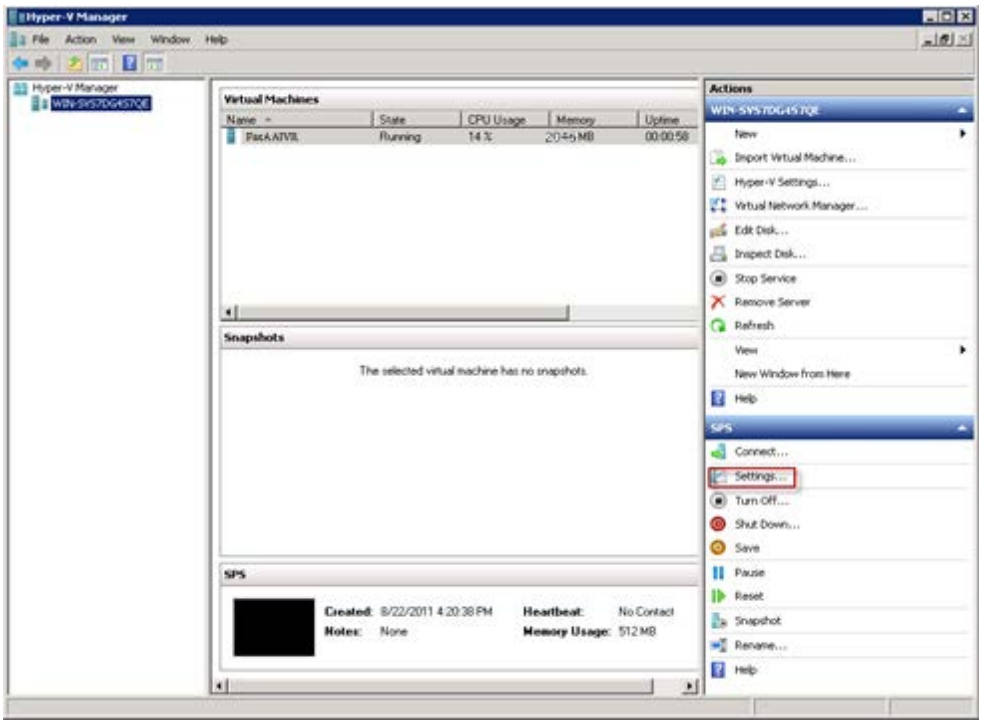
24. Click **Next**; the Completing the New Virtual Machine Wizard screen is displayed.

Figure 2-14: New Virtual Machine Wizard – Completing the New Virtual Machine Wizard



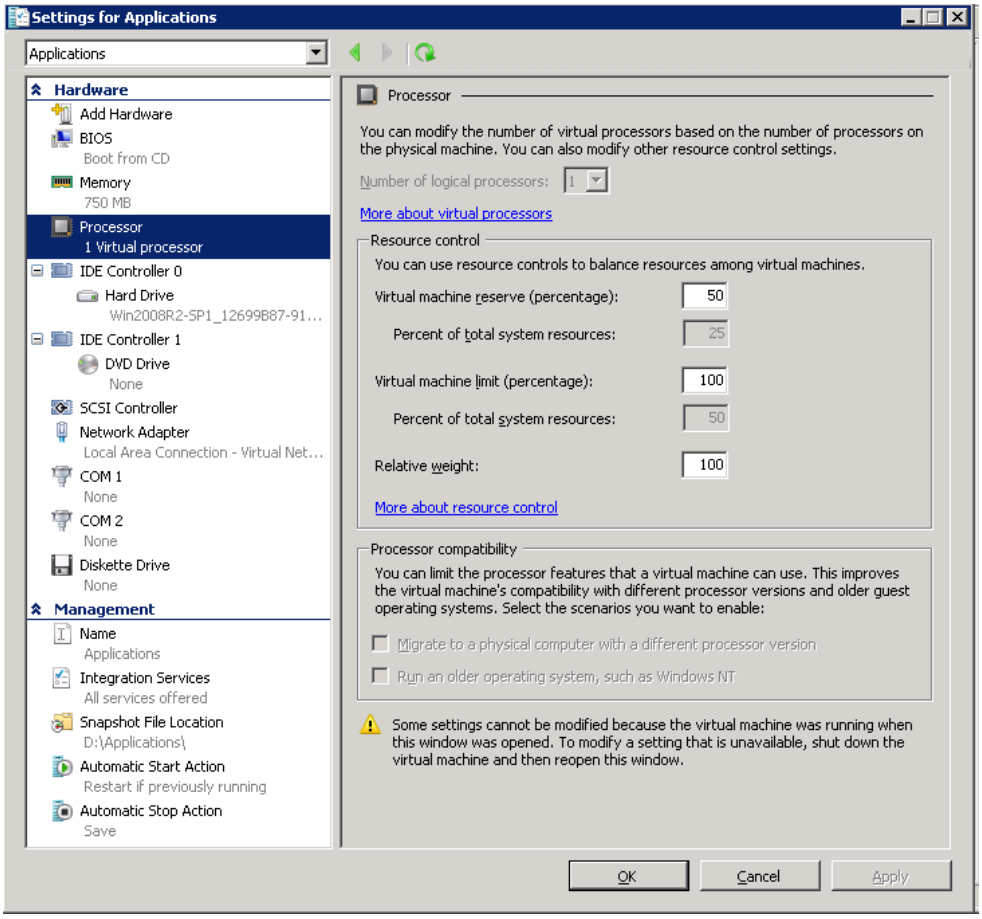
25. Click **Finish**; the Hyper-V Manager screen is displayed, indicating that the Virtual Machine is running.

Figure 2-15: Hyper-V Manager



26. In the **Fax AA IVR Actions** pane, select **Settings**; the Settings for Fax AA IVR on SBA screen opens.

Figure 2-16: Processor Settings



27. In the Hardware tree, select **Processor**.

28. Configure the following parameters:

- Set 'Number of logical processors' according to the following table:

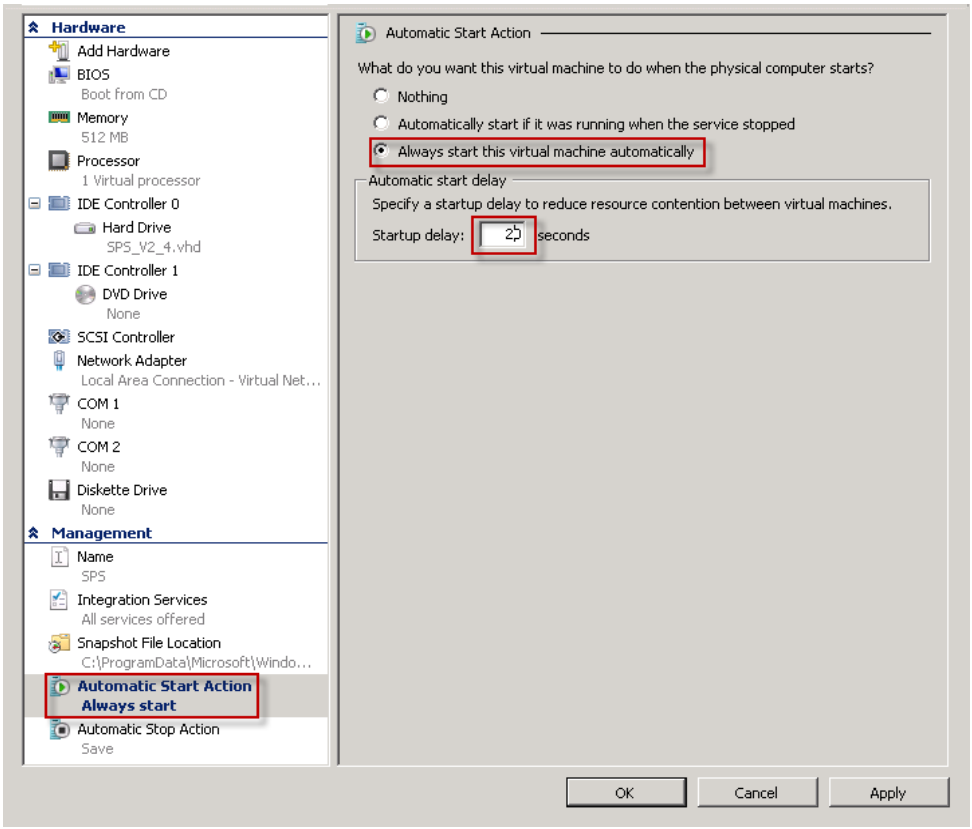
HW Platform	Number of Logical Processors
ES	1
EO	2
Intel Celeron 800 MHz Processor	1

- Set 'Virtual machine reserve' to **50**.
- Set 'Virtual machine limit' to **100**.

29. Click **OK**.

30. In the Management tree, select the **Automatic Start Action Always start** option; the Automatic Start Action screen opens.

Figure 2-17: Automatic Start Action



31. Select the **Always Start this virtual machine automatically** option.

32. In the 'Startup delay' field, enter **20** seconds.

33. Click **Apply**, and then click **OK**.

34. Start the Fax server Auto Attendant IVR virtual server.

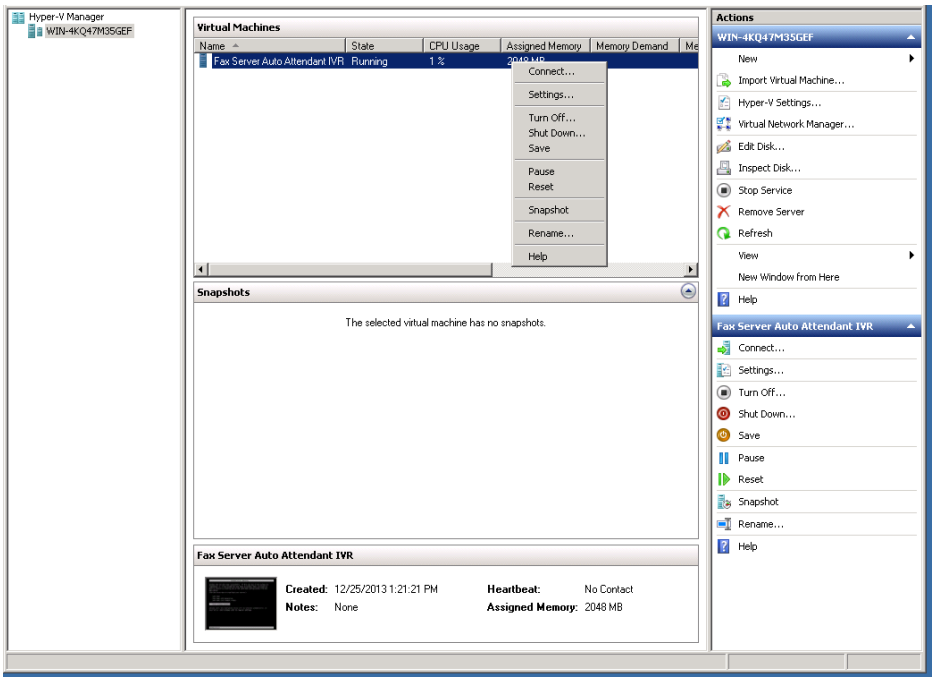
2.3 Obtaining the IP Address of the Virtual Machine

The procedure below shows how to determine the IP address of the newly created Fax AA IVR virtual machine. After obtaining it, you can connect directly to the virtual machine via the remote desktop, and then perform the Fax AA IVR installation.

➢ **To determine the IP address of the Fax AA IVR virtual machine:**

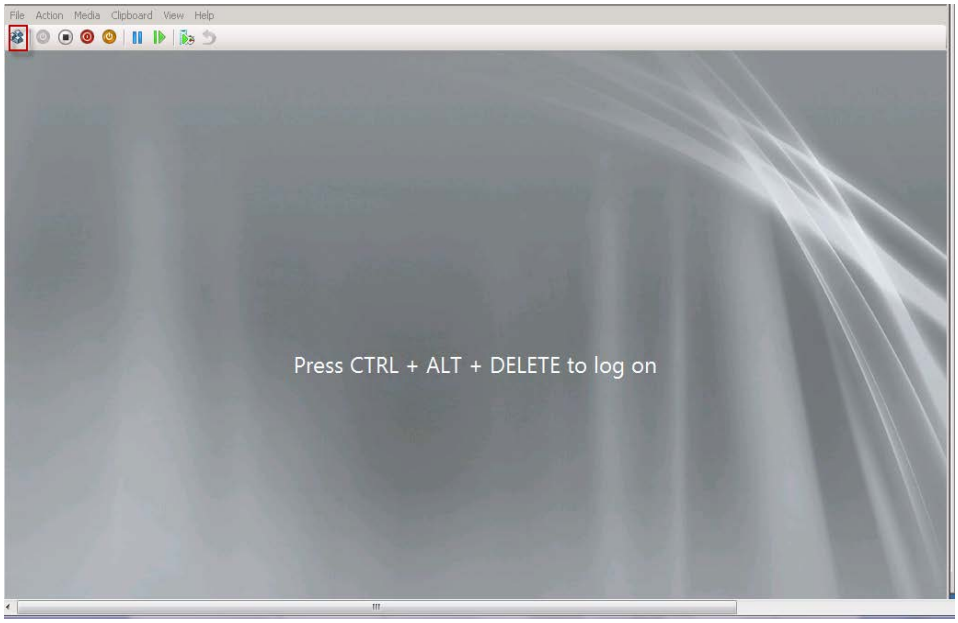
1. In the Hyper-V Manager, in the **Virtual Machines** table, right-click the newly created **Fax AA IVR** virtual machine entry.
2. From the shortcut menu, choose **Connect**.

Figure 2-18: Hyper-V Manager – Fax AA IVR



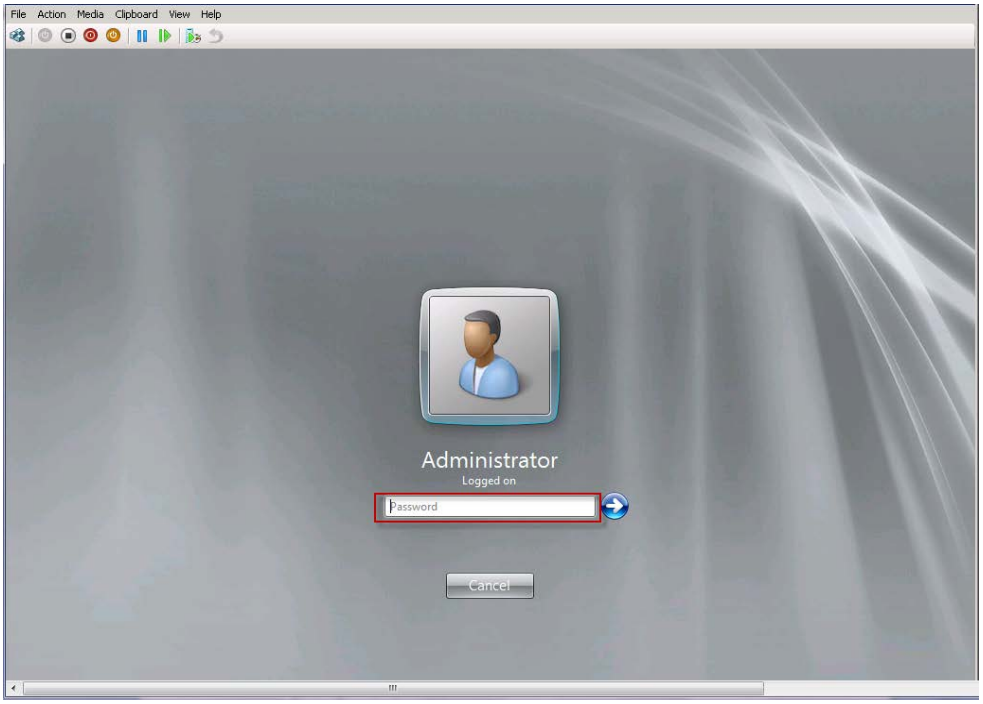
The Fax AA IVR on the Local Host screen opens.

Figure 2-19: Fax AA IVR on localhost



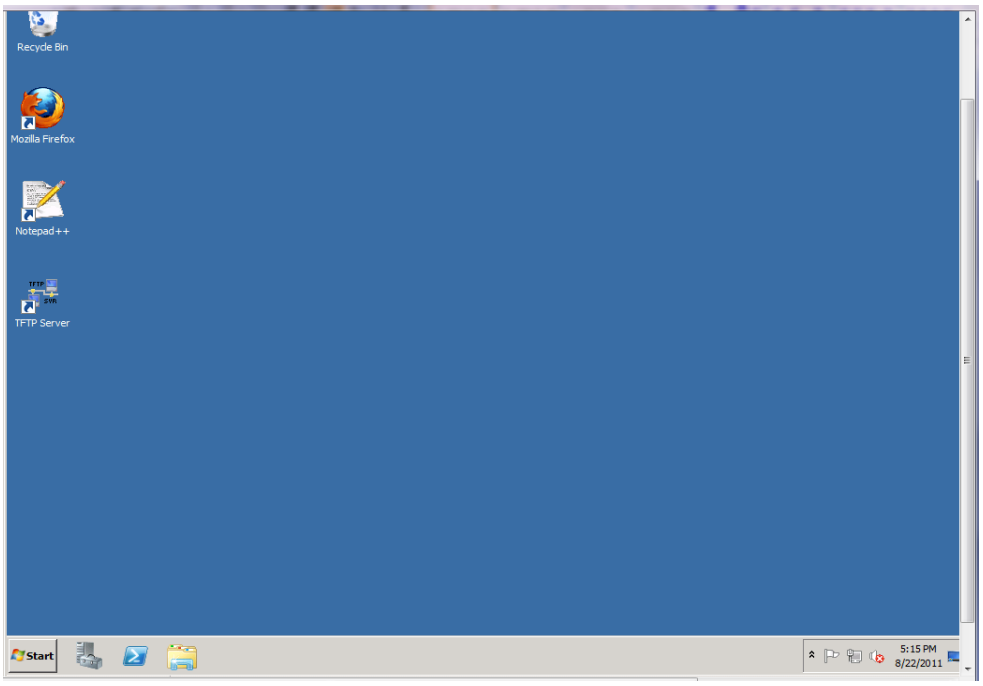
3. In the Actions bar (upper left corner), click the **Ctrl+Alt+Del** button; the Administrator Login screen opens.

