



# **CyberIQ Smart Agent User's Guide**

*Part # 610-00931-01 Rev. B  
September 2000*



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CyberIQ Systems, Inc. CyberIQ Smart Agent User's Guide

CyberIQ Systems, Inc.  
2039 Samaritan Drive  
San Jose, CA 95124  
Phone: 408-369-4700  
Fax: 408-377-0288  
[www.cyberiqsys.com](http://www.cyberiqsys.com)

Written and designed at CyberIQ Systems, Inc.

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Part # 610-00931-01 Rev. B  
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# CyberIQ Smart Agent

## User's Guide

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### THE CYBERIQ SMART AGENT

The CyberIQ Smart Agent is a software daemon/application that is installed on the physical servers in CyberIQ's intelligent, high-availability infrastructure.

The CyberIQ Smart Agent is used with HyperFlow3, CyberPilot, and HyperWAN. The functions that the CyberIQ Smart Agent performs are listed in [Table 1](#).

Table 1 CyberIQ Smart Agent Functions

Product	Agent Function	Usage
HyperFlow3	Probes applications and reports on server load.	Optional
CyberPilot	Collects server statistics (CPU usage, memory usage, disk I/O time, etc.). Reads Web logs and calculates average static and dynamic request latencies. The collected information is used by CyberPilot to detect performance anomalies.	Mandatory
HyperWAN	Collects site and server statistics that allows HyperWAN to make load balancing decisions based on latency and hop count.	Optional

If used, the CyberIQ Smart Agent should be installed on all of the servers in the infrastructure. Installing agents on every managed server in the infrastructure maximizes the effectiveness of the CyberIQ units.



## Who Should Use the CyberIQ Smart Agent?

Whether or not you need a CyberIQ Smart Agent is based on which CyberIQ devices you have in your network and your network architecture. Only one CyberIQ Smart Agent is required per server.

### HyperFlow3

Not every situation requires the use of the CyberIQ Smart Agent when using HyperFlow3. Most users will find that the features they need are already available and there is no need to install the agent.

The CyberIQ Smart Agent was designed to meet specific network needs. There are a couple of situations in which use of a CyberIQ Smart Agent will greatly enhance performance.

- Networks that incorporate a very large number of virtual servers may experience slowdown as the HyperFlow3 unit polls each of the virtual servers. Installing the CyberIQ Smart Agent will solve this problem, saving bandwidth and time as the agent takes over the task of polling the virtual servers.
- Users of applications such as database servers and StoryServer application servers will need to install a CyberIQ Smart Agent if they require probe capabilities for these servers.

[Table 2](#) lists the probe functions available through HyperFlow3 and those that require the agent.

Table 2 HyperFlow3 Probe Capabilities (1 of 2)

Probe Function	HF3 Native Support	CyberIQ Smart Agent (Windows)	CyberIQ Smart Agent (Linux and Solaris)
Database	Limited, via CGI scripts	Yes	No
FTP	Yes	Yes	No
HTTP/HTTPS	Partial, only verifies port 443—no handshaking	Yes	Yes
MSDTC	No	Yes	No



Table 2 HyperFlow3 Probe Capabilities (2 of 2)

Probe Function	HF3 Native Support	CyberIQ Smart Agent (Windows)	CyberIQ Smart Agent (Linux and Solaris)
NetShow (Windows Streaming Media)	Limited, RTSP only	Yes	No
SMTP	Yes	Yes	No
StoryServer (Vignette)	No	Yes	No

## **CyberPilot**

CyberPilot requires that the CyberIQ Smart Agent be present on all servers that are to be monitored by CyberPilot.

## **HyperWAN**

When using HyperWAN without CyberIQ Smart Agents, load balancing is achieved using the round robin method or a weighted distribution method. CyberIQ Smart Agents add intelligence to your device, allowing it to consider latency, hop counts, CPU load, and network load when making load balancing decisions.

In addition, the use of CyberIQ Smart Agents allows you to combine methods (except when using the round robin method) when selecting the metrics to be used in load balancing.



## Requirements

Table 3 presents the requirements for using CyberIQ Smart Agent with your CyberIQ products.

Table 3 Requirements (1 of 2)

Product	Server Requirements
HyperFlow3	<p><b>Windows NT</b></p> <ul style="list-style-type: none"><li>• Microsoft Internet Explorer 4.x with Service Pack 2, or above.</li><li>• Windows NT Service Pack 6a</li><li>• Network Monitor Agent, see <a href="#">“Windows Network Services” on page 9</a>.</li><li>• Microsoft IIS</li></ul> <p><b>Windows 2000</b></p> <ul style="list-style-type: none"><li>• Network Monitor Driver, see <a href="#">“Windows Network Services” on page 9</a>.</li><li>• Microsoft IIS</li></ul> <p><b>Linux</b></p> <ul style="list-style-type: none"><li>• Intel 80x86 Processor</li><li>• Linux kernel 2.2.x</li></ul> <p><b>Solaris</b></p> <ul style="list-style-type: none"><li>• Sun Solaris 2.6, 7, or 8</li></ul>
HyperWAN	<p><b>Windows NT</b></p> <ul style="list-style-type: none"><li>• Microsoft Internet Explorer 4.x with Service Pack 2, or above.</li><li>• Windows NT Service Pack 6a</li><li>• Network Monitor Agent, see <a href="#">“Windows Network Services” on page 9</a>.</li><li>• Microsoft IIS</li></ul> <p><b>Windows 2000</b></p> <ul style="list-style-type: none"><li>• Network Monitor Driver, see <a href="#">“Windows Network Services” on page 9</a>.</li><li>• Microsoft IIS</li></ul> <p><b>Linux</b></p> <ul style="list-style-type: none"><li>• Intel 80x86 Processor</li><li>• Linux kernel 2.2.x</li></ul> <p><b>Solaris</b></p> <ul style="list-style-type: none"><li>• Sun Solaris 2.6, 7, or 8</li></ul>



