HP Operations Smart Plug-in for Web Servers

For HP Operations Manager for Windows®

Software Version: 5.40

PDF version of the online help

This document is a PDF version of the online help that is available in the Web Servers SPI. It is provided to allow you to print the help, should you want to do so. Note that some interactive topics are not included because they will not print properly, and that this document does not contain hyperlinks.

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HP Operations Smart Plug-in for Web Servers Overview

The HP Operations Smart Plug-in for Web Servers (Web Servers SPI) enables you to use HP Operations Manager for Windows (HPOM for Windows) to monitor and manage the operations and performance of your web server on your UNIX nodes.

The Web Servers SPI is installed on your HPOM for Windows management server. An HP Operations agent is installed on each of the UNIX nodes to be managed. Each UNIX node is added to the HPOM for Windows console. Web Servers SPI instrumentation is deployed to each managed UNIX node. You configure each managed node to accept monitoring and managing by the Web Servers SPI.

The Web Servers SPI contains tools and policies, created using HPOM templates, through which you monitor and manage your Web Server on your UNIX nodes. These tools and policies are preset to perform web server specific monitoring and managing.

Once installed and configured the Web Servers SPI policies monitor the events of the web server on your managed nodes. Whenever an event meets the defined message criteria, or threshold criteria, the rule-defined action is performed. These actions can include notification, entering log files, stopping or restarting a web server. To perform these actions, the Web Servers SPI policies can be directed to initiate Web Servers SPI tools.

Using standard HPOM processes, you can modify the policy values as needed to adjust monitoring and managing actions.

Related Topics:

- Web Servers SPI installation
- Web Servers SPI policies
- Web Servers SPI tools
- Using the Web Servers SPI
- Troubleshooting the Web Servers SPI

Web Servers SPI features and functions

The Web Servers SPI provides policies and tools specifically designed to integrate with HPOM for Windows.

The Web Servers SPI uses standard HPOM policy types: logfile entry, auto discovery, schedule, and threshold management. Web Servers SPI policies discover web servers, create logs, and perform service monitoring of your managed nodes web server.

The Web Servers SPI tools configure, unconfigure, start, stop, and show access and error log files on your managed UNIX nodes.

Using the Web Servers SPI, you can:

- Modify policies and tools to suit your needs.

- Configure servers, policies, and tools, including setting the rules by which messages are generated and tools launched.

- Manage your web server by monitoring:
  - Event Logs
  - UNIX Processes

- Discover monitored web servers and view service instances in the HPOM console service map.

Related Topics:

- Web Servers SPI policies
- Web Servers SPI tools
- Using the Web Servers SPI

Web Servers SPI supported web services

Web Servers SPI policies and tools can start, stop, monitor, and manage the following services:

- Apache WWW Server
- SunONE WWW Server

Related Topics:

- Configure managed nodes
- Discover services on managed nodes
- Using the Web Servers SPI

Web Servers SPI script files

The Web Servers SPI script files are called by Web Servers SPI policies to initiate Web Servers SPI tools. The script file name corresponds to the action that calls it.

The tools and their associated shell scripts are as follows:

- WebSPI Admin
  - Remove WebSPI—wsspi_remove.sh
  - Show WebSPI History Log—wsspi_show_history_log.sh
  - Self-Healing Info—shs_perl.pl (This script is provided by Self-healing Collector)
- Apache
  - Configure Apache Node—wsspi_config_apache.sh
  - Restart Apache—wsspi_restart_webservice.sh
  - Show Apache Configuration—wsspi_show_config.sh
  - Start Apache—wsspi_start_webservice.sh
  - Status of Apache—wsspi_status_webservice.sh
  - Show Apache Error Log—wsspi_show_error_log.sh
  - Show Apache Access Log—wsspi_show_access_log.sh
  - Show Apache Node Details—wsspi_show_webservice.sh
  - CODA Config Spec Compilation—wsspi_compile_coda_spec.pl
- SunONE
  - Configure SunONE Node—wsspi_config_sunone.sh
  - Restart SunONE—wsspi_restart_webservice.sh
  - Show SunONE Configuration—wsspi_show_config.sh
  - Start SunONE—wsspi_start_webservice.sh
  - Status of SunONE—wsspi_status_webservice.sh
  - Stop SunONE—wsspi_stop_webservice.sh

- Show SunONE Error Log—wsspi_show_error_log.sh

- Show SunONE Access Log—wsspi_show_access_log.sh

- Show SunONE Node Details—wsspi_show_webservice.sh

The policies and their associated shell scripts are as follows:

- WebSPI Admin

  ○ WebSPI InternalErrorLog

- Apache

  ○ WebSPI-AP-Discovery—wsspi_discovery.sh

  ○ WebSPI-AP-LogMon—wsspi_logmon.sh

  ○ WebSPI-AP-ProcMon—wsspi_procmon.sh

  ○ WebSPI-AP-CPUUsage—wsspi_perfmon_apache.sh

  ○ WebSPI-AP-MEMUsage—wsspi_perfmon_apache.sh

  ○ WebSPI-AP-NumRequests—wsspi_perfmon_apache.sh

  ○ WebSPI-AP-BusyProcessesRate—wsspi_perfmon_apache.sh

  ○ WebSPI-AP-ResponseTime—wsspi_perfmon_apache.sh

  ○ WebSPI-AP-BytesPerSec—wsspi_perfmon_apache.sh

  ○ WebSPI-AP-BytesPerReq—wsspi_perfmon_apache.sh

  ○ WebSPI-AP-CODALOG—wsspi_coda_datalog.sh

- SunONE

  ○ WebSPI-SO-Discovery—wsspi_discovery.sh

  ○ WebSPI-SO-LogMon—wsspi_logmon.sh

  ○ WebSPI-SO-ProcMon—wsspi_procmon.sh

  ○ WebSPI-SO-CPUUsage—wsspi_perfmon_sunone.pl

  ○ WebSPI-SO-MemoryUsage—wsspi_perfmon_sunone.pl

  ○ WebSPI-SO-NumRequests—wsspi_perfmon_sunone.pl

  ○ WebSPI-SO-BusyProcessesRate—wsspi_perfmon_sunone.pl

  ○ WebSPI-SO-ResponseTime—wsspi_perfmon_sunone.pl

  ○ WebSPI-SO-ThreadRate—wsspi_perfmon_sunone.pl

- WebSPI-SO-ErrorRate—wsspi_perfmon_sunone.pl

Related Topics:

- Using Web Servers SPI tools and policies

- Web Servers SPI file distribution

Web Servers SPI file distribution

After Web Servers SPI installation, policies, tools, scripts (as deployed instrumentation), and configuration files can be found by using the HPOM console tree as follows:

All the Web Servers SPI policies are accessed through the HPOM console. Either of two paths can be used:

Console → HP BTO Software→ Operations Manager → Policy management

Then → Policy grouped by type → Logfile Entry | Measurement Threshold | Scheduled Task | Service Auto-Discovery

- Logfile Entry
  - WebSPI-InternalErrorLog
  - WebSPI-AP-LogMon
  - WebSPI-SO-LogMon

- Measurement Threshold
  - WebSPI-AP-ProcMon
  - WebSPI-AP-CPUUsage
  - WebSPI-AP-MEMUsage
  - WebSPI-AP-NumRequests
  - WebSPI-AP-BusyProcessesRate
  - WebSPI-AP-ResponseTime
  - WebSPI-AP-BytesPerSec
  - WebSPI-AP-BytesPerReq
  - WebSPI-SO-ProcMon
  - WebSPI-SO-CPUUsage
  - WebSPI-SO-MemoryUsage
  - WebSPI-SO-ThreadRate
  - WebSPI-SO-ErrorRate

- • WebSPI-SO-ResponseTime

- ■ Scheduled Task

  - • WebSPI-AP-CODALOG

- • Service Auto-Discovery
  - ■ WebSPI-AP-Discovery
  - ■ WebSPI-SO-Discovery

or ➜ Policy groups ➜ SPI for Web Servers ➜ WebSPI Admin | WebSPI Apache | WebSPI SunONE

- ■ WebSPI Admin

  - • WebSPI-InternalErrorLog

  - • Version Verify

- ■ WebSPI Apache

  - • WebSPI-AP-Discovery

  - • WebSPI-AP-LogMon

  - • WebSPI-AP-ProcMon

  - • WebSPI-AP-CPUUsage

  - • WebSPI-AP-MEMUsage

  - • WebSPI-AP-NumRequests

  - • WebSPI-AP-BusyProcessesRate

  - • WebSPI-AP-ResponseTime

  - • WebSPI-AP-BytesPerSec

  - • WebSPI-AP-BytesPerReq

  - • WebSPI-AP-CODALOG

- ■ WebSPI SunONE

  - • WebSPI-SO-Discovery

  - • WebSPI-SO-ProcMon

  - • WebSPI-SO-CPUUsage

  - • WebSPI-SO-MemoryUsage

  - • WebSPI-SO-ThreadRate

- WebSPI-SO-ErrorRate

- WebSPI-SO-ResponseTime

Error logs created by the policies are stored as follows:

- The Web Servers SPI history log is located on the managed node:

  /var/opt/OV/wsspi/log/wsspi_error_log

All the Web Servers SPI tools are accessed through the HPOM console using standard HPOM processes:

Console → HP BTO Software → Operations Manager → SPI for Web Servers → WebSPI Admin | WebSPI Apache | WebSPI SunONE

- WebSPI Admin
  - Remove WebSPI

  - Show WebSPI History Log

  - Show All Web Services

  - Self-Healing Info

  - Version Verify

- Apache
  - Configure Apache Node

  - Unconfigure Apache Node

  - Restart Apache

  - Show Apache Configuration

  - Start Apache

  - Status of Apache

  - Stop Apache

  - Show Apache Error Log File

  - Show Apache Access Log File

  - Show Apache Node Details

  - CODA Config Spec Compilation

- SunONE
  - Configure SunONE Node

- Unconfigure SunONE Node

- Restart SunONE

- Show SunONE Configuration

- Start SunONE

- Status of SunONE

- Stop SunONE

- Show SunONE Error Log File

- Show SunONE Access Log File

- Show SunONE Node Details

The Web Servers SPI scripts are deployed into the following directories on the managed node:

/var/opt/OV/bin/instrumentation

The configuration file for each managed node is stored on the managed node in the following location:

/var/opt/OV/wsspi/conf/wsspi.cfg

Related Topics:

- Discover services on managed nodes
- Configure managed nodes
- Using the Web Servers SPI

Web Servers SPI installation

Installing and configuring the Web Servers SPI involves Windows processes, HPOM for Windows processes and Web Servers SPI processes. All actions are performed on the Windows management server.

