
hp OpenView Service Quality Manager



Service Adapter for HP OpenView Service Navigator Installation, Configuration and User's Guide

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Preface

This document describes how to install and configure the HP OpenView Service Quality Manager (SQM) Service Adapter for HP OpenView Service Navigator. The Service Adapter is the application that provides SQM with the performance data used to measure the quality of service.

This document describes how to:

- Install the Service Adapter (and associated subsets)
- Set up the Service Adapter
- Start and stop the Service Adapter
- Customize the Service Adapter

Intended Audience

This document is intended for Service Quality Manager system administrators.

Required Knowledge

It is assumed that the reader is familiar with the functionality of Service Quality Manager and has previous experience of the following:

- System administration and operations
- HP OpenView Service Navigator
- Service Level Management

It is assumed that the reader is familiar with the concepts described in the following books:

- *HP OpenView Service Quality Manager Overview*
- *HP OpenView Service Quality Manager Service Adapter User's Guide*

Software Versions

The software versions referred to in this document are specified in the chapter, “Service Adapter Installation”, section 2.1.

Typographical Conventions

The following typographical conventions are used in this book:

`Courier Font`

- Source code and examples of file contents.
- Commands that you enter on the screen.
- Pathnames.
- Keyboard key names.

Italic Text

- File names, programs, and parameters.
- The names of other documents referenced in this manual.

Bold Text

- New terms and to emphasize important words.

Associated Documents

For a full list of Service Quality Manager user documentation, refer to the *HP OpenView Service Quality Manager Overview*.

Support

Please visit our HP OpenView web site at:

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

There you will find contact information as well as details about the products, services, and support HP OpenView has to offer.

The “HP OpenView support” area of the HP OpenView web site includes:

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

Chapter 1

Introduction

The HP OpenView Service Quality Manager uses a Service Adapter to collect data from HP OpenView Service Navigator and feed that data to the Service Quality Manager. The data provides information about service status.

The Service Adapter provides a common interface to the Service Quality Manager to work with other Service Quality Manager components.

This section provides a brief overview of Service Quality Manager and the Service Adapter, and describes the elements the Service Adapter uses to collect data.

For a detailed description of SQM, refer to the *HP OpenView Service Quality Manager Overview*.

For a detailed description of Service Adapters, refer to the *HP OpenView Service Quality Manager Service Adapter User's Guide*.

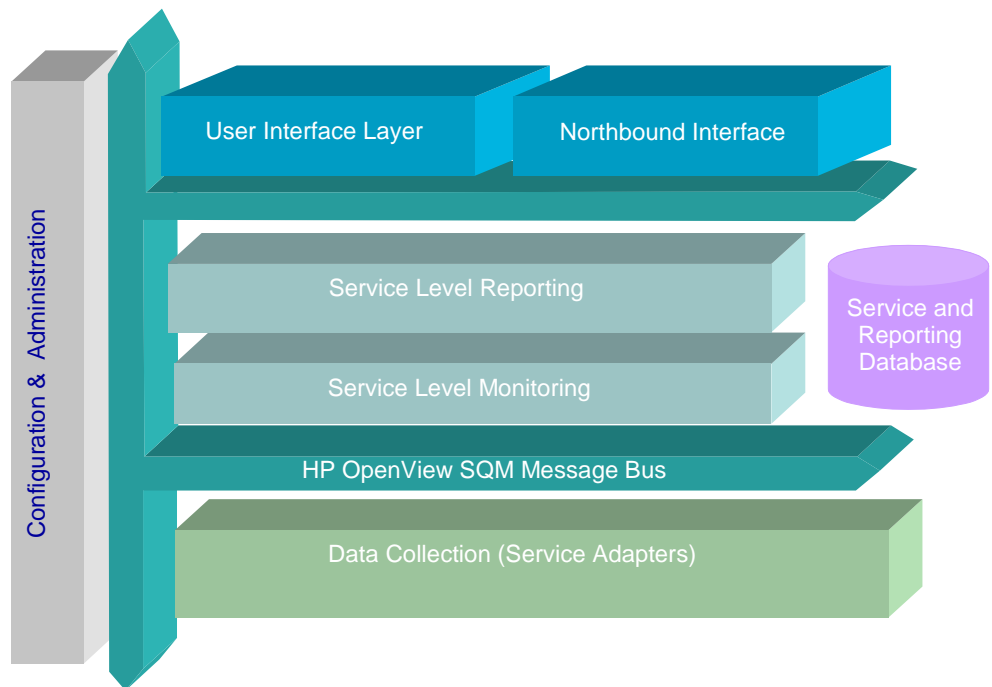
1.1 Service Quality Manager

SQM provides a complete service quality management solution. It consolidates quality indicators across all domains — telecom, IT networks, servers, and applications — providing end-to-end visibility on service quality. SQM links service quality degradations to potential effects on business, allowing network support personnel to address problems and prioritize actions proactively.

SQM monitors the service quality by aggregating information coming from all data sources, such as the network, the IT infrastructure, and the service provider's business processes. Using this information, service operators can pinpoint infrastructure problems and identify their potential affect on customers, services, and service level agreements (SLAs).

Figure 1 shows the main SQM components:

Figure 1 Service Quality Manager Main Components



Service Adapters have two main interfaces to SQM:

- An interface to the Configuration and Administration layer.
- An interface to the Service Level Monitoring (SLM) layer.

The Configuration and Administration layer contains the configuration repository. This repository stores the information about how to connect to Service Navigator, as well as the way to map the raw data from Service Navigator to the SQM parameter format.

The Service and Reporting Database contains the SQM Service Repository, which in particular stores the parameters to be collected by the Service Adapter.

The layer receives all measurement data from the Service Adapter. It then calculates the status of each service to determine whether a service has failed to meet a service level objective (SLO).

