



Best Practices & Deployment
SurfControl Web Filter for Citrix v 5.0
rev1.0, August 2005

NOTICE

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SurfControl Web Filter for Citrix provides user name-level Internet monitoring, reporting, and filtering in a Citrix Presentation Server environment. SurfControl Web Filter for Citrix supports Presentation Server versions 3.0 and 4.0.

Until now, user-level reporting, monitoring, and rule creation was difficult in a Citrix environment without the deployment of another product layer. Only SurfControl Web Filter for Citrix provides this unique technology, with user names passed directly from the Presentation Server for the optimum visibility of Internet usage.

How to use this guide

The purpose of this document is to help with your deployment and implementation of Web Filter for Citrix. This document covers:

- Network topology.
- Installation recommendations.
- Sizing recommendations for both the server and client.
- Recommendations for configuring IIS.
- General configuration recommendations for Web Filter for Citrix Server.
- Database considerations.
- Recommendations for web filtering in environments with Citrix and non-Citrix users.

NETWORK TOPOLOGY

Web Filter for Citrix leverages the server-client relationship between Web Filter for Citrix Server (a Windows 2000 or 2003 server used only for Web Filter for Citrix), and Web Filter for Citrix Client, which you install on all the Citrix Presentation Servers in your network.

Web Filter for Citrix Server resides within the protected network. Each internet request originated by a Citrix user passes through the Presentation server. Web Filter for Citrix Client, installed on all Presentation servers, checks this request against the rules you have configured in Web Filter for Citrix Server before allowing the user to proceed.

This relationship among the server, client, and users is displayed in Figure 1.

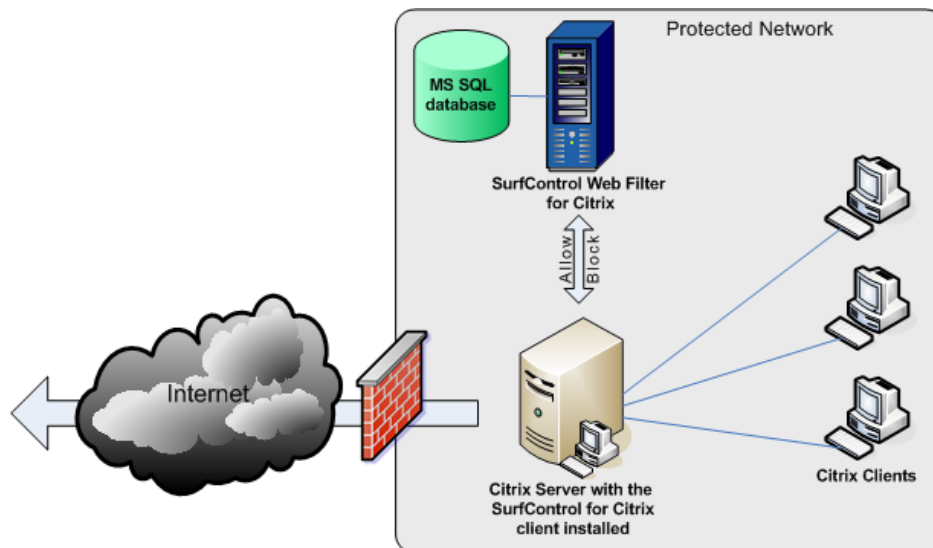


Figure 1 Server-client-user relationship

Allowed Requests

When a Citrix user attempts to connect to the Internet, the client installed on the Presentation server checks the request against the Rules you configured within Web Filter for Citrix. If the request is allowed, the user can proceed with connecting to the site. Figure 2 illustrates this flow.