Figure 2-20: Administrator Login



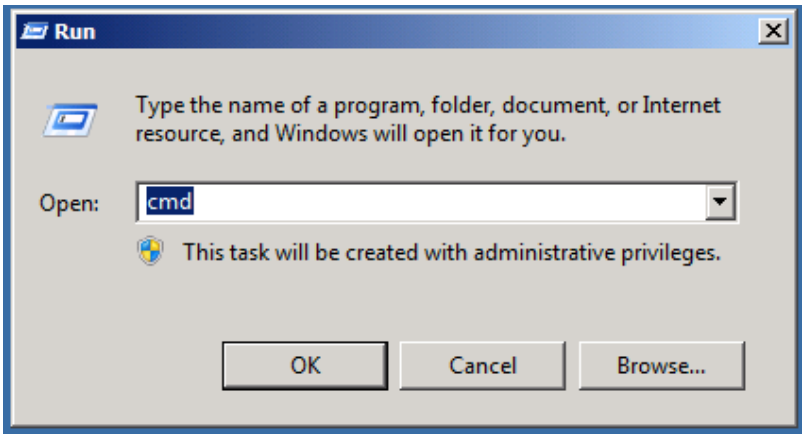
4. In the 'Password' field, enter "Pass123", and then click the arrow button; the Windows Main Screen opens.

Figure 2-21: Windows Main Screen



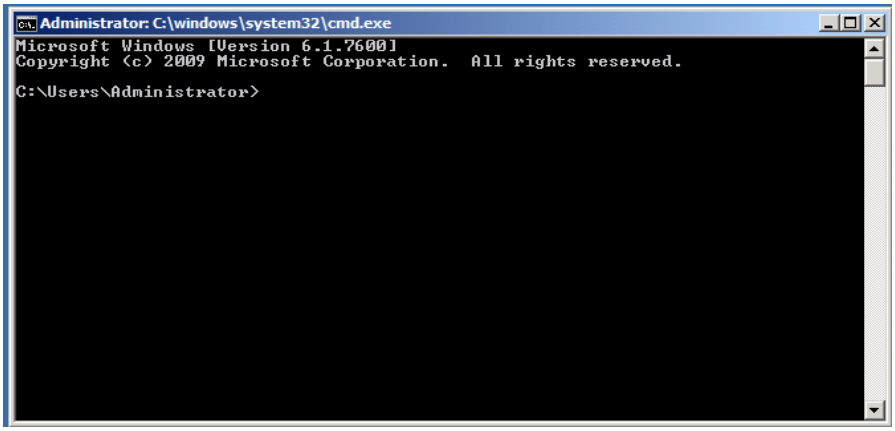
5. Click **Start** > **Run**; the Run dialog opens.

Figure 2-22: Run



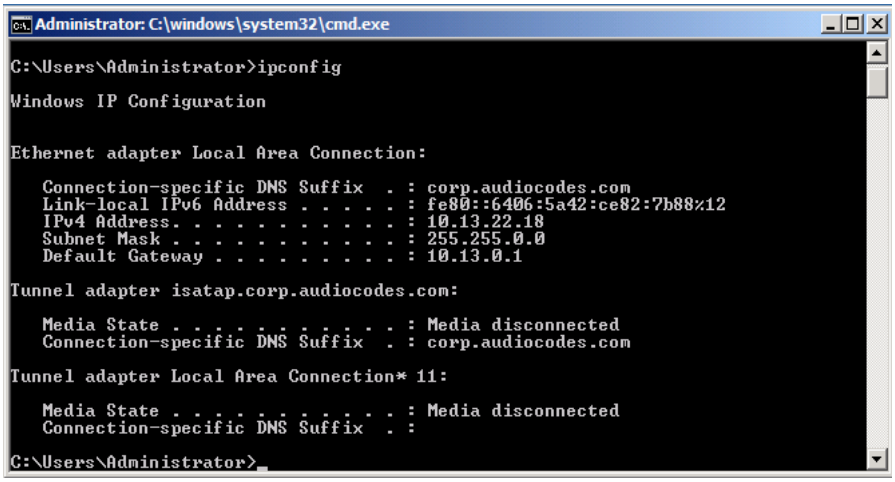
6. In the 'Open' field, enter **cmd**, and then click **OK**; the Administrator screen opens.

Figure 2-23: Administrator



7. At the DOS prompt, enter **`ipconfig,`** and then press **Enter**; the IP address appears on the screen:

Figure 2-24: IP Config



8. Note this IP address to use when connecting to the Fax AA IVR virtual machine via the Remote Desktop as a local administrator when installing the Fax AA IVR application (see Chapter 3 on page 31).

3 Installing the Fax Server

The procedure below shows how to install the Fax server. The following describes the sequence of actions required to perform this procedure:

1. Installing the Fax server (see Section 3.1 on page 31)
2. Setting up the Gateway with Fax Detection (see Section 3.2 on page 39)
3. Configuring the Fax server's Ports (see Section 3.3 on page 43)
4. Configuring LDAP settings (see Section 3.4 on page 43)
5. Activating Fax server license (see Section 3.5 on page 44)
6. Setting the Neevia license (see Section 3.6 on page 45)

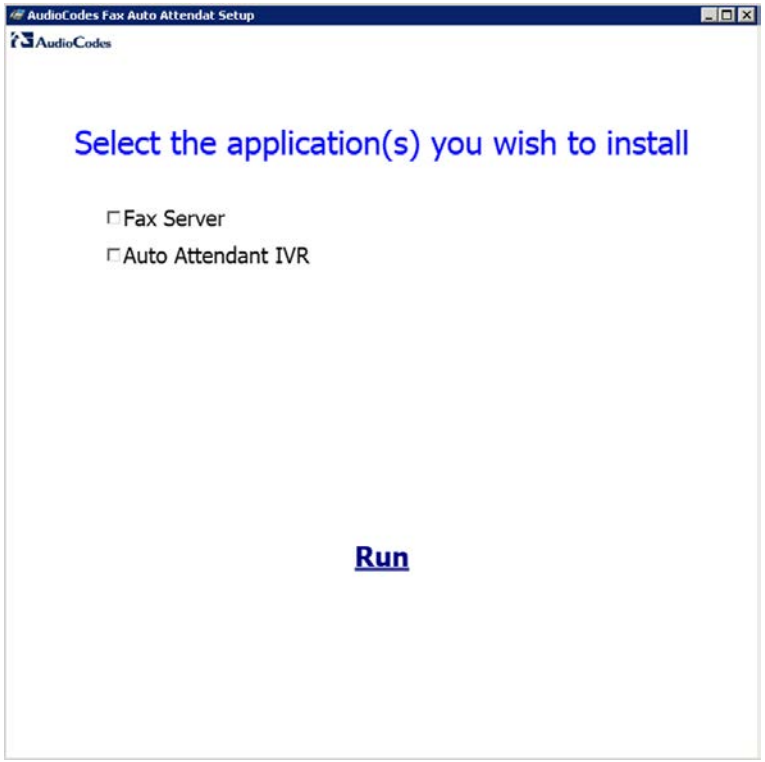
3.1 Installing the Fax Server

The procedure below shows how to install the Fax server. Perform the installation with a user who has Administrator permissions on the local server.

➢ **To install the Fax server:**

1. Run *fax_att_setup* located in C:\Fax_Att_Setup; the setup screen opens:

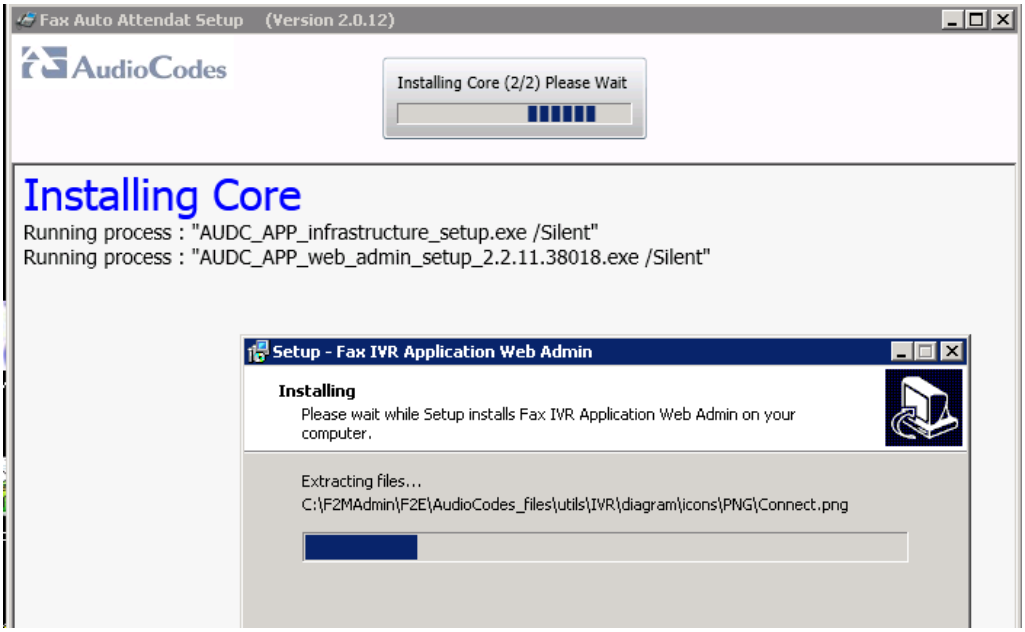
Figure 3-1: Setup - Fax Server / Auto Attendant IVR



Note: In case you wish to also install the IVR, see the IVR pre-requirements in Section 4 on page 49.

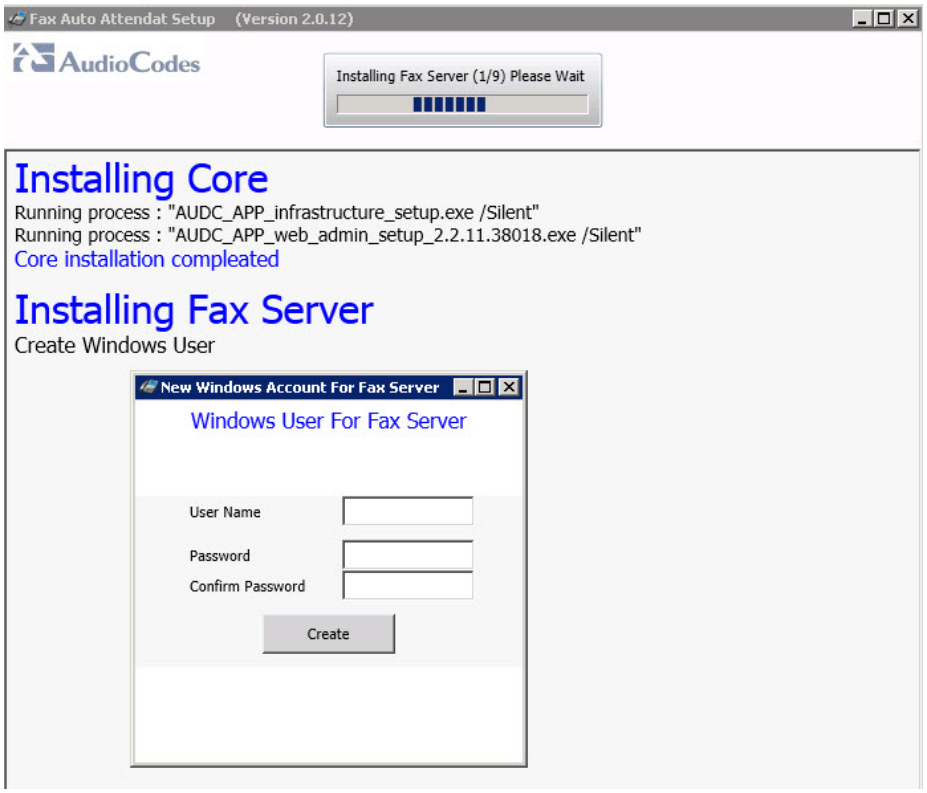
2. Select the 'Fax Server' check box, and then click **Run** to continue; the following screen appears:

Figure 3-2: Setup - Fax Server Installation



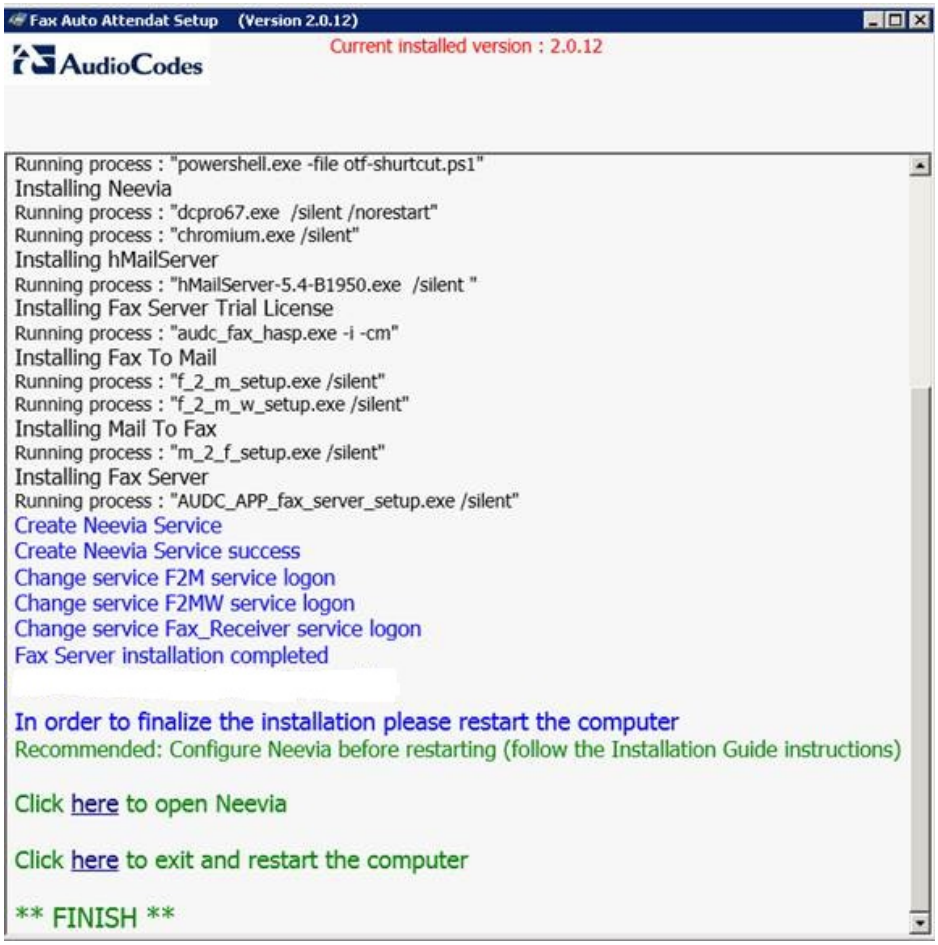
3. Create a new local Windows user. The installation requires a username and password in order to create a new local Windows user that will be used to assign specific credentials for Fax server's services (The created user will be a member of the local administrators group).

Figure 3-3: Installing Core



4. When the installation completes, the following screen appears:

Figure 3-4: Installation Progress



Notes:

- It is recommended to configure the Neevia Document Converter *before* restarting the computer.
- If you click to exit and restart, then you should re-open Neevia with the application's icon on the desktop.

5. Click the here link to open Neevia.

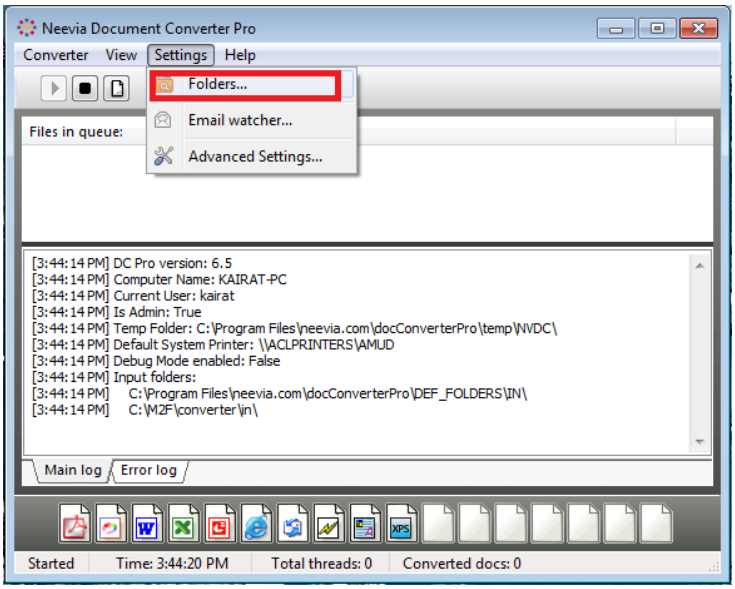
Notes:

- By default the Neevia Converter supports 'pdf', 'txt' and 'html' files. If you need to add support for other file types, then you have to install the required compatible software, e.g. Microsoft Word for .docx file, Microsoft Excel for .xlsx file etc. Use the ***Auto-Detect Installed Parsers*** button to enable parsers.
- In case you have installed Microsoft Office 2013 (Word, Excel, PowerPoint), follow the instructions detailed on page 73.
- The installation of Microsoft Office should be performed by the local administrator user.