1. Use Windows processes to verify that the Web Servers SPI is installed on your HPOM for Windows management server.

2. Use HPOM for Windows processes to add each UNIX node to be managed to the HPOM Console.

3. Use Windows processes to install the HPOM Agent on each of the UNIX nodes to be managed.

   a. FTP the agents to the UNIX managed nodes.

   b. Manually install the agent.

4. Use HPOM for Windows processes to deploy Web Servers SPI instrumentation to each of the UNIX nodes to be managed.

5. Use Web Servers SPI processes to configure each managed UNIX node to accept monitoring and managing by the Web Servers SPI.

Refer to the following topics, in order, for descriptions of the Web Servers SPI installation and configuration tasks:

1. Installation Prerequisites and compatibility

2. Install the Web Servers SPI

3. Verify the Web Servers SPI management server installation

4. Add managed nodes to the HPOM console

5. Deploy Web Servers SPI to managed nodes

6. Verify the Web Servers SPI deployment on managed nodes

7. Configure managed nodes

8. Verify configuration of managed nodes

9. Discover services on managed nodes

10. Verify services discovered on managed nodes

Related Topics:

- Using the Web Servers SPI
- Troubleshooting the Web Servers SPI

Installation prerequisites and compatibility

Prior to installing the Web Servers SPI, review the following and make sure that all installation prerequisites and system compatibility requirements are satisfied on both the Windows management node and managed UNIX nodes. Refer to the Release Notes file (`WebServer_ReleaseNotes.html`) for system compatibility version level information. The Web Servers SPI requires that the following components are preinstalled and configured on the management node:

- HPOM for Windows, version 8.10 or 8.00 is installed and configured on a Windows 2000 or Windows 2003 system.

- HPOM for Windows, version 8.10 or 8.00 console is installed and configured on the HPOM for Windows management server or other appropriate Windows 2000 or Windows 2003 system.

- 15 MB disk space on the HPOM for Windows management server system to install components necessary for the integration.

- Complete installation of Perl version 5.6.1 or later under `/usr/bin` directory.

  NOTE:
  The version of OV Perl installed on the managed node might not contain the complete Perl installation, therefore you must make sure that you install the complete version of Perl.

The Web Servers SPI monitors and manages web servers on many platforms. Depending on the web server version, the Web Servers SPI can manage web servers running on the following platforms:

- Apache 2.x web server support

  - HP-UX versions 11.11, 11.23, 11.31 PA, and 11.31 IA

  - Sun Solaris, versions 8, 9

  - RedHat Enterprise Linux, versions 3.0 and 4.0 (x86)

  - SuSE Linux and SuSE Enterprise Server, versions 9 and 10 (x86)

    NOTE:
    If Perl is not installed, you must configure the Apache web server by adding the additional parameter named `module` to the configuration tool as follows: `httpd.conf module.` This method might not work with Apache versions later than 2.0.55. In such a scenario, Web Servers SPI performance monitoring policies for Apache require the `mod_hpspi` Apache module to load. Before the Web Servers SPI can load the mod_hpspi Apache module, the mod_so module must be enabled. For information about enabling the `mod_so` module, refer to the *Apache Administration Guide* .

- Sun ONE web server

  - Sun Solaris, versions 8, 9, 10

- IBM HTTP web server

  - IBM HTTP 6.0 web server on RedHat Enterprise Linux Advanced Server (AS) 3.0 on Intel x86

   NOTE:
  Web Servers SPI performance monitoring policies for SunONE requires SNMP data for collecting performance information. Before installing the Web Servers SPI, the SNMP subagent must be configured.

Related Topics:

- Web Servers SPI features and functions

Install the Web Servers SPI on the management server

Use the Windows InstallShield wizard to install the Web Servers SPI on the HPOM for Windows management server system. The InstallShield wizard guides you through the procedure and prompts you for the information that you must enter.

To install the Web Servers SPI onto your Windows 2000 or 2003 server:

1. Make sure that prerequisites have been met. For more information, see Installation prerequisites and compatibility .

2. Insert the DVD labeled "HP Operations Manager for Windows" into your DVD-ROM drive.

3. Run the setup program.

   a. Click Start menu → Run

   b. Enter in the field: <DVDROM_drive>:\setup.exe

   c. Use the drive letter of your DVD-ROM drive.
      The Install Welcome message displays.

      The Installation Wizard guides you through the process.

4. Continue with the installation, click Next .
   The License Agreement window opens.

5. Agree to the licensing requirements.
   Read the License Agreement.

   Click Yes to agree to it.

   The Install Destination window opens.

6. Select an installation destination and click Next .
   The Installation Description window opens.

7. Verify the installation destination, click Next .
   The Start Copying window opens.

8. Copy the files, click Next .

    When the installation is complete, the Install Completion window opens.

9. Exit the installation wizard, click Finish .

    For additional information, see the `WebServer_ReleaseNotes.html` file on the product DVD.

Related Topics:

- Reinstallation errors
- Verify the Web Servers SPI management server installation

Verify Web Servers SPI management server installation

To verify the Web Servers SPI is installed on your Windows management server, check the HPOM Console tree for Web Servers SPI policies and tools.

To use the HPOM console to check for Web Servers SPI policies and tools:

1. From your Windows Start directory or desktop (if alias exists), start HPOM.
   The HP Operations Manager window opens.

2. Verify the addition of the Web Servers SPI Tools.

   a. Click through the Tree tab of the HPOM console:
      Console → Operations Manager → Tools

   b. Verify the list of supported web server products listed under Tools .
      Click through the Tree tab of the HPOM Console:

      SPI for Web Servers → WebSPI Admin | WebSPI Apache | WebSPI SunONE

      Each of these options contains the tools to start, stop, and check the status of services and processes associated with each web server.

   c. Verify the list of tools for each supported web server.
      The tools available for each of the supported systems, include:

      Under WebSPI Admin

      ○ Remove WebSPI

      ○ Show WebSPI History Log

      ○ Show All Web Services

      ○ Self-Healing Info

      Under WebSPI Apache

      ○ Configure Apache Node

      ○ Unconfigure Apache Node

    ○ Restart Apache

    ○ Show Apache Configuration

    ○ Show Apache Node Details

    ○ Start Apache

    ○ Status of Apache

    ○ Stop Apache

    ○ Show Apache Error Log

    ○ Show Apache Access Log

    ○ CODA Config Spec Compilation

Under WebSPI SunONE

    ○ Configure SunONE Node

    ○ Unconfigure SunONE Node

    ○ Restart SunONE

    ○ Show SunONE Configuration

    ○ Show SunONE Node Details

    ○ Start SunONE

    ○ Status of SunONE

    ○ Stop SunONE

    ○ Show SunONE Error Log

    ○ Show SunONE Access Log

3. Verify the addition of the Web Servers SPI Policies.

   Click through the Tree tab of the HPOM console:

   Console → Operations Manager → Policy Management

   Web Servers SPI policies can be found by looking in either the Policy groups or Policies grouped by type options under Policy Management . Each of the two options contains a folder for each supported web server that contains the policies for auto-discovery, error log, and measurement threshold handling associated with each web server.

4. Verify the list of supported web server products listed under Policy groups .

   a. Click through the Tree tab of the HPOM console:

Policy groups → SPI for Web Servers → WebSPI Admin | WebSPI Apache | WebSPI
SunONE

b. Verify the policies available for your supported system:

Under WebSPI Apache

○ WebSPI-AP-Discovery

○ WebSPI-AP-LogMon

○ WebSPI-AP-ProcMon

○ WebSPI-AP-CPUUsage

○ WebSPI-AP-MEMUsage

○ WebSPI-AP-NumRequests

○ WebSPI-AP-BusyProcessesRate

○ WebSPI-AP-ResponseTime

○ WebSPI-AP-BytesPerSec

○ WebSPI-AP-BytesPerReq

○ WebSPI-AP-CODALOG

Under WebSPI SunONE

○ WebSPI-SO-Discovery

○ WebSPI-SO-LogMon

○ WebSPI-SO-ProcMon

○ WebSPI-SO-CPUUsage

○ WebSPI-SO-MemoryUsage

○ WebSPI-SO-ThreadRate

○ WebSPI-SO-ErrorRate

○ WebSPI-SO-ResponseTime

Under WebSPI Admin

○ WebSPI-InternalErrorLog

○ Verify the list of supported web server products listed under Policies grouped by type .

○ Click through the Tree tab of the HPOM console:

Policy grouped by type → Logfile Entry | Measurement Threshold | Scheduled Task | Service Auto-Discovery

○ Verify the polices available listed under each respective policy type:

Under Logfile Entry

○ WebSPI-AP-LogMon

○ WebSPI-SO-LogMon

○ WebSPI-InternalErrorLog

Under Measurement Threshold

○ WebSPI-AP-ProcMon

○ WebSPI-AP-CPUUsage

○ WebSPI-AP-MEMUsage

○ WebSPI-AP-NumRequests

○ WebSPI-AP-BusyProcessesRate

○ WebSPI-AP-ResponseTime

○ WebSPI-AP-BytesPerSec

○ WebSPI-AP-BytesPerReq

○ WebSPI-SO-ProcMon

○ WebSPI-SO-CPUUsage

○ WebSPI-SO-MemoryUsage

○ WebSPI-SO-ThreadRate

○ WebSPI-SO-ErrorRate

○ WebSPI-SO-ResponseTime

Under Scheduled Task

○ WebSPI-AP-CODALOG

Under Service Auto-Discovery

○ WebSPI-AP-Discovery

○ WebSPI-SO-Discovery

Related Topics:

- ○ Web Servers SPI file distribution

- ○ Install the Web Servers SPI

- ○ Add managed nodes to the HPOM console

...

Add managed nodes to the HPOM console

Using standard HPOM for Windows processes, make sure that all to-be-managed nodes are included in the HPOM console. For more information, see the applicable HPOM for Windows help topics.

To verify that all to-be-managed nodes are already included in the HPOM console:

1. From the HPOM console, Tree tab, click through the tree:

    Console → Nodes

    This displays a list of included nodes.

2. Check for the desired node, by node name.

3. If any of the to-be-managed nodes are not already included in the HPOM console, add them.
    Use standard HPOM for Windows processes:

    a. From the HPOM console, Tree tab, click through the tree:

        Console → Nodes

    b. Right-click the Nodes object.
        From the pop-up menu, select the action: Configure → Nodes

        The Configure Managed Nodes window opens.

    c. Click the New node.
        From the pop-up menu, select the action: Node Properties

        The Node Properties window opens.

    d. Enter the new node information:

        ○ Name node - a general node name

        ○ Network - a fully qualified domain name

        ○ System

    e. Click OK .

