Reference and Troubleshooting: FTP, IIS, and Firewall Information

Although Cisco VXC Manager automatically installs and configures everything you need for use with respect to FTP, IIS, and the Windows Firewall, the following reference information can be useful for understanding your environment and for troubleshooting purposes.

This chapter includes the following sections:
- How the Cisco VXC Manager Installs and Configures FTP, page C-1
- Installing and Configuring IIS, page C-15
- Using Windows Firewall with Cisco VXC Manager, page C-29

How the Cisco VXC Manager Installs and Configures FTP

Depending on your server version, use one of the following sections to understand how FTP is installed and configured for use with Cisco VXC Manager (information is presented as if you would complete the procedures manually):

- Installing and Configuring FTP on Windows Server 2003, page C-1
- Installing and Configuring FTP on Windows Server 2008 R2, page C-9
- Installing and Configuring FTP on Windows 7, page C-12

Installing and Configuring FTP on Windows Server 2003

Use the following procedure to configure FTP on Windows Server 2003.

Procedure

1. **Step 1** Open the Add or Remove Programs dialog box (click Start > Control Panel > Add or Remove Programs).
2. **Step 2** Click the Add/Remove Windows Components icon to open the Windows Components wizard.
3. **Step 3** In the Components list, check the Application Server check box, and then click Details.
Step 4  Check the **Internet Information Services** (IIS) check box in the list, and then click **Details**.

Step 5  Be sure the following check boxes are checked:
- **Common Files**
- **File Transfer Protocol (FTP) Service**
- **Internet Information Services Manager**
- **World Wide Web Service**
Step 6  Check any other IIS-related service or subcomponent check box that you want to install, and then click OK.

Step 7  Click Next.

Step 8  When you are prompted, insert the Windows Server CD-ROM into the CD-ROM or DVD-ROM drive of the machine, or provide a path to the location of the files, and then click OK.

Step 9  Click Finish.

Configuring the FTP Service for Anonymous Connections Only

Use the following procedure to configure the FTP Service on Windows Server 2003 to allow only anonymous connections.

Procedure

Step 1  Open the Internet Information Services (IIS) Manager (click Start > Administrative Tools > Internet Information Services (IIS) Manager).

Step 2  In the tree pane, expand Server_name (where Server_name is the name of the server), and then expand FTP Sites.
Step 3  In the tree pane, right-click on Default FTP Site, and then choose Properties to open the Properties dialog box.

Step 4  Click the Security Accounts tab and be sure that the Allow Anonymous Connections check box is checked.

Step 5  Click the Home Directory tab and be sure that the Read, Write and Log visits check boxes are checked.
Step 6  Click **Apply** and then click **OK**.

Step 7  Close the Internet Information Services (IIS) Manager window.

Step 8  The FTP server is now configured to accept incoming FTP requests. Copy or move the files that you want to make available to the FTP publishing folder for access. The default folder is drive:\Inetpub\ftproot (where drive is the drive on which IIS is installed).

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**Installing and Configuring FTP on Windows Server 2008**

Before setting up your own FTP server in Windows, you must be sure that Internet Information Services (IIS) is already installed on the server.

**Installing FTP on Windows Server 2008**

Use the following procedure to install FTP on Windows Server 2008.

**Procedure**

**Step 1**  On the taskbar, click **Start > Administrative Tools > Server Manager** to open the Server Manager window.

**Step 2**  In the Server Manager tree pane, expand **Roles**, and then click **Web Server (IIS)** to open the Web Server (IIS) window.
How the Cisco VXC Manager Installs and Configures FTP

Step 3  In the details pane of the Web Server (IIS) window, scroll to Role Services, and then click Add Role Services to open the Select Role Services window.

Step 4  Under Role Services, expand FTP Publishing Service, check the FTP Server and FTP Management Console check boxes, and then click Next to open the Confirm Installation Selections window.

Step 5  After confirming, click Install.

Step 6  After installation is complete (the Results window displays a successful installation), click Close.

Configuring FTP on Windows Server 2008

Use the following procedure to configure FTP on Windows Server 2008.
Appendix C      Reference and Troubleshooting: FTP, IIS, and Firewall Information

How the Cisco VXC Manager Installs and Configures FTP

Procedure

Step 1  On the taskbar, click **Start > Administrative Tools > Internet Information Services (IIS) Manager** to open the Internet Information Services (IIS) Manager window.