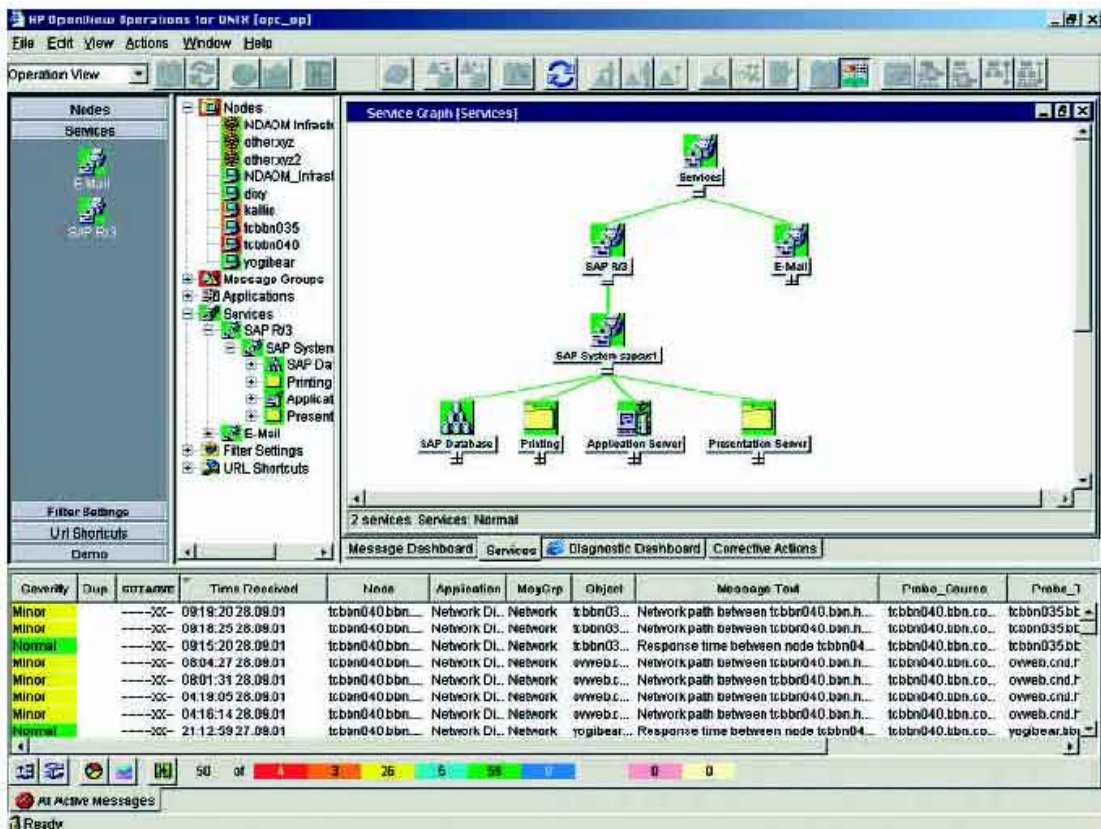
1.2 The Service Adapter

SQM uses a Service Adapter to connect to Service Navigator and collect data. A Service Adapter acts as a gateway between Service Quality Manager and Service Navigator, collecting data from Service Navigator, calculating quality indicators, and feeding those indicators to SQM.

1.2.1 What the Service Adapter Does

The Service Navigator Service Adapter provides quality indicators derived from the data stored in Service Navigator. This Service Adapter extracts indicators about the responsiveness of a service.

1.2.2 OvSn Overview



The screenshot displays the HP OpenView Operations for DNIR interface. The main window is titled "Service Graph [Services]" and shows a hierarchical tree structure of services. The root node is "Service", which branches into "SAP RG" and "E-Mail". "SAP RG" further branches into "SAP System 220001", which then branches into "SAP Database", "Printing", "Application Server", and "Presentation Server".

Below the service graph is a "Message Dashboard" with a table of messages. The table has columns for Severity, Dup, Status, Time Received, Node, Application, MsgGrp, Object, Message Text, Probe_Course, and Probe_I. The messages are listed as follows:

| Severity | Dup | Status | Time Received | Node | Application | MsgGrp | Object | Message Text | Probe_Course | Probe_I |
|----------|-----|--------|-------------------|-----------------|-------------|---------|-------------|----------------------------------------|--------------------|----------------|
| Minor | --- | XX | 09:19:20 28.09.01 | tcbbn040.bbn... | Network DL | Network | tbbn03... | Network path between tcbbn040.bbn.h... | tcbbn040.tbn.co... | tcbbn035.bt... |
| Minor | --- | XX | 09:18:25 28.09.01 | tcbbn040.bbn... | Network DL | Network | tbbn03... | Network path between tcbbn040.bbn.h... | tcbbn040.tbn.co... | tcbbn035.bt... |
| Normal | --- | XX | 09:15:20 28.09.01 | tcbbn040.bbn... | Network DL | Network | tbbn03... | Response time between node tcbbn04... | tcbbn040.tbn.co... | tcbbn035.bt... |
| Minor | --- | XX | 08:04:27 28.09.01 | tcbbn040.bbn... | Network DL | Network | owweb.c... | Network path between tcbbn040.bbn.h... | tcbbn040.tbn.co... | owweb.cnd.f... |
| Minor | --- | XX | 08:01:31 28.09.01 | tcbbn040.bbn... | Network DL | Network | owweb.c... | Network path between tcbbn040.bbn.h... | tcbbn040.tbn.co... | owweb.cnd.f... |
| Minor | --- | XX | 04:18:05 28.09.01 | tcbbn040.bbn... | Network DL | Network | owweb.c... | Network path between tcbbn040.bbn.h... | tcbbn040.tbn.co... | owweb.cnd.f... |
| Minor | --- | XX | 04:16:14 28.09.01 | tcbbn040.bbn... | Network DL | Network | owweb.c... | Network path between tcbbn040.bbn.h... | tcbbn040.tbn.co... | owweb.cnd.f... |
| Normal | --- | XX | 21:12:59 27.09.01 | tcbbn040.bbn... | Network DL | Network | yogibear... | Response time between node tcbbn04... | tcbbn040.tbn.co... | yogibear.bb... |

HP OpenView Service Navigator provides a graphical service view of complex IT environments.

HP OpenView Service Navigator provides management capabilities for end-to-end application service environments.

HP OpenView Service Navigator's graphical Application Service Views can capture the elements of a complex end-to-end service environment, such as network elements, computer systems, databases and the applications themselves, and then display their interdependencies in an easy-to-understand manner. IT staff can then look at the complex dependencies between these managed elements and interpret lower level data in terms of importance to the higher level service.

Features:

- Role-based service views enable users to focus on the services in their areas of expertise
- Advanced real-time status propagation mechanism allows IT staff to quickly determine the impact of a component failure on the overall service
- Mean time to recovery (MTTR) is enhanced because IT staff are able to quickly navigate to the root cause of emerging problems
- Service status changes can be logged into the OpenView database to provide the foundation for service reporting

1.2.3 OVSN integration as data source for SQM

1.2.3.1 Metrics

The service objectives and their dependencies as well as the services themselves need to be defined and service-level agreements negotiated. In order to define these agreements accurately, we first need to understand the terms:

- Service

An IT component as seen by the user. The user is not interested in technical details, but in a certain business oriented view of the IT components. If we take file storage as an example, the user only wants to have sufficient space and fast access. He does not want to worry about location, technology and so on.

- Service Hierarchy

A service may depend on other services, for example a distributed business application could rely upon the availability of the network, a DCE server, or even an optical storage. Since the latter can be services themselves, a hierarchy of dependencies results. The Service Navigator displays these hierarchies as trees and graphs.

- Service Level Agreement (SLA)

A contract between an IT department (the service supplier) and a user (the service customer) of an IT service. Rules are established in the SLA to determine which service must be delivered under what conditions. An example for this is the guaranteed response time (98% availability) for an application.