This adds the node to the list of nodes in the HPOM console.

Related Topics:

- Remove the Web Servers SPI from managed nodes
- Verify the Web Servers SPI management server installation

Deploy the Web Servers SPI to managed nodes

Use standard HPOM for Windows processes to deploy the Web Servers SPI to a managed node. Make sure that you configure node on the management server and the HP Operations agent on the managed node. For more information, refer to the applicable HPOM for Windows Help topics.

The following steps are provided here for your reference. For more information, see the applicable HPOM for Windows help topics.

To deploy Web Servers SPI instrumentation to managed nodes:

1. Display the HPOM managed nodes.

   From the HPOM Console, Tree tab, click through the tree as follows:

   Console → Operations Manager → Nodes

   This displays a list of available nodes.

2. Select the desired node.

   Right-click the target node.

3. Deploy the instrumentation.

   From the pop-up menu, select:

   All Tasks → Deploy Instrumentation

   The Deploy Instrumentation window opens.

4. Select all the instrumentation options.

   The Web Servers SPI includes instrumentation within WSSPI instrumentation.

   From the Deploy Instrumentation window, select the instrumentation type: WSSPI.

5. Click OK.

   This deploys the reference files to the appropriate HPOM directories.

   NOTE:
   This completes the deployment of the Web Servers SPI to the managed nodes. To start monitoring and

managing the web servers on your managed UNIX nodes, proceed to Using the Web Servers SPI .

Related Topics:

- Verify Web Servers SPI deployment on managed nodes

Verify Web Servers SPI deployment on managed nodes

To verify if the Web Servers SPI instrumentation is deployed correctly:

- Open the Deployment jobs folder and verify that it is empty.

- Check for the Web Servers SPI scripts in the following directories on the managed node:
  /var/opt/OV/bin/instrumentation

The tools shell scripts include:

- wsspi_restart_apache.sh
- wsspi_restart_webservice.sh
- wsspi_show_access_log.sh
- wsspi_show_history_log.sh
- wsspi_show_all_webservice.sh
- wsspi_show_config.sh
- wsspi_show_error_log.sh
- wsspi_show_webservice.sh
- wsspi_get_iplanet_sunone_version.sh
- wsspi_start_apache.sh
- wsspi_start_webservice.sh
- wsspi_status_webservice.sh
- wsspi_stop_apache.sh
- wsspi_stop_webservice.sh
- wsspi_config_apache.sh
- wsspi_config_sunone.sh
- wsspi_unconfig_webservice.sh
- wsspi_common.sh
- wsspi_remove.sh
- wsspi_procmon.sh

Related Topics:

- Web Servers SPI file distribution
- Deploy the Web Servers SPI to managed nodes
- Configure managed nodes

Configure managed nodes

Execute the Web Servers SPI tool, Configure <server> Node , to create the Web Servers SPI configuration file on the managed node. Select the Configure <server> Node tool that corresponds to the managed node web server. This configuration file stores configuration information about the managed node web server.

The file is stored in the managed node at:

/var/opt/OV/wsspi/conf/wsspi.cfg

It is important that you keep in mind the following details:

- This configuration file is used by all the management components of the Web Servers SPI (tools or policies). Without this configuration file, management is not possible.

- Each time the Configure <server> Node tool is executed, the existing configuration information is overwritten.

- If you need to add a new search path to the configuration file, rerun the Configure <server> Node tool.

To configure the Web Servers SPI managed node:

1. If configuring Apache node services, make sure that it is actively running on the managed node.

    From the HPOM console, Tree tab, click through the tree:

    Console → Operations Manager → Tools → SPI for Web Servers → WebSPI Apache | WebSPI SunONE → Configure Apache Node | Configure SunONE Node

    For example:

    Tools → SPI for Web Servers→ WebSPI Apache → Configure Apache Node

2. Right-click the Configure <server> Node tool.

    From the pop up menu, select All Tasks → Launch Tool

    The Select where to launch this tool window opens.

3. Select the node(s) to be configured.

4. Click the Launch button.

    The Parameters tab of the Edit Parameters window opens.

5. For Apache web servers, enter the path httpd.conf .
    If Perl is not installed, you must configure the Apache web server by adding the additional parameter
    named `module` to the configuration tool as follows: `httpd.conf module.` This method might not work
    with Apache versions later than 2.0.55. You must also specify the tag for the Server Name as follows
    < ServerName > < IPAddress >:< Port >

6. For SunONE web servers, enter the path magnus.conf .

7. Click the Launch button.

    Configuration of the selected nodes is now started.

    The Web Servers SPI tool attempts to discover information that is part of the Apache, IBM HTTP, or
    SunONE web server configuration on the managed nodes.

- Apache and IBM HTTP web server:
    - Port Number: web server port number
    - IP Address: web server IP address
    - PID File: web server PID file path
    - Version: web server version
    - Server Root Directory: web server root path
    - Document Directory: web server document root directory
    - Error Log File Path: web server error log file path
    - Access Log File Path: web server access log file path
    - Approach: the approach used to configure the web server

- SunONE:
    - Port Number: web server port number at which the SunONE site is running
    - IP Address: web server IP address
    - PID File: path to the web server PID file, which includes the location of the SunONE site
    - Version: web server version
    - Server Root Directory: web server root path
    - Document Directory: web server document root directory
    - Error Log File Path: web server error log file path

- Access Log File Path: web server access log file path

- Start Script Path: path to the web server start script

- Stop Script Path: path to the web server stop script

- Restart Script Path: path to the web server restart script

Related Topics:

- Use Web Servers SPI tools and policies
- Verify configuration of managed nodes
- Deploy the Web Servers SPI to the managed nodes
- Discover services on the managed nodes

Verify configuration of managed nodes

There are several methods for verifying if managed nodes are configured correctly.

- Verify that managed nodes are configured by checking for the wsspi.cfg file on each managed node.

- Check that the messages reported by the Configure <server> Node tool have been executed. The messages are sent to the management server. Check the messages listed for a successful execution of the Configure <server> Node tool.

- Deploy the auto-discovery policy. This displays the web server being managed in the HPOM console service map.

  If the auto-discovery policy is deployed without the configuration file (wsspi.cfg being present, then no message is sent to the active browser and the service maps are not displayed.

To view the web server instance in the HPOM console service map, click through the HPOM console tree as follows:

Console → Operations Manager → Services → Applications → Web Server SunONE | Web Server Apache

 NOTE:
Web server instances are not listed under the WebSPI Apache or WebSPI SunONE tree until the auto-discovery policy, WebSPI-<server>-Discovery , is executed.

Related Topics:

- Web Servers SPI file distribution
- Configure managed nodes
- Discover services on managed nodes

Discover web servers on managed nodes

Discovering services is the process of identifying instances of a web server on a managed node and displaying the status in the HPOM console Service map.

Each discovered service is represented by an icon in the HPOM console Service map. The color of the icon reflects the current status of the web service it represents. A typical scenario might include:

1. Messages related to a web service arrive in the Console active browser.

2. A critical message indicates that the web service is down.

3. The matching Service map icon changes to red.

4. The red color indicates that something critical has happened to the web server.

    This provides a quick visual status check for the console operator.

Execute the Auto-Discovery policy, WebSPI-<server>-Discovery during installation and configuration of the Web Servers SPI to discover the web servers on the managed node monitored by the Web Servers SPI. Execute this policy at any time during normal operations to add new web servers and check for existing servers.

If you are installing and configuring the Web Servers SPI for the first time, your system is ready to begin monitoring and managing your web server on your managed node as soon as this task is completed.

 NOTE:
Ensure that the Configure <server> Node tool completes successfully before executing the WebSPI-<server>-Discovery policy.

Conditions that can be defined in the policy include:

- Defining Web Server types to discover
- Scheduling of server discovery

To discover the managed node web server:

1. From the HPOM console:

    Console → HP BTO Software → Operations Manager → Policy management

- Under policy type name: Service Auto-Discovery , or

- Under policy group name: SPI for Web Servers ➞ WebSPI Apache | WebSPI SunONE➞ WebSPI-AP-Discovery | WebSPI-SO-Discovery

   The Auto-Discovery Policy window opens.

2. Choose the node(s) on which you want to check for services.

3. Click Launch .

   The Web Servers SPI verifies the selected managed node to supported web servers and displays the status in the HPOM console Service map.

4. Make changes to the auto-discovery conditions, as needed:

   a. From the auto-discovery policy, select the Discover tab.

   b. Change the modules, parameters, and definitions, as needed:
      ○ Management Modules
      ○ Service Type Definitions
      ○ User Editable Parameters

   c. Click the Save button.

5. Make changes to the scheduling criteria, as needed:

   a. From the auto-discovery policy, select the Schedule tab.

   b. Change the values, as needed:
      ○ Schedule Task frequency
      ○ Time: Specific time, Multiple Times
      ○ Schedule Summary

   c. Click the Save button.

6. Accept the changes, click the Save and Close button.

   The supplied policies all have the version number, for example 1.0. Modifying a policy automatically increments the version number, for example:

   1.1, 1.2, 1.3, …

   The Service Auto-Discovery window exits.

7. Deploy the policy to the desired node(s).

Related Topics:

- Deploy Web Servers SPI policies
- Use Web Servers SPI tools and policies
- Modify Web Servers SPI policies
- Configure managed nodes

Verify services discovered on managed nodes

After the Discover Services tool has run on the managed nodes, the Web Servers SPI on those managed nodes appears in the Services hierarchy on your HP Operations Manager for Windows console. The Services map appears in the Details pane.

To verify services:

1. On the Tree tab of the HPOM console, click through the tree as follows:

   Console ➝ Operations Manager ➝ Services ➝ Applications ➝ Web Server Apache | Web Server SunOne

2. On the Tree side of the HPOM console, the web server configuration files are listed. On the Map side of the HPOM console, web server managed nodes are displayed as color-coded icons that indicate the web server status on the node. On the Tree side of the HPOM console, each instance is listed by its path to access each web server instance configuration file.

    NOTE:

   The Service map drills down as far as the product level. It does not show the individual services.

   Related Topics:

   - Web Servers SPI file distribution

   - Discover services on managed nodes

   - Launch a Web Servers SPI tool

Web Servers SPI policies overview

The Web Servers SPI provides a set of preconfigured policies that enable you to monitor web server operations and performance.

The policies contain a set of rules for monitoring log files, service status, and threshold values. They also provide a mechanism for initiating actions whenever conditions match specified rule criteria.

For a complete description of the policies available, see the Web Servers SPI policies .