Table 3 Requirements (2 of 2)

Product	Server Requirements
CyberPilot	<p><b>Windows NT</b></p> <ul style="list-style-type: none"><li>• Internet Explorer 5.x with Visual Basic Scripting enabled</li><li>• Windows NT Service Pack 6a</li><li>• Network Monitor Agent, see <a href="#">“Windows Network Services” on page 9</a>.</li><li>• Microsoft IIS</li></ul> <p><b>Windows 2000</b></p> <ul style="list-style-type: none"><li>• Internet Explorer 5.x with Visual Basic Scripting enabled</li><li>• Network Monitor Driver, see <a href="#">“Windows Network Services” on page 9</a>.</li><li>• Microsoft IIS</li></ul> <p><b>Linux</b></p> <ul style="list-style-type: none"><li>• Intel 80x86 Processor</li><li>• Linux kernel 2.2.x</li><li>• Smart Agent for Apache Module, see <a href="#">“CyberPilot” on page 12</a>.</li></ul> <p><b>Solaris</b></p> <ul style="list-style-type: none"><li>• Sun Solaris 2.6, 7, or 8</li><li>• Smart Agent for Apache Module, see <a href="#">“CyberPilot” on page 12</a></li></ul>

## Acquiring the CyberIQ Smart Agent

The CyberIQ Smart Agent is available from the CyberIQ Systems FTP site. To obtain a free copy of the latest version of the CyberIQ Smart Agent, contact the Customer Service Department.

### CyberIQ Customer Support

Phone: 1-888-482-6789 or 408-369-4700 (in San Jose)

Email: [support@cyberiqsys.com](mailto:support@cyberiqsys.com)



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# INSTALLING THE CYBERIQ SMART AGENT

If you have decided that you will benefit from installing the CyberIQ Smart Agent (see *Who Should Use the CyberIQ Smart Agent?* on page 4), then the CyberIQ Smart Agent should be installed on all servers in your network architecture that will be served by CyberIQ Systems' hardware.

## Windows NT/2000 Installation

The CyberIQ Smart Agent is on the documentation CD that came with your unit. It is an executable file that launches an installation wizard. Before installing the CyberIQ Smart Agent, you must have IIS installed on the NT server or Windows 2000 server where you plan to install the agent.

To install the agent:

1. **Insert the documentation CD into the CDROM drive.**
2. **Click Start | Run.**
3. **Type the following string.**

```
<-cdrom-drive-name>:\SAG\windows\SmartAgentX.XX.exe
```

The installation wizard for the CyberIQ Smart Agent will appear. Follow the on-screen instructions to complete the installation process.

4. **Reboot the system.**

Once the system reboots, the CyberIQ Smart Agent will be running.



**NOTE:** If you are installing the CyberIQ Smart Agent to work with CyberPilot, you will first need to install Internet Information Server (IIS) 4.X, and Internet Explorer 5.X. When installing IE, make sure that you select Visual Basic Scripting.

To check and see if Visual Basic Scripting has been enabled in your browser:

1. **Select `start | run`**
2. **In the Open box, type `wscript`**

If Visual Basic Scripting is installed in your browser, then the Windows Scripting Host box will appear on your display. If not, you will need to either reinstall your browser enabling Visual Basic Scripting, or download Windows Script 5.X from <http://www.microsoft.com/msdownload/vbscript/scripting.asp>.

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## ***Windows Network Services***

If using the CyberIQ Smart Agent with HyperWAN or HyperFlow3, and you would like to collect network data, you will also need to install Windows Network Monitor Agent for Windows NT, or Windows Network Monitor Driver for Windows 2000. These components can be found on your Windows NT or Windows 2000 CD.

### ***Windows NT Installation***

To install Windows Network Services on you Windows NT server:

1. **Right-click the Network Neighborhood icon on your desktop.**

A pop-up menu appears.

2. **Click Properties.**

The Network window appears.

3. **Select the Services tab.**

4. **Click Add.**

The Select Network Services window appears.

5. **Click Network Monitor Agent.**

6. **Click OK.**



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## **Windows 2000 Installation**

To install Windows Network Services on you Windows 2000 server:

**1. Right-click the My Network Places icon on your desktop.**

A pop-up menu appears.

**2. Click Properties on the popup menu.**

The Network and Dial-up Connections window appears.

**3. Right-click Local Area Connection.**

**4. Click Properties.**

The Local Area Connection Properties window appears.

**5. Click Install.**

The Select Network Component Type window appears.

**6. Click Protocol.**

**7. Click Add.**

The Select Network Protocol Window appears.

**8. Click Network Monitor Driver.**

**9. Click OK.**



## Linux OS/Solaris Installation

The CyberIQ Smart Agent for Linux and Solaris requires a binary file and a configuration file which are on your documentation CD. The configuration file must be placed in the same directory as the CyberIQ Smart Agent. No changes are required to the configuration file.

This version of the CyberIQ Smart Agent for Linux only runs on the Intel 80x86 architecture and requires Linux kernel 2.2.X.

To install the agent on a Linux system:

1. **Login as root on the Linux-powered server.**
2. **Insert the documentation CD into the CDROM drive.**
3. **Copy the CyberIQ Smart Agent files from /<cdrom-drive>/SAG/Linux/<kernel\_version>/<architecture>/smrtagt into the directory where you will run the CyberIQ Smart Agent as follows:**

```
cp -r /cdrom/SAG/linux/<kernel_version>/<architecture>*/  
/home/<PROD_DIRECTORY>/smartagent/  
chmod +x /home/<PROD_DIRECTORY>/smartagent/smrtagt
```

where <kernel\_version> is the version of the Linux kernel in use, and <architecture> is the hardware platform in use. For example, <kernel\_version> might be replaced by 2.2.x, while <architecture> might be replaced with i386.