Step 2  In the tree pane, expand **Server_name** (where **Server_name** is the name of the server), and then choose **FTP Sites**.

Step 3  In the FTP sites details pane, click the **Click here to launch** link, to open the IIS 6.0 Manager window.

![IIS Manager Window]

Step 4  In the tree pane expand **Server_name** (where **Server_name** is the name of the server), and then expand **FTP Sites**.

**Note**  If FTP Site is stopped, click the **Start** icon to start it.

Step 5  In the tree pane, right-click on **Default FTP Site**, and then choose **Properties** to open the Properties dialog box.

![Properties Dialog Box]

Step 6  Click the **Security Accounts** tab and be sure that the **Allow Anonymous Connections** check box is selected.
Step 7  Click the **Home Directory** tab and be sure that the **Read**, **Write** and **Log visits** check boxes are checked.

Step 8  Click **Apply**, and then click **OK**.

Step 9  Close the Internet Information Services (IIS) Manager window.

Step 10 The FTP server is now configured to accept incoming FTP requests. Copy or move the files that you want to make available to the FTP publishing folder for access. The default folder is drive:\Inetpub\ftproot (where drive is the drive on which IIS is installed).

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**Verifying FTP on Windows Server 2008**

Use the following guidelines to verify FTP on Windows Server 2008.

**Procedure**

**Step 1**  Open a command prompt (click **Start > Run**, enter **cmd**, and then click **OK**).

**Step 2**  Type `ftp localhost`.

**Step 3**  Enter an administrator username and password.
Step 4  Ensure that sign-in is successful.
Step 5  Open the services panel and make sure that the FTP service is configured to start automatically.

Installing and Configuring FTP on Windows Server 2008 R2

Before setting up your own FTP server in Windows, you must be sure that Internet Information Services (IIS) is already installed on the server.

Installing FTP on Windows Server 2008 R2

Use the following procedure to install FTP on Windows Server 2008 R2.

Procedure

Step 1  On the taskbar, click Start > Administrative Tools > Server Manager to open the Server Manager window.
Step 2  In the Server Manager tree pane, expand Roles, and then click Web Server (IIS) to open the Web Server (IIS) window.
Step 3  In the details pane of Web Server (IIS), scroll to Role Services, and then click Add Role Services to open the Select Role Services window.

Step 4  Under Role Services, expand FTP Server, check the FTP Service and FTP Extensibility check boxes, and then click Next to open the Confirm Installation Selections window.
How the Cisco VXC Manager Installs and Configures FTP

Appendix C  Reference and Troubleshooting: FTP, IIS, and Firewall Information

Step 5  After confirming, click Install.

Step 6  After installation is complete (the Results window displays a successful installation), click Close.

Configuring FTP on Windows Server 2008 R2

Use the following procedure to configure FTP on Windows Server 2008 R2.

Procedure

Step 1  On the taskbar, click Start > Administrative Tools > Internet Information Services (IIS) Manager to open the Internet Information Services (IIS) Manager window.

Step 2  In the tree pane, right-click on Sites, and then choose Add FTP Site to begin creating an FTP site.

Step 3  Enter the FTP site name, choose the Physical path for the FTP root directory, and then click Next.
**Step 4**  Keep the default value for IP Address as **All unassigned** and for Port as **21**.

**Step 5**  Check the **Start FTP site automatically** check box, change the SSL option to **No SSL**, and then click **Next**.

**Step 6**  Check the **Anonymous** and **Basic Authentication** check boxes.

**Step 7**  Choose **All users** in the Allow access to list.
How the Cisco VXC Manager Installs and Configures FTP

Step 8 Check the **Read** and **Write** check boxes.
Step 9 Click **Finish**.

Verifying FTP on Windows Server 2008 R2

Use the following procedure to verify FTP on Windows Server 2008 R2.

**Procedure**

- **Step 1** Open a command prompt (click **Start** > **Run**, enter `cmd`, and then click **OK**).
- **Step 2** Type `ftp localhost`.
- **Step 3** Enter an administrator username and password.
- **Step 4** Ensure that sign-in is successful.

Installing and Configuring FTP on Windows 7

Before setting up your own FTP server in Windows, you must be sure that Internet Information Services (IIS) is already installed on the server.