Web Servers SPI policies are created using standard HPOM templates. The Web Servers SPI uses four types of HPOM policies:

Logfile Entry
>
> These policies monitor event logs and messages stored in Web Servers SPI error logs.

Measurement Threshold
>
> These policies schedule selected services and processes based on results defined in the threshold monitor.

Scheduled Task
>
> These policies schedule commands to run on managed nodes either once or according to a specific schedule.

Service Auto-Discovery
>
> These policies discover supported web servers. They find the installed web server and display its status in the HPOM for Windows console Service Map.

All the Web Servers SPI policies are accessed through the HPOM for Windows Console Tree. Either of two paths can be used:

- Console → HP BTO Software→ Operations Manager → Policy management

- Then → Policy groups → SPI for Web Servers → WebSPI Admin | WebSPI Apache | WebSPI SunONE

  Related Topics:

  - Web Servers SPI policies

  - Web Servers SPI file distribution

- Using the Web Servers SPI

Web Servers SPI policies

The following is a complete list of preconfigured policies that the Web Servers SPI provides. To view a list of policies within a particular group, or for monitoring a particular service, select from the options below and click Filter .

Select a service group:

Any

Select a policy type:

Any

◯ Show only Auto-Deploy policies
◉ Show all policies

Enter a full or partial policy name (optional):

| Filter | Loading policies, wait...

| Show short descriptions |

WebSPI-InternalErrorLog

Description

The WebSPI InternalErrorLog policy self-monitors the Web Servers SPI. Event messages that meet the criteria defined in this policy are placed in the Web SPI internal error log:

`/var/opt/OV/wsspi/log/wsspi_error.log`

Type

Logfile Entry

Default Policy Group

SPI for Web Servers ➞ WebSPI Admin

WebSPI-AP-LogMon

Description

The WebSPI-AP-LogMon policy provides the error log monitor for all sites running the supported product web server.

Type

Logfile Entry

Script name

wsspi_logmon.sh

Default Policy Group

SPI for Web Servers ➞ WebSPI Apache

WebSPI-SO-LogMon

Description

The WebSPI-SO-LogMon policy provides the error log monitor for all sites running the supported product web server.

Type

Logfile Entry

Script name

wsspi_logmon.sh

Default Policy Group

SPI for Windows ➞ WebSPI SunONE

WebSPI-AP-ProcMon

Description

The WebSPI-AP-ProcMon policy is the process monitor that checks whether the Apache web server is

running.

Type
        Measurement Threshold

Script name
        wsspi_procmon.sh

Default Policy Group
        SPI for Web Servers → WebSPI Apache

WebSPI-SO-ProcMon

Description
        The WebSPI-SO-ProcMon policy is the process monitor that checks whether the Sun ONE web server is
        running.

Type
        Measurement Threshold

Script name
        wsspi_procmon.sh

Default Policy Group
        SPI for Windows → WebSPI SunONE

WebSPI-AP-Discovery

Description
        The WebSPI-AP-Discovery policy detects the running Apache web servers on the managed node,
        configures the detected web servers, and displays the status in the HPOM Console Service map. The
        Auto-Discovery policy runs during installation and configuration of the Web Servers SPI. It can also be
        run at any time during normal operations to add new web servers and to check for existing servers.

Type
        Service Auto-Discovery

Script name

wsspi_discovery.sh

Default Policy Group
       SPI for Web Servers → WebSPI Apache

WebSPI-SO-Discovery

Description
       The WebSPI-SO-Discovery policy detects the running SunONE web servers on the managed node,
       configures the detected web servers, and displays the status in the HPOM Console Service map. The
       Auto-Discovery policy runs during installation and configuration of the Web Servers SPI. It can also be
       run at any time during normal operations to add new web servers and to check for existing servers.

Type
       Service Auto-Discovery

Script name
       wsspi_discovery.sh

Default Policy Group
       SPI for Windows → WebSPI SunONE

WebSPI-AP-CPUUsage

Description
       The WebSPI-AP-CPUUsage policy monitors the Apache web server CPU usage and sends a message if
       usage exceeds the threshold value. The policy script collects data from the mod_hpspi Apache
       module.

Type
       Measurement Threshold

Script name
       wsspi_perfmon_apache.sh

Default Policy Group
       SPI for Web Servers → WebSPI Apache

WebSPI-SO-CPUUsage

Description

The WebSPI-SO-CPUUsage policy monitors the SunONE web server CPU usage and sends a message if usage exceeds the threshold value.

Type

Measurement Threshold

Script name

wsspi_perfmon_iplanet_sunone.pl

Default Policy Group

SPI for Windows → WebSPI SunONE

WebSPI-AP-MEMUsage

Description

The WebSPI-AP-MEMUsage policy monitors the Apache web server memory usage and sends a message if usage exceeds the threshold value.

Type

Measurement Threshold

Script name

wsspi_perfmon_apache.sh

Default Policy Group

SPI for Web Servers → WebSPI Apache

WebSPI-SO-MemoryUsage

Description

The WebSPI-SO-MemoryUsage policy monitors the SunONE web server memory usage and sends a message if usage exceeds the threshold value.

Type
    Measurement Threshold

Script name
    wsspi_perfmon_iplanet_sunone.pl

Default Policy Group
    SPI for Windows → WebSPI SunONE

WebSPI-AP-NumRequests

Description
    The Number of Requests policy computes the number of requests processed through the Apache web
    server.

Type
    Measurement Threshold

Script name
    wsspi_perfmon_apache.sh

Default Policy Group
    SPI for Web Servers → WebSPI Apache

WebSPI-AP-BusyProcessesRate

Description
    The WebSPI-AP-BusyProcessesRate policy collects the total number of busy processes and calculates
    the busy process rate (number of busy processes / total number of web server processes) and sends a
    message if the calculated value exceeds the threshold value. This policy collects busy process data
    from the mod_hpspi Apache module.

Type
    Measurement Threshold

Script name
    wsspi_perfmon_apache.sh

Default Policy Group
      SPI for Web Servers ➞ WebSPI Apache

WebSPI-AP-ResponseTime

Description
      The WebSPI-AP-ResponseTime policy monitors the response time of the Apache web server and sends
      a message if the value exceeds the threshold. The policy collects response time data from the
      mod_hpspi Apache module.

Type
      Measurement Threshold

Script name
      wsspi_perfmon_apache.sh

Default Policy Group
      SPI for Web Servers ➞ WebSPI Apache

WebSPI-AP-CODALOG

Description
      The WebSPI-AP-CODALOG collects data for each configured Apache web server and logs it into CODA.
      The metrics collected for each web server instance includes the IP address, port number, CPU usage,
      memory usage, number of bytes transferred every second, number of bytes transferred for every
      request, and percentage of busy processes for the web server instance. By default, the policy runs
      every hour.

Type
      Scheduled Task

Script name
      wsspi_coda_datalog.sh

Default Policy Group
      SPI for Web Servers ➞ WebSPI Apache

WebSPI-SO-ResponseTime

Description

The WebSPI-SO-ResponseTime policy computes the average SunONE response time using SunONE SNMP subagent MIB data and sends a message if the computed value exceeds the threshold.

Type

Measurement Threshold

Script name

wsspi_perfmon_iplanet_sunone.pl

Default Policy Group

SPI for Windows → WebSPI SunONE

WebSPI-AP-BytesPerSec

Description

The WebSPI-AP-BytesPerSec policy monitors the average Apache web server number of bytes transferred per second and sends a message if the value exceeds the threshold. The policy collects average bytes per second data from the mod_hpspi Apache module.

Type

Measurement Threshold

Script name

wsspi_perfmon_apache.sh

Default Policy Group

SPI for Web Servers → WebSPI Apache

WebSPI-SO-ThreadRate

Description

The WebSPI-SO-ThreadRate policy computes the thread rate (busy threads / total threads) using SunONE SNMP subagent data and sends a message if the computed value exceeds the threshold.

Type
>   Measurement Threshold

Script name
>   wsspi_perfmon_iplanet_sunone.pl

Default Policy Group
>   SPI for Windows → WebSPI SunONE

WebSPI-AP-BytesPerReq

Description
>   The WebSPI-AP-BytesPerReq policy monitors the average Apache web server number of bytes
>   transferred per request and sends a message if the value exceeds the threshold. The policy collects
>   average bytes per request data from the mod_hpspi Apache module.

Type
>   Measurement Threshold

Script name
>   wsspi_perfmon_apache.sh

Default Policy Group
>   SPI for Web Servers → WebSPI Apache

WebSPI-SO-ErrorRate

Description
>   The WebSPI-SO-ErrorRate policy computes the error rate (error-generated requests / total requests)
>   using SunONE SNMP subagent data and sends a message if the computed value exceeds the
>   threshold.

Type
>   Measurement Threshold

Script name
>   wsspi_perfmon_iplanet_sunone.pl

Default Policy Group
        SPI for Windows → WebSPI SunONE

Web Servers SPI tools overview

The Web Servers SPI provides a set of preconfigured tools that enable you to configure and display configuration details of managed nodes as well as to start, stop, restart, and check the status of your managed node web servers.

The tools contain instructions for taking specific actions on the managed nodes. The tools can be executed through the HPOM Console or by the Web Servers SPI policies as defined in the Web Servers SPI policy rules.

The Web Servers SPI tools are created using standard HPOM for Windows templates. A set of tools is available for each supported web server. The set includes:

Configure <server> Node
    Configures the node for management of a web server site.

Unconfigure <server> Node
    Unconfigures the node for management of a web server site.

Restart <server>
    Restarts the web server site.

Show <server> Configuration
    Shows the configuration of an installed web server site.

Start <server>
    Starts the web server site.

Status of <server>
    Displays the status of the web server site.

Stop <server>
    Stops the web server site.

Show <server> Error Log
    Displays the web server error log.

Show <server> Access Log

Displays the web server access log.

Show <server> Node Details
    Displays the web server configuration information.

Remove WebSPI
    Uninstalls the Web Servers SPI instrumentation and configuration files from the managed node.

Show Web SPI History Log
    Shows the contents of the WebSPI history log.

Self-Healing Info
    Gathers data to address problems with the operation of the Web Servers SPI.