Monitoring the status of services is important not only from the perspective of (technical) availability but also the fulfillment of the SLA.

The HP OpenView Service Navigator allows you to define the dependencies between services and, from the underlying messages in ITO, establish a service hierarchy.

Service hierarchies are shown within the Service Navigator GUI as the graphical representation of the graph, known as (service) view. These service views can be based on any criteria such as:

- Applications, Processes, Servers, Components
Database, SAP application server, printer spooler, networks, ...
- Geography
Country, state, area, city, building, floor, ...
- Organization, departments
Finance, production, planning, marketing, ...
- Any kind of other relationship or mixture of different criteria
Whatever maps the real service best in order to monitor a specific SLA

1.2.4 How the Service Adapter Works

This interface can be used to send requests and receive replies via the file system socket, that is, the Service Adapter program opens this socket and communicates with the Service Navigator service engine.

The requests/replies must match the document type definitions (DTDs) provided by Service Navigator.

1.2.5 Service Navigator Data Collection

To collect data, the Service Adapter uses **data feeders**. A data feeder is a source of data for SQM. Each data feeder is defined by a **Data Feeder Definition (DFD)**.

The data collected from Service Navigator is defined by DFDs, their properties, and parameters, each of which is described below.

- DFDs
DFDs are data structures that define what source data is collected from Service Navigator, that is, service status. DFD configuration information is stored in the SQM configuration repository.
- DFD parameters
Parameters define what measurement data is sent by the Service Adapter to Service Quality Manager. They are stored in the SQM data repository.
- DFD properties
Properties further define what source data is collected from Service Navigator. For example, collecting data for a particular Service Navigator service ID. They are stored in the SQM data repository.

Measurement Reference Point

The Measurement Reference Point (MRP) identifies the source of the data that is to be collected.

1.2.5.1 DFDs

Table 1 DFDs

| Name | Type | Description | Value |
|----------|--------|----------------------------------------|-----------|
| ItemType | String | Item to gather from Service Navigator. | serviceID |

1.2.5.2 DFD Parameters

Table 2 DFD Parameters

| Parameter Name | Label | Description | Data Type | Category |
|----------------|-----------|-------------------------------|-----------|----------|
| Status | Status | Current status of the service | Enum | Other |
| OldStatus | OldStatus | Old status of the service | Enum | Other |

1.2.5.3 DFD Properties

Table 3 DFD Properties

| Name | Label | Description | Data type |
|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------|-----------|
| ServiceID | ID of the Service Navigator service | ID of the monitored Service Navigator service as shown in the Service Navigator user interface. | String |
| Connector | Name of the Connector | Connector to use to connect to the Service Engine. | String |

1.2.5.4 Measurement Reference Point

The Measurement Reference Point (MRP) describes all the information about where the performance data that was sent to Service Quality Manager was measured. The MRP gathers all information that distinguishes two performance data values coming from the same Data Feeder and for the same parameter name, except the time stamps.

These are two items that go into specific fields of the Service Quality Manager performance data value message.

In other words, the MRP is used to distinguish between two Data Feeder Instances of the same DFD (with the same DFD version).

Syntax

For the Service Navigator Service Adapter, the syntax of the MRP is:

`OvSn- [service_ID] - [<connector_name>]`

The MRP syntax has the following elements:

OvSn

The prefix of each MRP name for this Service Adapter.

service_ID

The ID of the Service Navigator service being monitored.

<connector_name>

The name of the connector.

Example

```
OvSn-incident-Main Server-107-Premium Exchange Service
```

1.3 Configuration Overview

The OVSN Service Adapter provides a configuration utility that connects to Service Navigator, discovers as much configuration information as possible and creates all the configuration files needed to configure the Service Adapter for collecting the required measurement data. These configuration files are saved in XML format and are uploaded to the repositories.

1.3.1 Way to proceed

Figure 2 shows the steps you take to configure the Service Adapter:

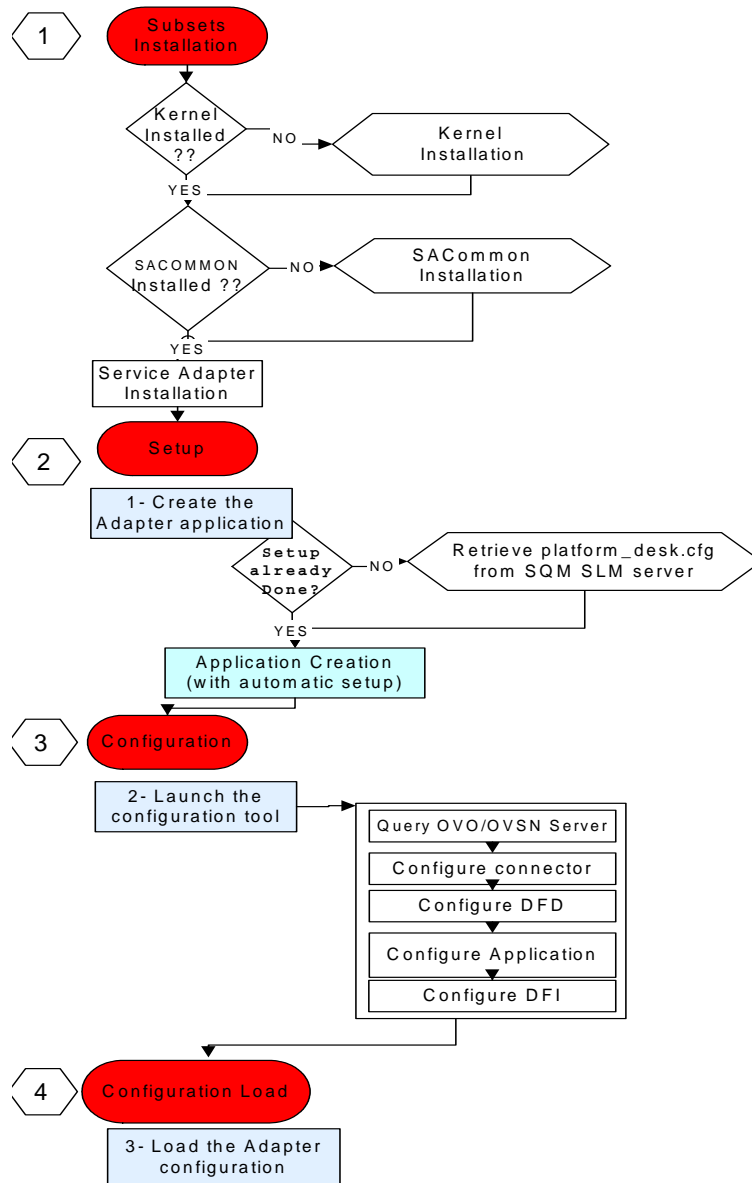


Figure 2. Service Adapter configuration diagram

Chapter 2

Service Adapter Installation

This chapter describes how to install the Service Adapter on HP-UX.

