hp OpenView
Service Quality Manager

SLA Monitoring User Interface User's Guide

Edition: 1.2

for the Microsoft Windows Operating System

April 2005

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Preface

The hp OpenView Service Quality Manager **SLA Monitoring User Interface** is part of the Hewlett Packard solution for Service Quality Management. This manual describes the Graphical User Interface (GUI) and explains how to use the Service Level Agreement Monitoring User Interface in the context of the hp OpenView Service Quality Manager complete solution.

Intended Audience

This document is intended for operators who will use the hp Service Quality Manager Service Level Agreement Monitoring User Interface.

hp OpenView Service Quality Manager Documentation Set

The following documents form the set of hp OpenView Service Quality Manager User's Guides:

- *OpenView Service Quality Manager Overview*

- *OpenView Service Quality Manager SLA Monitoring User's Guide (this manual)*

- *OpenView Service Quality Manager SLA Administration User's Guide*

- *OpenView Service Quality Manager Service Designer User's Guide*

- *OpenView Service Quality Manager Installation Guide*

- *OpenView Service Quality Manager Administration Guide*

- *OpenView Service Quality Manager Reporting Customization and User's Guide*

- *OpenView Service Quality Manager TeMIP Alarm SA Installation, Configuration and User's Guide*

Prerequisites

To be able to use **hp OpenView Service Quality Manager SLA Monitoring**, the Service Level Monitoring and the Presentation SQM components must be installed and started. Refer to the *hp OpenView Service Quality Manager Installation Guide*.

Software Versions

The software versions referred to in this document are:

Service Designer UI	SLA Administration	SLA Monitoring	Windows
1.2	1.2	1.2	XP

Support

eCare is the HP OpenView software customer support web portal. SQM technical support information is now available to customers directly through eCare, 24x7x365.

To access the main eCare portal page, go to http://support.openview.hp.com/.

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

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

Chapter 1

Introduction

This chapter introduces hp OpenView Service Quality Manager
SLA Monitoring User Interface, and places it in the context of hp OpenView
Service Quality Manager.

1.1 What is the hp 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 — giving you end-to-end visibility on service quality. OpenView
SQM links service quality degradations to potential affects on business, allowing you
to proactively address problems and prioritize actions.

OpenView SQM monitors the service quality by aggregating information coming
from all of your data sources, such as the network, the IT infrastructure, and your
business processes. Using this information, you can pinpoint infrastructure problems
and identify their potential affect on customers, services, and SLAs.

1.2 What is a Service Level Agreement?

An SLA is a contract that specifies, among other things, service quality criteria and
values against these criteria that must be achieved by the service provider to satisfy
the customer. The criteria are often related to the quality of service and are expressed
through service levels and thresholds.

This section describes the role of SLAs and service levels, and introduces the SLA
lifecycle.

1.2.1 Role of SLAs

OpenView SQM supports two types of service level agreements:

- Customer SLAs.

  A customer SLA is a set of service quality parameters with threshold values that
  characterize the service quality to be achieved for a service sold to a customer.

- Operational SLAs.

  An operational SLA is a set of service quality parameters with threshold values
  that characterize the service quality to be achieved by a department within the
  service provider's organization.

  These SLAs are not related to any customer in particular and allow you to:

- Test future customer SLAs by checking whether future service quality proposals can be achieved.

- Prioritize work within the organization.

- Improve the performance of internal processes.

- Manage the relationship between the different departments.

1.2.2   About Service Levels

A service level describes the objectives to be achieved by the service provider for a given service. A service level gives a set of service quality parameters required for controlling the quality of service along with their threshold values.

When selling a service to a customer, the service provider often has various marketing offers for the same service, such as a "gold", a "silver", and a "bronze" quality of service offer. Each of these offers corresponds to a quality of service, a price, and a specific service level.

The service quality parameters are usually specific to the service and should be expressed in terms that the customer understands.

The difference between the "gold", "silver", and "bronze" service levels depends on the threshold values, which fix the agreed level of quality of service to be delivered. For example, the "gold" quality of service would have a higher bandwidth offered than the "silver" and "bronze" offers.

1.2.3   About the SLA Lifecycle

The SLA lifecycle describes the interactions between the various processes involved in service quality management. It has the following five phases:

- **Service design phase**

  In the service design phase, you identify the parameters used to evaluate service quality and use them to build the service model for service quality management.

  The result of this phase is a unique service class broken down into service components that provide the relevant service quality parameters.

- **Service instantiation phase**

  Before the service instantiation phase, a negotiation and sales phase occurs that lead to an SLA contract signature for a particular service. Negotiation and sales is outside the scope of the SLA lifecycle.

  In the service instantiation phase, a new service needs to have its quality monitored. For example, a service model needs to be instantiated when a customer buys a new service. Service quality management begins as soon as you launch the service.

  This phase results in a service instance and triggers the collection of service quality parameters.

- **SLA creation phase**

  In this phase, an SLA is created for a specific service instance or a group of service instances, depending on the contract. All the threshold values of the service level are identified for each service quality parameter managed for the SLA.

  This phase results in an SLA that:

  Associates the service instance(s) with the service level and a customer (for customer SLAs).

Associates the service instance(s) with the service level and an internal department (for operational SLAs).

- **Service monitoring phase**

  In this phase, the service and the service level agreement are monitored in real-time.

  The goal of the service monitoring phase is to rapidly handle any service degradation to avoid SLA violations.

- **Service reporting phase**

  In the service level reporting phase, reports about service quality are generated.

  This phase assesses service quality on a long-term basis (monthly or quarterly) to analyze service trends or to provide customer service quality reports.

Figure 1 illustrates the SLA lifecycle and shows the different OpenView Service Quality User Interfaces that can be used during the different phases.

Figure 1   OpenView Service Quality Manager and the SLA Lifecycle
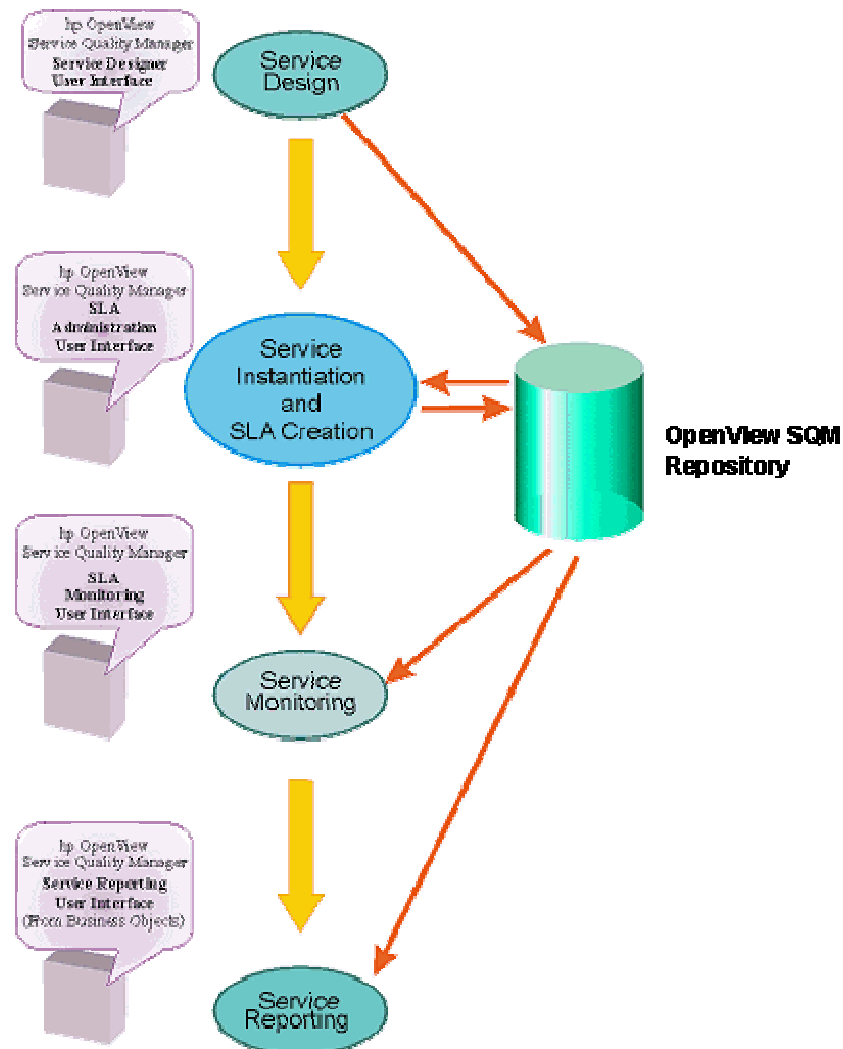
1.3 What is the SLA Monitoring?

The hp OpenView Service Quality Manager **SLA Monitoring** is the graphical user interface (GUI) which makes possible to visualize in real-time the QoS delivered versus the committed objectives for operational and customer SLAs.

The following activities can be performed using the **SLA Monitoring**:

- Selection of SLAs to monitor from a set of criteria

- Visualization of SLA characteristics, including:

  - administrative states

  - customer

  - service instances associated with the SLA

- service level
- Visualization of the compliance and objective states of the monitored SLAs
- Visualization of the compliance and objective states of service instances, service component instances and parameters
- Retrieval of the list of SLAs impacted by the degradation or violation of a parameter
- Real-time visualization of selected parameters values in customizable charts
- Customization of a dashboard that can be saved and retrieved at next connection to the SLA Monitoring
- Customization of the scope of interest (list of monitored SLAs) that can be saved and retrieved at next connection to the SLA Monitoring
- Launch of customizable and contextual external applications
- Control of the SLA Monitoring from an external application:
  - Visualize the characteristics of a SLA, a service or a component (even if they are not yet monitored)
  - List the SLA that reference a service or a component. Optional automatic addition of the listed SLAs in the list of monitored SLAs.

Chapter 2

Getting Started

This chapter describes how to start the **Service Level Agreement Monitoring User Interface**, and how to get help. It contains the following sections:

- Section 2.1, How to start the Service Level Agreement Monitoring User Interface?

- Section 2.2, SLA Monitoring Perspectives

- Section 2.3, SLA Monitoring Menu Bar

- Section 2.4, SLA Monitoring Toolbar

- Section 2.5, Contextual Menus

- Section 2.6, How to get help?

2.1 How to start the Service Level Agreement Monitoring User Interface?

To start the SLA Monitoring, you can either double click on the **SLA Monitoring** shortcut of your desktop or use the
HP OpenView->SQM->SLA Monitoring start menu.

This opens the **Login screen**, as illustrated by Figure 2.

Figure 2   Login screen
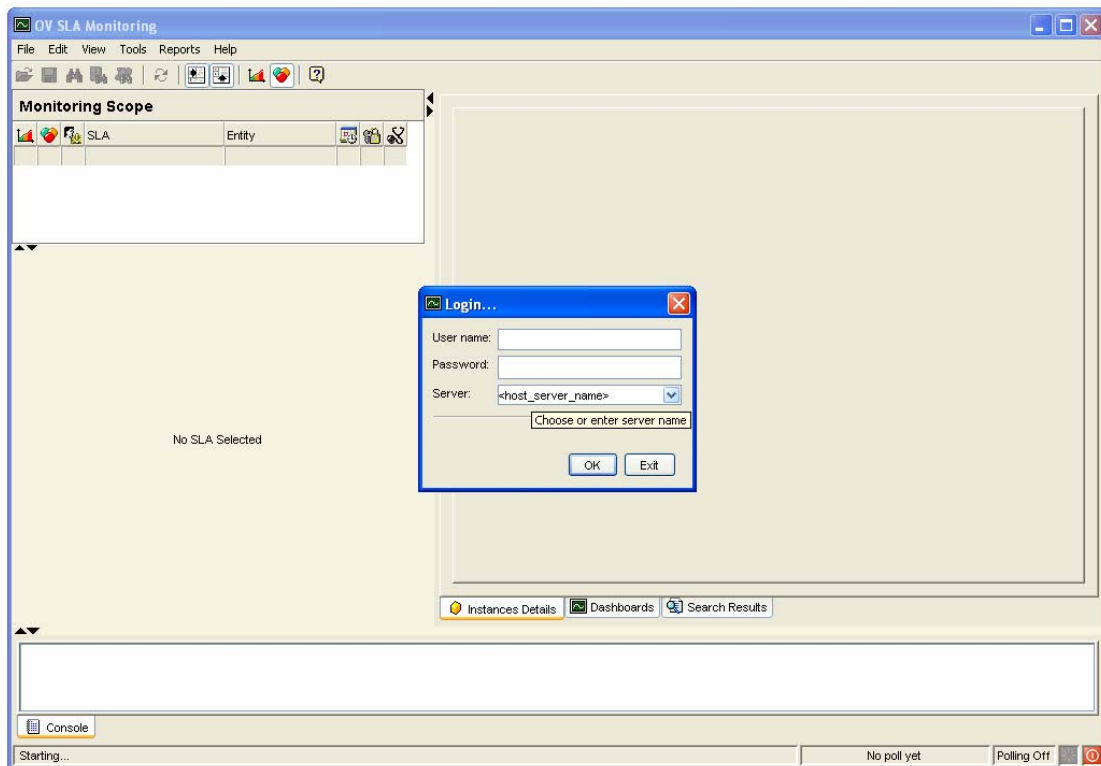
The OpenView SLA Monitoring connects to the platform through a Presentation Server.

To connect to the Presentation Server, the operator has to enter a **Name**, a **Password** and the name of a **Server**.

In this version of the product, security is simply based on UNIX security, which means that you have to enter a **Name** and P**assword** corresponding to a user account existing on the server platform.

The **Server** field corresponds to the Presentation Server to which you want to connect the SLA Monitoring. Its syntax is the following:

[PresentationServerName@]servername.domain[:port_number]

Where:

- **PresentationServerName** is optional. By default, it is replaced by the "defaultServer" value.

- **Servername.domain**.is the name of the server that hosts the SQM Presentation Server. It is the result of the command `hostname` executed on the server.

- **port_number** is optional. By default, it is set to 7171 (default port of the Corba daemon).

2.2 SLA Monitoring Perspectives

Figure 3   Perspectives in SLA monitoring
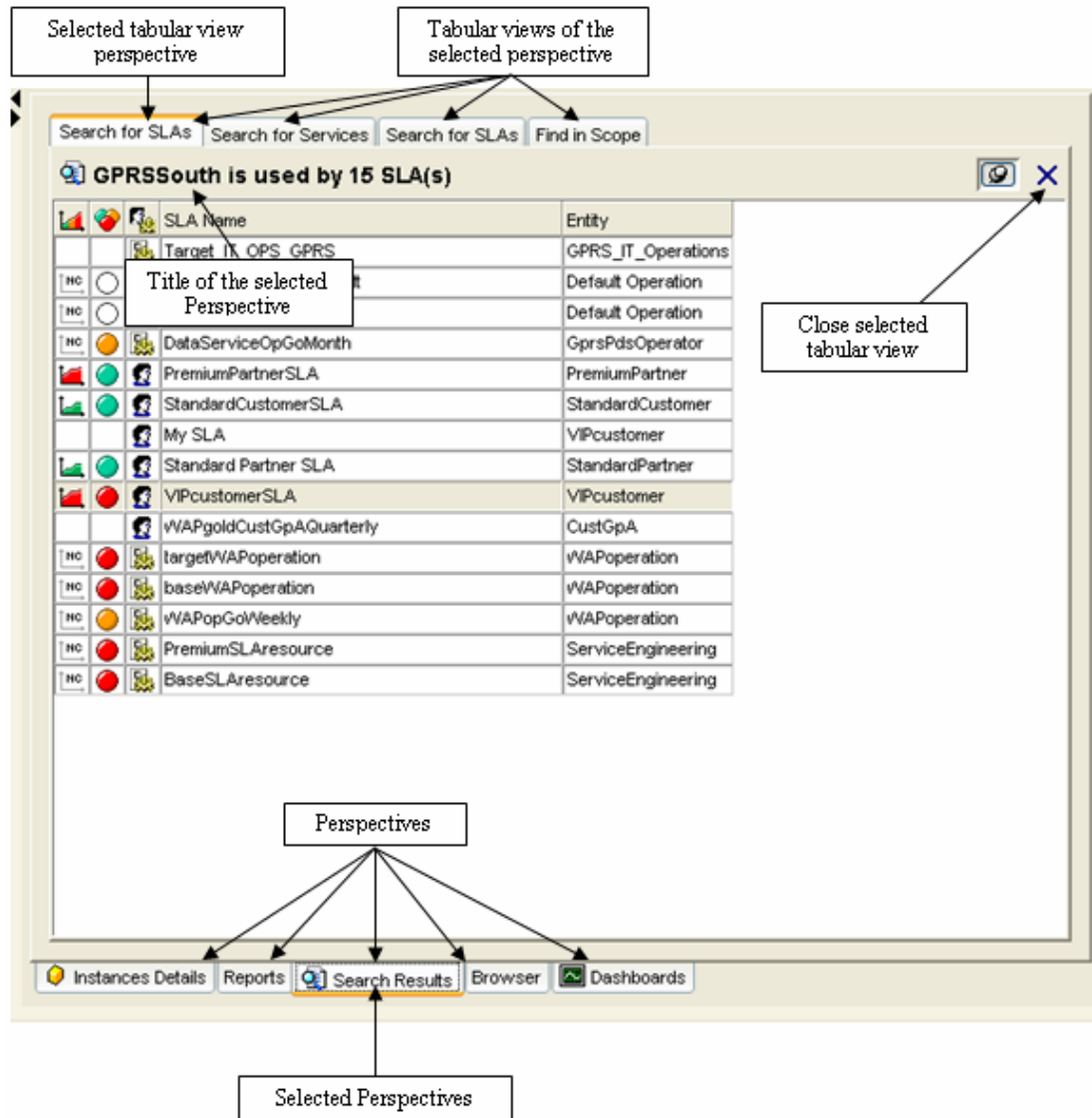
The information displayed in the SLA Monitoring is organized by category of information. Each category of information is grouped in a "perspective".

Each perspective can contain tabbed views:

- **Instances Details**
  Display information on a SLA, a service or a component.
  See 3.2.5 Understanding the graphical representation for a complete explanation of these views.

- **Reports**
  Display the SQM reports.

- **Search Result**
  Display the results of actions "Search for SLAs", Search for Services", "Find in scope…"

See 3.2.6.3 How to search for SLAs, Services or Services components for a complete explanation of these views.

- **Browser**
  Display Web Pages opened by customizable external application launchers

- **Dashboards**
  Contain the dashboards defined by the user. See 3.5 How to build dashboards.

