

CASE NOTEBOOK REMOTE ACCESS SERVER (RAS)

USER GUIDE

Version 5.7
January 2023

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Contents

1	INTRODUCTION	1
	Licensing.....	1
	System Requirements.....	1
	Supported Operating Systems.....	1
	Automatic Detection and Configuration	1
2	INSTALLING IIS.....	2
	Installing IIS on Windows Server 2019 or 2022 Editions	2
	Installing IIS on Windows Server 2016 Editions.....	4
	Installing IIS on Windows Server 2012 Editions	7
3	CREATING A RAS WEBSITE IN IIS.....	11
	Creating a Website on Windows Server 2012, 2016, 2019, or 2022	11
4	ADDING A RAS REPOSITORY	13
5	INSTALLING RAS.....	14
	Upgrades and Previous Versions	14
	Configuring RAS.....	14
	Installing RAS.....	14
	Installing Multiple Instances of RAS.....	16
6	TROUBLESHOOTING	17
	Configuring IIS in 32-bit Mode	17
	Enabling the ASP.NET 4.0 Web Service Extension	17
	Editing the web.config File.....	17
	Additional Configuration on Domain Controllers.....	18
	Configuring Windows Server 2012.....	18

1 Introduction

This guide provides information about installing the Case Notebook Remote Access Server (RAS). Case Notebook is an electronic organizer and deposition tool for saving and working with important documents, research, and transcripts. Case Notebook is installed on each user's computer. There are three license types for Case Notebook: Case Notebook, Case Notebook (Research), and Case Notebook (Transcripts). Your license type does not affect the installation of the products or their use with other applications in the suite. This document refers to all these license types as Case Notebook. RAS provides remote access to your Case Notebook cases via the Internet and replaces all LiveNote Web products. When you finish working on a case in RAS, your changes are saved to the server. After you close a remote case, you must log on to another remote session to access the case again.

When you access a case remotely, most of the features in Case Notebook are available. However, RAS does not allow a user to copy a case, administer remote cases using Case Notebook Administration, or connect to LiveNote Realtime.

Note: To connect to Realtime in a case you access through RAS, you must replicate the case offline.

Licensing

RAS requires a separate license. To purchase a license, contact your Thomson Reuters sales representative. For information on allocating seats for RAS, access the Case Notebook Administration help via the **Help** menu in the Case Notebook Administration application or consult the **Case Notebook Administration User Guide** at <https://store.legal.thomsonreuters.com/law-products/c/Case-Notebook-User-Guide/p/990001143>.

System Requirements

You will need Case Notebook Repository version 2 or later to use RAS. When connecting via RAS, the version of RAS should match the installed versions of Case Notebook. Note that cases that need to be upgraded may not be accessible through RAS and that you cannot perform major case upgrades when connecting via RAS.

SUPPORTED OPERATING SYSTEMS

- Windows Server 2012 and Windows Server 2012 R2 (32-bit, 64-bit)
- Windows Server 2016 (32-bit, 64-bit)
- Windows Server 2019 (64-bit)
- Windows Server 2022 (64-bit)

Automatic Detection and Configuration

RAS verifies and, if necessary, sets network privileges on the RAS installation folders to the following:

- | | |
|--------------------------------|-------------------------------|
| • traverse folder/execute file | • write attributes |
| • list folder/read data | • write extended attributes |
| • read attributes | • delete sub-folders and file |
| • read extended attributes | • delete |
| • create files/write data | • read permissions |
| • create folders/append data | |

Note: To access case files on the repository server, you must set required permissions manually for all case folders and sub-folders.

If you are installing RAS on Windows Server 12, the permissions are not configured automatically. Refer to "Additional Configuration on Domain Controllers" on page 18.

For security purposes, it is recommended that you install RAS on a separate machine from Case Notebook Repository. Additionally, you should set up RAS to use Secure Sockets Layer (SSL) cryptographic protocol.

2 Installing IIS

Before you install RAS, you must first install Internet Information Services (IIS) on the server where RAS will be installed. If you do not plan to use the default IIS website, create a new website in IIS for RAS. For more information, see “Creating a RAS Website in IIS” on page 11.

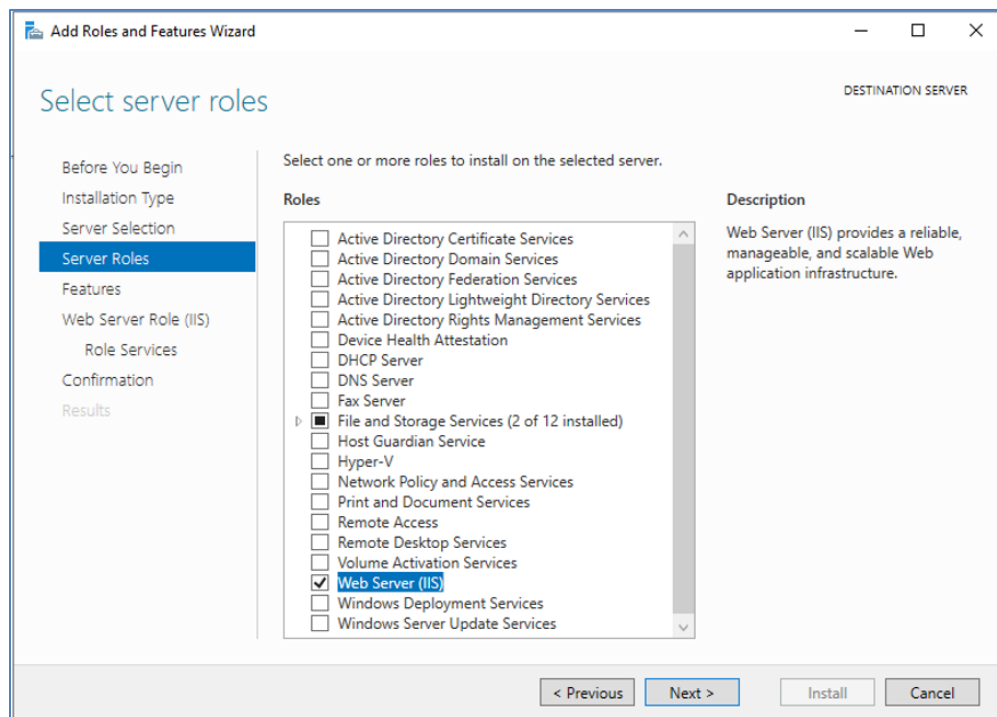
You can install IIS on Windows Server 2012 (including 2012 R2), Windows Server 2016, Windows Server 2019, and Windows Server 2022.

Note: It is recommended that you have your Windows Server installation media available as it may be required to complete the installation of IIS.

Installing IIS on Windows Server 2019 or 2022 Editions

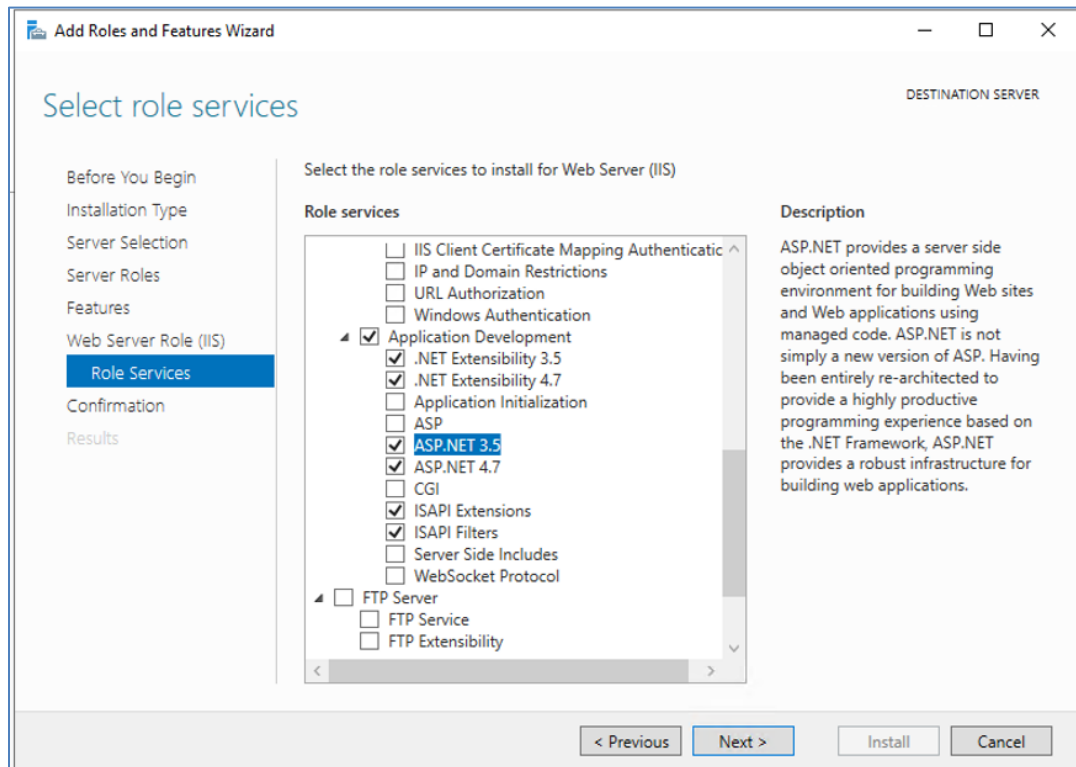
For Windows Server 2019 and 2022 editions, RAS requires ASP.NET and IIS 6 Management Compatibility to recognize your website.