All the Web Servers SPI tools are accessed through the HPOM console using standard HPOM processes:

- Console → HP BTO Software→ Operations Manager → Tools → SPI for Web Servers → WebSPI Admin | WebSPI Apache | WebSPI SunONE

Tool availability for each of the supported web servers or tool groups is as follows:

- WebSPI Admin
  - Remove WebSPI
  - Show WebSPI History Log
  - Show All Web Services
  - Self-Healing Info

- Apache
  - Configure Apache Node
  - Unconfigure Apache Node
  - Restart Apache
  - Show Apache Configuration
  - Start Apache
  - Status of Apache
  - Stop Apache
  - Show Apache Error Log
  - Show Apache Access Log

- Show Apache Node Details

- CODA Config Spec Compilation

■ SunONE

- Configure SunONE Node

- Unconfigure SunONE Node

- Restart SunONE

- Show SunONE Configuration

- Start SunONE

- Status of SunONE

- Stop SunONE

- Show SunONE Error Log

- Show SunONE Access Log

- Show SunONE Node Details

NOTE:

- Web Servers SPI tools are resident on the management node. Once executed by either an operator action through the HPOM console or due to matched criteria in a Web Servers SPI tool, the tool actions are performed on the selected managed node.

- Web Servers SPI tools, though created using standard HPOM templates, should not be modified. To adjust tool execution parameters, see the topic Using the Web Servers SPI .

Related Topics:

- Deploying the Web Servers SPI to managed nodes

- Web Servers SPI tool descriptions

Web Servers SPI tool descriptions

The following is a complete list of preconfigured tools that the Web Servers SPI provides. To view a list of tools within a particular group, or for monitoring a particular service, select from the options below and click Filter .

Select a service group:

Any

○ Show only Auto-Deploy tools
⦿ Show all tools

Enter a full or partial tool name (optional):

| Filter | Loading tools, wait…
| --- |

Show short descriptions

Remove WebSPI

Description

     The Remove WebSPI tool removes the Web Servers SPI instrumentation and configuration data from a previously configured UNIX node. Instrumentation of other products is not affected.

     This tool is accessed through the WebSPI Admin group and applies to all supported web services.

Script Name

     wsspi_remove.sh

Default Tools Group

     SPI for Web Servers ➙ WebSPI Admin

Show WebSPI History Log

Description

The Show Web SPI History Log tool displays the Web Servers SPI log file for all sites running the supported product web services.

Script Name

wsspi_getlog.sh

Default Tools Group

SPI for Web Servers ➞ WebSPI Admin

Show All Web Services

Description

The Show All Web Services tool displays the details of all configured web services.

Script Name

wsspi_show_all_webservices.sh

Default Tools Group

SPI for Web Servers ➞ WebSPI Admin

Self-Healing Info

Description

The Self-Healing Info tool is used to gather system information as well as configuration, log, and trace files of Web Servers SPI when a problem occurs in the Web Servers SPI. It will create a tar file which has all gathered information.

Script Name

shs_perl.pl (This script is provided by Self-healing Collector)

Default Tools Group

SPI for Web Servers ➞ WebSPI Admin

Configure Apache Node

Description

The Configure Apache Node tool creates a Web Servers SPI configuration file on the selected managed node running the supported product web services. This tool also loads and configures `mod_hpspi` Apache modules for performance monitoring.

File Created

wsspi.cfg

Script Name

wsspi_config_apache.sh

Input Parameter

<httpd.conf path>

Default Tools Group

SPI for Web Servers → WebSPI Apache

Unconfigure Apache Node

Description

The Unconfigure Apache Node tool unconfigures the Apache web server instance so that it is no longer monitored or managed by the Web Servers SPI.

File Modified

wsspi.cfg

Script Name

wsspi_unconfig_webservice.sh

Input Parameter

<Port Number>
<IP Address> (optional)

Default Tools Group

SPI for Web Servers → WebSPI Apache

Restart Apache

Description

The Restart Apache tool closes all connections to the managed UNIX node and restarts the Web Servers SPI services immediately on the sites running the supported product web services.

Script Name

wsspi_restart_webservice.sh

Input Parameter

<Port Number>

<IPAddress> (optional)

Default Tools Group

SPI for Web Servers → WebSPI Apache

Show Apache Configuration

Description

The Show Apache Configuration tool displays node Web Servers SPI services configuration information on the selected sites running the supported product web services.

Script Name

wsspi_show_webservice.sh

Input Parameter

<Port Number>

<IP Address> (optional)

Default Tools Group

SPI for Web Servers → WebSPI Apache

Start Apache

Description

The Start Apache tool provides options to start Web Servers SPI services on selected sites running the supported product web services.

Script Name
        wsspi_start_webservice.sh

Input Parameter
        <Port Number>
        <IP Address> (optional)

Default Tools Group
        SPI for Web Servers → WebSPI Apache

Status of Apache

Description
        The Status of Apache tool shows whether the node is running and checks the configuration of the
        Web Servers SPI instrumentation on the sites running the supported product web services. The status
        information on the Web Servers SPI is shown in the Tool Status dialog.

Script Name
        wsspi_status_webservice.sh

Input Parameter
        <Port Number>
        <IP Address> (optional)

Default Tools Group
        SPI for Web Servers → WebSPI Apache

Stop Apache

Description
        The Stop Apache tool shuts down the Web Servers SPI functions on the selected sites running the
        supported product web services.

Script Name
        wsspi_stop_webservice.sh

Input Parameter
        <Port Number>

<IP Address> (optional)

Default Tools Group
        SPI for Web Servers → WebSPI Apache

Show Apache Error Log

Description
        The Show Apache Error Log tool shows the Apache web server error log file.

Script Name
        wsspi_show_error_log.sh

Input Parameter
        <Port Number>
        <IPAddress> (optional)

Default Tools Group
        SPI for Web Servers → WebSPI Apache

Show Apache Access Log

Description
        The Show Apache Access Log tool shows the Apache web server access log file.

Script Name
        wsspi_show_access_log.sh

Input Parameter
        <Port Number>
        <IP Address> (optional)

Default Tools Group
        SPI for Web Servers → WebSPI Apache

Show Apache Node Details

Description
   The Show Apache Node Details tool shows the Apache configuration details such as version,
   document root path, and server root path.

Script Name
   wsspi_show_webservice.sh

Input Parameter
   <Port Number>
   <IP Address> (optional)

Default Tools Group
   SPI for Web Servers → WebSPI Apache

CODA Config Spec Compilation

Description
   The CODA Config Spec Compilation tool compiles the class specification file defined for CODA
   performance data logging.

Script Name
   wsspi_compile_coda_spec.pl

Input Parameter
   None

Default Tools Group
   SPI for Web Servers → WebSPI Apache

Configure Sun ONE Node

Description
   The Configure Sun ONE Node tool creates a Web Servers SPI configuration file on the selected
   managed node running the supported product web services.

File Created
   wsspi.cfg

Script Name
      wsspi_config_sunone.sh
      wsspi_get_iplanet_sunone_version.sh

Input Parameter
      <magnus.conf path>

Default Tools Group
      SPI for Web Servers → WebSPI SunONE

Unconfigure Sun ONE Node

Description
      The Unconfigure SunONE Node tool unconfigures the SunONE web server instance so that it is no longer monitored or managed by the Web Servers SPI.

File Modified
      wsspi.cfg

Script Name
      wsspi_unconfig_webservice.sh

Input Parameter
      <Port Number>
      <IP Address> (optional)

Default Tools Group
      SPI for Web Servers → WebSPI SunONE

Restart Sun ONE

Description
      The Restart Sun ONE tool closes all connections to the managed UNIX node and restarts the Web Servers SPI services immediately on the sites running the supported product web services.

Script Name
      wsspi_restart_webservice.sh

Input Parameter
>	<Port Number>
>	<IP Address> (optional)

Default Tools Group
>	SPI for Web Servers ➞ WebSPI SunONE

Show Sun ONE Configuration

Description
>	The Show Sun ONE Configuration tool displays node Web Servers SPI services configuration
>	information on the selected sites running the supported product web services.

Script Name
>	wsspi_show_webservice.sh

Input Parameter
>	<Port Number>
>	<IP Address> (optional)

Default Tools Group
>	SPI for Web Servers ➞ WebSPI SunONE

Start Sun ONE

Description
>	The Start Sun ONE tool provides options to start Web Servers SPI services on selected sites running
>	the supported product web services.

Script Name
>	wsspi_start_webservice.sh

Input Parameter
>	<Port Number>
>	<IP Address> (optional)

Default Tools Group
>	SPI for Web Servers ➞ WebSPI SunONE

Status of Sun ONE

Description

The Status of Sun ONE site tool shows whether the node is running and checks the configuration of the Web Servers SPI instrumentation on the sites running the supported product web services. The status information on the Web Servers SPI is shown in the Tool Status dialog.

Script Name

wsspi_status__webservice.sh

Input Parameter

<Port Number>
<IP Address> (optional)

Default Tools Group

SPI for Web Servers → WebSPI SunONE

Stop Sun ONE

Description

The Stop Sun ONE tool shuts down the Web Servers SPI functions on the selected sites running the supported product web services.

Script Name

wsspi_stop_webservice.sh

Input Parameter

<Port Number>
<IPAddress> (optional)

Default Tools Group

SPI for Web Servers → WebSPI SunONE

Show Sun ONE Error Log

Description

> The Show Sun ONE Error Log tool shows the Sun ONE web server error log file.

Script Name

> wsspi_show_error_log.sh

Input Parameter

> <Port Number>
> <IP Address> (optional)

Default Tools Group

> SPI for Web Servers ➞ WebSPI SunONE

Show Sun ONE Access Log

Description

> The Show Sun ONE Access Log tool shows the Sun ONE web server access log file.

Script Name

> wsspi_show_access_log.sh

Input Parameter

> <Port Number>
> <IPAddress> (optional)

Default Tools Group

> SPI for Web Servers ➞ WebSPI SunONE

Show Sun ONE Node Details

Description

> The Show Sun ONE Node Details tool shows the SunONE configuration details such as web server version, document root path, and server root path.

Script Name

> wsspi_show_webservice.sh

Input Parameter

<Port Number>
<IP Address> (optional)

Default Tools Group
        SPI for Web Servers → WebSPI SunONE

Using the Web Servers SPI

The Web Servers SPI monitors and manages web servers on managed UNIX nodes.

Prior to monitoring and managing your UNIX nodes, ensure the completion of all of the installation and configuration tasks, including:

- Management node tasks: installing the Web Servers SPI on the management node, adding the managed UNIX node to the HPOM console

- Managed node tasks: installing the Web Servers SPI agent, deploying the Web Servers SPI instrumentation, configuring the managed node, and discovering services on the managed node

See the topic Web Servers SPI installation for procedural information on all installation and configuration tasks.

For all other task oriented activities refer to the topics in this chapter for procedural information. Below is a list of the type of tasks you might want to perform.

- Tasks that affect or report on the Web Servers SPI services. These procedures require executing Web Servers SPI tools.