2.3 SLA Monitoring Menu Bar

The standard menu bar gives the following options:

- **File**

	Define Monitoring Scope	Displays the "Scope Definition" dialog box, which retrieves SLAs based on a set of criteria to add them to the list of SLAs to monitor (Ctrl+O)
	Save current configuration	Saves the current configuration on the server (Ctrl+S)
	Reconnect	Reconnects to the Presentation Server
	Exit	Exits the application (Alt+F4)

- **Edit**

	Find in Scope	Searches for Services or Service components in the current SLA or in the currently monitored SLAs (Ctrl+F)
	Search for SLAs	Retrieves all the SLAs that reference the selected service or the selected component
	Search for Services	Retrieves all the services that reference the selected component

- **View**

	Show/Hide Monitoring scope	Shows or hide the bar containing the SLA list and the currently selected SLA tree (Ctrl+M)
	Show/Hide bottom panel	Shows or hides the bottom part of the main window
	Bottom Dashboard Placement	Locates the Dashboard: - in the bottom part of the window when the menu is checked. - in the right part of the window when the menu is not checked.
	Display Compliance	Selects the SLA service compliance display in the SLA Bar
	Display Objective	Selects the SLA service objective display in the SLA Bar

- **Tools**

⟳	Polling Refresh	Forces polling refresh (F5)
	Launch	Displays the list of external applications you can launch from the Monitoring
	Options	Opens the general options dialog box

- **Reports**

  Displays the SQM Reports that can be opened in the SLA Monitoring.

  These reports are available if the SQM Reporting Module is installed

- **Help**

[?]	Help Topics	Displays this User Manual (F1)
	hp OpenView on the Web	Starts a web browser and connects to the hp OpenView home page
	eCare Support	Starts a web browser and connects to the hp OpenView support page
	About	Displays information about the application

2.4 SLA Monitoring Toolbar

The most common actions available on the Menu bar are also available as shortcuts on the Toolbar.

Figure 4   **SLA Monitoring Toolbar**
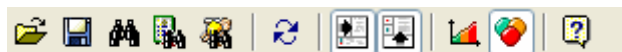
2.5 Contextual Menus

If you right-click on some items, contextual menus are displayed.

2.6 How to get help?

2.6.1 Using the console and the bottom bar

The SLA Monitoring **Console** displays messages providing information on the actions that you have performed.

The Console is displayed in the bottom part of the Window.

If the Console is not visible:

- Either the button 🔲 is not pushed, then click on it

- Or, the horizontal split bar has been moved to the bottom down. In that case, drag and drop the split bar up.

Messages are also displayed on the Status bar of the screen. Three levels of messages can be displayed:

- 🗨️ Information message

- ⚠️ Warning message

- ❌ Critical message

- Critical messages are displayed in **red bold**.

- The figure below shows all the information available.

Figure 5   Getting help using the Console and the Status bar
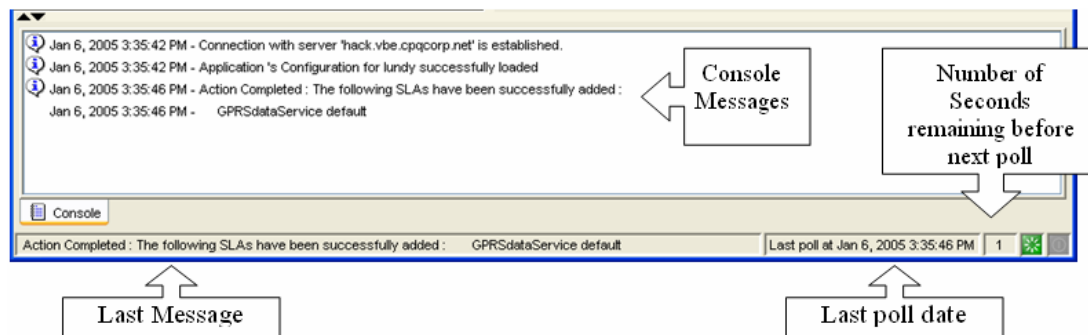
2.6.2   Using the help menu

There is no Context-Sensitive Help available in this version of the SLA Monitoring.

The **Help** menu provides four options:

- **Help Topics**
  Displays the HTML version of this manual.

- **hp OpenView on the Web**
  Starts a web browser and connects to the hp OpenView home page.

- **eCare support**
  Starts a web browser and connects to the hp OpenView support page.

- **About**
  Displays the application version and Copyright information as well as the server to which you are currently connected to, as illustrated by Figure 6.

Figure 6   About window
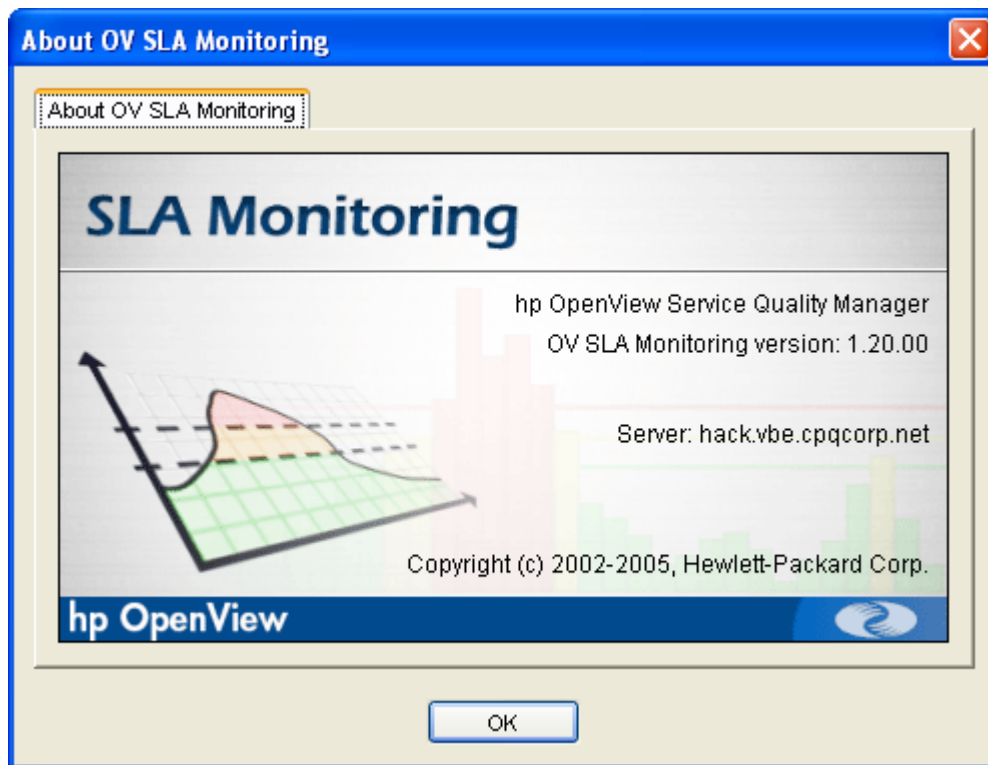
2.6.3   Using tooltips

Tooltips can be displayed when moving the cursor for many items of the User Interface (such as charts, tables, values, and thresholds). They provide context sensitive additional information.

Chapter 3

Monitoring

This chapter describes the main features of the SLA Monitoring User Interface. It contains the following sections:

- Section 3.1, How to define the SLA scope?

- Section 3.2, How to track SLA degradations and violations?

- Section 3.3, How to monitor a parameter in a chart?

- Section 3.4, How to monitor parameters in a Current Value Table?

- Section 3.5, How to build dashboards?

- Section 3.6, How to display SQM Reports?

- Section 3.7, How to set SLA Monitoring options?

- Section 3.8, How to manage Service Model changes?

3.1 How to define the SLA scope?

Once connected to the Presentation Server, SLAs to be monitored must be selected.

You access to the Scope definition dialog box by clicking on the ![icon] icon of the toolbar, selecting the **File-Define Monitoring Scope** submenu or using the Ctrl+O shortcut.

Selection of SLAs is done though the **Scope Definition** dialog box, which allows searching of SLAs matching some criteria, and to add or remove SLAs from the list of SLAs to monitor.

3.1.1　The Scope Definition dialog box

Figure 7　　　　**Scope Definition**
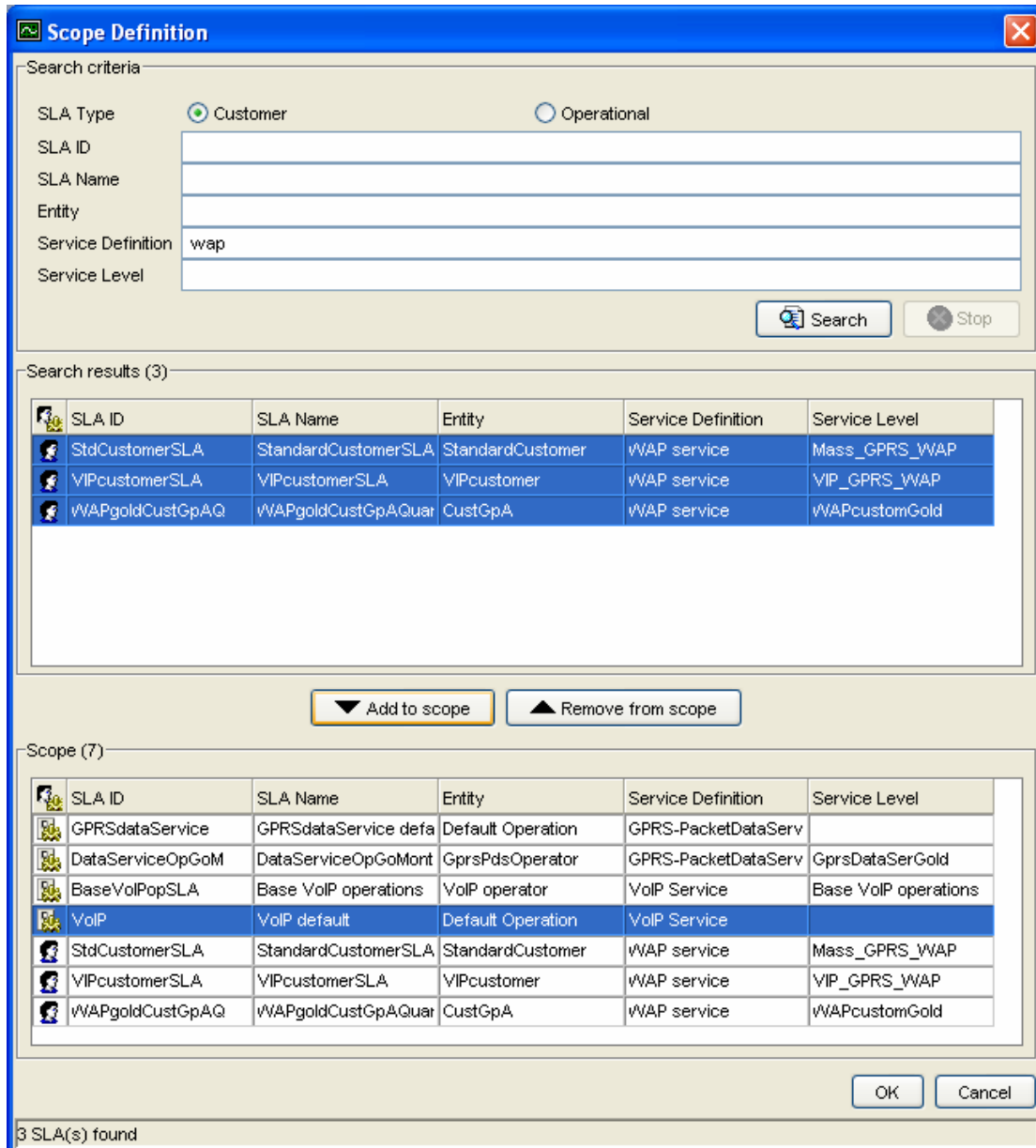
This dialog box contains three main areas.

- The **Search criteria** section:
  Allows the operator to enter a filtering criteria to list existing SLAs.

- The **Search Result** section:
  Contains the list of the SLAs that match the **search criteria**

- The **Scope** section:
  Contains the list of the SLAs that are currently in the scope

The lists have some capabilities.

- Click on a column header to sort items using this criteria
  Click another time on the same column header to sort in the opposite order.

- Put the mouse cursor on the separation of two column headers. Press the left
  button of the mouse and drag it on the right to extend the width of a column

- Put the mouse on a column header. Keep the key <Ctrl> pressed and horizontally move the mouse. The column moves too.

3.1.2 Adding a SLA

1. **Open Scope Definition** dialog box

2. Enter your search criteria in the Search criteria section of the dialog Box. Possible criteria are:

   - SLA Type: Customer or Operational

   - SLA ID: the identifier of the SLA

   - SLA Name: the name of the SLA

   - Entity: the customer name in case of Customer SLA type or the operation in case of Operational SLA type

   - Service Definition: the Service Definition which was used to create the SLA

   - Service **Level**: the name of the Service Level associated to the SLA

Note

It is possible to use wildcards (*) in the criteria fields.

Example : SLA_* retrieves all strings starting with SLA_

Remark 1: a criteria "string" that contains no wildcard is interpreted as *string*.

Remark 2: Criteria are case insensitive

3. Once you have entered your selection criteria, click on the Search button to start the search for matching SLAs on the server.

4. The **Search results** section is then updated with matching SLAs. The number in parenthesis is the number of SLAs found. You can select one or more SLAs to add or remove from the scope.

5. The **Scope** section of the dialog box displays the list of currently selected SLAs. The number in parenthesis is the number of SLAs in the scope

6. Once you have finished defining your SLA scope, click the OK button to validate your choice.

The following box appears:

Figure 8   **Scope update box**
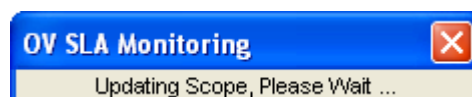
Note

The SLA scope is part of the configuration and can be saved (either manually by clicking on the 💾 icon of the toolbar or on exit).

3.1.3 Removing a SLA

1. Open the **Scope Definition** dialog box

2. Select the SLAs to remove in the **Scope** section (the bottom one)

3. Click on **remove from scope** button

Important

You should be aware of the fact that removing SLAs will have the following impacts:
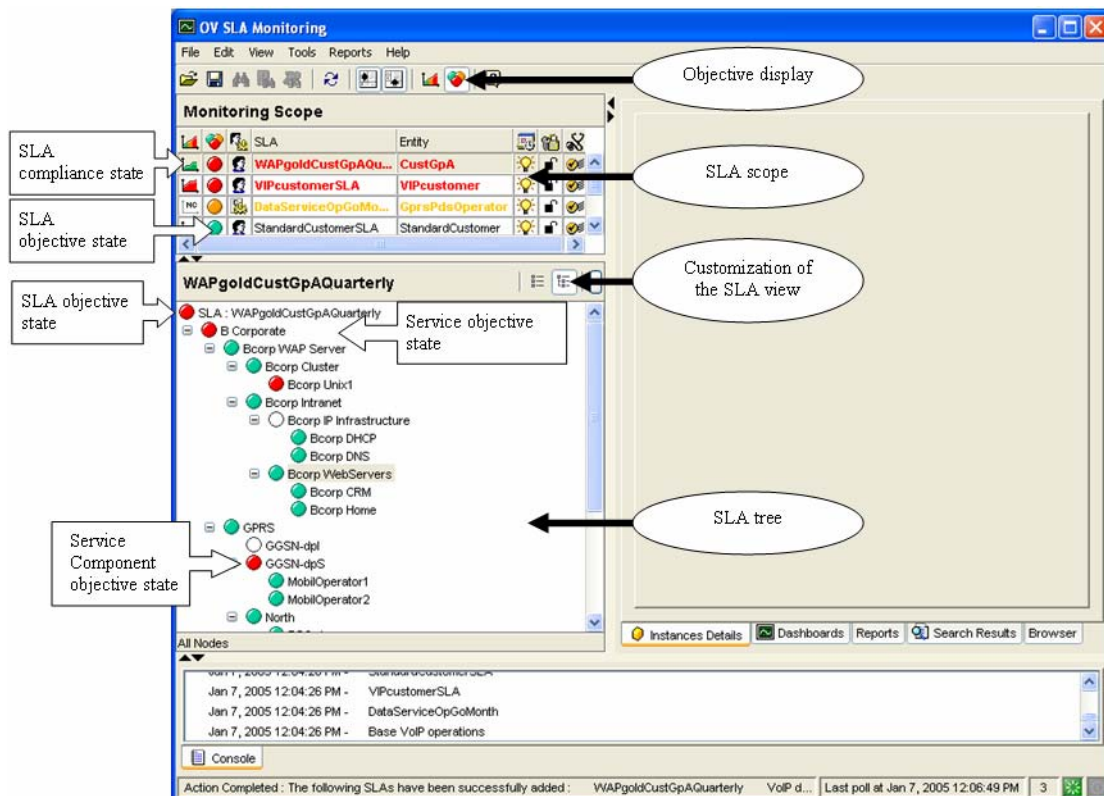
- All details windows related to the SLAs removed will be closed

- In the Dashboards, all parameters related to the SLAs removed will be removed.

3.2 How to track SLA degradations and violations?

3.2.1 Main window with Objective display

Once you have selected the SLA scope, the following window appears:

Figure 9   **SLA Monitoring Main screen – Objective display**

As **Objective Display** is selected, the SLA names and Entity names in the SLA scope reflect the SLA objective state. They appear in black when the objective state is normal or undefined, **orange bold** when the objective state is degraded and **red bold** when the objective state is violated.

