HP OpenView
Service Quality Manager

Gateway for

hp OpenView Operations

Installation, Configuration and User's Guide

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Contents

Preface

This document describes how to install and configure the HP OpenView Service Quality Manager (SQM) OVO Gateway. It provides an overview of the OVO Gateway and describes how to:

- Install the OVO Gateway

- Setup the OVO Gateway

- Start and stop the OVO Gateway

Intended Audience

This document is intended for OpenView SQM administrators, for OVO administrators and for OVO Operators.

Required Knowledge

It is assumed that the reader is familiar with the functionality of OpenView SQM and has previous experience of the following:

- System administration and operations

- HP OpenView Operations (OVO)

- 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 Administration Guide.*

- HP OpenView Service Quality Manager Information Modeling Reference Guide.

- *HP OpenView VantagePoint Operations Administrator's Reference*

- *HP OpenView VantagePoint Operations Concepts Guide*

Software Versions

The software versions referred to in this document are specified in chapter 3.1 - Software and Hardware Requirements.

Typographical Conventions

The following typographical conventions are used in this book:

Bold	New terms and to emphasize important words.
Italic	File names, programs, and parameters.
	The names of other documents referenced in this manual.
`Monospace`	Source code and examples of file contents.
	Commands that you enter on the screen.
	Pathnames.
	Keyboard key names.

Associated Documents

For a full list of OpenView SQM user documentation, refer to the *HP OpenView Service Quality Manager Product Family Introduction*.

Support

Please visit our HP OpenView web site at: HP OpenView

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

1.1 OpenView Service Quality Manager

OpenView 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. OpenView SQM links service quality degradations to potential effects on business, allowing network support personnel to address problems and prioritize actions proactively.

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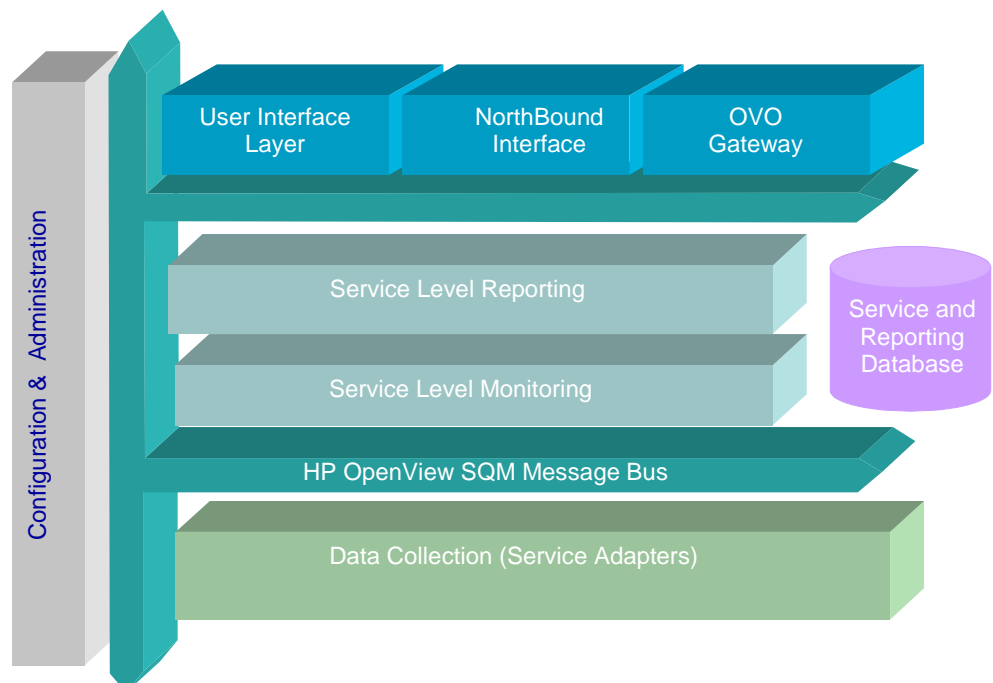
For a detailed description of OpenView SQM, refer to the *HP OpenView Service Quality Manager Overview* document.

1.2 HP OpenView Operations Overview

HP OpenView Operations (OVO) is an advanced operations and problem management solution that allows you to keep your distributed, multi-vendor computing environment up and continually running. OVO manages all elements within an IT enterprise in a consistent and technology-independent manner, thus allowing you to centrally manage what appears to be one homogenous computing environment.

The OVO management concept is based on communication between a management server and managed nodes. Management server processes running on the central management server communicate with OVO agent processes running on managed nodes throughout the environment. The OVO agent processes collect and process events on the managed nodes, then forward relevant information in the form of OVO messages to the management server. The management server responds with actions to prevent or correct problems on the managed nodes.

Figure 2   OpenView Operations Architecture

OVO Agents

OVO Messages

OVO Server
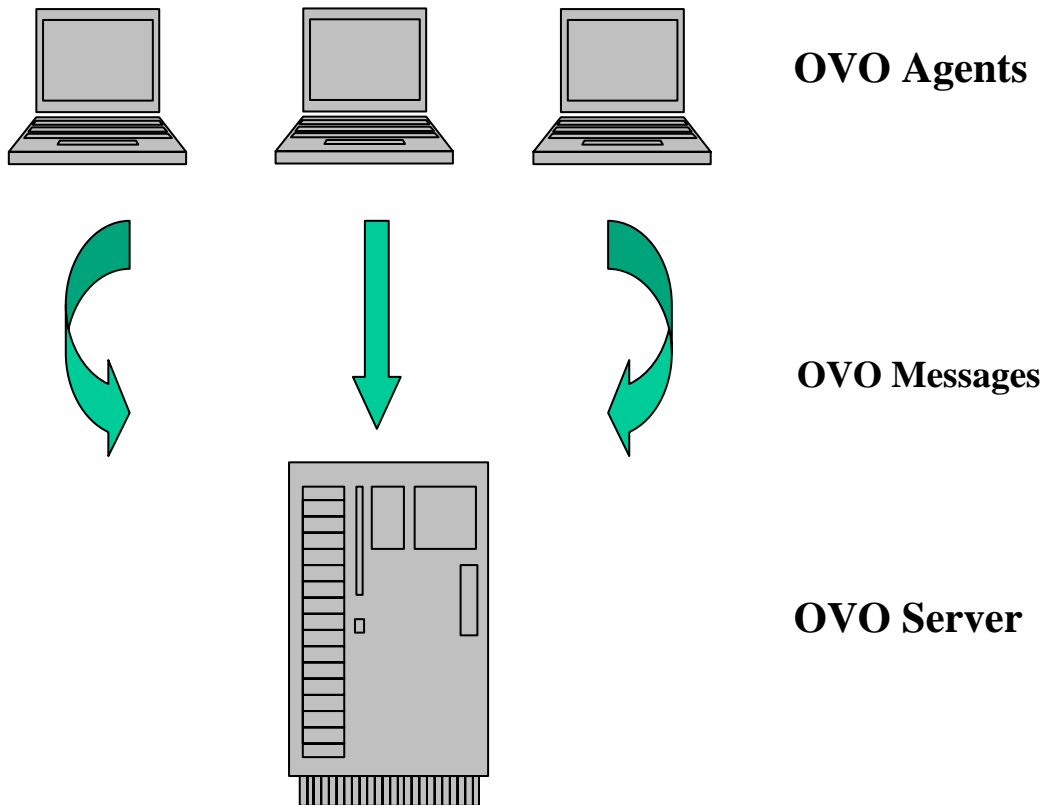
1.3 The OVO Gateway

The goal of the OVO Gateway is to report in OpenView Operations, through OVO messages, that an SLA is degraded or violated.

Therefore, the OVO Gateway acts as a bridge between OpenView SQM and OVO, collecting data from OpenView SQM, and feeding that data into OVO.

Once OVO, SQM, and the OVO Gateway are installed and configured, the OVO Gateway can start to collect the specified service degradation and violation events from OpenView SQM.

Collected by the OVO message browser, these events can be monitored to follow-up violation and degradation states.

Architecture Overview

The recommended architecture is to have the OVO Gateway running on the SQM SLM Primary Server.

Figure 3   OVO Gateway recommended architecture

SQM SLM Primary Server
+
SQM OVO Gateway

OVO Server
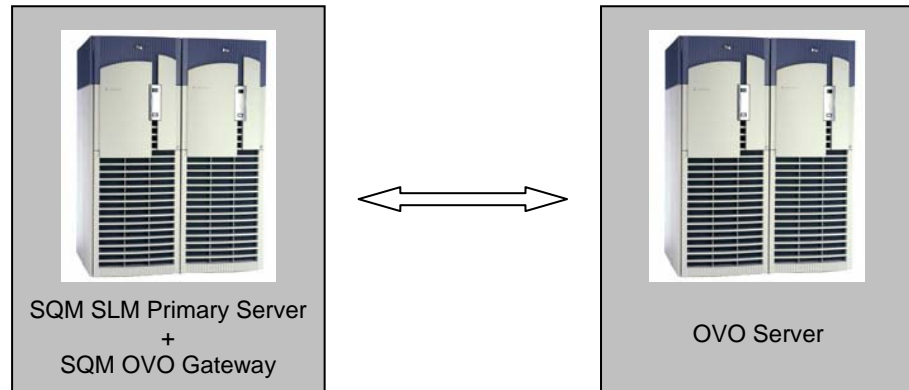
It is possible to install the OVO Gateway on any host. The only restriction is that an OVO agent must be installed and running on the same host as the OVO Gateway.

Chapter 2

What the OVO Gateway Does

The OVO Gateway translates, in real-time, SLA degradations, violations, and compliance SQM events into OVO messages.

The OVO Gateway is able to map the following types of SQM events into OVO messages:

- Parameter Threshold Crossing events

- Service Objective Status Changed events (for SLA, SI or SCI)

- Compliance Parameter Threshold Crossing events

- Compliance Service Objective Status Changed events (for SLA, SI or SCI)

It is possible to configure the OVO Gateway to indicate which type of SQM events have to be mapped into OVO messages (see chapter 4.3.1 - General Configuration Properties).