➢ **To change output settings:**

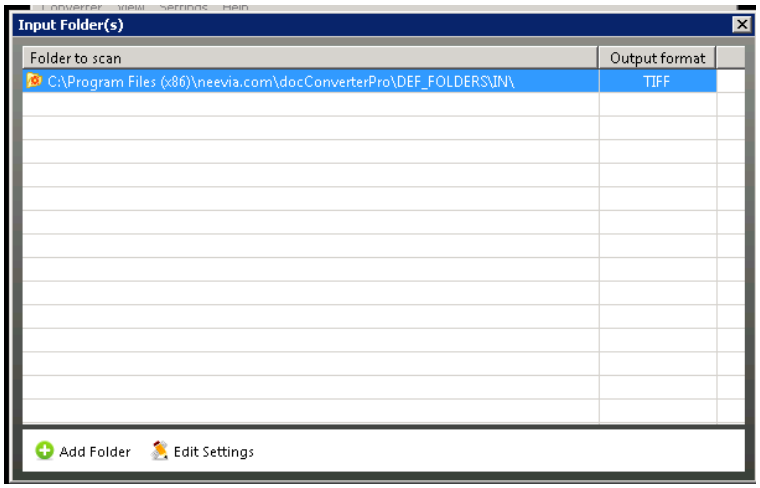
1. In Neevia Converter Pro, click the **Settings** tab.

Figure 3-5: Neevia Document Converter Pro - Settings - Folders…



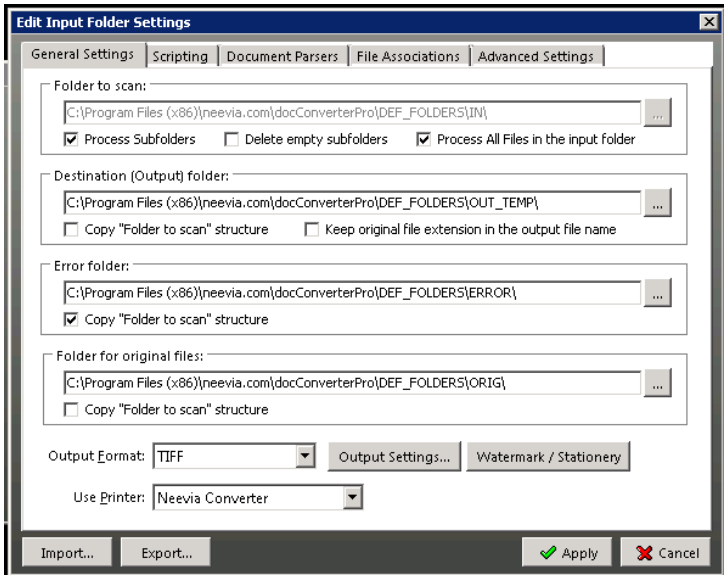
2. From the menu choose the **Folders…**option.

Figure 3-6: Neevia Document Converter Pro - Input Folder



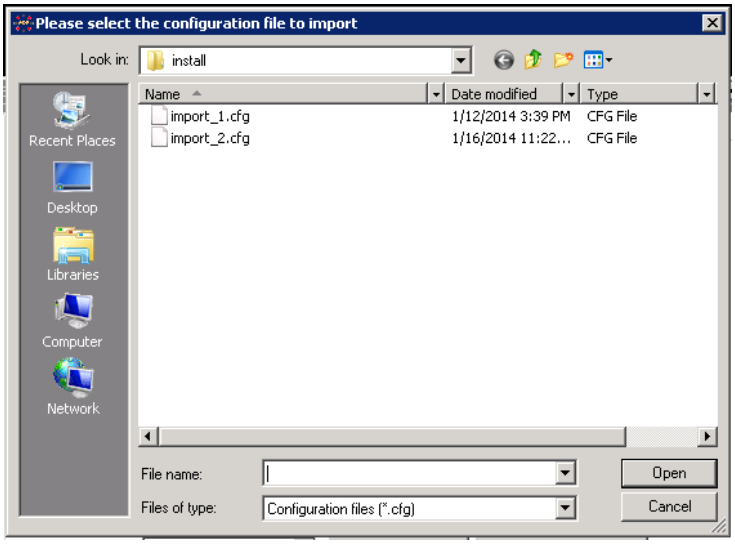
3. Double-click the folder displayed; the Edit Input Folder Settings screen is displayed.

Figure 3-7: Neevia Document Converter Pro - Edit



4. Click the **Import…** button.

Figure 3-8: Neevia Document Converter Pro - Import Configuration File



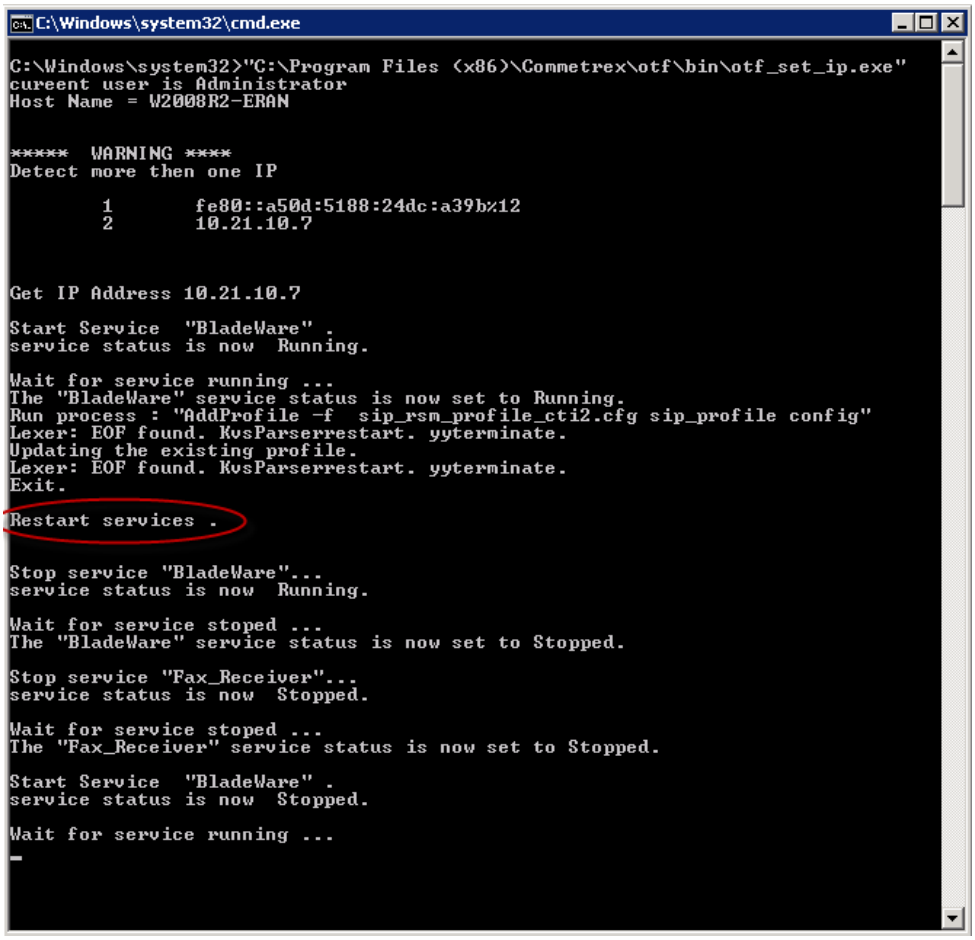
5. Navigate to the path of the configuration files directory - C:\F2MAdmin\install.
6. Select the 'Import_1.cfg' check box, and then click **Open**.
7. Click **Apply**.
8. In the Input Folder(s) screen, click **Add Folder**.
9. Click **Import**.
10. Select the 'Import_2.cfg' check box, and then click **Open**.
11. Click **Apply**.

➢ **To restart the computer:**

1. Click the **here** link to exit and restart the computer.
2. After the computer restarts, open Remote Desktop Connection, and then connect to the server. The server will run a short script to finalize the installation.

Note: Do not stop this script.

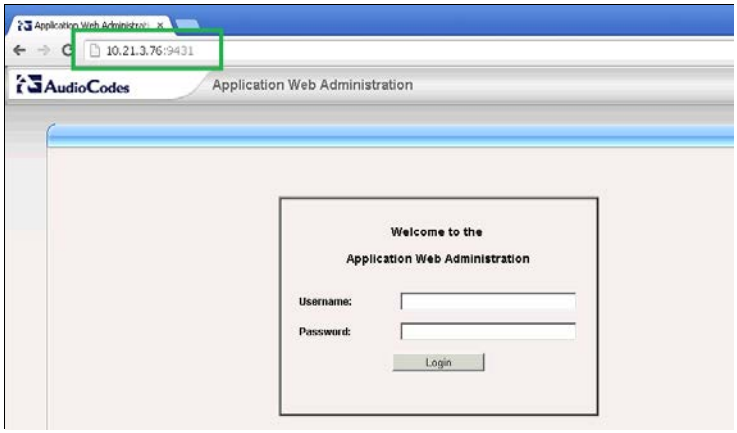
Figure 3-9: Restart Services



3. Log out and re-log in with the local user that was created for the fax service during the installation. If Microsoft Office is installed, you need to open all Microsoft Office applications once to verify that the fax user can open all the installed Office applications.
4. Open the web browser *http://Server_IP:8090*. If you cannot connect, try to connect to Port 9431.

Note: You must use a browser that supports HTML 5 (Internet Explorer 10 or higher).

Figure 3-10: Welcome to the Application Web Administration



5. The installation is now complete. You're directed to the Fax Server Web Admin, at port **8090**.

Note: The Fax server uses port 8090 while the standard port 80 is used by another application that is installed on the same server.

6. Enter Username (Default = **Admin**) and Password (Default = **Admin**) and click **Login;** the Welcome screen is displayed:

Figure 3-11: Fax Server Web Administration - Welcome

7. Configure the parameters using the descriptions in Table 3-1 as reference.

Table 3-1: Welcome Settings

Parameter	Description
SMTP Server	Enter the IP of the SMTP server. The system uses the external mail (SMTP) server for sending mail, therefore you need to assign mail server properties.

Parameter	Description
SMTP Port	Enter the port number of the SMTP.
SMTP Use Default Credentials	Gets or sets a Boolean value that controls whether the Default Credentials are sent with requests.
SMTP Enable SSL	Specify whether the SmtpClient uses Secure Sockets Layer (SSL) to encrypt the connection.
SMTP User Name	SMTP server credential user name. This field is optional. It is required if the external mail (SMTP) server requires user credentials.
SMTP Password	SMTP server credential password. This field is optional. It is required if the external mail (SMTP) server requires user credentials
Default Email	When faxes are received, the system checks for the DN number either in the internal table or via the LDAP request. If the email of an incoming fax number is not configured – the fax will be sent to the default email address.
From Email Address	The From Email address of the sent email.
Default SIP Gateway IP	This is the IP address of the VoIP gateway. The system will send faxes to this gateway according to the outgoing rules.
Fax ID	The fax ID that the fax sender will see on his fax machine as the fax number destination.
Max Fax Recipients	Maximum number of fax recipients in which to send.
Add Cover Page	Check the Add Cover Page box to add default cover page template to the fax
Archive	Check the Archive box to make the system archiving the outgoing and incoming faxes

8. Click **Submit**.
9. To activate the Fax server license, see Section 3.5.
10. Configure your computer as follows:
    a. Open **Control Panel** > **Devices and Printers**.
    b. Right-click **Neevia Converter** and choose **Printer Properties**.
    c. Click the **Advanced** tab and clear 'Enable advanced printing features' and 'Neevia ShellPrintPDF'.
    d. Set the Neevia printer as the default printer.
    e. Restart the computer.
11. The installation is now complete. You can now log in to the system. Refer to the *Fax Server and Auto Attendant IVR Administrator's Guide* for detailed information.

Note: It is mandatory to configure fields 'SMTP Server' and 'Default Email'. If these fields are left un-configured, the Fax Server service will not start. See Appendix A on page 61 for instructions on how to configure the Exchange SMTP Connector.

3.2 Setting up Fax Detection on AudioCodes' Gateway

The procedure below show how to set up the AudioCodes Gateway with Fax Detection and Fax Reroute.

3.2.1 How Fax Detection and Fax Reroute Work

The Fax Detection and Fax Reroute mechanisms operate as described in the event sequence below:

1. The Skype for Business or enterprise IP PBX receives a new call which is routed to a specific user according to its destination number.
2. The user picks up the phone as a regular call or the call is transferred to the user's VOICEMAIL system when the user is unavailable.
3. The called party starts a fax transmission (i.e., plays the CNG tones).
4. The AudioCodes gateway monitors the call and when a fax is detected, it redirects the call to the Fax server with the user's extension number. The call at the user's side is disconnected at this stage.
5. The Fax server receives the new fax call with the user extension number and starts the fax receiving.

3.2.2 Configuring Fax Detection and Fax Reroute

The procedure below shows how to configure Fax Detection and Fax Reroute.

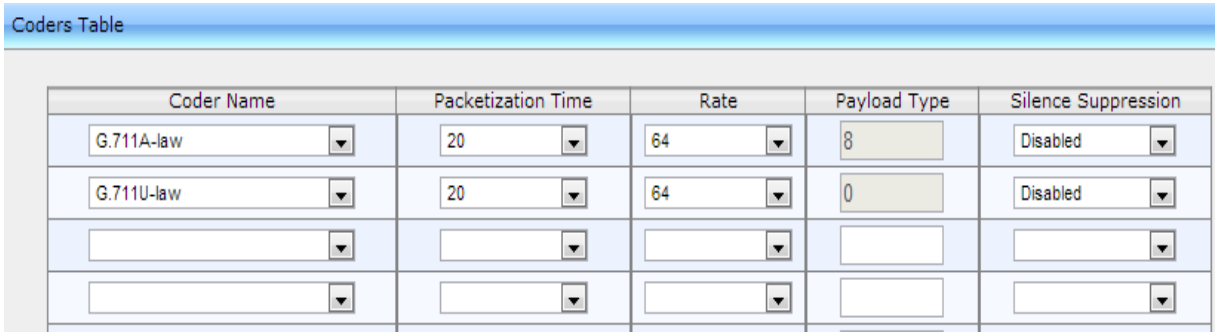
Note: This procedure applies to the Mediant 1000 Gateway and E-SBC and the Mediant 800 Gateway and E-SBC version 6.2 and later.

➢ **To configure Fax Detection and Fax Reroute:**

1. Access the gateway's Web interface.
2. Select Full mode to see all available options.
3. Under the **Configuration** tab, access **VoIP** > **SIP Definitions** > **General Parameters** > **Fax Signaling Method**, and then select **T.38 Relay**.
4. Under the **Configuration** tab, access **VoIP** > **SIP Definitions** > **Advanced Parameters** > **Enable Fax Re-Routing**, and then select **Enable**.
5. Under the **Configuration** tab, access **VoIP** > **Media** > **Fax/Modem/CID Settings** > **CNG Detector Mode**, and then select **Events Only**.

6. Configure the coders: Under the **Configuration** tab, access **VoIP** > **Coders and Profiles** > **Coders**; the following screen is displayed:

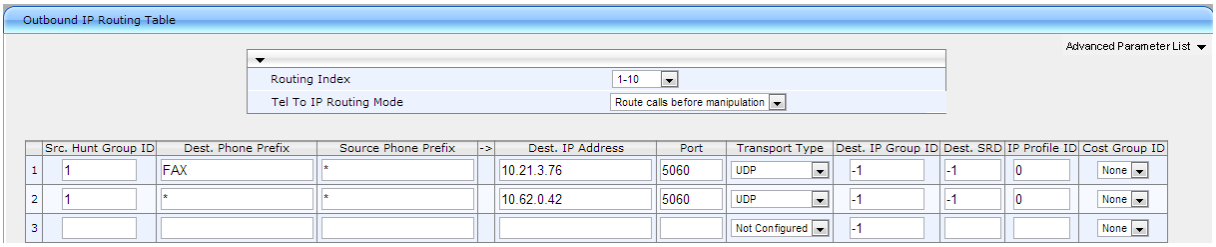
Figure 3-12: Coders Table



Note: Use voice coders only. Do not add T.38 in the Coders Table.

7. Under the Configuration tab, access **VoIP** > **GW and IP to IP** > **Routing** >**Tel to IP Routing**, and then define a new rule as follows:
   a. Tel to IP Routing Mode = Route calls before manipulation
   b. Dest. Phone Prefix = FAX
   c. Source Phone Prefix = *
   d. Dest. IP Address = the IP address of the Fax server.
   e. Port = 5060 (the port number of the Fax server application).

Figure 3-13: Outbound IP Routing Table

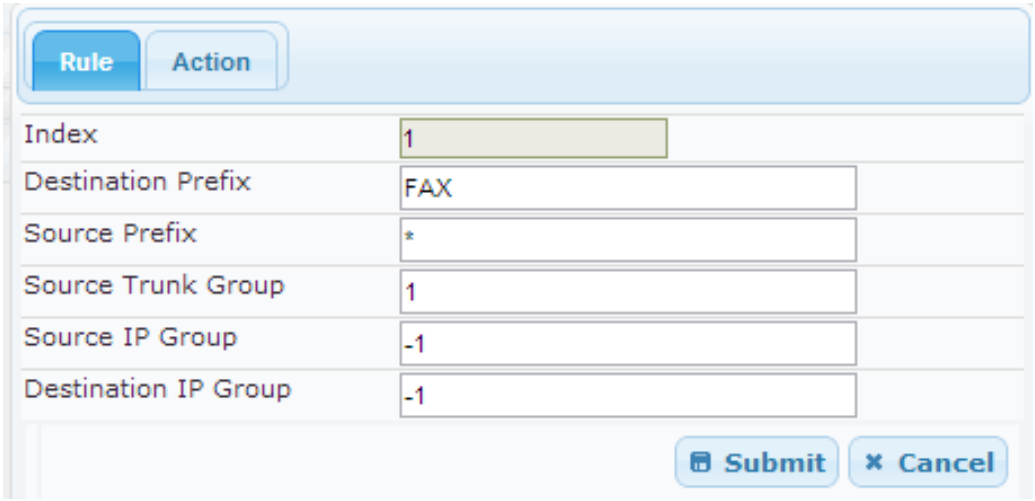


Notes: (Refer to the figure above)

- All fax and voice calls arrive from Hunt Group 1 (Trunk Group 1).
- The first line is for routing the fax to the Fax server.
- The second line is for routing all other calls to the Skype for Business or IP-PBX system.