/home/<PROD\_DIRECTORY>/smartagent is the directory where the Smart Agent will be executed. Replace <PROD\_DIRECTORY> with the directory name for the product you are installing.

4. **Type the following entry into the /etc/rc.d/rc.local boot file. This will cause the CyberIQ Smart Agent to start automatically when the system starts.**

```
if [ -f /home/<PROD_DIRECTORY>/smartagent/smrtagt ];then  
/home/<PROD_DIRECTORY>/smartagent/smrtagt &  
fi
```

To install the agent on a Solaris system:

1. **Login as root on the Solaris-powered server.**
2. **Insert the documentation CD into the CDROM drive.**



3. Copy the CyberIQ Smart Agent files from `/<cdrom-drive>/SAG/Solaris/<os_version>/<architecture>/smrtagt` into the directory where you will run the CyberIQ Smart Agent as follows:

```
cp -r /<cdrom>/SAG/solaris/<os_version>/<architecture>/  
/home/<PROD_DIRECTORY>/smartagent/  
chmod +x /home/<PROD_DIRECTORY>/smartagent/smrtagt
```

where `<os_version>` is the operating system version in use, and `<architecture>` is the hardware platform the agent will be running on. For example, `<os_version>` may be replaced by Solaris 8, while `<archicture>` might be replaced with `i86pc`.

`/home/<PROD_DIRECTORY>/smartagent` is the directory where the Smart Agent will be executed. Replace `<PROD_DIRECTORY>` with the directory name for the product you are installing.

4. Type the following entry into the `/etc/rc3` boot file on a Solaris system. This will cause the CyberIQ Smart Agent to start automatically when the system restarts.

```
if [ -f /home/<PROD_DIRECTORY>/smartagent/smrtagt ];then  
/home/<PROD_DIRECTORY>/smartagent/smrtagt &  
fi
```

## CyberPilot

When installing the CyberIQ Smart Agent for use with CyberPilot, you will also need to install the SmartAgent Apache Module for Linux/Solaris.

1. Copy the CyberIQ Smart Agent module binary from the documentation CD-ROM to the Apache module directory.

Linux:

```
cp /<cdrom-drive>/SAG/linux/2.2.x/i386/apache/mod_smartagent.so  
/etc/httpd/modules
```

Solaris 8/Intel:

```
cp /<cdrom-drive>/SAG/solaris/solaris8/i86pc/apache/mod_smartagent.so  
/usr/apache/libexec
```

2. Change the file permissions for the module.

Linux:

```
chmod +x /etc/httpd/modules/mod_smartagent.so
```

Solaris 8 for Intel:

```
chmod +x /usr/apache/libexec/mod_smartagent.so
```



**3. Edit the Apache httpd.conf file.**

Linux:

```
/etc/httpd/conf/httpd.conf
```

Solaris 8/Intel:

```
/etc/apache/httpd.conf
```

**4. Add the following in the `LoadModule/Extra` module section of the Dynamic Shared Object (DSO) support configuration section:**

```
LoadModule smartagent_module modules/mod_smartagent.so
```

**5. Add the following to the `AddModule/Extra` module section:**

```
AddModule mod_smartagent.c
```

**6. Add the following to the last part of the configuration file:**

```
<Location />  
smartAgentIP Host_IP  
</Location>
```

Host\_IP is the management IP address of the local machine where the web logs will be monitored.

**7. After completing the installation, restart the Apache server.**



# WINDOWS NT/2000 LOCAL CONFIGURATION

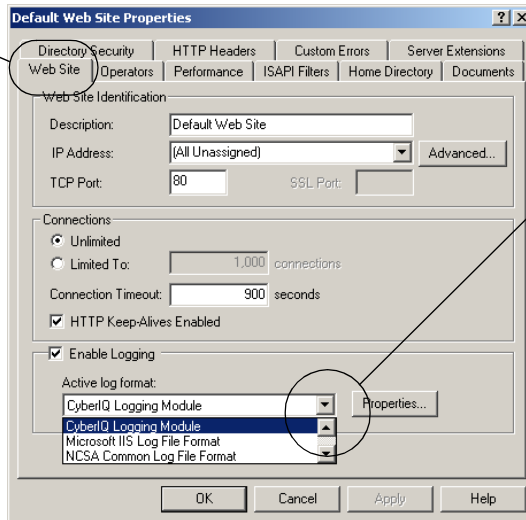
When using the CyberIQ Smart Agent with CyberPilot or HyperWAN, no configuration is necessary. To use CyberIQ Smart Agents with HyperFlow3, you will want to follow the instructions below. If you have not done so already, you will need to install the agent on your Windows NT or Windows 2000 server. For more information on installing the CyberIQ Smart Agent on your system, see *Installing the CyberIQ Smart Agent* on page 8.

When you install the agent, a control panel applet is added to your system.



**NOTE:** CyberPilot users will also need to use the Internet Services Manager to identify which Web sites should be probed.

From the Default Web Site Properties box, select the Web Site tab.



Select CyberIQ Logging Module as the Active log format.

# Launching the CyberIQ Smart Agent Applet

To launch the CyberIQ Smart Agent:

**1. Select Start | Settings | Control Panel.**

The Control Panel window appears (Figure 1).

