

# HP OpenView SPI for Select Access 6.0

## Integration Guide

For Unix Operating Systems



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Please visit the HP OpenView web site at:

<http://openview.hp.com/>

and also the HP OpenView Select Access web site at:

<http://openview.hp.com/products/select/>

There you will find contact information and details about the products, services, and support that HP OpenView offers, as well as product-specific information on HP OpenView Select Access.

You can go directly to the HP OpenView support web site at:

<http://support.openview.hp.com/>

The support site includes:

- Downloadable documentation
- Troubleshooting information
- Patches and updates
- Problem reporting
- Training information
- Support program information

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# The SASPI Integration Guide

## Introduction

The Select Access SPI User and Integration guide describes the installation, configuration and usage of the Select Access SPI for OVO UNIX

For information about Select Access, visit the Select Access web site at:

<http://www.openview.hp.com/products/select>

## Audience

This document is intended for administrators of OpenView Operations supporting a Select Access environment.

## Chapters Summary

Chapter 1 – The SASPI User and Integration Guide, describes the intent of the guide and its structure.

Chapter 2 – SASPI Concepts, provides an overview of the SPI functionality, and a description of its components.

Chapter 3 – Installing SASPI, lists the prerequisites, installation, and removal procedures for the SPI.

Chapter 4 – Using and Customizing SASPI covers the deployment and customization of the SPI.

# SASPI Concepts

## Introducing the SMART Plug-In for Select Access

The Select Access (SASPI) for Unix adds monitoring capabilities to HP Open View Operations for Unix (OVO on HP-UX and Solaris platform) to help you monitor and manage Select Access environments. (In HP-UX, Solaris and validator Linux managed node) The SASPI covers the monitoring of faults, service availability, and performance of Select Access components. Service Views provide root-cause analysis of all the reported alarms and integrated applications help to administer the Select Access services and troubleshoot problems.

## How the Select Access SPI Works

The SASPI provides pre-configured templates that, when deployed, track events that occur in Select Access components. These events appear as messages in the OVO Unix Message Browser and Service View, and help you proactively address potential or existing problems and avoid serious disruptions to Select Access services. The SASPI also monitors the availability and performance of Select Access components.

Figure 1 illustrates the interaction between SASPI and Select Access components.