After you have completed the installation, follow the instructions in Chapter 3 to configure the adapter.

2.1 Software and Hardware Requirements

2.1.1 Software Requirements

- HP-UX V11.11
- OVO A.07.10.0 and last patches.

2.1.2 Hardware Requirements

For hardware requirements, refer to the *HP OpenView Service Quality Manager Installation Guide*.

- Minimum of 1.5 MB disk space.

2.2 Installing the Software

If not already done, you first need to install the OV SQM V1.2 Kernel, go to section 2.2.1

Section 2.2.2 describes the required environment variables and user account for performing the installation and setup.

If the OV SQM V1.2 Kernel has been installed go directly to section 2.2.3

Section 2.2.4 explains how to install possible existing patch.

2.2.1 Installing the OV SQM Kernel

If not already done, you first need to install the OV SQM V1.2 Kernel.

To install the Kernel, perform the following steps:

1. Mount the SQM Core CD-ROM on your system
2. Go to <Download directory>/SQM-1.20 directory
3. Run the 'sqm_install' tool under the **root** account.

```

xterm
sqm_install [-o] /opt/OV/SQM[...] kit-location [feature|subset-name [subset-name...]]
Where feature could be:
  typical      Install Monitoring and Presentation directors (default feature).
  minimal      Install Kernel (for acquisition and/or gateways).
  monitoring   Install Monitoring director.
  presentation Install Presentation director.
  reporting    Install Reporting director.
  all          Install all subsets in kit-location.

```

4. Select the '**minimal**' feature
Example: **#sqm_install /opt/OV/SQM<xxx> HPUX/KIT minimal**
5. Press '**Enter**' to install the Kernel.

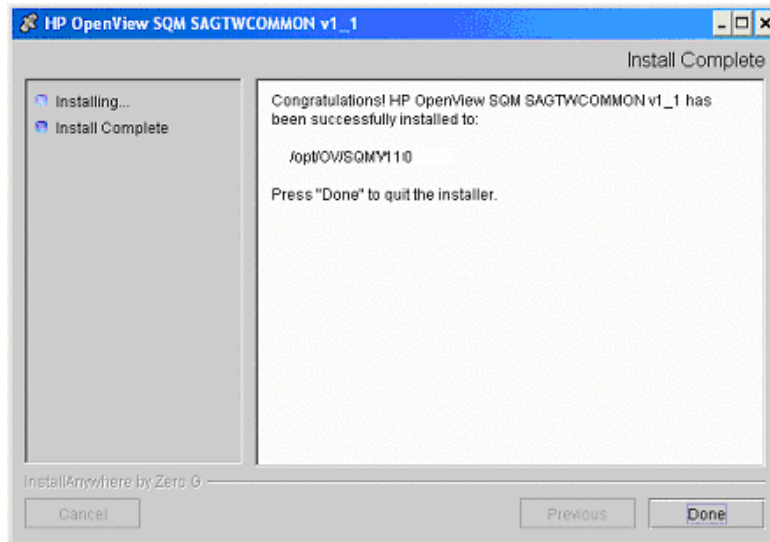
2.2.2 Required environment

- **sqmadm user/group**
'sqmadm' group and user is necessary for the kernel/application setup and management. Please refer to *HP OpenView Service Quality Manager Installation Guide* for instructions on how to create the 'sqmadm' group and user.
- **Environment variables**
 - If the kernel setup has already been done, you have to source the **temip_sc_env.sh** file located under \$TEMIP_SC_VAR_HOME directory.
. \$TEMIP_SC_VAR_HOME/temip_sc_env.sh
 - If the kernel setup is not yet done (and before to install the SA Common and SA OvSn), you have to set your environment. Perform the following actions:
- source environment variables:
export TEMIP_SC_HOME=/opt/OV/SQM<xxx>
. \$TEMIP_SC_HOME/jre/jre-setup.sh
. \$TEMIP_SC_HOME/perl/perl-setup.sh

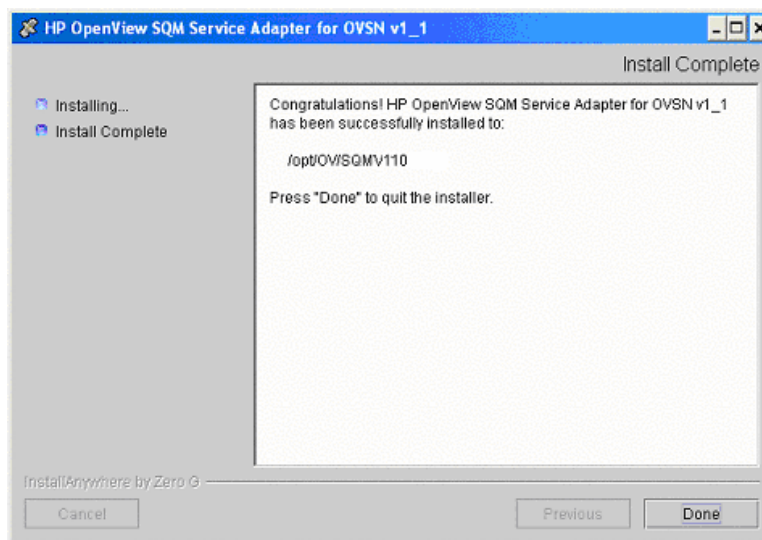
2.2.3 Installing the OVSN SA

To install the Service Adapter, perform the following steps:

1. Log on as **root** user.
2. First install the SA Common component if necessary (if already done go to step 5)
3. Insert the Service Adapter CD-ROM in your CD-ROM drive or go to the Service Navigator Service Adapter installation directory and run the SQMSAGTWCCOMMON-1.20.bin installer.



4. To end the installation process, click **'Done'**
5. Insert the Service Adapter CD-ROM in your CD-ROM drive or go to the Service Navigator Service Adapter installation directory and run the SQMOVNSA-1.20.bin installer.



To end the installation process, click **'Done'**.

