

User's Guide

AudioCodes One Voice™ Operations Center

SBA ProConnect

Version 7.4

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Notice

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Abbreviations and Terminology

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

Related Documentation

Manual Name
Mediant 800 SBA for Microsoft Lync Server 2013 Installation and Maintenance Manual
Mediant 1000B SBA for Microsoft Lync Server 2013 Installation and Maintenance Manual
Mediant 1000B SBA for Skype for Business Server Installation and Maintenance Manual (pending release).

Document Revision Record

LTRT	Description
38913	Update to Section ‘Working in Non-Secure Mode’.
38914	Updates to Section “Setting SBA ProConnect User Privileges” and added new Section “Verify SBA ProConnect User Privileges”.
38915	Synchronization of a single SBA server in SBA servers list page; Cursor hovering to view the SBA server SfB/Lync version; Date Format configuration.
38916	Update for support for the Windows Server 2016 platform.
38917	Update for Version 7.2.15.
38918	Initial release for Version 7.4.
38919	Update for Version 7.4.2

Documentation Feedback

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1 Introduction

The SBA ProConnect is part of the AudioCodes One Voice Operations Center (OVOC) offering and provides a remote and intuitive method for mass updating and upgrading of the AudioCodes SBA branch appliances in a Skype for Business environment.



Note: Microsoft has rebranded Lync as Skype for Business so whenever the term Skype for Business appears in this document, it applies also to Microsoft Lync (these terms are used interchangeably).

The Survivable Branch Appliance (SBA) is designed for remote branch resiliency in a Microsoft Skype for Business Server network environment. The SBA application developed by AudioCodes, uses different Microsoft services, and runs on the OSN server platform with a Microsoft Windows 2008 Telco R2 operating system for Lync Server and a Microsoft Windows 2012 Telco R2 operating system for Microsoft Skype for Business Server.

On the Microsoft Skype for Business Server platform, Unified Communication (UC) users in remote branches are dependent on the Skype for Business servers in the enterprise's data center (typically at headquarters) for their communication. When the WAN is unavailable, these users may lose communication with the data center. Consequently, the SBA ensures that the branch users (e.g., Skype for Business clients and IP phones) can still make and receive calls under such circumstances.

AudioCodes has designed its SBA on two platforms: the Mediant 1000B and the Mediant 800B.

Microsoft releases periodic updates for the Skype for Business platform and occasionally a major release as follows:

- Microsoft Cumulative Updates (CU) – patches for Microsoft Skype for Business Server for various Skype for Business Server functionality.
- Microsoft Skype for Business Server or Microsoft Lync Server Upgrade– an upgrade from Microsoft Lync Server 2010 to Lync Server 2013 or from Microsoft Lync Server 2010 or Microsoft Lync Server 2013 to Skype for Business Server).

When Microsoft releases a CU, AudioCodes as the SBA vendor, issues a *Product Notices* (after testing the CU in-house) to advise customers to install CU components on their AudioCodes SBA devices. When these components are installed, the SBA image files on the respective SBA devices are updated accordingly.

A customer with large SBA deployments might have difficulties updating their SBA manually. Consequently, for better servicing of such deployments, AudioCodes now offers a new application 'SBA ProConnect', which is a Web Management tool for the purposes of easily installing the above components from a central location to the SBA devices.

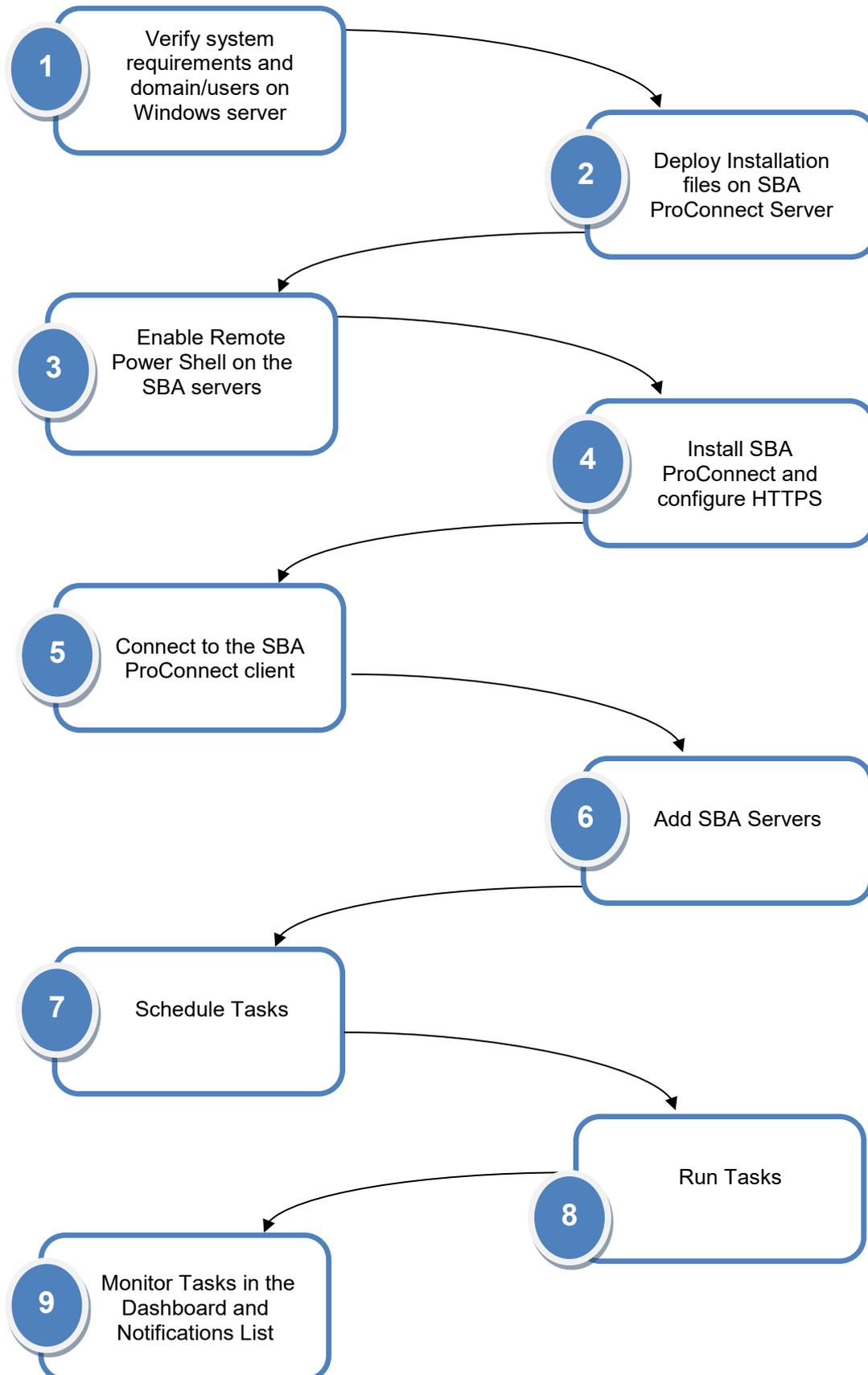
The SBA ProConnect refers to the above-mentioned components as follows:

- Microsoft Cumulative Updates (CU) are referred to as **updates**. When performing these updates, SBA devices do not experience down time.
- Microsoft Skype for Business Server Upgrade is referred to as **upgrades**. When performing these upgrades, SBA devices experience down time.

This document describes how to use the SBA ProConnect to install these components on the SBA devices.

The following diagram shows the procedure flow for setting up and running the SBA ProConnect.

Figure 1-1: Procedure Flow



2 Before Installing SBA ProConnect

This section describes the pre-requirements to address before the SBA ProConnect application is installed on the designated server machine.

2.1 SBA ProConnect Software

Ensure that you have obtained the SBA ProConnect Software including the SBA ProConnectWixBootstrapper.exe file. For more information, contact your AudioCodes representative.

2.2 System Requirements

The following describes the system requirements for the various components on the SBA ProConnect server machine:

- The SBA ProConnect can be installed on the Microsoft Windows Server 2012 R2 platform or Windows 2016.
- The following components must be installed prior to SBA ProConnect:
 - .Net 3.5 - Install the Microsoft ASP.NET Framework 3.5 features using Add roles and features: <https://technet.microsoft.com/en-us/library/dn482071.aspx>
 - Windows 2016
 - .Net 4.6 - Install the Microsoft ASP.NET Framework 4.6 features using Add roles and features
 - PowerShell 5.1
 - IIS – see Section 2.9
 - Windows 2012R2
 - .Net 4.5 - Install the Microsoft ASP.NET Framework 4.5 features using Add roles and features
 - PowerShell 3.0
 - IIS 8 - Refer to: <http://www.iis.net/learn/get-started/whats-new-in-iis-8/installing-iis-8-on-windows-server-2012>
- Hardware requirements:
 - **CPU:** 2 Core
 - **Memory:** 4 GB
 - **Disk:** 100 GB

2.3 Firewall Settings

The network firewall should support the settings described in the table below. For details on security settings, see Chapter 3.

Table 2-1: Firewall Settings

Description	From	To	Port	Protocol
Events and install file download	SBA devices	ProConnect Server	80	HTTP

Description	From	To	Port	Protocol
Events and install file download (Secure HTTP mode ¹)	SBA devices	ProConnect Server	443	HTTPS
GUI	Admin Desktop	ProConnect Server	80	HTTP
GUI (Secure HTTP mode)	Admin Desktop	ProConnect Server	443	HTTPS
SBA control	ProConnect Server	SBA devices	5985	WinRS
SBA availability status	ProConnect Server	SBA devices	80	HTTP
SBA availability status (Secure HTTP mode)	ProConnect Server	SBA devices	443	HTTPS
SBA Agent Download	SBA devices	ProConnect Server	5985	PowerShell

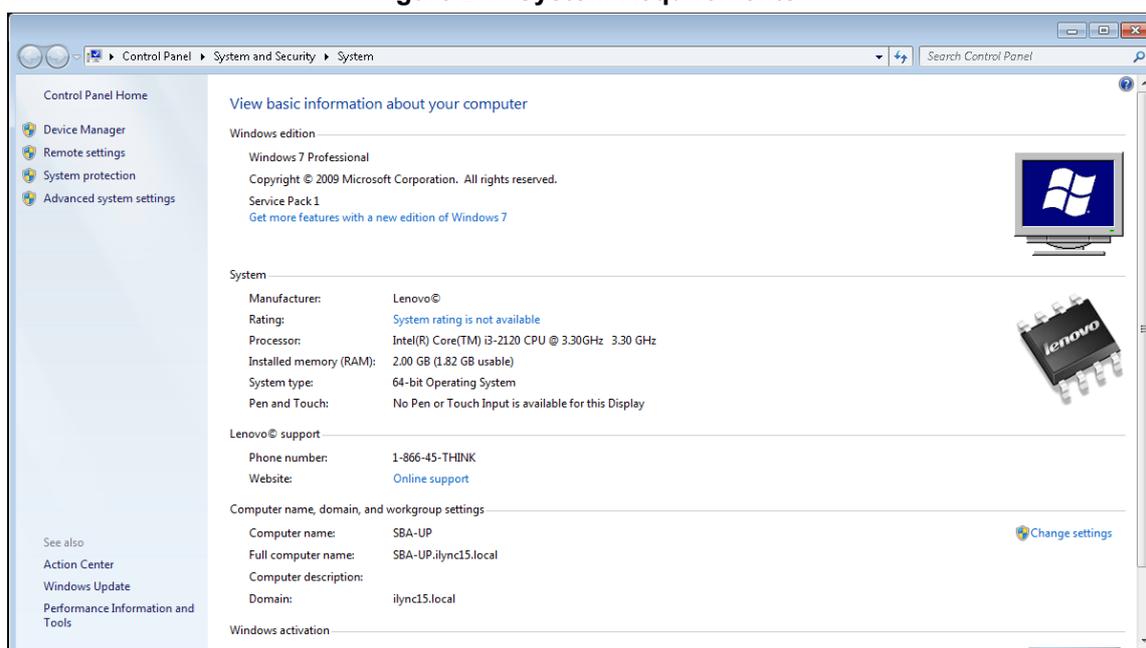
2.4 Joining Member Server to Active Directory Domain

Before running the SBA ProConnect installation, you need to verify that the designated SBA ProConnect server has been joined as a member to the appropriate Active Directory domain.

➤ **To verify the SBA ProConnect server has been joined to domain:**

1. In the Windows Server Control Pane, open the System page and ensure that the designated server is a member of the appropriate domain e.g., 'ilync15.local' domain as shown in the figure below.

Figure 2-1: System Requirements



2. If the server is not a member of a domain, then join the designated server to the required domain.
3. Make sure that the installation user has Administrative rights on the server where you wish to install the SBA ProConnect.

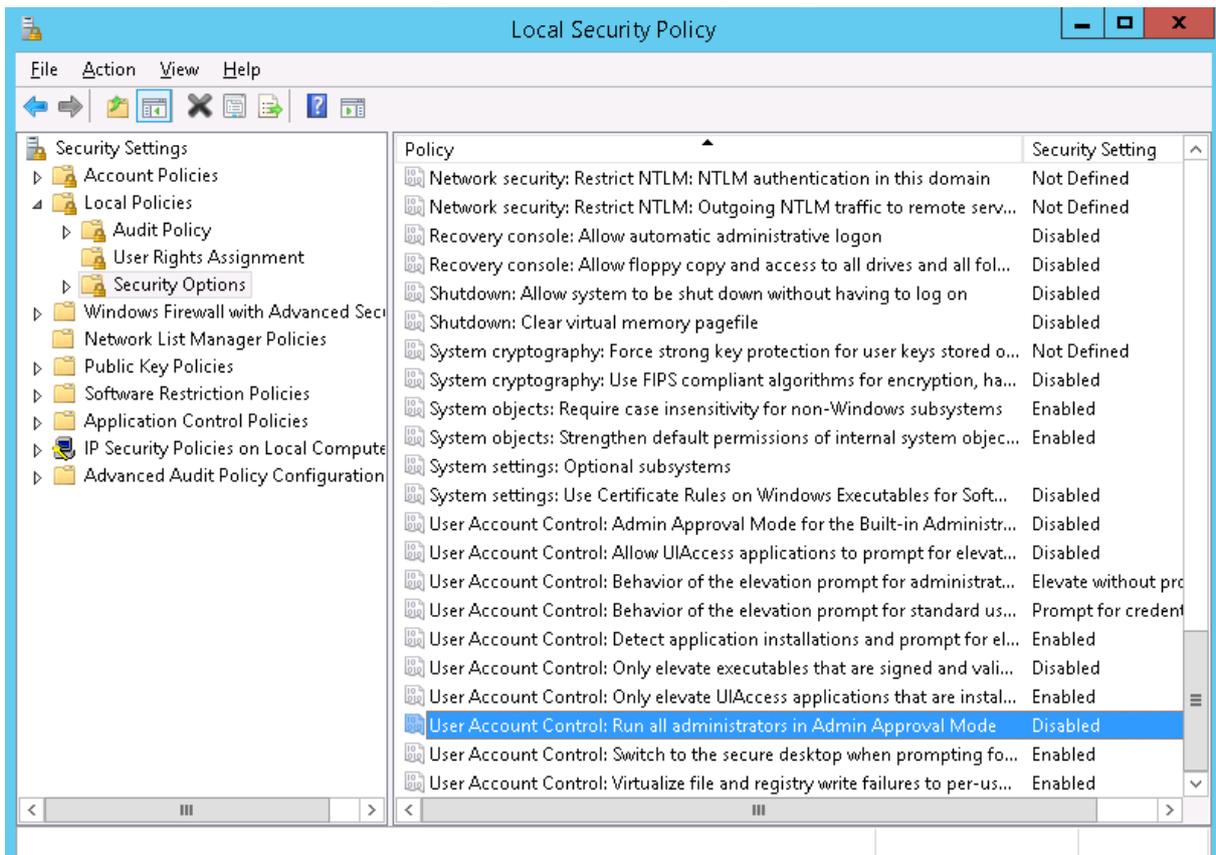
¹ Secure HTTP (used by default) mode implies that this port is only used when the Sys.config file parameter "Secure HTTP" is enabled (default), see Section 3.2.

2.5 Setting SBA ProConnect User Privileges

The SBA ProConnect user (the SBA ProConnect interface user) should have the following privileges:

- Access to Skype for Business Server.
 - Administrative privileges on remote servers.
 - Administrative privileges on local SBA ProConnect server.
- **To set the local Security Policy Settings:**
1. Open Local Security Policy.
 2. Go to **Local Policies->Security Options**.
 3. Change 'User Account Control: Run All administrators in Admin Approval mode' to 'Disable'.
 4. Restart the machine.

Figure 2-2: Local Security Policy



2.6 Verifying SBA ProConnect User Privileges

This section describes how to verify the SBA ProConnect user privileges.

➤ **To verify the user has local Administrative Privileges:**

1. Using RDP, login to ProConnect server and open a command shell.
2. Run 'whoami /groups':
 - The output should contain the line:
 BUILTIN/Administrators Mandatory group, Enabled by default, Enabled group
3. Open Windows PowerShell.
4. Run the command:
 ([Security.Principal.WindowsPrincipal]
 [Security.Principal.WindowsIdentity]::GetCurrent()).IsInRole([Security.Principal.Windo
 wsBuiltInRole] "Administrator")
 The result should be 'True'.
5. Verify the user has access to Skype for Business Server:
 - a. Using RDP, login to ProConnect server
 - b. Open Windows PowerShell.
 - c. Run the command:
 Get-CsSite
 The result should be a list of components in the topology.
6. Verify the user has access to the remote SBA server:
 - a. Using RDP, login to ProConnect server
 - b. Open Windows PowerShell.
 - c. Run the command:
 Invoke-Command -ComputerName *\$SBA-FQDN* {1}
 The result should be '1'.
7. Open a command shell.
8. Run the following command:
 winrs -r: *\$SBA-FQDN* mkdir d:\TestPriv
9. Using RDP, login to the SBA server and verify that the above folder was created.

2.7 Enabling the Remote Windows PowerShell

The SBA ProConnect server connects to the SBA servers using the Remote Windows PowerShell. Consequently, you must verify that the Remote PowerShell is enabled on each of the SBA servers that you wish to manage.

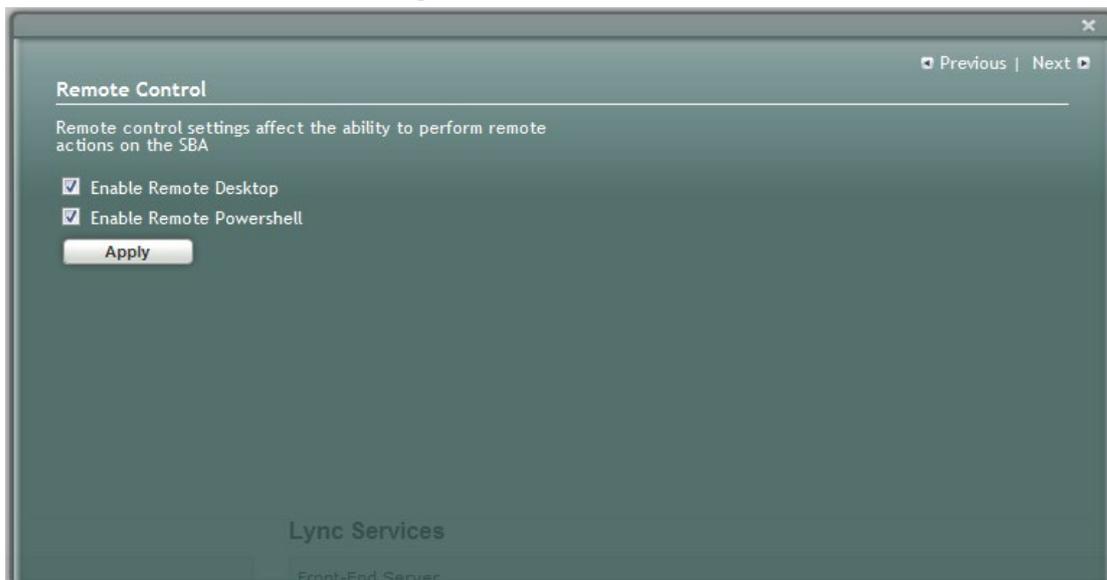
2.7.1 Latest SBA GUI Versions

For SBA GUI versions 1.1.12.0 and later, the Remote Windows PowerShell is automatically enabled; however, it is still recommended to verify that the Remote Windows PowerShell is enabled.

➤ **To verify that the Remote Windows PowerShell is enabled:**

1. Connect to the SBA Management Interface.
2. In the SBA Tools menu, select **Remote Control**; the Remote Control screen is displayed:

Figure 2-3: Remote Control



3. Ensure that the 'Enable Remote Powershell' check box is selected, and click **Apply**.

2.7.2 Previous SBA GUI Versions

For SBA GUI versions prior to version 1.1.12.0, you must manually enable the Remote Windows PowerShell using the procedure described below.