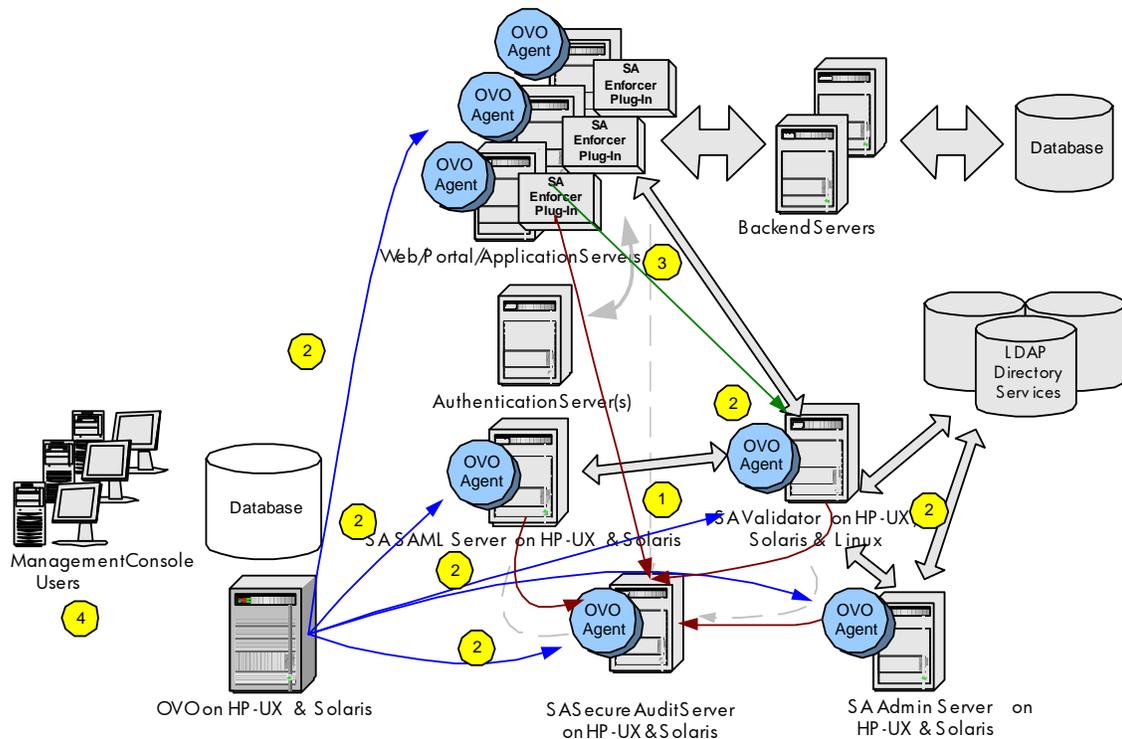


Figure 1: System Overview of OVO Unix and Select Access

- 1 All Select Access components will be configured to forward event data to a log file on the Secure Audit Server. The OVO agent looking for errors monitors this log file. These errors are then filtered and subsequently forwarded to the OVO management server. Sending all messages to the Secure Audit Server allows the SASPI to report on problems that occurred on platforms supported by the SASPI (e.g., HP-UX, Linux Validator, Solaris).
- 2 The SASPI monitors the availability of Select Access services on all supported nodes. The SASPI also includes operator applications to start, stop, and get status on the Select Access services. The SASPI includes applications to generate service tree for Select Access environment.
- 3 The SASPI monitors the performance of the authentication and authorization process. By running a test query to the Validator from the systems with the Enforcer Plug-Ins installed, the performance of the authentication and authorization process is isolated and compared against a threshold of an acceptable response time. This performance monitoring works well in combination with monitoring of the general Website performance since it is a component of the overall response time.
- 4 Messages from the SASPI are displayed in the OVO console where they are mapped to a service view representing the Select Access service.

# SASPI Components

## Users and User Profiles

The installation of the SASPI for Unix software adds a new user profile to OVO. The OVO administrator uses user profiles to simplify the process of assigning responsibilities to new OVO users. The SASPI user profile is called **SelectAccess** and has visibility to all SASPI messages and applications.

## Message Group

The SASPI installs a new message group that is specifically designed to handle messages generated by the templates and monitors started by the SASPI. This message group is called **SelectAccess**.

The SelectAccess message group is assigned by default to the Select Access user profile, which is uploaded to OVO during the installation of the SASPI. This means that assigning the Select Access user profile to an OVO user ensures that this user receives SASPI messages automatically, assuming the appropriate node groups are assigned.

## Node Groups

While installing the SASPI, a number of new SASPI-specific node groups are added to OVO. These node groups allow you to monitor the following components:

- SA Admin Server:        Contains the nodes running the Select Access Administration Server component that you want to monitor with the SASPI.
- SA Validator:         Contains the nodes running the Select Access Validator component that you want to monitor with the SASPI.
- SA Enforcer:          Contains the nodes running any of the Select Access Enforcer Plug-In components that you want to monitor with the SASPI.
- SA SAML Server:       Contains the nodes running the Select Access SAML Server component that you want to monitor with the SASPI.
- SA Secure Audit Server:    Contains the nodes running the Select Access Secure Audit Server component that you want to monitor with the SASPI.

The node groups themselves are empty on installation. During the configuration of the SASPI, you will have to assign nodes to the node group based on the Select Access component running on the node. Auto-deployment in OVO (which is active by default) deploys the templates assigned to the node group automatically when a node is added to that node group. Note that the SASPI node groups are assigned to the SelectAccess user profile. This means that OVO users to whom you assign the Select Access user profile will automatically receive messages from all those nodes included in the SASPI node groups.

## Applications

The installation of the SASPI adds new applications to OVO. The new application group is called **SPI for Select Access** and contains five application sub-groups. The following table describes the sub-groups and their applications:

**Table 3-1: SASPI application Sub-Groups**

SASPI Tool Sub-Group	Description
Validator	Contains the applications “StartValidator”, “StopValidator”, and “StatusValidator” to control the Validator service
AdminServer	Contains the applications “Start Admin Server”, “Stop Admin Server”, and “Status Admin Server” to control the Administration Server service.
AuditServer	Contains the applications “Start Secure Audit Server”, “Stop Secure Audit Server”, and “Status Secure Audit Server” to control the Secure Audit Server service.
SAMLServer	Contains the applications “Start SAML Server”, “Stop SAML Server”, and “Status SAML Server” to control the SAML Server service.
ServiceView	Contains the applications to generate Select Access Service view

There are no applications for controlling the Enforcer Plug-Ins because these plug-ins are libraries loaded into the Web or application server. Applications to start and stop these components should be covered by a Web server or application server SPI.

## Template Groups

The installation of the SASPI creates a high –level template group called **SPI for Select Access** in the OVO database. Few template groups and templates are assigned automatically to the corresponding high-level SASPI node groups to make template assignment and distribution easier.