2.2.4 Patch installation

To install a Patch, perform the following steps:

1. log on as root
2. Go to <Download directory>/SQM-1.20 directory

3. Run the `'sqm_install'` tool with `'-p'` option plus the `'minimal'` feature.

```
#sqm_install -p /opt/OV/SQMv120 /SQM-1.20/HPUX/Patches minimal
```

This will install all Patches for the Kernel component.
4. Run the `'sqm_install'` tool with `'-p'` option plus the `'SAGTWCCOMMON'` feature.

```
#sqm_install -p /opt/OV/SQMv120 /SQM-1.20/HPUX/Patches SAGTWCCOMMON
```

This will install all Patches for the SAGTWCCOMMON component.
5. Run the `'sqm_install'` tool with `'-p'` option plus the `'SAOVSN'` feature.

```
#sqm_install -p /opt/OV/SQMv120 /SQM-1.20/HPUX/Patches SAOVSN
```

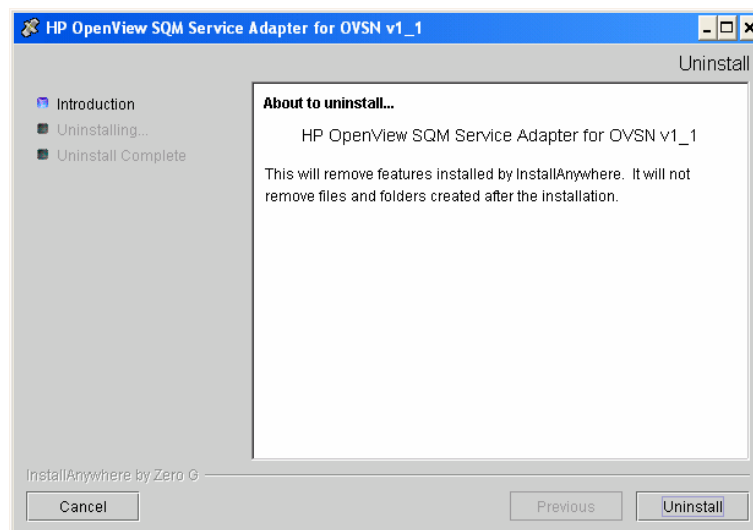
This will install all Patches for the OVSN component.

2.3 Uninstalling the Software

To uninstall the Service Adapter software:

1. Log on as **root** user
2. Perform the following commands on the SQM platform where the Service Adapter has been installed:

```
# cd $STEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/UninstallerDataOVSN
# Uninstall_OvSn
```

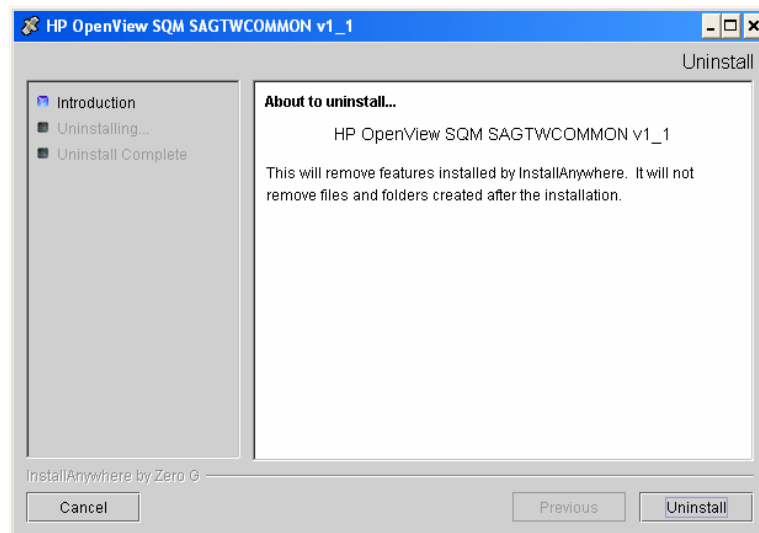


3. Click **'Uninstall'**. The software is uninstalled from your system.
4. To finish, click **'Done'** in the following window.

If no other Service Adapters (or Gateways) are installed on the system you can also uninstall the HP OpenView Service Adapter Common v1_2

5.

```
# cd $STEMIP_SC_HOME/ServiceAdapters/Common/v1_2/Uninstaller_SAGTWCCOMMON
# Uninstall_SAGTWCCOMMON
```



6. To finish, click **Done** in the following window.

Chapter 3

Service Adapter Setup

Once installed, following steps are available from the `OvSn_setup.sh` tool available at:
`$STEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/`

```
# OvSn_setup.sh
Please select action to perform:
1) Create a new Adapter application
2) Load the Adapter configuration
3) Start the Adapter application
4) Stop the Adapter application
5) Delete the Adapter application
6) Quit configuration tool
```

The `configure.sh` tool, available at:
`$STEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/`, is used to perform the configuration of the OVSN Service Adapter.

The Following table summarizes the steps to be done according to usual life cycles of the OVSN SA:

| | |
|---------------|---------------------------------------------------|
| Create | 1) Create → <u>Configure</u> → 2) Load → 3) Start |
| Update | 4) Stop → <u>Configure</u> → 2) Load → 3) Start |
| Delete | 4) Stop → 5) Delete |

All these steps are described in the following chapters.

3.1 Creating Application

Be aware that the create application will perform the kernel setup if not already done. If your Kernel setup has already been performed refer to section 3.1.2 else perform first section 3.1.1

Caution

A Service Adapter application name has to be unique cross platform and director!

3.1.1 Kernel setup

The kernel setup is automatically called during the SA Application creation but following steps must be done previously in order to retrieve and check the platform description file.

1) Please first check that your environment is correct (refer to section 2.2.2)

2) Copy the platform description file:

Copy the '`$STEMIP_SC_VAR_HOME/setupconfig/platform_desc.cfg`' file from the SQM SLM Primary Server (where all SQM core applications are running) to your local system into `$STEMIP_SC_HOME/tmp` directory

3.1.2 OVSN application creation

The setup tool is located in:

`$STEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/`

Use the following command to create the application (use **root** account):

1. **OvSn_setup.sh**

2. Select option: '**1) Create a new Adapter application**'

3. You need to provide the following information:

The platform name on which the application will be created (ex: **slmv12**).

The director name on which the application will be created (ex: **acquisition**).

The name of the Service Adapter Application (ex: **OvSn**).

4. Wait for the creation completion.

3.1.2.1 Example (case setup already done)

```
# OvSn_setup.sh
Please select action to perform:
1) Create a new Adapter application
2) Load the Adapter configuration
3) Start the Adapter application
4) Stop the Adapter application
5) Delete the Adapter application
6) Quit configuration tool
#? 1
Create the Adapter application
Please enter the platform: slmv12
Please enter the director: acquisition
Please enter the application: OvSn

Application to setup (platform, director, application):
    slmv12, acquisition, OvSn

Start the setup of the specified addOn(s)

Traces are redirected in .....

Directors were created successfully
Applications were created successfully

Operation Success.

Press [ENTER] to continue
```

For more information, refer to the *HP OpenView Service Quality Manager Administration Guide*.

Note: Please pay attention to the Service Adapter Application name (in this example: '**slmv12_acquisition_OvSn**') which will be used during the whole life cycle of this application.

3.2 Configuring the Application

This chapter describes how to set up the HP OpenView Service Navigator Service Adapter. It explains how to use the configuration tool to query the Service Navigator servers for configuration information. The chapter then describes how to edit the configuration files to customize the Service Adapter.

Note

All the commands used in the following chapters must be launched from the *sqmadm* user account (with SQM environment loaded).