8. Under the **Configuration** menu, access **VoIP** > **GW and IP to IP** > **Manipulations** > **Dest Number Tel** > **IP**, and then add a new rule as follows:
   - On the Rule tab:
     - Destination Prefix = FAX
     - Source Prefix = *
     - Source Trunk Group = assign the source trunk or IP group number

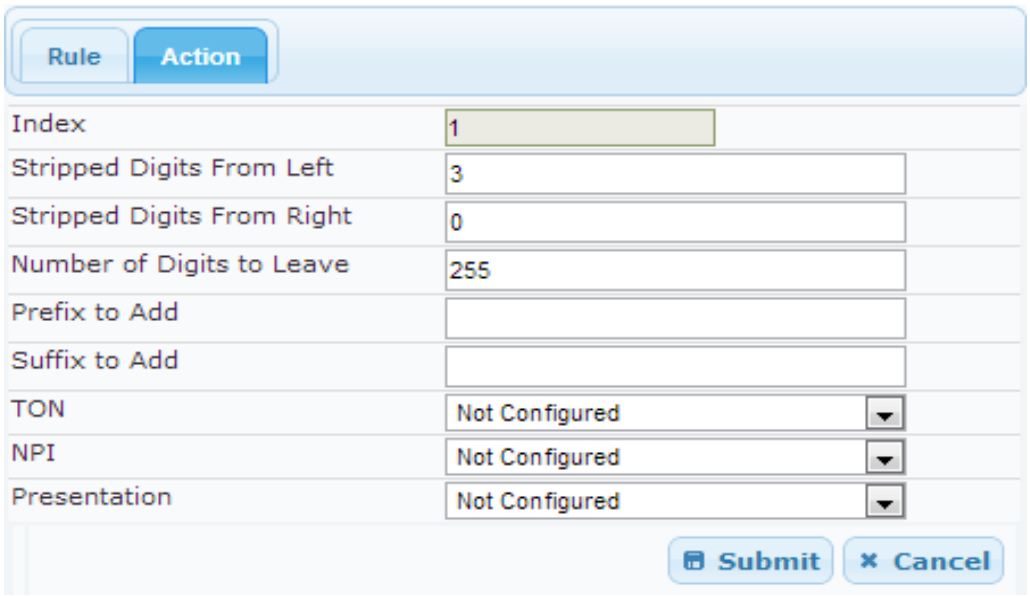
Figure 3-14: Adding a Rule



- On the **Action** tab:
  - **Stripped Digits From Left** = assign the stripped number according to your dial plan.

9. The minimum number is **3**, as you must strip the 'FAX' prefix first.

Figure 3-15: Adding a Rule - Action



3.2.2.1 Fax Call Flow Sample

Original Call

CLI – 031234567

DN – 039764001

Call destination IP Address - <IP address of the IP-PBX>

After Fax Detection

CLI – 031234567

DN – FAX039764001

After Number Manipulation

CLI – 031234567

DN – 4001 (Stripped Digits From Left = 8)

Call destination IP Address - <IP address of the Fax server application>

3.3 Configuring the Fax Server's Ports

The Fax server installation sets several ports to default values, in order to enable correct the operation of the Fax server application. The table below details these ports.

Table 3-2: Configuring Fax Server Ports

Port used for	Description	Port #
Management	Enables Fax server management using the Web interface	8090
SMTP	Enables connection to the SMTP server	25
LDAP	Enables connection to the Active Directory	389
VOIP	SIP	5060
RTP	VoIP Media Ports	Configurable Default: 49000-59000

3.4 Configuring LDAP Settings

The Fax server uses the enterprise's Active Directory records to determine the owner of an incoming fax. The Fax server queries the enterprise's Active Directory using LDAP (Lightweight Directory Access Protocol).

See the *Fax Server Administrator's Guide* for instructions on how to configure the Fax Server application with the enterprise's Active Directory.

3.5 Activating the Fax Server License

When the Fax server application is supplied preinstalled on the AudioCodes Gateway, the Fax server license is already activated.

When the Fax server application is installed on the customer's server, the license can be activated only after the application is installed. To obtain a permanent license, the Fax server system ID must be provided. The Fax server system ID is the Client to Vendor (*.c2v) file.

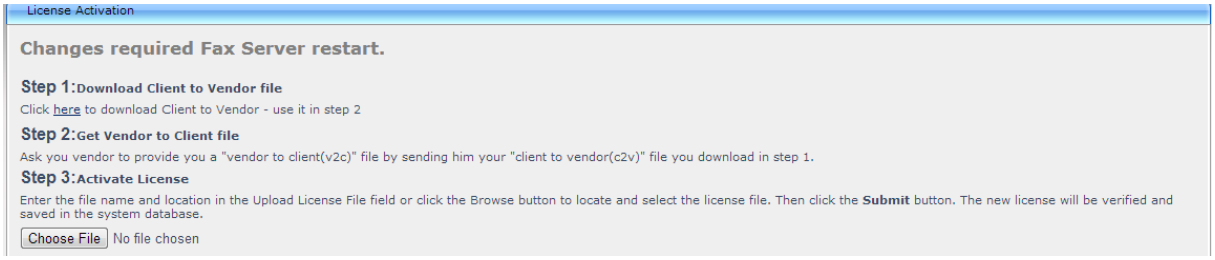
Notes:

- The Fax server license is associated with the installed system's serial number. An installed and licensed Fax server system must not be cloned to a different Virtual Machine instance. Doing so will disable the Fax server license.
- The Fax server application is activated with a temporary license for a period of 90 days for two fax ports immediately after the installation. The temporary license can be activated only once and it useful for evaluation purposes or for using the system until the permanent license is activated.

➢ **To activate the Fax Server permanent license:**

1. In the Web interface, access the License Activation page (**Configuration** menu > **License** > **License Activation**):

Figure 3-16: Web Interface - License Activation



2. If you already have the new license file (Vendor to Client *.v2c), skip to **Step 5**.
3. If not, then in the License Activation page shown above, under **Step 1**, click the **here** link and then save the **Client to Vendor** file to your PC.
4. Send the *.C2V* file with the AudioCodes Sales order number (SO) to the following e-mail address: SPS_License@audiocodes.com. In case you don't have the AudioCodes SO, please obtain it from the channel partner or local distributor that submitted this order with AudioCodes.

   AudioCodes will generate a valid license according to your order and will send it to you via an e-mail reply. The license is a **Vendor to Client** (*.V2C)* file.
5. When you receive a valid Fax server License Key (**Vendor to Client** file) from AudioCodes:
   a. Access the License Activation page.
   b. Load the **Vendor to Client** file that you received from AudioCodes.
6. Click **Submit**.
7. Restart the Fax server; the license is activated.

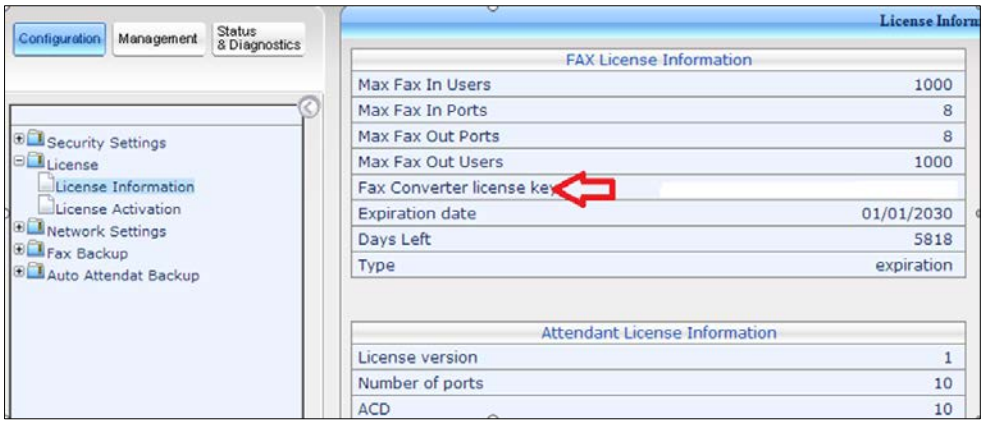
3.6 Setting the Neevia License

After activating the Fax server license, you need to set the Neevia license manually.

➢ **To set the Neevia license manually:**

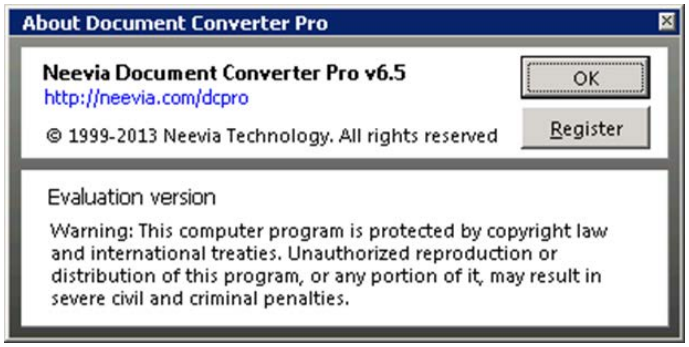
1. Obtain the key from the FAX License Information screen:

Figure 3-17: FAX License Information – Getting the Key



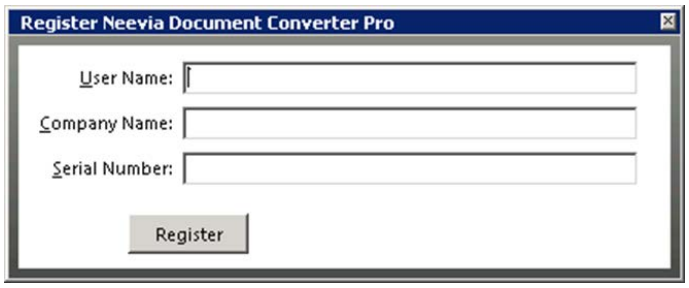
2. Open the Neevia Document Converter Pro, and then click **Help** > **About**.

Figure 3-18: Neevia Document Converter Pro - Help - About



3. Click **Register**.

Figure 3-19: Neevia Document Converter Pro - Register



4. Define the Register parameters. Use the table below as reference.

Table 3-3: Neevia Document Converter Pro - Register

Parameter	Description
User Name	AudioCodes
Company Name	The company
Serial Number	Copy from the web page

5. Restart the 'Fax Converter' service and 'Email To Fax' service.

Figure 3-20: Restarting 'Fax Converter' and 'Email To Fax' Services

3.7 Backing Up and Restoring Configuration Settings

The Fax server provides an easy and quick way to back up and restore your configurations. It's recommended to back up the configuration before making any major changes.

The backup mechanism backs up all your system settings including architecture, users, administrators, configuration, and LDAP configuration.

See also the *Fax Server Administrator's Guide*.

3.8 Changing Fax Server E-mail Customization

The Fax server application allows you to customize the e-mails that are sent to users. For example, you can customize the subject of the e-mail, Body message, etc. For more information, refer to the *Fax Server Administrator's Guide*.

3.9 Changing the Server IP Address

If the Fax server IP address changes, you need to run a script that updates the Fax server with the new IP address.

➢ **To change the Fax server's IP address:**

1. Change the Fax server's IP address.
2. Go to C:\Program Files (x86)\Commetrex\otf\bin
3. Run otf_set_ip.
4. Open **Start** > **Administrative Tools** > **Services**.
5. Start the **BladWare** service and the **Fax_Receiver** service.

Note: The Fax server must not have more than one IP address.

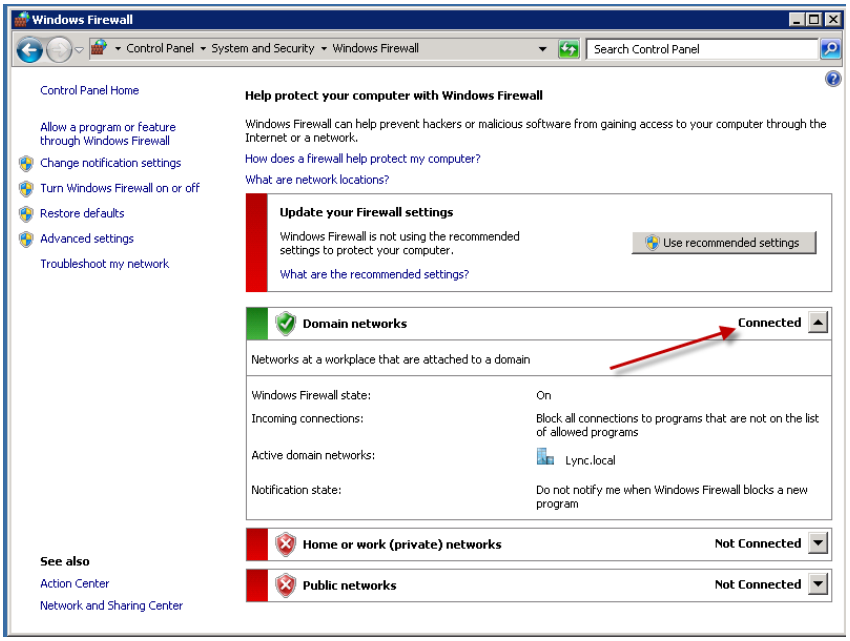
3.10 Disabling the Windows Firewall and Anti-Virus

After you add the Fax server to the company domain, Windows automatically enables the server domain network Firewall; you must then consequently disable it.

➢ **To disable the Windows Firewall and Anti-Virus:**

1. Open the **Windows Firewall**, go to **Domain networks** and then select the **Turn Windows Firewall on or off** link to disable the firewall (as shown in the figure below).

Figure 3-21: Windows Firewall



2. Do the following:
   - **Windows Updates:**
     - Disable to prevent unknown side effects to the Fax/IVR application (recommended). AudioCodes only certifies major Service Pack updates.
   - **Anti-Virus Software:**
     - No anti-virus software is included with the Fax/IVR.
     - No specific anti-virus software is tested or certified with Fax/IVR.
   - **Windows Defender:**
     - Disable the Windows Defender.

4 Installing Auto Attendant IVR

This chapter describes how to install the AA IVR application.

4.1 Before Installing Auto Attendant IVR

Before installing the AA IVR server, do the following:

- Verify that all prerequisites have been enabled. See Section 2 on page 17.
- Verify that the AA IVR server was joined to the domain.
- Copy the Skype for Business installation DVD to the AA IVR server.
- Perform the installation of the Skype for Business Local Storage using a domain user with Skype for Business management credentials. This is required for the purpose of the installation only. See Appendix B on page 63 for instructions on how to install Skype for Business Local Storage.

➢ **To perform the Skype for Business AA IVR setup:**

1. Install the Skype for Business Local Store on the AA IVR server (see Appendix B).
2. Add the AA IVR as a trusted application towards the SBA/Skype for Business FE.

   To perform these operations from the AA IVR server, you need to log into the AA IVR server with a user who has the required permissions on the Skype for Business server, in addition to permissions to perform the following operations:

   - Enable access to the Certificate Authority (during the activation you will be prompted for the Certificate).
   - Enable access for the DNS to add a record.

Note: AudioCodes provides a script that automatically performs the above actions. To run this script, you need all the necessary permissions as specified above.

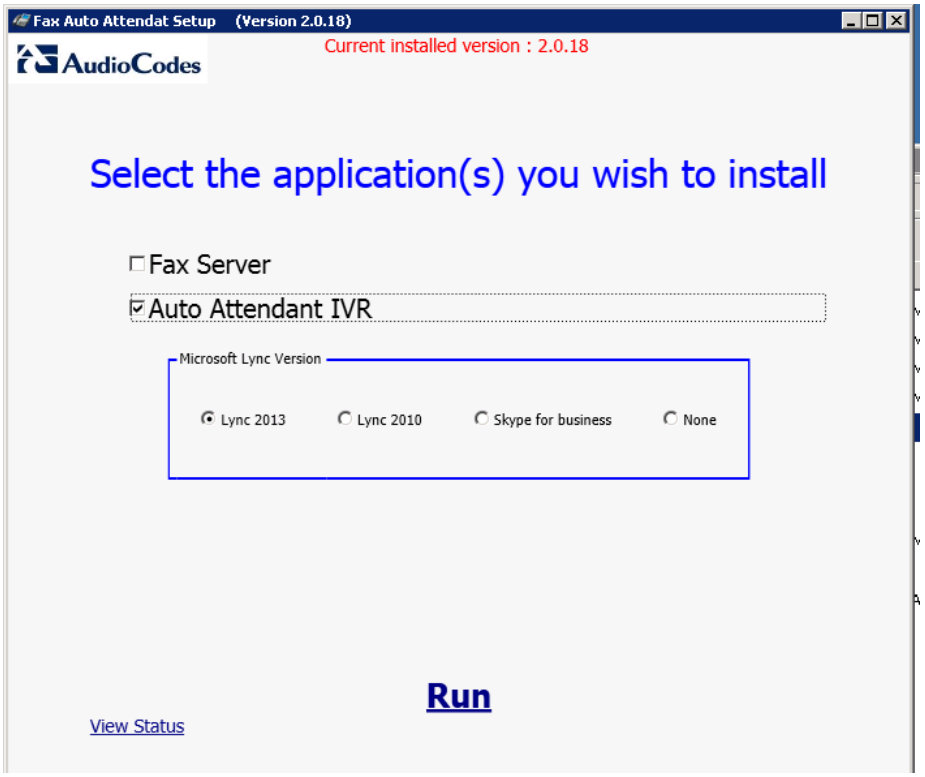
4.2 Auto Attendant IVR Installation

The procedure below shows how to install the AA IVR on Skype for Business.