The following table lists the template groups and gives a short description of what they do.

**Table 3-2: Template Groups**

Template Group	Description
SASPI_FaultMon	Contains template SASPI_AuditLogs to monitor the Select Access audit log

Template Group	Description
SASPI_PerfMon	Contains template SASPI_Performance used to monitor the performance of the the Validator from the perspective of the Enforcer Plug-Ins.
SASPI_AvailMon	<p>Contains templates used to monitor the availability of the Select Access services. There are four templates in this template group: SASPI_ProcMon_Validator, SASPI_ProcMon_AdminSrv, SASPI_ProcMon_SAMLSrv, and SASPI_ProcMon_AuditSrv.</p> <p>Note: There is no availability monitoring for the Enforcer Plug-In because these plug-ins are libraries loaded into a Web or application server. Availability of this component should be covered by a Web server or application server SPI.</p>

Templates and Template groups are assigned to node groups as an easy way to administer instrumentation on a managed node. When a managed node is added to a node group, it automatically gets assigned the template that are designed for that class of node. The following table shows the mapping of node groups to template in the SASPI.

**Table 3-3: Node Group Mapping**

SASPI Node Group	SASPI Assigned Template & Template Groups
SA Admin Server	<i>Template-</i> SASPI-General, SASPI_ProcMon_AdminSrv
SA Validator	<i>Template-</i> SASPI-General, SASPI-ProcMon_Validator
SA Enforcer	<i>Template Group-</i> SASPI_PerfMon, <i>Template -</i> SASPI-General
SA SAML Server	<i>Template-</i> SASPI_ProcMon_SAMLSrv, SASPI-General
SA Secure Audit Server	<i>Template Groups-</i> SASPI_FaultMon <i>Template-</i> SASPI-General, SASPI_ProcMon_AuditSrv

## Templates

The templates provided with the SASPI are split into the following generic areas:

Log file template

Availability templates

Performance template

Self-management template

These templates can be customized for your particular Select Access environment. For more information, see [Configuring SASPI Fault Monitoring](#), [Configuring SASPI Availability Monitoring](#), and [Configuring SASPI Performance Monitoring](#).

The following tables describe the templates in SASPI.

**Table 3-4: SASPI Log File Template**

Template Name	Description	Polling Interval
SASPI_AuditLogs	Captures FATAL, ERROR, and WARNING messages from the audit file.	5m

**Table 3-5: SASPI Availability Templates**

Template Name	Description	Polling Interval
SASPI_ProcMon_Validator	Monitors Select Access Validator process	5m
SASPI_ProcMon_AdminSrv	Monitors Select Access Administration Server process	5m
SASPI_ProcMon_SAMLSrv	Monitors Select Access SAML Server process.	5m
SASPI_ProcMon_AuditSrv	Monitors Select Access Secure Audit Server process.	5m

**Table 3-6: SASPI Performance Template**

Template Name	Description	Polling Interval
SASPI_Performance	Monitors the performance of Select Access Validator from the perspective of the Enforcer Plug-Ins.	5m

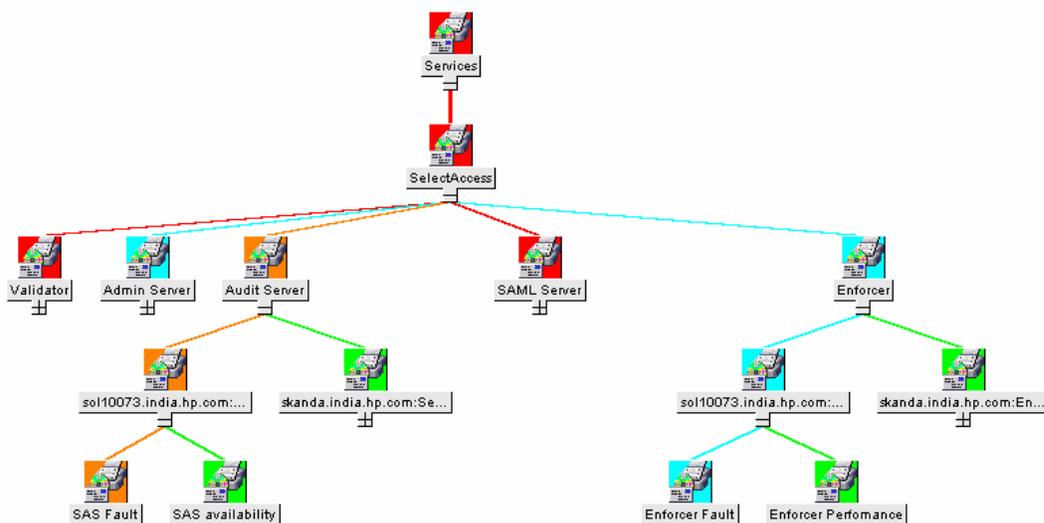
**Table 3-7: SASPI Self-Management Template**