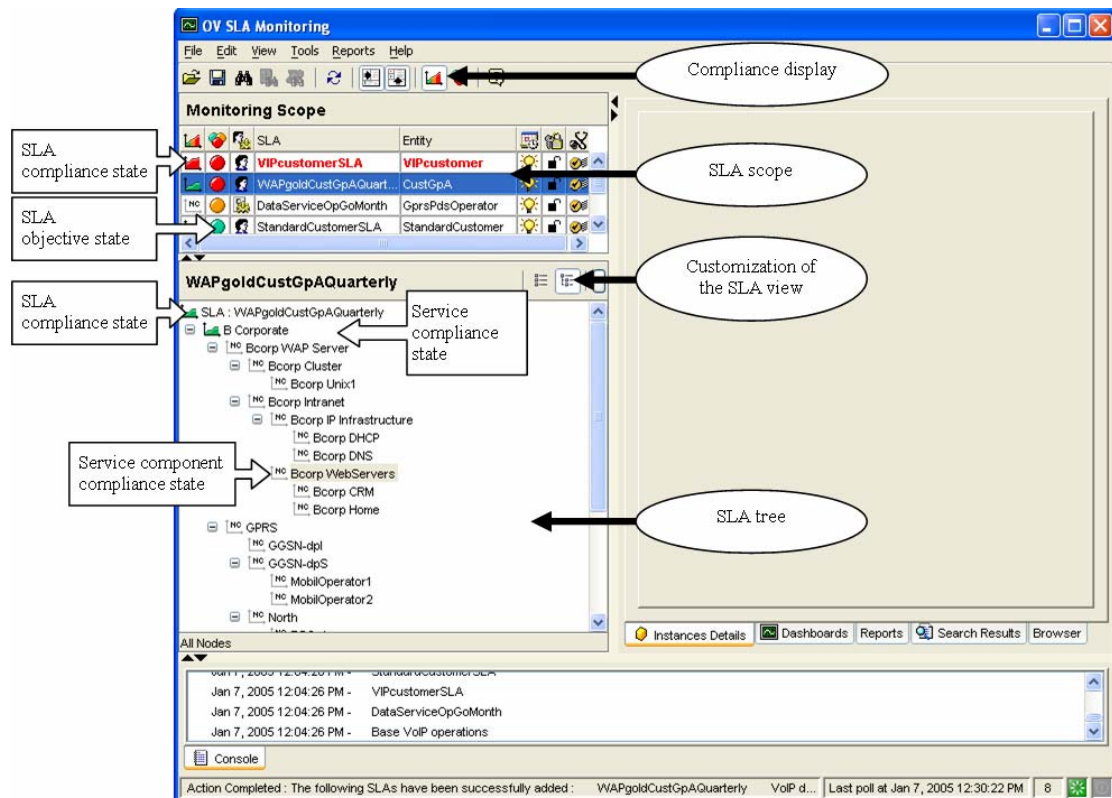### 3.2.2 Main window with Compliance display

You can also select the Compliance display using the ![icon] icon of the toolbar. In that case, Main screen will be changed into the following one:

Figure 10   SLA Monitoring Main screen – Compliance display

When **Compliance Display** is selected, the SLA names and Entity names in the SLA scope reflect the SLA compliance state. They appear in black when the SLA compliance state is normal, **orange bold** when the SLA compliance state is degraded and **red bold** when the SLA compliance state is violated.

3.2.3 How to interpret the SLA Monitoring Main screen?

The list of monitored SLAs (SLA scope) appears in the upper left side of the screen. This list displays information on the monitored SLAs:

- Identity (Name, associated Entity)

- Compliance and Objective State

- SLA Type (Customer SLA / Operational SLA)

- Service Duty (On Duty / Off Duty)

- Administrative State (Locked / Unlocked)

- Operational State (Enabled / Enabled but the available status is not "Normal" , Disabled)

- The tree below the list of monitored SLAs represents the currently selected SLA tree. Each service instance/service component instance of the SLA is also associated to an icon representing its state. This icon can represent the compliance or the objective state, depending on the type of display selected (for Compliance display and for Objective display).

SLA Compliance

The SLA compliance state is based on the SLA parameters non-compliance period observed and compared to a maximum period authorized for non-compliance.

SLA Objective

The SLA objective state is an aggregation of the SLA parameters objective states.

SLA/Service/Component state

SLA/Service/Component states are refreshed at each polling period or each manual refresh. The polling period is settable through the Options submenu, which is described in section 3.7.2).

The icon representing the state can have the following colors/shapes:

Table 1   Objective icons table

Color	Description
(green)	Normal state
(orange)	Degraded state
(red)	Violated state
(gray)	Unknown state: there are objectives defined but the platform has not be able to determine it Example : no value received for the parameters of the node
(blank)	Either: there is no objective defined on the node. Or: There is an objective defined on the node but no objective has been received yet.

Table 2   Compliance icons table

Color	Description
(green)	Normal (compliant)
(orange)	Degraded
(red)	Violated
(gray)	Unknown compliance state: compliance objectives are defined but the platform has not be able to determine it
	Either: There is no compliance defined on the component Or: There is compliance defined on the component but no objective has been received yet

3.2.4   SLA Bar customization

The SLA Bar displays the Services and Service Components used by the selected SLA in the SLA table.

3.2.4.1 Hierarchy View

In the Hierarchy view, the SLAs services and service components are displayed as a tree.

Figure 11   SLA Hierarchy View
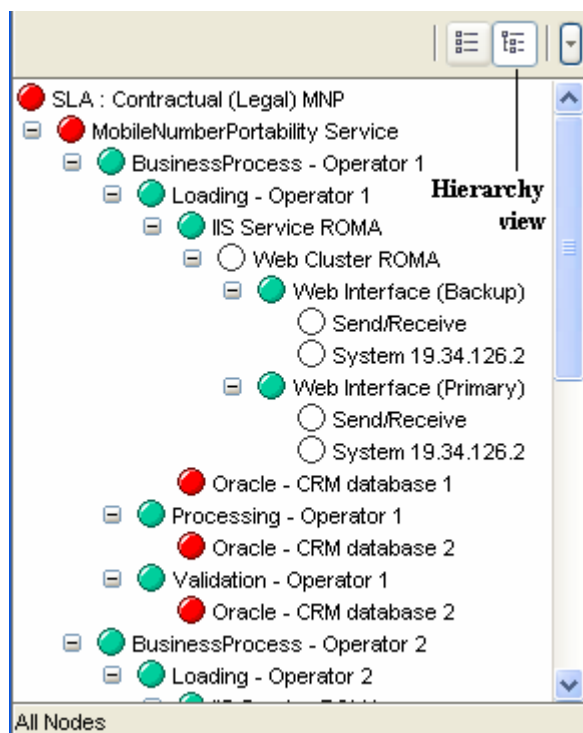
Note

In a Hierarchy View, a shared service component is represented as a node <u>every time</u> it is referenced in the model. Example, the service component "Oracle – CRM database 2" is referenced by the components "Processing Operator 1" and "Processing Operator 1". The two nodes represent the same service component.

3.2.4.2 List View

List View: the Services and Service Components are listed below the SLA. The order is the alphabetical order. Services and Service components are grouped by their definition

Figure 12   SLA List View
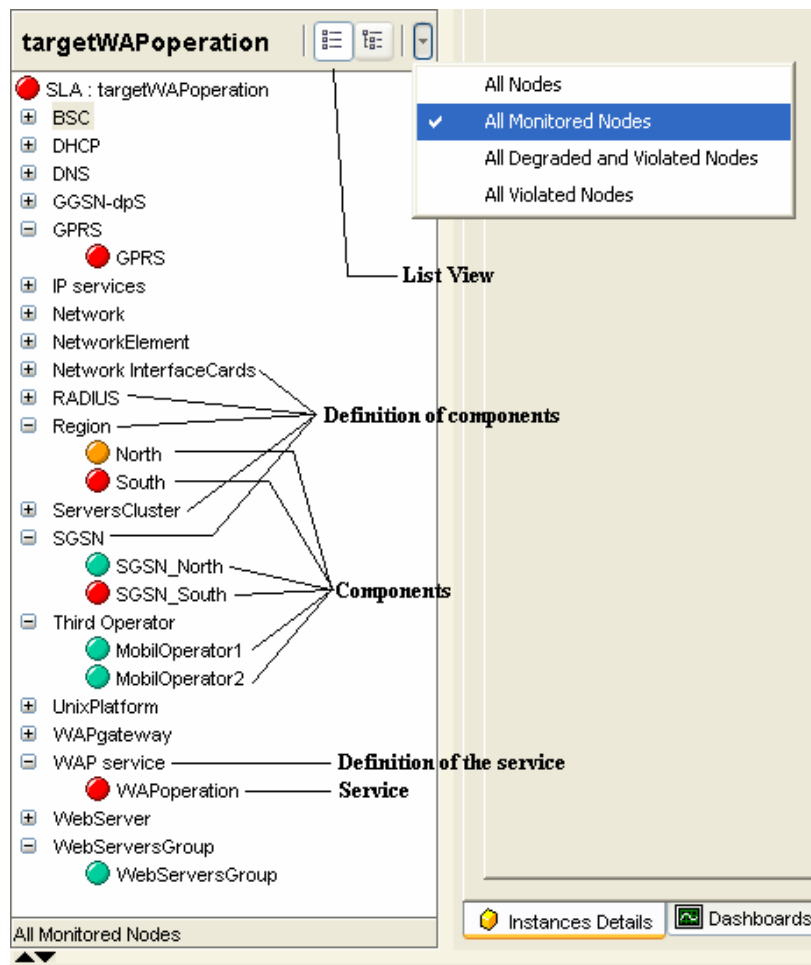
Note

In a List View, a shared service component is represented only once.

3.2.4.3   Filtering on the state of the node

When the number of Service Components in a Service and/or the number of Services referenced in a SLA are huge, it can be difficult to locate the nodes representing violated Services and Components among all the monitored Services and Components.

The Hierarchy View and the List View can be filtered in order to reduce the number of nodes displayed.

The menu close to the Hierarchy View button allows to display

- All Nodes.

- All Monitored Nodes (all the nodes that have an associated Objective State : (green), (orange), (red), (gray) (or equivalent icons for the compliance)

- All Degraded and Violated nodes

- All Violated Nodes

Figure 13   SLA View - menu Filter
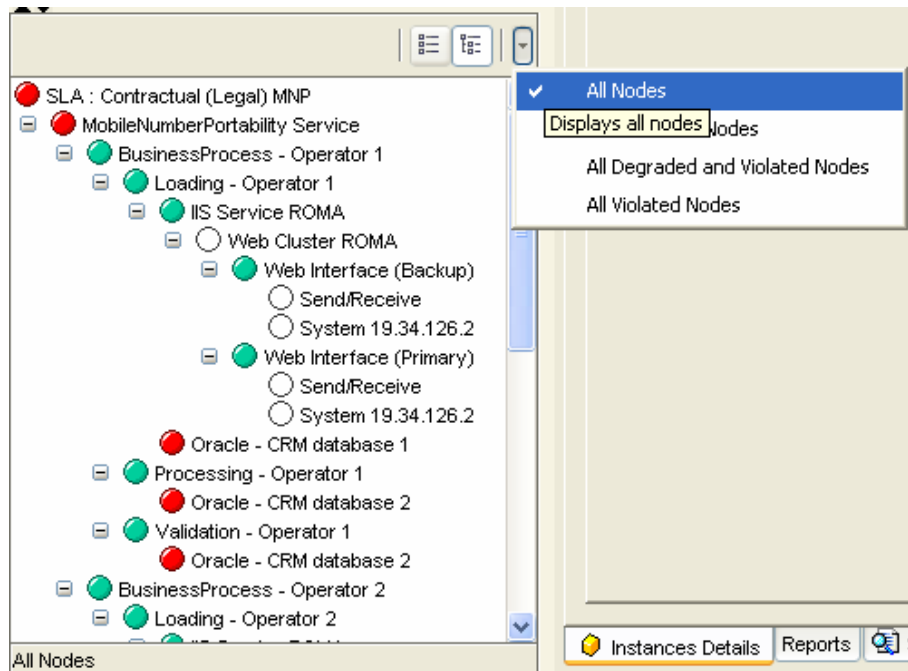
For example, if the operator selects List View, "All Violated Nodes", then the list view will contain only the Violated nodes.

Figure 14   SLA View with the Filter "All violated Nodes"
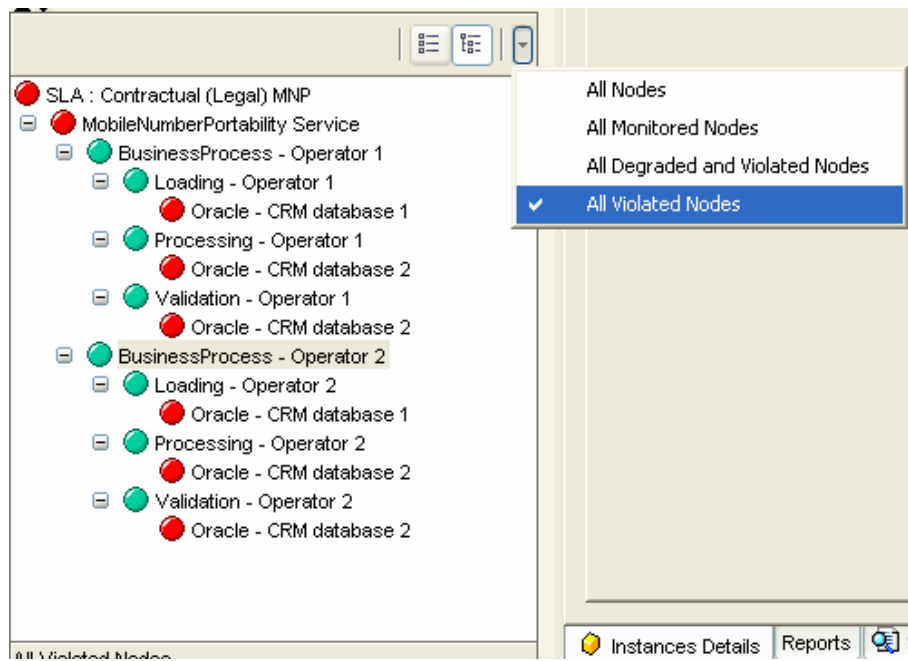
Note

Each time the SLA Monitoring receives the information that a new node is violated, it is automatically added to the list.

Each time the SLA Monitoring receives the information that a violated node is no more violated, it is automatically removed from the list.

3.2.4.4 Associating an icon to a Definition

Another way to identify a Service Component is to assign an icon to its Definition.

This Icon is specific to a Definition, so all the Components based on the same Definition will automatically have the same icon.

The icon is chosen by the operator, saved with his (her) configuration when (s) clicks on the button Save (💾). 2 Operators can associate different icons to the same Definition.

To associate an icon to a component definition, select a node that represents a component definition (no objective state icon) or a node that represent a component. Open the contextual menu and select the menu "Definition icon…".

Figure 15   **"Definition icon…" menu in the SLA View**
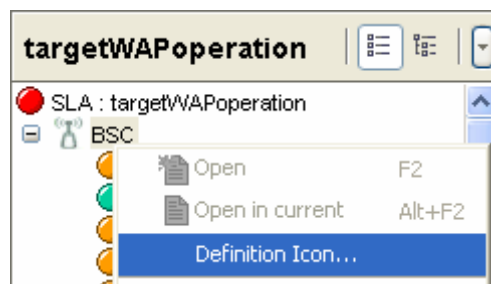
The Dialog box "Select an icon for a definition" is displayed. Select the icon you want to use for the definition. Click Ok to confirm.

Figure 16   **"Select an icon for a Definition" dialog box**
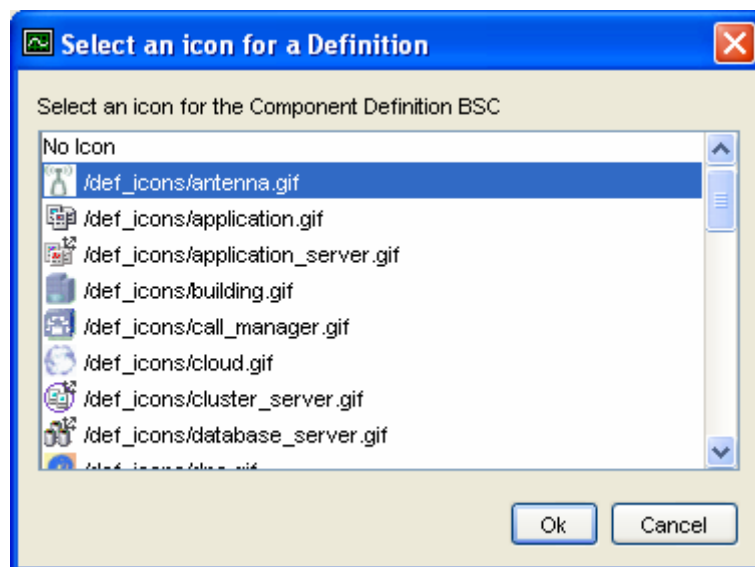
Note

Select "No Icon" if you don't want to associate an icon to the definition.

Figure 17   **Icon associated to a component Definition, "Group by definition" deactivated**
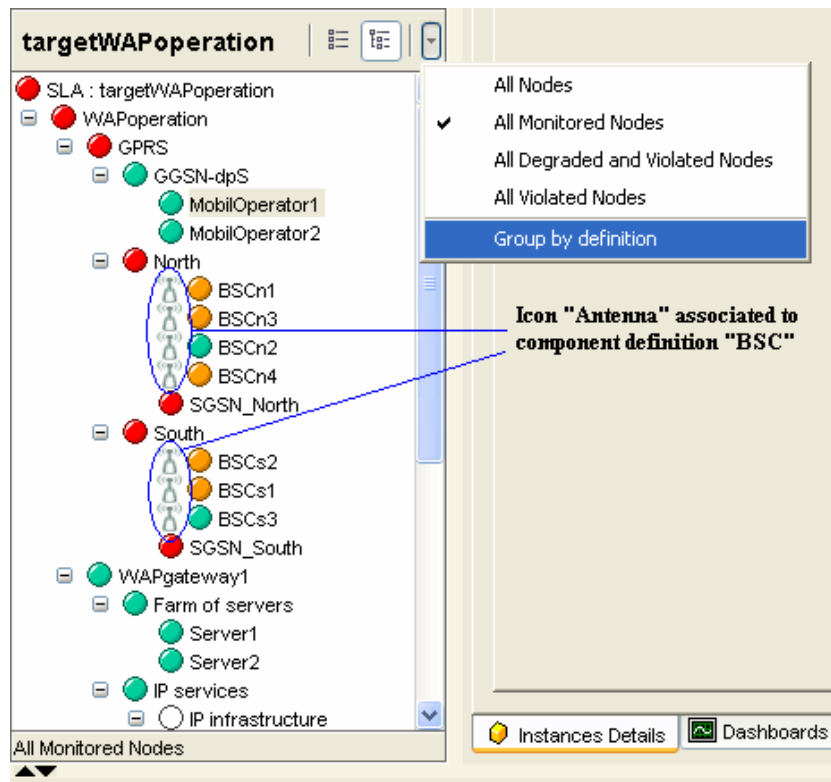
Figure 18   **Icon associated to a component Definition, "Group by definition" activated**
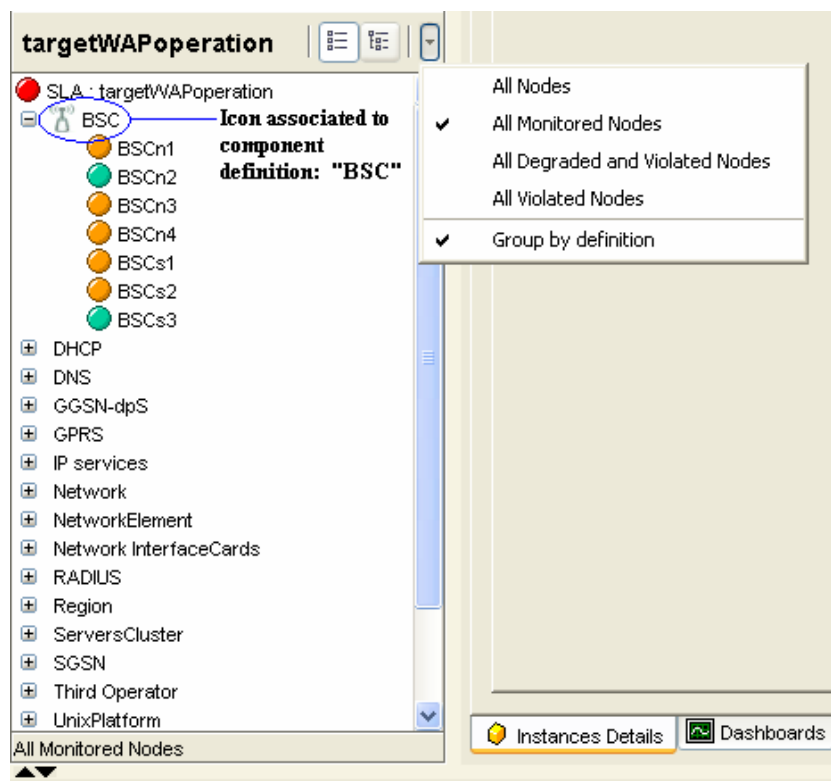
1. If you select a component, the icon is associated to the definition of this component.