➢ **To install AA IVR:**

1. Run *fax_att_setup* located in C:\Fax_Att_Setup.

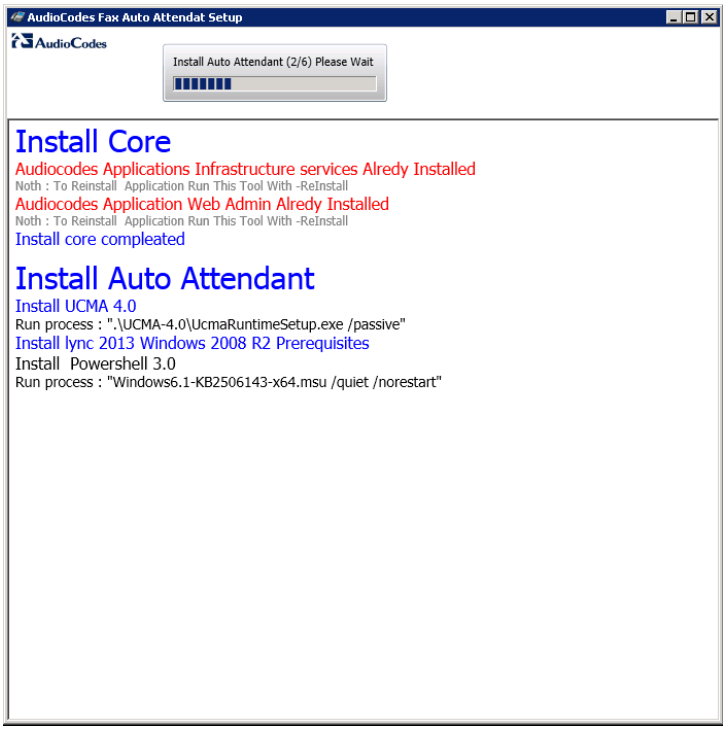
Figure 4-1: Setup - AA IVR



2. Select the 'Auto Attendant IVR' option, select your Lync environment version (Lync 2013, Lync 2010 or Skype for Business) version, and then click **Run** to continue the installation; the following screen is displayed:

Note: Click the **None** option for a standalone (i.e. non-Lync environment) AA IVR installation.

Figure 4-2: Auto Attendant IVR Installation Progress

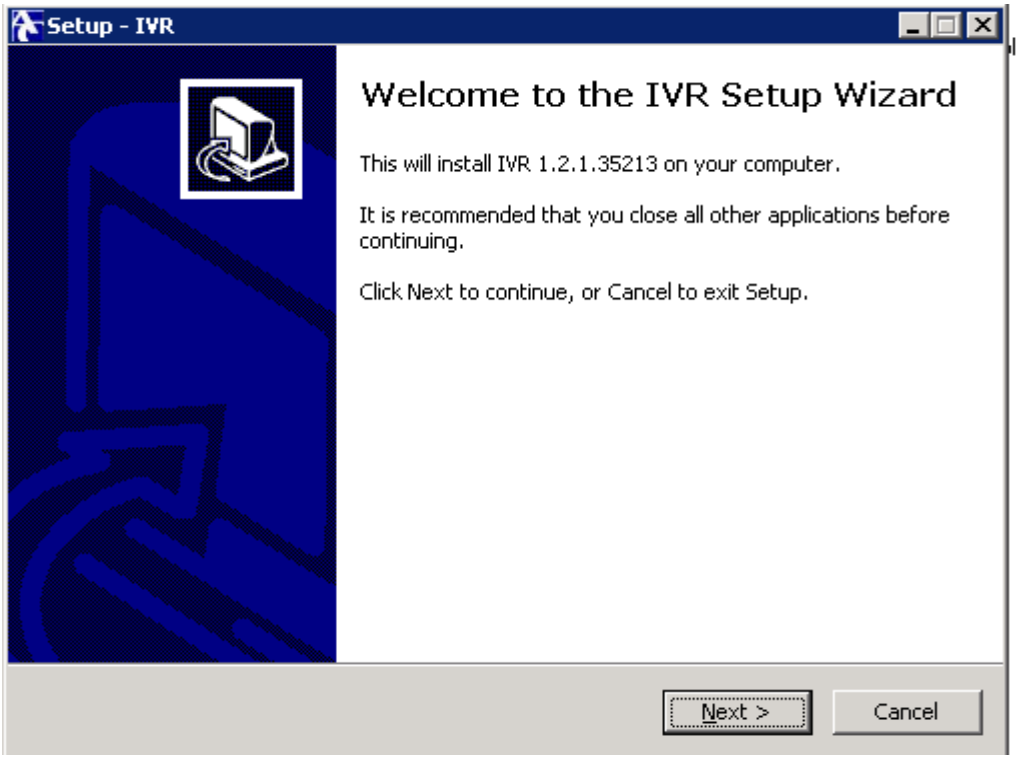


Note: If the Fax server is already installed, it's unnecessary to select the option again. Clearing this option will not uninstall an installed service.

3. After installing several Microsoft components, restart as prompted by the wizard.
4. Install the Skype for Business local storage from Skype for Business setup (see Appendix B on page 9).
5. Run the *fax_att_setup* wizard again, select 'Auto Attendant IVR' and ' Skype for Business ' according to the Skype for Business version selected in the above step, and then click **Run** to finish the services installation.

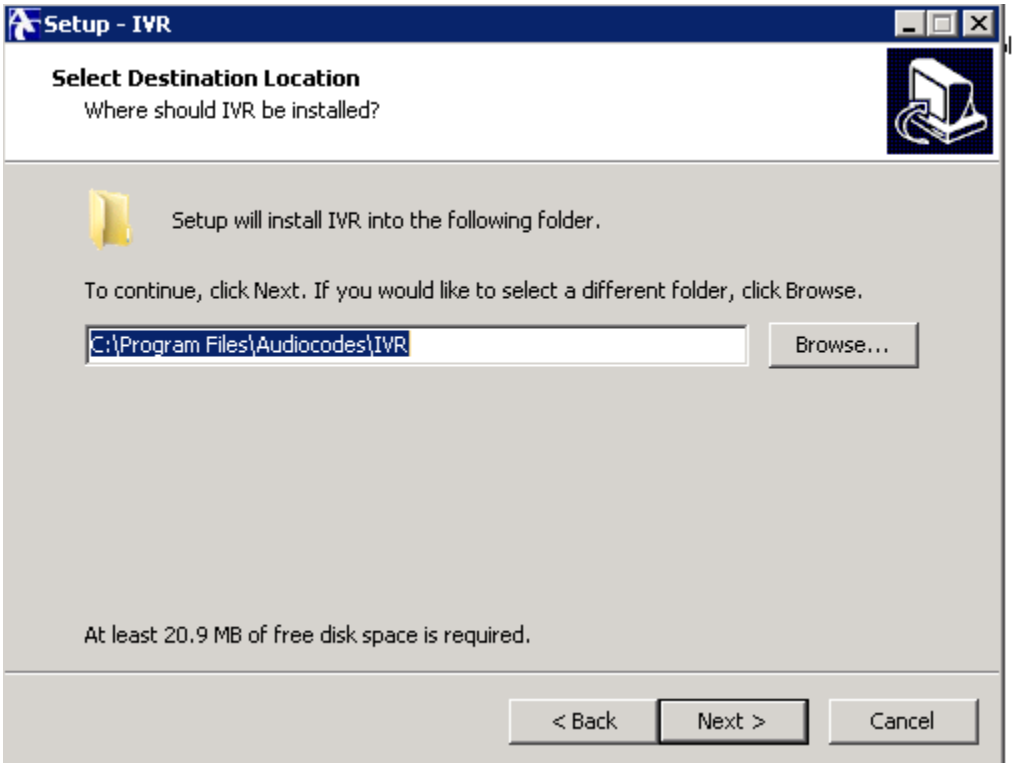
   The IVR setup will run manually because user interaction is required to perform specific configuration actions.

Figure 4-3: Welcome to IVR Setup



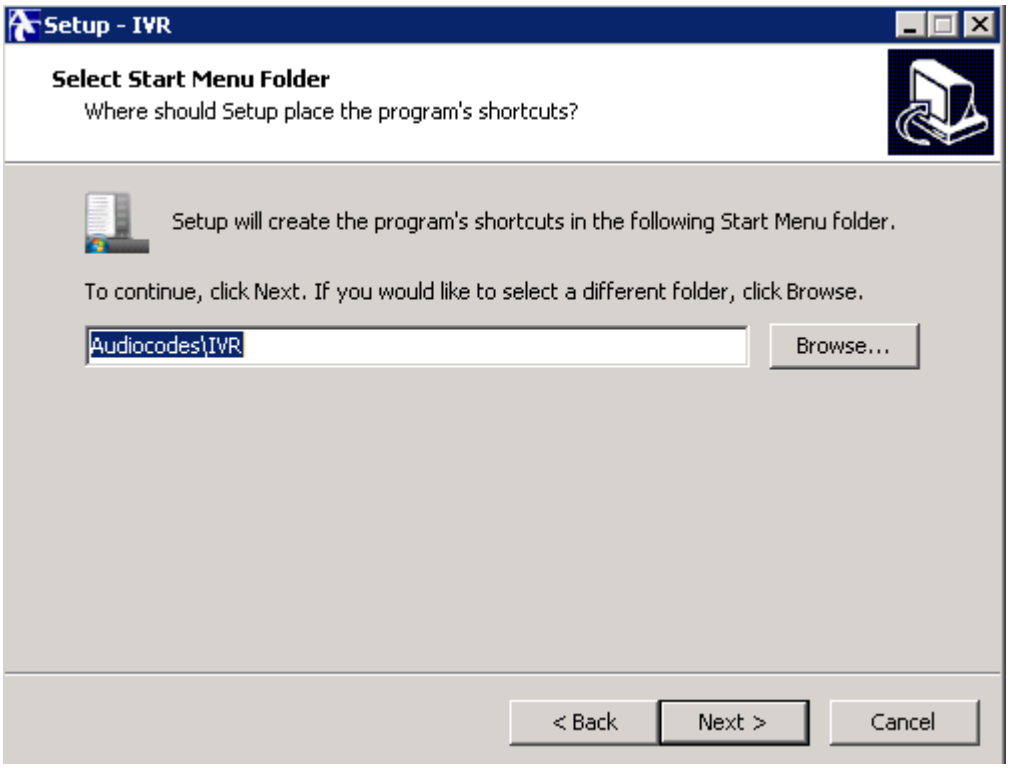
6. Click **Next**; the Select Destination Location screen is displayed:

Figure 4-4: Select Destination Location



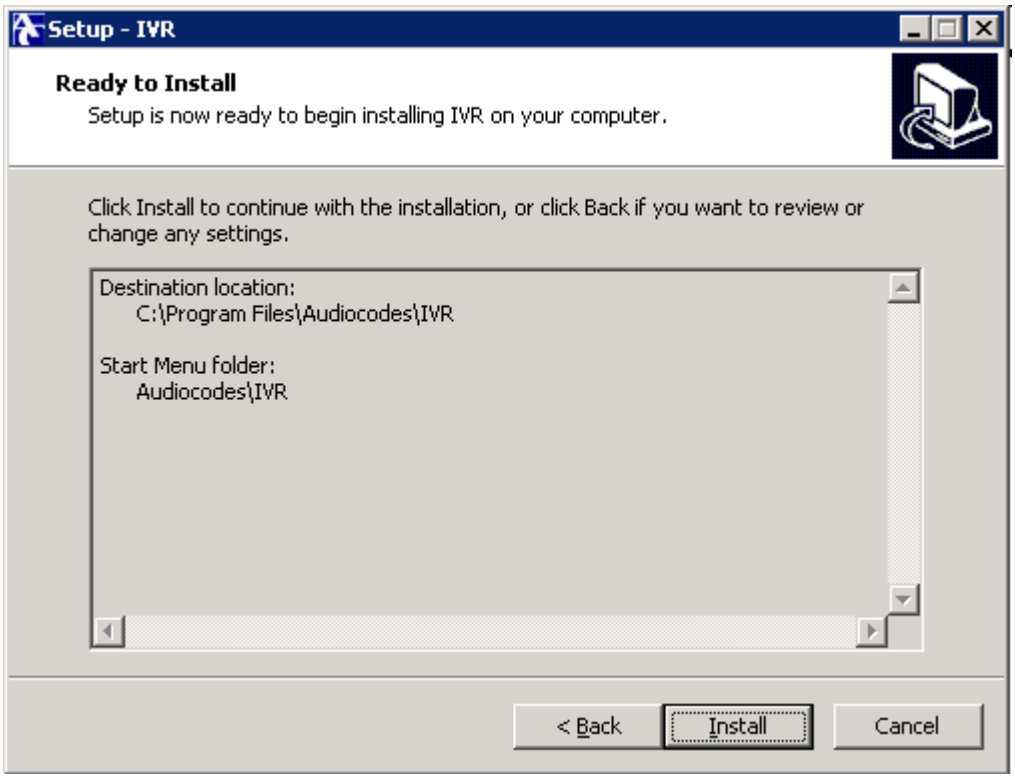
7. Click **Next**; the Select Start Menu Folder is displayed:

Figure 4-5: Select Start Menu



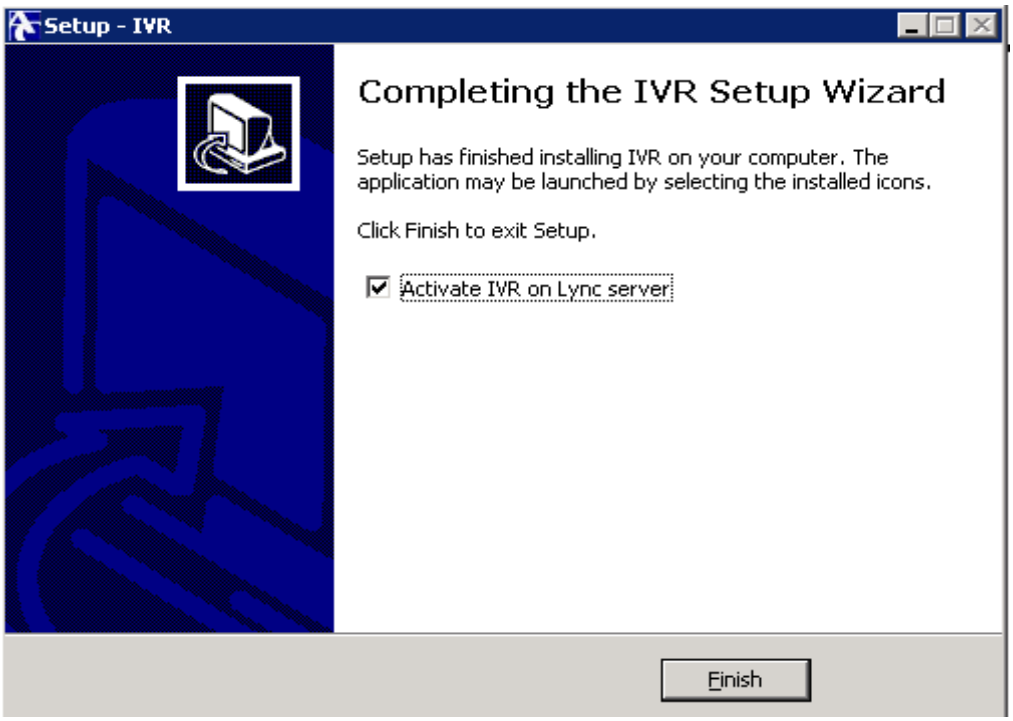
8. Click **Next**; the Ready to Install screen is displayed:

Figure 4-6: Ready to Install



9. Click **Install**; the IVR AA is installed. A confirmation screen is displayed when the installation procedure has completed.

Figure 4-7: Completing IVR Setup



10. Select the 'Activate IVR on Lync server' check box, and then click **Finish**.

Note: For standalone (i.e. non-Lync installation) AA IVR installation, leave this option unchecked.

11. If you wish to perform the activation towards the Skype for Business server automatically (recommended), select the 'IVR Activation' option.
12. If you wish to perform the IVR activation manually, refer to the *Manual IVR Activation* document. This document is located at *C:\Program Files\Audiocodes\IVR\PowerShell*.

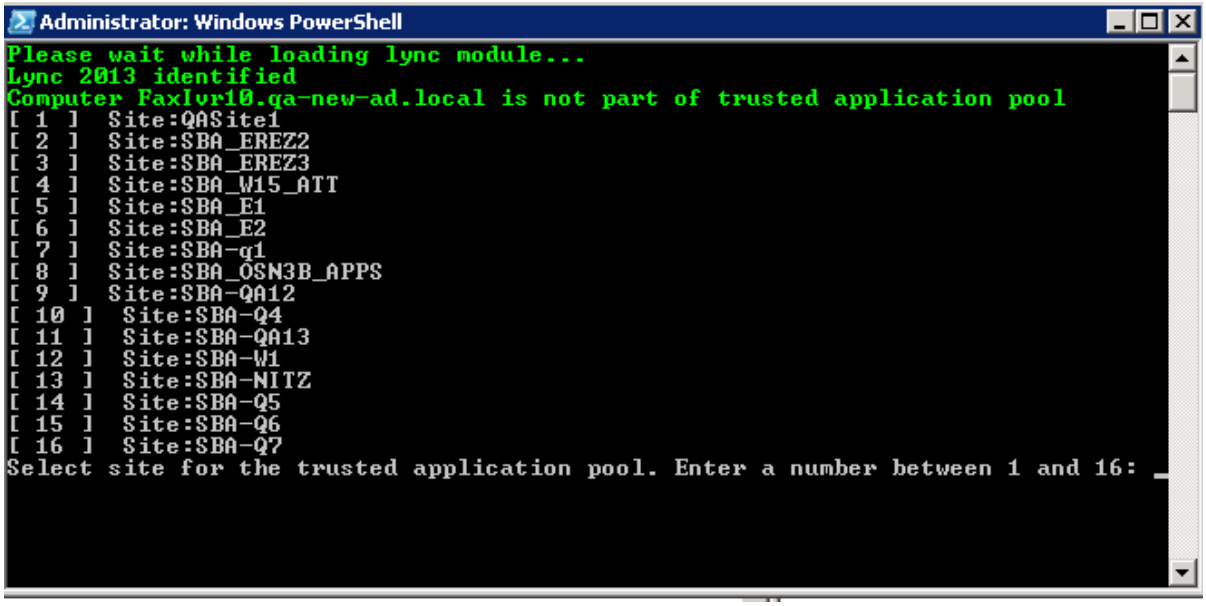
Notes:

- The activation procedure described in this document is a Microsoft UCMA requirement for creating a trusted UCMA application. The activation procedure is fully described in http://msdn.microsoft.com/en-us/library/office/dn466114(v=office.15).aspx.
- The IVR application must be provisioned as an auto-provisioned application as described in http://msdn.microsoft.com/en-us/library/office/dn466123(v=office.15).aspx.
- If you clear the 'Activate IVR on Lync server', you will be able to perform it by opening **Start** > **All Programs** > **AudioCodes** > **IVR** > **Activation** > **Activate IVR**.