Template Name	Description	Polling Interval
SASPI-General	Captures errors reported in the operation of the SASPI.	N/A

## Service Views

A service view is a representation of a service and the technology components that make up that service. It is a collection of managed elements grouped according to functional, logical, business, or other dependencies. The result is a tree-shaped view, where the top-level service (the root) is placed on top and branches representing sub-services extend from the top-level service. Each sub-service can again be divided into further sub-services.

In SASPI, the select access service view is generated dynamically by executing applications provided as part of the “SPI for Select Access “ application group. The service view gives the operator an overview of the status of the Select Access components. The following figure is the sample service view for the test environment. The view focuses on Select Access components and their health. For information on modifying the service view, see [Configuring the SASPI Service View](#)



The top-level service is **SelectAccess** with each first sub-service representing the different classes of Select Access components (e.g., Validator, Enforcer, etc.). Each component sub-service i.e Validator has sub-services with machine name and component name where select access component is running. Each of these sub services has another level of sub service where SASPI messages received by OVO are mapped.

# Installing SASPI

Before using the Smart Plug-in for Select Access, you must meet the software and hardware requirements for the management server and managed nodes, as listed below.

## Supported Software

### Management Server Requirements

Management Software Version	Management Platform
OVO 7.1	HP-UX 11
OVO 7.1	Solaris 2.8

### Managed Node Requirements

Select Access Component	Managed Platform
Select Access 6.0 Validator, Administration Server, SAML Server, and Secure Audit Server	HP-UX 11
Select Access 6.0 Validator, Administration Server, SAML Server, and Secure Audit Server	Solaris 2.8

Select Access Component	Managed Platform
Select Access 6.0 Validator	RedHat Linux 7.2
Select Access 6.0 Enforcer Plugin	HP-UX 11 & Solaris 2.8
LDAP Directory Server	Sun One v5.1

# SASPI Installation

The SASPI for Unix is delivered as depot for HP-UX and Solaris Operating systems.

**SASPISolaris.depot.gz** - Depot for Solaris Platform

**SASPIHpux.depot.gz** – Depot for HP-UX platform

## Steps for installing depot

The steps for installing depot on HP UX and Solaris platform are same.

- 1 You need to stop OVO sessions prior to the installation SA SPI
- 2 Log in as user root, and open a terminal window.
- 3 Unzip the depot using following commands

`gunzip SASPISolaris.depot.gz` for Solaris depot

`gunzip SASPIHpux.depot.gz` for HP-UX depot

- 4 Start the installation with:

For Solaris depot

```
/usr/sbin/swinstall -v -s /<fullPathToDepot>/SASPISolaris.depot\*
```

For HP-UX depot

```
/usr/sbin/swinstall -v -s /<fullPathToDepot>/SASPIHpux.depot\*
```

- 5 Check the logfile from swinstall for errors or warnings

## Adding Nodes to Node Groups

SASPI makes assigning templates to nodes easy by including component-specific node groups. Assigning a node to the corresponding SASPI node group automatically assigns the appropriate templates to the node. See [Node Groups](#) for a description of the SASPI node groups.

- 1 From the node bank, go to **Window ->Node Group Bank**.
- 2 In the Node bank select the node you want to assign and drag-and-drop it to the appropriate SASPI node group.

## Distribution of Templates, Actions, Cmds and Monitors

- 1 Open the OVO Node group bank.

- 2 Select All Node Group added by Select Access SPI.
- 3 Go to **Actions: Agents-> Install/Update SW & Config** from the menu bar.
- 4 The install/update OVO software and configuration window is displayed Check the following checkbox to select the following component:
  - Templates
  - Actions
  - Monitors
  - Commands
- 5 Click OK to distribute templates, actions, cmds and monitors to the node groups.

## Assigning Responsibilities for opc\_adm user

To view Select Access SPI messages as opc\_adm user, assign SelectAccess message group to opc\_adm as follows.

- 1 Open the OVO Node group bank.
- 2 Go to **Window->User Bank**.
- 3 Select opc\_adm, right click and select **Modify**.
- 4 Go to Responsibilities
- 5 Check SelectAccess Message Group against all Select Access Node groups.
- 6 Save and exit

## Reinstallation

This process is the same as the SA SPI installation as described in Section [Steps for installing depot](#) except the fact that you need to set reinstall option to true.

