Deploying in an Enterprise Network, 10000–25000 Users

Websense software can be deployed in different configurations, depending on the size and characteristics of the network, and the organization's filtering needs. Filtering components can be installed on a single machine, or distributed across multiple machines. See the *Deployment Guide* for more information about the components.

This supplement provides system and deployment recommendations an enterprise network (10,000–25,000 users). On average, enterprise networks have 500–1250 requests per second (RPS).

Additional supplements discuss networks of other sizes:

◆   Small (1–500 users)

◆   Medium (500–2,500 users)

◆   Large (2,500–10,000 users)

◆   Very large enterprise (25,000+ users)

These network ranges are intended as general guidelines, given that the optimum deployment depends on the operating systems used, the size of the network, and the volume of Internet requests.

Because of the size and distribution of the network, multiple instances of certain components may be needed.

◆   In environments with a large number of filtered machines, it may be appropriate to install multiple instances of Filtering Service for load balancing.

   Some load balancing configurations permit the same user to be filtered by different Filtering Service instances, depending on the current load.

◆   Multiple Network Agent instances may be needed to monitor Internet requests from all of machines in the network.

◆   You can also install multiple instances of other components, such as the transparent identification agents.

This manual provides system recommendations that maximize Websense component performance. You can also improve performance by using more powerful machines for resource intensive components, such as reporting.

Some components may be able to run with smaller processors or less RAM, depending on the number of users, volume of Internet requests (requests per second), and network topology.

> **✓ Note**
>
> Network Agent can be deployed with other filtering components or on a separate machine for improved performance. Network Agent should **not** be deployed on the same machine as response-critical components. See *Deploying Network Agent* in the *Deployment Guide*.

The recommendations in this supplement are general guidelines. Contact Websense Sales Engineering for assistance in deploying Websense software in your large enterprise network.

See the *Deploying in a Distributed Environment* supplement for more information about deploying and optimizing Websense software in a distributed, enterprise environment.

Enterprise network overview

Websense components should be distributed over 3 dedicated machines. Processor and RAM requirements for each machines match the requirements for a large network deployment. Unlike smaller networks, Network Agent and Filtering Service are installed on separate machines.

> **✓ Note**
>
> Websense, Inc., recommends using dedicated machines for some Websense components. Only the Websense components and required supporting applications are installed on the machine.
>
> The tables in this section list possible configurations.

Windows deployment recommendations

In an enterprise Windows network, 3 dedicated machines are recommended to run Websense software.

◆ Table 1 provides deployment recommendations.

◆ Figure 1, page 5, shows a Windows deployment in an enterprise network.

See *System Recommendations* in the *Deployment Guide* for a complete list of supported operating systems and other component requirements.

Table 1 Windows deployment (enterprise network)

Machine	Software	Hardware Recommendations

Dedicated Machine #1	• Policy Broker
	• Policy Server
	• Filtering Service
	  – Websense Master Database
	• Transparent ID Agent: [1]
	  – DC Agent
	  – eDirectory Agent
	  – Logon Agent
	  – RADIUS Agent
	• User Service
	• Usage Monitor
		Windows
		• Quad-Core Intel Xeon processor, 2.5 GHz or greater
		• 4 GB RAM
		• 10 GB of free disk space Free space must comprise at least 20% of the total disk space.

Dedicated Machine #2	• Websense Manager – Requires Internet Explorer 7 or Firefox 2 • Log Server • Log Database[2] • Microsoft SQL Server 2000/2005	**Windows** • Quad-Core Intel Xeon processor, 2.5 GHz or greater • 16 GB RAM or more • 200 GB of free disk space utilizing a disk array[3] • High speed disk access
Dedicated Machines (additional)	• Network Agent[4]	**Windows** • Quad-Core Intel Xeon processor, 2.5 GHz or greater • 2 GB RAM

Filtering Service, the transparent identification agents, and Network Agent can be installed on multiple machines to improve processing.