1. Click the **Start** menu and click **Windows Administrative Tools**.
2. Double-click **Server Manager**.
3. Click **Add Roles and Features**.
4. Verify the tasks provided and click **Next**.
5. Select the **Role-based or feature-based installation** option and click **Next**.
6. Select the **Select a server from the server pool** option, select a server, and click **Next**.
7. Select the **Web Server (IIS)** check box. If you are prompted to add other features, click **Add Features**.

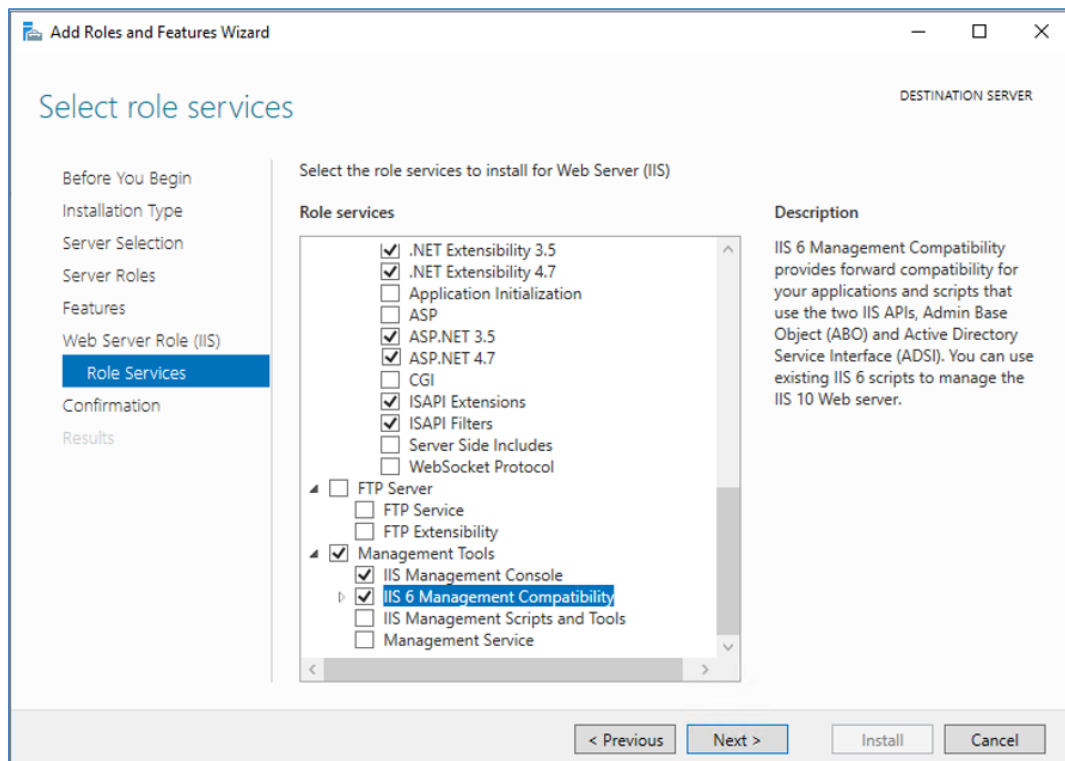


8. Click **Next**.
9. Click **Next** and click **Next** again. The Role Services selection is displayed.

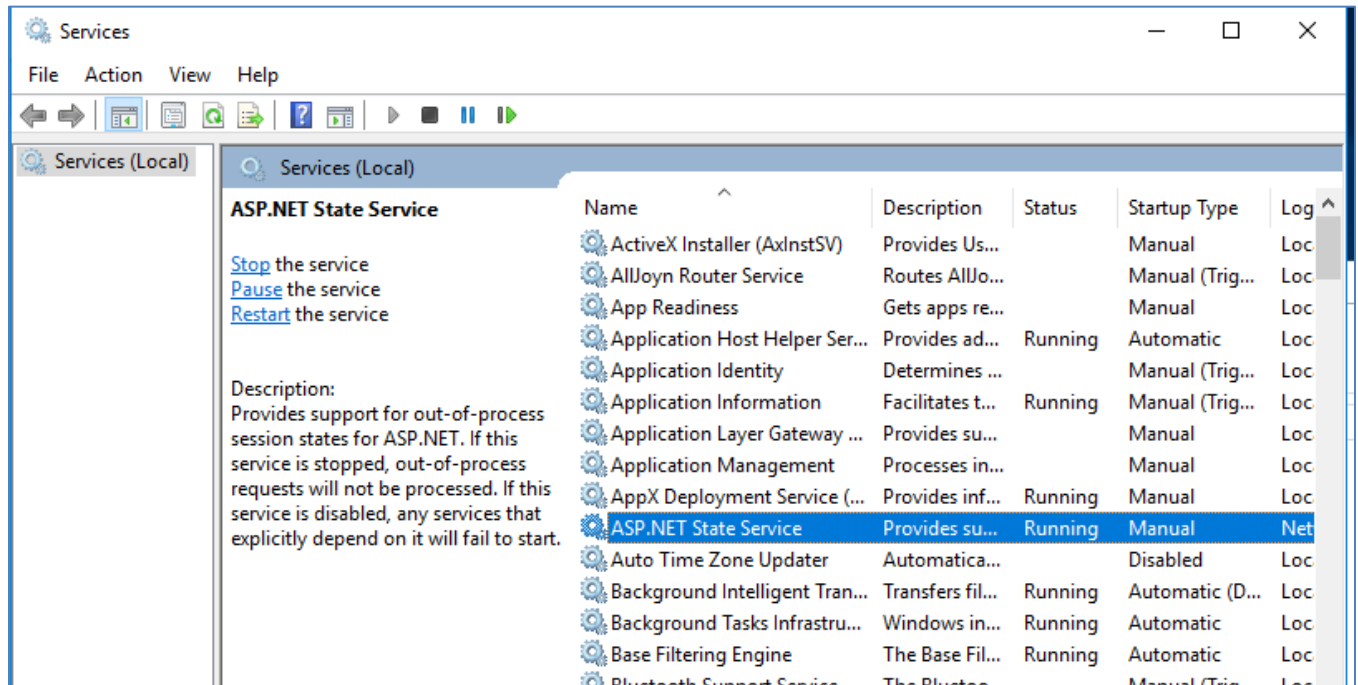
10. Expand the **Application Development** option and select the appropriate **ASP.NET** option. Ensure you select ASP.NET 3.5 and ASP.NET 4.7 for the IIS Web Service Extension needed for RAS. If you are prompted to add other features, click **Add Features**.



11. Scroll down and select the **IIS 6 Management Compatibility** check box. If you are prompted to add other features, click **Add Features**.