3.2.1 Discovering Service Navigator Configuration

The first step in configuring the Service Adapter is to run the configuration tool once for each OpenView management server or service engine. This returns a list of Service Navigator services from the service engine.

The configuration tool is located in:

\$STEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/

3.2.1.1 Syntax

To start the discovery, use the following command (from *sqmadm* account):

```
configure.sh -discover
             -sainame <SA application name>
             -host <host>
             [-port <port-number>]
             [-timeout <seconds>]
             -services <filename>
```

This command has the following parameters:

-discover

Starts the configuration tool in discovery mode.

-sainame <SA application name>

The name of the Service Adapter Application to be configured (the one used during the create application (refer to 3.1)).

-host <host>

The host name of the Service Navigator service engine.

-port <port-number>

The service engine port where the connector connects. The default is 7278.

-timeout <seconds>

this timeout allows to specify the maximum time allowed for the command to be executed. The default value is 30 seconds. Increase the timeout for a large model.

-services <filename>

The <filename> is the output file that will be created by this first configuration phase, where all the service IDs and names of all services are written. Any existing files are overwritten. This generated file is located in \$STEMIP_SC_VAR_HOME/ServiceAdapters/OvSn/<SA application name>/config

3.2.1.2 Example

```
Configure.sh -discover -sainame slmv12_acquisition_OvSn -host
snsrver.xyzcorp.com -port 7278 -timeout 120
-services discoveredservices.xml
```

3.2.1.3 Editing the Services ID File

After performing the discovery, you need to edit the service ID file created by the configuration tool. The file contains the list of all service IDs for which data can be collected.

Each line starts with one service ID. Everything after the ID and the end of the line will be ignored. This can be used to add a remark to an ID. All services that are not to be monitored must be removed from this list.

Each Service ID kept in this file will generate a different DFI in SQM.

Figure 3 Sample Service List File

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE sc:OvSnCfgServiceList SYSTEM
"DTD/tsc_OvSnConfigServiceList.dtd">
<sc:OvSnCfgServiceList>
  <sc:OvSnCfgService id="email" name="E-Mail"/>
  <sc:OvSnCfgService id="america" name="America"/>
  <sc:OvSnCfgService id="email_node1" name="Mail Server 1"/>
  <sc:OvSnCfgService id="node1_disk" name="Disk 1"/>
  <sc:OvSnCfgService id="node1_cpu" name="CPU 1"/>
  <sc:OvSnCfgService id="email_node2" name="Mail Server 2"/>
  <sc:OvSnCfgService id="node2_disk" name="Disk 2"/>
  <sc:OvSnCfgService id="node2_cpu" name="CPU 2"/>
  <sc:OvSnCfgService id="europe" name="Europe"/>
  <sc:OvSnCfgService id="email_node3" name="Mail Server 3"/>
  <sc:OvSnCfgService id="node3_disk" name="Disk 3"/>
  <sc:OvSnCfgService id="node3_cpu" name="CPU 3"/>
</sc:OvSnCfgServiceList>
```

3.2.2 Configuring the Connector

To get data from the OpenView Management Server, the Service Adapter needs to connect to the Service Engine. This configuration provides the Service Adapter connector with a valid account name, password, and the host name of the Management Server.

3.2.2.1 Syntax

To configure a connector, use the following command (from **sqmadm** account):

```
Configure.sh -connector
             -sainme <SA application name>
             -host <hostname>
             [-port <port-number>]
             [-timeout <seconds>]
             [-name <connector_name>]
```

This command has the following parameters:

-connector

Starts the configuration tool in connector configuration mode.

-sainame <SA application name>

The name of the Service Adapter Application to be configured (the one used during the create application (refer to 3.1)).

-host <hostname>

The host name of the Service Navigator server.

-port <port-number>

The service engine port where the connector connects. The default is 7278.

-timeout <seconds>

this timeout allows to specify the maximum time allowed for the command to be executed. The default value is 30 seconds. Increase the timeout for a large model.

-name <connector_name>

The name of the connector to be created. The name may contain only alphanumeric characters, plus the characters "-" and "_". If you do not specify a name, the host name is used, with underscores instead of periods.

3.2.2.2 Example

```
configure.sh -connector -sainame slmv12_acquisition_OvSn -host
snserver.xyzcorp.com -port 7278 -timeout 120
-name ovserver_xyzcorp_com
```

3.2.2.3 Output Files

The following file is created: `configure.dat`

The generated file is located in:

```
$STEMIP_SC_VAR_HOME/ServiceAdapters/OvSn/<SA application
name>/config/
```

3.2.3 Configuring Data Feeder Definitions

You use the configuration tool to define what data the Service Adapter will have to collect from Service Navigator.

3.2.3.1 Syntax

Use the following command (from **squadm** account) to add a DFD. Normally there is one global DFD, for service IDs.

```
configure.sh -dfd
               -sainame <SA application name>
               -name <DFD name>
```

This command has the following parameters:

-dfd

Starts the configuration tool in DFD configuration mode.

-sainame <SA application name>

The name of the Service Adapter Application to be configured (the one used during the create application (refer to 3.1)).

-name <DFD name>

The name of the DFD to be created. The name can contain only alphanumeric characters, plus the characters "-" and "_". The length of the name cannot exceed 12 characters. It is prefixed automatically by the configuration tool with the Service Adapter name `OvSn`. The name must be unique within an SQM environment.

Note

The configuration tool will add 'OvSn' as prefix to the `<DFD name>` given as parameter. When using it through other tools, you must not add this prefix to the `<DFD name>`.

3.2.3.2 Example

```
Configure.sh -dfd -sainame slmv12_acquisition_OvSn -name MyDFD
```

3.2.3.3 Output Files

The following files are created:

- NewDFDReq_OvSnMyDFD.xml
Used to upload the DFD to the SQM Service Repository
- DelDFDReq_OvSnMyDFD.xml
Used to delete the DFD from the SQM Service Repository.

The generated files are located in:

```
$TEMP_IP_SC_VAR_HOME/ServiceAdapters/OvSn/<SA application name>/config/
```

3.2.4 Configuring the OVSN Application

You use the configuration tool to customize the connection and data feeder definitions information to be monitored by the Service Adapter Application.

3.2.4.1 Syntax

To configure the Service Adapter Application, use the following command (from **sqmadm** account):

```
configure.sh -sai
             -sainame <SA application name>
             -connectors <connector1 [connector2 [...]]>
             -datafeeders <datafeeder1 [datafeeder2 [...]]>
```

The command has the following parameters:

-sai

Starts the configuration tool in Service Adapter Application configuration mode.

-sainame <SA application name>

The name of the Service Adapter Application to be configured (the one used during the create application (refer to 3.1)).

-connectors <connector1 [connector2 [...]]>

A list of the connector names, separated by a space, to be monitored by the Service Adapter Application. A connector mentioned in this list has to be previously declared in the phase 'configuring the connector'.

-datafeeders <datafeeder1 [datafeeder2 [...]]>

A list of the data feeder names, separated by a space, to be monitored by the Service Adapter Application. A data feeder mentioned in this list has to be previously declared in the phase 'configuring Data Feeder Definitions'.

3.2.4.2 Example