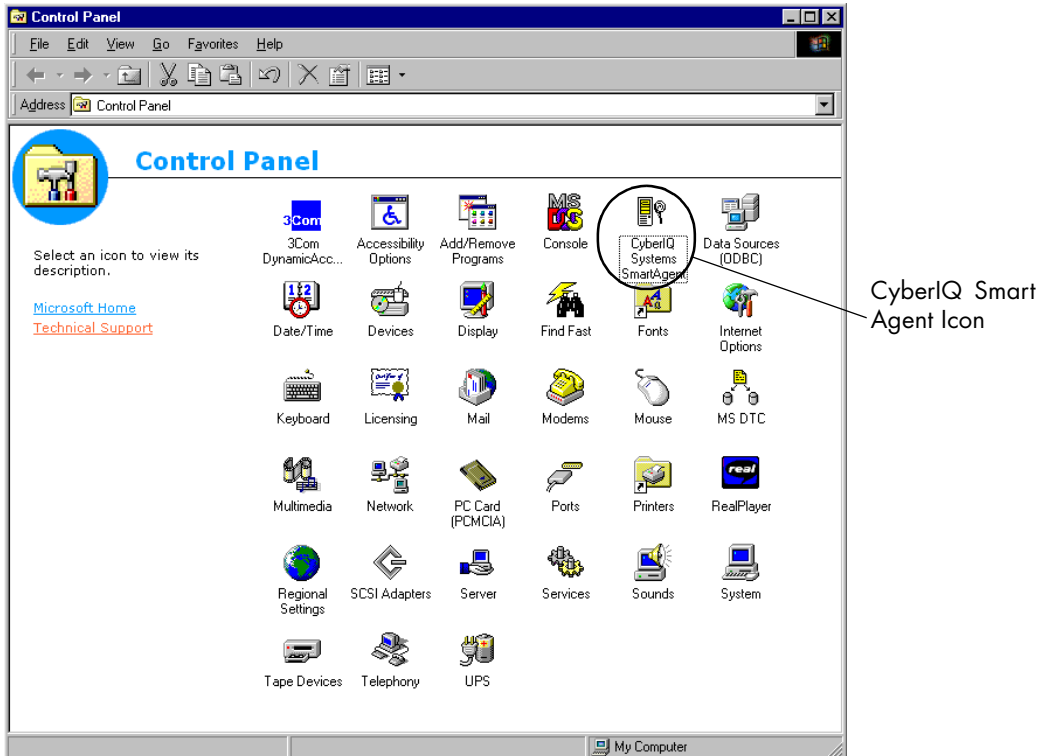


Figure 1 Control Panel Window

**2. Click the CyberIQ Smart Agent Icon.**

The CyberIQ Smart Agent Control applet appears (Figure 2).

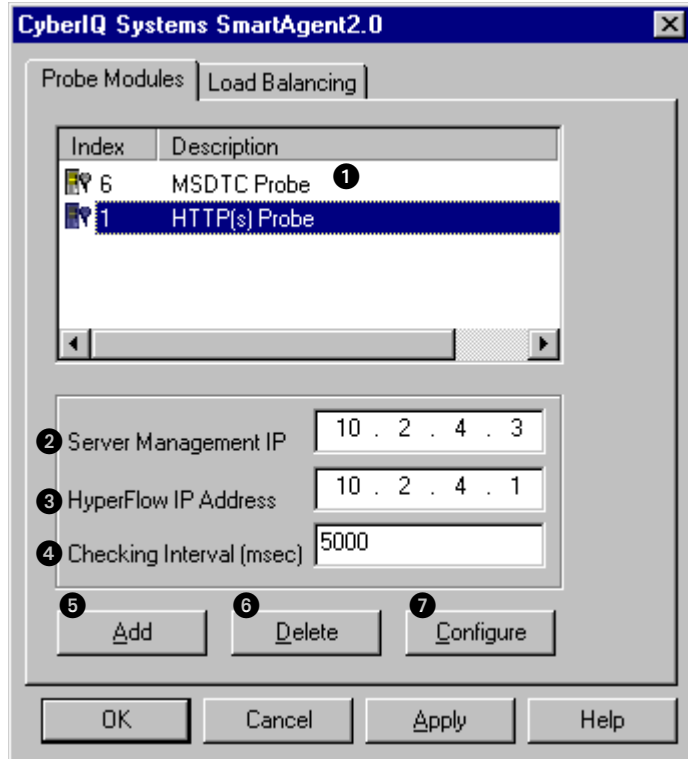


Figure 2 CyberIQ Smart Agent Control Applet

There are two main tabs in the CyberIQ Smart Agent Control applet: Probe Modules and Load Balancing. The functions of each will be described in the following sections.



## Probe Modules Tab

The Probe Modules tab is used for adding and deleting and configuring application health probes. Health probes are sent out by the agent to measure a specific variable. The health probes define which parameters the agent will collect.

The Probe Modules Tab includes the fields listed in [Table 4](#).

Table 4 Probe Modules Fields

Field	Definition
➊ Probe Table	The list of active health probe modules. Read-only.
➋ Server Management IP	The IP address where the server agent listens for commands. Read-write.
➌ HyperFlow IP Address	The HyperFlow3 IP address. Events that are detected by health probes are sent to this IP address. Read-write.
➍ Checking Interval	The amount of time (microseconds) that elapses between application probes by the health probe. Read-write.
➎ Add	Used to add application health probe modules.
➏ Delete	Used to delete application health probe modules.
➐ Configure	Used to configure health probes.

**NOTE:** Not all probes are configurable.

### Adding Health Probe Modules

From the Probe tab of the CyberIQ Smart Agent Control applet you can select the type of probes you would like your agent to use by adding the specific health probe module(s). To add a health probe module:

1. Click Add **➎** on the CyberIQ Smart Agent Control applet.

The Open screen appears ([Figure 3](#)).