For Solaris depot

```
/usr/sbin/swinstall -v -x reinstall=true -s  
/<fullPathToDepot>/SASPISolaris.depot\*
```

For HP-UX depot

```
/usr/sbin/swinstall -v -x reinstall=true -s  
/<fullPathToDepot>/SASPIhpux.depot\*
```

# SASPI Removal

## Removal of depot on the management server.

- 1 Log in as user root, and open a terminal window.
- 2 Execute

```
/usr/sbin/swremove SASPIMon
```
- 3 The postremove script cleans up the following items from the management server
  - Removes SA SPI upload directories
  - Removes SA SPI directories /etc/opt/saspi , /opt/saspi and /var/opt/saspi
  - Deassigns and removes templates of SA SPI from OVO server.
  - Removes Node Groups

## Removing Template Groups

- 1 To delete OVO SA SPI message source template group, select the message source template window from the menu bar.
- 2 Open the “**SPI for Select Access**” template groups and select all templates for deletion.
- 3 Select **Delete from All** to delete the templates. Click *Yes* at the following message: “**Do you really want to delete the template(s)?**”

## Removing Application Group

- 1 To delete SA SPI application group “**SPI for Select Access**”, select **Window :Application Bank** from the menu bar.
- 2 Right click to select the “**SPI for Select Access**” application group from the Application Bank window.
- 3 Select **Edit: Delete->From All Submaps** from the menu bar
- 4 Click [OK] at the following message:  
**About to delete selected objects.**

## Removing Message Group

- 1 To delete Message group, select **Window:Message Group** Bank from the menu bar.
- 2 Select Message group **SelectAccess**.

- 3 Right click to select Delete.
- 4 Click [OK] at the following message  
**Do you really want to delete message group**

## Removing Select Access User

- 1 To delete **SelectAccess** user, select **Window:User** Bank from the menu bar.
- 2 Select User **SelectAccess**.
- 3 Right click to select Delete.
- 4 Click [OK] at the following message  
**Do you really want to delete user**

## Removing Actions, Monitors and Cmds

- 1 To delete all the scripts related “Select Access SPI”, Go to the directory  
`/var/opt/OV/share/databases/OpC/mgd_node/customer/hp/pa-risc/hp-ux11`
  - Go to directory “cmds” under above directory. Remove all scripts that start with “saspi”. Remove script libess.ksh
  - Go to directory “monitor” under above directory. Remove all scripts that start with “saspi”.  
`/var/opt/OV/share/databases/OpC/mgd_node/customer/sun/sparc/solaris`
  - Go to directory “cmds” under above directory. Remove all scripts that start with “saspi”. Remove script libess.ksh
  - Go to directory “monitor” under above directory. Remove all scripts that start with “saspi”.  
`/var/opt/OV/share/databases/OpC/mgd_node/customer/linux/intel/linux22/`
  - Go to directory “cmds” under above directory. Remove all scripts that start with “saspi”. Remove script libess.ksh
  - Go to directory “monitor” under above directory. Remove all scripts that start with “saspi”.  
`/var/opt/OV/share/databases/OpC/mgd_node/customer/linux/intel/linux24/`
  - Go to directory “cmds” under above directory. Remove all scripts that start with “saspi”. Remove script libess.ksh

- Go to directory “monitor” under above directory. Remove all scripts that start with “saspi”.
- 2 Re-Distribute templates, Actions, Monitors and Commands to the managed nodes
- Highlight the managed nodes on the Node Bank
  - Select **Actions: Agents->Install/Update SW & Config** from the menu bar
  - The install/update OVO software and configuration window is displayed. Check the following checkbox to select the following component
    - a. Templates
    - b. Actions
    - c. Monitors
    - d. Commands.
- 3 Click OK to distribute templates to the selected managed nodes

# Using & Customizing SASPI

## Using SASPI Applications

The Smart Plug-in for Select Access includes applications to monitor the Select Access components. Application groups are created for the Validator, Administration Server, SAML Server, Secure Audit Server components and Service View; each group except ServiceView contains the specific applications for the administration of that component. There are no applications for the Enforcer Plug-Ins because these plug-ins are libraries loaded into a Web or application server. Control of this component should be managed by the Web server or the application server SPI.

You can perform the following activities with these applications on the Select Access components. You have to run the application depending on the type of component installed on the managed node. The user **SelectAccess** created by SASPI will have the application group “**SPI for Select Access**” assigned to them. Launch an application by dragging and dropping the appropriate node in to the application except for service view applications, which should be executed on the management server. Refer to OVO On line Help for more information about using applications.