```
Configure.sh -sai -sainame slmv12_acquisition_OvSn -connectors
snsrserver_xyzcorp_com -datafeeders serviceIDx serviceIDy
```

3.2.4.3 Output files

The discovery creates the following files:

- OvSn_connectors_data.exp
List of connectors to be uploaded to the SQM Repository.
- OvSn_dfds_data.exp
List of DataFeederDefConfig to be uploaded to the SQM Repository.
- OvSn_slmv12_acquisition_OvSn.exp
File used to create the Service Navigator application.

The generated files are located in:

```
$TEMP_IP_SC_VAR_HOME/ServiceAdapters/OvSn/<SA application name>/config/
```

3.2.5 Configuring Data Feeder Instances

You use the configuration tool to discover the list of DFIs that will be managed by the Service Adapter Application.

3.2.5.1 Syntax

To discover the DFIs, use the following command (from **sqmadm** account):

```
configure.sh -dfi
             -sainame <SA application_name>
             -conname <connector>
             -dfdname <DFD_name>
             -services <filename>
             [-qty <dfi per message>]
```

This command has the following parameters:

- dfi**
Starts the configure tool in DFI discovery mode.
- sainame <SA application_name>**
The name of the Service Adapter Application to be configured (the one used during the create application (refer to 3.1)).
- conname <connector>**
The name of the connector. Should be an already defined connector. When specifying the connector, replace all “.” characters by “_”.
- dfdname <DFD_name>**
The name of the DFD to which the DFIs will be assigned. Should be an already defined DFD name.
- services <service_list_file>**
The name of the file that contains all the service IDs for which DFIs must be created. This file is created during the discovery.
- qty <dfi per message>**
Specify the number of dfi declaration per generated message. Useful to control the size of DFI declaration messages (avoid timeout or log processing). Please refer to chapter 5.2 to tune this parameter.

3.2.5.2 Example

```
Configure.sh -dfi -sainame slmv12 acquisition_OvSn -conname
snsrserver_xyzcorp_com -dfdname MyDFD -services
discoveredservices.xml -qty 10
```

3.2.5.3 Output Files

The following files are created:

- **DeclareDFIReq_OvSnMyDFD.xml** for all DFIs
Used to upload the DFIs to the SQM Service Repository.
- **DelDFIReq_OvSnDFI Id.xml** for each DFI defined.
Used to remove the DFIs from the SQM Service Repository.

The generated files are located in:

```
$TEMP_IP_SC_VAR_HOME/ServiceAdapters/OvSn/<SA application
name>/config/
```

3.3 Loading configuration files

The final step is to load the configuration files to the SQM Service Repository Manager and the Tibco central repository.

The setup tool is located in:

\$STEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/

To be able to perform these steps:

- The SQM Kernel Subset must be installed, configured and started on the OVSN SA system
- The SQM platform has to be up and running on the SQM SLM Primary Server.

This step can be done once the configuration and the application creation of the OvSn SA has been done. The load of the application configuration will:

- Update the SQM repositories with the Data Feeder configurations and the OVSN connectors.
- Upload the DFD and DFI declarations
- Copy DFD definition to \$STEMIP_SC_VAR_HOME/Definitions/DFD. This option provides with the possibility to centralize all the Service Adapters Data Feeder definitions in a single directory for future use in the SQM Service Designer (Reverse engineering).

To run the tool (from **sqmadm** account):

1. OvSn_setup.sh

2. Select option: **'2) Load the Adapter configuration'**
3. You need to provide the following information (i.e. the SA Application name: the one used during the create application (refer to 3.1)):
 - The platform name on which the application has been created (ex: **slmv12**)
 - The director name on which the application has been created (ex: **acquisition**)
 - The name of the Service Adapter Application (ex: **OvSn**).
4. Wait for the loading completion (this can take some time depending on the configuration to be loaded).

Service Adapter Operation

4.1 SA Start/Stop

4.1.1 Starting the Service Adapter Application

When the Service Adapter application starts, it connects automatically to the Service Navigator Server (with the connection information provided at the setup). To start the Service Adapter, you must be logged in as `sqmadm` and all SQM environment variables must be set. For more information, refer to the *HP OpenView SQM Administration Guide*.

The setup tool is located in:

```
$STEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/
```

Use the following command (from `sqmadm` account) to start the application:

1. `OvSn_setup.sh`
2. Select option: '**3) Start the Adapter application**'

You need to provide the following information (i.e. the SA application name: the one used during the create application (refer to 3.1)):

- The platform name on which the application has been created (ex: `slmv12`)
- The director name on which the application has been created (ex: `acquisition`)
- The name of the Service Adapter Application (ex: `OvSn`).

Wait for the application start completion.

Example:

```
# OvSn_setup.sh
Please select action to perform :
1) Create a new Adapter application
2) Load the Adapter configuration
3) Start the Adapter application
4) Stop the Adapter application
5) Delete the Adapter application
6) Quit configuration tool
#? 3
Start the Adapter application
Please enter the platform [slmv12] : <ENTER>
Please enter the director [acquisition] : <ENTER>
Please enter the application [OvSn] : <ENTER>
launch start of application OvSn on director acquisition,
platform slmv12
Application OvSn started
Operation Success.
```

4.1.2 Stopping the Service Adapter Application

To stop the Service Adapter application, you have to be connected as `sqmadm` user and have all SQM environment variables set (please refer to *SQM Administration Guide* for more information).

The setup tool is located in:

```
$STEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/
```

Use the following command (from `sqmadm` account) to stop the application:

to stop the application:

1. **OvSn_setup.sh**
2. Select option: **'4) Stop the Adapter application'**

You need to provide the following information (i.e. the SA Application name: the one used during the create application (refer to 3.1)):

- The platform name on which the application has been created (ex: **slmv12**)
- The director name on which the application has been created (ex: **acquisition**)
- The name of the Service Adapter Application (ex: **OvSn**).

Wait for the application stop completion.

Example