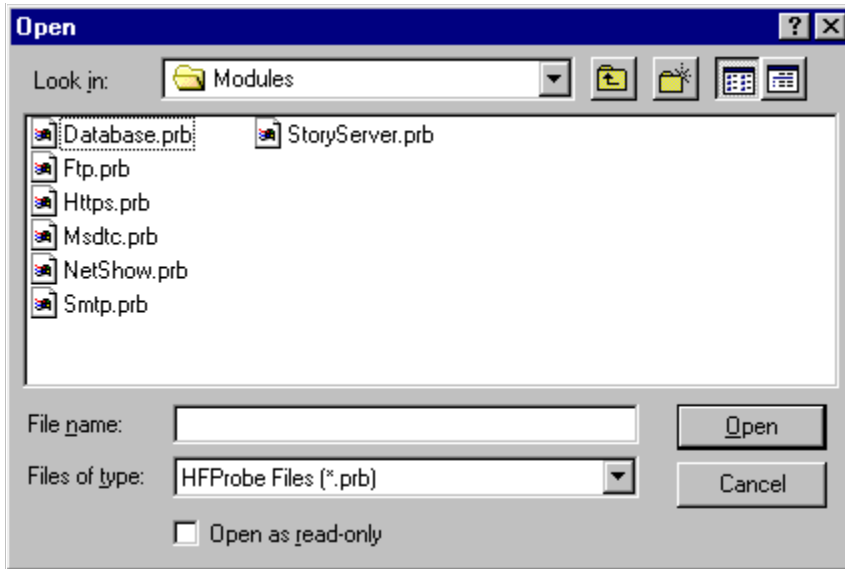


Figure 3 Open Screen

**2. Select the type of health probe modules you would like to add.**

[Table 5](#) lists the available probes.

Table 5 Available Health Probes

Health Probe	Definition	Configurable
Database.prb	Probes database servers.	Yes ( <a href="#">page 23</a> )
Ftp.prb	Probes FTP servers.	Yes ( <a href="#">page 21</a> )
Https.prb	Probes both HTTP and HTTPS servers.	Yes ( <a href="#">page 19</a> )
Msdtc.prb	Probes MSDTC servers.	No
NetShow.prb	Probes Windows Streaming Media servers.	Yes ( <a href="#">page 24</a> )
Sntp.prb	Probes SMTP servers.	No
StoryServer.prb	Probes Vignette StoryServers.	No



Once you have added the modules you plan to use, you will need to configure, or add, the individual probes. The following sections explain how to configure the modules.

## Configuring Health Probes

Most probes are configurable and require that you set specific parameters to identify the unit to be probed. The configuration screen can be invoked by choosing the probe type from the table on the CyberIQ Smart Agent Control applet, and clicking the **Configure** button.



**NOTE:** Before you can configure a health probe, you must first add it to your configuration. See *Adding Health Probe Modules* on page 17.

### HTTP/HTTPS

To configure an HTTP/HTTPS server probe:

1. Click **Start | Settings | Control Panel**.

The Control Panel window appears ([Figure 1 on page 15](#)).

2. Click the **CyberIQ Smart Agent icon**.

The CyberIQ Smart Agent Control Applet appears ([Figure 2 on page 16](#)).

3. Click the **HTTP(s) Probe** item in the table.

If there is no HTTP(s) probe module in the in the table, you must add it. See *Adding Health Probe Modules* on page 17.

4. Click the **Configure** button.

The **Configure HTTP(s) Probe** screen appears ([Figure 4 on page 20](#)). The **Configure HTTP(s)Probe** screen lists all of the active HTTP/HTTPS health probes. These are probes that have been previously added to the module. Each managed HTTP/HTTPS server should have its own probe.



**NOTE:** Each server can have multiple virtual servers. Each virtual server requires configuration.

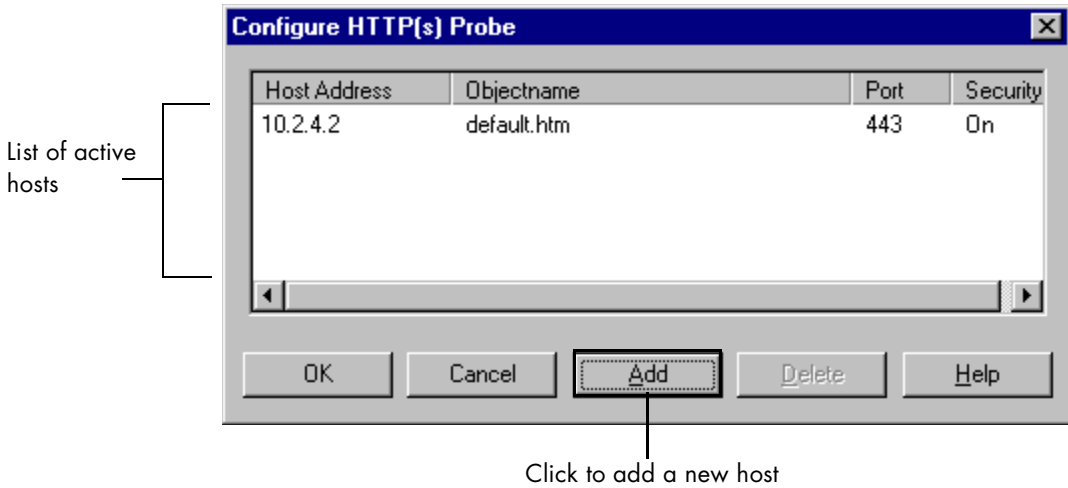


Figure 4 Configure HTTP(s) Probe Screen

5. Click the **Add** button to add a new HTTP(s) probe to the module.

The Add Host screen appears (Figure 5).