Whatever its configuration, the OVO Gateway only processes the SQM event that have the '**OVOServiceAlarm**' associated action. The associated action is defined at the Service Level Objective definition by the Action Executor field.

For more information, please refer to the *HP OpenView Service Quality Manager Overview* document.

2.1 Associating OVO Gateway to a Service Level Objective

A Service Level Objective (SLO) aims at monitoring a Service Parameter comparing the parameter value to one or several thresholds. Therefore a status is computed for the parameter's parent SCI, SI and SLA.

Through Action Executor, the SLO definition can indicate actions to trigger when a parameter crosses a threshold. For more information, please refer to the chapter explaining the *'Service Level'* concept in the *HP OpenView Service Quality Manager Information Modeling Reference Guide* document.

To send OVO messages when a parameter crosses a SLO threshold, the SLO definition must have the following action executor:

- Executor: '**OVOServiceAlarm'**

- Action: **'SendMessage'**

- Additional Info: The text provided in this argument will be added to the OVO message Text field generated by the OVO Gateway. This information is taken into account only for Parameter Threshold crossing (Services and Compliance). Refer to following chapters for details on SQM message mapping.

- The "**On Argument**' and "**Off Argument**" provide the severity of the emitted OVO message when the parameter threshold is crossed. See the following chapter 2.2.1 which explains how these 2 severity arguments are used.

Important

The Executor, Action, On Argument and Off Argument fields are case sensitive.

Figure 4   **Defining a threshold with Action Executor in the SLA Administration UI**
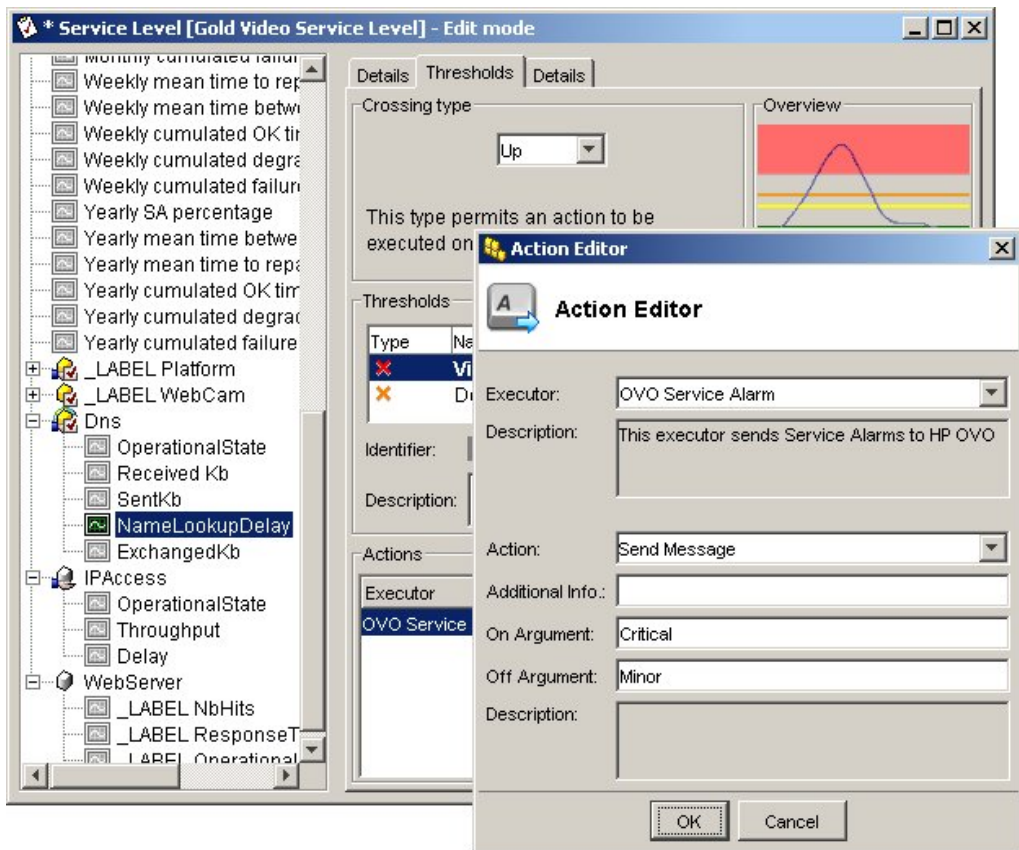
2.2   OVO Message on SQM Service Event

This chapter describes the OVO messages emitted by the OVO Gateway on the SQM Service events.

2.2.1   OVO Message on Parameter Threshold Crossing

An OVO message on Parameter Threshold Crossing is generated when a SLO associated to a monitored parameter is crossed.

To be hosted by OVO, the Parameter Threshold Crossing messages need a dedicated OVO message group named '**Services**' (refer to chapter 5.1 – "VPO Message Group" which explains how to create a message group in OVO).

OVO message severity

The OVO message severity is retrieved in the corresponding SQM event. It is given by the *'On Argument'* or *'Off Argumentf'* optional attributes of the crossed threshold action executor.

If the threshold crossing corresponds to a Quality of Service decreasing, the severity is indicated by the *'On Argument (action.on)'* attribute.

If the threshold crossing corresponds to a Quality of Service increasing, the severity is indicated by the *'Off Argument' (action.off)* attribute.

Figure 5   Threshold Crossing OVO Messages severity

On Argument: Critical
Off Argument: Normal

① QoS is decreasing → message severity is Critical (On Argument)

② QoS is increasing → message severity is Normal (Off Argument)

If no *'On Argument'* (or *'Off Argumentf'*) is provided, the OVO severity is deduced from the crossed threshold *'eventType'*:

- If the crossed threshold is a violation threshold, the OVO message severity is mapped to **'Critical'**.

- If the crossed threshold is a degradation threshold, the OVO message severity is mapped to the '**default OVO Gateway severity'** (this OVO Gateway configuration property is defined at chapter 4.3.1.6.)

- If the parameter is no longer degraded or violated, the OVO Gateway issues a '**Normal'** severity OVO message.

The available severities are:

- Critical

- Major

- Minor

- Warning

- Normal

Other severities are not allowed and are ignored by the OVO Gateway.

Important

The severities are case sensitive. The first letter must always be in upper case.

OVO Message Attributes

The OVO message generated has the following predefined columns:

- **Node**: OVO Agent node name.

- **Message Group**: name of the message group. For the Parameter Threshold Crossing messages, its value is '*Services'*.

- **Application**: name of the application that has generated the message. For the OVO Gateway, it is always set to '*OVSQM'*.

- **Object**: Service Component Definition Name associated with the Service Component Instance Name.

- **Severity**: message severity.

- **Text**: information on the threshold crossed, parameter information and event type (degradation, violation or clearance).

Figure 6   Example of OVO Message Mapping a Parameter Threshold Crossing
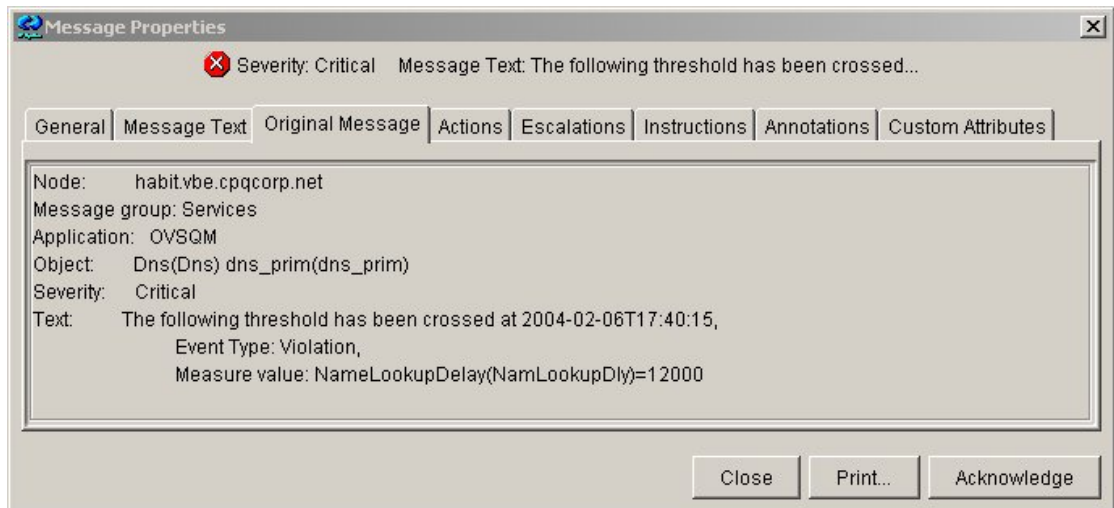
Some additional columns are added to the OVO messages to provide useful information. For the parameter threshold crossing, the following columns are created:

- **CrossedThreshold**: information on the threshold crossed.

- **Customer**: Customer name.

- **RootComponent**: root cause of the problem. Service Component Definition and Service Component Instance directly impacted by the parameter threshold crossed.

- **Service**: Service Instance name.

- **ServiceLevel**: Service Level name.

- **SLA**: name of impacted SLA.