- **To enable the Remote PowerShell on the SBA device:**
 1. Connect to the SBA server via remote desktop (remote session) and open the Windows PowerShell.
 2. Enable the parameter ' Enable-PSRemoting –Force', and press **Enter**.
 3. Repeat the above steps for each SBA server that you wish to manage.

2.8 Deploying Installation Files

This chapter describes how to deploy the installation update and upgrade files on the SBA ProConnect servers. The SBA ProConnect server periodically scans the disk for new files. When a new file is detected, its Md5 sum is automatically calculated and compared to the value supplied in the info file. This mechanism is used to test the file integrity and to compare the downloaded version to the currently installed version.

The following files should be downloaded from the AudioCodes website and copied to the ProConnect server:

- Cumulative Updates (CU) files:
 - <CU_Update>.exe
 - <CU_Update>.info
- Microsoft Skype for Business Server and Lync2013 Image Upgrade:
 - <SkypeforBusinessImage_Upgrade>.wim
 - <SkypeforBusinessImage_Upgrade>.info
 - <MicrosoftLync2013_Upgrade>.wim
 - <MicrosoftLync2013_Upgrade>.info

The Info files described above contains the following information:

- File type (update or burn)
 - Software and hardware requirements for installation
 - File size
 - Md5 checksum on the SBA to verify file after download.
- **To deploy installation files on the SBA ProConnect server:**
 1. Download the required files from the AudioCodes website:
<http://www.audiocodes.com/downloads>
 2. Copy the installation files to the SBA ProConnect server by RDP access or by connecting a USB to the SBA ProConnect server machine.
 3. Copy the files to the following location:
C:\ProConnect\InstallFiles



Note: CU Update files are immediately available for use, once they are loaded to the ProConnect server. However, the Lync and Skype for Business Image Upgrade files can take up to 30 minutes to be loaded to the ProConnect server due to their large file size.

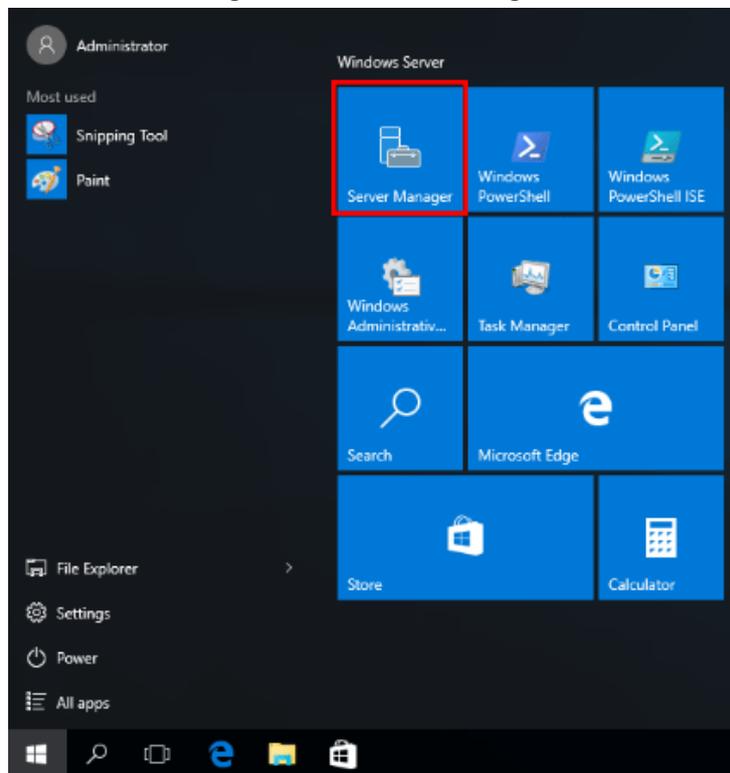
2.9 Installing IIS on Windows Server 2016

This section describes how to install IIS on the Microsoft Windows Server 2016.

➤ **To install IIS on Windows Server 2016:**

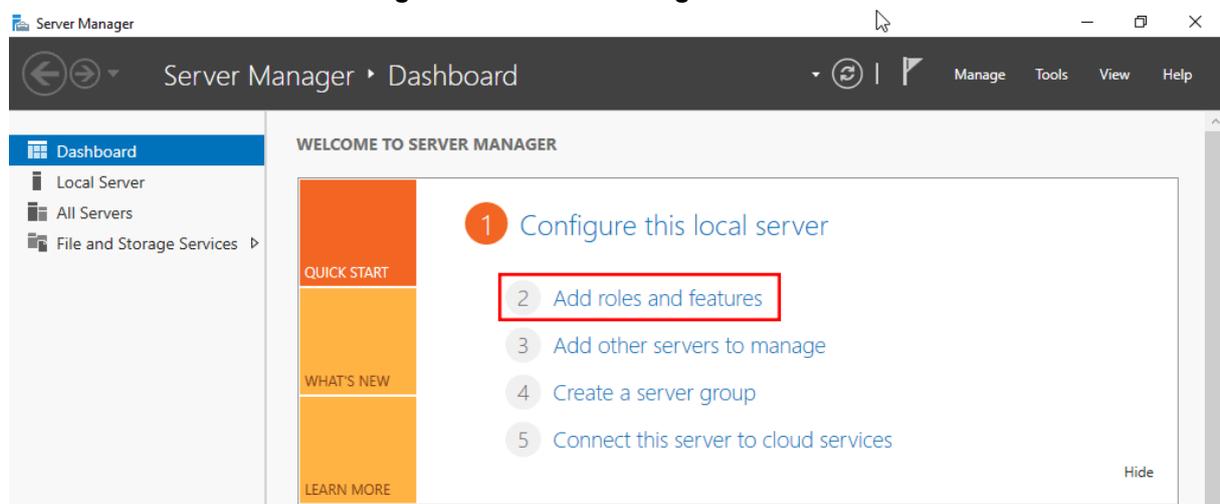
1. Establish an RDP connection with the ProConnect server.
2. From the Start menu, open the Server Manager. If it's not found, type "Server Manager" with the start menu open and it should be found in the search.

Figure 2-4: Server Manager



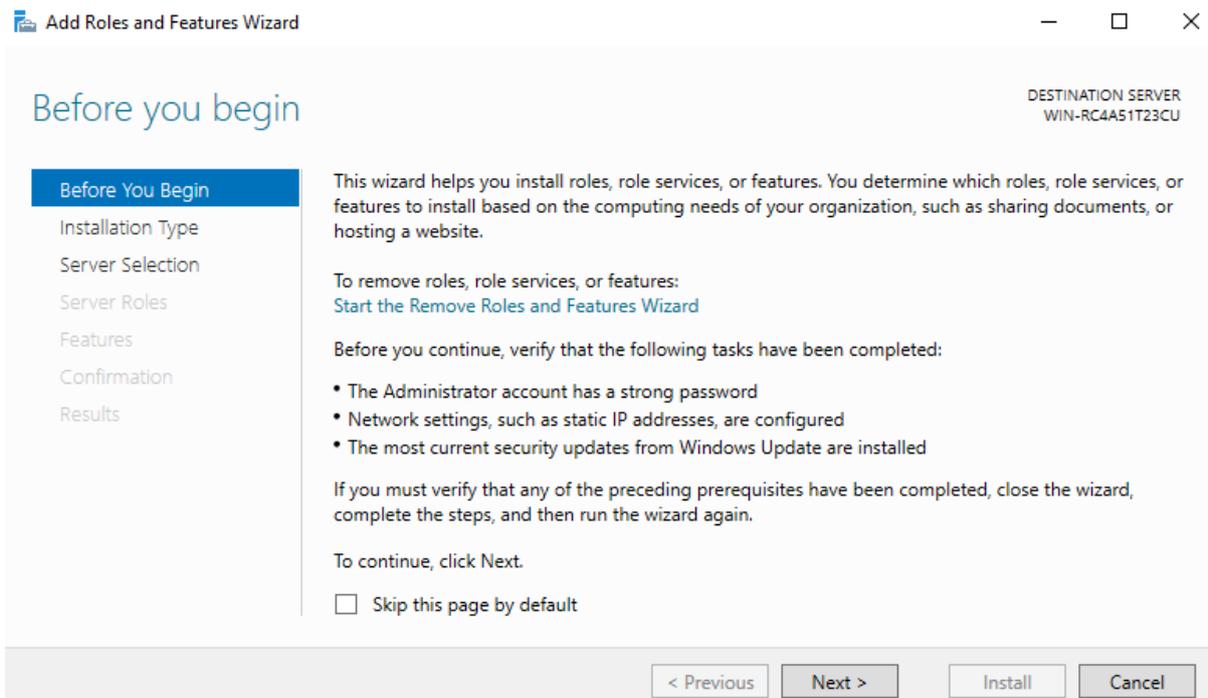
3. Click the "Add roles and features" text.

Figure 2-5: Server Manager Dashboard



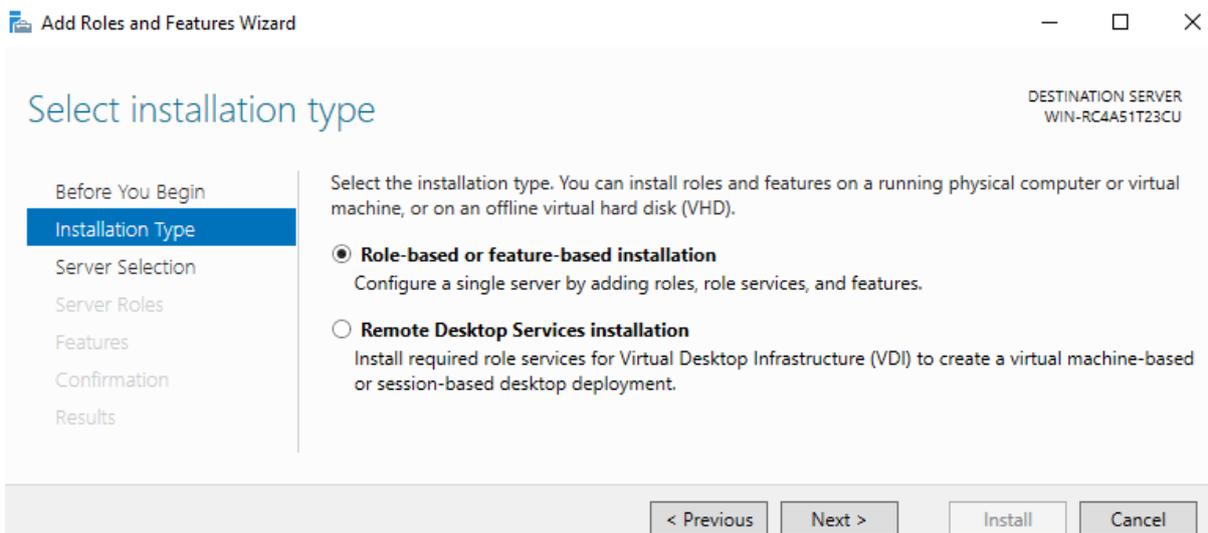
4. In the "Before you begin" window, click the **Next** button.

Figure 2-6: Add Roles and Features Wizard



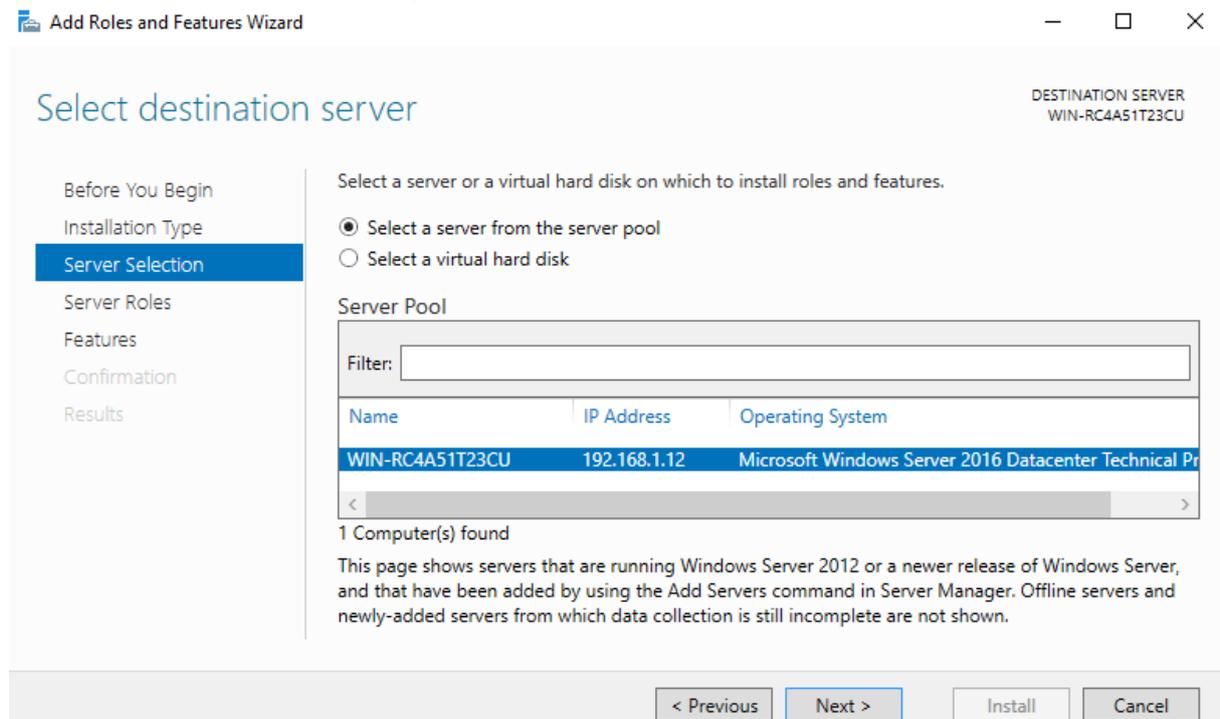
5. In the “Select installation type” window, leave “Role-based or feature-based installation” selected and click **Next**.

Figure 2-7: Select Installation Type



6. As we’re installing to our local machine, leave “Select a server from the server pool” with the current machine selected and click **Next**.

Figure 2-8: Select Destination Server



- From the “Select server roles” window, check the box next to “Web Server (IIS)”. Doing this may open up a new window advising that additional features are required; click the “Add Features” button to install these features as well. Click **Next** on the Select server roles menu once this is complete.

Figure 2-9: Select Server Roles

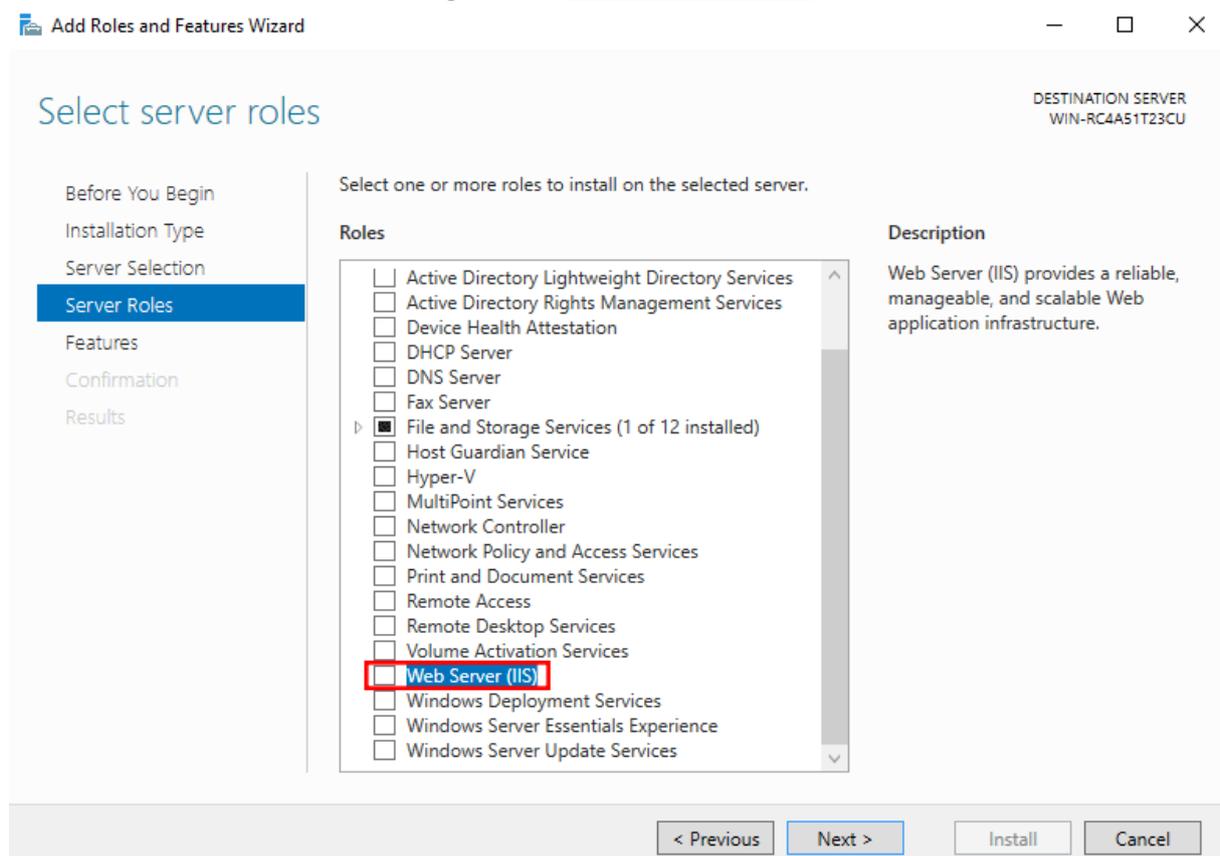
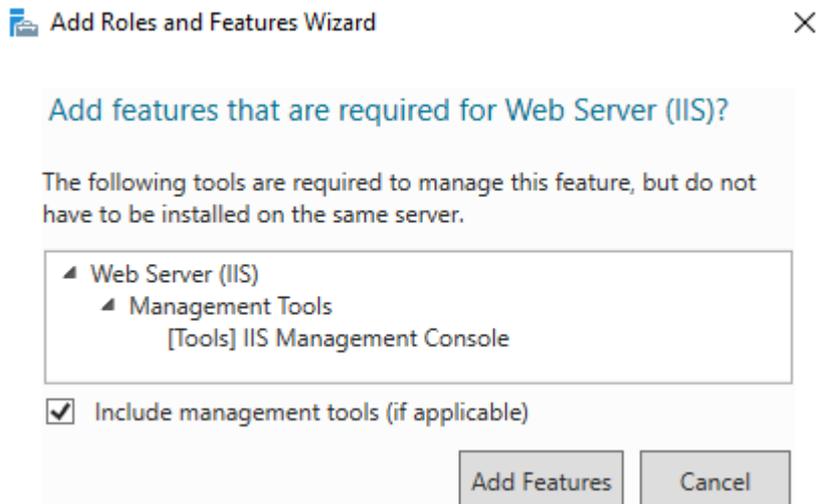
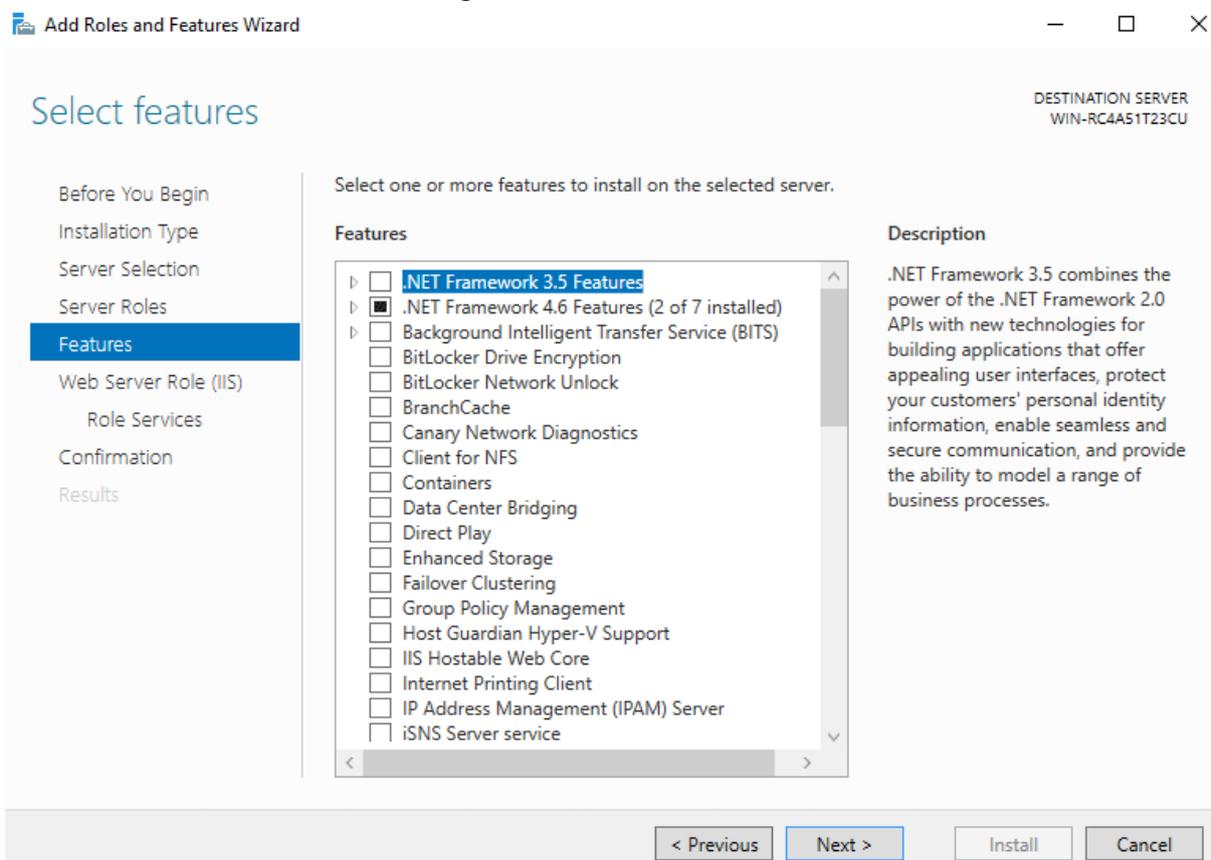