2. When the "Group by Definition" is activated, then the icons are displayed on the Definition node.
When the "Group by Definition" is not activated, icons are displayed on every Service Components nodes.

3. All these way to customize the SLA View can be used together. All these settings are saved in the user configuration when the operator clicks on the button Save (🖫)

4. It is possible to add icons in the list of the Figure 16 "Select an icon for a Definition" dialog box.

3.2.5 Understanding the graphical representation

Figure 19   **Understanding the graphical representation**
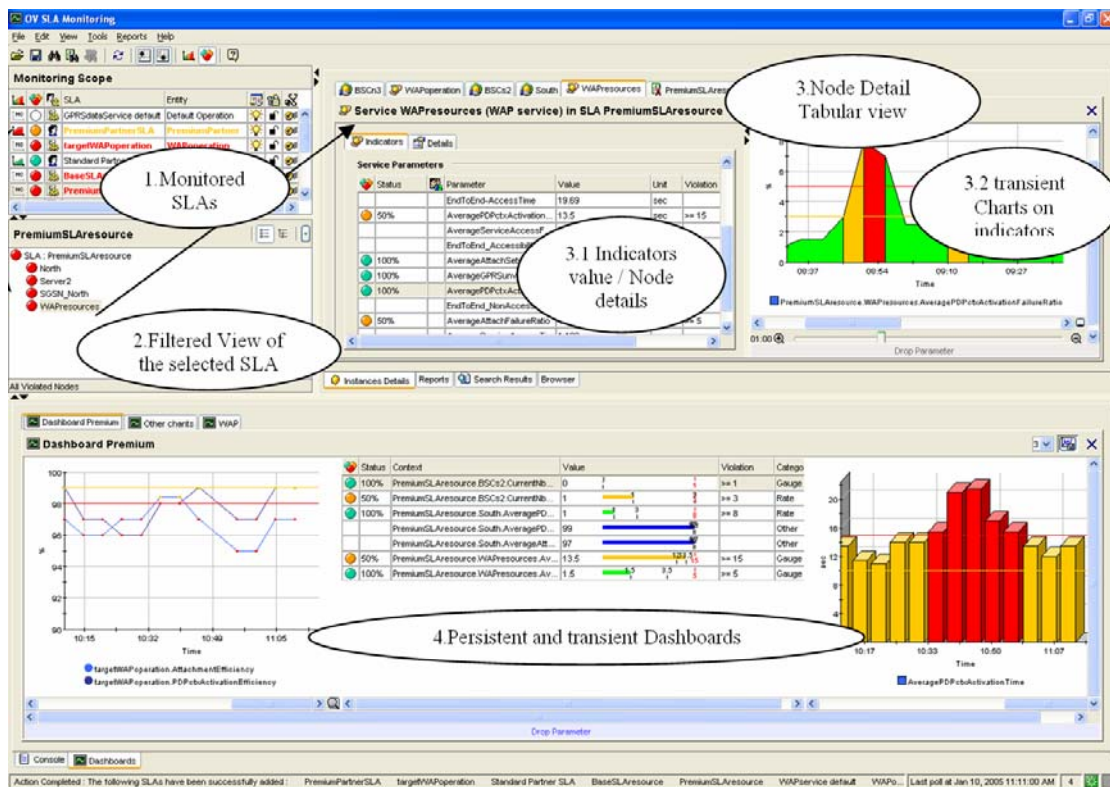
The SLA Monitoring main window is divided into four frames:

1. The list of Monitored SLAs, with their State, Type (customer or operational), Name, Entity and Duty type.

2. The tree of the currently selected SLA.

3. The various **Details tabbed views** giving information about SLA or SLA components. The SLA definition cannot be updated through this application. To modify any item value, such as the SLA monitoring type or the SLA parameters thresholds, you must use the **SLA Administration User Interface** or the **Service Designer User Interface**.

These Details windows may also contain graphs for monitoring the values of one or more parameters.

- The left part contains details on the node (tab "Detail") and parameters values (tab "Indicator")
- the right part can host charts on parameters of the node

4. The multiple dashboards monitor different parameters of different nodes, either as charts or as a value table.

3.2.5.1 SLA contextual menu

After selecting an SLA in the SLA Tree, clicking with the right mouse button will open its contextual menu, giving access to the following options:

Table 3   **SLA contextual menu**

📋	Open	F2	Opens a new details tabbed view on the selected node
📄	Open in current	Alt+F2	Displays the details of the selected node in the visible details tabbed view
	Reports		Lists all the SQM Reports available for SLAs.
	Collapse all		Collapses the SLA tree
	Expand all		Expands the SLA tree
🔍	Find in scope…	Ctrl+F	Searches for Services or Services components in the current SLA or in the currently monitored SLAs
📇	Search for SLAs		Retrieves all the SLAs that reference the selected service or component
📇	Search for Services		Retrieves all the services that reference the selected component
	Launch		Lists external applications that can be started from the Monitoring for the selected SLA

After selecting an SLA in the Monitored SLA list (above the tree), clicking with the right mouse button will open its contextual menu, giving access to the options *Open*, *Open in Current* and *Launch* described above.

3.2.5.2 Getting information about an SLA

When you double click on a selected SLA, or select one of the **Open** or **Open in current** item in the SLA contextual menu, an SLA information tabbed view is opened, with five different tabs as illustrated in Figure 20:

Figure 20   SLA details tabbed view – Indicators
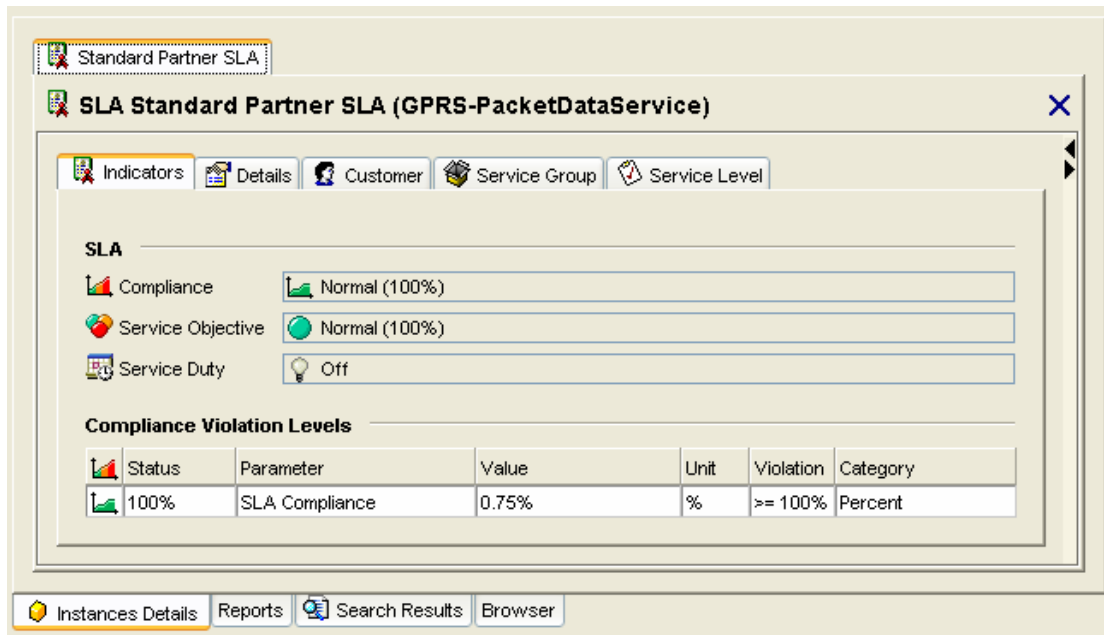
The **Indicators** tab contains information about:

- The Compliance state and Compliance status of the SLA

- The Service Objective state and Service Objective status of the SLA

- The Service Duty type

- The compliance Violation Levels

State can have the following values:

- No Objective Defined

- Normal

- Degraded

- Violated

- Unknown

- **Status** is a value expressed in percentage.

Service Duty can have the following values:

- 🔆 On Duty, which means that the current time falls within the service working hours

- 💡 Off Duty, which means that the current time falls outside the service working hours

Figure 21   SLA details tabbed view – Details

The **Details** tab contains detailed information about the SLA. Information is separated into three sections:

Characteristics

Contains information relating to the main characteristics of the SLA.

Compliance

Contains information about the SLA compliance.

Monitoring States

Contains information related to the current state of the SLA. There are three states for every Object:

- The **Administrative State**, which can be:

  Locked:
  The resource is administratively prohibited from performing services for its users.

  Unlocked:
  The resource is administratively permitted to perform services for its users.

⬇ **Shutting Down:**
The node is not used.

- The **Operational State**, which can be:

  ☑️**Enabled**:
  The resource is partially or fully operational and available for use.

  ❌**Disabled**:
  The resource is totally non-operational and unable to provide services to users.

- The **Availability Status**, which can be:

  Normal (Available)

  In Test
  The resource is undergoing a test procedure. If the administrative state is locked or shutting down then normal users are precluded from using the resource and the control status attribute has the value **reserved for test**. Tests that do not exclude additional users can be present in any operational or administrative state but in these cases the condition **reserved for test** will not be present.

  Power off
  The resource is not powered on. For example, a fuse or other protection device is known to have removed power or a low voltage condition has been detected. The operational state is disabled.

  Failed
  The resource has an internal fault that prevents it from operating. The operational state is disabled.

  Off Line
  The resource requires a routine operation to be performed to place it online and make it available for use. The operation may be manual or automatic, or both. The operational state is disabled.

  Off Duty
  The resource has been made inactive by an internal control process in accordance with a predetermined time schedule. The operational state is enabled or disabled.

  Degraded
  The service available from the resource is degraded in some respect, such as in speed or operating capacity. Failure of a test, or an unacceptable performance measurement, has established that some or all services are not functional or are degraded due to the presence of a defect. However, the resource remains available for service, either because some services are satisfactory or because a degraded service is preferable to no service at all. Object-specific attributes may be defined to provide further information indicating, for example, which services are not functional and the nature of the degradation. The operational state is enabled.

  Dependency
  The resource cannot operate because some other resource on which it depends is unavailable (that is: a resource not represented by the same managed object). For example, a device is not accessible because its controller is powered off. The operational state is disabled.

  Not Installed
  The resource represented by the managed object is not present, or is incomplete. For example, a plug-in module is missing, a cable is disconnected or a software module is not loaded. The operational state is disabled.

Log Full
This indicates a log full condition.

- The **Collection Error**
  Text associated to the current error if any.

Figure 22   SLA details tabbed view -–Customer
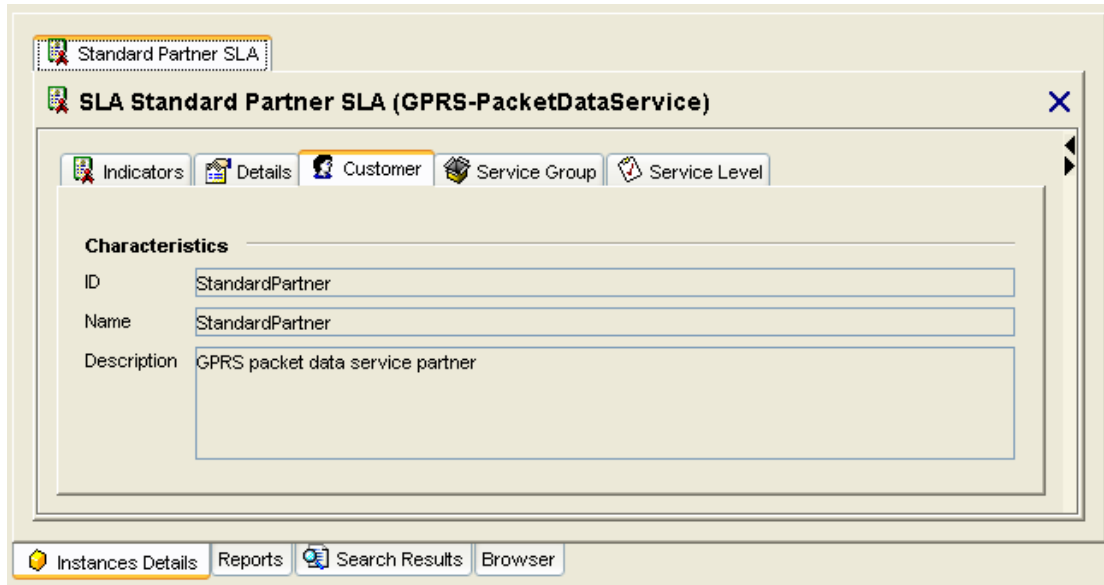
The **Customer** tab contains detailed information about the customer associated to the SLA. This information can be set in the SQM SLA Administration user interface

Note

In the case of an Operational SLA, this tab is replaced by an **Operation** tab containing detailed information about the operation associated to the SLA.

Figure 23   SLA details tabbed view -–Service group
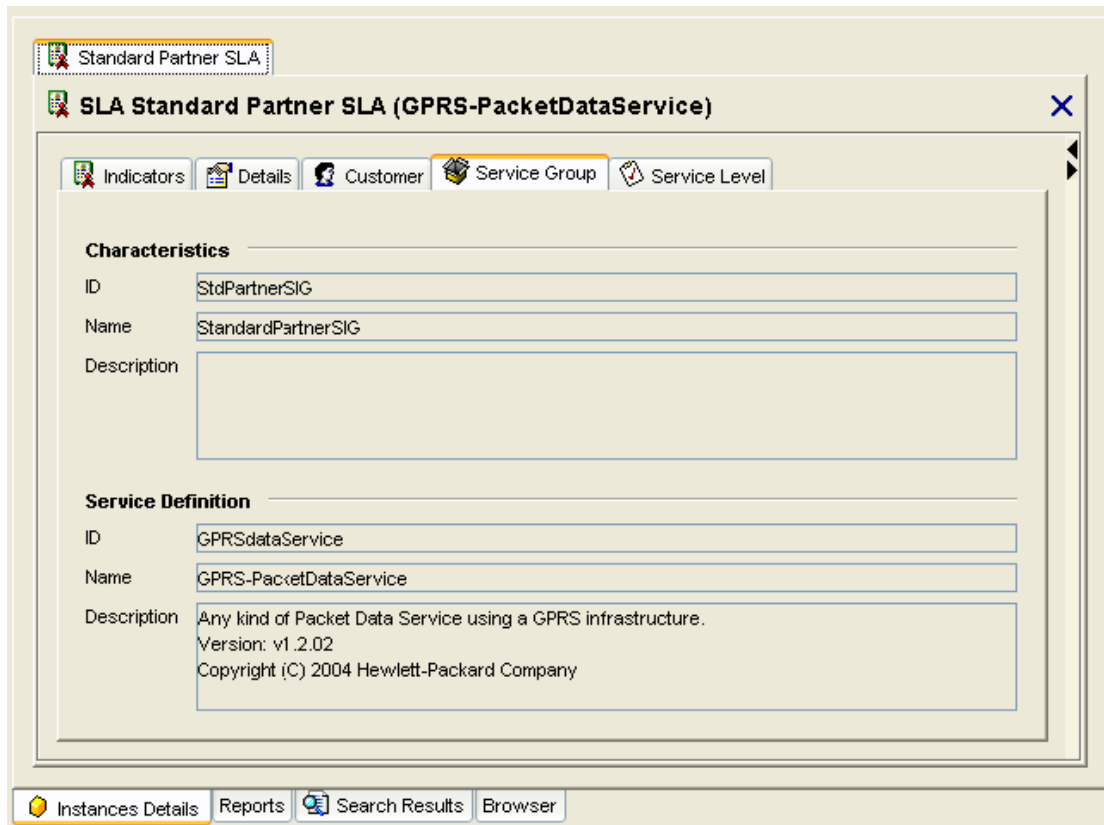
The **Service Group** tab contains information about the Service Group, which is associated to the SLA.

The **Characteristics** section contains the main characteristics of the Service Group.

The **Service Definition** section contains the service definition, which has been used for the set of services composing the service group.

The **Properties** section contains the properties defined for the service group.