Figure 7   Example of Custom Attributes of OVO Message Mapping a Parameter Threshold Crossing
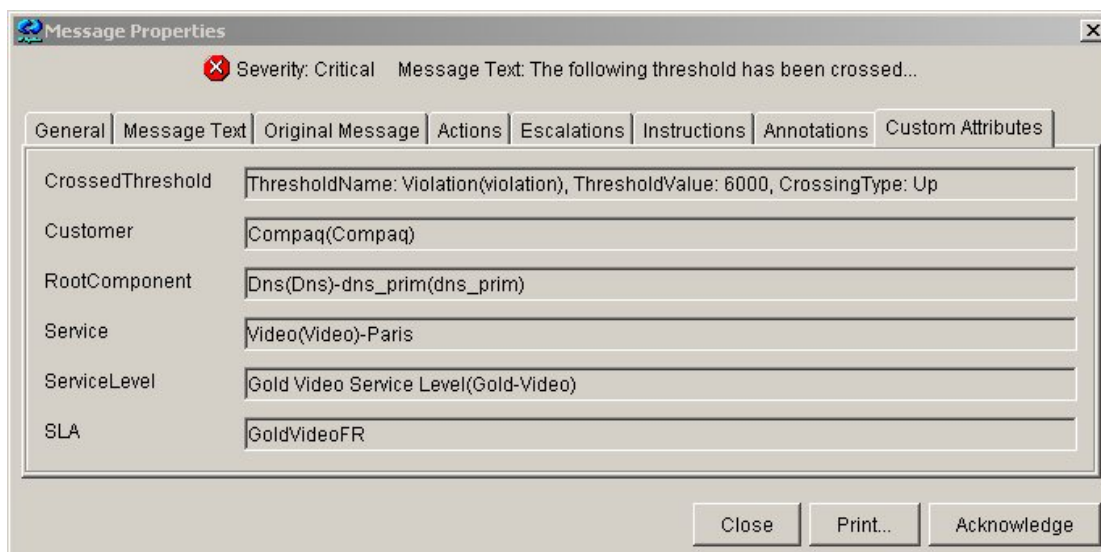
2.2.2   OVO Message on Service Objective Status Changed

OVO message on Service Objective Status Changed is generated when a SLA, Service Instance (SI) or Service Component Instance (SCI) status has changed.

To be hosted by OVO, the Service Objective Status Changed messages need a dedicated OVO message group named '**ServicesStatus**' (refer to chapter 5.1 – "VPO Message Group" which explains how to create a message group in OVO).
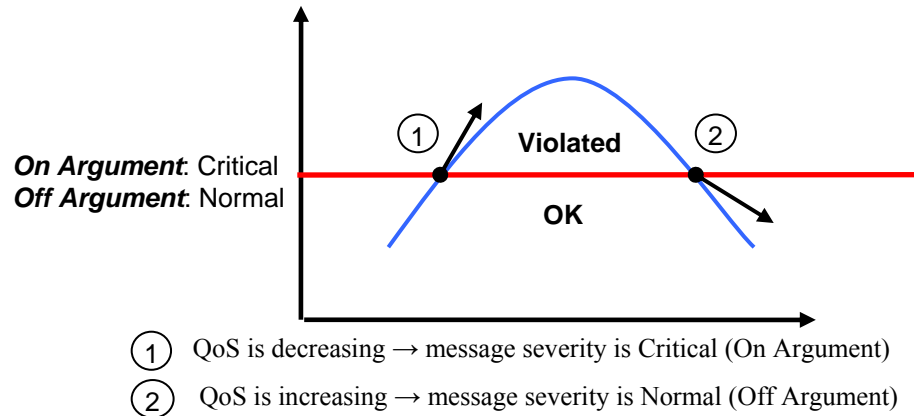
<div align="center">

Important

</div>

This OVO message may be reported at the *SCI, SI*, or *SLA* levels. It is never reported at *Parameter* level.

OVO message severity

The severity of the generated OVO message is based on the value of the Service Objective Status, as reported by OpenView SQM.

Objective Status ranges are defined in the SQM Central Repository and based on these ranges, the severity is as indicated in the table below:

Table 1   Default Severity Mapping of Service Objective Status

Value Range	Severity
0 – 0.2	Critical
0.2 – 0.4	Major
0.4 – 0.6	Minor
0.6 – 0.8	Warning
0.8 – 1	Normal

Chapter 4.3.1 explains how to modify these ranges in the SQM Central Repository.

OVO Message Attributes

The OVO message generated has the following predefined columns:

- **Node**: OVO Agent node name.

- **Message Group**: name of the message group. For the Service Objective Status messages, its value is '*ServicesStatus*'.

- **Application**: name of the application that has generated the message. For the OVO Gateway, it is always set to '*OVSQM*'.

- **Object**: name of the impacted SLA.

- **Service**: name of the impacted SI.

- **Component**: name of the impacted SCI.

- **Severity**: message severity.

- **Message Text**: Information on the objective status that has changed, with its new and previous value.

Figure 8   Example of OVO Message Mapping a Service Objective Status
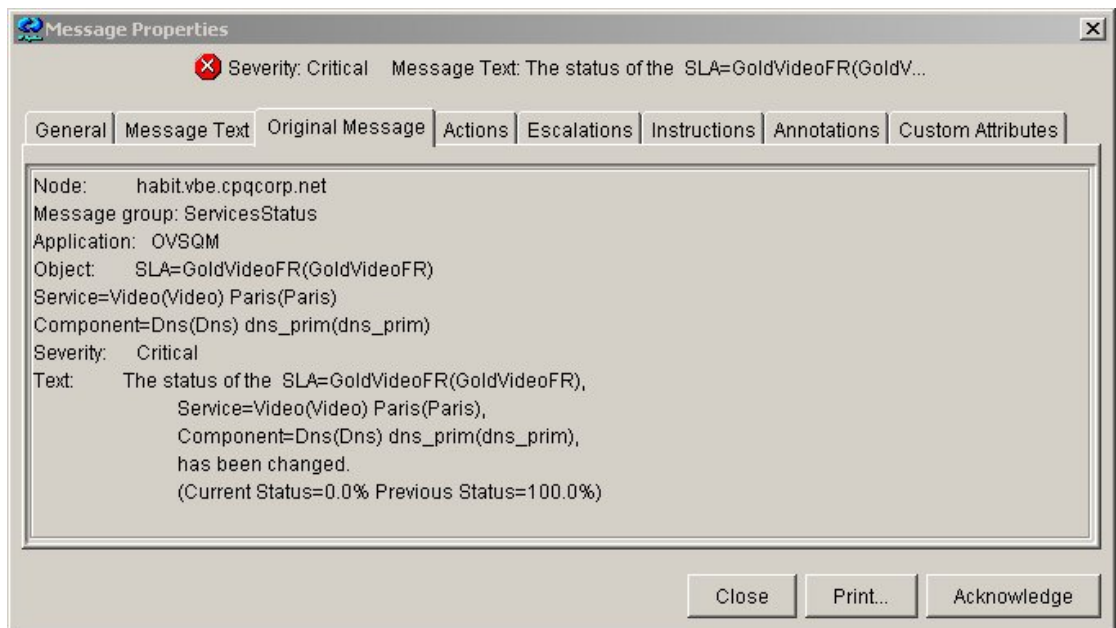
Some additional columns are added to the OVO messages to provide useful information. For the Service Objective Status part, the following columns are created:

- **Customer**: Customer name.

- **Service**: SI name.

- **SLA**: name of impacted SLA.

- **Status**: current and previous objective status.

Figure 9   Example of Custom Attributes of OVO Message Mapping a Service Objective Status
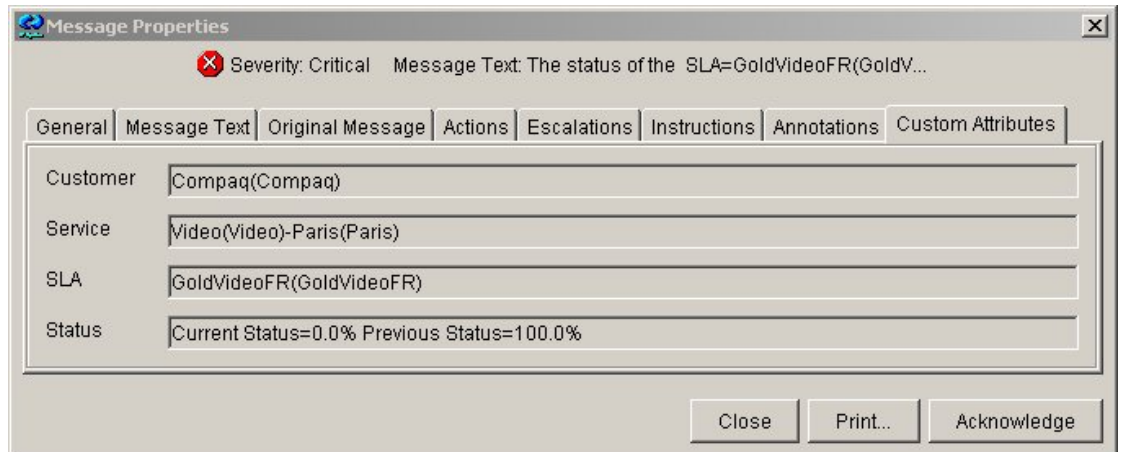
2.2.3 Compound Message

The violation or the degradation events may impact several customers or operational SLAs. An OVO message is generated if the violation or the degradation impacts several customers or operational SLAs.

This OVO message is called the compound message. It keeps track of the root of the degradation or violation in OVO, and includes the list of the impacted SLAs.

<div align="center">Note</div>

If only one SLA/Customer is impacted, only one message is generated for the '*Services*' message group (no compound message).

To be hosted by OVO, the Compound messages need a dedicated OVO message group named **'CompoundServices'** (refer to chapter 5.1 – "VPO Message Group" which explains how to create a message group in OVO).

OVO message severity

The Compound messages severity is retrieved the same way as the Parameter Threshold Crossing messages (see chapter 2.2.1 where is explained the how the OVO message severity is calculated)

OVO Message Attributes

The OVO message generated has the following predefined columns:

- **Node**: OVO Agent node name.

- **Message Group**: name of the message group. For the Parameter Threshold Crossing messages, its value is '*CompoundServices'*.

- **Application**: name of the application that has generated the message. For the OVO Gateway, it is always set to '*OVSQM'*.

- **Object**: Service Component Definition Name associated with the Service Component Instance Name.

- **Severity**: message severity.

- **Message Text**: information on the threshold crossed, parameter information and event type (degradation, violation or clearance).