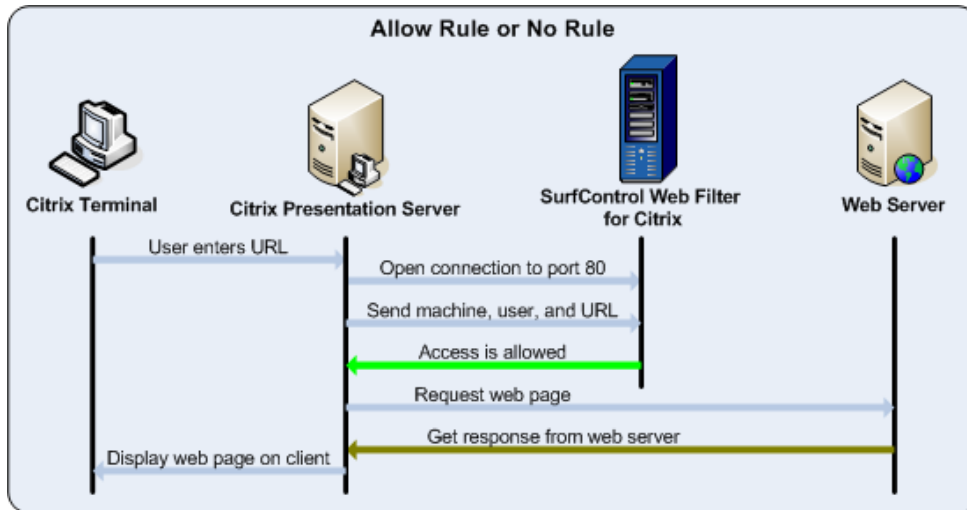


Figure 2 User's request is allowed

Blocked Requests

If the request is denied, Web Filter for Citrix returns the Block action to the Citrix Presentation Server, which presents the Access Denied page to the user. Figure 3 depicts this scenario.

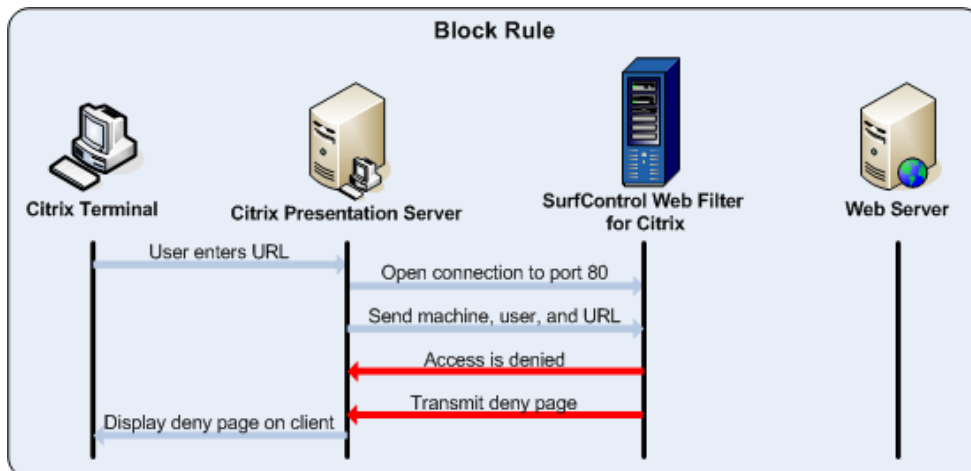


Figure 3 User's request is blocked

INSTALLATION

The SurfControl Web Filter for Citrix Server installation includes the following components:

- SurfControl Web Filter for Citrix Server.
- SurfControl Web Filter for Citrix Remote Administrator.
- MSDE.
- SurfControl Report Central (SRC).

You must install Web Filter for Citrix Server on a server with IIS. SurfControl recommends that you make sure IIS is running before performing the Web Filter for Citrix installation. Refer to page 6 for details on installing and configuring IIS.

When you install Web Filter for Citrix Server, you install all administrative components, including the Monitor, Rules Administrator, Web Filter for Citrix Administrator, and SRC. (You may choose to install SurfControl Report Central locally or on another server.)

During the installation, you may install MSDE, which you can install locally or in another location. Likewise, if you have a fully licensed version of SQL, you may choose to not install MSDE and instead use your existing instance of SQL.

If you are currently using a Web Filter database for a non-Citrix version of Web Filter, you may choose this existing database. Refer to page 9 for details about writing to a database used by other versions of Web Filter.

For remote access to Web Filter for Citrix Server, install the Web Filter Remote Administrator on administrators' workstations. Refer to the [Web Filter for Citrix Administrator's Guide](#) for more details.

Web Filter for Citrix Client is a separate download from SurfControl's web site. Install the Web Filter for Citrix Client on each of the Citrix Presentation Servers.

RECOMMENDED INSTALLATION ORDER

To ensure that you have optimally prepared each installation component for the next one, SurfControl recommends that you install the Web Filter for Citrix components in the following order:

- 1 Install and configure IIS on the server to be used for Web Filter for Citrix.
- 2 Install SurfControl Web Filter for Citrix Server. This installation includes the optional install of MSDE, and the cascading install of SRC.
- 3 On each Presentation Server, install Web Filter for Citrix Client.

For details on installing Web Filter for Citrix, refer to the [Web Filter for Citrix Installation Guide](#).