Figure 24   SLA details tabbed view - Service level
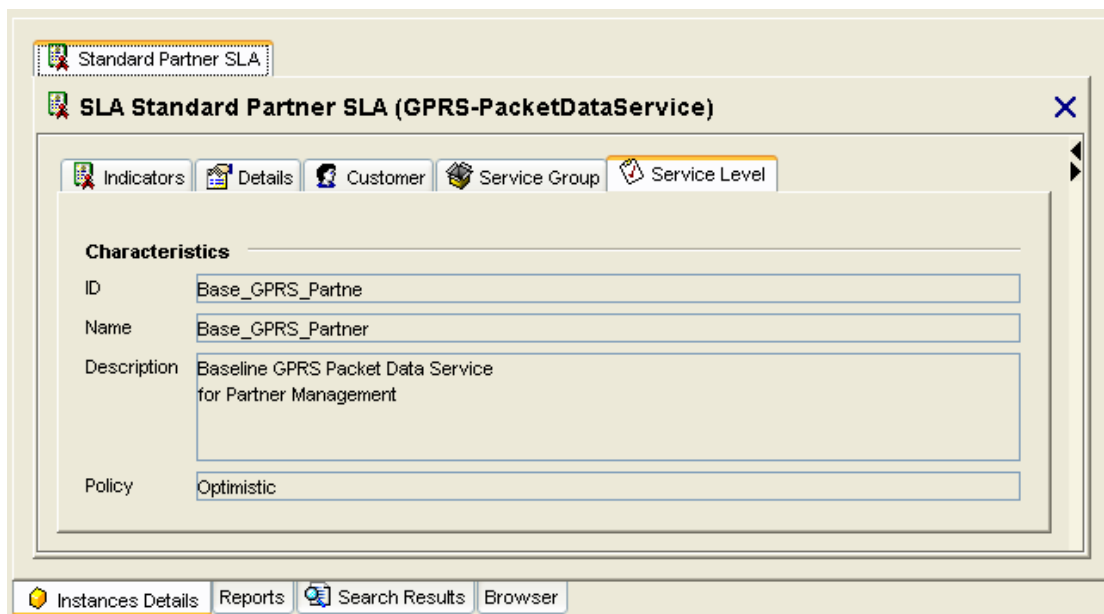
The **Service Level** tab contains information about the Service Level that is associated to the SLA.

3.2.5.3 Service instance and service component instance contextual menu

After selecting a Service or a Component in the current SLA tree, clicking with the right mouse button will open its contextual menu, giving access to the following options:

Table 4   Service/Component contextual menu

	Open	F2	Opens a new details window
	Open in current	Alt+F2	Opens in current details window
	Reports		Lists all the SQM reports available for the selected node
	Collapse all		Collapses the SLA tree
	Expand all		Expands the SLA tree
	Find in scope…	Ctrl+F	Find SLAs, services or components in the current SLA or in the currently monitored SLAs. The filtering is done on their name
	Search for SLAs		Retrieves all the SLAs that reference the selected service or the selected component
	Search for Services		Retrieves all the services that reference the selected component
	Launch		Displays the list of external applications you can start from the SLA Monitoring for the selected node

3.2.5.4 Getting information about a service or a component

When you select a service or a component and you choose one of the **Open** or **Open in current** items of the contextual menu a Details window is displayed, separated into two different tabs as illustrated in Figure 25.

Figure 25   Service details tabbed view - Indicators
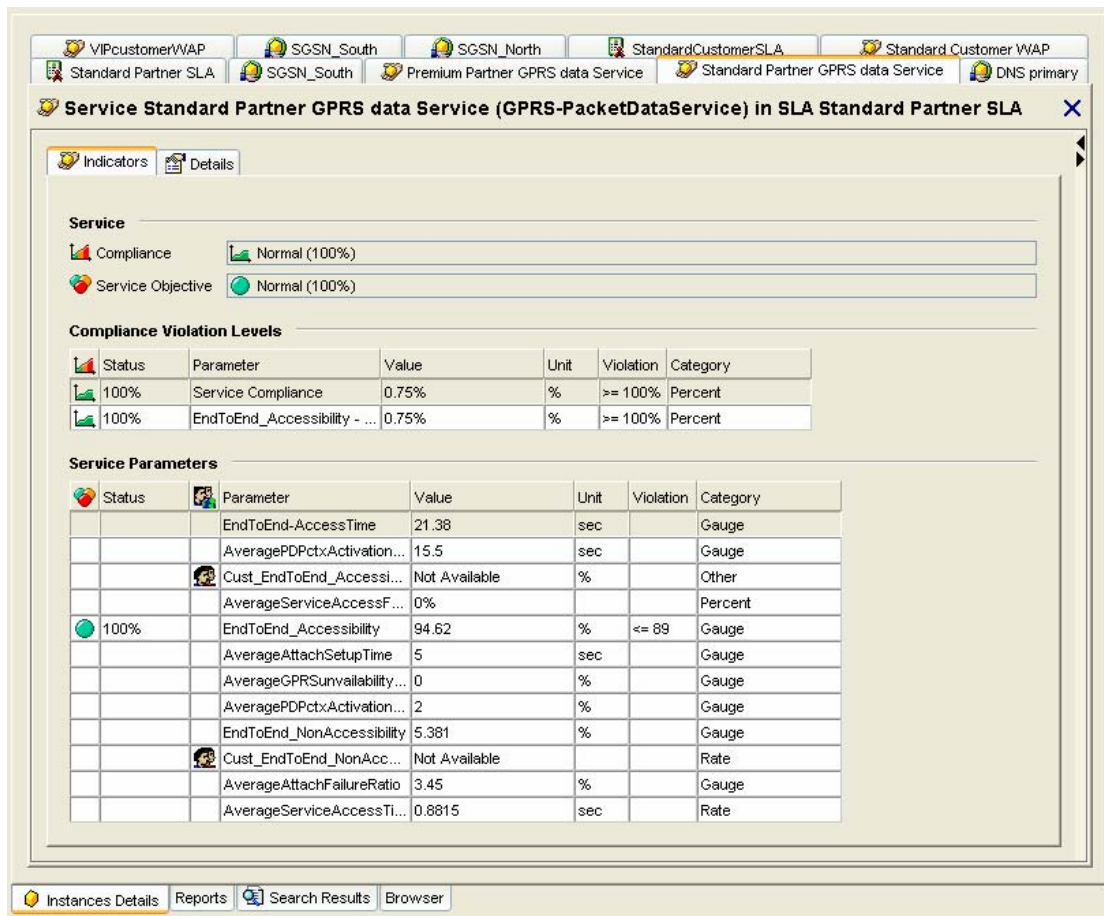
The **Indicators** tab is separated in three sections:

- The **Service (/Component)** section displays the current compliance state, compliance status, service objective state and service objective status of the selected service component.

- The **Compliance Violation Levels** section contains a table listing the parameters on which compliance objectives have been defined.

This table is divided into six columns:

Compliance state: contains an icon representing the parameter compliance state

Status: compliance status, expressed in percentage

Parameter: parameter name

Value: compliance percentage

Unit: percentage

Violation: threshold value for the violation of the compliance on this parameter

- The **Service Parameters** section contains a table listing the component parameters, their current objective state and their value if available.

This table is divided into seven columns:

Objective state: contains an icon representing the parameter objective state

Status: parameter status, expressed in percentage

Customer dependency: indicates if a parameter is customer dependant (⚁) or not

Parameter: parameter name

Value: parameter value, *Not Available* indicates that no value has been received

Unit: parameter unit

Violation: threshold value for the violation of the objective on this parameter

---

Note

When you move your cursor on some of the values displayed, you can make tool tips appear as illustrated in Figure 25.

Figure 26   Service details tabbed view - Details
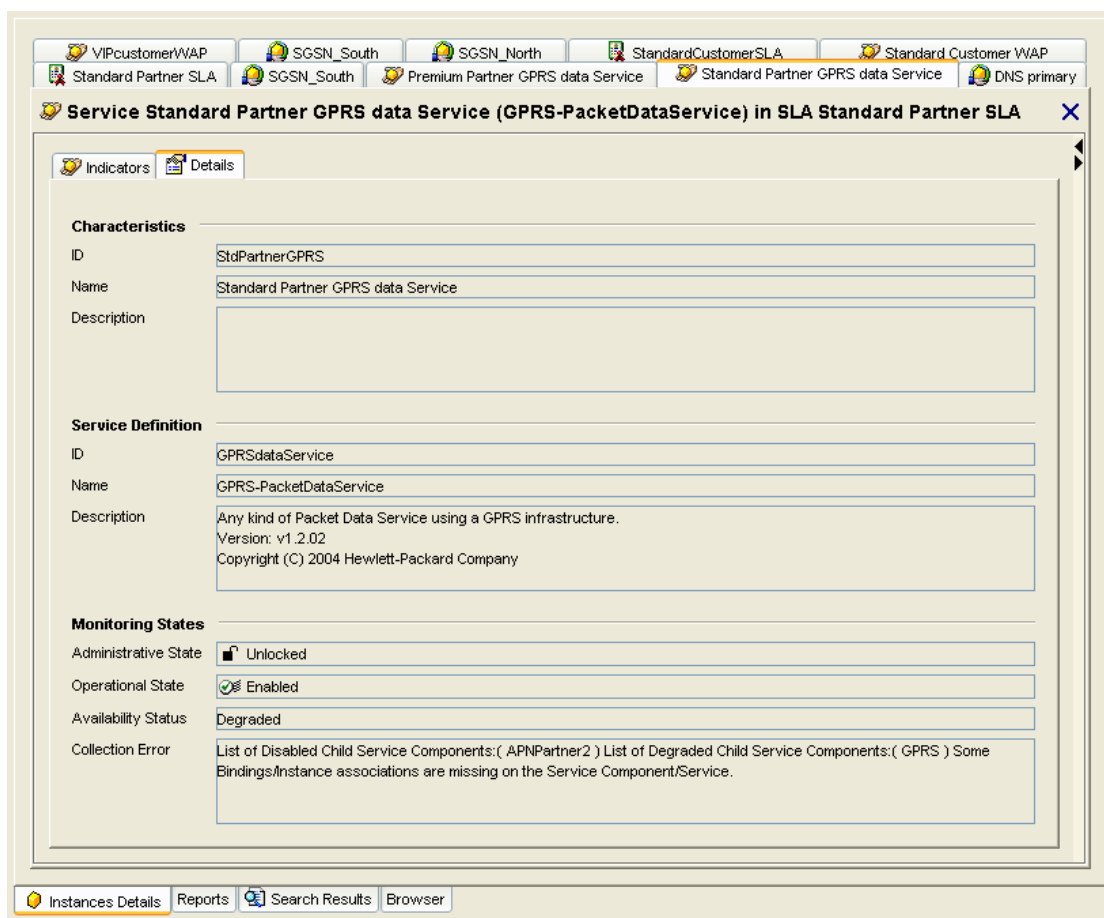
The **Details** tab contains details about the service instance:

- **Characteristics**: the main characteristics of the service (/component).

- **Service Definition**: the service definition on which this service instance is based.

- **Monitoring States**: contains information about the current state of the Service instance. Please refer to the SLA information window in section 3.2.5.2 for more details about the significance of the different states.

3.2.5.5   Parameter contextual menu and sub-menus

After selecting a parameter, clicking with the right mouse button will open its contextual menu, giving access to the following options:

Table 5   **Parameter contextual menu**

	Monitor		Opens the monitor sub-menu. Use any type of chart listed in this menu to create a chart in the right part of the Detail view. These charts won't be saved in the user 's settings.
	Monitor in Dashboard		Opens the monitor in dashboard sub-menu. Use any type of chart listed in this menu to create a chart in a dashboard. These charts may be saved in the user 's settings depending on the dashboard configuration
🖼	Parameter properties		Opens the parameter properties box

Table 6   **Monitor sub-menu**

🖼	Default chart	Ctrl+D	Creates a default chart in the current details tabbed view
📈	Line chart		Creates a Line chart in the current details tabbed view
📊	Area chart		Creates an Area chart in the current details tabbed view
📊	Bar chart		Creates a Bar chart in the current details tabbed view

Table 7   **Monitor in Dashboard sub-menu**

🖼	Default chart	Ctrl+B	Creates a default chart in the selected dashboard
📈	Line chart		Creates a Line chart in the selected dashboard
📊	Area chart		Creates an Area chart in the selected dashboard
📊	Bar chart		Creates a Bar chart in the selected dashboard
	Current Value table		Monitors the currently selected parameter in the Current Value Table of the selected dashboard

3.2.5.6   Getting parameter properties

Right clicking a selected parameter and selecting the **Parameter properties** contextual menu, will open the **Parameter properties** box, which is separated into four different tabs. The **Service Level Objective** and the **Thresholds** tabs are only available if some objectives and thresholds have been defined for the parameter.

Figure 27   Parameter properties - Characteristics

The **Characteristics** tab contains information allowing identification of the parameter:

- Its name and identifier
- The service component it belongs to
- The service instance it belongs to
- The SLA it belongs to

Figure 28   Parameter properties - Definition
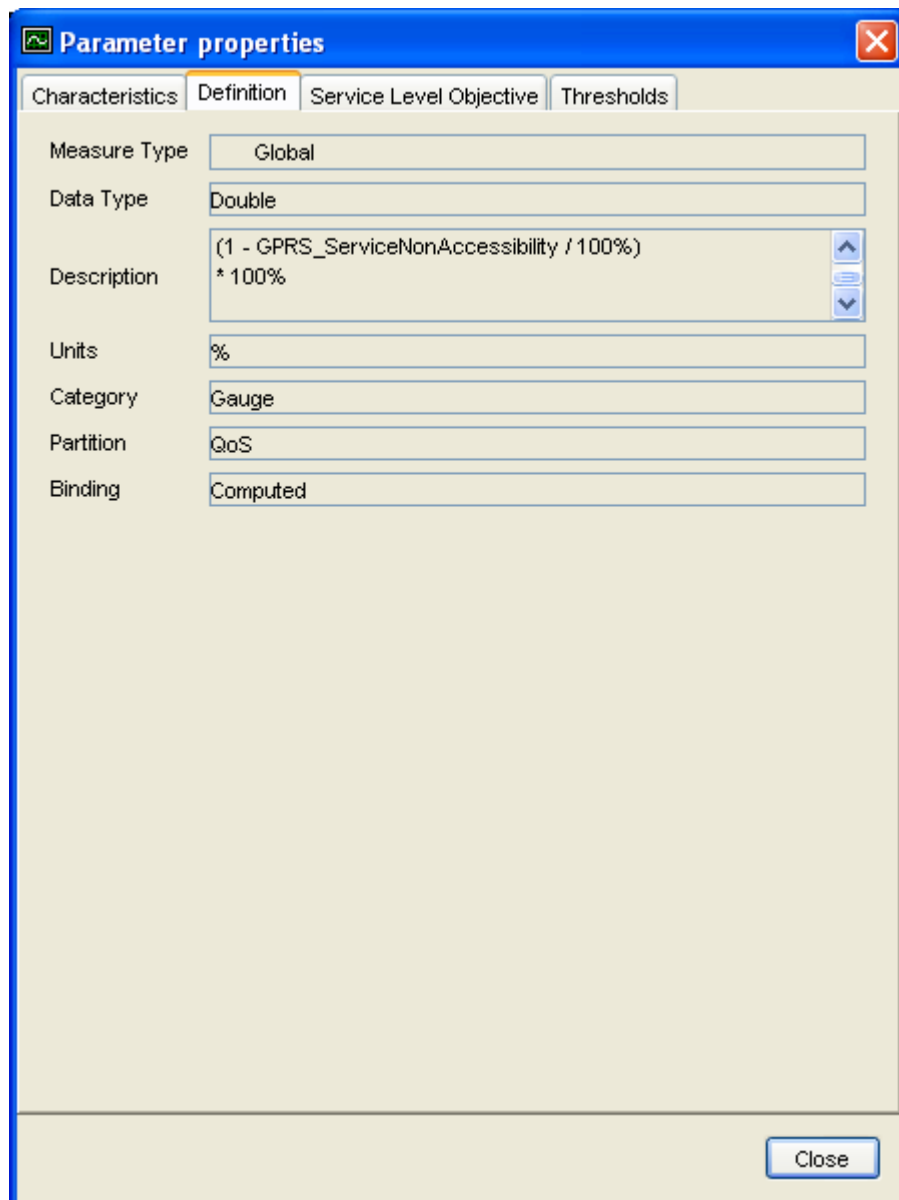
The **Definition** tab displays information about the parameter definition. Parameters are defined at the definition of the Service, using the OpenView **SQM Service Designer UI**.

The **Binding** information indicates if the parameter is a Collected or a Calculated parameter:

- A parameter is **Collected** when its value is directly issued from the data source

- A parameter is **Calculated** when its value is calculated from other parameters collected by SQM

Figure 29   Parameter properties - Service Level Objective

The **Service Level Objective** tab displays information about the objectives defined for the current parameter.

Crossing type can have the following values:

- Up

- Down

- Equal

- Not Equal

- Is Valued

For more details about the significance of these crossing types, please refer to the *SLA Administration UI Users' Guide*.

Figure 30   Parameter properties – Thresholds
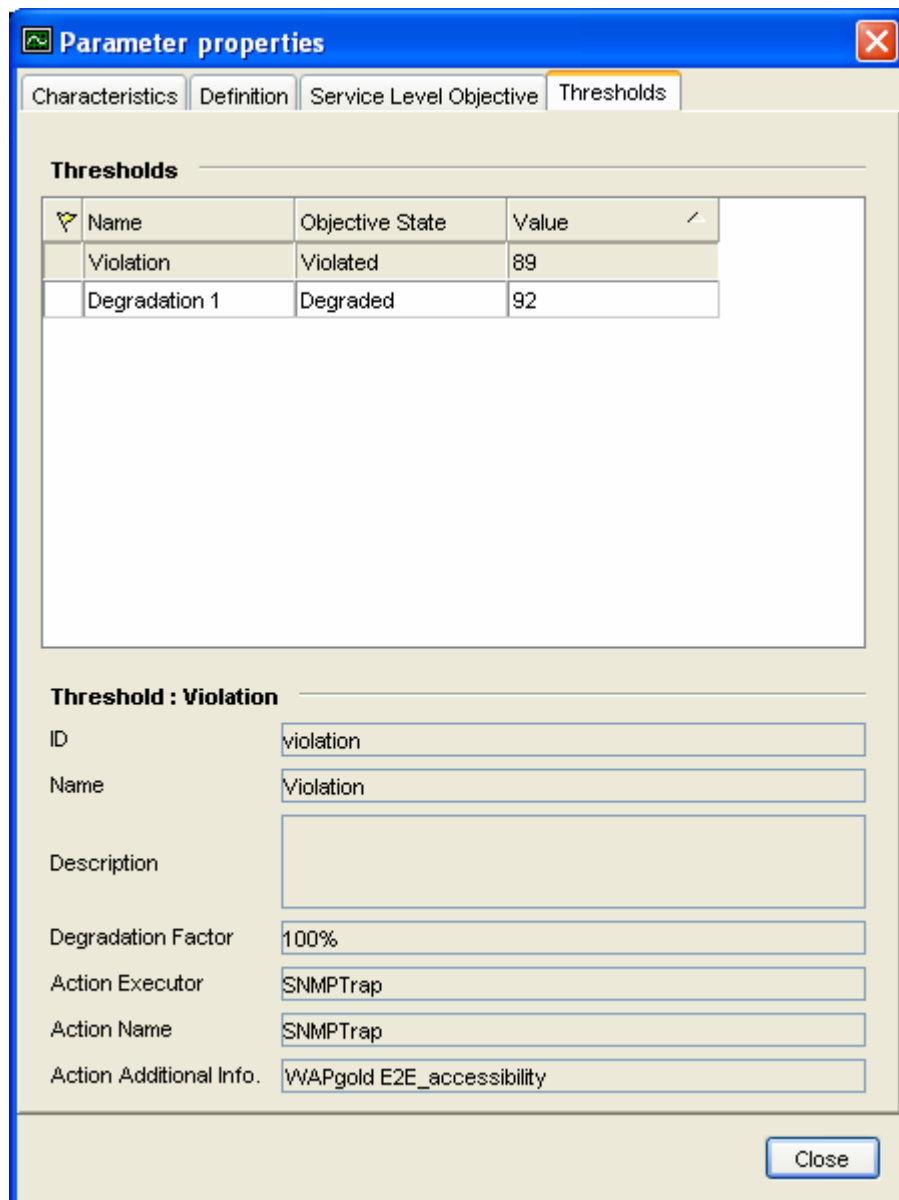
The **Thresholds** tab is divided in two parts:

- A **thresholds list**: contains the list of thresholds that have been defined for the current parameter. The icon indicates that a threshold is a clearance threshold.