Figure 2-10: Web Server IIS Features

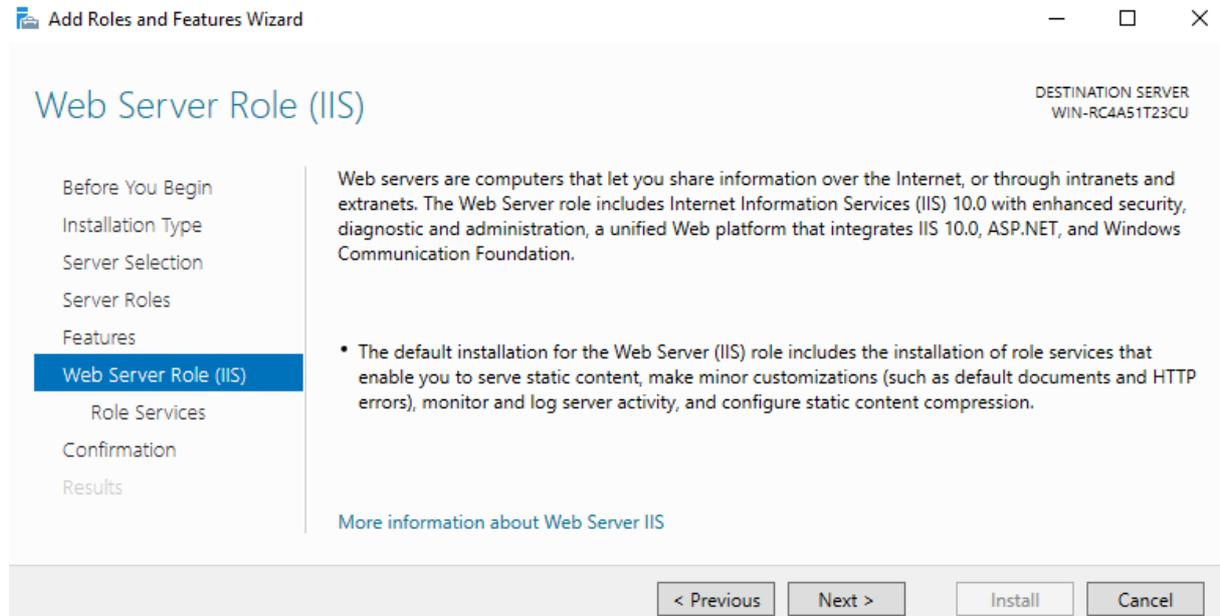


8. Additional features do not need to be installed at this stage; click **Next** in the “Select features” window.

Figure 2-11: Select Features



9. Click **Next** on the “Web Server Role (IIS)” window after reading the information provided.

Figure 2-12: Web Server (IIS)

10. At this point on the “Select role services” window you can install additional services for IIS.
11. ProConnect requires to enable the CGI Service: open Web Server | Application Development and check CGI service.
12. Select **Server Roles**.

Figure 2-13: Select Server Roles

Select server roles

- Before You Begin
- Installation Type
- Server Selection
- Server Roles
- Features
- Confirmation
- Results

Select one or more roles to install on the selected server.

Roles

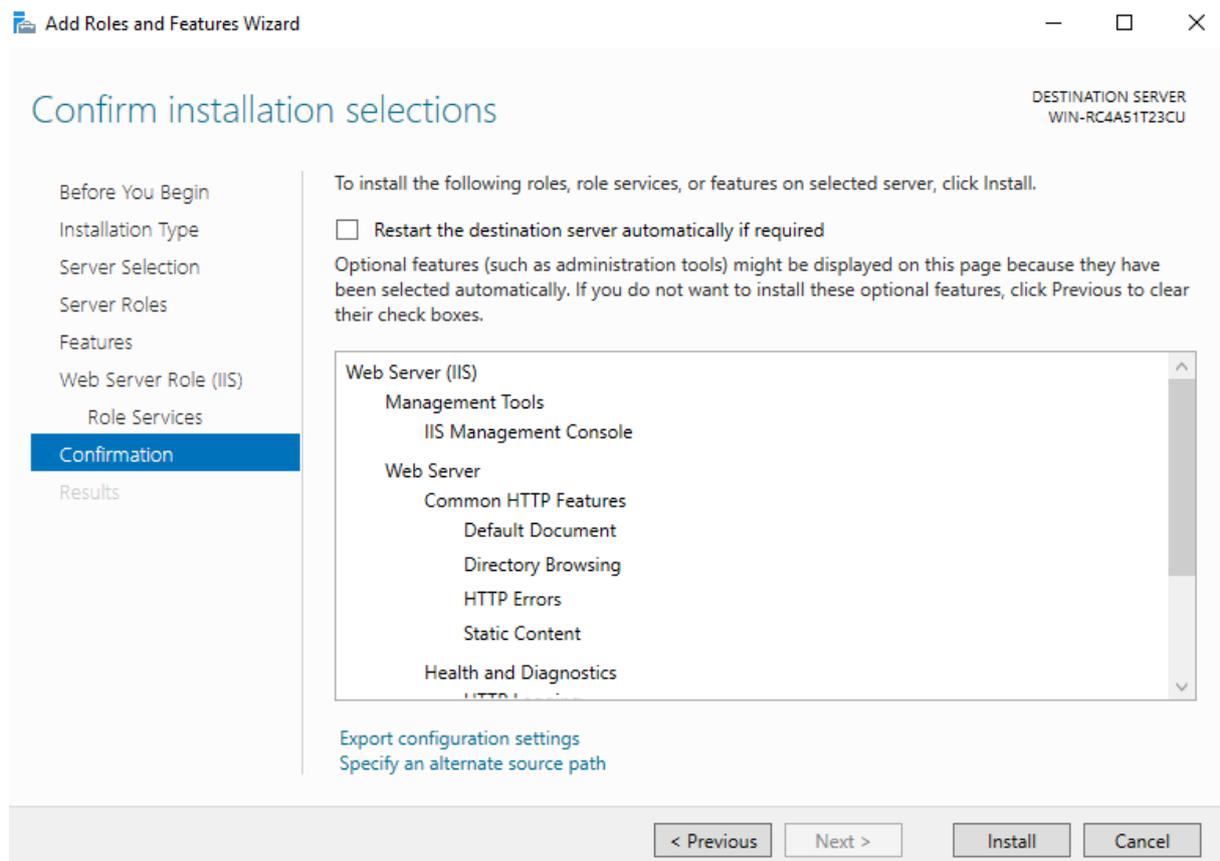
- Web Server (IIS) (9 of 43 installed)
 - Web Server (8 of 34 installed)
 - Common HTTP Features (4 of 6 installed)
 - Default Document (Installed)
 - Directory Browsing (Installed)
 - HTTP Errors (Installed)
 - Static Content (Installed)
 - HTTP Redirection
 - WebDAV Publishing
 - Health and Diagnostics (1 of 6 installed)
 - HTTP Logging (Installed)
 - Custom Logging
 - Logging Tools
 - ODBC Logging
 - Request Monitor
 - Tracing
 - Performance (1 of 2 installed)
 - Static Content Compression (Installed)
 - Dynamic Content Compression
 - Security (1 of 9 installed)
 - Request Filtering (Installed)
 - Basic Authentication
 - Centralized SSL Certificate Support
 - Client Certificate Mapping Authentication
 - Digest Authentication
 - IIS Client Certificate Mapping Authentication
 - IP and Domain Restrictions
 - URL Authorization
 - Windows Authentication
 - Application Development (1 of 11 installed)
 - .NET Extensibility 3.5
 - .NET Extensibility 4.6
 - Application Initialization
 - ASP
 - ASP.NET 3.5
 - ASP.NET 4.6
 - CGI (Installed)
 - ISAPI Extensions
 - ISAPI Filters
 - Server Side Includes
 - WebSocket Protocol
 - FTP Server
 - Management Tools (1 of 7 installed)
 - IIS Management Console (Installed)
 - IIS 6 Management Compatibility
 - IIS Management Scripts and Tools
 - Management Service

Description

Management Tools provide infrastructure to manage a Web server that runs IIS 10. You can use the IIS user interface, command-line tools, and scripts to manage the Web server. You can also edit the configuration files directly.

< Previous
Next >
Install
Cancel

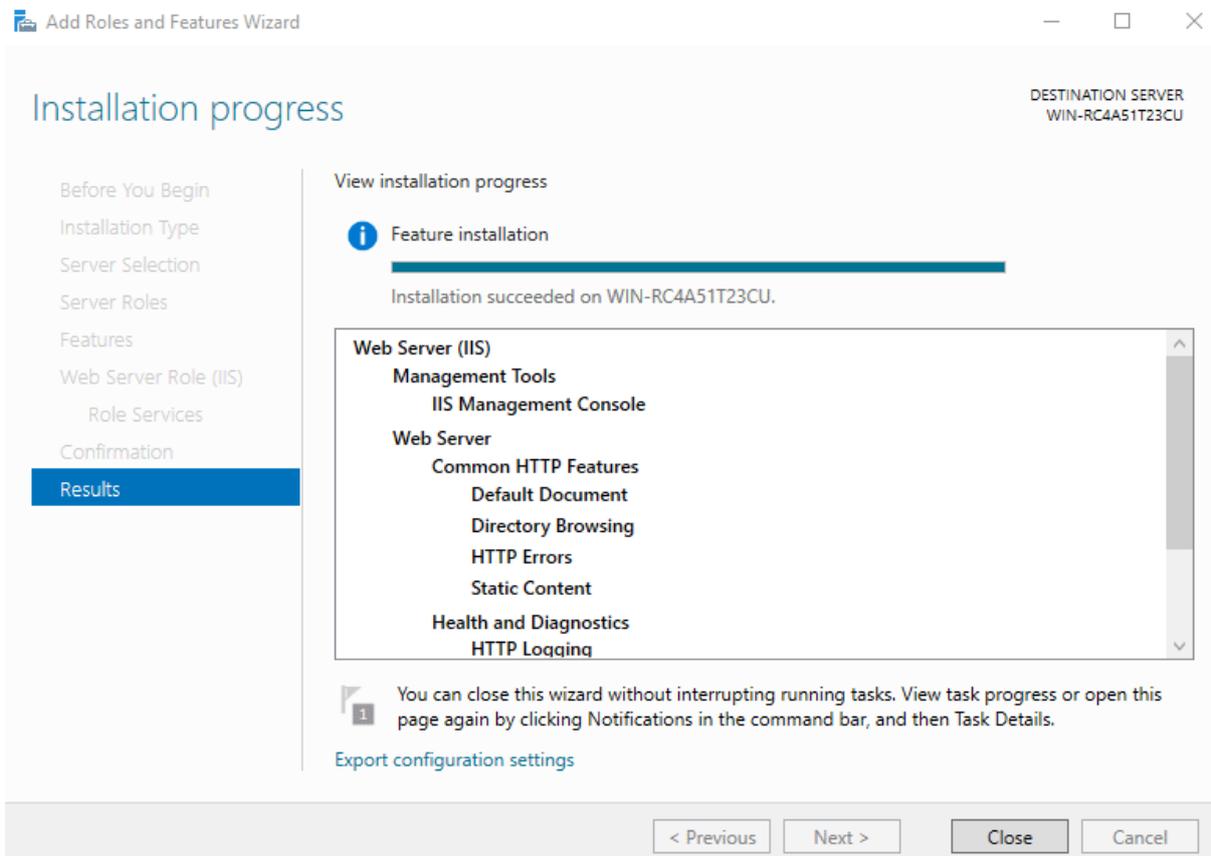
13. Finally, on the “Confirm installation selections” window, review the items that are to be installed and click **Install** when you’re ready to proceed with installing the IIS Web server.

Figure 2-14: Confirm Installation Selections

- **Note:** No reboot should be required with a standard IIS installation, however if you remove the role a reboot will be needed.

- Once the installation has succeeded, click the **close** button. At this point, IIS should be running on port 80 by default with the firewall rule “World Wide Web Services (HTTP Traffic-In)” enabled in Windows firewall automatically.

Figure 2-15: Installation Progress



3 Security Settings

You can secure the connections between the SBA devices and the SBA ProConnect server and between the Web browser client session and the SBA ProConnect server. The ProConnect Server has two security modes:

■ Secure - HTTPS:

- Connection between the SBA servers and the SBA ProConnect server for sending events from the SBA servers and for downloading install files by the SBA servers.

By default, the SBA ProConnect server starts up with HTTPS enabled. However, the HTTPS connection cannot be used until the following actions are performed:

- ◆ The corresponding HTTPS/port 443 is opened on the SBA devices.
 - ◆ An SSL certificate is installed on the SBA devices (see procedure in Section 3.1).
- Connection between the SBA ProConnect Web browser client session and the SBA ProConnect server.

This HTTPS connection cannot be secured until the following actions are performed on the SBA ProConnect server:

- ◆ HTTPS/port 443 is opened on the SBA ProConnect server.
- ◆ An SSL certificate is installed on the SBA ProConnect server (note that the same SSL certificate can be installed on both the SBA servers and the SBA ProConnect server).

For HTTPS firewall settings, see Section 2.3.

■ None Secure - HTTP:

- Connection between the SBA servers and the SBA ProConnect server for sending events from the SBA servers and for downloading install files by the SBA servers.

By default, the SBA ProConnect server starts up with HTTPS enabled. To disable HTTPS and therefore work in non-secure mode, you must perform the configuration that is described in Section 3.2.

- Connection between the SBA ProConnect Web browser client session and the SBA ProConnect server.

You can open the SBA ProConnect Web browser client session in HTTP mode.

For HTTP firewall settings, see Section 2.3.

3.1 Securing HTTPS Connection

This section describes how to secure the connection between the SBA ProConnect server and the SBA devices and between the Web browser client session and the SBA ProConnect server.

3.1.1 Enable HTTPS Connection on SBA Servers

This section describes how to generate a CSR request and install the SSL certificate that is received from the CA on the SBA device's OSN server.

➤ To install an SSL certificate on the SBA server:

1. Create a CSR on Windows Server 2012 R2 - IIS 8.5. See an example procedure at: <https://www.digicert.com/csr-creation-microsoft-iis-8.htm>
2. Send the CSR file to a certification authority for signing.

3. Install and configure your SSL Certificate (Single Certificate) on the SBA device's OSN server (Windows Server 2012 R2 – IIS 8.5. See an example procedure at: <https://www.digicert.com/ssl-certificate-installation-microsoft-iis-8.htm>)

3.1.2 Enable HTTPS Connection on ProConnect Server

This section applies to the security implementation for the connections to the ProConnect server from the ProConnect Web browser and SBA devices.

This section describes how to install the SSL certificate that was generated in Section 3.1.1 on the SBA ProConnect server.

- **To enable a secure HTTPS Web browser connection:**
 - Install and configure the SSL Certificate that was generated in Section 3.1.1 on the SBA ProConnect Windows Server 2012 R2 – IIS 8.5 (Single Certificate). See an example procedure at: <https://www.digicert.com/ssl-certificate-installation-microsoft-iis-8.htm>

3.2 Working in Non-Secure Mode

By default, the connection between the SBA ProConnect server and the SBA devices is secured over HTTPS. This implies that operations performed between these entities i.e. sending events by the SBA server and downloading files to the SBA devices are secured over HTTPS. If for any reason, you wish to work in non-secure mode (work in HTTP mode), you must perform the procedure described below.

- **To work in non-secure mode:**
 1. Using a text editor, open the file C:\ProgramFiles\AudioCodes\ProConnect Service\Config\System.config.
 2. Add **http secure** parameter as shown **bolded** in the example below:


```

          <System toolsUrl=" sbaPro01.corp.com/ProConnect/Tools/"
            installUrl="sbaPro01.corp.com/ProConnect/InstallFiles/"
            notificationUrl=" sbaPro01.corp.com/webadmin/api/"
            burnToolMD5Sum="df177127aa4e075e5483131d9fbc0ae"
            httpSecure="false" />
          
```
 3. Save and close the file.
 4. Restart "SBA ProConnect" Service.

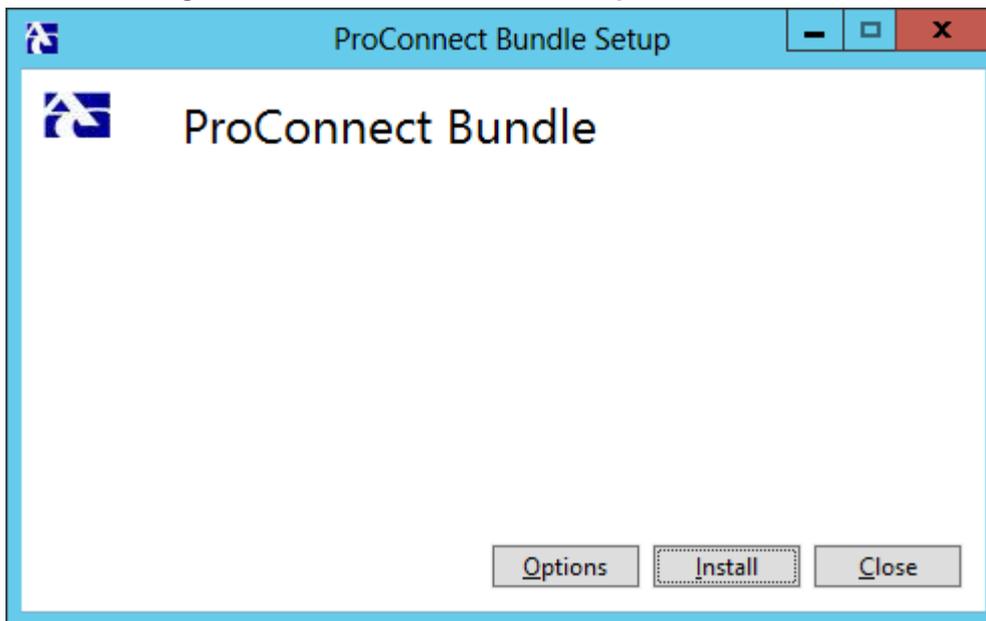
4 Installing SBA ProConnect

This section describes the procedure for installing the SBA ProConnect application on the SBA ProConnect server machine.