13. The screen below shows a system with a single CA in the network. In case there is more than one CA, the script will prompt you to choose which CA to use for the certificate.

14. Select the site for the trusted CA application pool (this is usually one of the **SBA** server sites).

Figure 4-8: Administrator: Windows PowerShell



15. Select the correct FE/SBA on which it is requested to activate the IVR.
16. At the end of this process, the following message may appear.

Figure 4-9: Administrator: Windows PowerShell Message

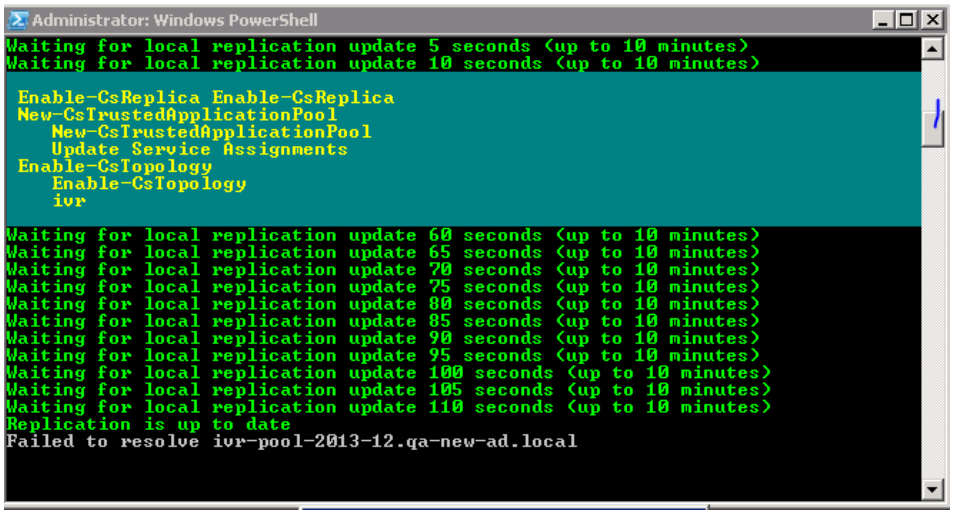
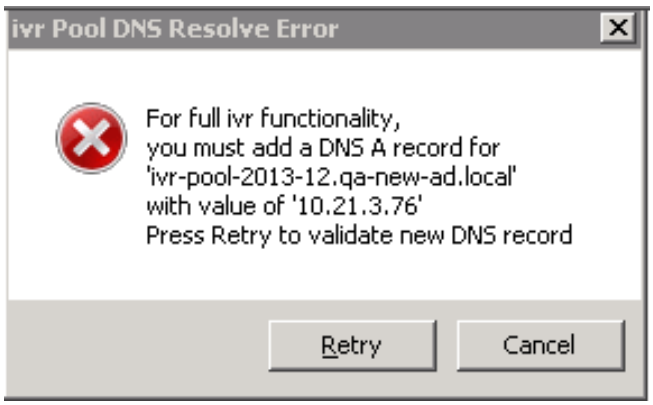


Figure 4-10: ivr pool DNS Resolve Error

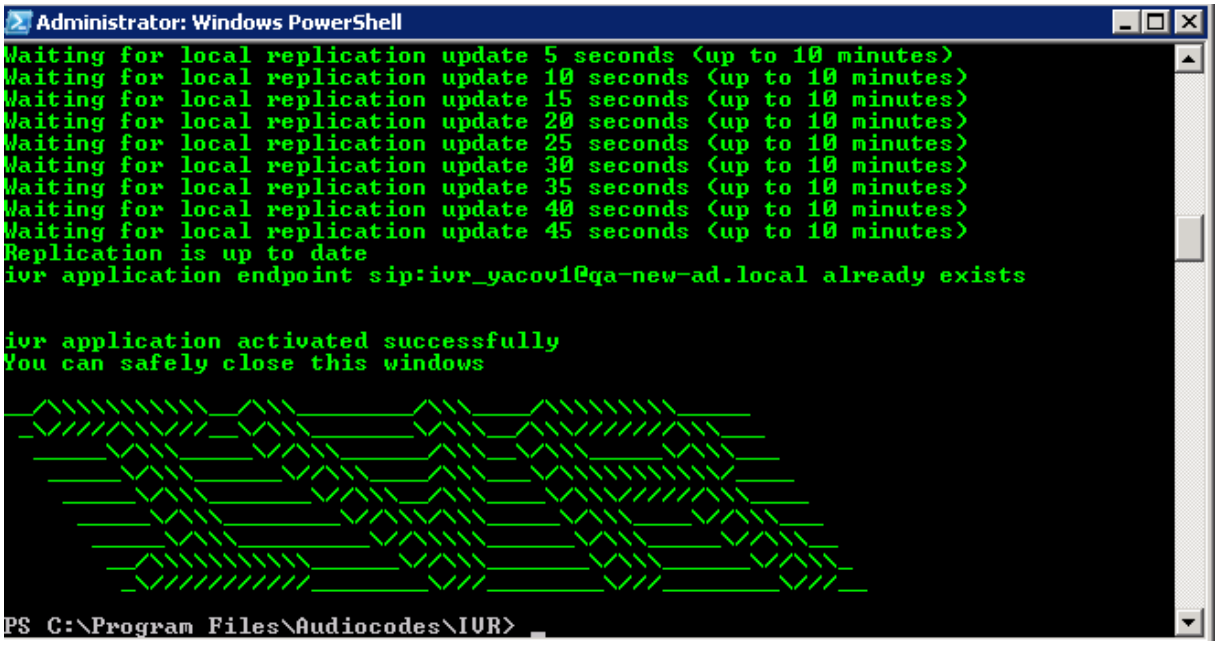


17. In the event of the above, you need to add the A record to the DNS according to the information below (different DNS per system), add the IVR pool to the DNS, and then click **Retry**.

Figure 4-11: Add IVR Pool to DNS

18. Click **OK**.
19. After the local replication is up-to-date, the following screen is displayed:

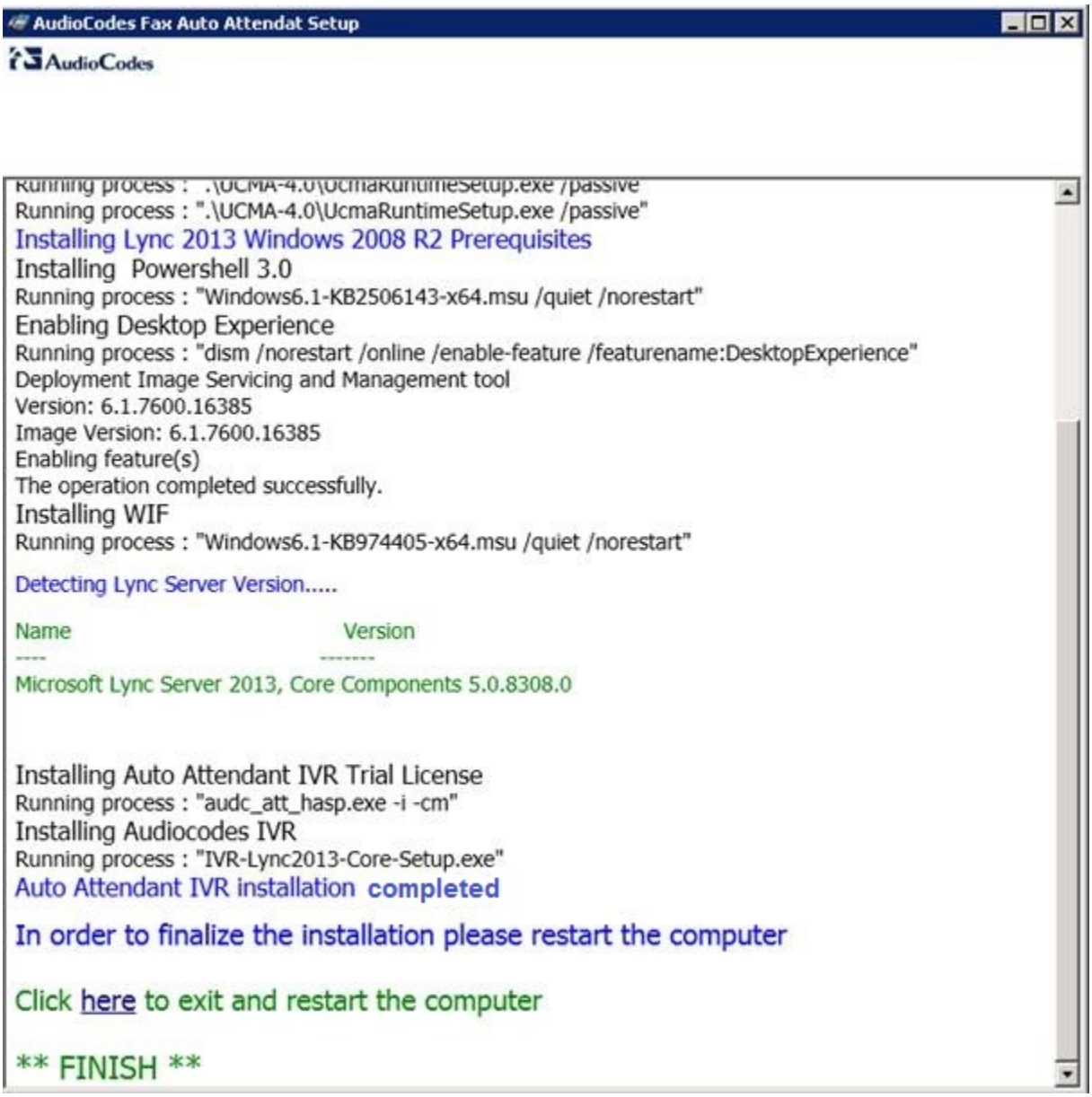
Figure 4-12: Local Replication



Note: The replication can take a very long time depending on the system size and network speed.

20. Close this window.

Figure 4-13: Fax Auto Attendant Setup



21. Restart the server; the installation is complete.

4.3 Activating the IVR Server License

The IVR server application can't be supplied preinstalled because the installation must be performed **after** joining to a domain.

The license must be activated only after the application is installed. To obtain a permanent license, the IVR Server system ID must be provided. The IVR Server system ID is the Client to Vendor (*.c2v) file.

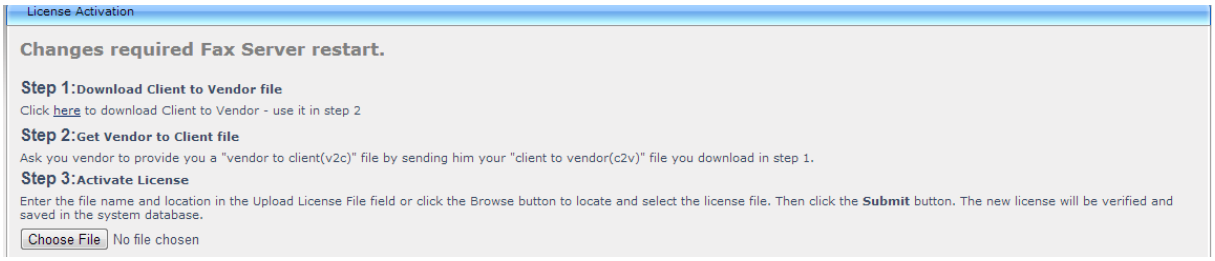
Note:

- The IVR Server license is associated with the installed system's serial number. An installed and licensed IVR Server system must not be cloned to a different Virtual Machine instance. Cloning to a different VM will disable the IVR Server license.
- The IVR Server application is activated with a temporary license for a period of 90 days starting immediately after the installation. The temporary license can be activated only once and it useful for evaluation purposes or for using the system until the permanent license is activated.

➢ **To activate the IVR Server license:**

1. In the Web interface, access the License Activation page (**Configuration** menu > **License** > **License Activation**):

Figure 4-14: Web Interface - License Activation



2. In the License Activation page shown above, under Step 1, click the here link and then save the Client to Vendor file to your PC.
3. Send the *.C2V* file with the AudioCodes Sales Order (SO) number to the following e-mail address: SPS_License@audiocodes.com. In case you don't have the AudioCodes SO, please obtain it from the channel partner or local distributor that submitted this order with AudioCodes.
4. AudioCodes will generate a valid license according to your order and will send it to you via an e-mail reply. The license is a **Vendor to Client** (*.V2C)* file.
5. When you receive a valid IVR server License Key (**Vendor to Client** file) from AudioCodes:
   a. Access the License Activation page.
   b. Load the **Vendor to Client** file that you received from AudioCodes.
6. Click **Submit**.
7. Restart the IVR server; the license is activated.

Note: If IVR and Fax are running on the same server, then you need to perform the license request twice – once for every product – and you must install the **Vendor to Client** file that you received from AudioCodes for the first product before performing the license request for the second product. For example: if you have fax and IVR on same server and you requested an IVR license, then after obtaining the license, you need to load it to the server via the Web and afterwards prepare a another C2V file and send it to AudioCodes for requesting the second request for the Fax license.

4.4 Adding a New Language Pack

The IVR installation includes only the EN-US language pack. To add new language pack, you need to install the required language from the **Microsoft Speech Platform - Runtime Languages**.

➢ **To add a new language pack:**

1. Follow the instructions on Microsoft's website. For Skype for Business refer to http://www.microsoft.com/en-us/download/details.aspx?id=27224.
2. To add a language to Auto Attendant IVR you must install both an SR (Speech Recognition) language and a TTS (Text To Speech) language. For example, to add Italian you must install both *MSSpeech_SR_it-IT_TELE.msi* and *MSSpeech_TTS_it-IT_Lucia.msi*.

Note:

- The installation does not provide any visual feedback that the installation succeeded.
- You must restart AA IVR after installation.

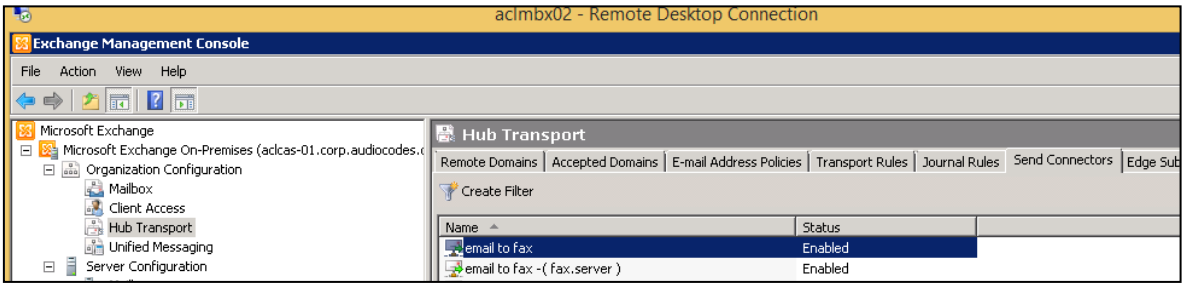
A Configuring Exchange SMTP Connector

This appendix shows how to configure the Exchange SMTP Connector for those users who have an Exchange server and who are deploying the Fax server application.

➢ **To configure the Exchange SMTP connector:**

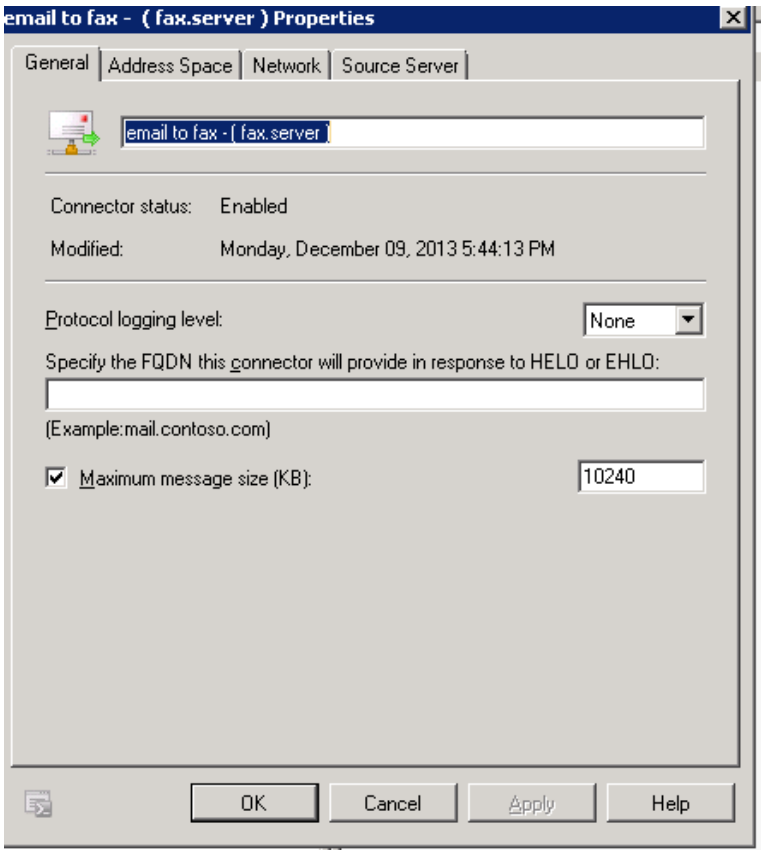
1. In the Exchange Management Console, navigate to **Organization Configuration** > **Hub Transport**, and then click the **Send Connectors** tab.