- A **threshold part**: contains details about the currently selected threshold.

Please refer to the **Service Level** chapter of the *SLA Administration UI Users' Guide* for further details about the significance of the different fields in this panel.

3.2.6 Understanding states

3.2.6.1 Understanding states representation

Figure 31   **States representation**
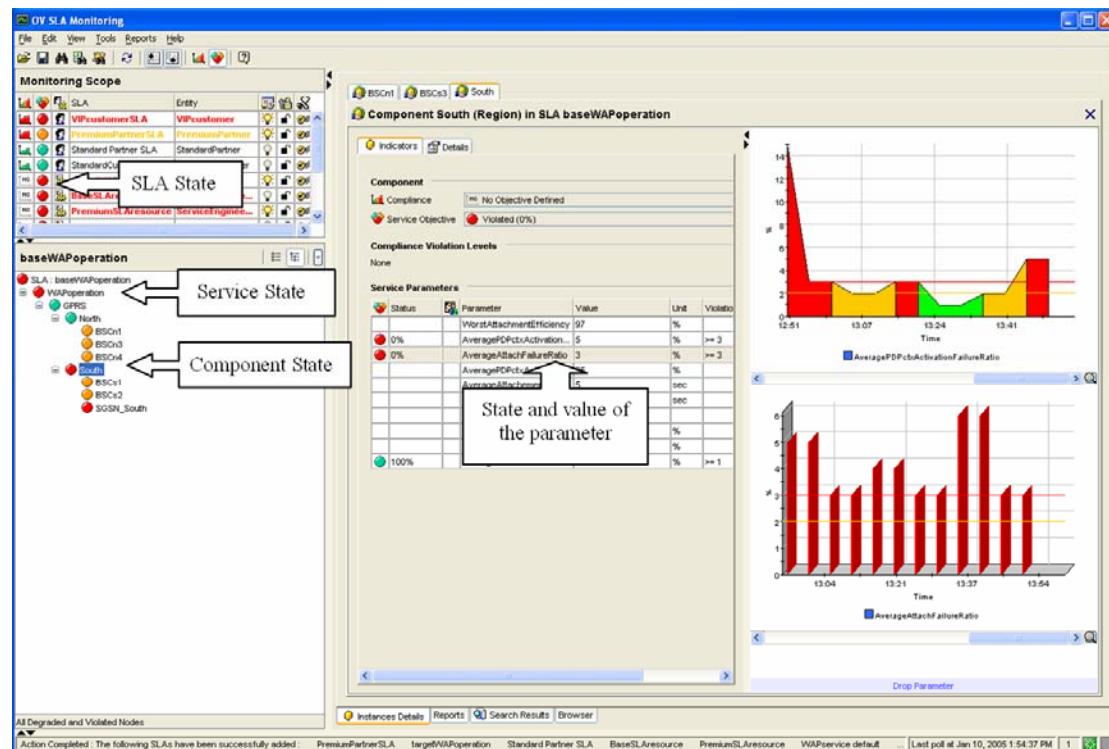
The **Details** window contains the list of the parameters defined for the selected component. As for SLAs, services or components, the state of each parameter is represented by an icon which significance is detailed in section 0

The state of the component instance is computed from the state of its parameters objectives. This state is propagated from the service component instances to the service instances and the SLA.

In the example illustrated by the Figure 31, we can see that the SLA named *baseWAPoperation* is in a violated state. We also see in the SLA tree that the *WAPoperation* Service is also in a violated state and that its *South* Service Component is in a violated state too.

By double-clicking on this faulty component, we can observe that the *AverageAttachFailureRatio* and *AveragePDPctxActivationFailureRatio* parameters are violated. The evolution of these parameters can be displayed in a chart.

3.2.6.2 How to track the impact of a degradation or a violation?

Once you know that a component state is degraded or violated, you may be interested in evaluating the impact of this degradation on other SLAs.

The **Search for SLAs** ( ) contextual menu allows you to find all the SLAs containing a selected service or component. The list of SLAs is displayed in the **Search Results** perspective ( ).

If it is not yet monitored (no icon in the Compliance and Objective columns), It is possible to select the SLA from this list and add to the monitoring scope.

If it is already monitored (compliance and Objective icons displayed), It is possible to select the SLA from this list and

- Select it in the SLA Tree (display the tree of this SLA)

- Open a details Tabbed view on this SLA

Note

- means that the next search result will erase the list of the selected "Result tab"

- means that the next search result will be added into another "result tab"

- If the Compliance state or the objective state of an object changes, then its icon in the result tab reflects this change.

The **Search for services** () contextual menu allows you to search for all services containing the selected component. The list of services is displayed in the **Search Result** perspective ().

If it is not yet monitored (no icon in the Compliance and Objective columns), It is possible to select the service from this list and search for all the SLAs that reference it

If it is already monitored (compliance and Objective icons displayed), It is possible to select the service from this list and

- Search for all the SLAs that reference it

- Select it in the SLA tree (display the tree of its associated SLA)

- Open a details tabbed view on this service

3.2.6.3   How to search for SLAs, Services or Services components?

When you monitor a lot of SLAs containing many services and components it is sometimes difficult to retrieve a given SLA, service or component.

In that case, you can use the Find in Scope menu, or the icon in the toolbar.

The Find in Scope dialog box appears, (see Figure 32), which allows you to enter a string to be searched for.

Clicking on Find Option**s** displays or hides the advanced options in addition to the string to find.

Figure 32   Find in Scope dialog box
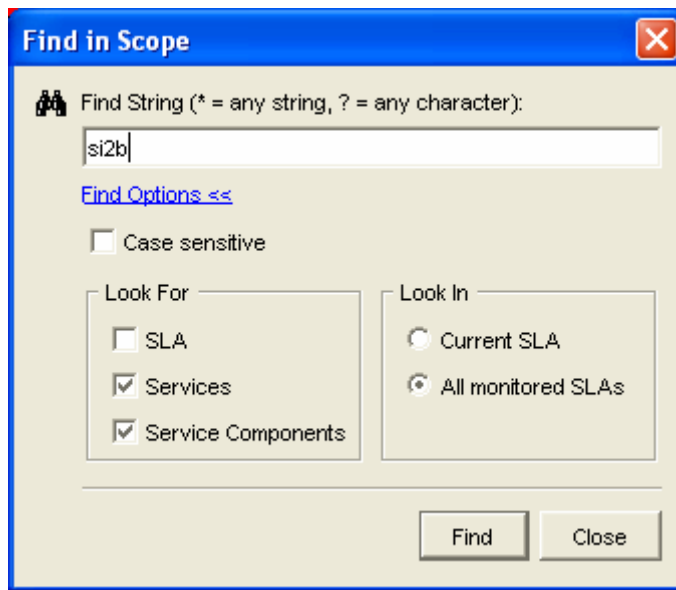
Results are made available in the **Search Results** perspective (icon).

3.2.6.4   The Search Results Perspective

The list of SLAs, services or components identified by the menus "Search For SLA" , "Search for Services" and "Find in scope" are displayed in tabs in Search Result perspective

Figure 33   Search – Results
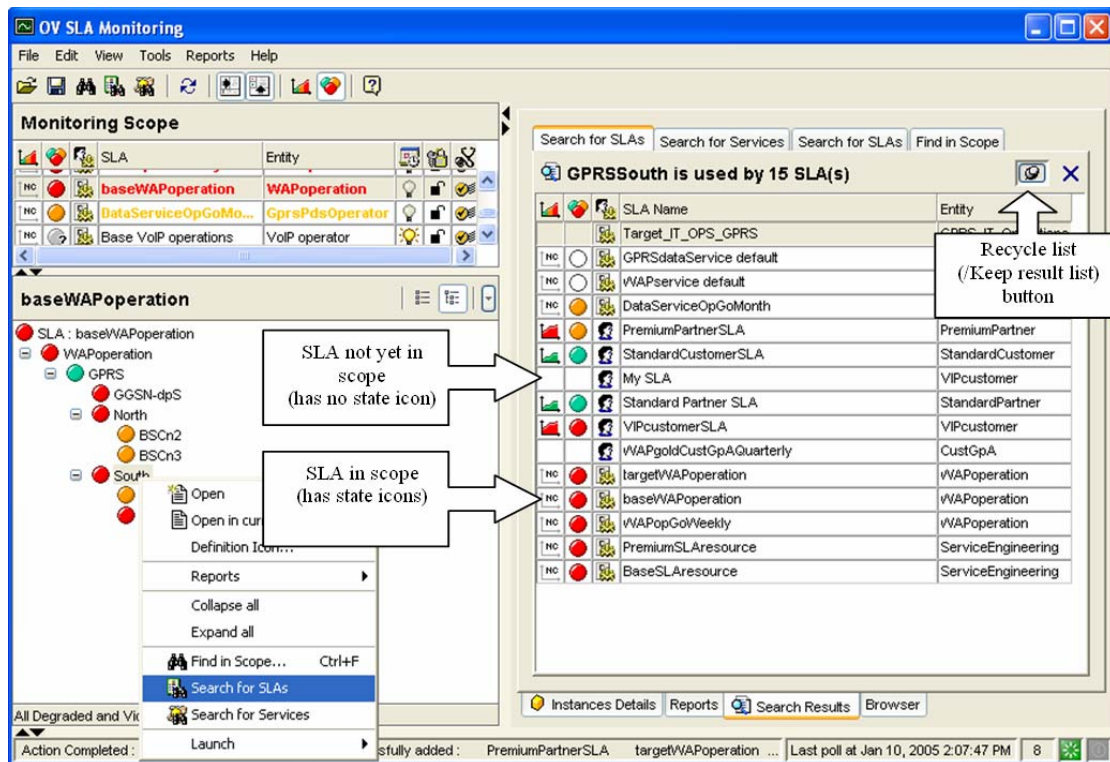
The Search Results contextual menu

After selecting a SLA, a service or a component of the Search Results list, clicking with the right mouse button will open the Search results contextual menu, giving access to the following options:

- The SLA, service or component is monitored (a state icon is displayed in front of its name), the contextual menu contains:

Table 8   Search results contextual menu

Object is…							
a SLA	a Service	a Component	monitored				
✓	✓	✓	Yes /No		Clear search results		Clears the Search results list
✓	✓	✓	Yes		Reports		Lists all the SQM Reports available on the node.
✓	✓	✓	Yes		Open	F2	Opens a details window
✓	✓	✓	Yes		Select in monitoring scope		Selects the node in the SLA View
✓			No		Add to Monitoring Scope		Adds the SLA to the Monitoring Scope (available for SLAs that are not in the scope)
✓	✓	✓	Yes /No		Find in scope	Ctrl +F	Searches for Services or Services components in the current SLA or in the currently monitored SLAs
	✓	✓	Yes /No		Search for SLAs		Retrieves all the SLAs that reference the selected Service or component
	✓	✓	Yes /No		Search for Services		Retrieves all the Services that reference the selected component
✓	✓	✓	Yes /No		Launch		Lists external applications that can be started from the Monitoring for the selected object

3.3 How to monitor a parameter in a chart?

The SLA Monitoring allows you to monitor parameters graphically. Monitoring a parameter in a chart can be very useful when you have detected that the state of an SLA is degraded or violated and you want to see the evolution of a faulty parameter to find out the cause of the SLA degradation and suppress it.

3.3.1 Creating a chart

From the **Details** window of any service component or service, you can create a chart to monitor the value of a given parameter in real-time.

Once you have selected a parameter from a parameter list:

- The **Monitor** option in the contextual menu allows you to create a chart in the right part of the details tabbed view.

- The **Monitor in Dashboard** option in the contextual menu allows you to create a chart in the selected dashboard of the Dashboard perspective. Charts in the dashboard are part of the configuration and can be saved to be retrieved at the next connection to the SLA Monitoring.

It is also possible to drag and drop a parameter into the right part of the details tabbed view or into a dashboard to create a default chart.

You can create three kinds of charts:

- Line charts (They can contain several-parameters)

- Area charts, (They can contain several-parameters)

- Bar charts, (They can contain only 1 parameter)

You can also create a **Default Chart.** A Default Chart is a customization you did specifically for the definition of this parameter (See 3.3.4.6 Creating a default chart style)

Notes

Only parameters of Integer, Double, Relative time or Enumeration can be monitored in charts.

To create a Default Chart, it is also possible to drag a parameter and drop it into the **Drop Parameter** area of either the details window or the dashboard

You can add another parameter in an existing chart by dropping the parameter into the chart.

3.3.1.1 Charts contextual menu

After selecting a chart, clicking with the right mouse button will open its contextual menu, giving access to the following options:

Table 9   Chart contextual menu

🖼	Remove		Removes the chart from the details window
🖼	Chart Properties	Ctrl+E	Displays the chart properties dialog box
	Set chart options as default		Sets the charts options as default ones
🖼	\<parameter 1\>		Displays the \<parameter 1\> contextual

			menu
▦	<parameter n>		Displays the <parameter n> contextual menu

The chart parameters contextual menu allows you to take the following actions:

Table 10   **Chart parameters contextual menu**

▦	<u>R</u>emove		Removes the parameter from the chart (multi-parameter chart only)
▦	<u>P</u>arameter properties		Opens the parameter properties box

3.3.1.2   Multi-parameters charts

You can monitor several parameters in the same chart.

How to add a parameter to a chart?

To create a multi-parameter chart, a single parameter chart must already be displayed, to which new parameters may be added. Select a parameter to monitor, and drag and drop it into the existing chart.

How to remove a parameter from a chart?

In a multi-parameter chart, a parameter can be removed using the **<u>R</u>emove** option in its contextual menu, providing it is not the last parameter remaining in the chart.

Parameters with different types can be added in the same chart.

3.3.2   Removing a chart

To remove a chart, select it and use the **<u>R</u>emove** option in the contextual menu.

3.3.3   Configuring charts

Once you have created a chart, you can customize its properties. Select the chart and click with the right mouse button to open its contextual menu. Then select the **Chart Properties** option to display the chart properties dialog box. It is separated into four different tabs.

3.3.3.1   General properties configuration

The **General** tab allows you to configure some general parameters:

- **Chart title**: to add, remove or customize the chart title.
- **Chart legend**: to add, remove or customize the chart legend.

Figure 34   Chart Properties - General
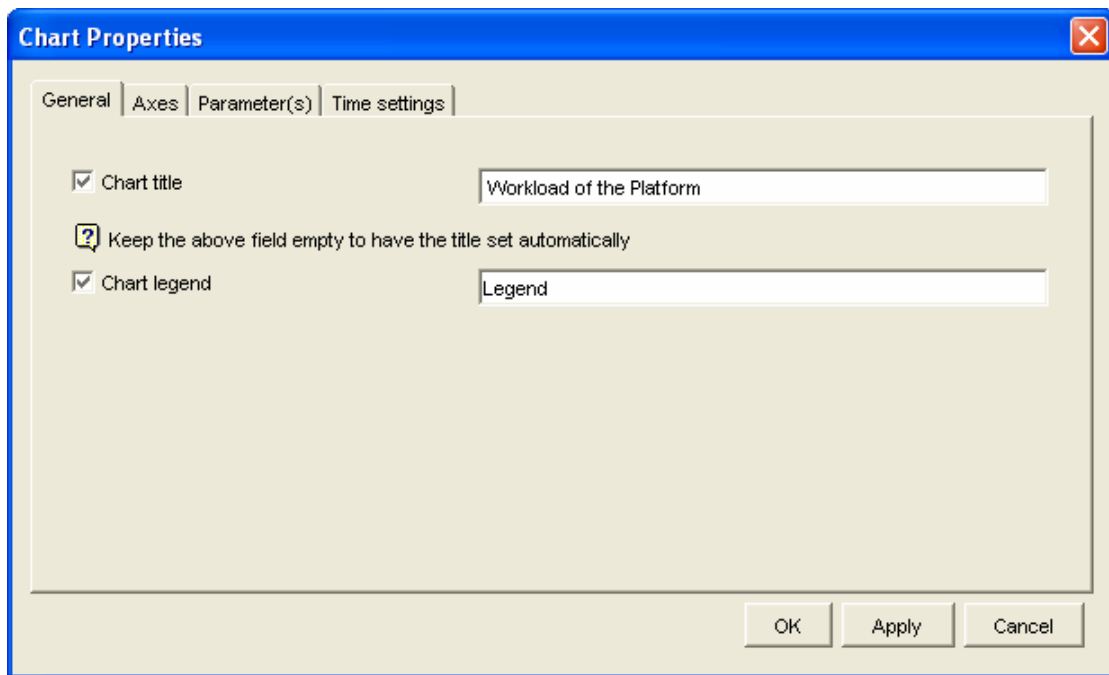
3.3.3.2   Axes properties configuration

The **Axes** tab allows you to customize the X and Y-axes.