➤ **To install the SBA ProConnect:**

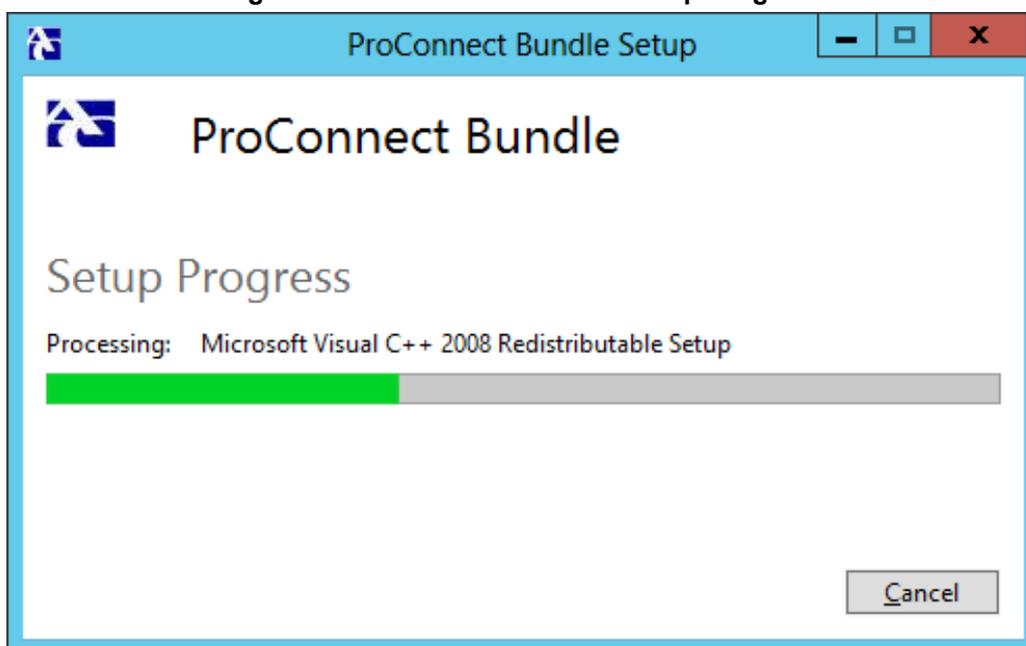
1. Copy the server installation file 'ProConnectWixBootstrapper.exe' to the machine where you wish to install the SBA ProConnect.
2. Run the 'ProConnectWixBootstrapper.exe' file from the saved location; the Welcome screen is displayed:

Figure 4-1: ProConnect Bundle Setup Welcome Screen



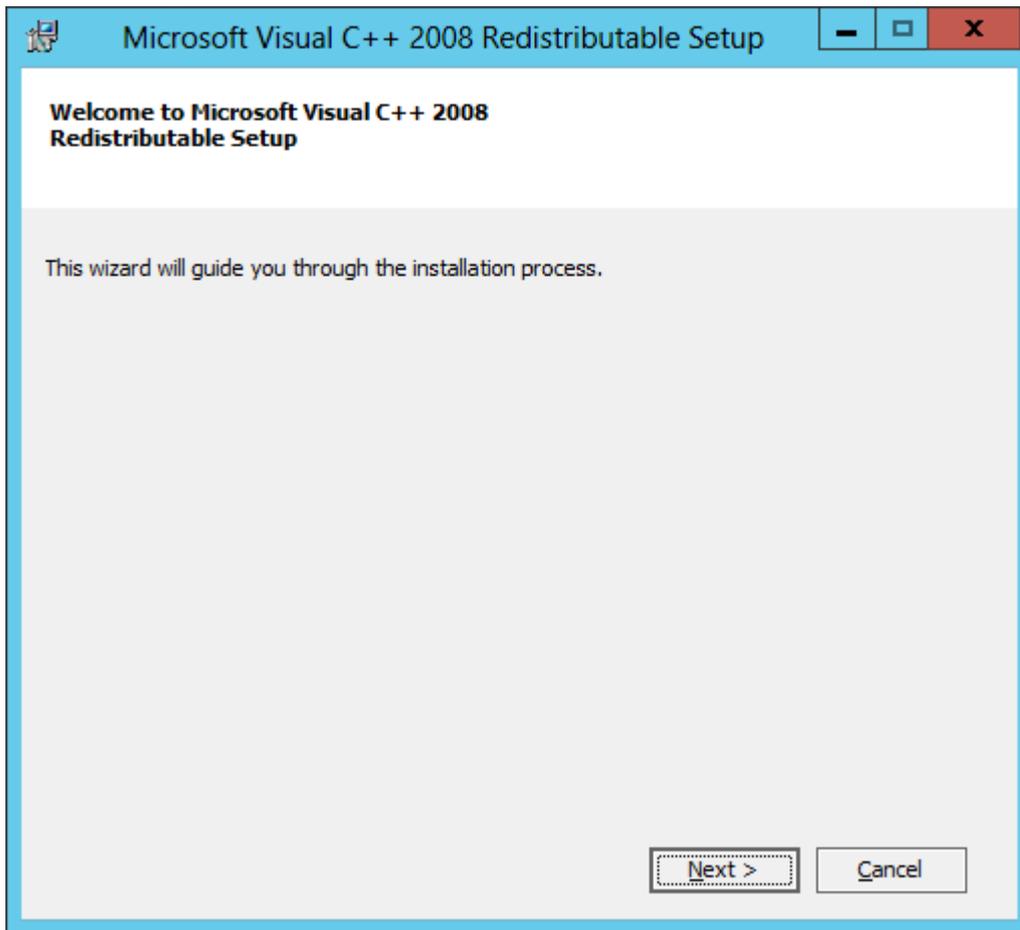
3. Click **Install**. The setup progress is displayed:

Figure 4-2: ProConnect Bundle Setup Progress



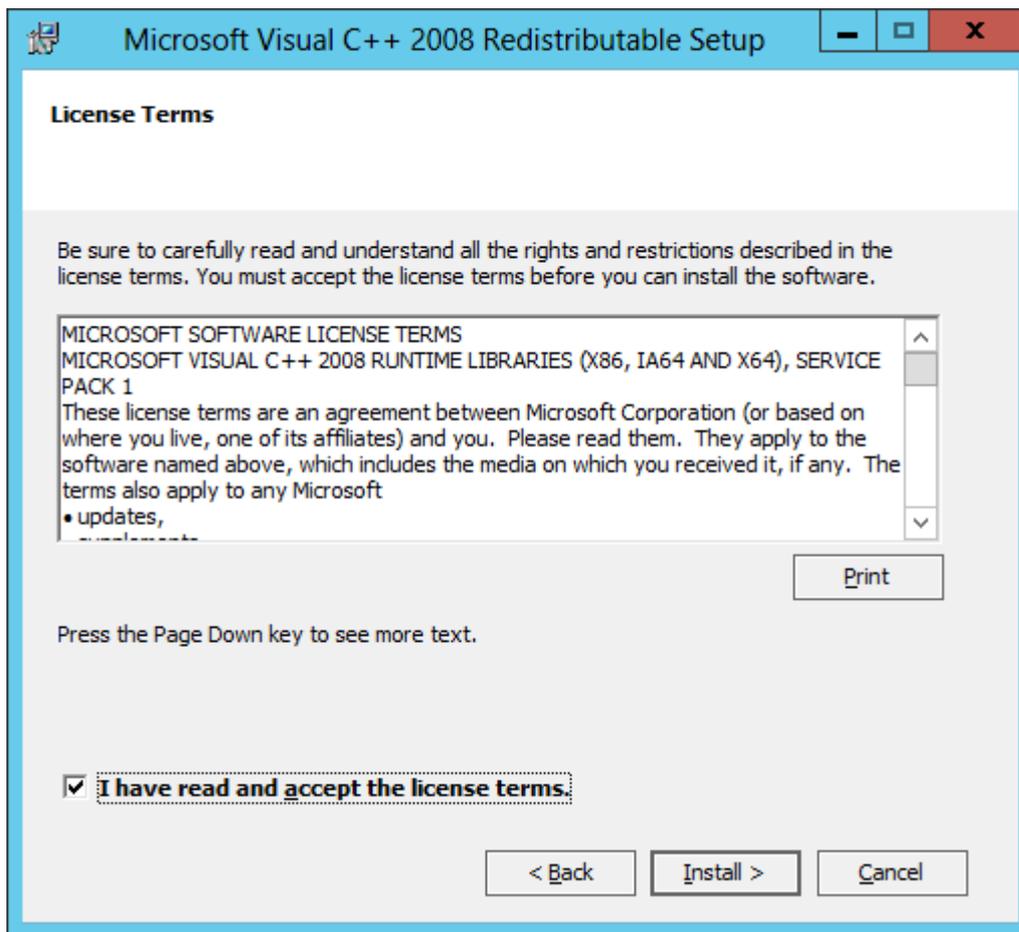
4. After a few seconds, the Microsoft Visual C++ 2008 Redistributable Setup screen is displayed:

Figure 4-3: Microsoft Visual C++ 2008 Redistributable Setup



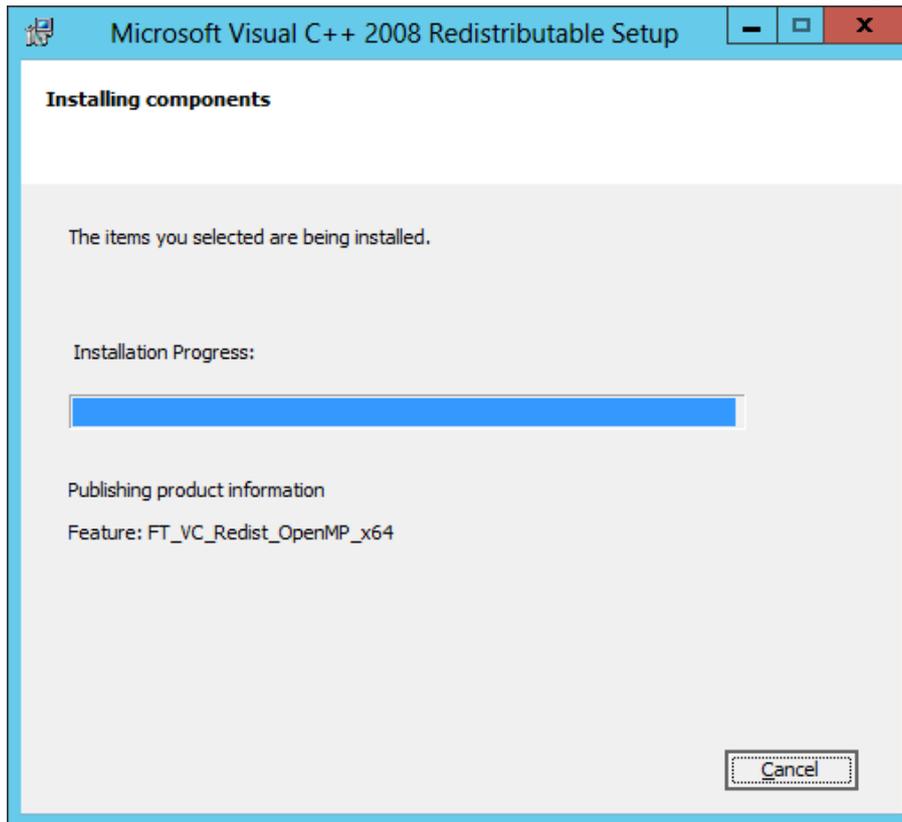
5. Click **Next**. The Microsoft Visual C++ 2008 Redistributable License Terms screen is displayed:

Figure 4-4: Microsoft Visual C++ 2008 Redistributable License Terms



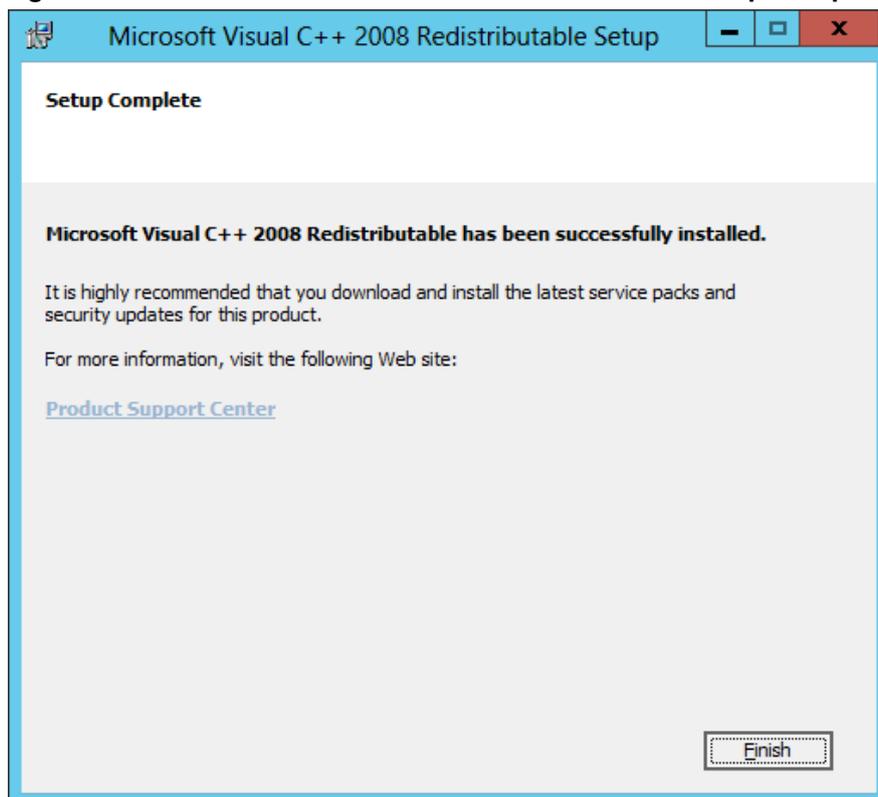
6. Accept the license terms, and click **Install**. The Microsoft Visual C++ 2008 Redistributable installation process commences.

Figure 4-5: Microsoft Visual C++ 2008 Redistributable Installation Progress



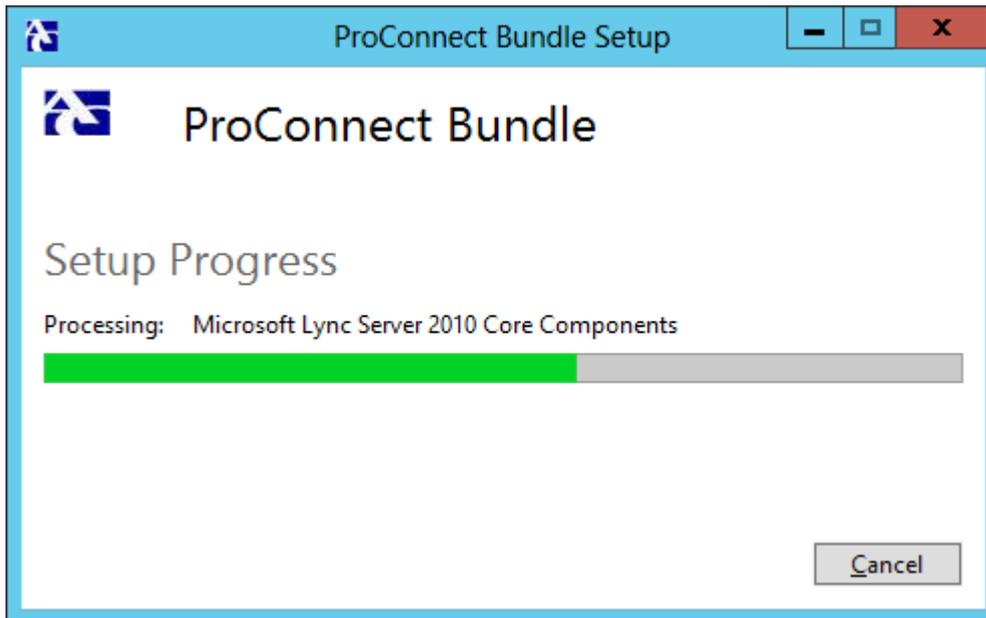
7. At the end of the Microsoft Visual C++ 2008 Redistributable installation process, the following screen is displayed:

Figure 4-6: Microsoft Visual C++ 2008 Redistributable Setup Complete



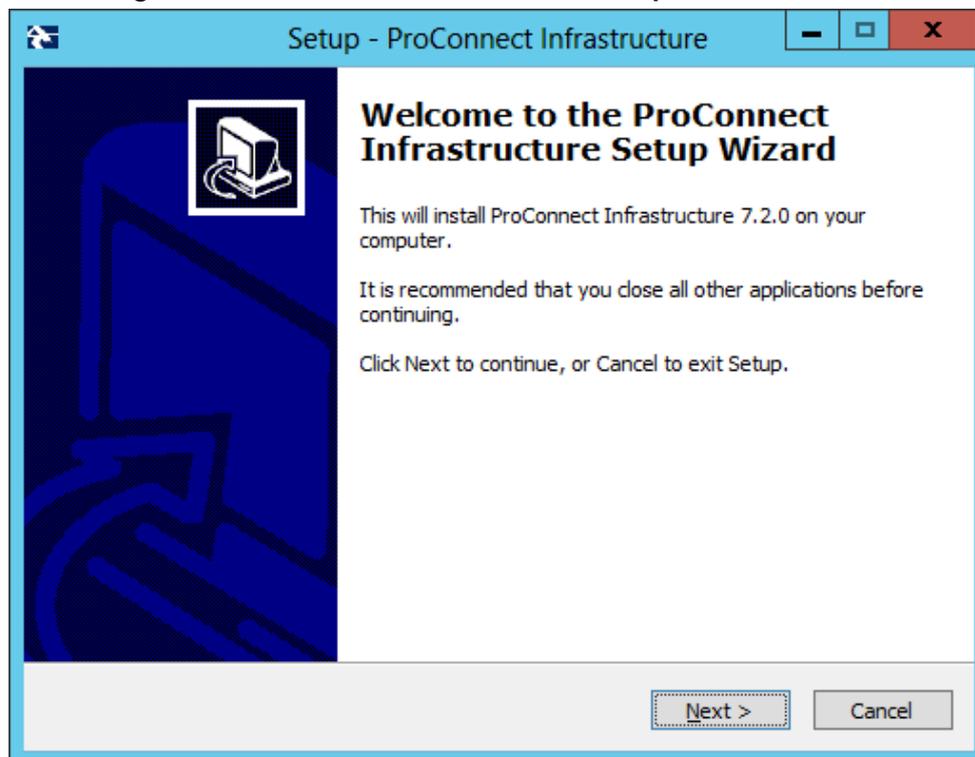
- Click **Finish**. The ProConnect Bundle Setup continues:

Figure 4-7: ProConnect Bundle Setup Continues



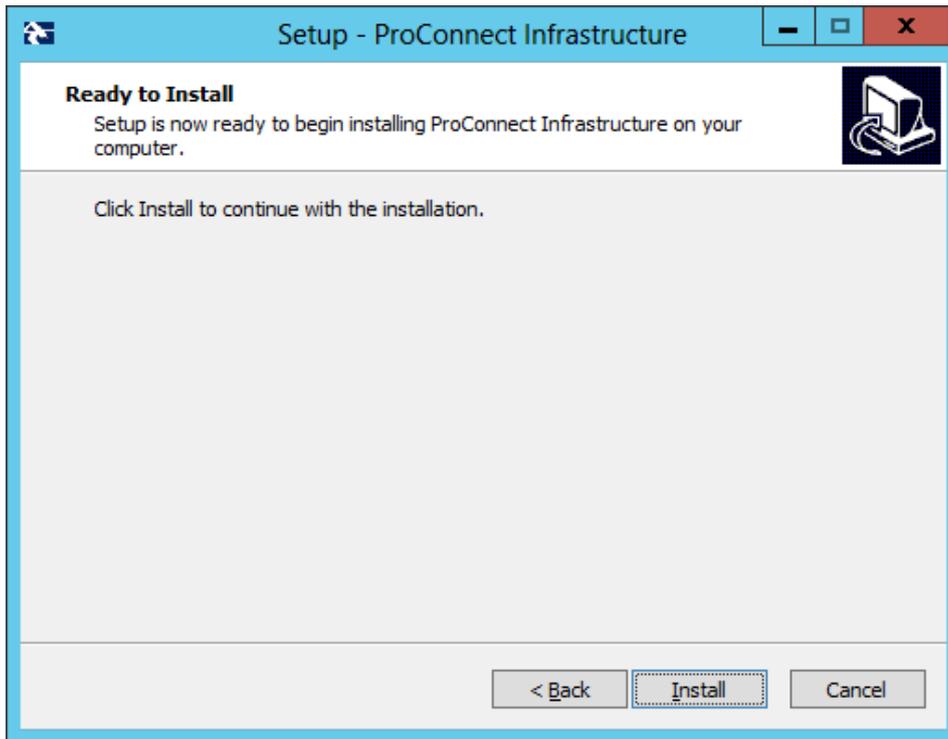
- After a few seconds the ProConnect Infrastructure Setup Welcome screen is displayed:

Figure 4-8: ProConnect Infrastructure Setup Welcome Screen



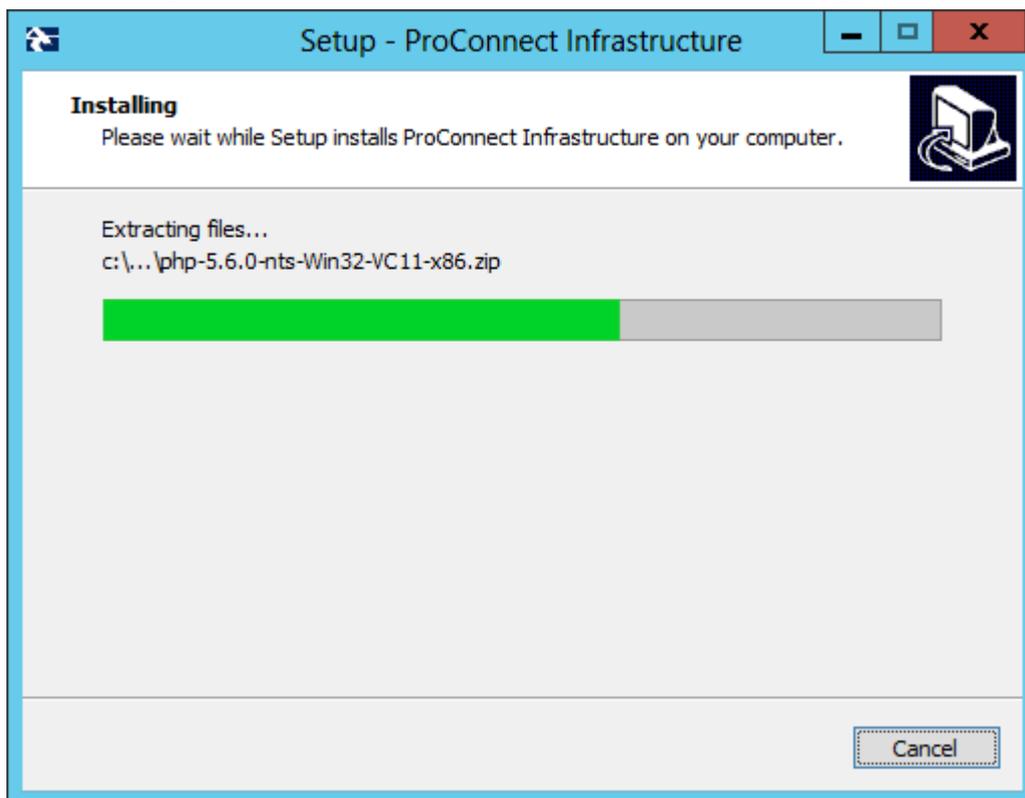
- Click **Next**. The ProConnect Infrastructure Setup is ready to install:

Figure 4-9: ProConnect Infrastructure Setup



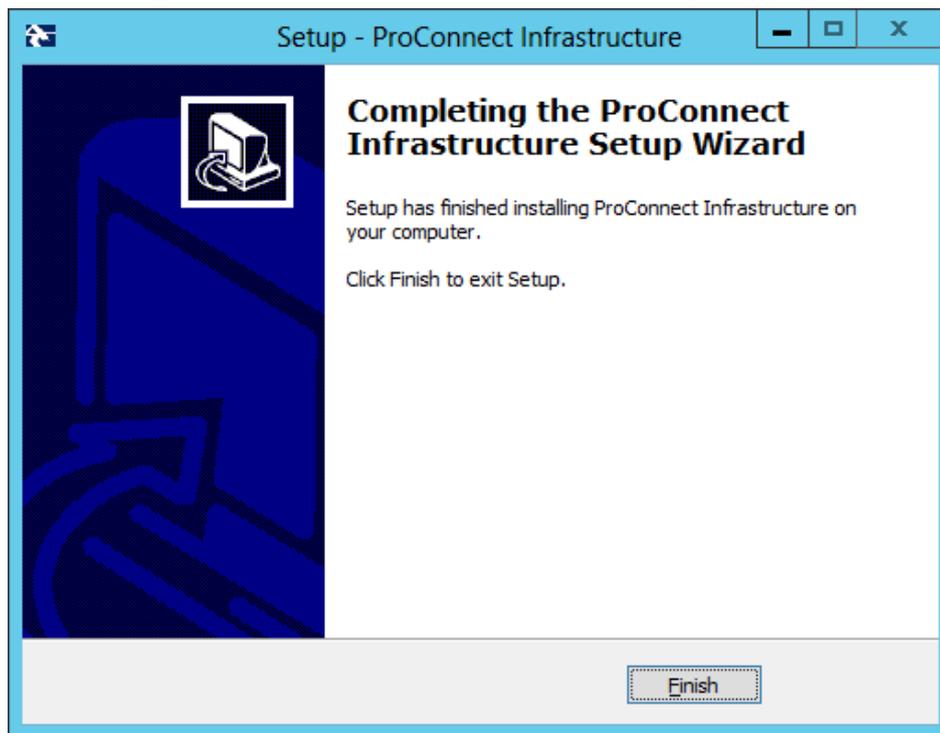
- Click **Install**. The ProConnect Infrastructure installation process commences:

Figure 4-10: ProConnect Infrastructure Installation Progress



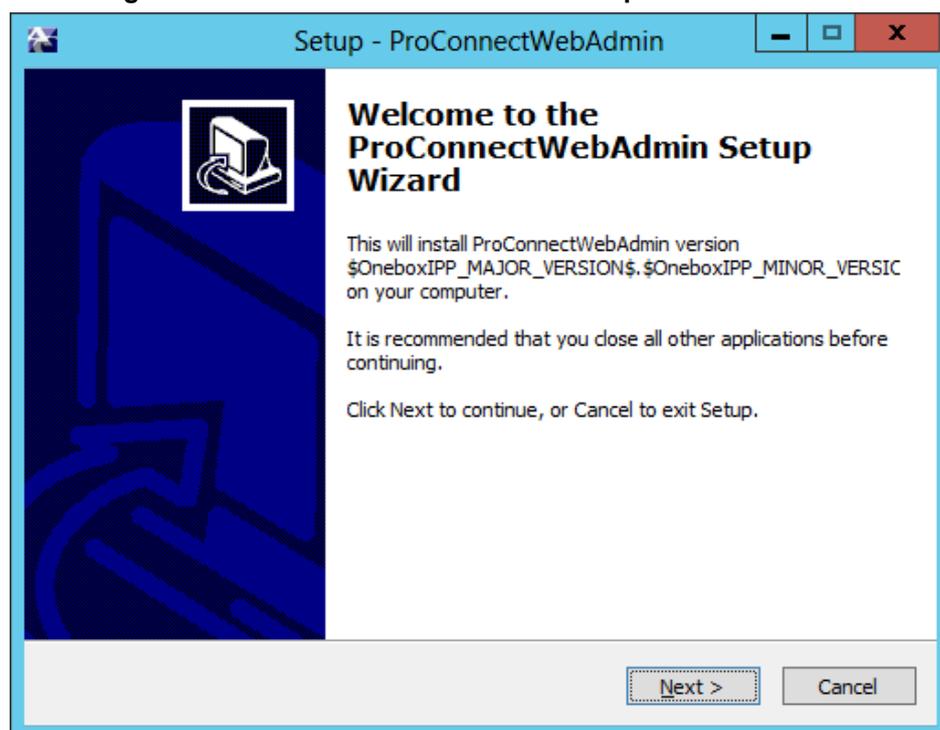
- At the end of the ProConnect Infrastructure installation process, the following screen is displayed:

Figure 4-11: ProConnect Infrastructure Setup Complete



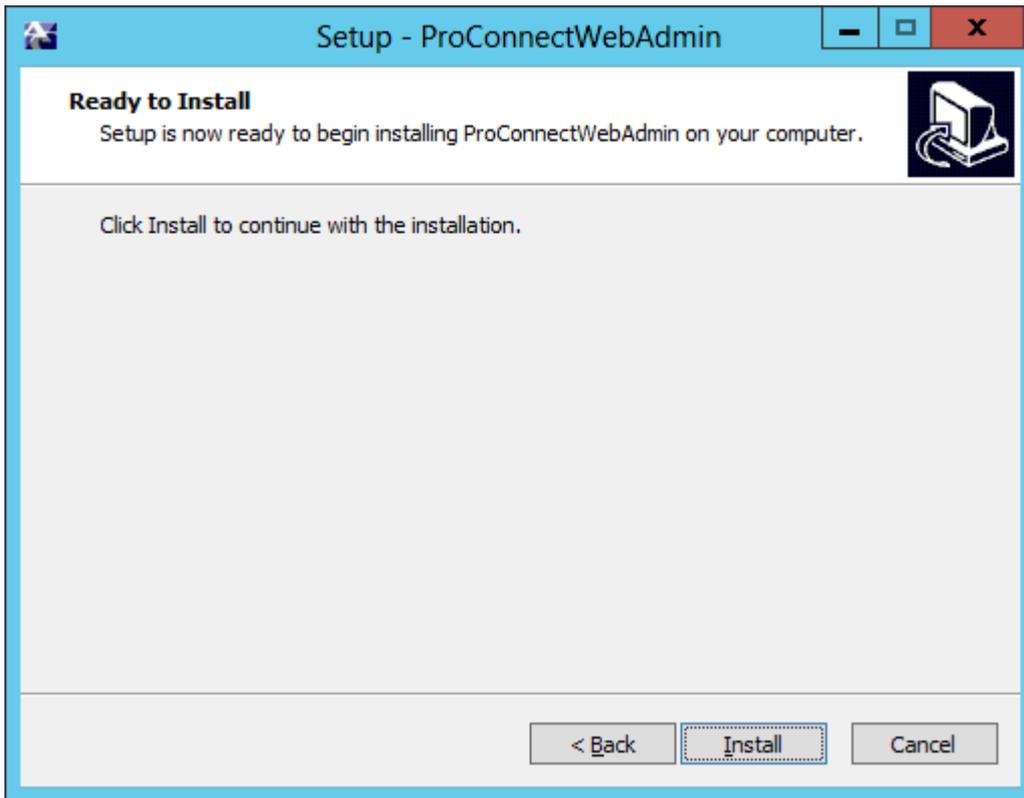
- Click **Finish**. The ProConnect WebAdmin Setup Welcome screen is displayed:

Figure 4-12: ProConnect WebAdmin Setup Welcome Screen



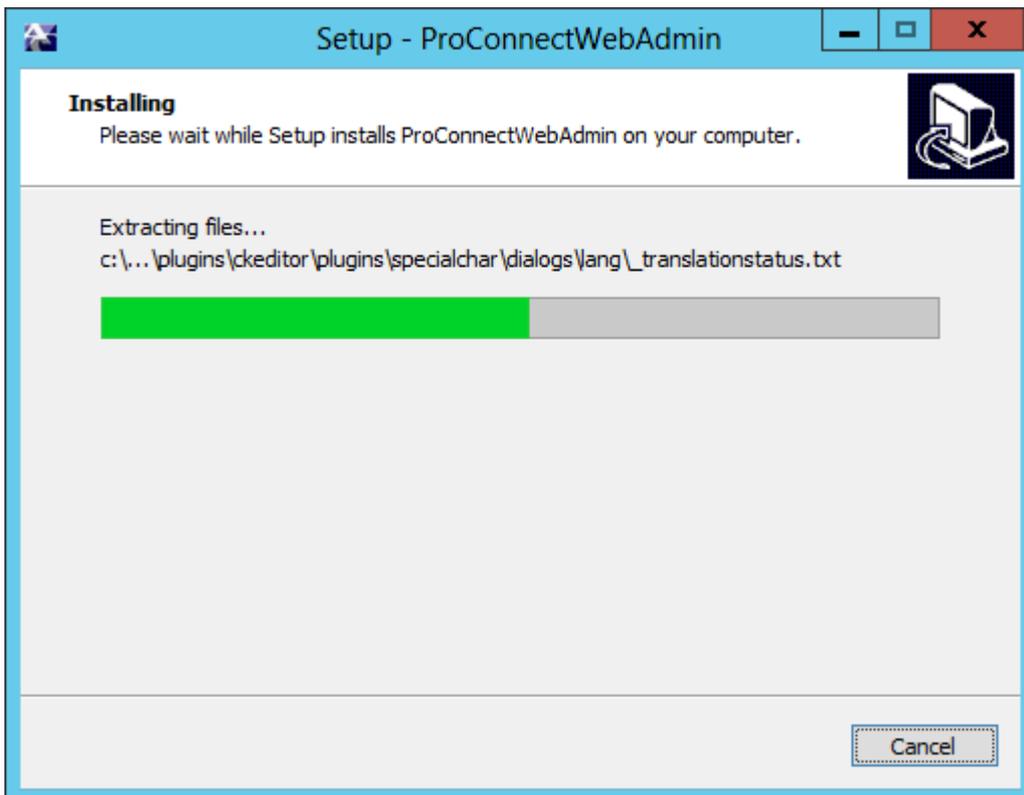
- Click **Next**. The ProConnect WebAdmin Setup is ready to install:

Figure 4-13: ProConnect WebAdmin Setup



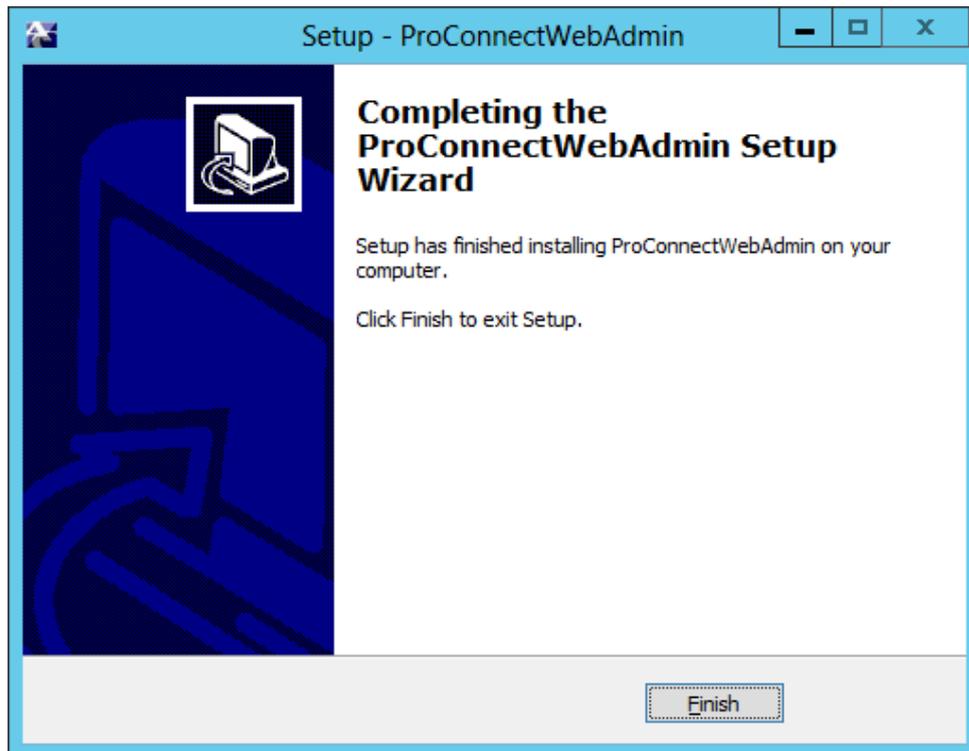
- Click **Install**. The ProConnect WebAdmin installation process commences:

Figure 4-14: ProConnect WebAdmin Installation Progress



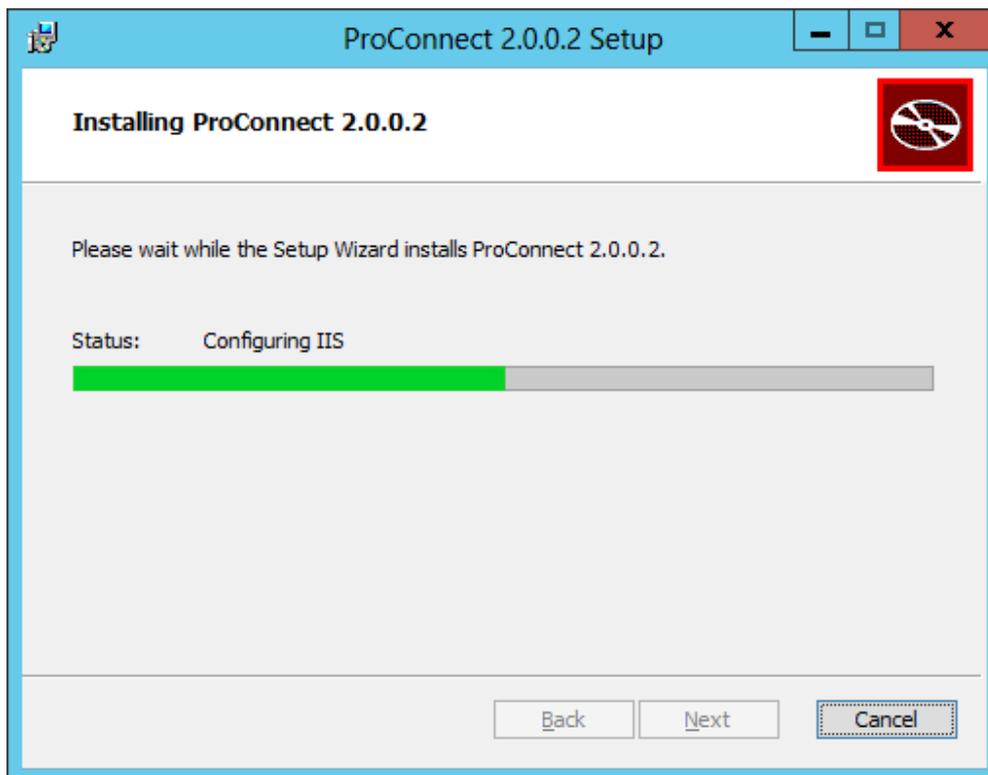
- At the end of the ProConnect WebAdmin installation process, the following screen is displayed:

Figure 4-15: ProConnect WebAdmin Setup Complete



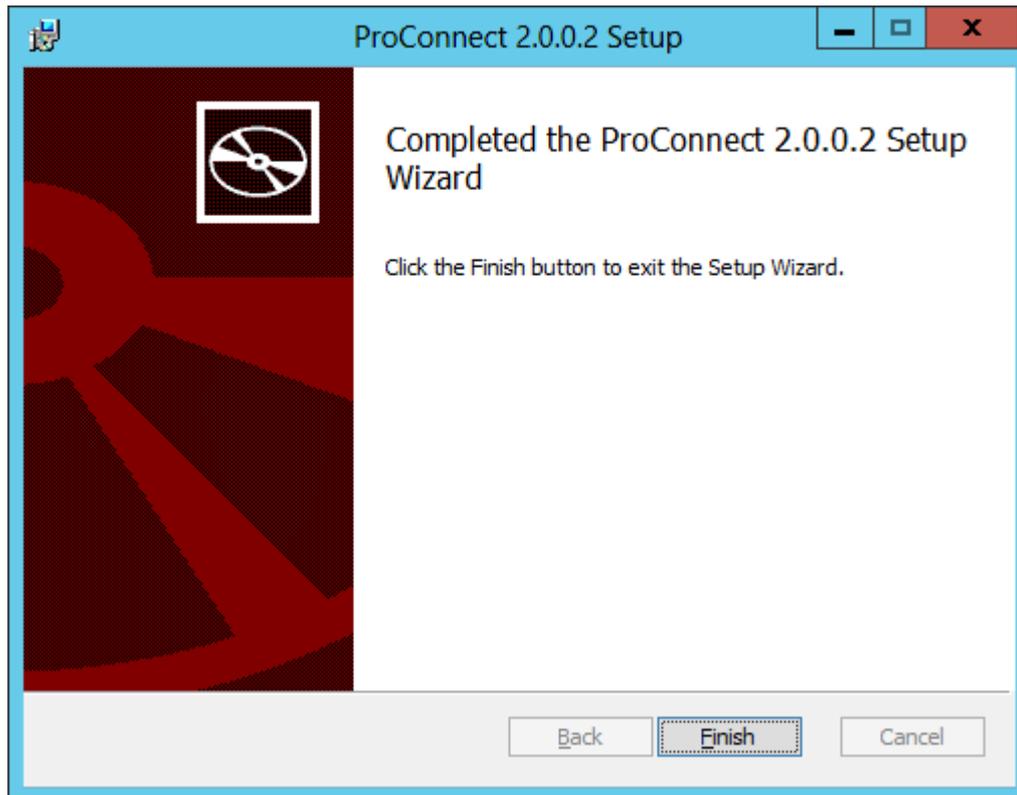
- Click **Finish**. The ProConnect installation process commences:

Figure 4-16: ProConnect Installation Progress



- At the end of the ProConnect installation process, the following screen is displayed:

Figure 4-17: ProConnect Setup Complete



19. Click **Finish**. The ProConnect server is now ready.

5 Getting Started with the SBA ProConnect

This chapter describes how to initially connect to the SBA ProConnect and to become familiar with the main dashboard.

The ProConnect server is installed as a service and it is set to start during the installation process. The service is also set to automatically start after reboot. The display name of the service is: **SBA ProConnect Service**.

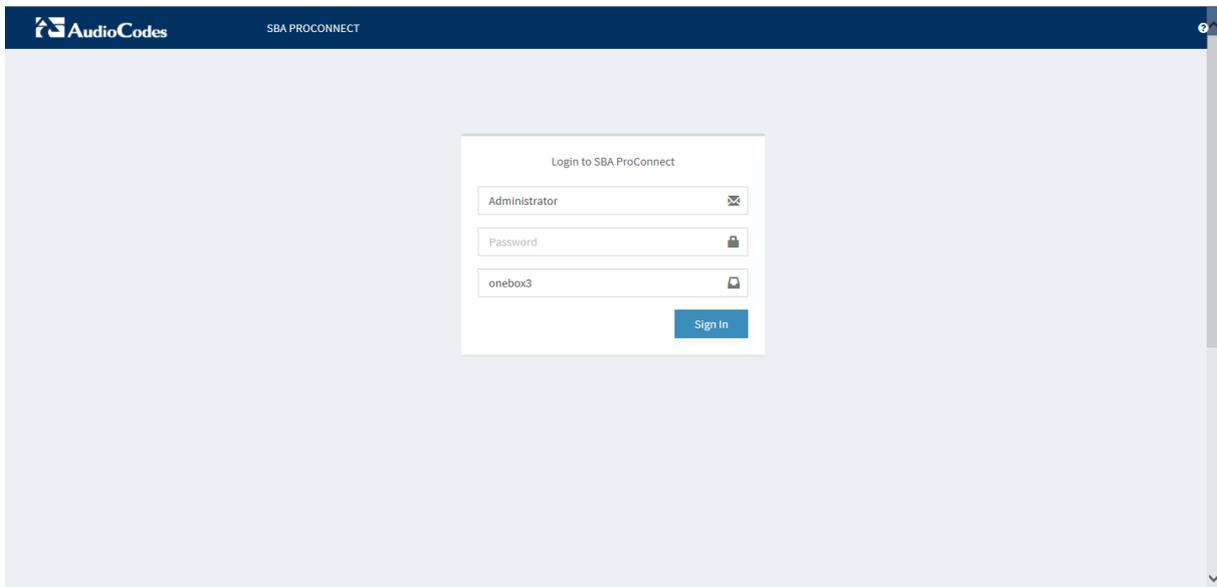
5.1 Connecting to the SBA ProConnect Client

This section describes how to open the SBA ProConnect web browser client and describes the main dashboard components.