The following three applications are part of the application groups Validator, Administration Server, SAML Server, and Secure Audit Server to start, stop and get the status of Select Access component.

**Status of Select Access component:** An operator can launch this application against the node to find the status of the Select Access component. The application will run a program on the managed node to determine the status of the component and will display the result in the Application Execution screen.

**Stop Select Access component:** Operators can launch this application against a managed node to stop the Select Access component. The application will stop the desired Select Access component; it will then display the result in the Application Execution screen.

**Start Select Access component:** Operators can launch this application against a managed node to start the Select Access component. The application will start the desired Select Access component and it will then display the result in the Application Execution screen.

### Service View applications

Service view applications are executed on an OVO management server.

**EditConfigFile:** An operator can launch this application on an OVO management server. This will open the config file in an editor and expects the operator to enter machine address (Ip address) of the select access components and save the config file.

**ServiceDiscovery:** An operator can launch this application on an OVO management server. This will generate a Service Tree in a XML format using the config file and it will then display the result in the Application Execution screen.

**RefreshServiceView:** An operator can launch this application on an OVO management server. This will upload the Select Access service to OVO and the service tree can be viewed using a Java GUI.

## Configuring SASPI Fault Monitoring

The Select Access components have the ability to write out log messages to various destinations. The default functionality is to write messages to a system file (i.e., syslog or Event Log). In addition, the Select Access components can be configured to send log information to the Select Access Secure Audit Server.

To monitor Select Access error messages through OVO, the Select Access components will need to be configured to log information into a text file on a central Secure Audit Server. This setup will centralize the log file monitoring to a single server. The SASPI\_AuditLogs template will translate messages that are forwarded to OVO so that they appear to come from the affected server instead of the Secure Audit Server.

To configure the Select Access components, use the Select Access Setup tool to create a log file destination. The SASPI\_AuditLogs template is pre-configured to monitor the text file `/opt/OV/SelectAccess/logs/saspi.log`. Any destination log file could be used, but if you do not use the default, then you will have to modify the SASPI\_AuditLogs template to match the audit log destination. For more information on modifying the log file source, see the topic *Add/Modify Logfile Window* in OVO on-line help.

For more information on the Select Access Secure Audit Server or Setup tool, see the Select Access Installation Guide.

To configure the Select Access Secure Audit Server, start the Setup tool on the audit server node and proceed to the Secure Audit Server configuration section.

- 1 From the Audit Settings window, select **Add** to create a new destination.
- 2 Select **File** in the **Audit Trail** tab and click **Configure**.

- 3 In the Audit Trail – File Properties window, enter **/opt/OV/SelectAccess/logs/saspi.log** in the Windows File Name form and press **OK**.
- 4 Select the **Audit Policy** tab, change the event level to WARNING, and press **OK**.
- 5 Press **Next** until the Secure Audit Server – Finish dialog is displayed, then press **Finish**.

For each Select Access component in the environment, start the Setup tool and proceed to the configuration for that component.

- 1 When the Audit Settings dialog is displayed for the component, click **Add**.
- 2 Select the Secure Audit Server destination, and click **Configure**.
- 3 Enter the name and port of the Secure Audit Server where you will distribute the SASPI fault monitoring template and press **OK**.
- 4 In the **Audit Policy** tab, set the Component to \* and the Event Level to Warning and press **OK**.
- 5 Press **Next** until the Select Access component configured has finished and restarted.

The SASPI\_AuditLogs template includes basic conditions to capture all Warning, Error, and Fatal messages. The Duplicate suppression is enabled for an interval of 30mins for all the conditions to suppress duplicate messages. Eventually, an OVO administrator wants to customize the template to modify the default behavior. The best method for customizing templates is to use the current SASPI\_AuditLogs conditions, select the condition that matches the severity as a base and copy it. Then modify the copy making sure that the new condition is ranked ahead of the basic condition. For more information on creating new logfile conditions, see the topic *Add/Modify Logfile Window* in OVO on-line help.

## Configuring SASPI Availability Monitoring

The SASPI availability monitoring reports on the status of the essential Select Access processes and provides a facility to restart Select Access processes as operator-initiated actions.

- If the monitored Select Access process is not running, the SASPI availability monitoring templates will generate an OVO message in the active message browser to notify the operator.
- If the process restarts or is running again, the OVO message in the active browser will be automatically acknowledged and a message will be sent to the OVO acknowledged message browser stating the process is running.

The OVO message includes an automatic action to get process status information for the unavailable process and an operator-initiated action to start the unavailable process.