Figure 35   Chart Properties - Axes
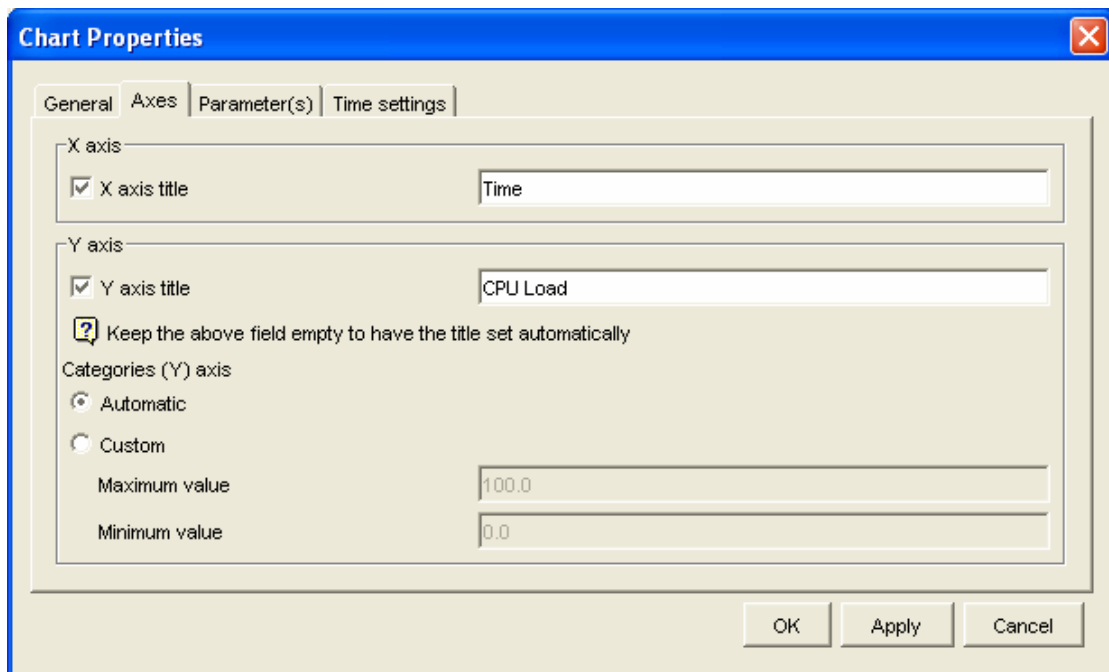
The X and Y-axes title can be customized.

The Y-axis can be either computed automatically or customized as in the given example.

By default, minimum value is set to 0 and maximum value is set to 100. If the parameter values exceed 100, the maximum value is updated. If parameters values

become negative, the minimum and maximum values are updated to fit the parameter values range.

If you check the **Y-axis title** box, without entering any associated title, a default one will be given automatically, corresponding to the unit of the parameter.

3.3.3.3   Parameter properties configuration

The **Parameter** tab allows you to customize the display of the parameter label and value on the chart.

Figure 36   Chart Properties - Parameters
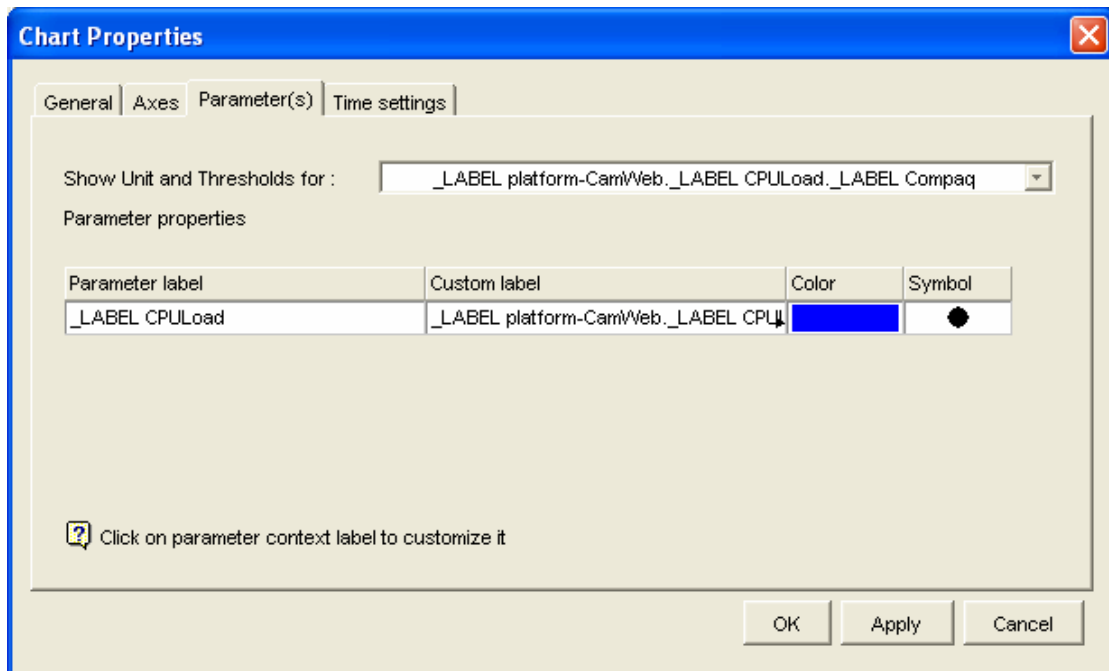
The **Display thresholds of the parameter** section allows you to toggle the display of threshold values in the chart. Threshold values are displayed as colored lines. For readability, this option can be set for only one parameter in a multi-parameter chart.

The **parameter(s) properties** section allows you to customize other parameter display properties:

- The **label** identifying the parameter appearing in the legend can be customized. By clicking on the custom label value, you make the selection shown in Figure 37 appear, which allows to build a custom label from the concatenation of one or more of the following:

- SLA

- Parent service

- Component

- Parameter

- Customer

- It may also be entirely customized (using the other label choice).

Figure 37   Label customization
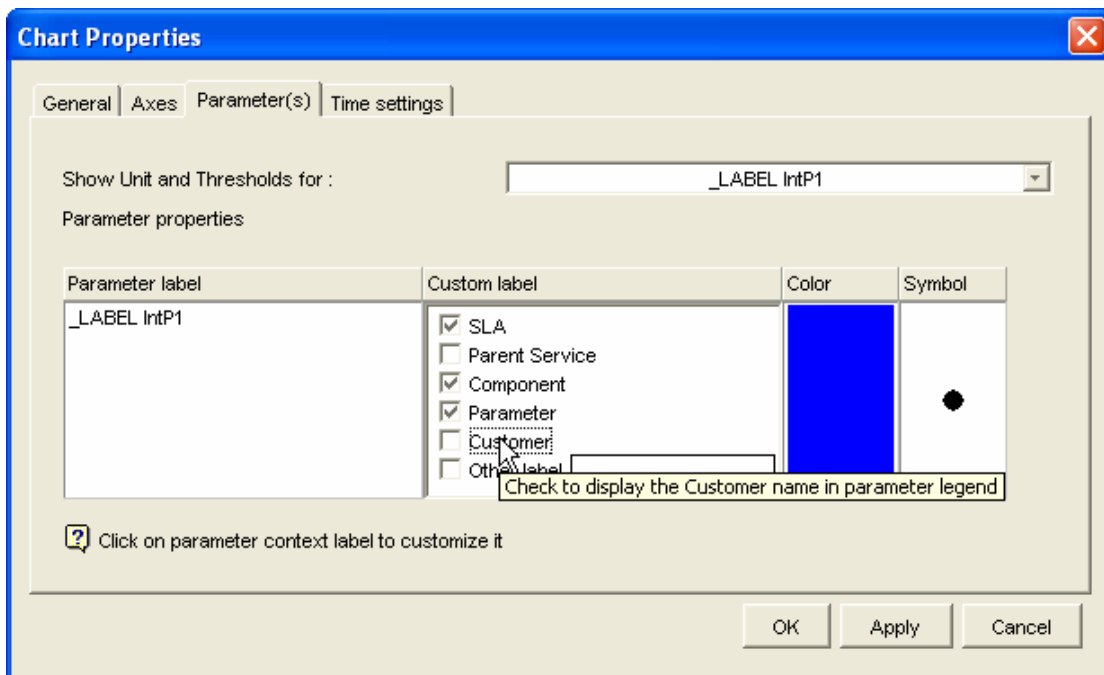
- The **Color** item defines the color of the lines that connect the different points in the chart. It can be customized by clicking on the Color value.

Figure 38   Color selection
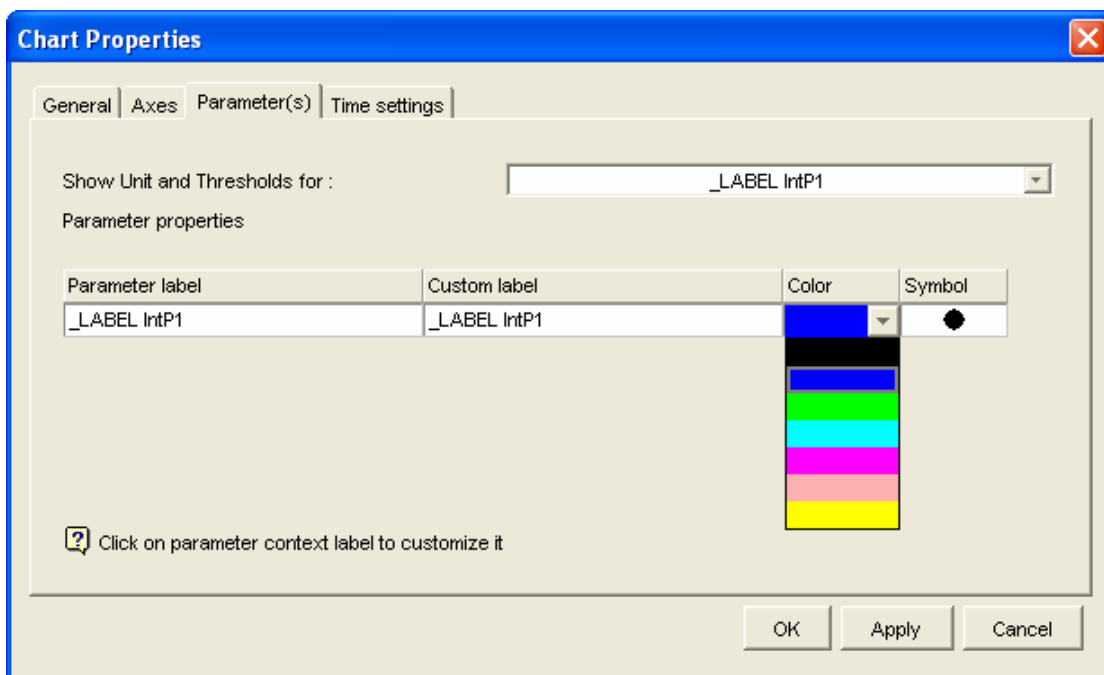
- The **Symbol** item defines the symbol that will be used to represent a point in the chart. Its color depends on the parameter state (green, orange or red). It can be customized by clicking on the current symbol.

Figure 39   Symbol selection
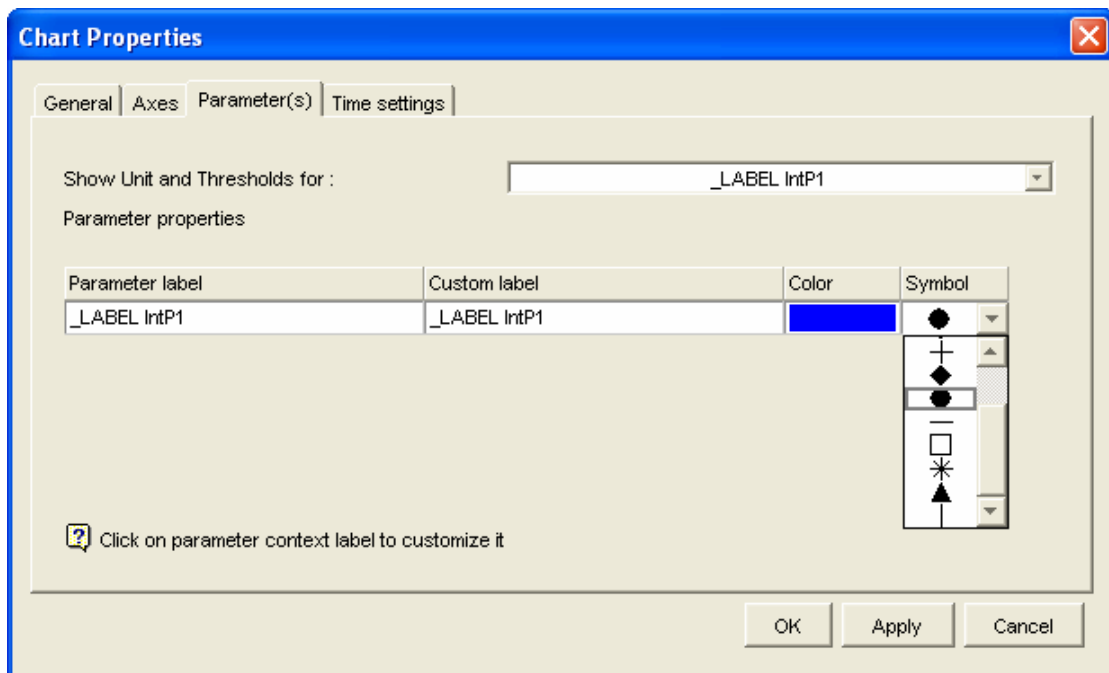
3.3.3.4   Time settings properties configuration

The **Time Settings** tab allows you to set the time window of the chart:

Figure 40   Chart Properties - Time settings
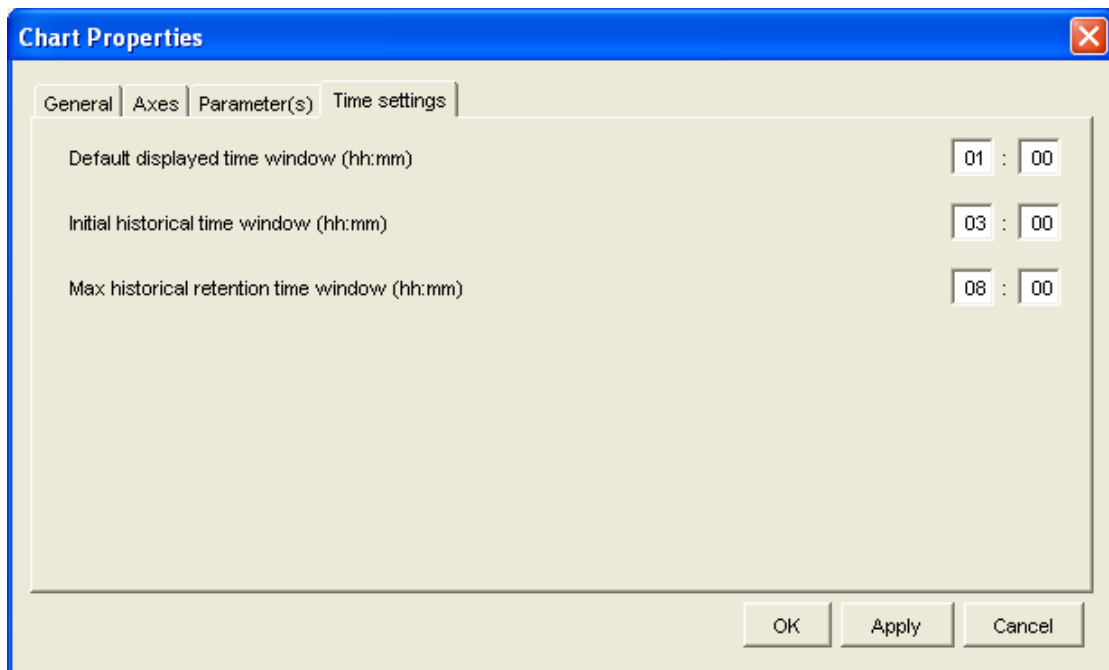
- **Default displayed time window**: define the time window at chart creation. If you set this parameter to 2:0, you will be able to see the evolution of the parameter values over the previous 2 hours.

- **Initial historical time window**: defines the initial history data at chart creation. If you set this parameter to 3:0, you will be able to see the historic of the parameter values over the previous 3 hours

- **Max. historical retention time window**: defines the maximum retention of history data. For example, if you set this parameter to 8:0, this means that at most the data will be retained for review for the next 8 hours.

By default, these parameters are set to the values defined in the **Time settings** tab of the **Options** dialog box (see section **Error! Reference source not found.**).

3.3.4　Examples

3.3.4.1　Customized chart

Figure 41　　**Customized line chart**
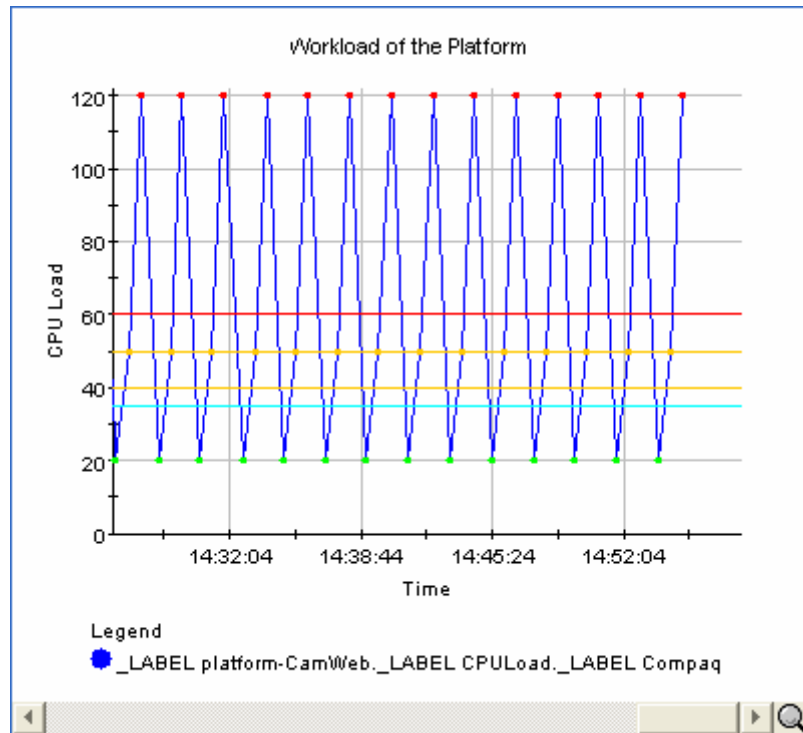
This chart shows to the monitoring of the intP1 parameter in a line chart with the options chosen in section 3.3.3.