Figure A-1: Exchange Management Console - Send Connectors



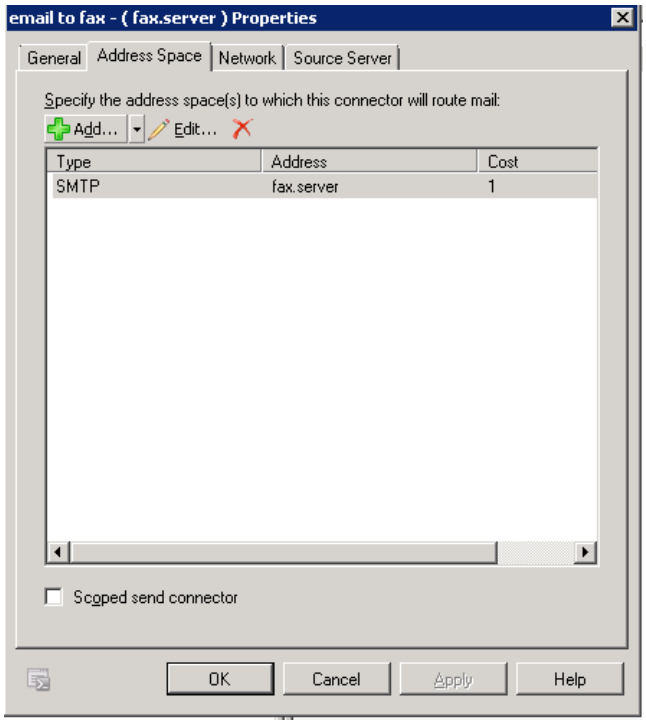
2. Right-click the **email to fax** entry, and then from the menu, choose **Properties** > **General**.

Figure A-2: Email to Fax Properties - General



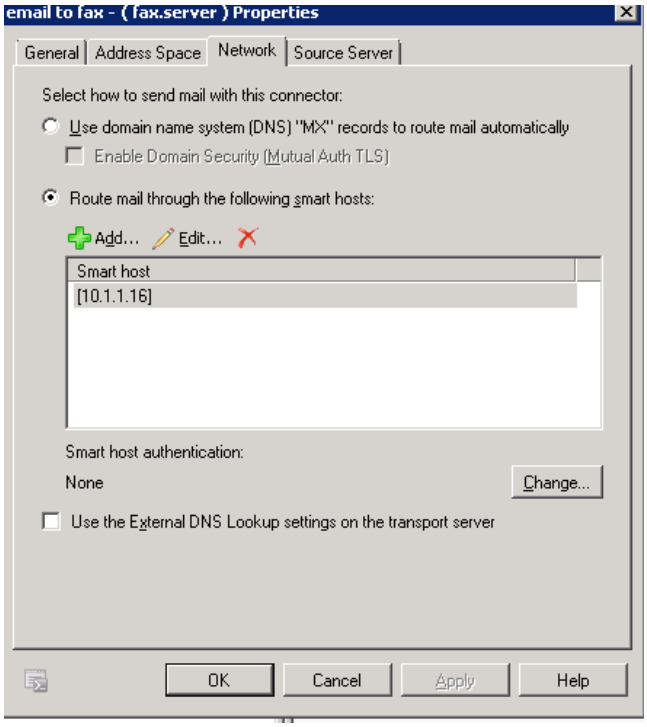
3. In the 'email to fax – Properties' screen, click the **Address Space** tab, and then specify the address space(s) to which this connector will route mail.

Figure A-3: Email to Fax Properties – Address Space



4. In the 'email to fax – Properties' screen, click the **Network** tab.

Figure A-4: Email to Fax Properties – Network



5. Select how to send mail with this connector.

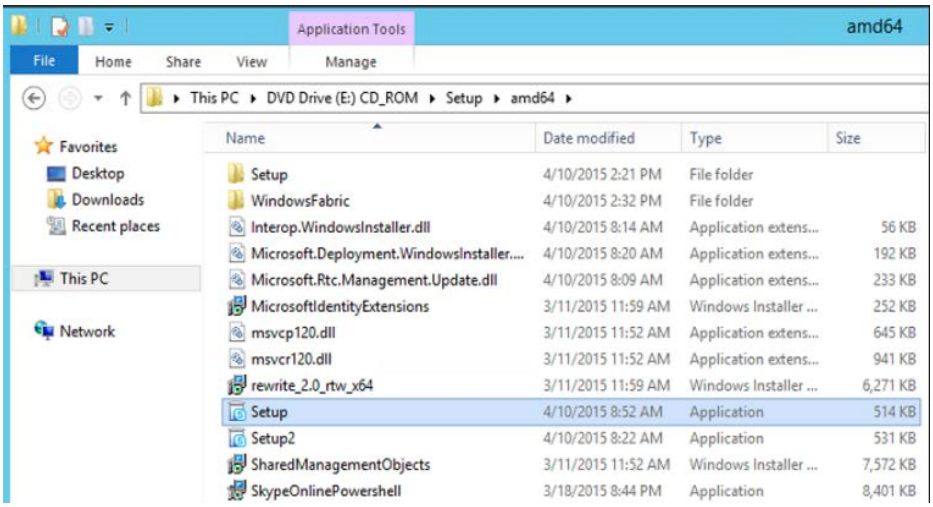
B Installing the Skype for Business Local Storage

The procedure below shows how to install the Skype for Business local storage. Perform this procedure prior to installing the AA IVR (see Chapter 4).

➢ **To install the Skype for Business Local Storage setup.**

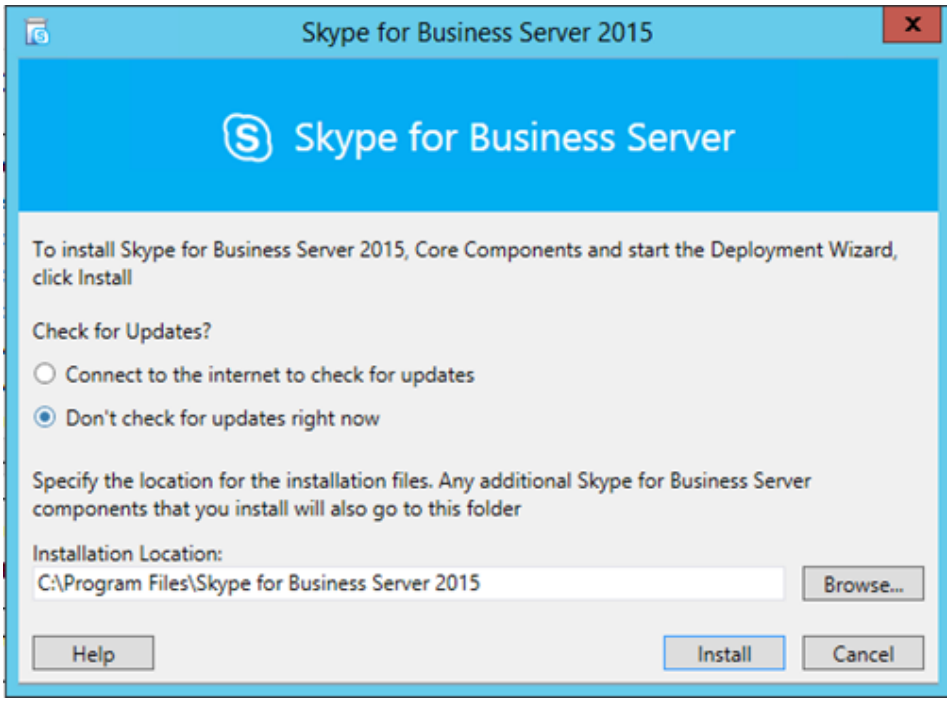
1. Open the Skype for Business setup DVD/folder, and then run the following: **\Setup\amd64\Setup.exe**.

Figure B-1: Skype for Business Local Storage Setup



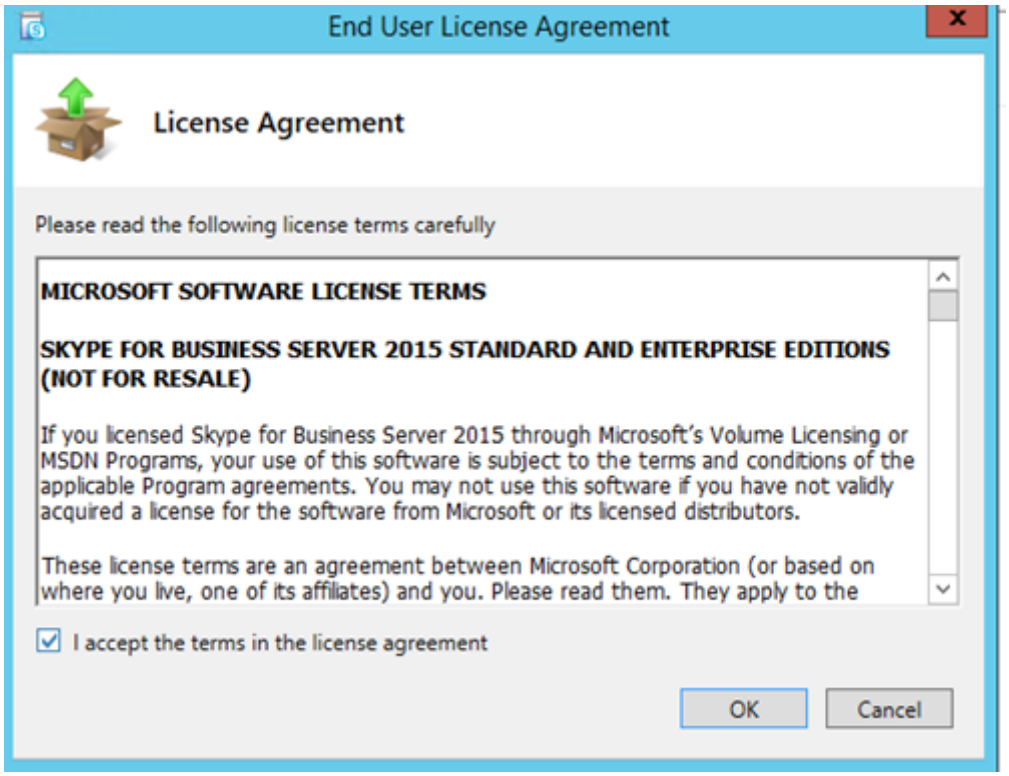
2. The following message may be displayed; click **Yes**.

Figure B-2: Skype for Business Server 2013 File Location



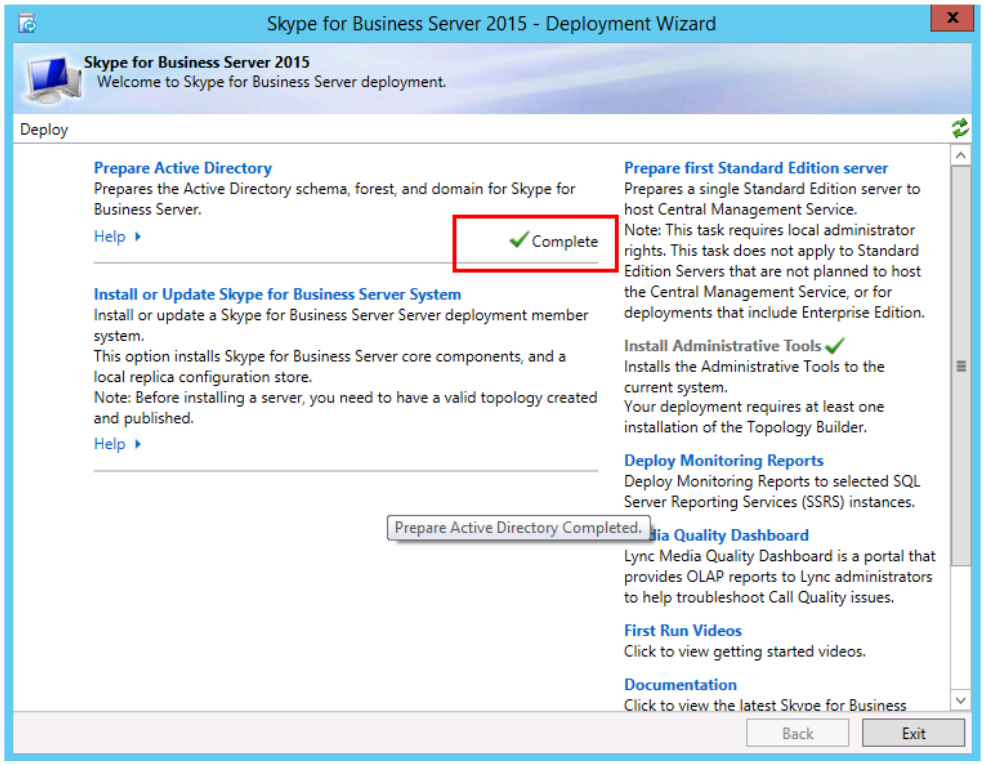
3. Click **Install**.

Figure B-3: Skype for Business Local Storage License Agreement



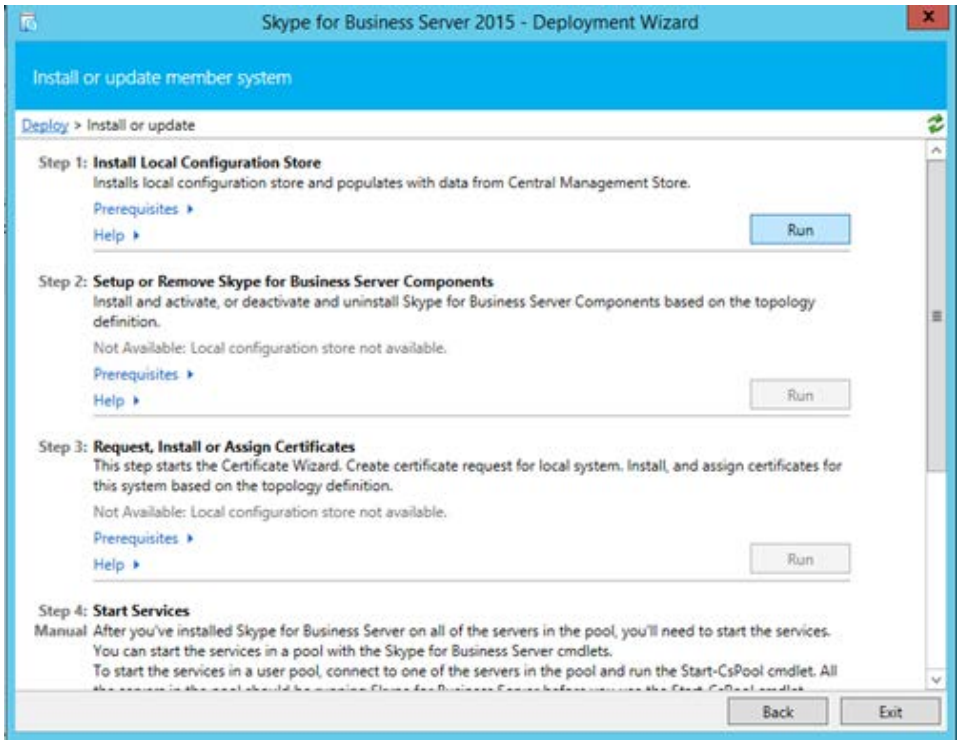
4. Check the 'I accept the terms' check box, and then click **OK**; the following screen is displayed:

Figure B-4: Skype for Business – Deployment Wizard – Prepare Active Directory



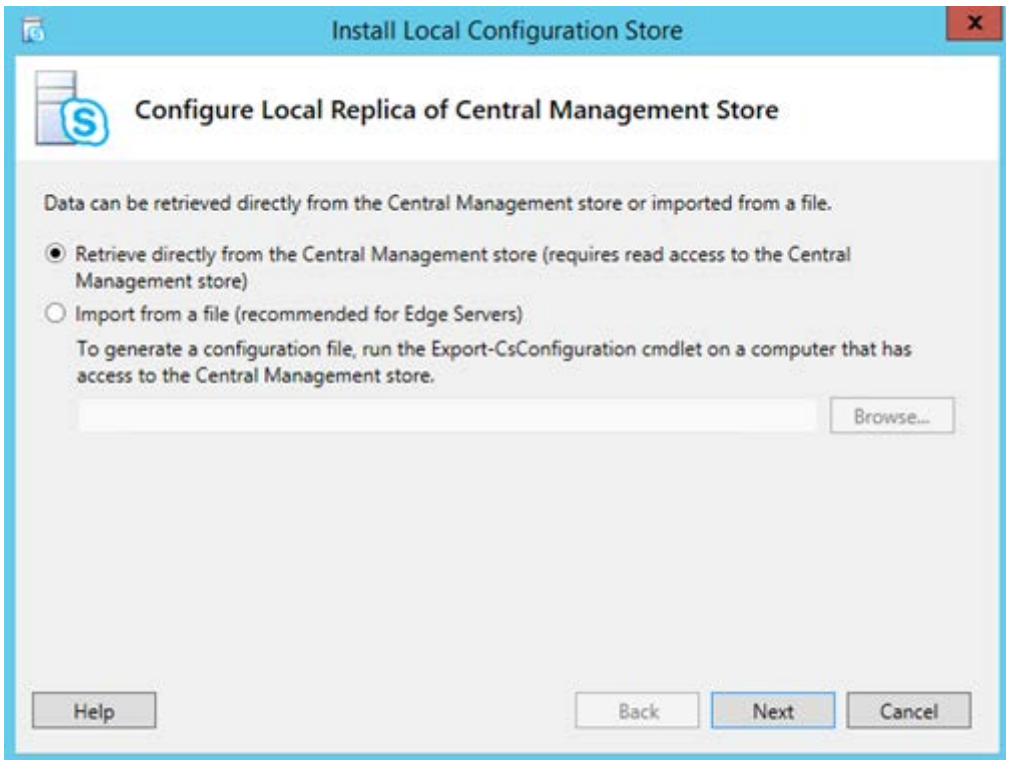
5. Verify that you see the **Complete** indication for **Prepare Active Directory**.