Table 1 Windows deployment (enterprise network)

Machine	Software	Hardware Recommendations
Additional Machine (optional)	• Filtering Service – Websense Master Database	Additional machines running Filtering Service are needed. The number of machines needed depends on the volume of Internet requests. **Windows** • Quad-Core Intel Xeon processor, 2.5 GHz or greater • 4 GB RAM • 10 GB of free disk space Free space must comprise at least 20% of the total disk space.
Additional Machine (optional)	• Transparent ID Agent[1] – DC Agent – eDirectory Agent – Logon Agent – RADIUS Agent	**Windows** • Quad-Core Intel Xeon processor, 2.5 GHz or greater • 2 GB RAM

1. Transparent identification agents can be deployed alone or in certain combinations. For more information, see *General Deployment Recommendations* in the *Deployment Guide*.

2. The Log Database can also be created on an existing database server.

3. The Log Database needs a disk array, running RAID level 10, to increase I/O reliability and performance.

4. Network Agents should be installed on a separate machine in the network segments that they are assigned to monitor. For more information, see *Chapter 3. Deploying Network Agent*, of the *Deployment Guide*.

   If you install Network Agent on a machine also running Filtering Service, increase the RAM to 4 GB.

Figure 1 illustrates the distribution of the Websense components in a Windows enterprise network. This drawing is not a required configuration; the components may be deployed differently or on multiple segments.
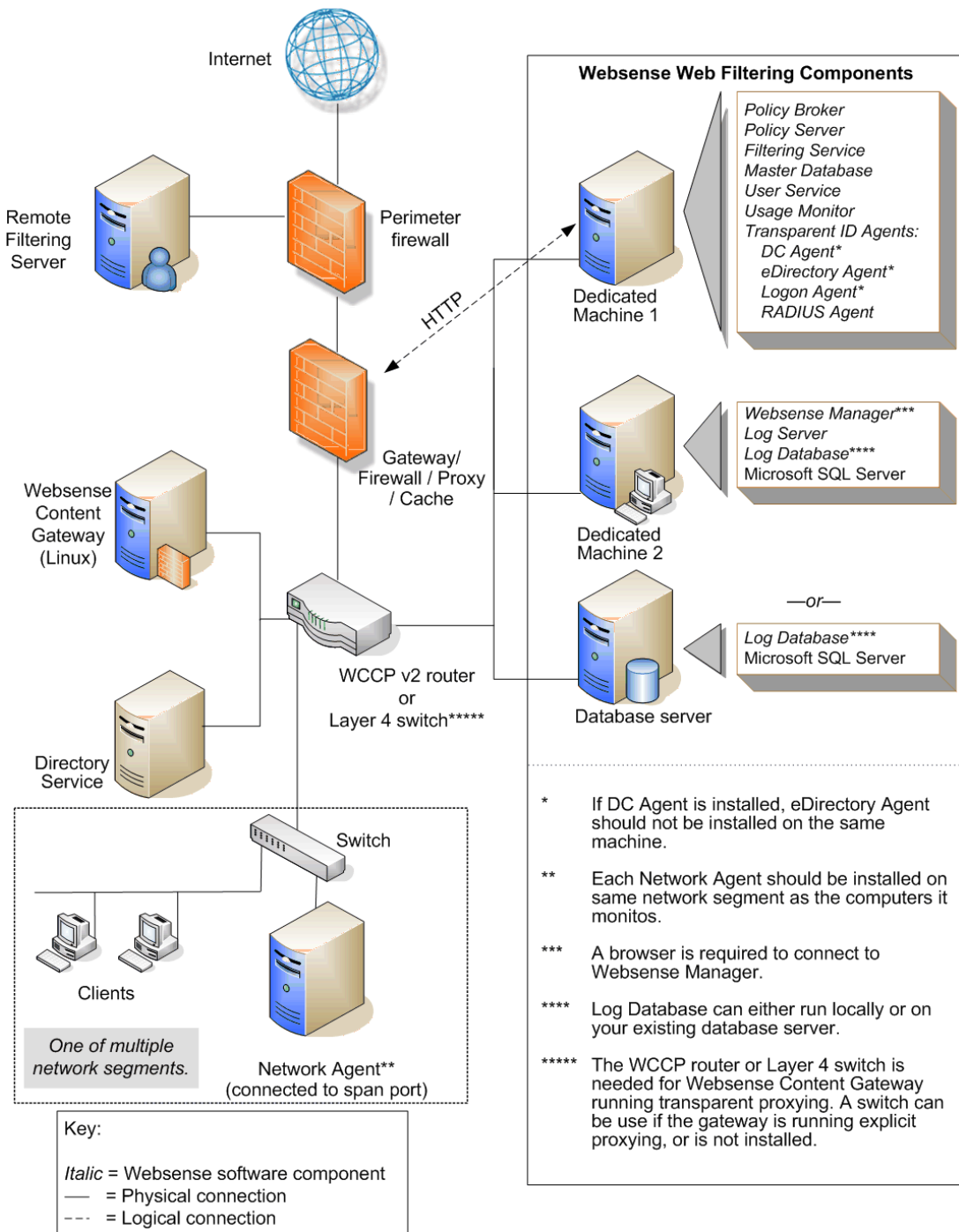