➤ **To connect to the SBA ProConnect client:**

1. Open a web browser and navigate to the IP address of the tool as follows: **https://IP_address/webadmin/login.php**.

Figure 5-1: SBA ProConnect



2. Enter the administrator login credentials (see Section 2.5).
3. Click **Sign In**.

The SBA ProConnect Monitor Dashboard is displayed:

Figure 5-2: SBA ProConnect

The dashboard interface includes a top navigation bar with 'AudioCodes', 'SETUP', 'MONITOR', and 'SBA PROCONNECT' tabs. A user profile 'onebox3\Administrator' is visible in the top right. On the left, a sidebar shows 'TOPOLOGY VIEW' and 'MONITOR' sections with links for 'Dashboard', 'Notifications', 'System Info', and 'Logs'. Below the sidebar, there are 'Additional SBA Applications' like 'Fax Server' and 'Auto?'. The main content area features four summary cards: 'SCHEDULED TASKS' (0), 'SUCCESSFUL TASKS' (102), 'FAILED TASKS' (55), and 'RUNNING TASKS' (1). Below these is an 'SBAs List (10)' grid showing individual task status cards with icons for 'OS_Burn', 'Restarting', 'Available', and 'Not Accessible'. At the bottom, a 'Running Tasks' table provides a detailed view of active tasks.

Task Name	Task Status	Task Type	SBA's Status
task with 5 servers 141...	24 M1k file	Burn	3 Restarting, 2 OS_Burn

The Dashboard displays the following components:

Table 5-1: Dashboard Areas

#	GUI Area	Description
1	Toolbar	In the Toolbar, you can do the following: <ul style="list-style-type: none"> • Toggle the Topology View between the Monitor and Setup views. • Hide the Topology View entirely by clicking the  button. • View the number of notifications and open the Notification List by clicking . • View the current login credentials and log off.
2	Topology View	The Topology View enables you to navigate to the monitoring dashboards and the configuration pages.
3	Tasks Pane	In the Tasks pane, you can view the different task statuses. The following types of task statuses are managed by the ProConnect: <ul style="list-style-type: none"> • Scheduled Tasks • Successful Tasks • Failed Tasks • Running Tasks Clicking on the More Info link for each task type, opens the journal history of all the tasks that have been run for this task type.
4	SBA's List	In the SBA's list, you can view the SBA servers that are currently managed by the SBA ProConnect. For each SBA server, an indication is shown if there is an accessible connection (with the SBA ProConnect) and the server details are listed including the PC name, the Active Directory name and the IP address.
5	Running Tasks	Lists the currently active running tasks. When the "Task Execution waits for manual start when download complete by all SBA" option is enabled for a task, then you can manually start a task from this pane once the Download operation has completed.
6	Links to Other Skype for Business Applications	In the Links pane, you can open the relevant pages on the AudioCodes web site with descriptions of the Fax Server and Auto-Attendant IVR applications.

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6 Managing SBA Servers

The SBA List screen allows you to manage those SBA servers that you wish to update and upgrade. You can manage any SBA server that is defined in the Active Directory domain of the logged in user (with the appropriate credentials as described in Section 2.5). Initially the SBA list is empty until you perform the Synchronization action to retrieve a list of the current SBA branch appliances that are defined in the Skype for Business Topology Builder. You can later periodically perform this operation for all SBA servers or for individual ones, as well as manually add a new server or import a pre-configured list using a CSV file.

In this list, you can do the following:

- View the details and statuses of each SBA server
- Add a new SBA server
- Import a csv file with a pre-configured list of SBA servers
- Synchronize the SBA list with the Skype for Business Topology Builder.

➤ To open the SBA List:

1. Select **Setup >SBA Servers**.

A list of the currently connected SBA servers is displayed:

- From the 'Show' drop-down list box, select the desired number of entries to view.
- Use the Show entries **Previous** and **Next** buttons to page between SBA servers and use the Search field to search for a specific server.

Figure 6-1: SBA Servers List

Name	FQDN	SBA Version	SBA GUI Version	From Topology	Status
Matrix_SBA-M800-MA23	SBA-M800-MA23.cloudbond365b.com			✓	Not Accessible
SBA-M800-MA28	SBA-M800-MA28.cloudbond365b.com	Skype for Business Server 2015	7.2.107.43401	✓	Available
SBA-M800-MA26_sba-m800-ma26	sba-m800-ma26.sub1.cloudbond365b.com	Skype for Business Server 2015, Core Components,6.0.9319.102	Skype for Business Server 2015, Front End Server,6.0.9319.102	✓	Not Accessible
SBA1_SBA-EREZ5	SBA-EREZ5.cloudbond365b.com	Skype for Business Server 2015, Mediation Server,6.0.9319.102	Skype for Business Server 2015, Performance Counter Cumulative Update,6.0.9319.102	✓	Available
W15-ATOM-5553	W15-ATOM-5553.cloudbond365b.com	Microsoft Lync Server 2013	1.1.12.85	✓	Available
UPGRADE20T085	UPGRADE20T085.cloudbond365b.com			✓	Not Accessible
Matrix_SBA-M800-MA22	SBA-M800-MA22.cloudbond365b.com			✓	Remote Power Shell Disabled
eran-740-5551	eran-740-5551.cloudbond365b.com			✓	Not Accessible
Matrix_SBA-M800-MA24	SBA-M800-MA24.cloudbond365b.com			✓	Not Accessible
Matrix_SBA-M1K-MA16	SBA-M1K-MA16.cloudbond365b.com			✓	Remote Power Shell Disabled
Matrix_SBA-M800-MA21	SBA-M800-MA21.cloudbond365b.com	Skype for Business Server 2015	7.2.103.43036	✓	Available
QA-SFB-SBA-872	QA-SFB-SBA-872.cloudbond365b.com	Skype for Business Server 2015	7.2.114.43626	✓	Available
SBASHAY	SBASHAY.cloudbond365b.com			✓	Remote Power Shell Disabled
EREZ_Erez29120	Erez29120.cloudbond365b.com			✓	Remote Power Shell Disabled

2. Click the link adjacent to each record to display the details of each SBA server. For example, to display the FQDN and IP address.
3. Click the link adjacent to each record to delete an SBA server from the list.
4. Click the link adjacent to each record to synchronize a specific SBA server.
5. Hover the cursor over the SBA version column to view the SBA server Skype for Business/Lync version.

6. Click the **Synchronize** button to automatically synchronize the list of SBA servers with the Skype for Business Topology Builder:
 - Populates the list of SBA servers from the Topology Builder (servers that are members of the Active Directory domain).
 - Updates to the SBA version after updates have been performed on an SBA server (s).
 - Updates the current statuses of the SBA servers.



Note: If after performing refresh, the SBA status is **Not Available**, verify that the Remote PowerShell is enabled (see Section 2.7) and that the SBA disk has sufficient free disk space.

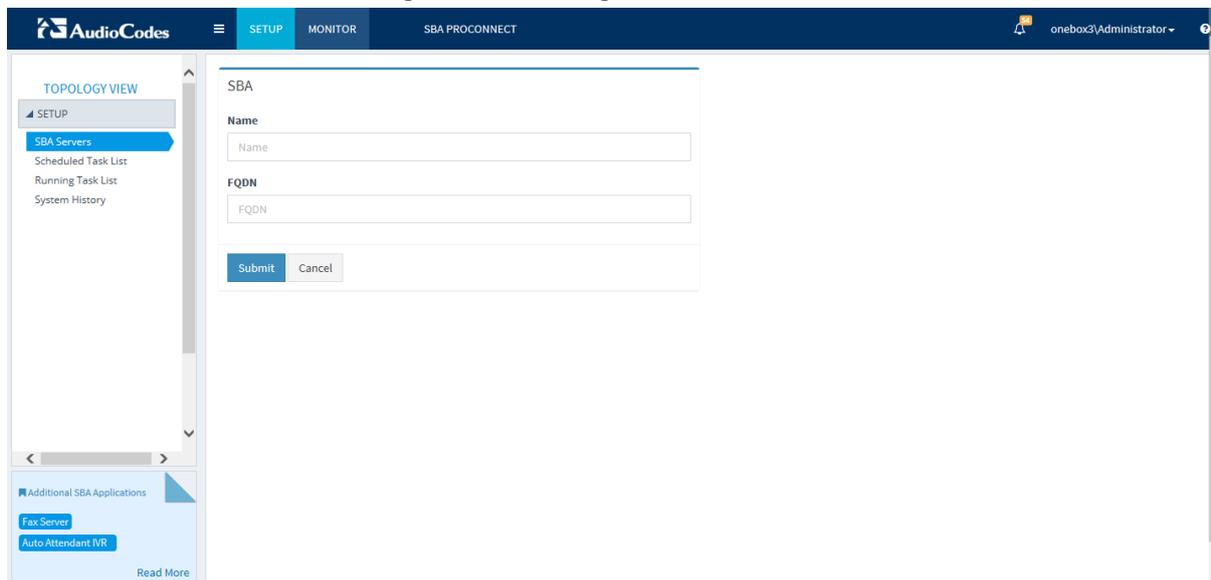
6.1 Adding an SBA Server

This section describes how to manually add a new SBA server to the SBA ProConnect. This action is used when the SBA server is not defined in the Topology Builder on the Skype for Business server or when SBA ProConnect cannot connect to the Skype for Business server.

➤ **To add a connect a new SBA server:**

1. In the SBA list, click the **Add** button; the following screen is displayed:

Figure 6-2: Adding a New SBA Server



2. In the 'Name' field, enter the name of the SBA server
3. In the 'FQDN' field, enter the FQDN of the SBA server.
4. Click **Submit**.

6.2 Importing a csv File

You can import a csv file which contains a pre-configured list of SBA servers. The csv file should include the names of the SBA servers and their respective FQDNs. An example of a csv file is displayed below:

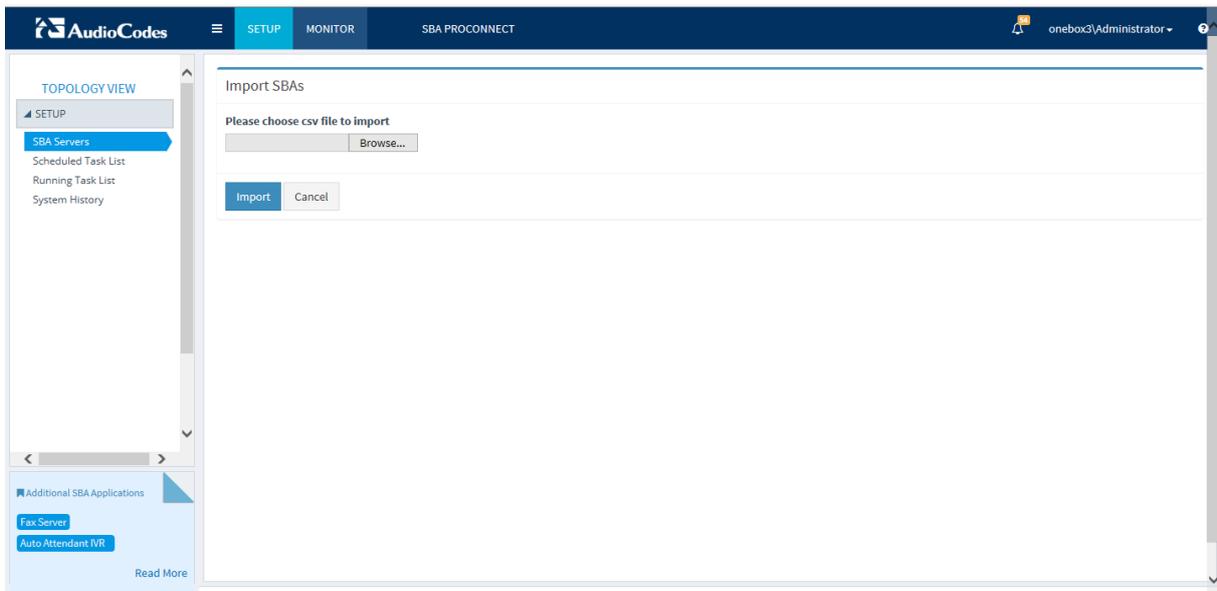
Figure 6-3: Example csv File - SBA List

	A	B	C	D	E
1	NAME	FQDN			
2	SBA_NY	SBA_NY@cloudbond365.com			
3	SBA_CAL	SBA_CAL@cloudbond365.com			
4	SBA_CONN	SBA_CONN@cloudbond365.com			
5	SBA_NJ	SBA_NJ@cloudbond365.com			

➤ **To import a csv file:**

1. In the SBA List, click **Import**; the following screen is displayed:

Figure 6-4: Importing a csv File



2. Click **Browse** to browse to the location of the csv file.
3. Click **Import**.

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7 Install File List

The Install File List screen allows you to remove redundant install files. The removal action also deletes the Install file from the disk.

➤ **To open the Install File List:**

1. Select Setup > Install File List.

A list of the Install Files is displayed:

- From the 'Show' drop-down list box, select the desired number of entries to view.
- Use the Show entries **Previous** and **Next** buttons to page between files and use the Search field to search for a specific file.

Figure 7-1: Install File List

The screenshot displays the 'Install File List' interface within the AudioCodes SBA ProConnect application. The interface includes a navigation menu on the left, a search bar, and a table of files. The table has the following data:

Name	File Size	Type	Description	Remove
skype_sba.wim	8.4 GB	Burn	Skype for Business 2015	Remove
sfb_sba_proconnect.wim	8.4 GB	Burn	Skype for Business 2015	Remove
SBA_M3K_W15_1.112.84.wim	6.71 GB	Burn	M3K Lync 2013	Remove
SBA_1.1.84.wim	7.71 GB	Burn	M800 Lync 2013	Remove
LyncServerUpdateInstaller_2013.exe	129 Mb	Update	Lync 2013 Cumulative Update KB 2859243	Remove
LyncServerUpdateInstaller_2010.exe	3 Mb	Update	Lync 2010 CU12	Remove

At the bottom of the table, it indicates 'Showing 1 to 6 of 6 entries' and includes 'Previous' and 'Next' buttons. A search field is located at the top right of the table area.

2. Click the Remove button adjacent to the file that you wish to remove.

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8 Scheduling Tasks

This section describes how to create and schedule a task to run on SBA servers to install CU updates and Lync and Skype for Business upgrades. The task can be scheduled to run automatically on a specific day and at a specific time for a selected list of SBA servers.



Note: Before scheduling tasks, verify in the Notification List (System Messages) that the installation files have been successfully deployed to the ProConnect server. Notifications are generated under the following circumstances:

- Upon the successful deployment of the files onto the SBA ProConnect server.
- When an error occurs in the file deployment process.

For more information, see Chapter 9.

➤ To schedule a task:

1. Select **Setup > Scheduled Task List**; the following screen is displayed:
 - From the 'Show' drop-down list, select the desired number of entries to view.
 - Use the Show entries **Previous** and **Next** buttons to page between tasks and use the Search field to search for a specific task.

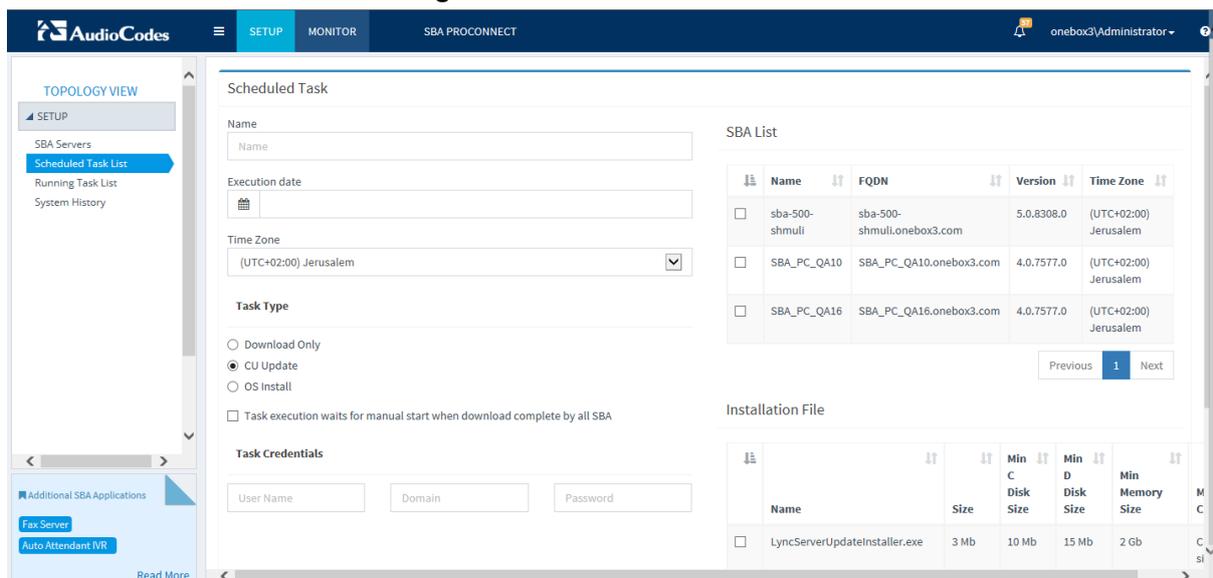
Figure 8-1: Scheduling a Task

The screenshot shows the 'Task List' interface in the AudioCodes SBA ProConnect application. The interface includes a navigation menu on the left with 'Setup' selected, and a main content area displaying a table of tasks. The table has columns for Execution Date, Task Type, Name, Running Mode, and SBA List. Three tasks are listed: Download 2013 image to MTK, Install Lync 2013, and Update 2016 CU. Below the table are pagination controls showing 'Showing 1 to 3 of 3 entries' and 'Previous 1 Next' buttons.

Execution Date	Task Type	Name	Running Mode	SBA List	Change	Remove
06/01/2016 14:38	Download	Download 2013 image to MTK	Automatic	SBA_W14_Yael	Change	Remove
06/01/2016 13:19	Burn	Install Lync 2013	Automatic	SBA_PROCONNECT	Change	Remove
06/01/2016 11:36	Update	Update 2016 CU	Automatic	SBA_W14_Shay	Change	Remove

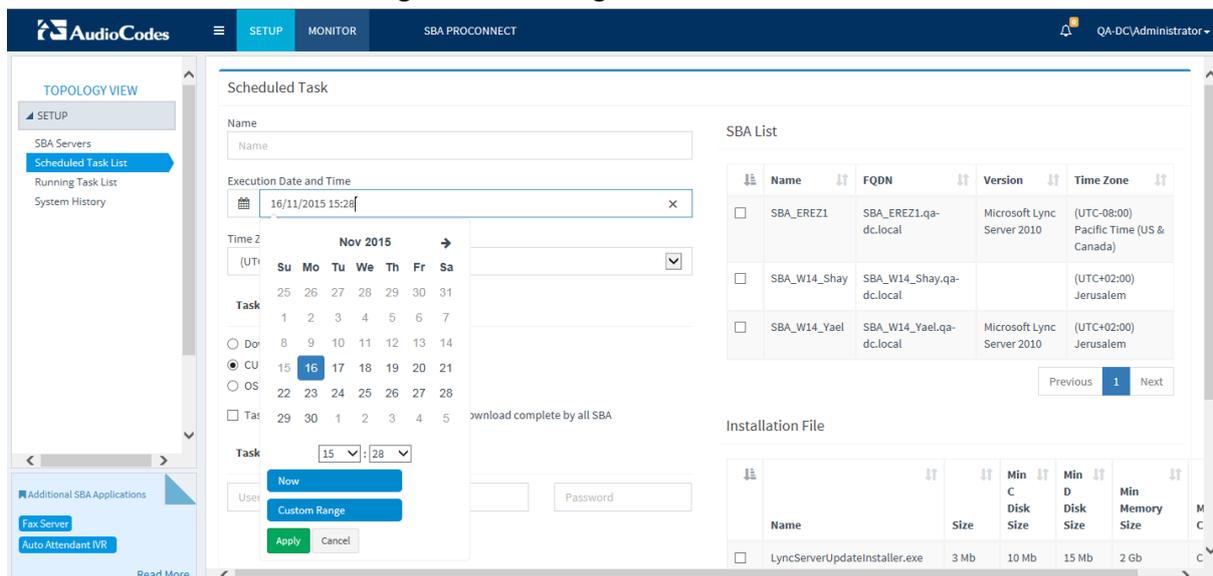
- Click the **Add** button; the following field is displayed:

Figure 8-2: Add Scheduled Task



- In the 'Name' field, enter a name for the task (special characters are not accepted).
- In the 'Execution Date' field, place the cursor in the field; the following screen is displayed:

Figure 8-3: Setting the Execution Date



- Do one of the following:
 - In the Calendar, select the desired date to schedule the task and set a time to run in hours and minutes.
 - Select the **Custom Range** button to run the task according to a custom date range.
 - Select the **Now** button to run the task now.
- Set a time to run the task (in hours and minutes).
- Click **Apply**.
- In the 'Time Zone' field, from the drop-down list, select the desired Time Zone.