Figure 10   Example of Compound Message
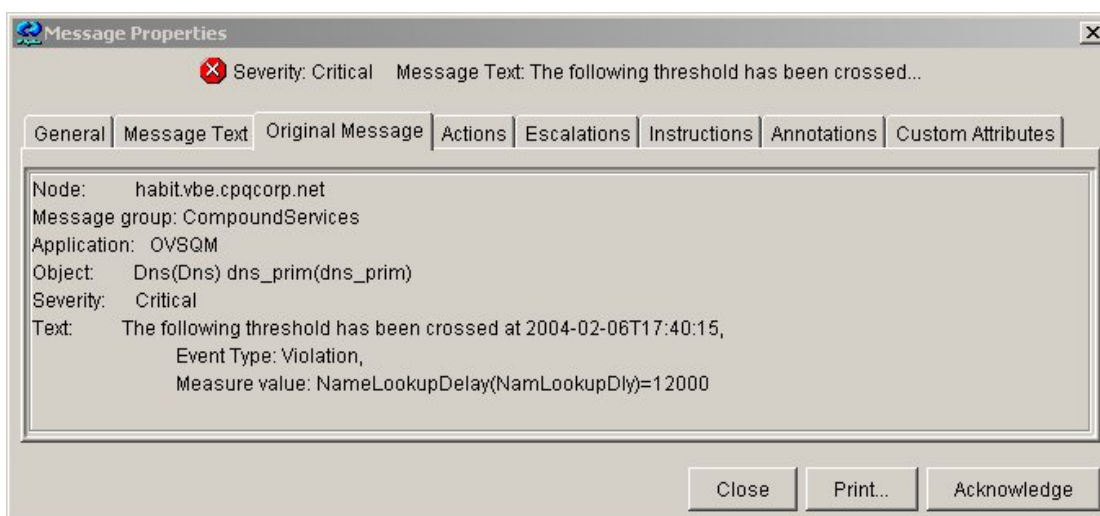
Some additional columns are added to the OVO compound messages to provide useful information. The following columns are created:

- **CrossedThreshold**: information on the threshold crossed.

- **Impacted SLAs**: list of the impacted Customer, SLA, SI and SCI.

Figure 11   Example of Custom Attributes of Compound Message
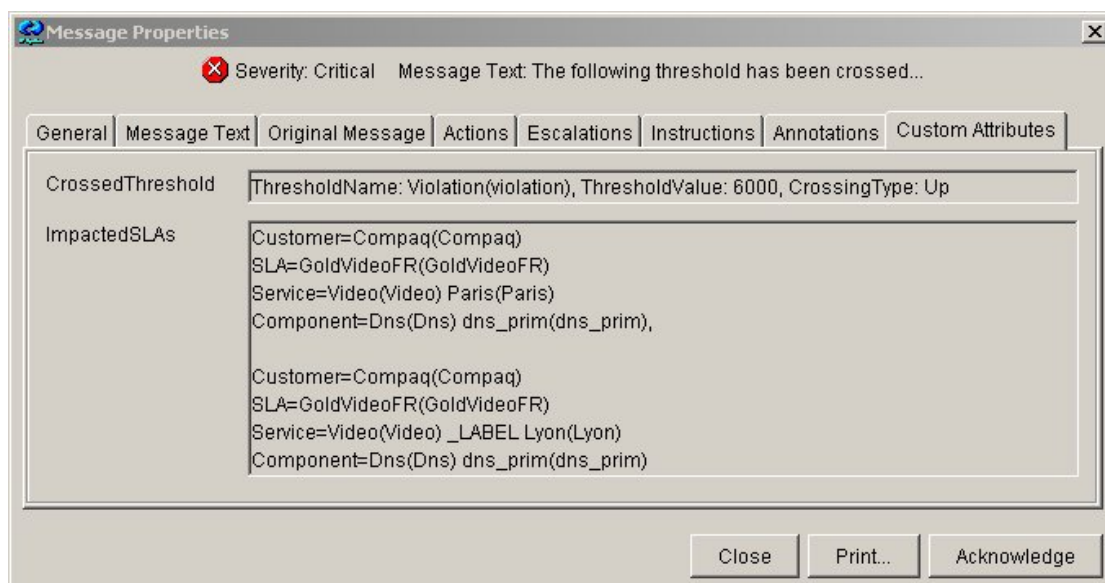
2.2.4 Fan-Out Processing

The OVO Gateway generates as many OVO messages on service, component and parameter as there are impacted customers and operational SLAs, along with the related compound OVO message.

This processing is controlled by the fan-out local field in the SQM Central Repository (refer to Chapter 4.3.1.5 for a description of this field), and is called the alarming fan-out.

When the alarming fan-out feature is disabled, only the compound message is generated.

Note

By default, the Fan-Out processing is enabled

2.3 OVO Message on SQM Service Compliance Event

The OVO Gateway performs a similar mapping for the OpenView SQM compliance events. The Compliance message in OVO is mapped from OpenView SQM compliance degradation and violation events.

The processing of Compliance events in the OVO Gateway can be disabled. This processing is controlled by an OVO Gateway local field called '*ComplianceEnabled*' in the SQM Central Repository. For more details, please refer to Chapter 4.3.1 - General Configuration Properties.

Note

By default, compliance messages are not processed.

Compliance messages in OVO can be reported on parameter threshold crossing and on Service Objective Status changes. By default, OVO messages are reported only on parameter threshold crossing. This processing is controlled by an OVO Gateway local field in the SQM Central Repository called '*ComplianceMapping*'. For more details, please refer to Chapter 4.3.1 - General Configuration Properties.

OVO Messages on SQM Service Compliance events have the same Attributes than the OVO Messages on SQM Service events. The only difference comes from the used message groups.

To hold the compliance messages, three message groups must be defined in OVO:

- **'SLACompliance'**, which holds the Parameter Threshold Crossing messages.

- **'SLAComplianceStatus'**, which holds the Service Objective Status, changed messages.

- **'SLAComplianceCompound'**, which holds the compliance, compound messages.

Chapter 3

OVO Gateway Installation

This chapter describes how to install the OVO Gateway on an hp system running HP-UX V11i. After you have completed the installation, follow the instructions in Chapter 4 to configure the application.

3.1 Software and Hardware Requirements

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

3.2 Installing the Software

This section describes how to install the OVO Gateway on the SQM SLM Primary Server (recommended architecture).

This chapter asserts that the *OV SQM Kernel* is already installed and configured on the primary host. The SQM Kernel installation and configuration is described in the *HP OpenView Service Quality Manager Installation Guide* document.

3.2.1 Required environment

To install (or configure) the OVO Gateway, you first have to set the SQM environment.

To set the SQM environment, you have to source the *'temip_sc_env.sh'* file located under SQM data directory *($TEMIP_SC_VAR_HOME)*.

Example:

```
# . /var/opt/OV/SQM/slmv12/temip_sc_env.sh
```

Note

The 'temip_sc_env.sh' script is created during the SQM Kernel setup.

3.2.2 Installing the OVO Gateway

To install the OVO Gateway, you need to have installed the Service Adapters and Gateways Common subset.

To install it (if not already installed), perform the following steps:

1. Log on as root user.

2. Mount the Service Adapters and Gateways CD-ROM on your system

3. Go to the SQM-1.20.00-SAGTW/HPUX directory

4. Run the **'SQMSAGTWCOMMON-1.20.bin'** installer.
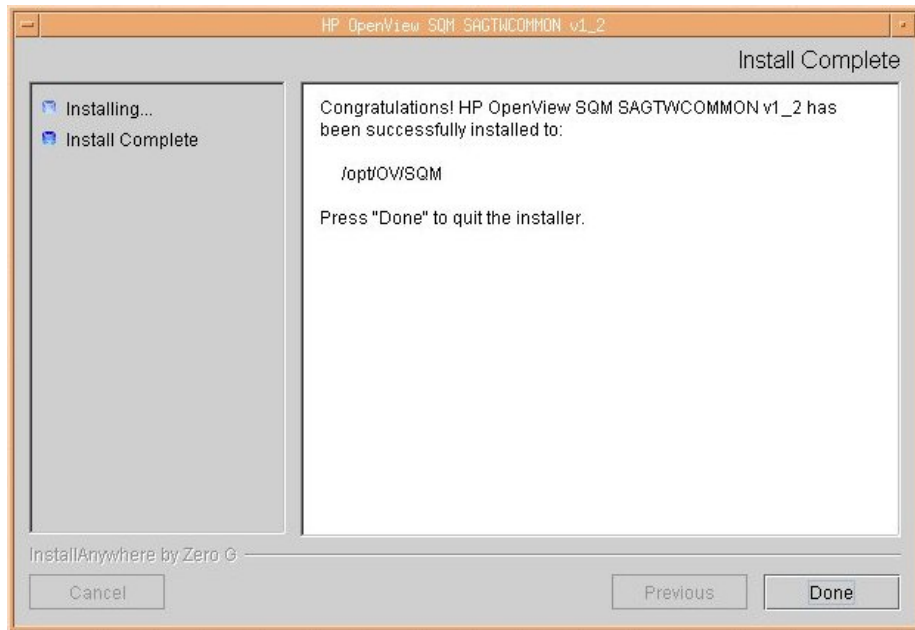
5. To end the installation process, click '**Done'**

To install the OVO Gateway, perform the following steps:

1. Log on as root user.

2. Mount the Service Adapters and Gateways CD-ROM on your system

3. Go to the SQM-1.20.00-SAGTW/HPUX directory

4. Run the **'SQMGTWOVO-1.20.bin'** installer.
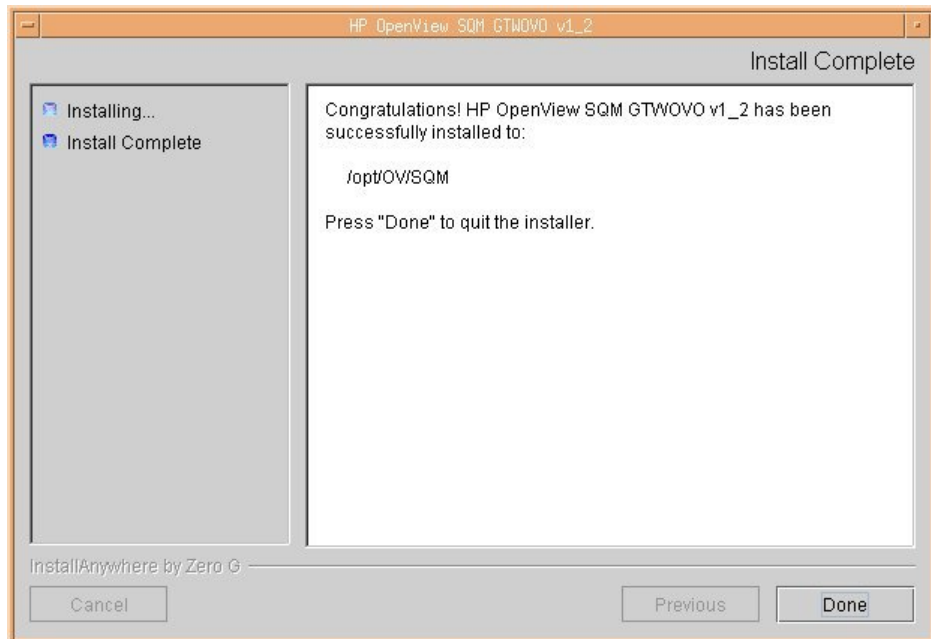
5. To end the installation process, click '**Done'**

3.3 Uninstalling the Software

To uninstall the OVO Gateway, you have to make sure that the OVO Gateway application **is not running**.