The SASPI monitors the following processes:

HP Openview Select Access Validator

HP Openview Select Access Administration Server

HP Openview Select Access SAML Server

HP Openview Audit Server

There is no availability monitoring for the Enforcer Plug-In because these plug-ins are libraries loaded into a Web or application server. Availability of this component should be covered by a Web server or application server SPI.

The default interval for monitoring a Select Access processes is five minutes. If a different duration is required, you can edit the template and redistribute. For more information on editing monitoring templates, see the topic *Condition No. Window* in OVO on line help.

## Configuring SASPI Performance Monitoring

In a Select Access environment, as users request Web pages, the Enforcer plug-in sends credential information to the Validator, where it is determined if the user has sufficient authorization to view the Web page. The performance of this authorization check is an important part of the overall end-to-end response time of the user request. The Select Access performance-monitoring template, when deployed to a node with an Enforcer plug-in, performs a query from that node to the configured Validator to measure responsiveness. The results of these queries can be used to make sure that the Select Access environment does not impact the overall Web experience.

The SASPI performance-monitoring template `SASPI_Performance` uses the Select Access Query tool (typically found under `<Select Access install path>\bin`). The Query tool is a command-line application that sends queries to a Validator to check a request against the policy matrix, evaluate the performance within the environment, and review simple and advanced authentication. For details, see *Query utility* in the Select Access Network Integration Guide.

`SASPI_Performance` does a single check against a user-configured URL. The results are checked against the default threshold of 0.9 seconds. If the query takes longer than the threshold, a message is generated to the OVO message browser.

To configure the target for the query, perform the following steps:

- 1 In the OVO console, double-click on the **SASPI\_Performance** template to edit it.
- 2 In the Program Name field, go to the end of the line and replace “`http://www.hp.com`” with your target.

You can also customize the threshold to match the performance expectations of your Select Access environment by clicking the **Condition** tab.

- 1 Highlight the Checking for Validator Responsiveness condition and click on Modify.

— Change the Threshold Limit field.

- Redeploy this template to Enforcer nodes for the new target and threshold to be set.

If you plan to set different targets and thresholds for different nodes, make multiple copies of the SASPI\_Performance templates.

## Configuring the SASPI Service View

The Select Access environment is represented by displaying the Select Access components rather than the systems that they run on. The components have sub-service containers representing availability, fault, and performance, depending on the type of component. The SASPI Service View is generated dynamically by reading the config file created by the user.

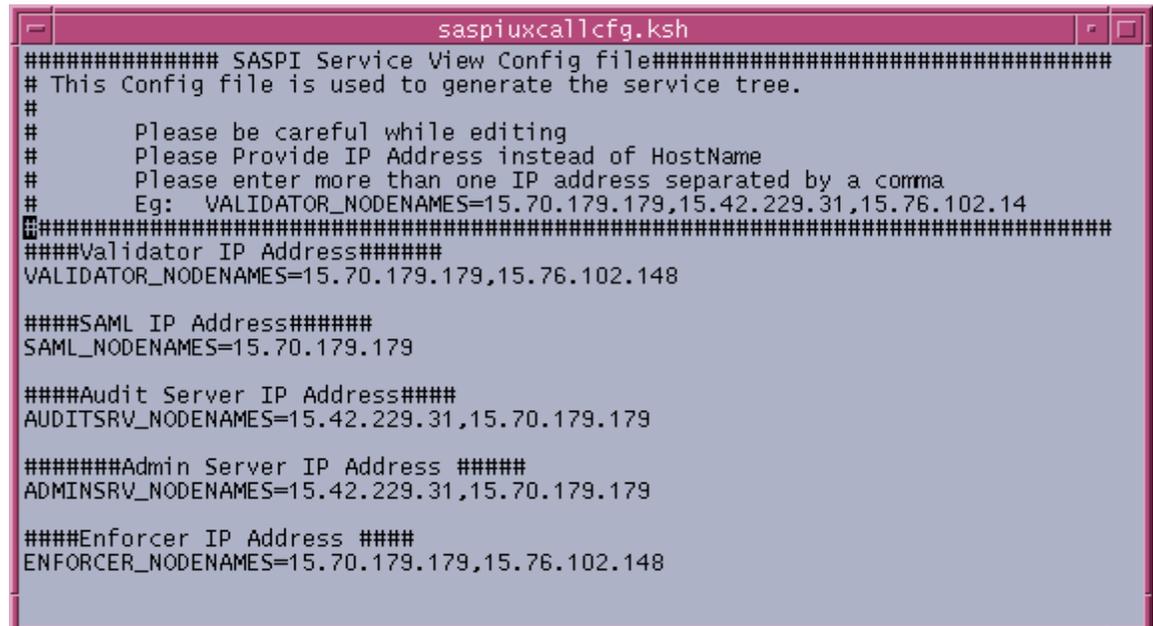
The service navigator component should be installed on the OVO management server to generate service view tree. The generated service tree can be viewed using Java console. Log in as user SelectAccess to java console to view the select Access service tree and to see only the Select Access SPI messages.