9. Select the Task Type:
 - **Download Only** - Downloads upgrade file to SBA servers
 - **CU Update** - Installs a Microsoft CU Update
 - **OS Install** – Downloads and installs a new Microsoft Skype for Business Server or Microsoft Lync 2013 Server.
10. If you wish to start OS Install task manually after the download process has completed in all SBA servers, select the "Task Execution waits for manual start when download complete by all SBA" check box.

This option is useful when you wish to separately control the execution of the download and upgrade tasks. When you select this option, the task is displayed in the Running Tasks pane on the Dashboard (see figure below). You can then click the **Start Execution** button (after the Download has completed) whenever you wish to run this task.

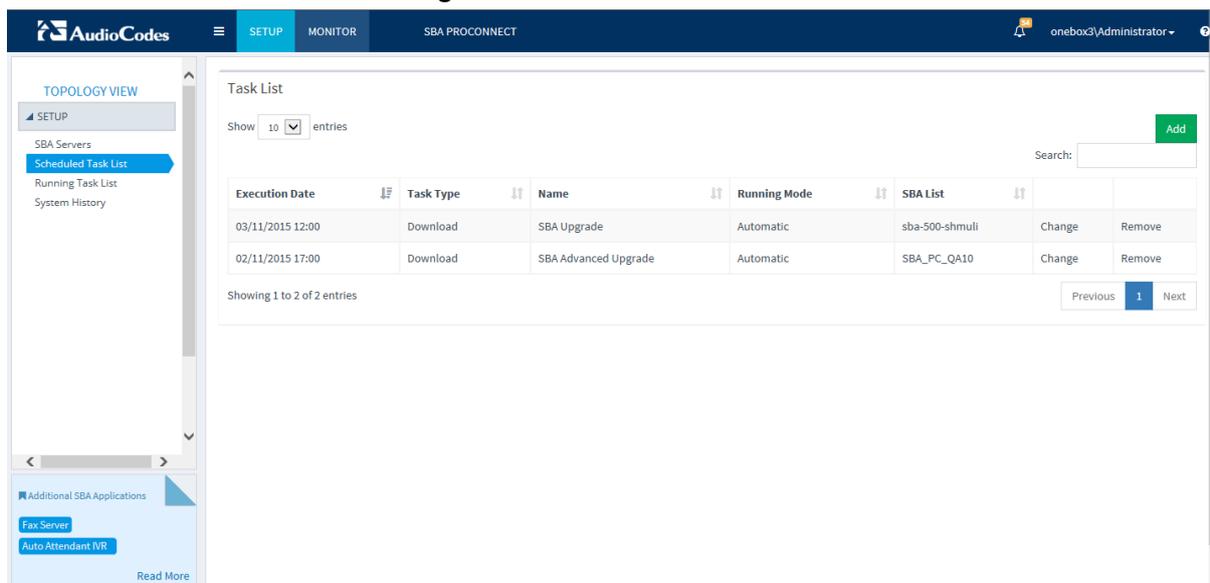
Figure 8-4: Start Execution

The screenshot shows the SBA ProConnect interface. The top navigation bar includes 'AudioCodes', 'SETUP', 'MONITOR', and 'SBA PROCONNECT'. The user is logged in as 'onebox3\Administrator'. The dashboard features four summary cards: SCHEDULED TASKS (0), SUCCESSFUL TASKS (5), FAILED TASKS (1), and RUNNING TASKS (1). Below these is an 'SBAs List (7)' grid with columns for Task Name, SBA Name, SBA IP, and SBA Version. The tasks are: 'test 17' (Waiting), 'Agent Collect Info' (Failed), 'SBA-500-SHMULI' (Available), 'SBA_PC_QA10' (Available), 'CELRON500' (Not Accessible), 'SBA_PC_QA15' (Not Accessible), and 'SBA_PROCL1' (Not Accessible). At the bottom, the 'Running Tasks' table shows a task named 'test 17' with a 'Start Execution' button and a status of '1 Waiting'.

11. Enter the task credentials: User, Domain e.g. CloudBond3653 and Password. Use the same credentials that you used to login to the SBA ProConnect Web.
12. In the 'SBA List' pane, select the SBA servers for which you wish to perform the updates and upgrades. Only the available SBA servers are displayed.
13. In the 'Installation File' pane, select the check boxes adjacent to the installation files that you wish to install on the SBA servers. Note that only a single file can be installed for Download and OS Burn tasks.
14. Click **Submit** when you have completed the configuration.

The Scheduled Task List screen is displayed with a summary of your new tasks:

Figure 8-5: Scheduled Task List

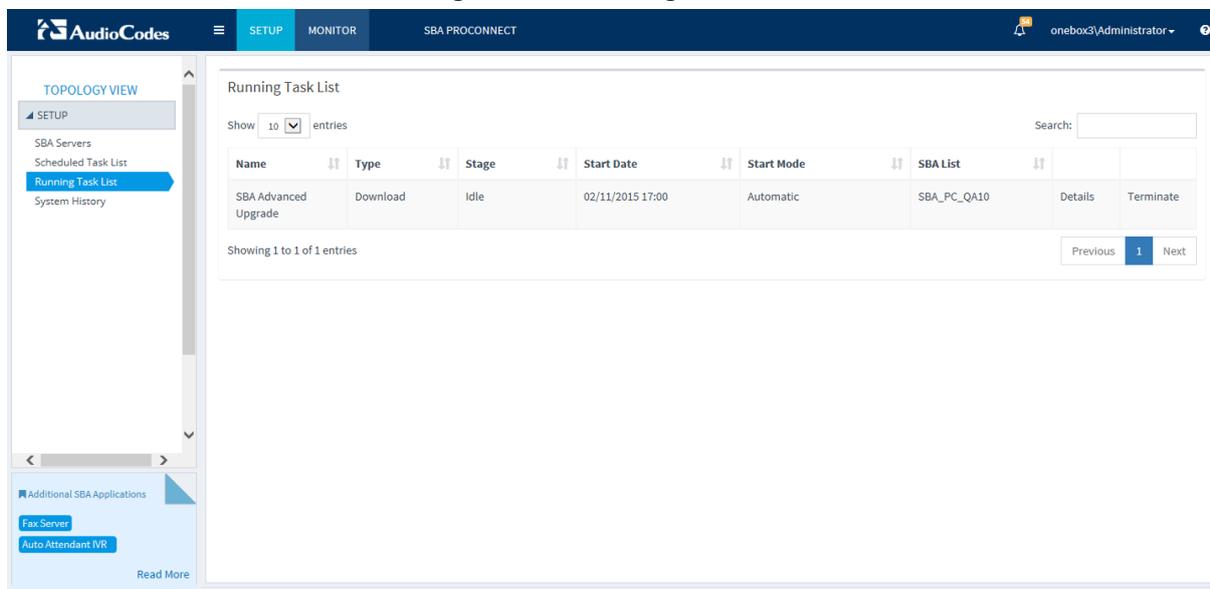


8.1 Viewing Running Tasks

This section describes how to view a list of currently running tasks.

- **To view the details of the running task:**
 - Select **Setup > Running Task List**; the Running Task List screen is displayed with the details of the currently running tasks:
 - From the 'Show' drop-down list, select the desired number of entries to view.
 - Use the Show entries **Previous** and **Next** buttons to page between tasks and use the Search field to search for a specific task.

Figure 8-6: Running Task List





Power Failure After Burn

After the OS burn operation has completed, when the new OS image starts up, during the first time OS preparation, the SBA should not be disconnected from the power (approximately for up to one minute). Otherwise a full installation using the SBA Upgrade and Recovery Dongle must be performed.

8.2 Displaying System History

The System History displays history of all the actions that have been performed in the SBA ProConnect. Up to 100 entries can be displayed in the System History.

➤ **To display the system history:**

- Select **Setup > System History**; the System History screen is displayed:
 - From the 'Show' drop-down list, select the desired number of entries to view.
 - Use the Show entries **Previous** and **Next** buttons to page between system tasks and use the Search field to search for a specific system task.

Figure 8-7: System History

The screenshot displays the SBA ProConnect System History interface. The interface includes a navigation menu on the left with options like 'SBA Servers', 'Scheduled Task List', 'Running Task List', and 'System History'. The main content area shows a 'History List' with a search field and a 'Show' dropdown menu set to 10 entries. The table below shows the following data:

Start Date	End Date	Name	Type	Status	SBA List	
01/11/2015 10:57	01/11/2015 12:38	test 16	Burn	Success	SBA_PC_QA16	Details
29/10/2015 15:09	01/11/2015 10:08	test 11	Update	Success	SBA_PC_QA16	Details
26/10/2015 17:00	26/10/2015 18:20	UpdateTaskExample	Update	Partial	sba-500-shmuli	Details
25/10/2015 18:49	25/10/2015 19:23	2 sbas CU	Update	Success	SBA_PC_QA10, SBA_PC_QA15	Details
25/10/2015 09:50	25/10/2015 09:51	First task to test the system	Update	Success	SBA_PC_QA10, sba-500-shmuli	Details

Showing 1 to 5 of 5 entries

Previous 1 Next

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9 Monitoring

This chapter describes the notifications and logs that are generated by the SBA ProConnect. These notifications can be used for debugging and FAE support.

9.1 Notifications

Notification messages are displayed in the Notifications List. The following notification message levels can be displayed:

- Info Messages
- Warning Messages
- Error Messages

These messages can be filtered according to the following message types:

- System
- SBA
- Task

For each message level, you can display up to the last 100 journal history records.

➤ **To view notifications:**

1. Select **Monitor > Notifications**.

A list of the current notifications is displayed:

- From the 'Show' drop-down list box, select the number of notification records that you wish to display.
- Use the Show entries **Previous** and **Next** buttons to page between notifications and use the Search field to search for a specific notification.

Figure 9-1: Notifications

The screenshot shows the 'Notification List' interface in the SBA ProConnect application. The interface includes a navigation menu on the left with 'MONITOR' selected. The main area displays a table of notifications with the following columns: Date, Type, Level, Message, and a 'Remove' button. The table contains 10 entries, including SBA and Task messages with various status indicators like 'Warning', 'Info', 'Complete', 'Initial', 'Download', and 'Installing'. A search field and a 'Clear All' button are also visible.

Date	Type	Level	Message	Remove
16/11/2015 07:37	Sba	Warning	Agent timeout task failed	Remove
16/11/2015 07:37	Task	Info	Task download completed, waiting to admin to proceed	Remove
16/11/2015 07:37	Task	Info	Task finish with Partial result	Remove
16/11/2015 06:47	Sba	Info	Complete	Remove
16/11/2015 06:47	Task	Info	Task finish with Success result	Remove
16/11/2015 06:46	Task	Info	Task started to run	Remove
16/11/2015 06:46	Sba	Info	Initial	Remove
16/11/2015 06:46	Sba	Info	Download	Remove
16/11/2015 06:46	Sba	Info	Installing	Remove
16/11/2015 06:46	Task	Info	Task download completed, waiting to admin to proceed	Remove

The figure above shows examples of SBA and Task Info messages. For example, the SBA-related messages refer to the progress stages of the installations. The task messages refer to the result of the task run.

2. From the 'Level' drop-down list, select the level of the notification that you wish to filter.
3. From the 'Type' drop-down list, select the type of the notification that you wish to filter.

4. Click the arrows adjacent to each column to change the sort order of the entries.
5. Use the Search field to search for specific text strings.
6. Use the **Previous** and **Next** buttons to navigate between pages of the report.
7. Click the **Remove** link adjacent to each entry to delete a notification from the list.
8. Click **Clear All** to clear all notifications in the list.

The figure below shows system notification messages indicating that the various installation files were successfully updated to the database.

Figure 9-2: System Notification

The screenshot shows the 'MONITOR' section of the SBA ProConnect interface. The 'Notification List' is displayed with the following data:

Date	Type	Level	Message	Remove
04/01/2016 13:13	System	Info	Install file "SbaProConnect\Demmy\Setup.exe" was successfully stored in the DB	Remove
04/01/2016 13:13	System	Info	All install files are updated in DB	Remove
04/01/2016 13:09	System	Info	Install file "LyncServerUpdate\Installer.exe" was successfully stored in the DB	Remove
04/01/2016 11:59	System	Info	Install file "LyncServerUpdate\Installer.exe" was successfully stored in the DB	Remove
04/01/2016 11:59	System	Info	All install files are updated in DB	Remove
22/12/2015 16:30	System	Info	Install file "SBA_M880_W15_2.0.9_AJDC_win" was successfully stored in the DB	Remove
22/12/2015 16:30	System	Info	All install files are updated in DB	Remove
22/12/2015 14:01	System	Info	Install file "SBA_M1K_W15_2.0.9_AJDC_win" was successfully stored in the DB	Remove
15/12/2015 15:04	System	Info	Install file "SBA_M880_W15_2.0.9_AJDC_win" was successfully stored in the DB	Remove
08/12/2015 13:52	System	Info	Install file "SbaProConnect\Demmy\Setup.exe" was successfully stored in the DB	Remove

Showing 1 to 10 of 33 entries. Navigation: Previous 1 2 3 4 Next

The figure below shows an example of a Warning Message, which indicates that an Agent timeout task has failed.

Figure 9-3: Warning Notification

The screenshot shows the 'MONITOR' section of the SBA ProConnect interface. The 'Notification List' is filtered to show 'Warning' level messages. The data is as follows:

Date	Type	Level	Message	Remove
04/01/2016 13:20	Sba	Warning	Failed Problem with burn tool MDS check sum	Remove
31/12/2015 13:53	Sba	Warning	Agent timeout task failed	Remove
30/12/2015 13:39	Sba	Warning	Agent timeout task failed	Remove
24/12/2015 08:47	Sba	Warning	Agent timeout task failed	Remove
13/12/2015 11:51	Sba	Warning	Failed Problem with burn tool MDS check sum	Remove
13/12/2015 10:44	Sba	Warning	Failed Problem with burn tool MDS check sum	Remove
13/12/2015 09:24	Sba	Warning	Failed Problem with burn tool MDS check sum	Remove
13/12/2015 06:40	Sba	Warning	Failed Problem with burn tool MDS check sum	Remove
10/12/2015 11:17	Sba	Warning	Failed Problem with burn tool MDS check sum	Remove
10/12/2015 11:08	Sba	Warning	Failed Problem with burn tool MDS check sum	Remove

Showing 1 to 10 of 37 entries. Navigation: Previous 1 2 3 4 Next

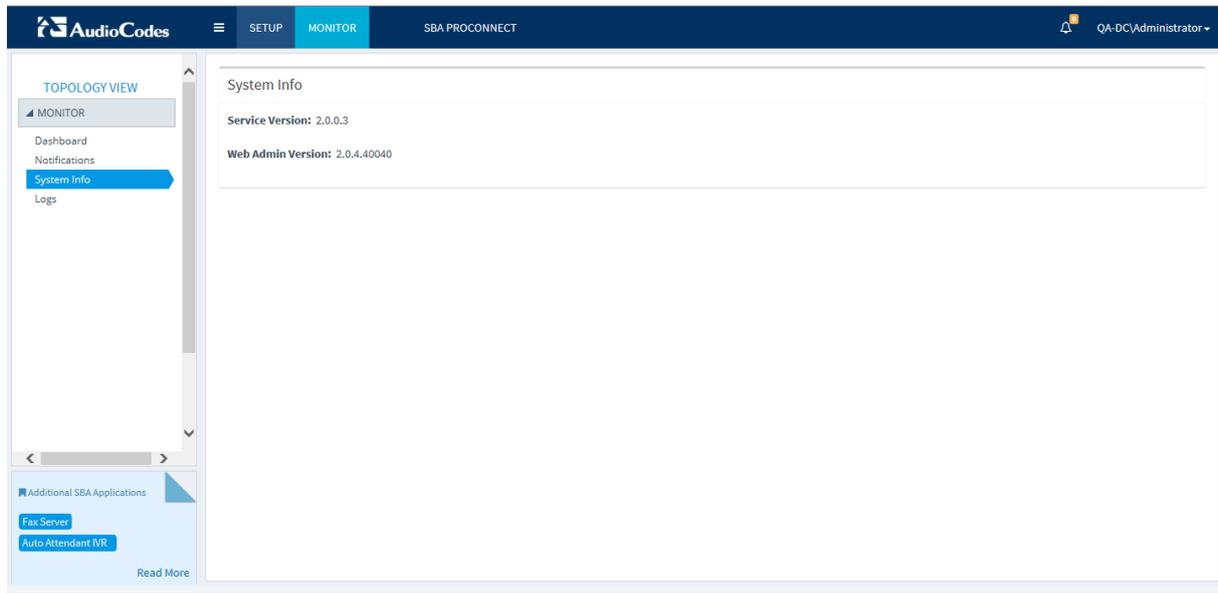
9.2 System Info

The System Info screen displays the Service Version and the Web Admin Version.

- **To view system info:**
- Select **Monitor > System Info**.

The System Info is displayed:

Figure 9-4: System Info



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10 Server Configuration

This chapter describes the server configuration

10.1 Change Date Format

By default, the date format used by the SBA ProConnect server is “European”. To change the date format to “US-American” format, perform the procedure described below.

➤ **To change to US-American date format:**

1. Using a text editor, open the file C:\ProgramFiles\AudioCodes\ProConnect Service\Config\System.config.
2. Add **the** parameters as shown **bolded** in the example below:

```
<System toolsUrl=" sbaPro01.corp.com/ProConnect/Tools/"
  installUrl="sbaPro01.corp.com/ProConnect/InstallFiles/"
  notificationUrl=" sbaPro01.corp.com/webadmin/api/"
  burnToolMD5Sum="df177127aa4e075e5483131d9fbcd0ae"
phpDateFormat="m-d-Y H:i" jsDateFormat="MM-DD-YYYY hh:mm"
pickerDateFormat="mm-dd-yyyy hh:ii" />
```

3. Save and close the file.
4. Restart “SBA ProConnect” Service.

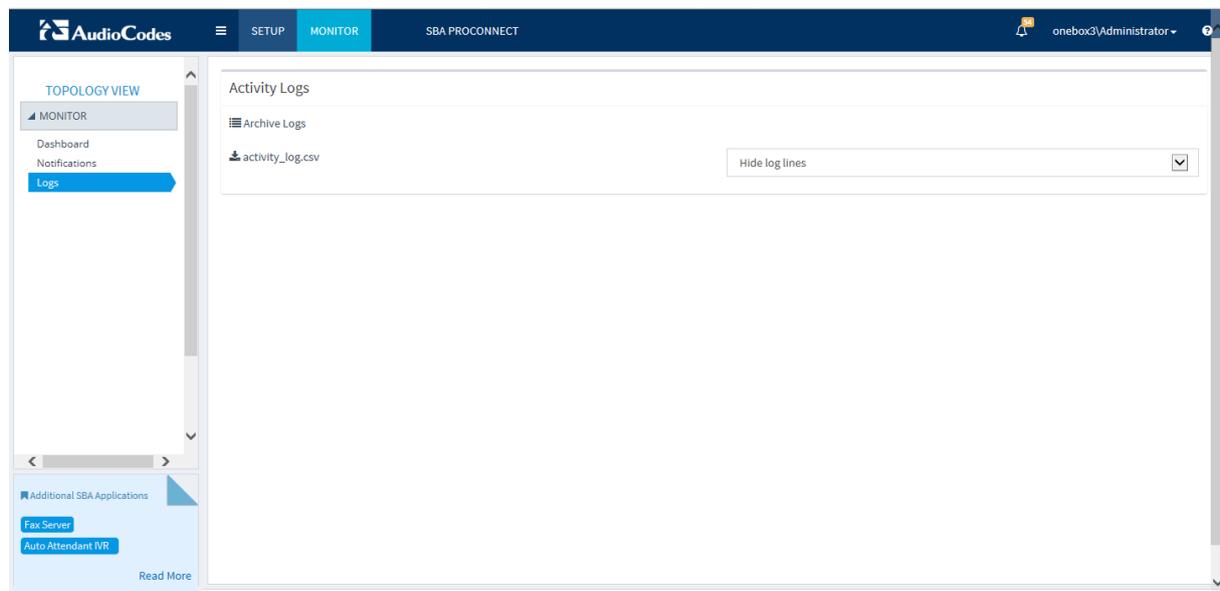
10.2 Logs

All actions performed in the SBA ProConnect are recorded in Activity and Service logs. A daily activity log is saved in the csv format. You can download these files to your PC.