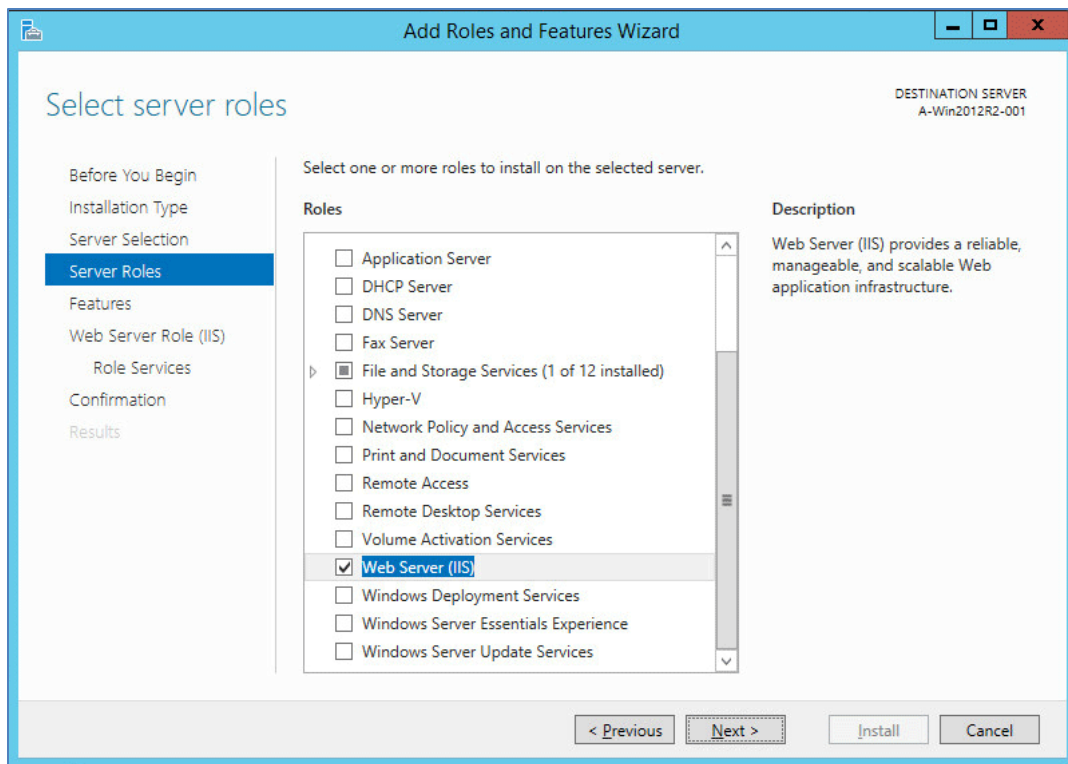
12. Click **Next**, confirm installation selections, and click Install. If you are prompted for original installation media, please provide it as directed and follow the on-screen instructions.
13. When the installation is finished, click **Close**, and then close the **Server Manager** dialog.
14. After the Web Server (IIS) installation is complete, go to **Control Panel/All Control Panel Items/Administrative Tools/Services** and start **ASP.NET State Service**.



Installing IIS on Windows Server 2016 Editions

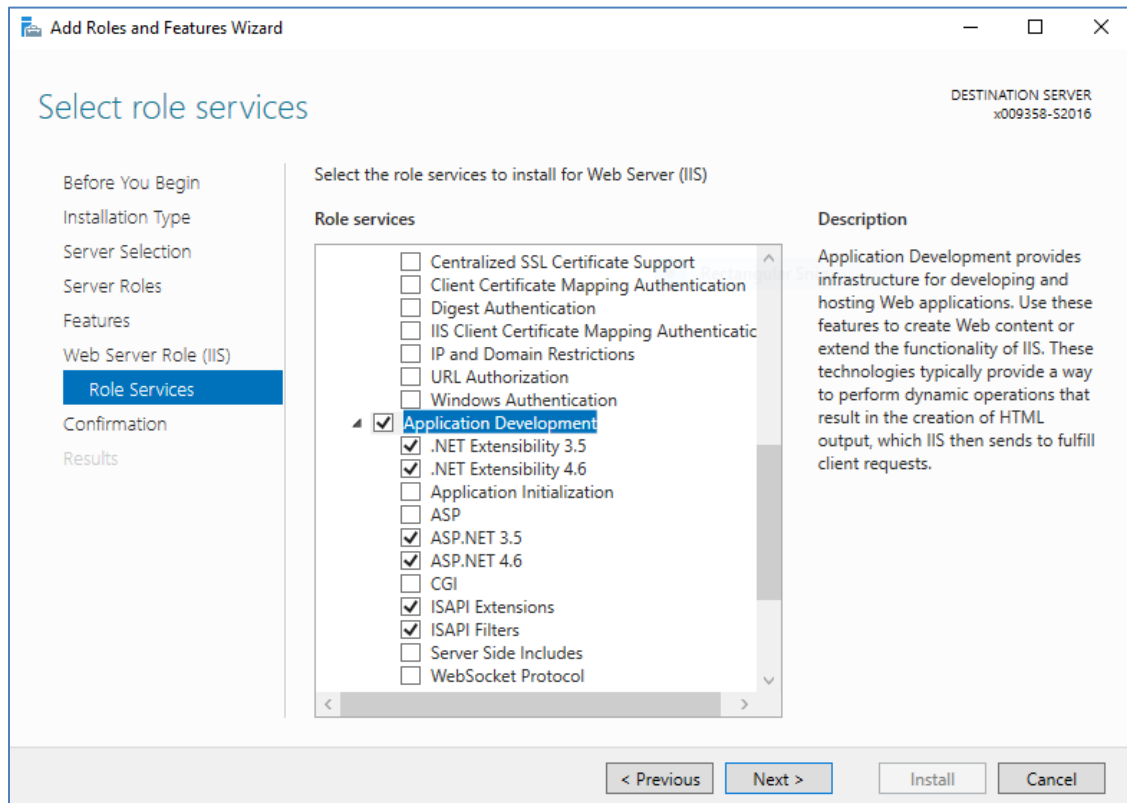
For Windows Server 2016 editions, RAS requires ASP.NET and IIS 6 Management Compatibility to recognize your website.

1. Click the **Start** menu and click **Windows Administrative Tools**.
2. Double-click **Server Manager**.
3. Click **Add Roles and Features**.
4. Verify the tasks provided and click **Next**.
5. Select the **Role-based or feature-based installation** option and click **Next**.
6. Select the **Select a server from the server pool** option, select a server, and click **Next**.
7. Select the **Web Server (IIS)** check box. If you are prompted to add other features, click **Add Features**.