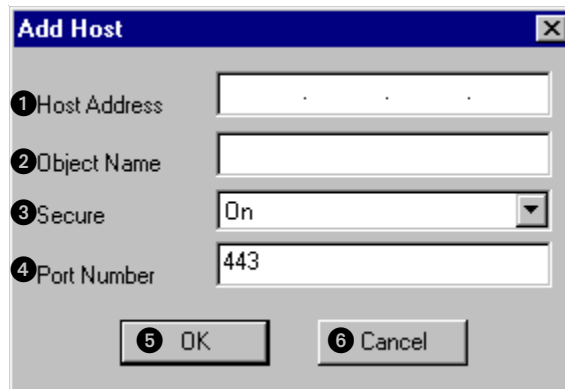


Figure 5 Add Host Screen

Refer to [Table 6](#) to fill in the fields on the Add Host screen.

Table 6 HTTP/HTTPS Add Host Screen Options

Field	Definition
① Host Address	IP address where the application is currently running.
② Object Name	Name of the file to access, for example, test.htm.
③ Secure	ON for HTTPS servers and OFF for HTTP servers.
④ Port Number	TCP port number that the application uses.
⑤ OK	Accept changes and adds the new probe to the module.
⑥ Cancel	Disregard changes and exit screen.



**NOTE:** To delete an HTTP/HTTPS probe, select the probe on the *Configure HTTP(s) Probe* screen, then click the **Delete** button.

## FTP

To configure an FTP server probe:

1. **Select Start | Settings | Control Panel.**

The Control Panel window appears ([Figure 1 on page 15](#)).

2. **Click the CyberIQ Smart Agent icon.**

The CyberIQ Smart Agent Control Applet appears ([Figure 2 on page 16](#)).

3. **Click the FTP Probe module in the table.**

If there is no FTP probe module in the table, you must add it. See *Adding Health Probe Modules* on page 17.

4. **Click the Configure button.**

The *Configure FTP Probe* screen appears ([Figure 6](#)). The *Configure FTP Probe* screen lists all of the active FTP health probes. These are FTP probes that have already been added to the module. Each managed FTP server should have its own probe.



List of active hosts

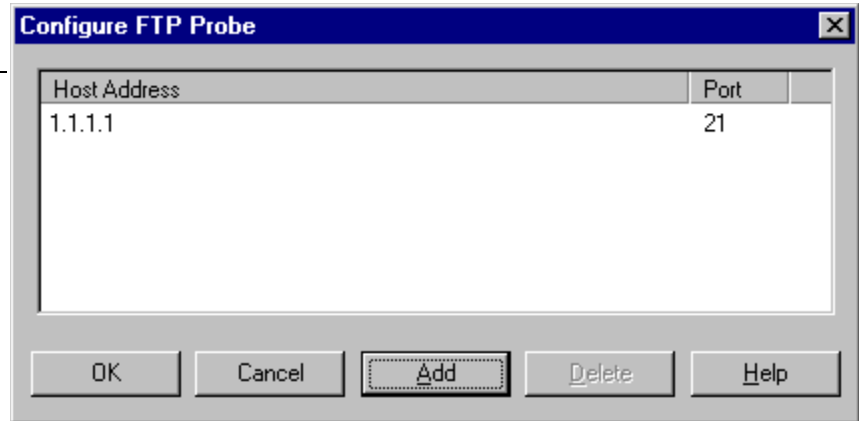


Figure 6 Configure FTP Probe Screen

**5. Click the Add button to add a new FTP probe to the module.**

The Add Host screen appears (Figure 7).

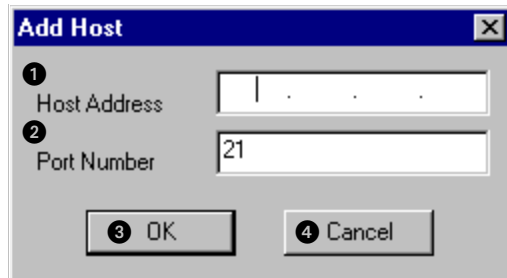


Figure 7 FTP Add Host Screen

Refer to [Table 7](#) to fill in the fields on the Add Host screen.

Table 7 FTP Add Host Screen Options (1 of 2)

Field	Definition
① Host Address	IP address that the FTP application uses.
② Port Number	TCP port number that the FTP application is using.

Table 7 FTP Add Host Screen Options (2 of 2)

Field	Definition
3 OK	Accept changes and add the new probe to the module.
4 Cancel	Disregard changes and exit screen.



**NOTE:** To delete an FTP probe, select the probe on the `Configure FTP Probe` screen, then click the **Delete** button.

## Database

To configure a database probe:

1. **Select `Start | Settings | Control Panel`.**

The Control Panel window appears ([Figure 1 on page 15](#)).

2. **Click the `CyberIQ Smart Agent` icon.**

The CyberIQ Smart Agent Control Applet appears ([Figure 2 on page 16](#)).

3. **Click the `Database Probe` module in the table.**

If there is no database probe module in the table, you must add it. See *Adding Health Probe Modules* on page 17.

4. **Click the `Configure` button.**

The `Configure Database Probe` screen appears ([Figure 8](#)).

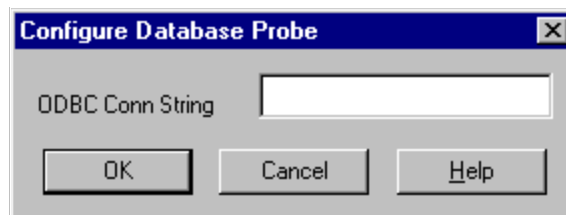


Figure 8 `Configure Database Probe` Screen



**5. Type the database connect string into the ODBC Conn String box.**

The database connect string is the string used to query and check the database application's health.