To uninstall the subset SQMGTWOVO-1.20, perform the following commands:

1. Log on as root user and load the SQM environment variables (see chapter 3.2.1).

2. Go to the directory **`$TEMIP_SC_HOME`**

3. Run the Un-installer:
   `./Gateways/OVO/v1_2/Uninstaller_GTWOVO/Uninstall_GTWOVO`

4. The uninstaller window appears, click on **Uninstall** button.

5. When the un-installation is terminated the following window appears:
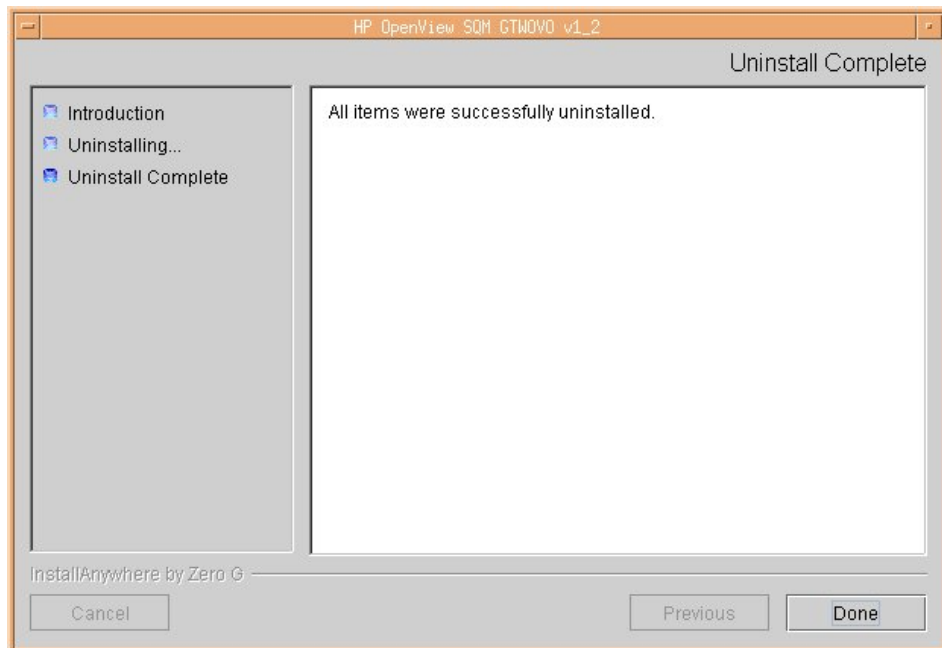
6. Click "**Done**" to accept.

Chapter 4

OVO Gateway Setup and Configuration

This chapter describes how to setup and configure the OVO Gateway.

4.1 Required environment

To setup the OVO Gateway, it is necessary to set the SQM environment.

Chapter 3.2.1 – "Required environment" explains how to set the SQM environment.

4.2 OVO Gateway Application creation

Once installed, you have to create the OVO Gateway application.

To create the OVO Gateway application, perform the following steps:

1. Log on as root

2. Go to the **'$TEMIP_SC_HOME/setup/bin'** directory

3. Invoke the
   **'temip_sc_setup -addOn OVOGateway_v1_2_addOn.tmpl_cfg
   -appliName <your OVO Gateway application name>'** command.

   Example:

   ```
   #temip_sc_setup –addOn OVOGateway_v1_2_addOn.tmpl_cfg
    -appliName OVOGateway
   ```

Once you have completed this procedure, the OVO Gateway application is created in the current OpenView SQM platform. This application belongs to the **'gateway'** director and it has the specified name (the name behind the *'-appliName'* option).

It is possible to choose a different director name using the **'-dirName <director name>'** option.

Example:

```
#temip_sc_setup –addOn OVOGateway_v1_2_addOn.tmpl_cfg
 -appliName OVOGateway –dirName myGtwDirector
```

To check that the application has been correctly created you can perform the command: '**temip_sc_show_platform –platform slmv12 –director gateway'** (using the *'sqmadm'* user with all OpenView SQM environment variables set).

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

4.3 Configuring an OVO Gateway Application

The configuration of the OVO Gateway Application is stored in the SQM central repository (TIBCO Repository). They are accessible from the TIBCO Designer.

Refer to the *HP OpenView Service Quality Manager Administration Guide* document on how to launch and to use the TIBCO Designer.

In the TIBCO Repository, the OVO Gateway configuration is stored at the following locations:

- `/screpos/ServiceCenter/Gateways/OVO/v1_2/<ApplicationName>`

- `/screpos/ServiceCenter/Gateways/OVO/v1_2/<ApplicationName>_config`

The application properties are stored in the **'Extended Properties'** of the `<ApplicationName>_config` adapter.

The logging and tracing properties are stored in the **'trace_sink'** and **'log_sink'** of the `/<ApplicationName>` adapter (`.../<ApplicationName>/Advanced/Log Sinks`).

4.3.1 General Configuration Properties

The OVO Gateway general properties are stored in the 'Extended Properties' of the `<InstanceName>_config` adapter.

The table below summarizes all the OVO Gateway general properties.

Table 2   OVO Gateway General Properties

Variable Name	Default Values
MessageMapping	Both
ComplianceMapping	Threshold
ComplianceEnabled	False
ActionExecutorName	OVOServiceAlarm
ServiceAlarmMapping	
-> FanOut	True
-> SeverityCode	
-> -> ThresholdDefaultSeverity	Major
-> -> ObjectiveStatusCriticalSeverity	%%SCStateViolationLevel%%[1]
-> -> ObjectiveStatusMajorSeverity	0.4
-> -> ObjectiveStatusMinorSeverity	0.6
-> -> ObjectiveStatusWarningSeverity	%%SCStateDegradationLevel%%
ServiceComplianceAlarmMapping	
-> FanOut	True
-> SeverityCode	
-> -> ThresholdDefaultSeverity	Major
-> -> ObjectiveStatusCriticalSeverity	%%SCStateViolationLevel%%
-> -> ObjectiveStatusMajorSeverity	0.4
-> -> ObjectiveStatusMinorSeverity	0.6
-> -> ObjectiveStatusWarningSeverity	%%SCStateDegradationLevel%%

For each previously described parameter, a detailed description is given below.

---

[1] The variables starting and ending with "%%" refer to TIBCO global variables. Refer to the *hp OpenView Service Quality Manager Administration Guide* for their values.

4.3.1.1 MessageMapping

This variable controls the mapping of SQM messages by the Gateway.

The possible values are:

- **Threshold**: messages are mapped only on threshold crossing violation or degradation event.
- **Status**: messages are mapped only on service objective degradation or violation event.
- **Both**: in this case, messages are mapped for both threshold crossing violation and degradation event, and for service objective degradation or violation.

The associated TIBCO configuration field is named *'MessageMapping'* and its default value is *'Both'*.

4.3.1.2 ComplianceMapping

The field controls the mapping of SQM Compliance messages by the Gateway.

The possible values are:

- **Threshold**: SQM messages are mapped only on compliance threshold crossing violation or degradation events.
- **Status**: SQM messages are mapped only on compliance service objective degradation or violation events.
- **Both**: in this case, SQM messages are mapped for both compliance threshold crossing violation or degradation events and for compliance service objective degradation or violation.

The associated TIBCO configuration field is named *'ComplianceMapping'* and its default value is *'Threshold'*.

4.3.1.3 ComplianceEnabled

This field is used to specify if the Gateway processes the compliance events or not.

The associated TIBCO configuration field is named *'ComplianceEnabled'* and its default value is *'False'*.

4.3.1.4 ActionExecutorName

Only OpenView SQM degradation and violation events which action executor name is equal to this field are taken into account by the Gateway. This is defined in the SLA Admin UI when creating service levels. See the OpenView SQM Overview for more information.

For the OVO Gateway, **this field must be: 'OVOServiceAlarm'**

The associated TIBCO configuration field is named *'ActionExecutorName'*.

Important

The *'ActionExecutorName' is* case sensitive.

4.3.1.5 FanOut (ServiceAlarmMapping)

This field is used to specify if the "fanning out" feature is enabled or not. If this feature is enabled, the Gateway maps one message per impacted SLA/SI/SCI instance in case of a shared SCI.

The associated TIBCO configuration field is named *'FanOut'* and its default value is *'True'*.

4.3.1.6 ThresholdDefaultSeverity (ServiceAlarmMapping)

This field defines the default severity of a message produced by the Gateway on threshold crossing violation or degradation event when the action name is not provided, or its mapping is not possible.

The associated TIBCO configuration field is named *'ThresholdDefaultSeverity'* and its default value is *'Major'*. It can be set to any of the supported Gateway message severity values (*Normal, Warning, Minor, Major and Critical*).