Figure 1 Overview of Windows deployment (enterprise network)

Linux deployment recommendations

Most Websense components can run on Linux as well as Windows. At least one Windows machine is needed if you want to run the complete reporting features in Websense Manager.

Table 2 provides deployment recommendations.

Figure 2, page 9, shows a Linux deployment in an enterprise network.

See *System Recommendations* in the *Deployment Guide* for a complete list of supported operating systems and other component requirements.

Table 2 Linux deployment (enterprise network)

Machine	Software	Hardware Recommendations

Dedicated Machine #1	• Policy Broker
	• Policy Server
	• Filtering Service
	  – Websense Master Database
	• Policy Server
	• Transparent ID Agent:[1]
	  – eDirectory Agent
	  – Logon Agent
	  – RADIUS Agent
	• User Service
	• Usage Monitor
		Linux
		• Quad-Core Intel Xeon processor, 2.5 GHz or greater
		• 2 GB RAM
		• 10 GB of free disk space Free space must comprise at least 20% of the total disk space.

Dedicated Machine #2	• Websense Manager – Requires Internet Explorer 7 or Firefox 2 • Log Server • Log Database[2] • Microsoft SQL Server 2000/2005	**Windows** • Quad-Core Intel Xeon processor, 2.5 GHz or greater • 16 GB RAM or more • 200 GB of free disk space utilizing a disk array[3] • High speed disk access
Dedicated Machine #3[4]	• Websense Explorer for Linux – Requires Apache Web server • Log Database[2] • Log Server for Linux • MySQL 5.0	**Linux** • Quad-Core Intel Xeon processor, 2.5 GHz or greater • 8 GB RAM or more • 200 GB of free disk space utilizing a disk array[3] • High speed disk access

Table 2 Linux deployment (enterprise network)

Machine	Software	Hardware Recommendations
Dedicated Machines (additional)	• Network Agent[5]	**Linux** or **Windows** • Quad-Core Intel Xeon processor, 2.5 GHz or greater • 2 GB RAM
Additional Machine (not dedicated)	• DC Agent	**Windows** • Quad-Core Intel Xeon processor, 2.5 GHz or greater • 2 GB RAM

Filtering Service, the transparent identification agents, and Network Agent can be installed on multiple machines to improve processing. These additional installations do not require dedicated machines.

Machine	Software	Hardware Recommendations
Additional Machine (optional)	• Filtering Service – Websense Master Database	Additional machines running Filtering Service are needed. The number of machines depends on the volume of Internet requests. **Linux** or **Windows** • Quad-Core Intel Xeon processor, 2.5 GHz or greater • 2 GB RAM • 10 GB of free disk space Free space must comprise at least 20% of the total disk space.

Additional Machine (optional)	• Transparent ID Agent[1]
	  – DC Agent (Windows only)
	  – eDirectory Agent Logon Agent
	  – RADIUS Agent
		Linux or **Windows**
		• Quad-Core Intel Xeon processor, 2.5 GHz or greater
		• 2 GB RAM

1. Transparent identification agents can be deployed alone or in certain combinations. DC Agent is deployed on a separate Windows machine only if transparent identification is needed for Windows clients via a domain controller. For more information, see *General Deployment Recommendations* in the *Deployment Guide*.

2. The Log Database can also be created on an existing database server.

3. The Log Database needs a disk array, running RAID level 10, to increase I/O reliability and performance.

4. Linux-based reporting is available using Websense Explorer for Linux. This component requires Log Server for Linux and a MySQL database (a licensed install of v4.0x or v4.1). The Linux and Windows reporting components are not cross-platform compatible.

5. Network Agent can run on either a Linux machine or a Windows machine (but not the machine running the reporting components). Each Network Agent instance should be installed on a separate machine in the network segments it is assigned to monitor. For more information, see *Deploying Network Agent* in the *Deployment Guide*.