**6. Click OK to accept your entry; Cancel to close the Configure Database Probe screen and leave it unchanged; or Help to access the help screen.**

### **NetShow**

To configure a NetShow probe:

**1. Select Start | Settings | Control Panel.**

The Control Panel window appears (Figure 1 on page 15).

**2. Click the CyberIQ Smart Agent icon.**

The CyberIQ Smart Agent Control Applet appears (Figure 2 on page 16).

**3. Click the Add button.**

If there is no NetShow probe in the table, you must add it. See *Adding Health Probe Modules* on page 17.

**4. Click the Configure button.**

The Configure NetShow Probe screen appears (Figure 8).

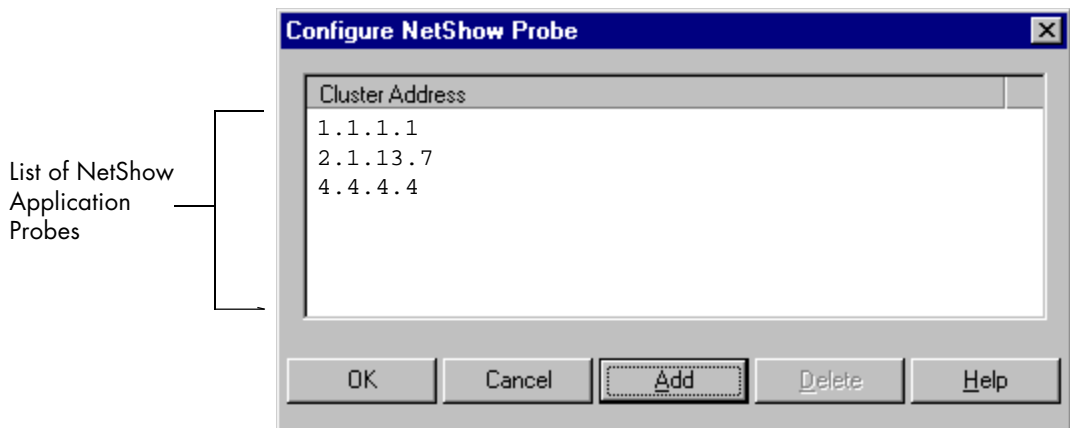


Figure 9 Configure NetShow Probe Screen

5. Click **Add** to enter a new NetShow probe to the module.

The `Add Cluster IP` screen appears (Figure 10).

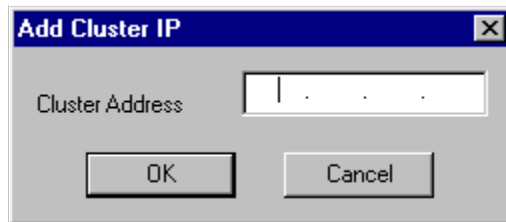


Figure 10 Add Cluster IP Screen

6. Type the IP address in the `Cluster Address` box.
7. Click **OK** to accept the new NetShow probe, or **Cancel** to close the `Add Cluster IP` box and leave the module unchanged.

## Load Balancing Tab

The `Load Balancing` tab of the CyberIQ Smart Agent Control Applet (Figure 11) is used for configuring server load calculation and reporting.

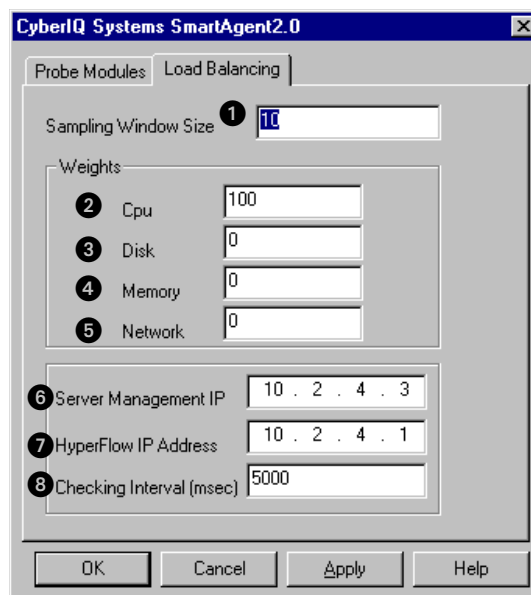


Figure 11 Load Balancing Tab



The fields on the Load Balancing tab are defined in [Table 8](#).

Table 8 Load Balancing Tab Options

Field	Definition
① Sampling Window Size	Number of samples taken from the server resources per period.
② CPU	Percentage (weight) of CPU from load calculation.
③ Disk	Percentage (weight) of disk I/O from load calculation.
④ Memory	Percentage (weight) of memory from load calculation.
⑤ Network	Percentage (weight) of network I/O from load calculation.
⑥ Server Management IP address	IP address server uses for load calculations.
⑦ HyperFlow IP address	IP address where calculated load is sent.
⑧ Checking Interval	Time period per each load calculation sent.