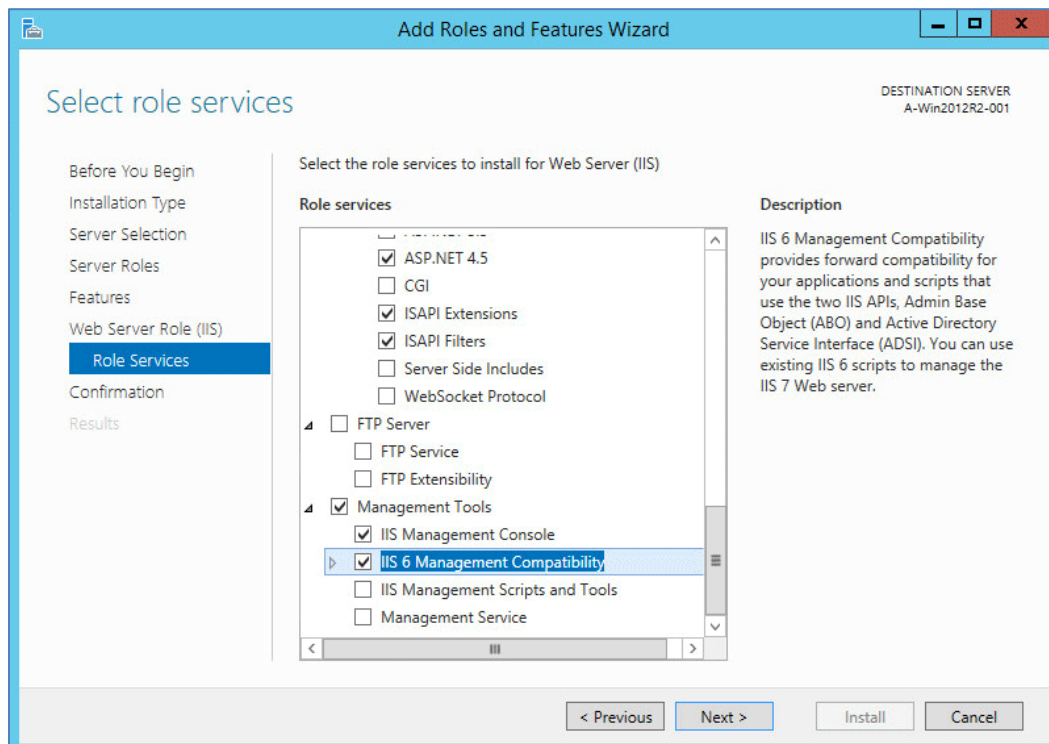


8. Click **Next**.
9. Click **Next** and click **Next** again. The Role Services selection is displayed.

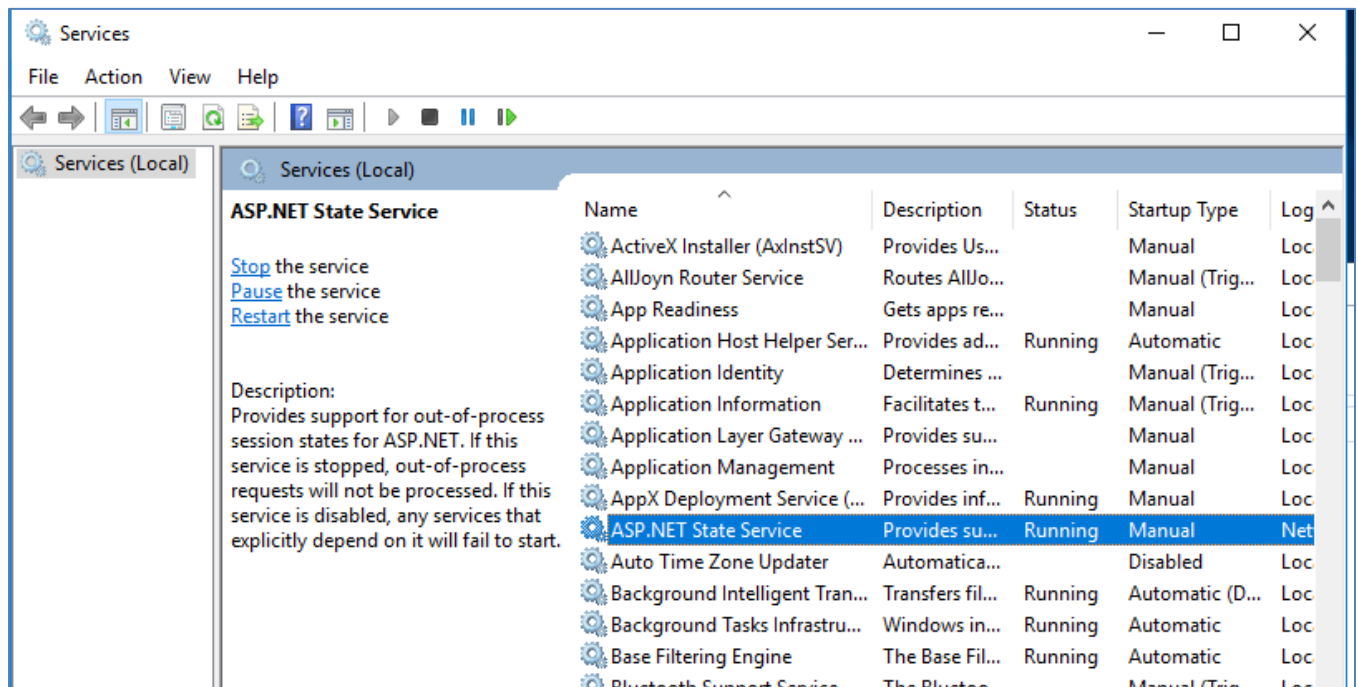
10. Expand the **Application Development** option and select the appropriate **ASP.NET** option. Ensure you select ASP.NET 3.5 and ASP.NET 4.6 for the IIS Web Service Extension needed for RAS. If you are prompted to add other features, click **Add Features**.



11. Scroll down and select the **IIS 6 Management Compatibility** check box. If you are prompted to add other features, click **Add Features**.



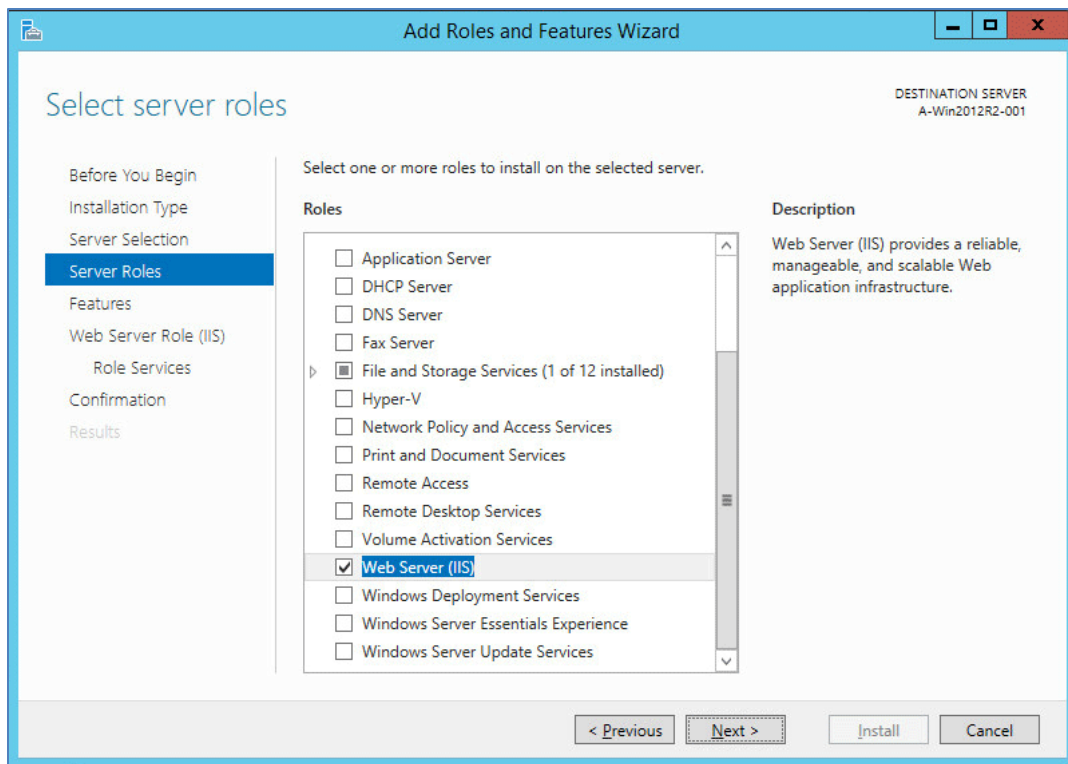
12. Click **Next**, confirm installation selections, and click Install. If you are prompted for original installation media, please provide it as directed and follow the on-screen instructions.
13. When the installation is finished, click **Close**, and then close the **Server Manager** dialog.
14. After the Web Server (IIS) installation is complete, go to **Control Panel/All Control Panel Items/Administrative Tools/Services** and start **ASP.NET State Service**.