If you install Network Agent on a machine also running Filtering Service, increase the RAM to 4 GB.

Figure 2 illustrates the distribution of the Websense components in a Linux enterprise network. This drawing is not a required configuration; the components may be deployed differently or on multiple segments.
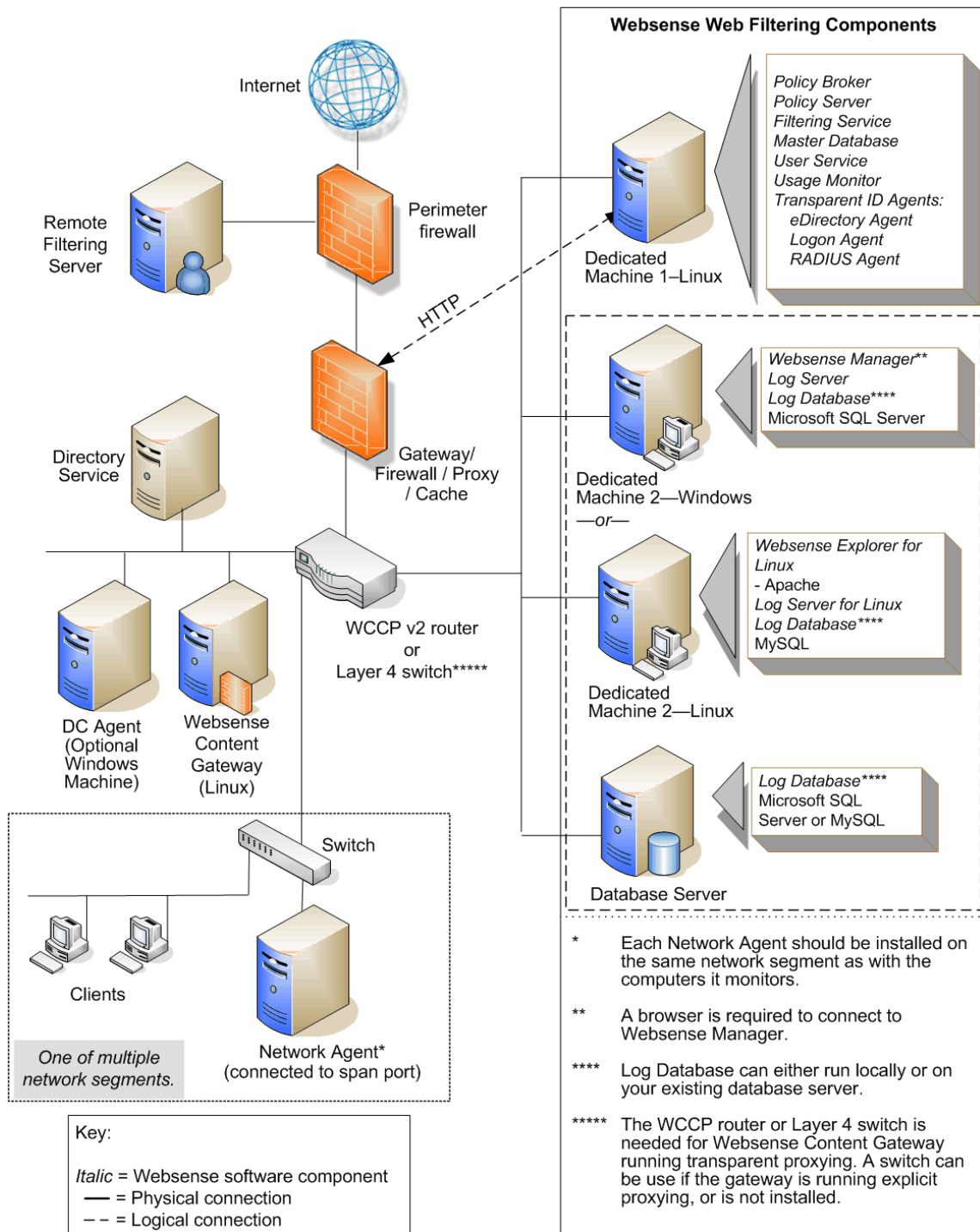

Figure 2 Overview of Linux deployment—enterprise network