➤ **To view activity logs:**

1. Select **Monitor** > **Logs**, and click the **Activity** link. The Activity Logs screen is displayed:

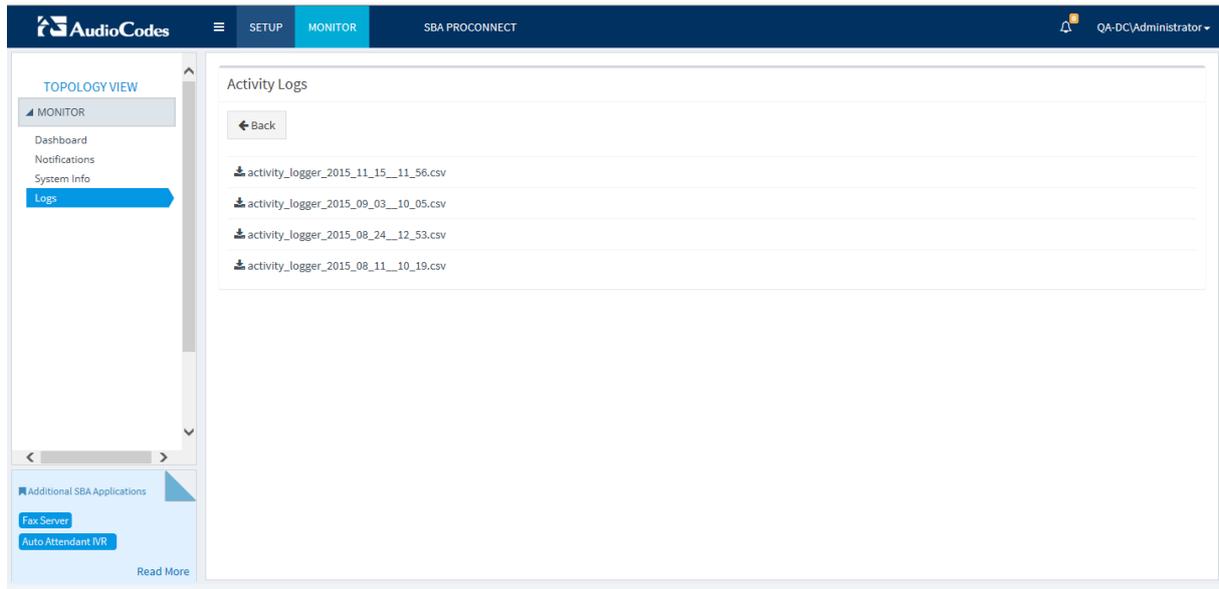
Figure 10-1: Activity Logs



The most recent activity log file is displayed.

2. Click the **Archive Logs** link to view a list of archived csv log files.

Figure 10-2: Activity Log Files



- From the Log Lines drop-down list, select the desired number of last log lines to view. The log lines display the file properties summary for each saved log file. You can view up to the last 100 log lines.

Figure 10-3: Activity Log-Show Log Lines

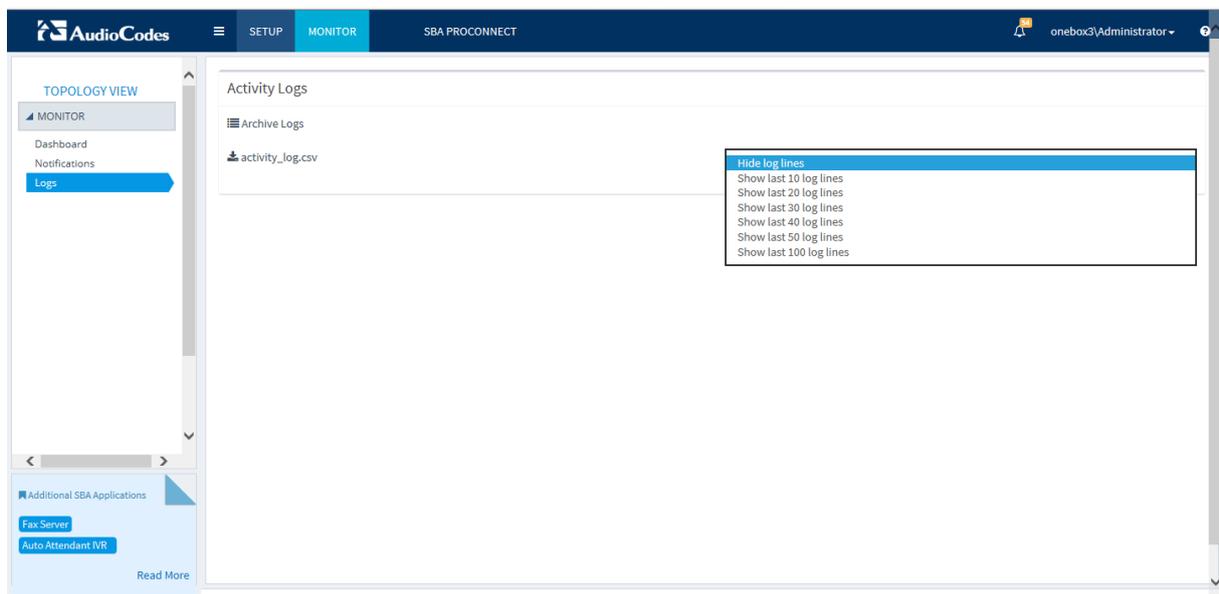
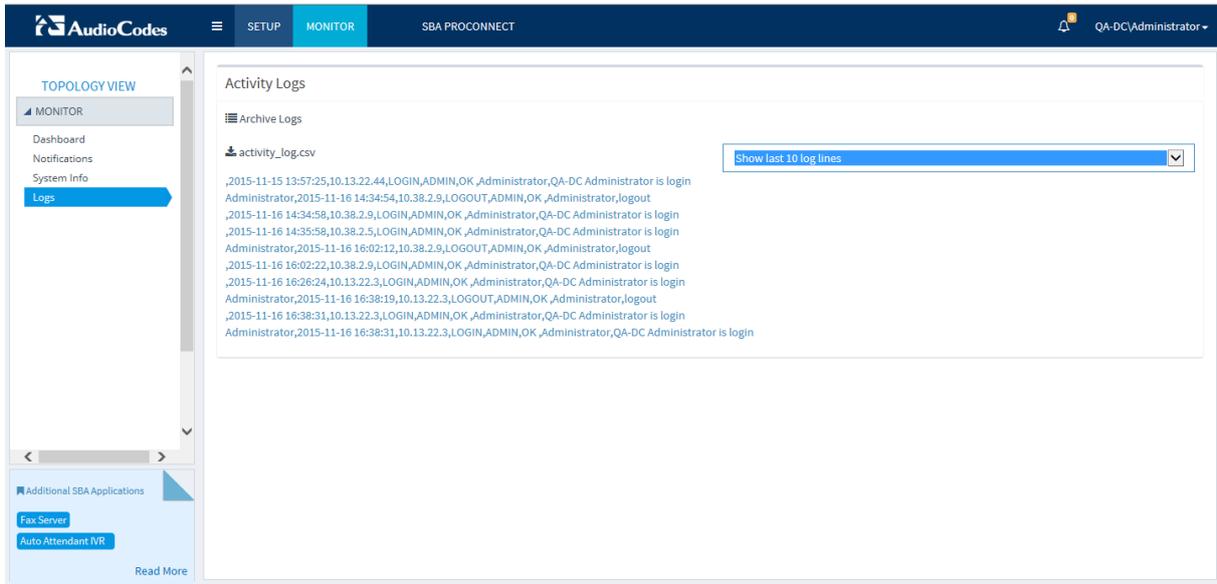


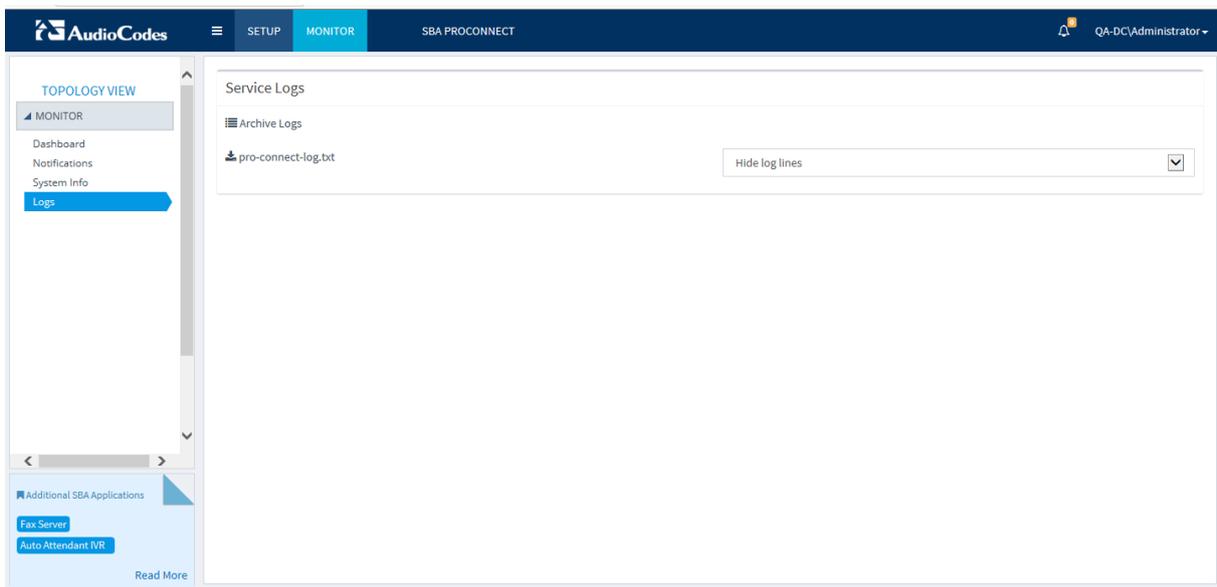
Figure 10-4: Log Lines



➤ **To view service logs:**

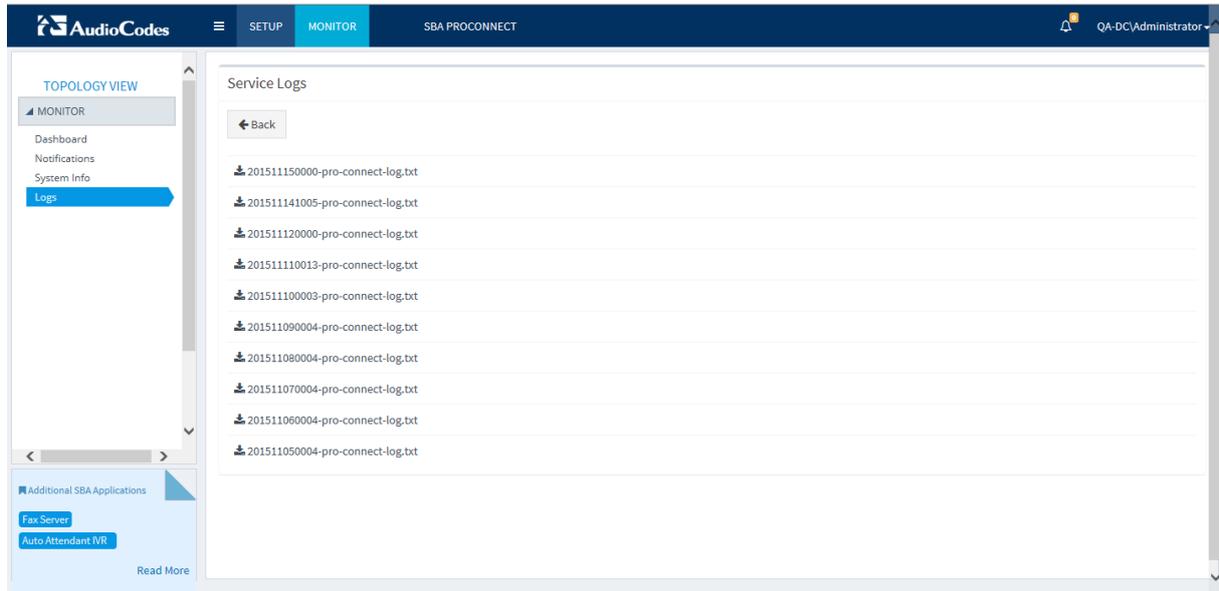
1. Select **Monitor** > **Logs**, and click the **Service** link. The Service Logs screen is displayed:

Figure 10-5: Service Logs



The most recent service log file is displayed. Click the **Archive Logs** link to view a list of archived csv log files:

Figure 10-6: Service Logs Archive



2. From the Log Lines drop-down list, select the desired number of last log lines to view.

10.3 Clear IIS SERVER header in HTTP Response

The HTTP Response header unnecessarily discloses version information regarding the server, middleware components and/or application platform framework. For example, when the webserver advertises its server and backend versions in response headers. Due to this, version disclosures provide an opportunity for an attacker to tailor attacks based on known attack vectors.

Figure 10-7: Server Version Information

```

Response headers 10 Request headers 4 Redirects 0 Timings
cache-control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0
pragma: no-cache
content-type: text/html; charset=UTF-8
expires: Thu, 19 Nov 1981 08:52:00 GMT
location: login.php
server: Microsoft-IIS/8.5
x-powered-by: PHP/5.6.0
set-cookie: mobility_sec_session_id=1butui9spnb34o2gqejn172qu2; path=/; HttpOnly
date: Thu, 02 Jan 2020 09:01:05 GMT
content-length: 133

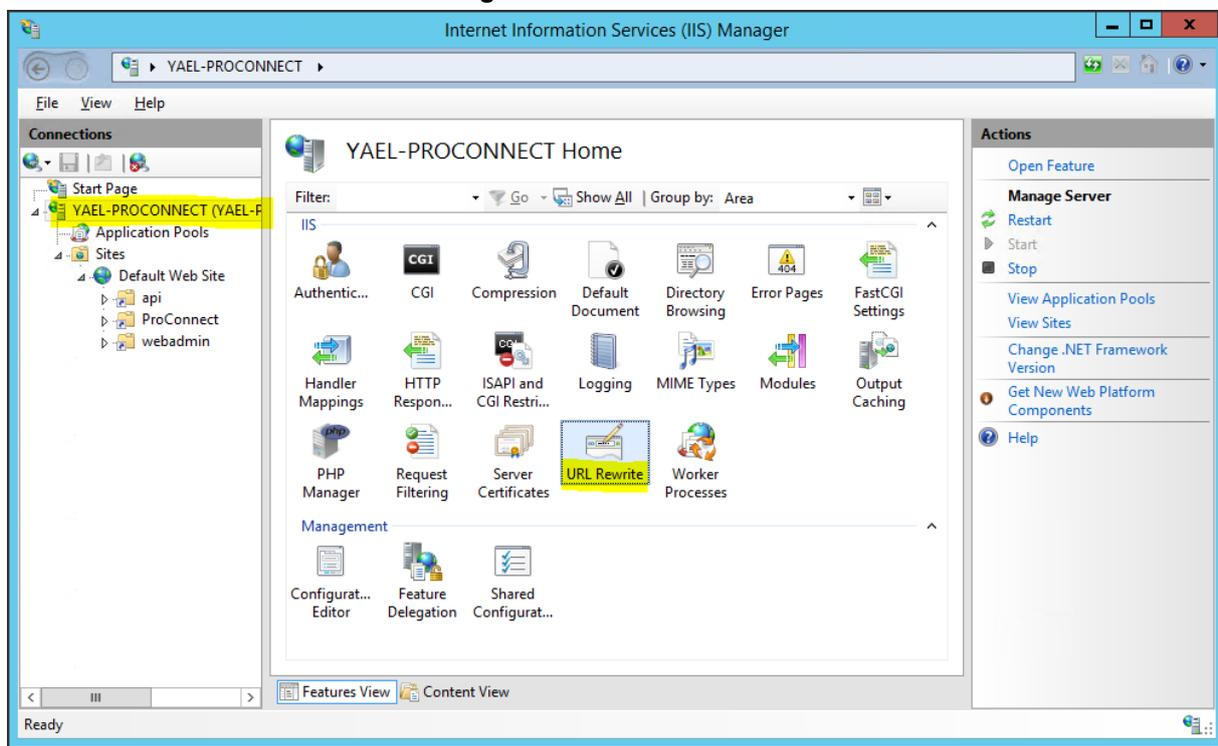
```

To clear the SERVER header value, a URL Rewrite rule must be added.

➤ **To add a URL Rewrite rule:**

1. Open the IIS Manager and select **URL Rewrite** from the Server level.

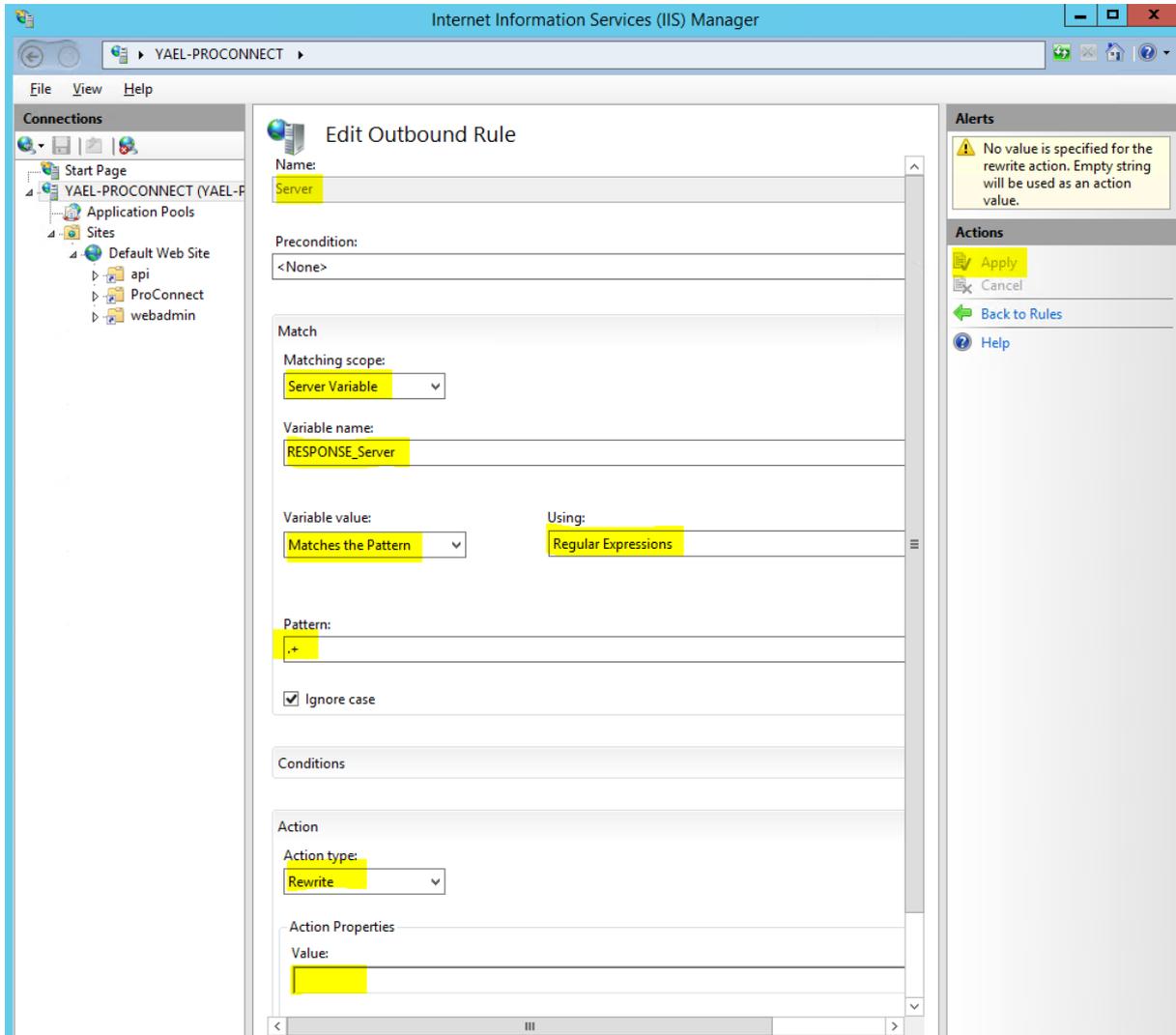
Figure 10-8: URL Rewrite



2. Select **Add Rule** option – and select Outbound rule (Blank rule).
3. Fill the rule with the following values:
 - Name: Server
 - Precondition:
 - Match scope: Server Variable
 - Variable name: RESPONSE_Server
 - Variable value: Matches the Pattern

- Using: Regular Expression
- Pattern: .+
- Action type: Rewrite
- Value:

Figure 10-9: Edit Outbound Rule



4. Select **Apply**.
5. To test the new configuration, clear the cache on the client.

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