Installing IIS on Windows Server 2012 Editions

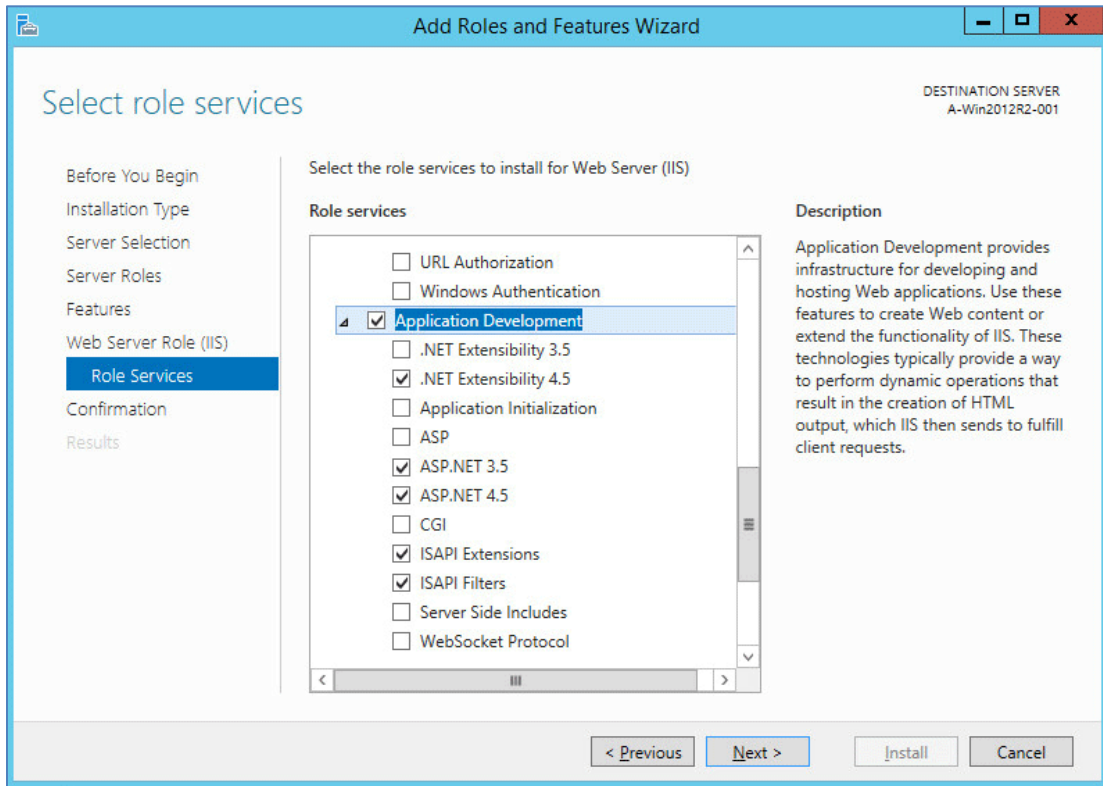
For Windows Server 2012 editions, RAS requires ASP.NET and IIS 6 Management Compatibility to recognize your website.

1. Click the **Start** menu and click **Administrative Tools**.
2. Double-click **Server Manager**.
3. Click **Add Roles and Features**.
4. Verify the tasks provided and click **Next**.
5. Select the **Role-based or feature-based installation** option and click **Next**.
6. Select the **Select a server from the server pool** option, select a server, and click **Next**.
7. Select the **Web Server (IIS)** check box. If you are prompted to add other features, click **Add Features**.

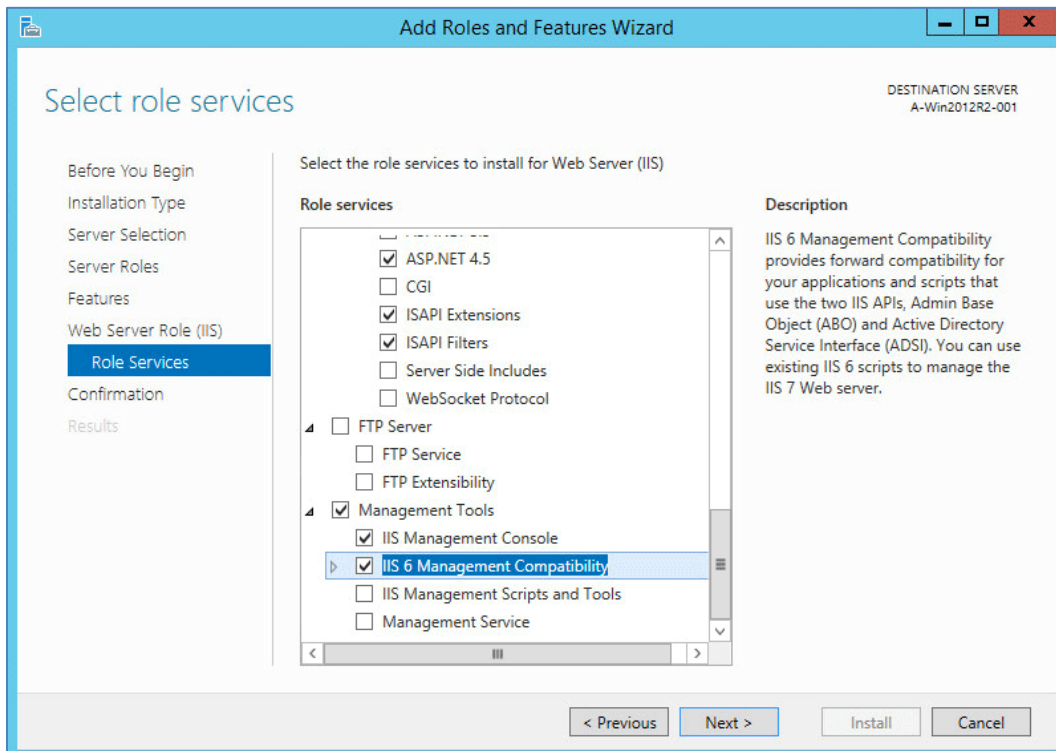


8. Click **Next**.
9. Click **Next** and click **Next** again. The Role Services selection is displayed.

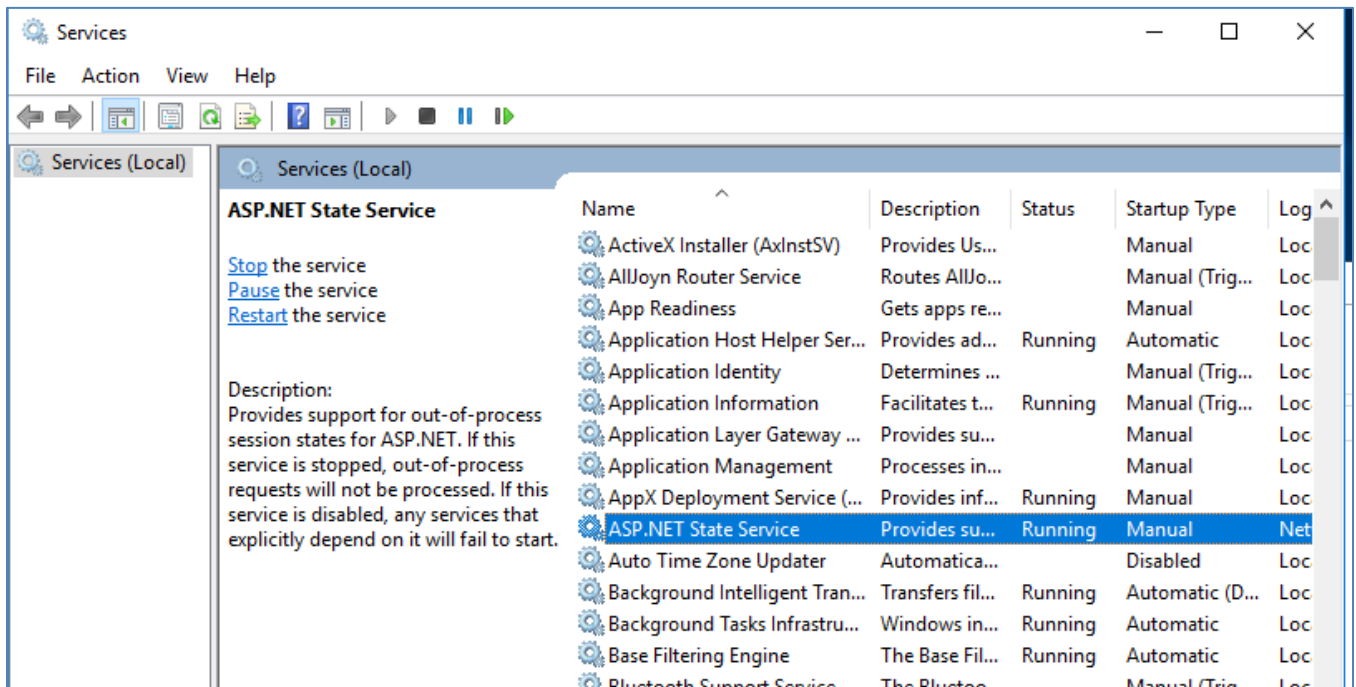
- Expand the **Application Development** option and select the appropriate **ASP.NET** option. Ensure you select ASP.NET 3.5 and ASP.NET 4.5 for the IIS Web Service Extension needed for RAS. If you are prompted to add other features, click **Add Features**.