WEB FILTER FOR CITRIX SIZING

Web Filter for Citrix Server and each Citrix Presentation Server must meet the specifications outlined below.

WEB FILTER FOR CITRIX SERVER SIZE

SurfControl recommends that each Web Filter for Citrix Server manage no more than 200 Citrix Presentation Servers.

Web Filter for Citrix Server must meet the minimum specifications listed in Table 1*.

Table 1 Web Filter for Citrix Server Managing 200 Citrix Presentation Servers

Component	Recommendation
Supported Operating Systems	Windows 2000 Server Windows Server 2003
Required Applications	Microsoft IIS
Processor	Pentium IV or higher
Memory	1 GB
Disk Space	5 GB free

*These sizing recommendations include the presence of SRC and MSDE on Web Filter for Citrix Server.

WEB FILTER FOR CITRIX CLIENT SIZE

The Citrix Presentation Server must meet the following minimum specifications in order to install Web Filter for Citrix Client.

Table 2 Citrix Presentation Server: Requirements to Install Web Filter for Citrix Client

Supported Operating Systems	Citrix Presentation Server on Windows 2000 Server Citrix Presentation Server on Windows Server 2003
Processor	Pentium III or higher
Memory	48 MB
Disk Space	10 MB free

BEST PRACTICES

When configuring Web Filter for Citrix Server, SurfControl recommends that you follow the guidelines suggested below.

INSTALL, CONFIGURE, AND SECURE IIS

Web Filter for Citrix Server requires IIS. Before you install Web Filter for Citrix Server, make sure that IIS is running on the server. To locate IIS on your Windows server, click **Start** and select **All Programs, Administrative Tools**.

Installing IIS

IIS is a Windows component. If you need to add IIS to your server, you can add it through the Add or Remove Programs utility. SurfControl recommends that you do this prior to the Web Filter for Citrix installation.

To add IIS on a Windows 2000 server:

- 1 From the **Start** menu, select **Settings, Control Panel, Add or Remove Programs, Add or Remove Windows Components**.
- 2 Select **Internet Information Services (IIS)**, and click **Next** to begin the installation process.

To add IIS on a Windows 2003 server:

- 1 From the **Start** menu, select **Control Panel, Add or Remove Programs, Add or Remove Windows Components**.
- 2 Highlight **Application Server** and click **Details**.
- 3 Select **Internet Information Services (IIS)**, and click **Next** to begin the installation process.
- 4 From the **Start** menu, select **Administrative Tools**.
- 5 Double-click **Internet Information Services (IIS) Manager**.
- 6 Expand the IIS tree to **Web Service Extensions**.
- 7 Highlight **Web Service Extensions, All Unknown ISAPI Extensions**.
- 8 Click **Allow**.

Configuring IIS

If you plan to use a Windows trusted connection to the SQL/MSDE database, you must configure the Anonymous user as a Windows user account.

To perform this configuration in IIS 5.0:

- 1 In the IIS Manager, expand the IIS tree to **Web Sites, Default Web Site**.
- 2 Right-click **Default Web Site** and select **Properties**.
- 3 From the **Directory Security** tab, under **Authentication and Access Control**, click **Edit**.

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- 4 Enter a user name and password for a Windows account that has DBO rights to the Web Filter database, and click **OK, OK**.
- 5 In the IIS tree, right-click the server name, and select **All Tasks, Re-start IIS...**
- 6 From the drop-down menu, select **Restart Internet Services**, and click **OK**.

To perform this configuration in IIS 6.0:

- 1 In the IIS Manager, expand the IIS tree to **Web Sites, Default Web Site**.
- 2 Right-click **Default Web Site** and select **Properties**.
- 3 From the **Directory Security** tab, under **Authentication and Access Control**, click **Edit**.
- 4 Enter a user name and password for a Windows account that has DBO rights to the Web Filter database, and click **OK, OK**.
- 5 In the IIS tree, right-click **Application Pools** and select **Properties**.
- 6 From the **Identity** tab, click **Configurable**.
- 7 Enter the same user name and password you used in the Anonymous user properties, and click **OK**.
- 8 In the IIS tree, right-click the server name, and select **All Tasks, Re-start IIS...**
- 9 From the drop-down menu, select **Restart Internet Services**, and click **OK**.

Securing IIS

IIS is a web server. When a user requests a web site, Web Filter for Citrix checks the request against the rules database over port 80, using IIS. SurfControl recommends that you take measures to secure IIS before you install Web Filter for Citrix.

For details on locking down IIS, refer to [Microsoft Knowledge Base Article 325864](#).