  - Start a Web Servers SPI monitoring service

  - Stop a Web Servers SPI monitoring service

  - Restart a Web Servers SPI monitoring service

  - View status details of a web server service

  - View Service Map status of web servers

  - View the Web Servers SPI history log

  - View the Web Servers SPI configuration

  - Use Web Servers SPI tools and policies

  - Configure managed nodes

- Tasks that affect or report on the web server service being monitored or managed. These procedures require deployment of Web Servers SPI policies:

- Use Web Servers SPI tools and policies

- Change Web Servers SPI event message response

- Change Web Servers SPI polling intervals

- Change Web Servers SPI threshold values

- Tasks required whenever an existing Web Servers SPI policy is modified. These procedures require executing tools and deploying policies.

  - Discover a Web Servers on managed nodes

  - Modify a Web Servers SPI policy

  - Deploy a Web Servers SPI Policy

- Additional global tasks. These procedures require both Web Severs SPI tools, HPOM for Windows, and standard Windows processes.

  - Remove the Web Servers SPI from your management server

  - Remove the Web Servers SPI from your managed nodes

  Related Topics:

  - Web Servers SPI policies

  - Web Servers SPI tools

Start a web service

You can use a Web Servers SPI tool to start a web server service on a managed node.

To start Web Servers SPI services on a managed UNIX node:

1. From the HPOM console Tree tab, click through the tree:

   Console ▭ Operations Manager ▭ Tools ▭ SPI for Web Servers ▭ WebSPI Apache | WebSPI SunONE

2. Select the tool action.

   Start Apache | SunONE

3. Right-click the Start <server> tool.

   For example:

   Console ▭ Operations Manager ▭ Tools ▭ SPI for Web Servers ▭ WebSPI Apache ▭ Start Apache

4. From the pop-up menu, select All Tasks ▭ Launch Tool

   The Select where to launch this tool window opens.

5. Select the node(s) on which the server is to be started.

6. Click the Launch button.

   The Web Servers SPI services are started on the selected node(s).

Input parameters

- <Port Number>

- <IPAddress> (optional)

Related Topics:

- Use the Web Servers SPI tools and policies
- Launch a Web Servers SPI tool
- Stop a web service
- Web Servers SPI installation

Stop a web service

You can use a Web Servers SPI tool to stop a web server service on a managed node.

To stop the Web Servers SPI Services on a managed UNIX node:

1. From the HPOM console, Tree tab, click through the tree:

   Console → Operations Manager → Tools → SPI for Web Servers → WebSPI Apache | WebSPI SunONE

2. Select the tool action.

   Stop WebSPI Apache | WebSPI SunONE

3. Right-click the Stop <server> tool.
   For example:

   Console → Operations Manager → Tools → SPI for Web Servers → WebSPI Apache → Stop Apache

4. From the pop-up menu, select All Tasks → Launch Tool

   The Select where to launch this tool window opens.

5. Select the node(s) on which the server is to be stopped.

6. Click the Launch button.

   The Web Servers SPI services are stopped on the selected node(s).

Input parameters

- <Port Number>

- <IPAddress> (optional)

Related Topics:

- Use the Web Servers SPI tools and policies
- Launch a Web Servers SPI tool
- Restart a web service

Restart a web service

You can use a Web Servers SPI tool to restart a web server service on a managed node.

To restart Web Servers SPI services on a managed UNIX node:

1. From the HPOM console, Tree tab, click through the tree:

   Console → Operations Manager → Tools → SPI for Web Servers → WebSPI Apache | WebSPI SunONE

2. Select the tool action.

   Restart Apache | SunONE

3. Right-click the Restart <server> tool.

   For example:

   Console → Operations Manager → Tools → SPI for Web Servers → WebSPI Apache → Restart Apache

4. From the pop up menu, select All Tasks → Launch tool

   The Select where to launch this tool window opens.

5. Select the node(s) on which the selected server is located.

6. Click the Launch button.

   The selected Web Servers SPI services are restarted.

Input parameters

- <Port Number>

- <IPAddress> (optional)

Related Topics:

- Use the Web Servers SPI tools and policies
- Launch a Web Servers SPI tool
- Stop a web service

View the status of a web service

You can use a Web Servers SPI tool to view the status of web server services on managed nodes.

To check the status of a managed UNIX node:

1. From the HPOM console Tree tab, click through the tree:

    Console → Operations Manager → Tools → SPI for Web Servers → WebSPI Apache |
    WebSPI SunONE

2. Select the tool action.

    Status of Apache | SunONE

3. Right-click the Status of <server> tool.

    For example:

    Console → Operations Manager → Tools → SPI for Web Servers → WebSPI Apache →
    Status of Apache

4. From the pop-up menu, select All Tasks → Launch Tool

    The Select where to launch this tool window opens.

5. Select the node(s) on which the selected server is located.

6. Click the Launch button.

    The Tool Status window opens with the status of the selected node listed.

Input parameters

- <Port Number>

- <IPAddress> (optional)

Related Topics:

- Use the Web Servers SPI tools and policies
- Launch Web Servers SPI tools
- Check the status of monitored web servers

View the Service map status of web servers

After the Web Servers SPI is installed and configured, it displays an icon for all monitored web servers in the HPOM console Service map. The icon color reflects the web server status. For example, green indicates healthy and running, red indicates critical concern.

To quickly view the status of a managed UNIX node:

1. From the HPOM console Tree tab, click through the tree:

    Console → Operations Manager → Nodes → View → Service Map

2. Select the managed node about which to view status details.

3. Use standard HPOM for Windows processes to select from the Console menu to display the Service map.

Related Topics:

- Start, stop, and restart Web Servers SPI services
- Check the status of monitored web servers
- Discover services on managed nodes
- Verify services discovered on managed nodes

View the Web Servers SPI history log

You can use a Web Servers SPI tool to view the Web Servers SPI history log file. This file contains messages relevant to the operations of the Web Servers SPI (as opposed to the web servers).

The Web Servers SPI history log is located on the managed node:

/var/opt/OV/wsspi/log/wsspi_error.log

Web Servers SPI History Log File Sample .

To display the Web Servers SPI log file contents on a UNIX node:

1. From the HPOM console Tree tab, click through the tree:

   Console → Operations Manager → Tools → SPI for Web Servers → WebSPI Admin

2. Select the tool action.

   Right-click the Show Web SPI History Log tool.

   For example:

   Console → Operations Manager → Tools → SPI for Web Servers → WebSPI Admin → Show WebSPI History Log

3. From the pop-up menu, select All Tasks → Launch Tool

   The Select where to launch this tool window opens.

4. Select the node(s) about which you want to view history details.

5. Click the Launch button.

   The Tool Status window opens with the contents of the selected log file.

Related Topics:

- Start, stop, or restart Web Servers SPI services
- Check the status of monitored web servers
- Launch a Web Servers SPI tool

Web Servers SPI history log file sample

======= 10/07/2003 22:20:38 IST BEGIN Apache web server configuration 10/07/03 22:20:38 [INFO]
WSSPI(wsspi_config_apache.sh-27601): ERROR: Server Root path does not exist in httpd config file. httpd
config file format might be invalid.

======= 10/07/2003 22:20:38 IST END Apache web server configuration.

View the Apache node configuration

Use the Show Apache Configuration tool to display Apache web server configuration information. This displays the related information for the selected sites running the Apache web server.

To display the Apache web server configuration information used by the Web Servers SPI:

1. From the HPOM console Tree tab, click through the tree:

   Console → Operations Manager → Tools → SPI for Web Servers → WebSPI Apache

2. Select the tool action.

   Right-click the Show Apache Configuration tool.

3. From the pop-up menu, select All Tasks → Launch Tool

   The Select where to launch this tool window opens.

4. Select the node(s) about which to view Apache web server configuration information.

5. Click the Launch button.

   The Tool Status window opens with the contents of the selected node(s) configuration.

Related Topics:

- Launch Web Servers SPI tools
- Configure managed nodes

Use the Web Servers SPI tools and policies

The Web Servers SPI provides tools that enable you to review the status of supported services, and to start and stop them on the managed nodes. See the topic Web Servers SPI tools .

The Web Servers SPI also provides policies that enable you to define monitoring criteria. The Web Servers SPI monitors the managed nodes and, whenever monitoring criteria are met, the Web Servers SPI enters events into the designated logs. See the topic Web Servers SPI policies .

To use a Web Servers SPI tool:

1. Complete the installation and configuration process described in Web Servers SPI installation . This includes launching the Web Servers SPI Configure Node tool.

2. Deploy the desired policies on the selected managed nodes. See the topic Deploy Web Servers SPI policies . After policies are deployed, any necessary tools are initiated automatically through the service files.

 NOTE:

- After the Web Servers SPI is installed and configured you can launch a Web Servers SPI tool. See the topic Launch Web Servers SPI tools .

- Web Servers SPI tools do not require any modification. If you need to modify a tool, see the tool shell script.

To use a Web Servers SPI policy:

1. Complete the installation and configuration process described in Web Servers SPI installation . This process includes launching the Web Servers SPI Configure Node tool.

2. If desired, accept the default Web Servers SPI policy's polling, threshold, and rules for monitoring and managing your managed nodes.

3. If desired, modify the Web Servers SPI policies. See the topic Modify Web Servers SPI policies .

4. Deploy the desired policies on the selected managed nodes. See the topic Deploy Web Servers SPI policies .

NOTE:

- After policies are deployed they perform their duties automatically. No additional action is required.

- Policies can be modified to adjust the monitoring and management responses performed by the Web Servers SPI.

Related Topics:

- Web Servers SPI policies
- Web Servers SPI tools

Change Web Servers SPI event message responses

This task is performed through Web Servers SPI policies.

The Web Servers SPI policies provide for Apache and SunONE error log file monitors and the corresponding log file contents. The monitors are:

Logfile Entry

- WebSPI-AP-LogMon
- WebSPI-SO-LogMon
- WebSPI-InternalErrorLog

Measurement Threshold

- WebSPI-AP-ProcMon
- WebSPI-AP-CPUUsage
- WebSPI-AP-MEMUsage
- WebSPI-AP-NumRequests
- WebSPI-AP-BusyProcessesRate
- WebSPI-AP-ResponseTime
- WebSPI-AP-BytesPerSec
- WebSPI-AP-BytesPerReq
- WebSPI-SO-ProcMon
- WebSPI-SO-CPUUsage
- WebSPI-SO-MemoryUsage
- WebSPI-SO-ThreadRate
- WebSPI-SO-ErrorRate
- WebSPI-SO-ResponseTime

These monitors forward selected log file entries through the OpC message interface to the HPOM Console. Automatic launch actions, through the Web Servers SPI service files, are performed and collected output is added to the message annotations.