Installing FTP on Windows 7

Use the following procedure to install FTP on Windows 7.

**Procedure**

- **Step 1** On the taskbar, click **Start** > **Control Panel** to open the Control Panel.
- **Step 2** Click **Programs** > **Programs and Features**, and then on the left pane click **Turn Windows Features on or off** to open the Windows Features window.
- **Step 3** Scroll to **Internet Information Services**.
- **Step 4** Expand **Internet Information Services**, and then expand **FTP Server**.
Step 5  Under FTP Server, check the **FTP Extensibility** and **FTP Service** check boxes, and then click **OK** to install FTP.

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**Configuring FTP on Windows 7**

Use the following procedure to configure FTP on Windows 7.

**Procedure**

**Step 1**  On the taskbar, click **Start > Control Panel > Administrative Tools > Internet Information Services (IIS) Manager** to open the Internet Information Services (IIS) Manager.

**Note**  If you do not see Administrative Tools on the Control Panel, choose **Small icons** or **Large icons** in the View by list.

**Step 2**  In the tree pane, right-click on **Sites**, and then choose **Add FTP Site** to begin creating an FTP site.
How the Cisco VXC Manager Installs and Configures FTP

**Step 3** Enter the FTP site name, choose the Physical path for the FTP root directory, and then click **Next**.

**Step 4** Keep the default value for IP Address as **All unassigned** and for Port as **21**.
**Installing and Configuring IIS**

Depending on your operating system, use one of the following sections to understand how IIS is installed and configured for use with Cisco VXC Manager (information is presented as if you would complete the procedures manually):

- Installing and Configuring IIS 6.0 on Windows Server 2003, page C-16
- Installing IIS 7.0 on Windows Server 2008, page C-20
- Installing IIS 7.5 on Windows Server 2008 R2, page C-24
- Installing IIS 7.5 on Windows 7, page C-27

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**Verifying FTP on Windows 7**

Use the following procedure to verify FTP on Windows 7.

**Procedure**

1. Open a command prompt (click **Start** > **Run**, enter `cmd`, and then click **OK**).
2. Type `ftp localhost`.
3. Enter an administrator username and password.
4. Ensure that login is successful.

---

**Installing and Configuring IIS**

Depending on your operating system, use one of the following sections to understand how IIS is installed and configured for use with Cisco VXC Manager (information is presented as if you would complete the procedures manually):

- Installing and Configuring IIS 6.0 on Windows Server 2003, page C-16
- Installing IIS 7.0 on Windows Server 2008, page C-20
- Installing IIS 7.5 on Windows Server 2008 R2, page C-24
- Installing IIS 7.5 on Windows 7, page C-27
Installing and Configuring IIS 6.0 on Windows Server 2003

Use the following procedure to install and configure IIS 6.0 on Windows Server 2003.

Procedure

Step 1  Open the Add or Remove Programs dialog box (click Start > Control Panel > Add or Remove Programs).

Step 2  Click the Add/Remove Windows Components icon to open the Windows Components wizard.

Step 3  In the Components list, check the Application Server check box.

Note  Selecting Application Server performs a default installation of Internet Information Services (IIS) and includes components that are not necessary for Certificate Services. In most cases, this installation is acceptable for an isolated test environment. However, if you plan to connect your test environment to your production network, consult the security policy for your organization to determine which components need to be installed.

Step 4  Click Next.

Step 5  After the wizard completes the installation, click Finish.

Installing and Configuring WebDAV on Windows Server 2003

Use the following procedure to install and configure WebDAV on Windows Server 2003.
Procedure

Step 1  Open the Add or Remove Programs dialog box (click Start > Control Panel > Add or Remove Programs).

Step 2  Click the Add/Remove Windows Components icon to open the Windows Components wizard.

Step 3  In the Components list check the Application Server check box, and then click Details.

Step 4  Check the Internet Information Services (IIS) check box, and then click Details.

Step 5  Check the World Wide Web Service check box, and then click Details.
Step 6 Check the WebDAV Publishing and World Wide Web Service check boxes, and then click OK.

Step 7 Click Next.

Step 8 When you are prompted, insert the Windows Server CD-ROM into the CD-ROM or DVD-ROM drive of the machine, or provide a path to the location of the files, and then click OK.

Step 9 Click Finish.