**NOTE:** The total value for CPU, Memory, Disk and Network weights must be 100.



# LINUX AND SOLARIS LOCAL CONFIGURATION

The CyberIQ Smart Agent for Linux and Solaris uses a configuration file instead of local command lines. The default configuration file contains comments that are helpful to users. The default configuration file is shown below:

```
#####
# Server Load Configuration
#####
#
# Enable or disable server resource load agent.
#
# Format:
#   LoadStatus enable|disable
#
# Where:
#   enable start a task daemon and disable no task will be spawned.
#
# Default:
#   enable
#
LoadStatus enable
#
# Sets what local IP address to use. In HF3 this corresponds to a
# management IP of our physical server. Useful for multi-hum or for
# more than one ethernet systems. In some cases that uses only one
# IP address, this can be set to 0.0.0.0 meaning auto-detect.
#
# Format:
#   LoadMgmtIpAddress <ip_address>
#
# Where:
#   <ip_address> is the IP address of the local machine.
#
# Default:
#   0.0.0.0
#
LoadMgmtIpAddress 0.0.0.0
#
# Automatically report/send our resource load at a specified interval to
# this IP address. Instead of continuously polling at our agent, this IP
# address can be set to point to whoever is monitoring our load (e.g. HF3)
# Setting this IP address is optional it can be set to 0.0.0.0
# which means no reporting.
#
# Format:
#   LoadEventHost <ip_address>
#
# Where:
```

```
#####  
#####  
#####  
# <ip_address> is the IP address that monitors our load.  
#  
# Default:  
# 0.0.0.0  
#  
LoadEventHost 0.0.0.0  
#  
# Sets the sampling interval. This is also the interval to  
# automatically report/send resource load, if configured.  
#  
# Format:  
# LoadInterval <sec>  
#  
# Where:  
# <sec> is the interval in seconds to sample our resource load.  
#  
# Default:  
# 10  
#  
LoadInterval 10  
#  
# Set the number of samples to average.  
#  
# Format:  
# LoadNumSamples <num_samples>  
#  
# Where:  
# <num_samples> is the number of samples.  
#  
# Default:  
# 3  
#  
LoadNumSamples 3  
#  
# Sets the various weights to consider in calculation of total  
# server load.  
#  
# Format:  
# CPUWeight <weight>  
# DiskWeight <weight>  
# MemoryWeight <weight>  
# NetworkWeight <weight>  
#  
# Where:  
# <weight> is the weight for a particular resource.  
#  
# Default:  
# CPUWeight = 100  
# DiskWeight = 0
```



```
# MemoryWeight = 0
# NetworkWeight = 0
#
CPUWeight      100
DiskWeight     0
MemoryWeight   0
NetworkWeight  0


# Set the disk bandwidth supported by your Linux system.
# This value is only used in calculating disk utilization
# in Linux, and is not used in Solaris.
#
# The default value of 4000000 is reasonable
# for systems using IDE and SCSI.
#
# Format:
#   DiskBandwidth <bandwidth>

# where: <bandwidth> is the disk transfer speed
# supported by your system. For IDE drives, you can
# get this value by running /sbin/hdparm -t <drive>.
#####
# Probe Configuration
#####
#
# Enable or disable service/application probe.
#
# Format:
#   ProbeStatus enable|disable
#
# Where:
#   enable start a task daemon and disable no task will be spawned.
#
# Default:
#   disable
#
ProbeStatus    disable
#
# Sets what local IP address to use. In HF3 this corresponds to a
# management IP of our physical server. Useful for multi-hum or for
# more than one ethernet systems. In some cases that uses only one
# IP address, this can be set to 0.0.0.0 meaning auto-detect.
#
# Format:
#   ProbeMgmtIpAddress <ip_address>
#
# Where:
#   <ip_address> is the IP address of the local machine.
#
```

```
# Default:
#   0.0.0.0
#
ProbeMgmtIpAddress      0.0.0.0
#
# Automatically report/send probe event status at a specified interval to
# this IP address.  Instead of continuously polling at our agent, this IP
# address can be set to point to whoever is monitoring our probes
# (e.g. HF3) Setting this IP address is optional it can be set to 0.0.0.0
# which means no reporting.  Probe event status reports if-and-only-if
# there is a change in status (e.g. DOWN to UP or UP to DOWN).
#
# Format:
#   ProbeEventHost <ip_address>
#
# Where:
#   <ip_address> is the IP address that monitors our probes.
#
# Default:
#   0.0.0.0
#
ProbeEventHost         0.0.0.0
#
# Sets the interval to start all the probes. This is also the interval to
# automatically report/send probe status, if configured.
#
# Format:
#   ProbeInterval <sec>
#
# Where:
#   <sec> is the interval in seconds to start all the probes.
#
# Default:
#   10
#
ProbeInterval          10
#
# List of probe module to use.
#
# Format:  ProbeModule <type>
#
# Where:
#   <type> is the type of probe.
#
# Default:
#   ProbeModule 01
#
# List of known probe module:
#   Name          Type
```



```
# HTTP 01
# HTTPS 02
# FTP 03 *
# DATABASE 04 *
# SMTP 05 *
# MSDTC 06 *
# NETSHOW 07 *
# STORYSERVER 08 *
# SNMP 09 *
# ICMP/PING 10 *
#
# * To be supported.
#
# 50- is allocated for custom probe modules
#
# Guidelines For Writing Custom Probe Module:
#
# There are two ways to write a probe module, one is by writing a
# shell script or a dynamic loadable library (.so), but we recommend
# the latter for performance reason.
#
# 1. Shell Script:
#
# Write your shell script that accepts and parses whatever intended
# argument and would return zero (0) for UP and non-zero as DOWN.
# Filename should be in two (2) digit form that would corresponds the
# allocated probe module type (any unique number starting from 50).
#
# 2. Dynamic Loadable Library:
#
# In your library, write a function that accepts and parses a null
# terminated string as parameter and would return zero (0) for UP and
# non-zero as DOWN. Function name must be "probeExec". Filename must
# be in the form of "lib<type>.so" where <type> corresponds the
# allocated probe module type (any unique number starting from 50).
#
# Function prototype:
#
# int probeExec ( char *stringParam )
#
ProbeModule 01
#
# List of probes to execute.
#
# Format: Probe <type> <param>\n
#
# Where:
# <type> is the type of probe module to use and <param> is a null
# terminated string it will be pass as parameter to the probe module
```



---

```
# during the execution of probe. <param> will also be pass as a
# payload/data during a probe status reporting or polling.
# NOTE: <param> will be parse until a newline is encountered.
#
# Default:
# <none>
#
```