IN A MIXED ENVIRONMENT, CONFIGURE WEB FILTER TO IGNORE THE PRESENTATION SERVERS

If your environment includes another version of SurfControl Web Filter, configure that version of SurfControl to ignore traffic coming from the IP addresses of the Presentation Servers. This eliminates the conflict and redundancy of monitoring those servers twice, in favor of monitoring all users connecting to the Presentation Servers by user name.

Perform this configuration in the Subnets tab of the other version of Web Filter:

- 1 On the other Web Filter server, open the Server Settings dialog box.
- 2 In the **Subnets** tab, enter the IP addresses of the Presentation Servers.
- 3 Click **Apply, OK**.
- 4 Stop and start the Web Filter service.

EXCLUDE THE WEB FILTER DIRECTORY FROM REAL-TIME SCANNING

If your anti-virus software uses real-time virus scanning, SurfControl recommends that you configure your anti-virus software to exclude the following directories:

- The directory used to store flat files (by default, C:\Program Files\SurfControl\Web Filter). For information on how to store flat files in a different directory, refer to [KB1301](#).
- For local SQL/MSDE installations, the SQL directory (by default, C:\Program Files\Microsoft SQL Server\Data).

CONFIGURE THE WEB FILTER SERVICE

In Services (from the Windows Control Panel), make sure the SurfControl Web Filter service:

- Runs as a Windows user with proper permissions on the SQL database.
- Re-starts on failure.
- Starts automatically.

CONFIGURE DATABASE SETTINGS

Follow SurfControl's recommendations for database configuration and sizing as listed below, taking into consideration the size and needs of your unique organization.

SQL vs. MSDE

MSDE, included with the Web Filter download, is based on Microsoft SQL server technology. An MSDE database has a 2 GB size limitation and does not include management tools, but is an effective database for environments with fewer than 500 users. For environments with more than 500 users, Web Filter recommends using a fully licensed version of SQL, which allows more flexibility and the ability to fine-tune database performance.

SurfControl also recommends a fully licensed version of SQL in environments with multiple Web Filter servers writing to a shared database; MSDE is designed for a single server connection only.

Database Sizing

SurfControl estimates that 5,000 users generate approximately 1 GB of data per month, generally.

However, the size of your database correlates to:

- The amount of traffic your employees generate.
- The amount of traffic Web Filter is monitoring.
- The number of users Web Filter is monitoring.

The amount of data your database can handle depends on:

- Whether the database is installed on the Web Filter server or a dedicated server.
- The amount of available RAM on the database server.
- The type of processor used by the database server.
- How much disk space is available on the database server.

Database Maintenance

In order to maintain SurfControl Web Filter at its optimum level of performance (and to prevent your system from crashing or hanging), SurfControl recommends that you execute the tasks listed below on a regular basis.

Note: If you are using an MSDE database, be sure that your database maintenance plan keeps your database at under 2 GB.

Table 3 Maintenance Plan

Action	Servers	Frequency
Update Category List	Web Filter servers	Daily
Export Rules (from the Rules Administrator)	SQL Server	Monthly
Archive Web Filter Database	SQL Server	Monthly
Purge Web Filter Database	SQL Server	Monthly
Compact Web Filter Database	SQL Server	Monthly (to occur after the purge)

Before you purge the Monitor database:

- Make an archive copy of the database.
- Make sure that the flat file import process (dbupdate.exe) is not running.

Note: When you perform a purge, be sure you have enough disk space for the purge to be successful. The available disk space on your server should be twice the size of the database.

WRITE TO A COMMON DATABASE

If your environment includes both Citrix and non-Citrix users, your environment may also include other versions of SurfControl Web Filter, such as Web Filter for Windows or Web Filter for ISA Server.

In a multiple-platform environment, if you want to create rules centrally and monitor and run reports on all users simultaneously, you must write all Monitor and Rules data to a shared, fully licensed SQL database.

If you did not select this common database during the installation, you can configure Web Filter for Citrix to write to the database used by your other version of Web Filter as follows:

- 1 In the Service Settings dialog box, click the **Database** tab.
- 2 Under **Monitor Database**, click **Browse** and navigate to the Monitor database being used by your other version of Web Filter.

- 3 Under **Rules Database**, click **Browse** and navigate to the Rules database being used by your other version of Web Filter.
- 4 Under **Web Filter for Citrix Database**, click **Browse** and navigate to the Rules database being used by your other version of Web Filter.
- 5 Click **OK**.