Configuring WebDAV on Windows Server 2003 to Allow Only Anonymous Connections

Use the following procedure to configure the WebDAV on Windows Server 2003 to allow only anonymous connections.

Procedure

Step 1 Open the Internet Information Services (IIS) Manager (click Start > Administrative Tools > Internet Information Services (IIS) Manager).
Step 2  In the tree pane, expand Server_name (where Server_name is the name of the server).

Step 3  In the tree pane, click Web Service Extension.

Step 4  In the details pane, right-click WebDAV, and then choose Allow from the menu.

Step 5  In the tree pane, right-click Server_name (where Server_name is the name of the server).

Step 6  Choose All Tasks > Restart IIS from the menu.
Installing IIS 7.0 on Windows Server 2008

By default, IIS 7.0 is not installed on Windows Server 2008. You can install IIS by using the Add Roles wizard in Server Manager. After you install IIS on the server, install WebDAV Extension for IIS 7.0 (see Installing WebDAV Extension for IIS 7.0, page C-22).

Procedure

**Step 1**
On the taskbar, click Start > Administrative Tools > Server Manager to open the Server Manager window.

**Step 2**
In the Server Manager tree pane, click Roles.

**Step 3**
In the details pane, click Add Roles > Server Roles.
Step 4  On the Select Server Roles screen, choose Web Server (IIS), click Next, and then click Next to open the Select Role Services window.

Step 5  Under Roles Services, expand Web Server, expand Common HTTP Features, and then check the HTTP Redirection check box.

Step 6  Under Web Server, expand Application Development and then check the ISAPI Extensions check box.

Step 7  Under Web Server, expand Security, check the Basic Authentication and Windows Authentication check boxes, and then be sure that the Request Filtering option is unchecked.

Step 8  Under Web Server, expand Performance and then be sure that each option is unchecked (Static Content Compression and Dynamic Content Compression should be unchecked).

Step 9  Under Web Server, expand Management Tools, and then check the IIS Management Console and IIS Management Scripts and Tools check boxes.

Step 10 Under Web Server, expand IIS 6 Management Compatibility and then be sure all its options are checked.
Step 11  Click Next to open the Confirm Installation Selections window.

Step 12  After confirming, click Install.

Step 13  After the installation is complete (the Results window displays a successful installation), click Close.

**Installing WebDAV Extension for IIS 7.0**

Use the following procedure to install the WebDAV Extension for IIS 7.0.

**Procedure**

Step 1  Download the 32-bit Installation Package of the WebDAV Extension for IIS 7.0 from
http://blogs.iis.net/robert_mcmurray/archive/2008/03/12/webdav-extension-for-windows-server-2008-rtm-is-released.aspx

**Step 2** After downloading, double-click `webdav_x86_rtw.msi` to open and use the Microsoft WebDAV Extension for IIS 7.0 Setup wizard.

![Microsoft WebDAV Extension for IIS 7.0 Setup](image)

**Step 3** After the software is installed, click **Finish**.

### Configuring the Web.config File

You can modify the Web.config file to prevent the following errors:

- Upload fails for files larger than 30 MB.
- Merlin imaging fails when the URL and query string sizes are not adequate.

Add the following content to the Web.config file (the Web.config file is found in the `inetpub\wwwroot` folder):

```xml
<security>
    <requestFiltering>
        <requestLimits maxAllowedContentLength="4294967296" maxUrl="8000" maxQueryString="8000" />
    </requestFiltering>
</security>
```