```
# OvSn_setup.sh
Please select action to perform :
1) Create a new Adapter application
2) Load the Adapter configuration
3) Start the Adapter application
4) Stop the Adapter application
5) Delete the Adapter application
6) Quit configuration tool
#? 4
Stop the Adapter application
Please enter the platform [slmv12] : <ENTER>
Please enter the director [acquisition] : <ENTER>
Please enter the application [OvSn] : <ENTER>
Application OvSn stopped
Operation Success.
```

4.1.3 Starting and Stopping the Service Adapter Collection

The collection of OVSN data starts only when the Service Adapter Application is instructed to do so by the SQM Service Repository Manager. This is controlled from the SQM SLA Admin User Interface. For more information, see the *HP OpenView SQM SLA Administration User Interface User's Guide*

4.2 Maintenance

4.2.1 Create a new Application

Creating a new SA Application implies following steps:

- Create the SA application. (Refer to 3.1.2 OVSN application creation)
- Configure the SA Application. (Refer to 3.2 Configuring the Application)
- Load the Application configuration. (Refer to 3.3 Loading configuration files)

- Start the SA Application. (Refer to 4.1.1 Starting the Service Adapter)

4.2.2 Update an existing Application

Updating an existing SA Application implies following steps:

- Stop the SA Application. (Refer to 4.1.2 Stopping the Service Adapter)
- Configure the SA Application. (Refer to 3.2 Configuring the Application)
- Load the Application configuration. (Refer to 3.3 Loading configuration files)
- Start the SA Application. (Refer to 4.1.1 Starting the Service Adapter)

4.2.3 Delete an existing Application

To delete the Service Adapter Application, you have to be connected as `sqmadm` user and have all SQM environment variables set (please refer to *SQM Administration Guide* for more information).

The setup tool is located in:

```
$STEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/
```

Use the following command (from `sqmadm` account) to delete the application:

1. **OvSn_setup.sh**
2. Select option: **'5) Delete the Adapter application'**

You need to provide the following information (i.e. the SA application name: the one used during the create application (refer to 3.1)):

- The platform name on which the application has been created (ex: **slmv12**).
- The director name on which the application has been created (ex: **acquisition**)
- The name of the Service Adapter Application (ex: **OvSn**).

Wait until the delete is complete.

Example

```
# OvSn_setup.sh
Please select action to perform:
1) Create a new Adapter application
2) Load the Adapter configuration
3) Start the Adapter application
4) Stop the Adapter application
5) Delete the Adapter application
6) Quit configuration tool
#? 5
Stop the Adapter application
Please enter the platform [slmv12] : <ENTER>
Please enter the director [acquisition] : <ENTER>
Please enter the application [OvSn] : <ENTER>
Application OvSn deleted
Operation Success.
```

4.2.4 Scheduling Configuration

The Service Adapter can be installed in an OVSN environment where new OVSN services are changed daily. In this case, the Service Adapter configuration can be scheduled every day.

Following steps must be done in order to update the OVSN SA configuration. These steps can be automated in a script using the corresponding actions:

| STEP | ACTION(s) TO BE DONE ... |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------|
| Stop | <code>\${TEMP_IP_SC_HOME}/ServiceAdapters/OvSn/v1_2/utilities/setup.pl -sa OvSn -appli stop</code> |
| Configure | <code>cd \$TEMP_IP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities</code> then call the 'configure.sh' tool with appropriate arguments |
| Load | <code>\${TEMP_IP_SC_HOME}/ServiceAdapters/OvSn/v1_2/utilities/setup.pl -sa OvSn -appli load</code> |
| Start | <code>\${TEMP_IP_SC_HOME}/ServiceAdapters/OvSn/v1_2/utilities/setup.pl -sa OvSn -appli start</code> |

Warning

If you do this, you cannot restrict the data that is collected nor change the default parameter labels. **All data** is collected.

Recommendations

The behavior of the service adapter also depends upon some basic criteria such as the distribution between the third party product and the service adapter, the configuration parameters like the polling period and the sizing issue when managing numerous Data Feeders Instances. It may impact the performance of the service adapter in some cornerstone cases.

5.1 Install the OvSn Service Adapter and the OvSn Server on distinct machines

In order to have the best performances, it is recommended to install the OvSn Server and the OvSn Service Adapter on separate systems. A gain of 30% in performances has been noticed in such configuration for large / numerous OvSn service models.

5.2 Set the quantity parameter of the configure command to a reasonable value

At the configuration step, the configure command allows discovering all the Data Feeder Instances of a given Data Feeder Definition. By default, it generates one DeclareDFI XML file describing one DFI. These DFIs are then ready to be loaded into the SRM at the load configuration phase.

The configure command provides an optional argument to control how many DFI declaration commands are provided in one XML file.

On one hand, loading a large file into the SRM may fail due to a time out on the request if no adapted precautions are taken. Then, rollback considerations have to be considered if one DFI load fails.

But on the other hand, having as many DeclareDFI files as there are DFI instances may be a performance bottleneck as it will, for sure take more time but is also more reliable if one load fails.

To avoid and tune such a situation the option `-quantity` let the user precise how many DFIs should be generated into one single XML file. By default, there will be one DFI per file. This can be tuned to minimize the number of requests to the SRM. A good value is around 20 DFIs per file but it highly depends on the Data Feeder Definition complexity (properties / parameters).

Appendix A

Installation Directory Structure

The following directories and files are installed:

```
TEMIP_SC_HOME/DTD/tsc_OvSnConfigServiceList.dtd

TEMIP_SC_HOME/ServiceAdapters
TEMIP_SC_HOME/ServiceAdapters/etc
TEMIP_SC_HOME/ServiceAdapters/etc/addon/
TEMIP_SC_HOME/ServiceAdapters/etc/addon/OvSn_v1_2_addOn.tmpl_cfg

TEMIP_SC_HOME/ServiceAdapters/OvSn
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/properties
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/properties/TeSCOVsn.properties
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/properties/TeSCOVsn_Messages.properties
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/properties/TeSCOVsn_Version.properties
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/repository
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/repository/OvSn_setup.cfg
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/repository/OvSn_template.exp
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/bin
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/bin/OvSn_v1_2_launch.sh
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/config
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/config/
    SCPlatform_SCDirector_SCAApplication.properties
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/configure.cmd
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/configure.sh
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/OvSn_setup.sh
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/setup.sh
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/utilities/setup.pl
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/jar
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/jar/TeSCSAOvSn.jar
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/UninstallerDataOVSN
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/UninstallerDataOVSN/Uninstall_OvSn
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/UninstallerDataOVSN/Uninstall_OvSn.lax
TEMIP_SC_HOME/ServiceAdapters/OvSn/v1_2/UninstallerDataOVSN/uninstaller.jar
```


Appendix B

Troubleshooting

For troubleshooting information, refer to the *HP OpenView SQM Administration Guide*.

Appendix C

Acronyms

The following table lists the acronyms commonly used in this document:

| Term | Description |
|-------------|---------------------------------------------------------------------|
| API | Application programming interface |
| DFD | Data feeder definition |
| DFI | Data feeder instance |
| MRP | Measurement reference point |
| SAI | Service Adapter Application name (or Service Adapter Instance name) |
| SLA | Service level agreement |
| SLM | Service level management |
| SLO | Service level objective |
| SRM | Service Repository Manager |
| XML | eXtensible Mark-up Language |