<div align="center">

Important

</div>

The severities are case sensitive.

4.3.1.7 ObjectiveStatusCriticalSeverity (ServiceAlarmMapping)

This field defines the threshold where a service objective status is considered violated. The corresponding Gateway message will have a critical severity.

The associated TIBCO configuration field is named *'ObjectiveStatusCriticalSeverity'* and its default value is the global OpenView SQM variable *'SCStateViolationLevel'* (with a default of *'0.2'*).

4.3.1.8 ObjectiveStatusMajorSeverity (ServiceAlarmMapping)

This field defines the threshold where a service objective status is considered degraded. The corresponding Gateway message will have a major severity.

The associated TIBCO configuration field is named *'ObjectiveStatusMajorSeverity'* and its default value is *'0.4'*.

4.3.1.9 ObjectiveStatusMinorSeverity (ServiceAlarmMapping)

This field defines the threshold where a service objective status is considered degraded. The corresponding Gateway message will have a minor severity.

The associated TIBCO configuration field is named *'ObjectiveStatusMinorSeverity'* and its default value is *'0.6'*.

4.3.1.10 ObjectiveStatusWarningSeverity (ServiceAlarmMapping)

This field defines the threshold where a service objective status is considered degraded. The corresponding Gateway message will have a warning severity.

The associated TIBCO configuration field is named *'ObjectiveStatusWarningSeverity'* and its default value is the global OpenView SQM variable *'SCStateDegradationLevel'* (with a default of *'0.8'*).

4.3.1.11 FanOut (ServiceComplianceAlarmMapping)

This field is used to specify if the compliance alarm fanning out feature is enabled or not. If this feature is enabled, the Gateway maps one compliance message per impacted SLA/SI/SCI instance in case of a shared SCI.

The associated TIBCO configuration field is named *'FanOut'* and its default value is *'True'*.

4.3.1.12 ThresholdDefaultSeverity (ServiceComplianceAlarmMapping)

This field defines the default severity of the message produced by the Gateway on compliance threshold crossing violation or degradation events when the action name is not provided, or its mapping is not possible.

The associated TIBCO configuration field is named *'ThresholdDefaultSeverity'* and its default value is *'Major'*. It can be set to any of the supported Gateway message severity values (*Normal, Warning, Minor, Major and Critical*).

Important

The severities are case sensitive.

4.3.1.13 ObjectiveStatusCriticalSeverity (ServiceComplianceAlarmMapping)

This field defines the threshold where a compliance service objective status is considered violated. The corresponding Gateway compliance message will have a critical severity.

The associated TIBCO configuration field is named *'ObjectiveStatusCriticalSeverity'* and its default value is the global OpenView SQM variable '*SCStateViolationLevel*' (with a default of *'0.2'*).

4.3.1.14 ObjectiveStatusMajorSeverity (ServiceComplianceAlarmMapping)

This field defines the threshold where a compliance service objective status is considered degraded. The corresponding Gateway compliance message will have a major severity.

The associated TIBCO configuration field is named *'ObjectiveStatusMajorSeverity'* and its default value is *'0.4'*.

4.3.1.15 ObjectiveStatusMinorSeverity (ServiceComplianceAlarmMapping)

This field defines the threshold where a compliance service objective status is considered degraded. The corresponding Gateway compliance message will have a minor severity.

The associated TIBCO configuration field is named *'ObjectiveStatusMinorSeverity'* and its default value is *'0.6'*.

4.3.1.16 ObjectiveStatusWarningSeverity (ServiceComplianceAlarmMapping)

This field defines the threshold where a compliance service objective status is considered degraded. The corresponding Gateway compliance message will have a warning severity.

The associated TIBCO configuration field is named *'ObjectiveStatusWarningSeverity'* and its default value is the global OpenView SQM variable '*SCStateDegradationLevel*' (with a default of *'0.8'*).

4.3.2 Advanced Configuration Properties

The OVO Gateway advanced properties are stored in the **'Extended Properties'** of the `<ApplicationName>_config` adapter.

The table below summarizes all the OVO Gateway advance properties.

Table 3   OVO Gateway Advance Properties

Variable Name	Default Values

Variable Name	Default Values
ListenerProcessorThreadNb	1
XMLValidationMode	%% SCXmlMsgValidation %%[2]
QuietMode	false

For each previously described parameter, a detailed description is given below.

4.3.2.1 Listener Processor Thread Number

This field defines the maximum number of concurrent listener threads that may have to run at a time in the component.

The associated TIBCO configuration field is named *'ListenerProcessorThreadNb'* and its default value is *'1'*. This field should not be modified except if it is explicitly requested by OpenView SQM support.

4.3.2.2 XML Validation

This field can be used for debugging purposes. It is used to check the validity of all the XML messages received by the OVO Gateway component. This field should not be modified except if it is explicitly requested by OpenView SQM support.

The associated TIBCO configuration field is named *'XMLValidationMode'* and its value is the global OpenView SQM variable '*SCXmlMsgValidation'* (with a default of *'false'*).

4.3.2.3 QuietMode

This field can be used for debugging purposes. It is used to avoid message publication by the OVO Gateway. It should not be modified unless requested by OpenView SQM support.

The associated TIBCO configuration field is named *'QuietMode'* and its default value is '*false'*.

4.3.3 Logging and Tracing Properties

The logging and tracing properties are stored in the **'trace_sink'** and **'log_sink'** of the /<InstanceName> adapter (.../<ApplicationName>/Advanced/Log Sinks).

The table below summarizes all the OVO Gateway logging and tracing properties.

Table 4   OVO Gateway Logging and Tracing Properties

Variable Name	Default Values
Traces	
FileCount	10
FileLimit	10000000
AppendMode	True
Logs	
FileCount	10
FileLimit	1000000
AppendMode	True

For each previously described parameter, a detailed description is given below.

4.3.3.1 FileCount

This field is used to set the maximum number of files (traces or log).

The associated TIBCO configuration field is name '*FileCount'* and its default value is *'10'*.

---

[2] The variables starting and ending with "%%" refer to TIBCO global variables. Refer to the *hp OpenView Service Quality Manager Administration Guide* for their values.

4.3.3.2 FileLimit

This field is used to set the maximum size of files (traces or log). The size has to be given in byte.

The associated TIBCO configuration field is name '*FileLimit*' and its default value is '*10000000*' (bytes) for the traces and '*1000000*' for the logs.

4.3.3.3 AppendMode

The *AppendMode* is used to specify that traces or logs can be appended to existing files after a restart.

The associated TIBCO configuration field is name '*AppendMode*' and its default value is '*True*'.

4.3.4 Reload the configuration

The changes made on the OVO Gateway application properties (in the SQM Central Repository) are taken into account at OVO Gateway startup.

However, it is possible to take the changes into account while the OVO Gateway is running, invoking the OVO Gateway ReloadConfig AMI method. Refer to chapter 4.4 - OVO Gateway Monitoring.

4.4 OVO Gateway Monitoring

It is possible to monitor and administrate the OVO Gateway using the *TIBCO HawkDisplay* application.

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

Chapter 5

Configuring OpenView Operations (OVO)

This chapter describes how to configure the OVO Server for SQM OVO Gateway.

Note

The operations described in the chapters 5.1 and 5.2 can be replaced by the upload of a delivered template archive on the OVO Server (see Appendix D).

5.1 VPO Message Group

Message Group organizes messages belonging to the same task or having some logical connection. For the OpenView SQM integration, the following message groups have to be created:

- Services.
- ServicesStatus.
- CompoundServices.
- SLACompliance.
- SLAComplianceStatus.
- SLAComplianceCompound.

To create a message group, perform the following on the OVO Server:

1. Start HP OpenView Operations on the OVO server.

2. Select '*Window:Message Group Bank*'.

3. In the '**Message Group Bank'**, open the '*Actions'* menu and select *'Message Group:add...'*. The '**Add Message Group'** window opens.

4. Enter a Name, Label, and Description.

5. Click on the '*OK'* button. The new message group appears in the '**Message Group Bank'** window.

Perform this operation for each of the following message groups:

Table 5   Message Group Definitions

Name	Label	Description
Services	SQM Services	Message group for Services messages
ServicesStatus	SQM ServicesStatus	Message group for ServicesStatus messages
CompoundServices	SQM CompoundServices	Message group for CompoundServices messages
SLACompliance	SQM SLACompliance	Message group for SLACompliance

Name	Label	Description
		messages
SLAComplianceStatus	SQM SLAComplianceStatus	Message group for SLAComplianceStatus messages
SLAComplianceCompound	SQM SLAComplianceCompound	Message group for SLAComplianceCompound messages

5.2 VPO Message Source Templates

The '**Message Source Template'** controls the introduction of messages in OVO. Templates can be defined for '*opcmsg'* messages. It is necessary to modify the '*opcmsg'* message source template to apply new message attributes to a message.

For each of the previously defined message groups, in the table below you can find the list of new attributes to define:

Table 6   Attribute Definitions per Message Group

Message Group	New Attributes
Services	CrossedThreshold Customer Root Component SLA Service ServiceLevel
ServicesStatus	Customer SLA Service Status
CompoundServices	CrossedThreshold ImpactedSLAs
SLACompliance	CrossedThreshold Customer Root Component SLA Service ServiceLevel
SLAComplianceStatus	Customer SLA Service Status
SLAComplianceCompound	CrossedThreshold ImpactedSLAs

To configure the '**OVO Interface Message Template'**, do the following:

1. Start HP OpenView Operations on the OVO server.

2. Select the '*Window: Message Source Templates'* menu item. The '**Message Source Templates'** window opens.

3. In the '**Message Source Templates'** window, select the '*Default/Management Server'* template group in the left-hand side pane.

4. Select the '*opcmsg'* template and click on the '*Conditions...'* button.

5. The '**Message and Suppress Condition'** window appears listing the defined conditions.

6. In the '**Message and Suppress Conditions'** window, click on the '*Add...'* button, to define a new condition.

At this stage, you have to define one message condition per message group defined. Within each message condition, you have to define the new attributes to display in the OVO User Interface (as specified in the table above).