- Scroll down and select the **IIS 6 Management Compatibility** check box. If you are prompted to add other features, click **Add Features**.



12. Click **Next**, confirm installation selections, and click Install. If you are prompted for original installation media, please provide it as directed and follow the on-screen instructions.
13. When the installation is finished, click **Close**, and then close the **Server Manager** dialog.
14. After the Web Server (IIS) installation is complete, go to **Control Panel/All Control Panel Items/Administrative Tools/Services** and start **ASP.NET State Service**.

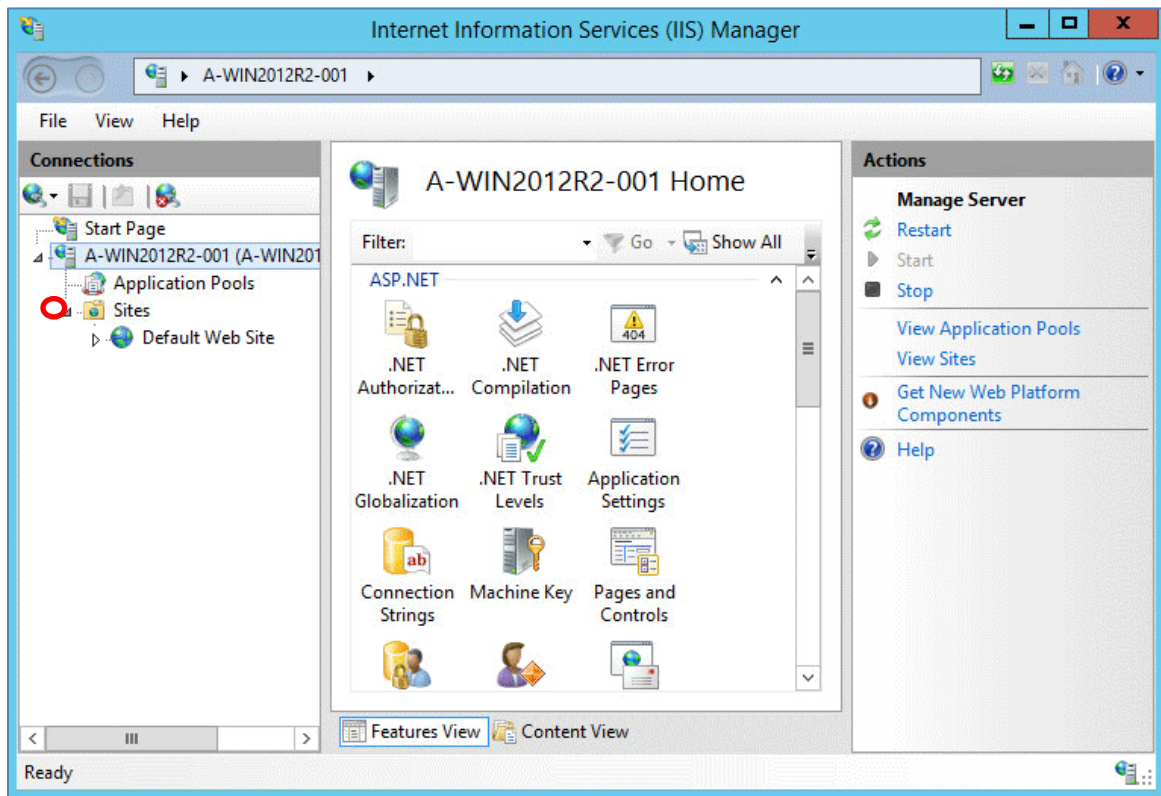


3 Creating a RAS Website in IIS

You can use the default website in IIS or create a new one for RAS.

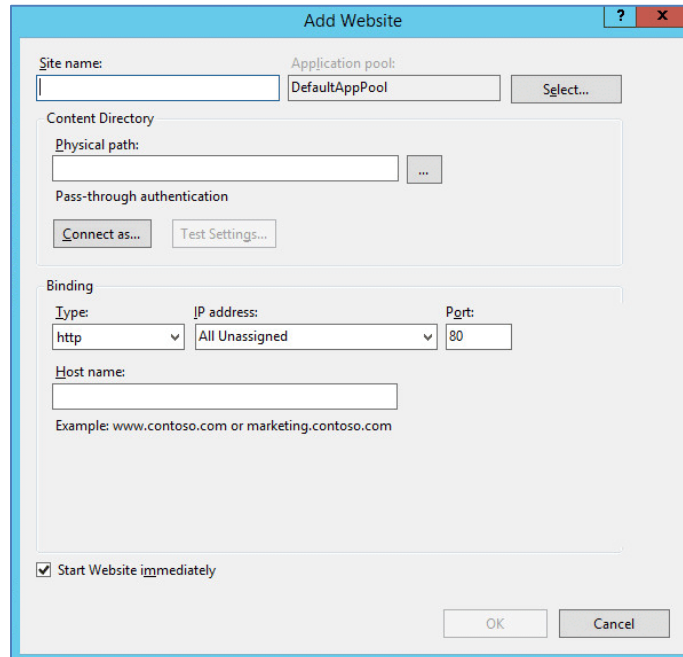
Creating a Website on Windows Server 2012, 2016, 2019, or 2022

1. Click the **Start** menu and click **Administrative Tools**.
2. Double-click **Internet Information Services (IIS) Manager**.
3. Click the arrow next to the server in the left frame to expand the list. The Sites folder is listed under the server.

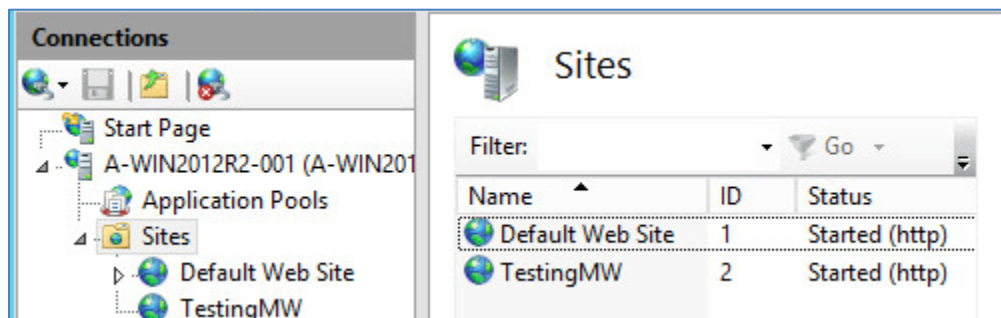


4. Right-click the **Sites** folder and select **Add Web Site**.
5. Type a name for the website, such as the name of your company, in the **Site name** field.
6. Type or browse for a location (physical path) for the website.

- Under **Binding**, type or select an IP address from the field provided; type a port number in the field provided, then click **OK**.



- The Internet Information Services (IIS) Manager window is redisplayed. Click on the **Sites** folder to display the Sites in the center pane. To verify that the site is running, make certain that "Started" is displayed in the Status column, then close the window.



4 Adding a RAS Repository

Repositories are areas on a server or computer that store case-related information (e.g. usernames and passwords) created in Case Notebook Administration. The repository does not store files associated with a case. To access cases with RAS, you must specify a Case Notebook Repository for the RAS connection. This Repository Server is referenced during the RAS installation.

To add a RAS repository, complete these steps:

1. From Case Notebook, click the **Tools** menu, point to **Advanced**, and select **Repositories**.
2. If you have never connected to a repository, browse for or type the server name or IP address for the repository location. For example, `https://server/wlnras` or `http://server/wlnras`.
 - a. Click **Locate** to select from a list of available repositories.
 - b. If Case Notebook does not display your repository, click **Add** and browse for or type the server name or IP address for the repository location.
 - c. Upon access to a repository, enter a username and password, if prompted. You can also select to save or change the password.
3. Click **OK**. Case Notebook attempts to add the RAS repository to the Repositories list.