This example shows the web.config file with the content added:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<configuration>
    <system.webServer>
        <directoryBrowse enabled="true" showFlags="Date, Time, Size, Extension, LongDate" />
        <security>
            <requestFiltering>
                <requestLimits maxAllowedContentLength="4294967296" maxUrl="8000" maxQueryString="8000" />
            </requestFiltering>
        </security>
    </system.webServer>
</configuration>
```
Installing IIS 7.5 on Windows Server 2008 R2

By default, IIS 7.5 is not installed on Windows Server 2008 R2. You can install IIS by using the Add Roles wizard in Server Manager.

Procedure

Step 1 On the taskbar, click Start > Administrative Tools > Server Manager to open the Server Manager window.

Step 2 In the Server Manager tree pane, choose Roles, and then click Add Roles to open the Add Roles wizard window.

Step 3 In the Add Roles wizard, click Server Roles, and then check the Web Server (IIS) check box.

Step 4 In the Add Roles wizard, click Server Roles > Web Server (IIS) > Role Services.

Step 5 Under Role Services, expand Web Server, expand Common HTTP Features, and then check the WebDAV Publishing check box.

Step 6 Under Role Services, expand Application Development, and then check the ISAPI Extension check box.

Step 7 Under Role Services, expand Security, check the Basic Authentication and Windows Authentication check boxes, and then be sure that Request Filtering option is unchecked.

Step 8 Under Role Services, expand Performance, and then be sure that each option is unchecked (Static Content Compression and Dynamic Content Compression should be unchecked).

Step 9 Under Role Services, expand Management Tools, and then check the IIS Management Console and IIS Management Scripts and Tools check boxes.

Step 10 Under Role Services, expand IIS 6 Management Compatibility, be sure that all options are checked, and then click Next to open the Confirm Installation Selections window.
Step 11 After confirming, click Install.

Step 12 After installation is complete (the Results window displays a successful installation), click Close.

Step 13 After successful installation of IIS 7.5 on Windows Server 2008 R2, you must verify the following advanced settings:

- Enable 32-Bit Applications is set to True.
- Idle Time-out (minutes) is set to 0 (zero).

Use the following guidelines:

a. On the taskbar, click Start > Administrative Tools > Internet Information Services (IIS) Manager to open the Internet Information Services (IIS) Manager window.

b. In the Internet Information Services (IIS) Manager tree pane, expand Server, and then click Application Pools to display the DefaultAppPool in the Application Pools list.

c. Right-click DefaultAppPool and choose Advanced Settings to open the Advanced Settings window.
d. In the General section, ensure that **Enable 32-Bit Applications** is set to **True**.

e. In the Process Model section, ensure that **Idle Time-out (minutes)** is set to **0** (zero).

---

**Step 14** Continue with Chapter 2, “Installing or Upgrading Cisco VXC Manager”.

---
Installing IIS 7.5 on Windows 7

By default, IIS 7.5 is not installed on Windows 7. You can install IIS by using the Turn Windows Features On or Off wizard in Programs and Features.

Procedure

**Step 1**  
On the taskbar, click **Start > Control Panel** to open the Control Panel.

**Step 2**  
Click **Programs > Programs and Features**, and then on the left pane click **Turn Windows Features on or off** to open the Windows Features window.

**Step 3**  
Scroll to **Internet Information Services**.

**Step 4**  
Expand **Internet Information Services**.

**Step 5**  
Expand **Web Management Tools**, and then check **the IIS 6 Management Compatibility**, **IIS Management Console**, and **IIS Management Scripts and Tools** check boxes.

**Step 6**  
Expand **World Wide Web Services**, expand **Application Development Features**, and then check the **ISAPI Extensions** check box.

![Windows Features](image.png)
Step 7 Under World Wide Web Services, expand Common HTTP Features, and then check the Default Document, Directory Browsing, HTTP Errors, HTTP Redirection, Static Content, and WebDAV Publishing check boxes.

Step 8 Under World Wide Web Services, expand Performance Features, and then be sure all options are unchecked (Dynamic Content Compression and Static Content Compression should be unchecked).

Step 9 Under World Wide Web Services, expand Security, check the Basic Authentication and Windows Authentication check boxes, and then be sure that the Request Filtering option is unchecked.
Step 10  Click OK to install IIS.

Step 11  Continue with Chapter 2, “Installing or Upgrading Cisco VXC Manager”.

Using Windows Firewall with Cisco VXC Manager

If you are using Windows Firewall and are running Windows Server 2003 (32-bit), or Windows Server 2003 R2 SP2 (32-bit) with your Cisco VXC Manager, the Cisco VXC Manager logs on as an administrator and adds the Cisco VXC Manager DHCP Proxy, Cisco VXC Manager TFTP, Inetinfo, and Rptservicelogs programs to the Programs and Services list on the Exceptions tab of the Windows Firewall dialog box (for information on adding a program to the Windows Firewall exception list, refer to the Microsoft documentation on the Microsoft web site).

⚠️ Caution  This procedure is done on each server on which you perform a Cisco VXC Manager installation or upgrade.
Using Windows Firewall with Cisco VXC Manager