To generate service tree, perform the following steps

Execute applications present in **Service View** application group in the following order

### EditConfigFile

This application is used to edit the config file, which is used by service discovery script to discover the services. To invoke this application, double click on EditConfigFile application icon, which opens the config file in the editor. Replace the existing machine address with the machine address where select access components are running or add your IP's separated by “,” and save the file.



```
saspiuxcallcfg.ksh
##### SASPI Service View Config file#####
# This Config file is used to generate the service tree.
#
#   Please be careful while editing
#   Please Provide IP Address instead of HostName
#   Please enter more than one IP address separated by a comma
#   Eg:  VALIDATOR_NODENAMES=15.70.179.179,15.42.229.31,15.76.102.14
#####
####Validator IP Address#####
VALIDATOR_NODENAMES=15.70.179.179,15.76.102.148

####SAML IP Address#####
SAML_NODENAMES=15.70.179.179

####Audit Server IP Address####
AUDITSRV_NODENAMES=15.42.229.31,15.70.179.179

#####Admin Server IP Address #####
ADMINSRV_NODENAMES=15.42.229.31,15.70.179.179

####Enforcer IP Address ####
ENFORCER_NODENAMES=15.70.179.179,15.76.102.148
```

### ServiceDiscovery

This application takes the latest config file and generates the service tree and creates an XML file. This application can be invoked by double clicking on the application. After successful execution of this application you will get a message saying service tree generated.

### **RefreshServiceView**

This application takes the XML file generated by ServiceDiscovery Application and uploads the service tree to OVO. It can be invoked by double clicking on the RefreshServiceView application. Then you can view the Service Tree using java GUI.

The Select Access Application tree is a dynamically generated service tree. All the sub-services under this tree have specific service IDs that correspond to message conditions created in the templates to directly affect the status of this service tree.

The leaf level sub-services represent the following:

**Availability:** Any service failure of the Secure Audit Server, Administration Server, Validator, or SAML Server service will automatically show a problem for that component in the service tree on the availability sub-service.

**Fault:** Detection of a warning, error, or fatal message will result in status change of the fault sub-service of the component that generated the message. Even though the template is deployed on the Secure Audit Server, the template will automatically find the Select Access component that generated the error in the log file.

**Performance:** Performance monitoring detects response-time violations between an Enforcer and Validator. The performance sub-service is under the Enforcer branch of the Select Access service view since we are running the performance-monitoring template from the Enforcer node.



# Appendix

## Troubleshooting SA SPI

### How to set up debug

Debugging can be turned on for all Select Access SPI scripts by passing “-d” or “-debug” as the first parameter.

The debug messages will be written to logfile “*scriptname.log*” at */var/opt/saspi/logs/*

Ex- */var/opt/OV/bin/OpC/cmds/saspiuxstatusproc.ksh -debug validator*

The logfile name for the above example is *saspiuxstatusproc.log*

### Error messages from SA SPI monitoring scripts

**Error Message:** Cannot find */var/opt/OV/bin/OpC/cmds/libess.ksh*

**Cause:** libess.ksh file may be missing

**Action:** Distribute *cmds* to managed node from the management server.

**Error Message:** Select Access config file <configfile\_name> not found.

**Cause:** The SA SPI monitoring scripts takes/reads select access install path from Select Access config file. The location of Select Access config file location is read from SELECTACCESS\_CONFIG environment variable. If the environment variable is not set then default file */etc/selectaccess.conf* is considered. This message is generated when script not able to get select access config file from either of the two methods.

**Action:** Either Set value for SELECTACCESS\_CONFIG variable with appropriate location of config file or make sure that *selectaccess.conf* is present at its default location i.e */etc*.

### Log file messages with duplicate suppression.

The duplicate suppression is enabled for all logfile conditions. The suppression interval is 30 minutes. Because of this feature the duplicate messages will not appear in the message browser for 30-minutes. If you acknowledge messages available/present in the browser and then again append same set of messages to the logfile, you will not observe any messages in the browser due to duplicate suppression.

## Availability monitoring messages

The SASPI availability monitoring templates generates an OVO message when the Select Access processes are not running. These process down messages will be automatically acknowledged when the process restarts or is running again. So please don't acknowledge the process down message from the message browser. If the process down message is acknowledged manually, then redistribute the templates to the managed node.