5 Installing RAS

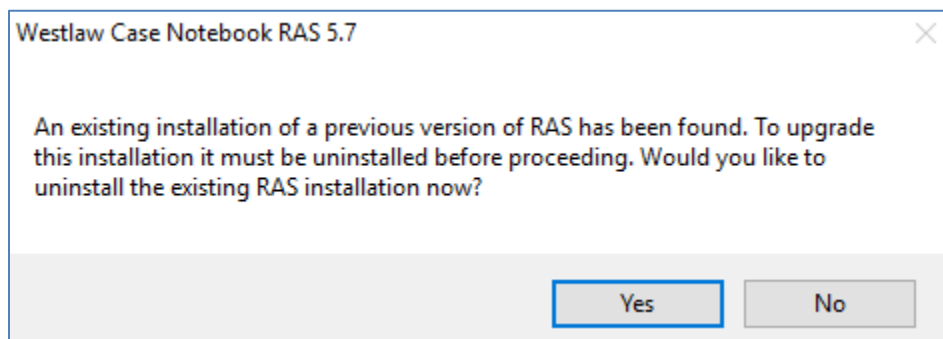
Each instance of RAS can connect to only one repository. However, you can have up to 10 instances of RAS on a server. Simply install another instance of RAS to connect to a different repository.

When you install RAS, you will need to provide the following:

- A license code for RAS.
- A website that will host the RAS web application.
- A unique web application name (virtual directory) for each instance of RAS that is to be installed on a single server.
- The name of a server hosting an existing repository and the name of the SQL instance where the repository is installed.
- The domain user (with minimum network service privileges) under which RAS will run.
- Privileges for the repositories or cases.

Upgrades and Previous Versions

If you install RAS on a server where a single instance of a previous version of RAS is already installed, then you will be asked if you want to remove that instance and install the current version. If you choose to leave the existing instance, a new instance of the current version of RAS will be installed.



Note: The installer can only upgrade a single instance of a previous RAS version. If multiple instances of a previous version are installed, the installer can only create a new instance. In such a case, you can uninstall the existing instances manually using the Windows Control Panel.

Configuring RAS

It is recommended that you accept the default configuration of RAS during installation. If you need to configure the repository to which you want to connect, please contact Customer Technical Support at 1-800-290-9378 for further information. You can also visit the Case Notebook customer support page at <https://legal.thomsonreuters.com/en/support/case-notebook>.

Installing RAS

1. Click the link for Case Notebook RAS in the email sent to you from Thomson Reuters.
2. Complete the registration form and click **Proceed to Download** at the bottom of the page.
3. Click **Proceed to Download** to save the RAS installer to your computer, then move the file to the server where you want to install RAS.
4. On the target server, double-click the downloaded file to launch the installer.

Note: A message indicating that you need to install Microsoft Foundation Class Library (MFC) may be displayed. This application is required for RAS. Click **Install** to proceed.

5. Click **Next**.

Note: If you receive an error message that the ASP.NET Web Service Extension is not installed, refer to “Installing IIS” on page 2. If you receive an error message that the ASP.NET 4.0 Web Service Extension is prohibited, refer to “Enabling the ASP.NET 4.0 Web Service Extension” on page 17.

6. The License Agreement is displayed. You must scroll to the bottom of the license agreement as you read it, click **I agree to the terms in the license agreement**, then click **Next**.
7. Type your information and serial number in the fields provided, then click **Next**.
8. Type the website name, web application name, and repository server name in the appropriate fields.
 - For the website, select the default site or one that you created for RAS.
 - You can use the default web application name or a new web application name (without spaces).

Note: The web application name must be unique to the server. If an existing application or instance of RAS is using the same name, the installer will display an error when you continue.

- If the repository is using the SQL instance created by the Case Notebook Repository installer, you can specify only the server name. If you are using an existing SQL instance, you must specify the server name and SQL instance as follows: <SERVER>\<INSTANCE>

In some scenarios you may wish to specify the port number for the repository server name. When doing so, specify as follows: <SERVER>\<INSTANCE>,<PORTNUMBER>

Note: If you are using the default SQL instance, the server name and instance must be specified as <SERVER>\MSSQLSERVER.

9. If you do not want the installer to verify that the specified repository exists, select the **Do not validate the Repository Server name** check box, and then click **Next**.
10. To change the default installation folder, click **Change** then click **Next**.

Note: If you are on a domain controller, you must follow additional instructions. Refer to “Additional Configuration on Domain Controllers” on page 18.

11. Type the username and password used to access Case Notebook Repository in the fields provided

Note: For security purposes, do not specify a username and password that allows access to the computer where you install RAS. It is recommended that you create a separate service account for RAS.

12. Click **Next**.
13. Click **Install** to begin the installation.
14. Click **Finish**.

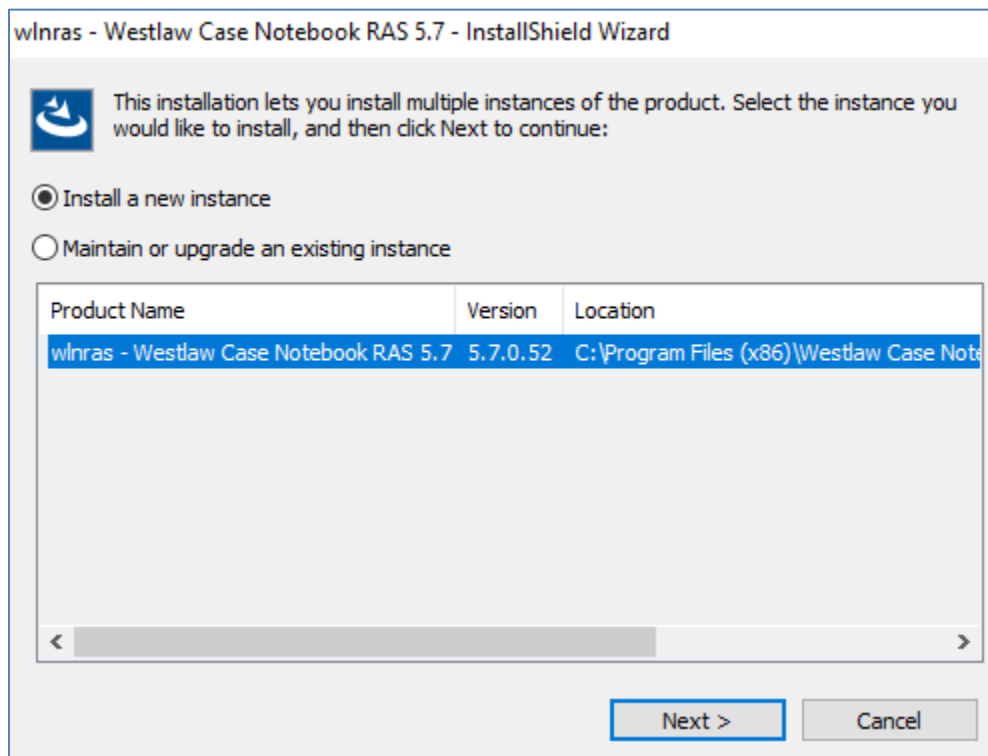
Installing Multiple Instances of RAS

You can install up to 10 instances of RAS on the same server. To install multiple instances of RAS, complete these steps:

1. On the server where an existing instance of RAS is installed, double-click the installer that was downloaded previously. Once the installation begins, the wizard provides you with the option to add a new RAS instance, or to maintain or upgrade an existing instance.
2. Select Install a new instance, then click **Next**.
3. Continue with the installation from step 5 under "Installing RAS" for each instance of RAS you want to install.

Note: If a single instance of a previous version of RAS is installed, then you will be asked if you want to remove that instance and install the current version. If you choose to leave the existing instance installed, a new instance of the current version of RAS will be installed.

The installer can only upgrade a single instance of a previous version of RAS. If multiple instances of a previous version are installed, the installer can only create a new instance. In such a case, you can uninstall the existing instances manually using the Windows Control Panel.