The following section gives details on how to set up a condition on a message template. For the first message group *'Services'*, do the following:

1. In the '**Message and Suppress Conditions'** window, click on the *'Add...'* button, to define a new condition.

2. The '**Condition'** window opens.

3. In the '**Condition'** window, complete in the '*Condition*' section the following fields:

   Description: 'Condition for SQM Services messages'.

   Application: 'OVSQM'.

   Message Group: 'Services'.

4. In the '*Set Attributes*' section, select the '*Custom Attributes*' button.

5. The '**Custom Message Attributes'** window appears.

6. Fill in all the Name and Value fields as shown in the following table.

Table 7   Custom Message Attributes

Name	Value	Message Group family		
		Service	**Status**	**Comp.**
CrossedThreshold	<$OPTION(CrossedThreshold)>	x		x
Customer	<$OPTION(Customer)>	x	x	
RootComponent	<$OPTION(RootComponent)>	x		
Service	<$OPTION(Service)>	x	x	
ServiceLevel	<$OPTION(ServiceLevel)>	x		
SLA	<$OPTION(SLA)>	x	x	
Status	<$OPTION(Status)>		x	
ImpactedSLAs	<$OPTION(ImpactedSLAs)>			x

7. Once you have defined all the attributes, click on the '*OK*' button.

8. Click on the '*OK*' button to close the '**Condition'** window.

9. Once you have defined all your conditions, click on the '*Close*' button to save and close the '**Message and Suppress Conditions'** window.

5.3 VPO Node Bank

You need to add a node for each workstation on which you deploy the OVO Gateway.

To add a node to the '**OVO Node Bank'**:

1. Start HP OpenView Operations on the OVO server.

2. Select '*Window:Node Bank*'.

3. In the **'Node Bank'** window, select '*Actions: Node -> Add*'. This opens the '**Add Node'** window.

4. Enter the name of the node to be added to the '**Node Bank'** in the '*Hostname'* text entry box.

5. Select '*IP Network HP HP-UX 11.x'* as the net type and machine type for HP servers. This action may result in the message '*Unable to automatically determine the node type'*. Click on the '*OK*' button to dismiss the dialog and ignore this message.

6. Make sure that '*Controlled'* is selected as the type of managed node.

7. Click on the '*OK*' button to save the information.

8. When complete, a node icon should display in the '**Node Bank'** window.

5.4 VPO Node Group Bank

You have to add the previously created nodes in the '*hp-ux'* **'OVO Node Group'**.

To add an OVO node to an '**OVO Node Group'**:

1. Start HP OpenView Operations on the OVO server.

2. Select '*Window:Node Bank'*.

3. In the '**Node Bank'** window, select the desired node to be added to the '*hp-ux'* node group from the '**Node Bank'** window.

4. Select '*Window: Node Group Bank'* to open the '**Node Group Bank'** window.

5. Drag the node from the '**Node Bank'** window to the desired node group in the '**Node Group Bank'** window.

6. When complete, a node icon should be displayed in the desired node group.

5.5 VPO User Bank

The goal is to create a dedicated operator for the OpenView SQM messages (example: '*sqm_operator'*).

To create a new user, perform the following:

1. Start HP OpenView Operations on the OVO server.

2. Select '*Window:User Bank'*.

3. In the '**User Bank'** window, select '*Actions: User-> Add...'*. The '**Add User'** window opens.

4. Enter the new user's '*User Name'*, '*Label'*, '*Password'*, '*Real Name'* and a brief description. Specify if the new operator can:

   • Start, stop, and rerun actions.

   • Own and disown messages.

   • Modify the attributes of a message.

   • Acknowledge or unacknowledge messages.

5. After completing all steps, click on the '*OK*' button to add the user to the configuration. The name you assigned in the *User Name* field appears below the user's symbol in the '**User Bank'** window. If you have specified a label in the '*Label'* field, the label will be displayed.

Once the '*sqm_operator'* user has been created, you need to assign a node hierarchy to that operator, that is, each node on which the OVO Gateway is installed.

1. Select '*Window: Node Hierarchy Bank'* to open the '**Node Hierarchy Bank'** window.

2. In the '**Node Hierarchy Bank'** window, select the node hierarchy you wish to assign to the user. Note that you can only assign one node hierarchy. The new operator can only see the nodes that are part of the assigned node groups.

3. Re-open the '**User Bank'** window, select the '*sqm_operator'* user and perform '*Actions: User-> Modify...'*. The **'Modify User'** window opens.

4. In the '**Modify User'** window, click on the 'G*et Map Selection'* button. The selected node hierarchy replaces the one that was previously displayed in the '**Node Hierarchy'** field.

You then need to specify responsibilities by assigning message groups.

5. Click on the '*Responsibilities'* button in the **'Modify User'** window. The '**Responsibilities for Operator'** window opens.

6. Click on the buttons corresponding to the message and node groups you want to assign. Choose the previously created message groups.

7. Click on the '*Close'* button to close the '**Responsibilities for Operator'** window and return to the **'Modify User'** window.

8. In the '**Modify User'** window, click on the '*OK*' button to accept the choices you made.

5.6 Assigning Templates to Nodes

To assign an '*opcmsg'* template to an OpenView SQM node (hosting an OVO Agent and the OVO Gateway), perform the following steps:

1. Start HP OpenView Operations on the OVO server.

2. Go to the '**Node Bank'** window.

3. Select the OpenView SQM node from the '**Node Bank'**.

4. Select '*Actions: Agents -> Assign Templates*'. The '**Define Configuration'** window displays.

5. Click on the '*Add*' button. The '**Add Configuration'** window displays.

6. Click on the '*Open Template Window'* button.

7. From this window, select the desired template ('*Management Server'* template).

8. From the '**Add Configuration'** window, click on the '*Get Template Selections*' button.

9. Click on the '*OK*' button to close the '**Add Configuration'** window.

10. Click on the '*OK'* button to close the '**Define Configuration'** window.

11. Close the '**Message Source Templates'** window.

5.7 Installing Templates on the Nodes

To push '*opcmsg'* templates to the OpenView SQM node, perform the following operations:

1. Start HP OpenView Operations on the OVO server.

2. Go to the '**Node Bank'** window.

3. Select the node.

4. Click '*Actions: Agents -> Install / Update SW & Config…*'

5. The '**Install/Update VPO Software and Configuration'** window opens.

6. Check the '*Templates'* and '*Force Update*' check boxes only. If you have not already deployed an OVO agent on this node, also check '*Agent Software, Templates, Actions, Monitors, Commands*'.

7. Make sure the correct managed nodes are listed in the '**Target Nodes'** window.

8. Click on the '*OK*' button to cause the templates to be deployed onto the managed node. Afterwards, you should see a message in the message browser indicating that the agent system has been updated.

Chapter 6

OVO Gateway Start/Stop

Before starting or stopping the OVO Gateway, ensure that:

- The OpenView SQM Kernel is running.

- The OpenView SQM environment is set.
  (Chapter 3.2.1 explains how to set the SQM environment).

- You are logged as *'sqmadm'*.

Starting an OVO Gateway Application

To start, the OVO Gateway, you have to perform the following command:

```
temip_sc_start_application –platform <SQM platform Name>
-director <OVO Gateway director Name> -application <OVO
Gateway instance name>
```

Example:

```
# temip_sc_start_application -platform slmv12 -director
Gateway -application OVOGateway
```

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

Stopping the OVO Gateway Application

To stop, the OVO Gateway, you have to perform the following command:

```
temip_sc_stop_application –platform <SQM platform Name>
-director <OVO Gateway director Name> -application <OVO
Gateway instance name>
```

Example:

```
# temip_sc_stop_application -platform slmv12 -director
Gateway -application OVOGateway
```

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

Appendix A

Installation Directory Structure

The following directories and files are installed:

OVO Gateway subset

```
$TEMIP_SC_HOME/Gateways
$TEMIP_SC_HOME/Gateways/OVO
$TEMIP_SC_HOME/Gateways/OVO/v1_2
$TEMIP_SC_HOME/Gateways/OVO/v1_2/config
$TEMIP_SC_HOME/Gateways/OVO/v1_2/config/SCPlatform_SCDirector_SCA
pplication.properties
$TEMIP_SC_HOME/Gateways/OVO/v1_2/config/SQMGtwMessages.tar
$TEMIP_SC_HOME/Gateways/OVO/v1_2/jar
$TEMIP_SC_HOME/Gateways/OVO/v1_2/jar/TeSCOVOGateway.jar
$TEMIP_SC_HOME/Gateways/OVO/v1_2/lib
$TEMIP_SC_HOME/Gateways/OVO/v1_2/lib/libActionExecutorOPC.sl
$TEMIP_SC_HOME/Gateways/OVO/v1_2/properties
$TEMIP_SC_HOME/Gateways/OVO/v1_2/properties/TeSCOVOGateway.proper
ties
$TEMIP_SC_HOME/Gateways/OVO/v1_2/properties/TeSCOVOGateway_Messag
es.properties
$TEMIP_SC_HOME/Gateways/OVO/v1_2/properties/TeSCOVOGateway_Versio
n.properties
$TEMIP_SC_HOME/Gateways/OVO/v1_2/repository
$TEMIP_SC_HOME/Gateways/OVO/v1_2/repository/OVOGateway_setup.cfg
$TEMIP_SC_HOME/Gateways/OVO/v1_2/repository/OVOGateway_template.e
xp
$TEMIP_SC_HOME/adapter/bin/ovogtw_v1_2_launch.sh
$TEMIP_SC_HOME/etc/addOn/OVOGateway_v1_2_addOn.tmpl_cfg
$TEMIP_SC_HOME/fileset/SQMGTWOVO-1.20.XX-XXXXXXXXXXX
```