To change the response to event messages, modify the corresponding error log policy:

1. From the HPOM console Tree tab, click through Console → Operations Manager → Policy Manager

2. Continue to drill down to the desired policy. Use either of two paths:

   → Policy groups → SPI for Web Servers → WebSPI Admin | WebSPI Apache | WebSPI

SunONE → List of policies

or

→ Policies grouped by type → Log file Entry → List of policies

3. Right-click the desired error log or process monitor policy.

4. From the pop-up menu, select All Task → Edit
    A window specific to the selected policy opens.

5. Enter or modify the information in the Policy window, as needed.
    See the specific task for a list of modifiable options for each policy.

6. Make changes to the responses to events , as needed:

    a. Select the Rules tab.

    b. Change the values, rules, and responses, as needed:
        Predefined rules are set for handling various message types.

        Rules may be added

    c. Click the Modify button.

7. Make changes to the event criteria , as needed:

    a. Select the Options tab. Change the values as needed:
        ○ Log local events toggles

        ○ Unmatched events toggles

        ○ Pattern matching options

    b. Click the Save button.

8. Accept the changes, click the Save and Close button.
    The supplied policies all have the version number, for example 1.0. Modifying a policy automatically increments the version number, for example:

    1.1, 1.2, 1.3, …

    The Error Log window exits.

9. Deploy the policy to the desired node(s).

Related Topics:

- Use Web Servers SPI tools and policies
- Modify Web Servers SPI policies
- Deploy Web Servers SPI policies

Change Web Servers SPI polling intervals

This task is performed through Web Servers SPI policies.

The Web Servers SPI policies provide for Apache and SunONE error log file monitors and the corresponding log file contents. The monitors that are of the Logfile Entry type are:

- WebSPI-InternalErrorLog
- WebSPI-AP-LogMon
- WebSPI-SO-LogMon

These monitors forward selected log file entries through the OpC message interface to the HPOM console. Automatic launch actions, through the Web Servers SPI service files, are launched and collected output is added to the message annotations.

To change the response to event messages, modify the corresponding error log policy:

1. From the HPOM console Tree tab, click through Console → Operations Manager → Policy Manager

2. Continue to drill down to the desired policy. Use either of two paths:

   → Policy groups → SPI for Web Servers → WebSPI Admin | WebSPI Apache | WebSPI SunONE → List of policies

   or

   → Policies grouped by type → Log file Entry → List of policies

3. Right-click the desired error log policy.

4. From the pop-up menu, select All Task → Edit

   A window specific to the selected policy opens.

5. Enter or modify the information in the policy window, as needed.

   See the specific task for a list of modifiable options for each policy.

6. Make changes to polling frequency , as needed:

   a. Select the policy Source tab.

    b. Change the values as needed:

       Polling interval hours, minutes, and seconds selection

    c. If in an error log policy, make additional changes as needed:

       ○ Log File character set selections

       ○ Send message if log file does not exist toggle

       ○ Close after reading toggle

       ○ Read mode toggles

    d. Click the Save button.

    e. If in a process monitor policy, make additional changes, as needed:

       ○ Short name text

       ○ Description text

       ○ Source type selection

       ○ Program parameters file name

       ○ Store in Embedded Performance Component toggle and data

    f. Click the Save button.

7. Make changes to the event criteria , as needed:

    a. Select the Options tab.

    b. Change the values as needed:

       ○ Log local events toggles

       ○ Unmatched events toggles

       ○ Pattern matching options

    c. Click the Save button.

8. Accept the changes, click the Save and Close button.

The supplied policies all have the version number, for example 1.0. Modifying a policy automatically increments the version number, for example:

1.1, 1.2, 1.3, …

The Error Log window exits.

9. Deploy the policy to the desired node(s).

Related Topics:

- Use Web Servers SPI tools and policies
- Modify Web Servers SPI policies
- Deploy Web Servers SPI policies

Change Web Servers SPI threshold values

This task is performed through Web Servers SPI policies.

The Web Servers SPI policies provide for Apache and SunONE error log file monitors, a Web Servers SPI self-monitoring error log file monitor, and the corresponding log file contents.

These monitors forward selected log file entries through the OpC message interface to the HPOM console. Automatic launch actions, through the Web Servers SPI service files, are launched and collected output is added to the message annotations.

To change the response to event messages, modify the corresponding error log policy:

1. From the HPOM console Tree tab, click through Console → Operations Manager → Policy Manager

2. Continue to drill down to the desired policy. Use either of two paths:

    →Policy groups → SPI for Web Servers → WebSPI Admin | WebSPI Apache | WebSPI SunONE → List of policies

    or

    → Policies grouped by type → Measurement Threshold → List of policies

3. Right-click the desired monitor policy.
    From the pop-up menu, select All Task → Edit

    A window specific to the selected policy opens.

4. Enter or modify the information in the policy window, as needed.

5. Make changes to the threshold values , as needed:

    a. From a process monitor policy, select the Rules tab.

    b. Change the values, rules, and responses, as needed:
        ○ Threshold level selection

        ○ Predefined rule is set for running the process monitor

        ○ Rules may be added

      ○ Level summary actions text field

      ○ Predefined actions are included for when threshold limits are reached

  c. Click the Save button.

6. Make changes to the event criteria , as needed:

  a. Select the Options tab.

  b. Change the values as needed:

      ○ Log local events toggles

      ○ Unmatched events toggles

      ○ Pattern matching options

  c. Click the Save button.

7. Accept the changes, click the Save and Close button.

   The supplied policies all have the version number, for example 1.0. Modifying a policy automatically increments the version number, for example:

   1.1, 1.2, 1.3, …

   The Error Log window exits.

8. Deploy the policy to the desired node(s).

Related Topics:

- Use Web Servers SPI tools and policies
- Modify Web Servers SPI policies
- Deploy Web Servers SPI policies

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Modify Web Servers SPI policies

You can edit the policies for the Web Servers SPI in exactly the same way as you would edit any other HPOM for Windows policy. You may want to modify policies so they better suit your requirements. This may be to:

- Reduce or increase the number of messages that are displayed on the HPOM console.

- Adjust the conditions or thresholds of a policy, altering the message and instructions sent to the console or changing which tools are launched.

To modify a policy:

1. From your Windows management server, open the HPOM for Windows interface.
    Double-click the HPOM for Windows icon in your Windows Explorer.

    The HPOM console window opens.

2. From the HPOM console Tree tab, click through Console → Operations Manager → Policy Manager

3. Continue to drill down to the desired policy. Use either of two paths:
    → Policy groups → SPI for Web Servers → WebSPI Admin | WebSPI Apache | WebSPI SunONE ⎯ List of policies

    or

    → Policies grouped by type → Log file Entry | Measurement Threshold | Service Auto-Discovery → List of policies

4. Double-click the desired policy.
    A window specific to the selected policy opens.

    - To change actions or responses to events, see the error log and process monitor policies.

    - To change polling intervals, see the error log policies.

    - To change threshold values, see the process monitor policies.

5. Enter or modify the information in the policy window as needed.

   Refer to the topics:

   - Change Web Servers SPI event message responses

   - Change Web Servers SPI polling intervals

   - Change Web Servers SPI threshold values

   The supplied policies all have the version number, for example 1.0. Modifying a policy automatically increments the version number, for example:

   1.1, 1.2, 1.3, …

6. Deploy the policy to the desired node(s).

Related Topics:

- Deploy Web Servers SPI policies
- Not receiving messages

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Deploy Web Servers SPI policies

The Web Servers SPI can deploy policies manually and according to your own requirements. In addition, by copying and modifying the preconfigured policies, you can quickly create custom policies for your own specialized purposes.

Deploying your policies allows you to choose which policies are deployed on selected nodes. It also provides a means to modify policies to enter site-specific parameters.

To deploy a policy on a node:

1. Determine the policies that you can deploy:

   a. From the HPOM console, Tree tab, click through the tree as follows:

      Console → Operations Manager → Nodes → View → Policy Inventory

      This displays a list of available policies in the Details pane of the console.

   b. Verify the Web Servers SPI policies are listed.
      The list should include:

      Under WebSPI Apache

      ○ WebSPI-AP-Discovery

      ○ WebSPI-AP-LogMon

      ○ WebSPI-AP-ProcMon

      ○ WebSPI-AP-CPUUsage

      ○ WebSPI-AP-MEMUsage

      ○ WebSPI-AP-NumRequests

      ○ WebSPI-AP-BusyProcessesRate

      ○ WebSPI-AP-ResponseTime

      ○ WebSPI-AP-BytesPerSec

      ○ WebSPI-AP-BytesPerReq

      ○ WebSPI-AP-CODALOG

Under WebSPI SunONE

- ○ WebSPI-SO-Discovery

- ○ WebSPI-SO-LogMon

- ○ WebSPI-SO-ProcMon

- ○ WebSPI-SO-CPUUsage

- ○ WebSPI-SO-MemoryUsage

- ○ WebSPI-SO-ThreadRate

- ○ WebSPI-SO-ErrorRate

- ○ WebSPI-SO-ResponseTime

Under WebSPI Admin

- ○ WebSPI-InternalErrorLog

c. From the Details pane of the HPOM console window, right-click the desired policy to select it.

d. Drag-and-drop the selected policy onto the desired node.

The Web Servers SPI policy is applied to the managed node.

Related Topics:

- Install the Web Servers SPI agent on managed nodes

- Configure managed nodes

- Use Web Servers SPI tools and policies

Remove the Web Servers SPI from the management server

Use standard Windows and HPOM for Windows processes to remove (uninstall) the Web Servers SPI. For more detailed information, see the applicable HPOM for Windows help topics.

To uninstall the Web Servers SPI:

1. Log on to the HPOM for Windows management server.
2. Remove the Web Servers SPI policies from all nodes.
3. Use Add/Remove Programs and Change/Remove Programs on Windows to uninstall the Web Servers SPI.

Related Topics:

- Uninstallation errors
- Remove the Web Servers SPI from managed nodes

Remove the Web Servers SPI from managed nodes

To remove the Web Servers SPI instrumentation and configuration data, you can use the Remove Web Servers SPI option. This action uninstalls the Web Servers SPI from the managed node. At the same time, no other product instrumentation is affected.

To remove the Web Servers SPI instrumentation from a UNIX node:

1. From the HPOM console Tree tab, click through the tree as follows:

   Console → Operations Manager → Tools → SPI for Web Servers → WebSPI Admin

2. Right-click the Remove WebSPI tool.

3. From the pop-up menu, select All Tasks → Remove Services

4. Click the Launch button.

   The managed node information is removed from the HPOM console and the Web Servers SPI functions are stopped.