6 Troubleshooting

This chapter provides information about tasks that may be required according to your specific installation environment.

- Configuring IIS in 32-bit Mode
- Enabling the ASP.NET 4.0 Web Service Extension
- Editing the web.config File
- Additional Configuration on Domain Controllers

Configuring IIS in 32-bit Mode

If you have no other web applications on the server, you can configure IIS in 32-bit mode.

To configure IIS in 32-bit mode, complete these steps:

1. Click the **Start** menu and select **Run**.
2. Type `cmd` in the Open field, then click **OK**. A command window is displayed.
3. Navigate to the `%systemdrive%\inetpub\AdminScripts` directory.
4. Type the following command:
`cscript.exe adsutil.vbs set W3SVC/AppPools/Enable32BitAppOnWin64 "true"`
5. Click the **Close** button or type `exit` to close the command window.

Enabling the ASP.NET 4.0 Web Service Extension

RAS requires ASP.NET and the ASP.NET Web Service Extension. Follow the steps in the appropriate section below to manually

1. Click the **Start** menu, click **Administrative Tools**.
2. Click **Internet Information Services (IIS) Manager**. The Internet Information Services (IIS) Manager page is displayed.
3. Click the server name under **Connections**, then double-click the **ISAPI and CGI Restrictions** icon.
4. Click the 32-bit version of the **ASP.NET Web Extension Service** and click **Allow** under the **Actions** panel to the right.

Editing the web.config File

If you entered the server name incorrectly or changed the server location, you can edit the server name in the web.config file. It is recommended that you make a copy of web.config before proceeding.

1. Click the **Start** menu, click **Administrative Tools**.
2. Click **Internet Information Services (IIS) Manager**. The Internet Information Services (IIS) Manager window is displayed.
3. Under **Connections**, click the arrow next to the server name, and then click arrow next to **Sites**.
4. Click the arrow next to the website name where RAS was installed.
5. Click the name of the RAS web application (`wlnras`, by default).
6. Double-click the **Application Settings** icon in the panel to the right. A list of RAS files is displayed.
7. Double-click the **RASRepositoryLocation** file.
8. Type the correct server name in the **Value** field and click **OK**.

Additional Configuration on Domain Controllers

If you install RAS on a domain controller, you must perform the following additional steps:

- Create a domain user.
- Add the domain user to the domain controller group.
- Add the domain user as a RAS Application Pool Identity.
- Change permissions for the Reports folder, the Temp folder, and all case folders and sub-folders.

CONFIGURING WINDOWS SERVER 2012

Follow the additional configuration steps in this section if you installed RAS on Windows Server 2012.

Creating a Domain User

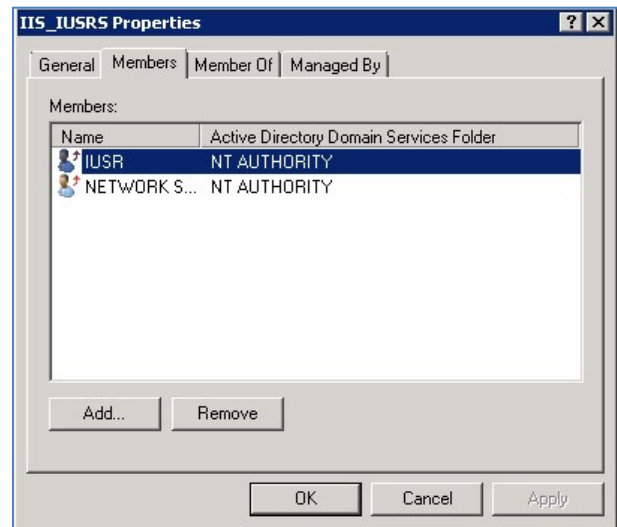
1. Click the **Start** menu, click **Administrative Tools**, then click **Active Directory Users and Computers**.
2. Right-click the **Users** folder, point to **New**, then select **User**.
3. Type the user information into the fields provided then click **Next**.
4. Type the password used to connect to your RAS Case Notebook Repository in the fields provided, then click **Next**.

Note: The user logon name and password will be needed in later steps.

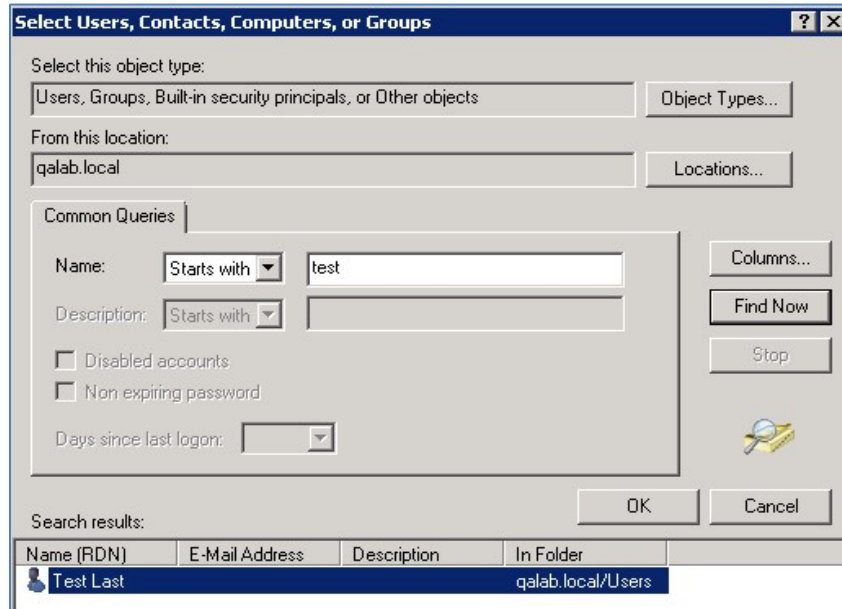
5. Click **Finish**. Do not close any windows.

Adding the Domain User to the Domain Controller Group

1. In the Active Directory Users and Computers window, click the **Builtin** folder.
2. Right-click **IIS_IUSRS** and select **Properties**.
3. Click the **Members** tab.
4. Click **Add**.
5. Click **Advanced** to locate the domain user.



6. Type the user logon name you created (see step 3 in "Creating a Domain User" on page 18) in the **Name** field and click **Find Now**. The domain user is displayed at the bottom of the Select Users, Contacts, Computers, or Groups dialog.



7. Double-click the domain user and click **OK**.
8. Close all open dialogs.

Adding the Domain User as a RAS Application Pool Identity

1. Click the **Start** menu, click **Administrative Tools**, then click **Internet Information Services (IIS) Manager**.
2. Click the first plus symbol (+), then click the **Application Pools** folder. A list of application pools is displayed in the center pane.
3. Select the RAS application pool to which you want to add the user, then click **Advanced Settings** under **Actions** (right pane).
4. Select **Identity**, and then click the **Browse** button (...).
5. Select **Custom account**, then click **Set**.
6. Type the user logon name you created (see step 3 in "Creating a Domain User" on page 18) in the **Name** field and click **OK**.

Setting Permissions for Folders

You can use the following steps to set the permissions for Reports, Temp, and Case folders:

1. Using Windows Explorer, navigate to the RAS installation directory. By default, the directory is located in C:\Program Files (x86)\Westlaw Case Notebook\Westlaw Case Notebook RAS 5.7\wlnras.
2. Select the directory, right-click on it and select **Properties**.
3. Click the **Security** tab.
4. Click **Edit**.
5. Click **Add**.
6. Click **Advanced** to locate the domain user.
7. Type the user logon name you created (see step 3 in “Creating a Domain User” on page 18) in the **Name** field and click **Find Now**. The domain user is displayed at the bottom of the Select Users, Computers, or Groups dialog.
8. Double-click the domain user and click **OK**.
9. Click the **Close** button in the Select Users, Computers, or Groups dialog.
10. On the Permissions dialog, select all permissions check boxes under **Allow** except the **Full Control** check box, and then click **OK**.
11. Click **OK** in the Properties dialog.
12. To set permissions for your temp folder, case folders, and sub-folders, locate the folders on the Case Notebook Repository server using Windows Explorer and follow steps 2–11.