SA/Gateway Common subset

```
$TEMIP_SC_HOME/DTD/discovery.dtd
$TEMIP_SC_HOME/DTD/inventory.dtd
$TEMIP_SC_HOME/Gateways
$TEMIP_SC_HOME/Gateways/Common
$TEMIP_SC_HOME/Gateways/Common/v1_2
$TEMIP_SC_HOME/Gateways/Common/v1_2/jar
$TEMIP_SC_HOME/Gateways/Common/v1_2/jar/TeSCGtwCommon.jar
$TEMIP_SC_HOME/Gateways/Common/v1_2/properties
$TEMIP_SC_HOME/Gateways/Common/v1_2/properties/TeSCGtwCommon_Mess
ages.properties
$TEMIP_SC_HOME/Gateways/Common/v1_2/properties/TeSCGtwCommon_Vers
ion.properties
$TEMIP_SC_HOME/Gateways/Common/v1_2/repository
$TEMIP_SC_HOME/Gateways/Common/v1_2/repository/GtwCommon_setup.cf
g
$TEMIP_SC_HOME/Gateways/Common/v1_2/repository/GtwCommon_template
```

```
.exp
$TEMIP_SC_HOME/ServiceAdapters
$TEMIP_SC_HOME/ServiceAdapters/Common
$TEMIP_SC_HOME/ServiceAdapters/Common/v1_2
$TEMIP_SC_HOME/ServiceAdapters/Common/v1_2/jar
$TEMIP_SC_HOME/ServiceAdapters/Common/v1_2/jar/TeSCSACommon.jar
$TEMIP_SC_HOME/ServiceAdapters/Common/v1_2/properties
$TEMIP_SC_HOME/ServiceAdapters/Common/v1_2/properties/TeSCSACommo
n.properties
$TEMIP_SC_HOME/ServiceAdapters/Common/v1_2/properties/TeSCSACommo
n_Messages.properties
$TEMIP_SC_HOME/ServiceAdapters/Common/v1_2/properties/TeSCSACommo
n_Version.properties
$TEMIP_SC_HOME/ServiceAdapters/Common/v1_2/properties/TeSCSAConfi
g_Messages.properties
$TEMIP_SC_HOME/ServiceAdapters/Sql
$TEMIP_SC_HOME/ServiceAdapters/Sql/v1_0
$TEMIP_SC_HOME/ServiceAdapters/Sql/v1_0/config
$TEMIP_SC_HOME/ServiceAdapters/Sql/v1_0/config/SCPlatform_SCDirec
tor_SCApplication.properties
$TEMIP_SC_HOME/ServiceAdapters/Sql/v1_0/jar
$TEMIP_SC_HOME/ServiceAdapters/Sql/v1_0/jar/TeSCSASql.jar
$TEMIP_SC_HOME/ServiceAdapters/Sql/v1_0/properties
$TEMIP_SC_HOME/ServiceAdapters/Sql/v1_0/properties/TeSCSql.proper
ties
$TEMIP_SC_HOME/ServiceAdapters/Sql/v1_0/properties/TeSCSql_Messag
es.properties
$TEMIP_SC_HOME/ServiceAdapters/Sql/v1_0/properties/TeSCSql_Versio
n.properties
$TEMIP_SC_HOME/fileset
$TEMIP_SC_HOME/fileset/SQMSAGTWCOMMON-1.20.XX-XXXXXXXXXXX
```

Appendix B

Troubleshooting

B 1 Troubleshooting OVO Gateway

Please refer to the *hp OpenView Service Quality Manager Administration Guide* document.

B 2 Troubleshooting OV Operations configuration

Check that the OVO agent is correctly deployed and running

Perform, on the OVO Gateway host, the following actions:

1. Log on as root

2. Execute the following command:

```
#/opt/OV/bin/OpC/opcagt –status
```

At least the following agent must be running:

```
VPO Managed Node status :
------------------------
Control Agent    /opt/OV/bin/OpC/opcctla     (1459) is running
Message Agent    /opt/OV/bin/OpC/opcmsga     (1465) is running
BBC Local Location Broker /opt/OV/bin/llbserver
(1469) is running

Subagent 1:
Action Agent     /opt/OV/bin/OpC/opcacta     (1470) is running
Message Interceptor  /opt/OV/bin/OpC/opcmsgi (1474) is running
```

If it is not the case, please refer to the *HP OpenView VantagePoint Operations Administrator's Reference* document.

Check that the SQM message templates are loaded into the OVO subagent

Perform, on the OVO Gateway host, the following actions:

1. Log on as root

2. Execute the following command:

```
#/opt/OV/bin/OpC/opctemplate
```

At least the following template must be listed:

```
VPO Enterprise templates (from VPO server on UNIX) :
----------------------------------------------------
OPCMSG        "opcmsg"                      enabled
```

If it is not the case, please refer to Chapter 5 to check the OVO configuration for the OVO Gateway and the *HP OpenView VantagePoint Operations Administrator's Reference* document.

Check that a simple message is correctly forwarded from the SQM Server to the OVO Server

Perform, on the OVO Gateway host, the following actions:

1. Log on as root

2. Execute the *'opcmsg'* command with the following attributes:

   - severity=<Severity>

   - application=OVSQM

   - object=<OVO Gateway host

   - msg_text="test"

   - msg_grp=Service

   - node=<OVO Gateway node

Example:

```
#/opt/OV/bin/OpC/opcmsg severity=Critical application=OVSQM
object=helico msg_txt="test" msg_grp=Services
node=helico.vbe.cpqcorp.net
```

3. Check, on the OVO Server side, that the OVO message was received.

Refer to the *HP OpenView VantagePoint Operations Administrator's Reference*.

Advanced Installation

The recommended architecture is to install the OVO Gateway on the SQM SLM Primary host.

However, it is possible to install the OVO Gateway on another host.

This appendix describes how to install and configure the OVO Gateway on a host different that the SQM SLM Primary host.

C 1 OVO Gateway Installation

Before to install the OVO Gateway, you have to ensure that the *OV SQM V1.2 Kernel* is installed on the host (see Appendix C 1.1   Installing the OV SQM Kernel).

Then you have to set the SQM environment (see Appendix C 1.2   Required Environment).

Finally, you can install the OVO Gateway subset (see Chapter 3.2.2 – "Installing the OVO Gateway").

Important

An OVO agent must be installed and running on the same host as the OVO Gateway.

To have a general overview of the OpenView SQM installation, please refer to *HP OpenView Service Quality Manager Installation Guide*.

C 1.1   Installing the OV SQM Kernel

To install the Kernel, perform the following steps:

1. Mount the Service Adapters and Gateways CD-ROM on your system

2. Go to the SQM-1.20.xx-SAGTW directory

3. Run the '**sqm_install'** tool under the **root** account.

4. Select the '**minimal'** feature. Example:

```
#sqm_install /opt/OV/SQM
/mnt/cdrom/SQM-1.20.00-SAGTW/HPUX/KIT minimal
```

5. Press '**Enter'** to install the Kernel.

C 1.2   Required Environment

'sqmadm' used and group

A **'sqmadm'** group and user are 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 SQM data directory (*$TEMIP_SC_VAR_HOME).*

```
# . /var/opt/OV/SQM/slmv12/temip_sc_env.sh
```

- If the kernel setup is not yet done, before to install the OVO Gateway, you have to set your environment. This consist in:

  o Setting the TEMIP_SC_HOME and TEMIP_SC_VAR_HOME environment variables. Example:

  ```
  # export TEMIP_SC_HOME=/opt/OV/SQM
  # export TEMIP_SC_VAR_HOME=/var/opt/OV/SQM/slmv12
  ```

  o Sourcing files:

  ```
  # .  $TEMIP_SC_HOME/jre/jre-setup.sh
  # .  $TEMIP_SC_HOME/perl/perl-setup.sh
  ```

C 1.3   Installing OVO Gateway

After the SQM Kernel installation, you have to be connected as *root* user, with the previously described environment variables to perform the OVO Gateway installation described in chapter 3.2.2

C 2 OVO Gateway Setup and Configuration

To setup the OVO Gateway on a host different than the SQM SLM Primary Server, it is necessary to set the SQM environment variables and to have a valid SQM Platform Description file.

Then the procedure is identical that the OVO Gateway setup on the SQM SLM Primary Server. Chapter 4 explains how to setup and configure the OVO Gateway.

<div align="center">Note</div>

If needed, the OVO Gateway setup automatically performs the SQM kernel setup.

Environment variable

Appendix C 1.2   Required Environment explains how to set the SQM environment

Platform Description file

You have to check that a Platform Description file is present at the following location:

```
$TEMIP_SC_HOME/tmp/platform_desc.cfg
```

If the Platform Description file is not present, you have to retrieve it from the SQM SLM Primary Server.

```
Copy from SQM SLM Primary Server:
 $TEMIP_SC_VAR_HOME/setupconfig/platform_desc.cfg
To OVO Gateway host:
 $TEMIP_SC_HOME/tmp/platform_desc.cfg
```

Appendix D

Import SQM OVO Message Templates in OVO

To ease the configuration of OV Operations (Chapter 5) an archive file is delivered with the OVO Gateway subset.

This archive contains the definition of the Message Groups and Message Templates needed for the OVO Gateway.

Importing this archive in the OVO Server is equivalent to the operations described in chapters 5.1 - "VPO Message Group" and 5.2 - "VPO Message Source Templates".

The following steps describe how to import the archive into the OVO Server.

1. Log on as root

2. Copy the **'SQMGtwMessages.tar'** file from the OVO Gateway host:

```
<SQM Release directory>/Gateways/OVO/v1_2/config/
```

   to the OVO Server host:

```
/var/opt/OV/share/tmp/OpC_appl/
```

3. On the OVO Server, go to the '/var/opt/OV/share/tmp/OpC_appl/' directory.

4. Un-tar the 'SQMGtwMessages.tar' file.

   Example:

```
# tar xvf SQMGtwMessages.tar
```

5. Upload the OVO Gateway Message Groups and Message Templates with the following command:

```
# /opt/OV/bin/OpC/opccfgupld SQMGtwMessages
```

   (Eventually use the *"-replace"* option to overwrite already existing OVO Gateway Message Groups or Message Templates)

Note

After this import, to achieve the OVO configuration, you have to perform the operations described in the chapters 5.3 to 5.7