Figure B-5: Skype for Business Deployment Wizard– Install or Update



6. Select **Install Local Configuration Store**, and then click the adjacent **Run** button; the following screen is displayed:

Figure B-6: Configure Local Replica of Central Management Store



7. Select the 'Retrieve directly from Central Management store' check box, and then click **Next**; the following screens are displayed:

Figure B-7: Skype for Business Deployment Wizard– Executing Commands

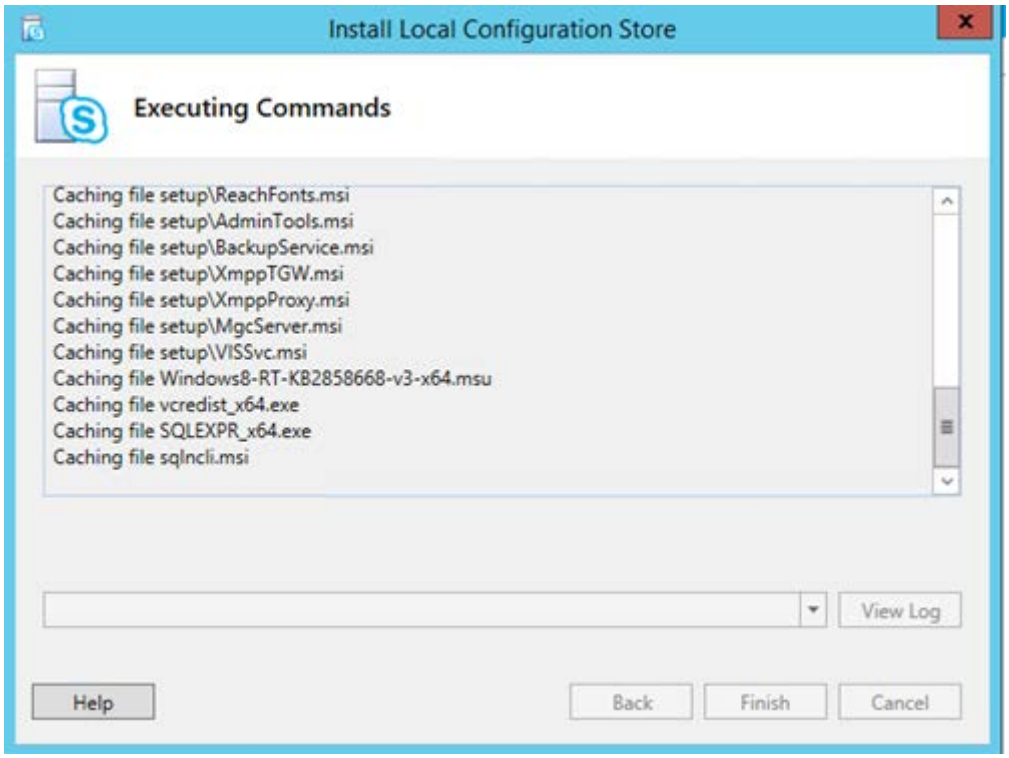
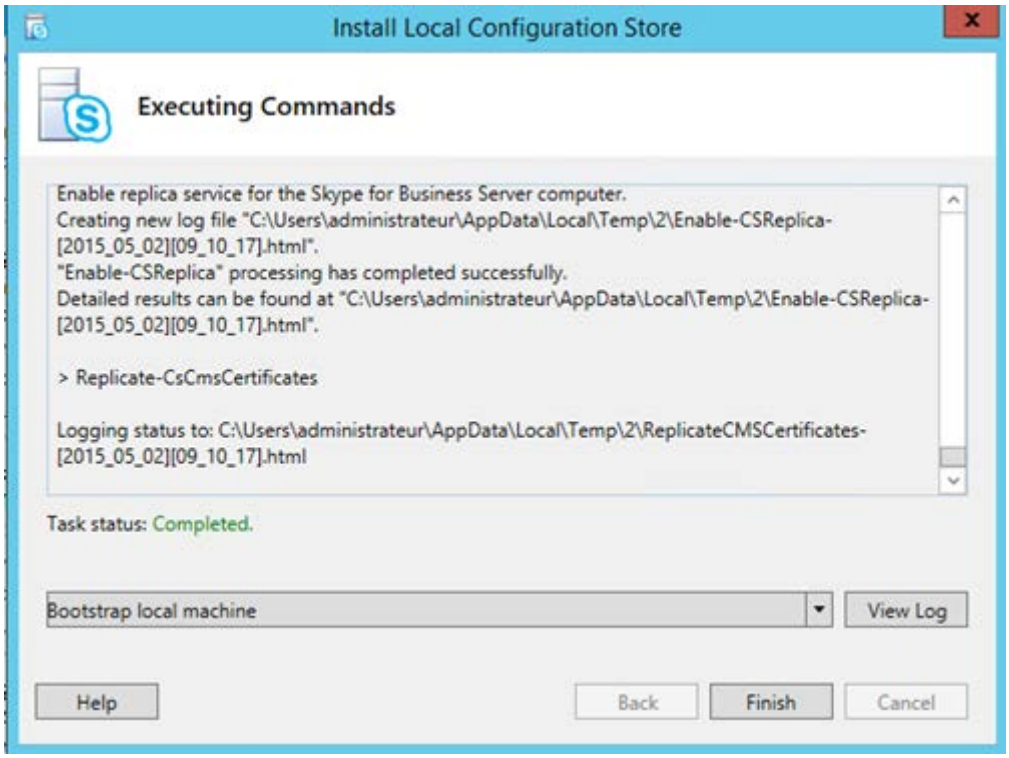


Figure B-8: Skype for Business Deployment Wizard– Executing Commands - Finish



8. Click **Finish** and **Exit**.

C Microsoft Windows Update

After you add the Fax AA IVR VM to the SBA, you should update Microsoft Windows.

➢ **To update Microsoft Windows:**

1. Manually run Windows Update.
2. Disable Automatic Update 'Never check for updates' to prevent unknown side effects to the Fax AA IVR application (recommended). AudioCodes only certifies major Service Pack updates.

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D Running Anti-Virus Software

The procedure below shows how to run anti-virus software on FAX AA IVR and Microsoft Skype for Business components.

D.1 Running Anti-Virus Software on FAX AA IVR Components

When Anti-Virus software is run on FAX AA IVR components, do the following:

1. Ensure that the following process is excluded from Anti-Virus scanning:
   - ivr.exe process
2. In addition, ensure that the following directories are excluded:
   - C:\F2MAdmin\faxsender\ + sub directories *.xml, *.tiff
   - C:\F2M\commetrex\ *.xml, *.tiff
   - C:\F2MAdmin\log\faxreceiver*.log
   - C:\Program Files (x86)\Commetrex\otf\bin\Logs*.txt
   - C:\F2MAdmin\ sub directories *.*
   - C:\F2M\ sub directories *.*
   - C:\fax2email\db*.*
   - C:\Program Files\hMailServer\ sub directories *.*
   - C:\Program Files (x86)\neevia.com\docConverterPro\ sub directories *.*

D.2 Running Ant-Virus software on Microsoft Skype for Business Components

Antivirus software can sometimes make such heavy demands on the CPU as to cause audio glitches. For this reason, antivirus software is not recommended for computers running Microsoft Skype for Business. For optimal performance for a server that must run antivirus software, include all Communications Server/Skype for Business computers in the antivirus software's exception list.

- Ensure that the following processes are excluded from Anti-Virus scanning:
  - ASMCUSvc.exe
  - AVMCUSvc.exe
  - DataMCUSvc.exe
  - DataProxy.exe
  - FileTransferAgent.exe
  - IMMCUSvc.exe
  - MasterReplicatorAgent.exe
  - MediaRelaySvc.exe
  - MediationServerSvc.exe
  - MeetingMCUSvc.exe
  - MRASSvc.exe
  - OcsAppServerHost.exe
  - QmsSvc.exe
  - ReplicaReplicatorAgent.exe
  - RTCArch.exe

  For more information, see http://technet.microsoft.com/en-us/library/gg195736.aspx.

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E Firewall Settings on Skype for Business

As part of the IVR activation process, the “Enable Central Management store replication” phase requires that the server will be in the firewall allow list.

In this stage, configuration data from the Central Management store is updated to servers running Skype for Business (AA server).

For this purpose, port 445 must be opened in the Firewall rules.

The IT department should verify that the IP ports that are specified in the link below, are opened in the internal server http://technet.microsoft.com/en-us/library/gg398833.aspx.

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F Configuring the Windows Server for Microsoft Office 2013

This appendix shows how to configure the Windows server when installing Microsoft Office 2013 for converting office files.

➢ **To configure the Windows server for Microsoft Office 2013:**

1. Log in to the Windows server via the local user defined for the fax.
2. Manually open Microsoft Office 2013 applications: Word, Excel, and PowerPoint. Verify that you don't receive any error messages (e.g. invalid license etc.).
3. Type 'dcomcnfg' in the command prompt, and then click Enter.
4. Click **Component Services group** > **Computers** > **My Computer** > **DCOM Config**.
5. Find and select the Microsoft Word entry (it may contain Application or 2013 in its name) (Right-click **Properties** > **Security** tab).
6. Under Access Permission, select the 'Customize' option, and then click **Edit**.
7. Click **Add** and enter the "Everyone" user account along with the account used by the Fax server.
8. Click the **Identity** tab.
9. Select the 'This user' option, click **Browse**, specify the account used by the Fax server, and then enter and re-enter the Password.
10. Click **Apply** and **OK**.
11. Repeat the above steps for Excel and PowerPoint.
12. Restart the Windows server.

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G Fax Conversion Troubleshooting

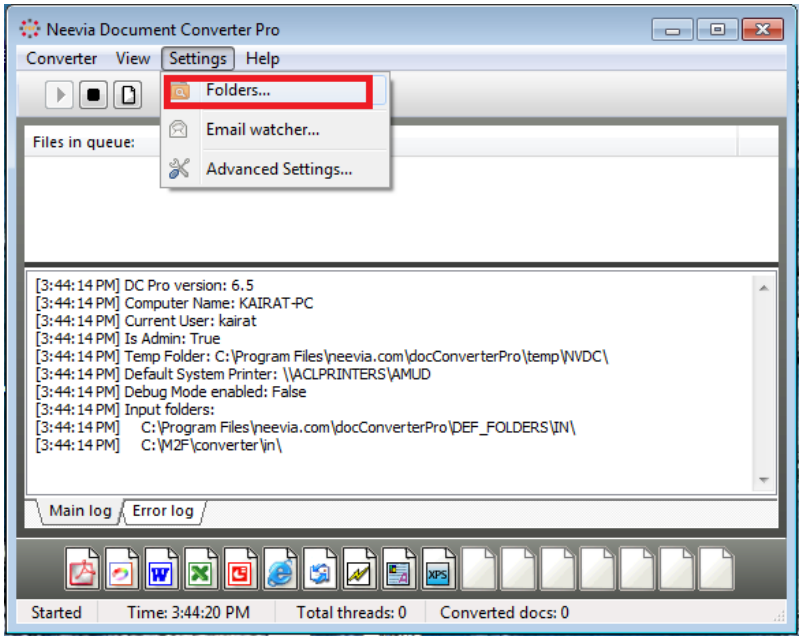
This appendix describes how to change the fax conversion RTF engine file association to Microsoft Word.

Note: Sometimes the fax server fails to convert RTF format files. To resolve this issue, the user should install Microsoft Office on the Fax2Mail Windows server.

➢ **To change RTF engine to WORD:**

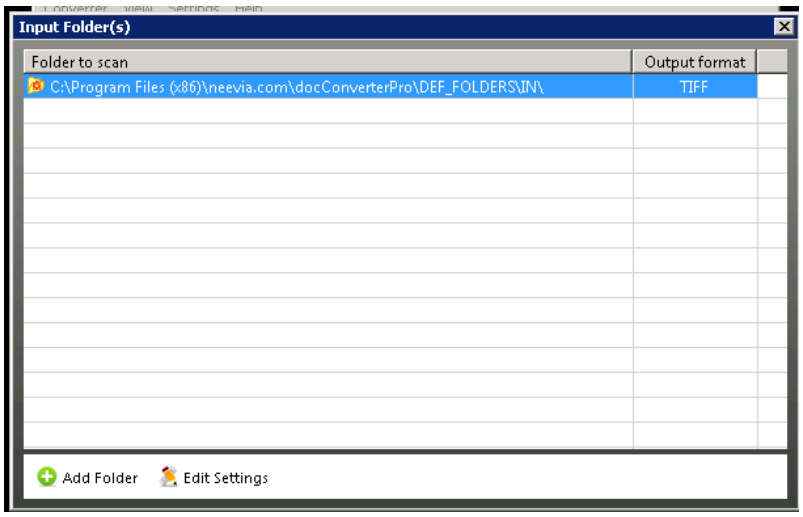
1. In the Neevia Document Converter Pro screen, open the Input Folders page (**Settings** > **Folders…**).

Figure G-1: Neevia Document Converter Pro – Settings – Folders



The following screen appears:

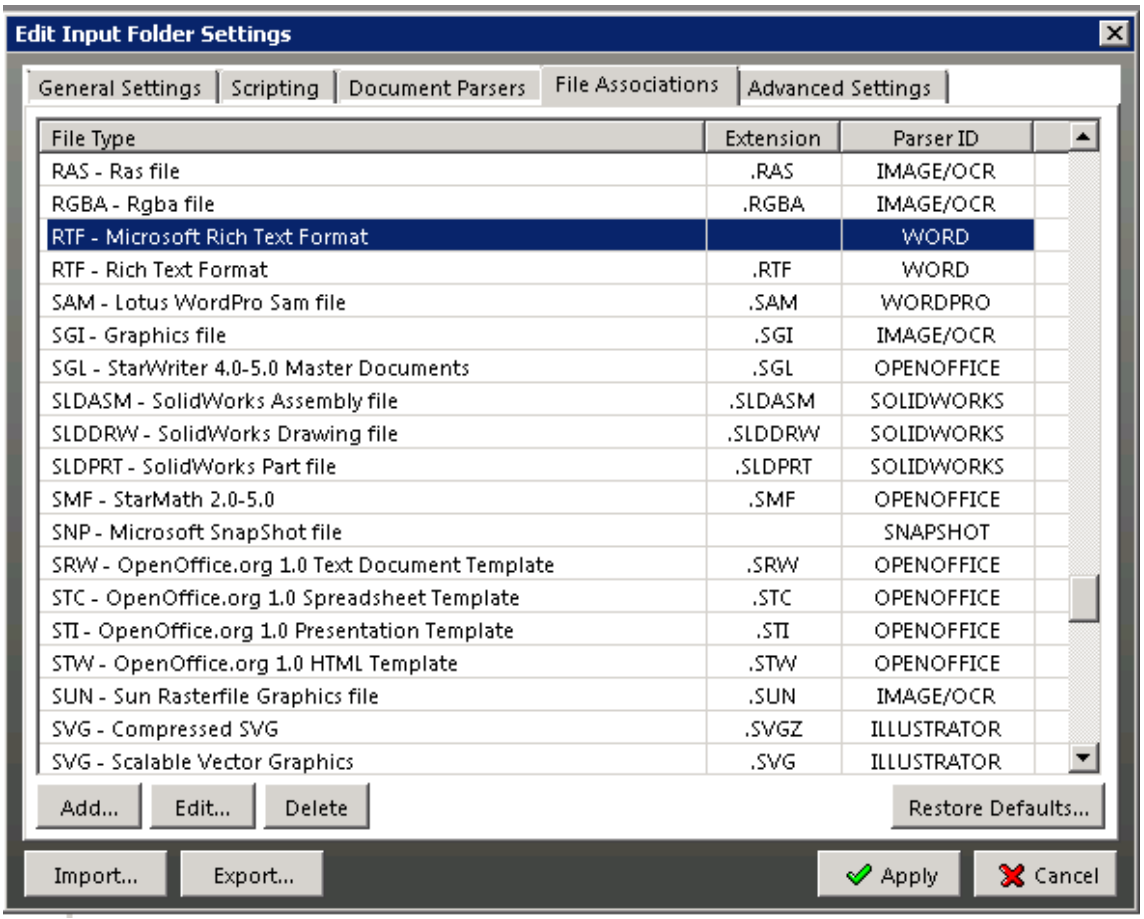
Figure G-2: Neevia Document Converter Pro - Input Folder



2. Double-click the file in the **Folder to scan**. In case there is more than one folder, double-click the folder whose **Output format** is TIFF.

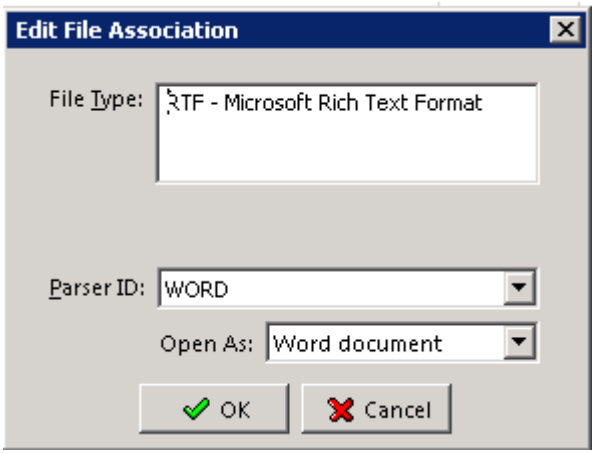
   The Edit Input Folder Settings window opens.

Figure G-3: Edit Input Folder Settings



3. Click the **File Associations** tab, scroll down for **File Type RTF-Microsoft Rich Text Format**, and then double-click it. The **Edit File Association** window opens.

Figure G-4: Edit File Association



4. In the **Parser ID** field, select **WORD** from the drop-down list.
5. Click **OK**.

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AudioCodes

Installation Guide

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