Related Topics:

- Use Web Servers SPI tools and policies
- Launch a Web Servers SPI tool
- Uninstallation Errors
- Remove the Web Servers SPI from the management server

Troubleshooting the Web Servers SPI

For more information, see the following troubleshooting topics:

- Configuration errors on the managed Apache node
- Warning message when you configure the SPI
- Not receiving messages
- Turning on tracing
- Using the Self-Healing Info Tool
- Web Servers SPI errors on managed nodes
- Uninstallation errors
- Reinstallation errors

Related Topics:

- Web Servers SPI installation
- Using the Web Servers SPI

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Configuration error on managed Apache node

The Status Apache Server tool checks the configuration of the Web Servers SPI instrumentation.

If there are problems with configuration, such as a moved httpd file, The Status Apache Server tool displays the applicable explanation.

To correct a configuration error, rerun the configuration tool.

Related Topics:

- Configure managed nodes
- View the web server configuration

Warning message when you configure the SPI

The following warning message may appear when you configure the SPI with Configure Node tool:

"WARNING: Server Document Root not found in config file "

To resolve this, add "document root" entry into the Web Server configuration file. The configuration file for Apache and SunONE is httpd.conf , magnus.conf , and obj.conf respectively. For instructions about including the "document root" entry into the Web Server configuration file, refer to the appropriate Web Server documentation.

Not receiving messages

If you are not receiving messages about your Internet services on the HPOM for Windows console, check the following:

- Names

  Do not change the names of the auto-deploy policy groups. If you change the names of the auto-deploy policies, they will not deploy automatically.

- Deployment Jobs

  Check the Deployment Jobs folder in the Console tree on your HPOM for Windows console. Ensure the completion of all deployment jobs. Any job that did not complete is shown with an error. If there is an error, all subsequent deployment jobs are halted and cannot proceed until the error is removed.

- Changed Policy

  If a policy has been modified, depending on the type of modification, you might need to redeploy the policy.

To check what policies have been deployed on a node:

1. Right-click the node in the Nodes folder.

2. Select View → Policy Inventory .

   The policies deployed on the node are listed in the Details pane.

3. Check that the policy version number is correct.

To deploy a policy on a node:

Drag-and-drop the policy onto the node in the HPOM console Tree tab.

Related Topics:

- Deploy Web Servers SPI policies
- Modify Web Servers SPI policies
- Verify Web Servers SPI deployment on managed nodes

Turning on Tracing

Tracing enables you to drill down to the source of problems with the SPI by getting more information on what the scripts are processing.

 NOTE:

The procedure to enable tracing is UNIX-based.

To enable tracing:

1. Log in to the desired node.

2. Locate and change the script you want to trace:

   For HTTPS Agent Nodes:
   /var/opt/OV/bin/instrumentation
   For DCE Agent Nodes, the directory is branched into three sub-directories:
   Actions: /var/opt/OV/bin/OpC/actions
   Commands: /var/opt/OV/bin/OpC/cmds
   Monitors: /var/opt/OV/bin/OpC/monitor

3. Open the script you want to trace with a text editor.

4. Find the line below and uncomment it:
   #WSSPI_TRC_LVL=&lttrace_level&gt

5. Set &lttrace_level&gt to a number between 0 and 9, where a trace level of 0 sets tracing off and a trace level of 9 gives you the all available tracing messages

Trace Message Format

The format of a trace message is as follows:
&ltdate&gt &lttime&gt WSSPI (&lttrace_obj&gt-&ltpid&gt): &ltmessage&gt
The fields have the following meanings:
&ltdate&gt - Current date, when the message has been added
&lttime&gt - Current time, when the message has been added
&lttrace_obj&gt - Trace object, in general the name of the script that is the source of the trace message
&ltpid&gt - Process ID of the script

&ltmessage&gt - The message text. If the message is sent from a sub function, this message contains the name of the function as prefix

Sample Trace File

A sample output of a trace file for the configuration of an Apache server with trace level 9 is shown below:

11/28/2001 10:22:22 WSSPI(wsspi_ap_conf.sh-28925): Configuration started: Command: wsspi_ap_conf.sh
11/28/2001 10:22:22 WSSPI(wsspi_ap_conf.sh-28925): Running discovery in non-interactive mode
11/28/2001 10:22:32 WSSPI(wsspi_ap_conf.sh-28925): getApacheBinUsingRpm(): No Apache RPM package found
11/28/2001 10:22:32 WSSPI(wsspi_ap_conf.sh-28925): getApacheBinUsingPathes(): Searching for Apache binary in the path /bin/httpd
11/28/2001 10:22:32 WSSPI(wsspi_ap_conf.sh-28925): getApacheBinUsingPathes(): Searching for Apache binary in the path /usr/sbin/httpd
11/28/2001 10:22:32 WSSPI(wsspi_ap_conf.sh-28925): getApacheBinUsingPathes(): Found Apache binary: /usr/sbin/httpd
11/28/2001 10:22:32 WSSPI(wsspi_ap_conf.sh-28925): getApacheBin(): No Apache binary in predefined paths found
11/28/2001 10:22:32 WSSPI(wsspi_ap_conf.sh-28925): getHttpConfUsingProcess(): System is a non-HP-UX system
11/28/2001 10:22:32 WSSPI(wsspi_ap_conf.sh-28925): getHttpConfUsingProcess(): Found configuration file in parameters: /etc/httpd/httpd.conf
11/28/2001 10:22:32 WSSPI(wsspi_ap_conf.sh-28925): getServerRoot(): Found server root in Apache configuration file:
11/28/2001 10:22:32 WSSPI(wsspi_ap_conf.sh-28925): getHttpdPid(): Found pid file: /var/run/httpd.pid
11/28/2001 10:22:32 WSSPI(wsspi_ap_conf.sh-28925): getHttpLog(): Found error log file: /var/log/httpd/error_log
11/28/2001 10:22:33 WSSPI(wsspi_ap_conf.sh-28925): createLinks(): Created links to the error log files in the directory /var/opt/OV/wsspi/link/apache
11/28/2001 10:22:33 WSSPI(wsspi_ap_conf.sh-28925): writeConf(): Discovered information about managed server written to /var/opt/OV/wsspi/conf/wsspi_apache.cfg
11/28/2001 10:30:02 WSSPI(wsspi_ap_conf.sh-29659): Configuration started: Command: wsspi_ap_conf.sh
11/28/2001 10:30:03 WSSPI(wsspi_ap_conf.sh-29659): Running discovery in non-interactive mode
11/28/2001 10:30:11 WSSPI(wsspi_ap_conf.sh-29659): getApacheBinUsingRpm(): No Apache RPM package found
11/28/2001 10:30:12 WSSPI(wsspi_ap_conf.sh-29659): getApacheBinUsingPathes(): Searching for Apache binary in the path /bin/httpd
11/28/2001 10:30:12 WSSPI(wsspi_ap_conf.sh-29659): getApacheBinUsingPathes(): Searching for Apache binary in the path /sbin/httpd
11/28/2001 10:30:12 WSSPI(wsspi_ap_conf.sh-29659): getApacheBinUsingPathes(): Searching for Apache binary in the path /usr/sbin/httpd
11/28/2001 10:30:12 WSSPI(wsspi_ap_conf.sh-29659): getApacheBinUsingPathes(): Found Apache binary: /usr/sbin/httpd
11/28/2001 10:30:12 WSSPI(wsspi_ap_conf.sh-29659): getApacheBin(): No Apache binary in predefined paths found

11/28/2001 10:30:12 WSSPI(wsspi_ap_conf.sh-29659): getHttpConfUsingProcess(): Found configuration file in parameters: /etc/httpd/httpd.conf
11/28/2001 10:30:12 WSSPI(wsspi_ap_conf.sh-29659): getServerRoot(): Found server root in Apache configuration file:
11/28/2001 10:30:13 WSSPI(wsspi_ap_conf.sh-29659): writeConf(): Discovered information about managed server written to /var/opt/OV/wsspi/conf/wsspi_apache.cfg

Related Topics:

- Troubleshooting Web Servers SPI
- Using the Self-Healing Info Tool

Using the Self-Healing Info Tool

Use the Self-Healing Info application when you need to gather data to address problems with the operation of the Web Servers SPI. The tool stores data that will help HP support (and you) address the problem. This data is consolidated in a file that you submit to HP support for assistance.

Prerequisite: Prior to using the Self-Healing Info application: (1) turn on tracing, (2) reproduce the problem, and (3) complete these steps:

1. At the HPOM console, select Tools →SPI for Web Servers →WebSPI Admin (Windows or UNIX) .

2. In the details pane, right-click the Self-Healing Info tool and select All Tasks →Launch... .

3. In the dialog that appears, click next to the node on which you want to collect troubleshooting data. (In the message that appears, note where the compressed file will be stored.)

In your call to HP support, you can then send the file, as your support representative directs you, as part of your support case.

Related Topics:

■ Turning on Tracing
■ Troubleshooting Web Servers SPI

Web Servers SPI errors on managed nodes

During configuration of new Apache or SunONE nodes, a new configuration file is created. It is located in the directory:

/var/opt/OV/wsspi/conf/

This file contains the information required to start the Web Servers SPI tools. If you are experiencing problems running the Web Servers SPI tools on an Apache or SunONE node, ensure that the data contained in the following configuration file is correct:

wsspi.cfg

For example, if the web server configuration information changes, such as the installation directory name, then re-run the Configure Node tool to recreate the Web Servers SPI configuration file and capture the latest web server configuration information.

Related Topics:

- Configure managed nodes
- Use Web Servers SPI tools and policies
- Verify configuration of managed nodes
- Web Servers SPI file distribution

Uninstallation errors

Automatic uninstall does not remove the Tools group or the Services from the management node. These items continue to appear in your HPOM for Windows console.

Refer to your HPOM for Windows setup instructions for information about removing these items from your HPOM console.

Related Topics:

- Remove the Web Servers SPI from managed nodes
- Remove the Web Servers SPI from the management server

Reinstallation errors

Before reinstalling, it is necessary to run the automatic uninstall. However, this automatic uninstall only removes the 3.70 versions of policies. All other versions of any policies and the Internet Services policy group from HPOM for Windows must be manually uninstalled prior to reinstalling.

See the applicable HPOM for Windows help topics for information about uninstalling (removing) policies and tools from your HPOM console.

Related Topics:

- Web Servers SPI installation
- Remove the Web Servers SPI from your managed nodes
- Remove the Web Servers SPI from your management server

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