Thresholds are represented by colored lines and allow a very quick evaluation of the evolution of the parameter state:

- The red line represents the violation threshold
- The orange line represents the clearance violation threshold
- The blue line represents the degradation threshold

Figure 42   Zoom and navigation in a chart
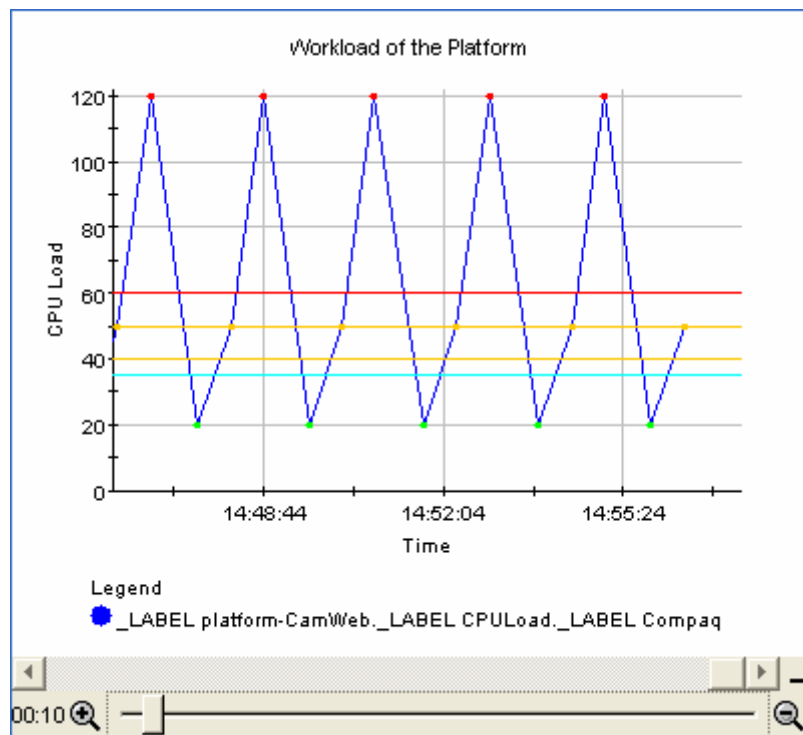
The scrollbar allows navigation of the history of the parameter value. If it is put on the right side as illustrated in this figure, chart values are updated at each refresh. Otherwise, the image displayed stay fixed.

Clicking on the 🔍 icon located at the bottom of the chart makes a slider appear. It allows you to zoom in or out.

3.3.4.2   The different kinds of charts

The following figures illustrate the three kinds of charts that can be created:

Figure 43   Line chart
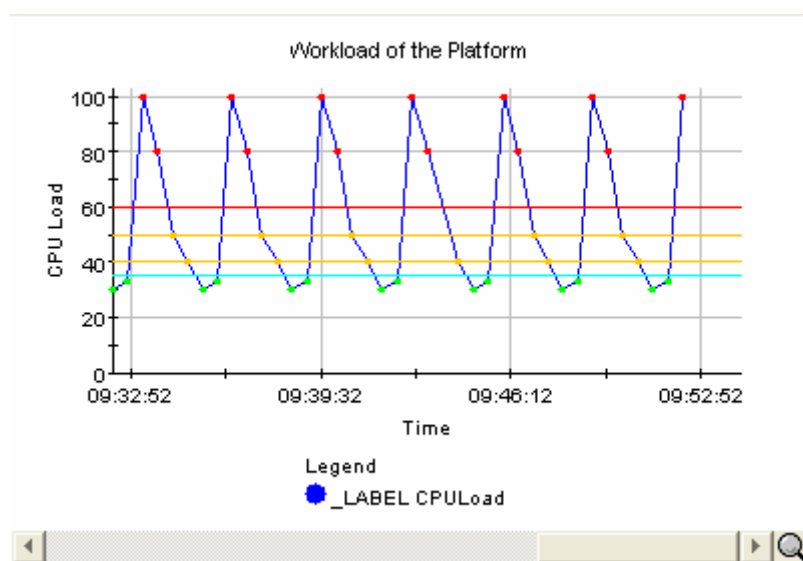
Figure 44   Area chart
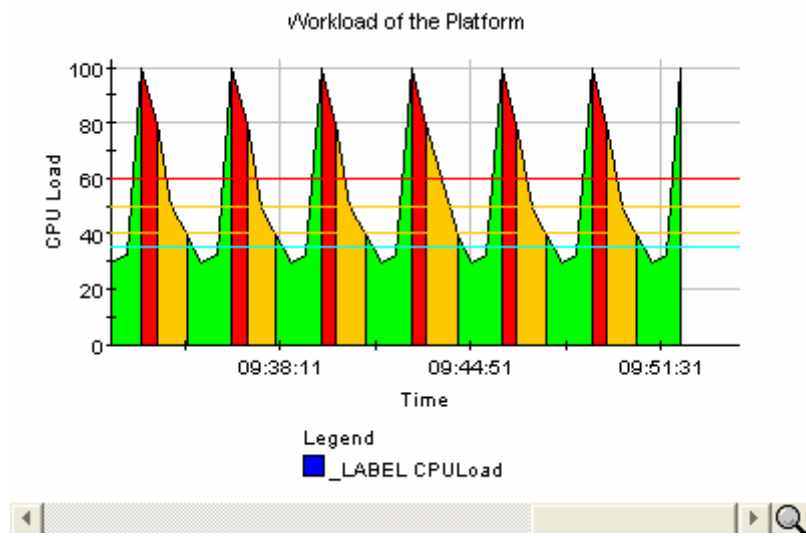
Figure 45   Bar chart
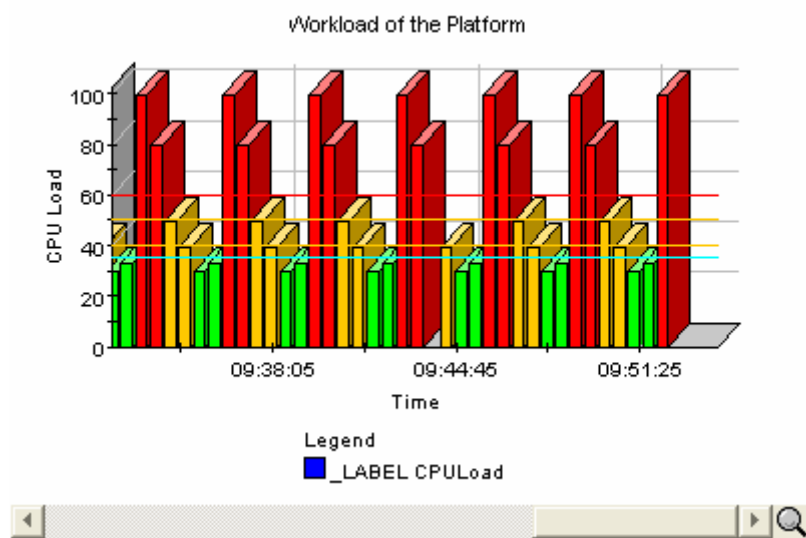
3.3.4.3 Multi-parameter chart

Figure 46   **Multi-parameter chart**
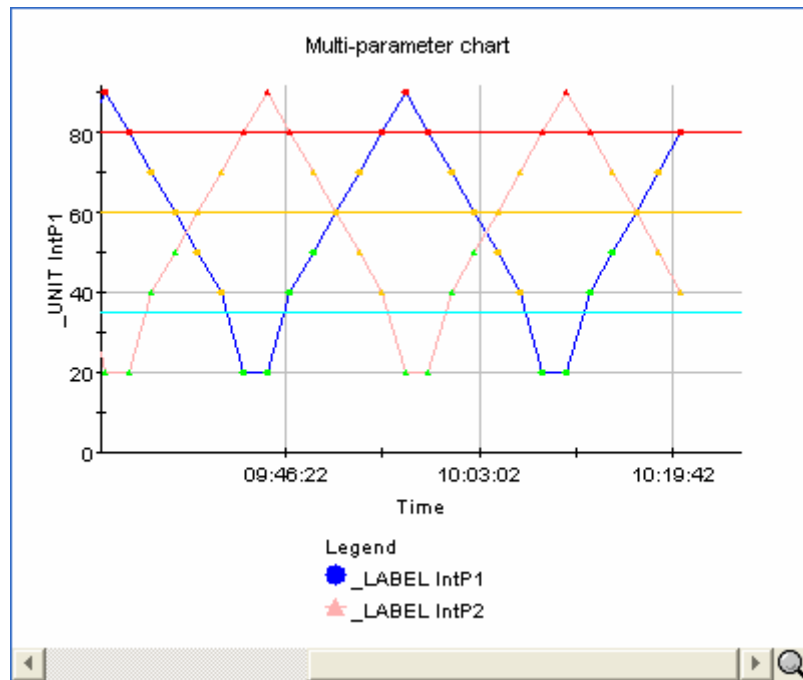
3.3.4.4 Tooltips available in charts

Figure 47   **Chart tooltips (point information)**
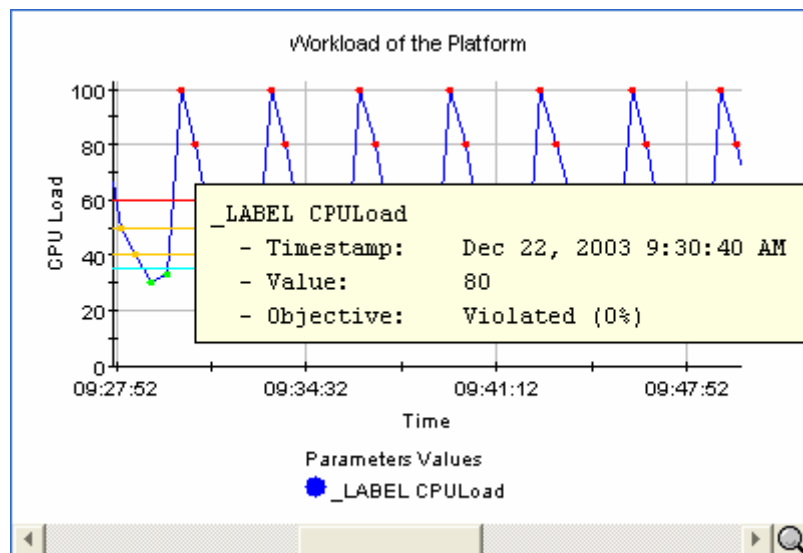
When you move your cursor on a point of the chart tooltips appear which give you useful details about the current point such as its timestamp, value and the parameter to which it belongs.

Figure 48   Chart tooltips (threshold information)
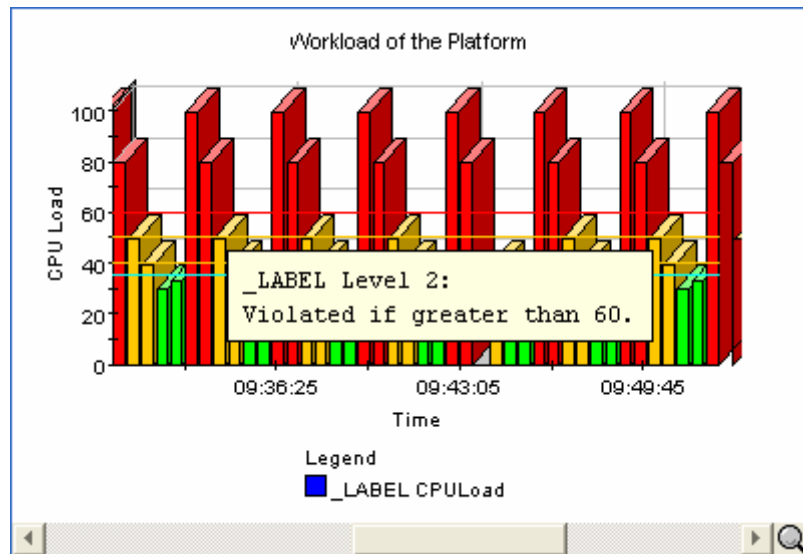
When you move your cursor on a line representing a threshold, you can get information about the threshold (description or significance and value).

Figure 49   Chart tooltips (scroll bar use information)
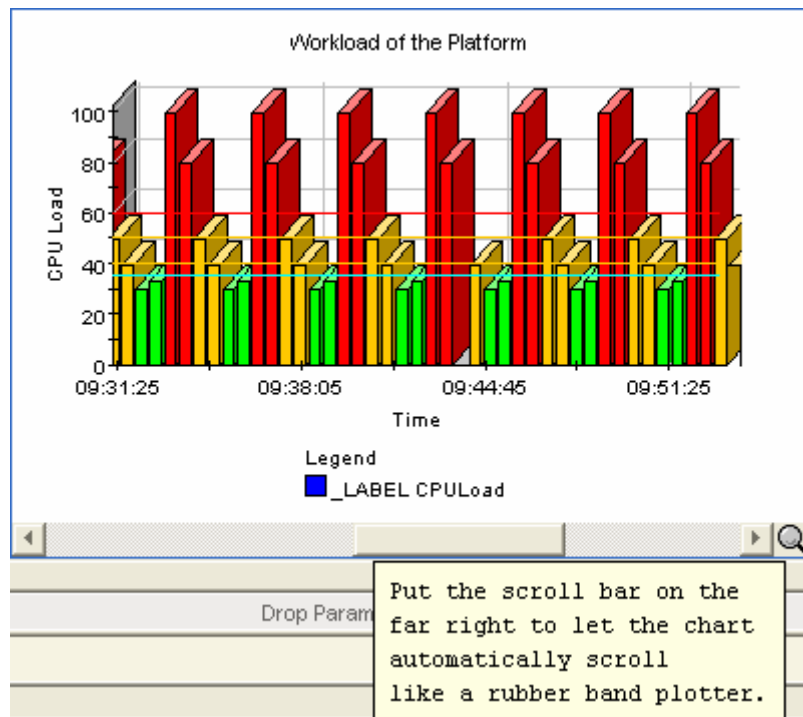
When you move your cursor on the scroll bar, you can get information about its use as illustrated in the figure above.

3.3.4.5 Representation of an unavailable parameter

Figure 50   **Unavailable parameter**
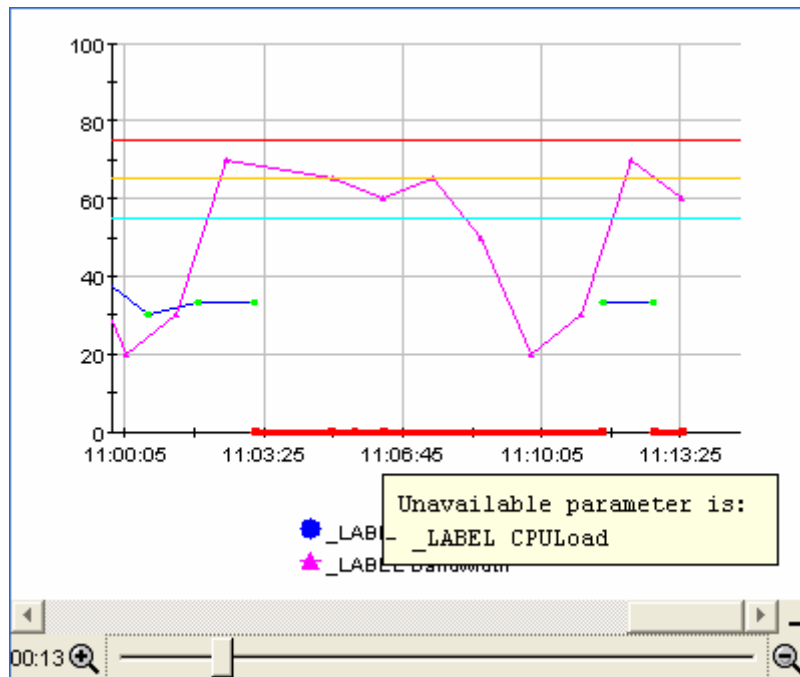
When a parameter value is unavailable, it is represented by a red thick line.

3.3.4.6 Creating a default chart style

Once you have customized a chart for a given parameter, you can save your options so that every future chart created for the same parameter (a parameter with the same definition) will inherit its settings from this customization. Use the **Set chart options as default** option in the contextual menu from your chart window to do this.

As this default chart style is part of the configuration, it will be permanently saved when you save your configuration.

3.4 How to monitor parameters in a Current Value Table?

The **Current Value Table** allows you to monitor in one table, parameters from one or more SLAs as illustrated in Figure 51.

Figure 51   **Current Value Table**

	Status	Context	Value		Violation
		_LABEL BronzeVideoFR._LABEL Bandwidth	650		
🟢	100%	_LABEL GoldVideoFR._LABEL Bandwidth	650		<= 512
🟠	50%	_LABEL BronzeVideoFR._LABEL CPULoad	55		>= 75
📊	0%	_LABEL IntP1 - Compliance	482.1...		>= 100%
🔴	0%	_LABEL GoldVideoFR._LABEL CPULoad	55		>= 60
🔴	0%	_LABEL IntP1	120		>= 80

The **Value** column contains the current value of the parameter (on the left side) and a gauge containing:

- Black ticks representing the min and max values of the parameter

- A red tick representing the violation threshold if it exists

When no values are available for a given parameter, the **Value** column contains the "Not available" message.

The **Violation** threshold value is also displayed in the Violation column. This column is left empty if no violation threshold has been defined for this parameter.

3.4.1 The current value table contextual menu

After selecting a parameter in the current value table, clicking on the right button of the mouse will open its contextual menu, giving access to the following options:

Table 11   Current value table contextual menu

📊	Remove		Removes the current value table from the dashboard
📊	Chart Properties	Ctrl+E	Displays the chart properties dialog box
	Set chart options as default		Sets the charts options as default ones
📊	<parameter 1>		Displays the <parameter 1> contextual menu
📊	<parameter n>		Displays the <parameter n> contextual menu

The chart parameters contextual menu allows you to take the following actions:

Table 12   Current value table parameters contextual menu

📊	Remove		Removes the parameter from the chart (multi-parameter chart only)
📝	Parameter properties		Opens the parameter properties box
📈	Line Chart		Monitors the parameter in a line chart
📊	Area Chart		Monitors the parameter in an area chart
📊	Bar Chart		Monitors the parameter in a bar chart

3.4.2 Current value table customization

When you select the **Chart properties** option in the Current Value Table contextual menu, you make the following screen appear:

Figure 52   Current Value Table customization
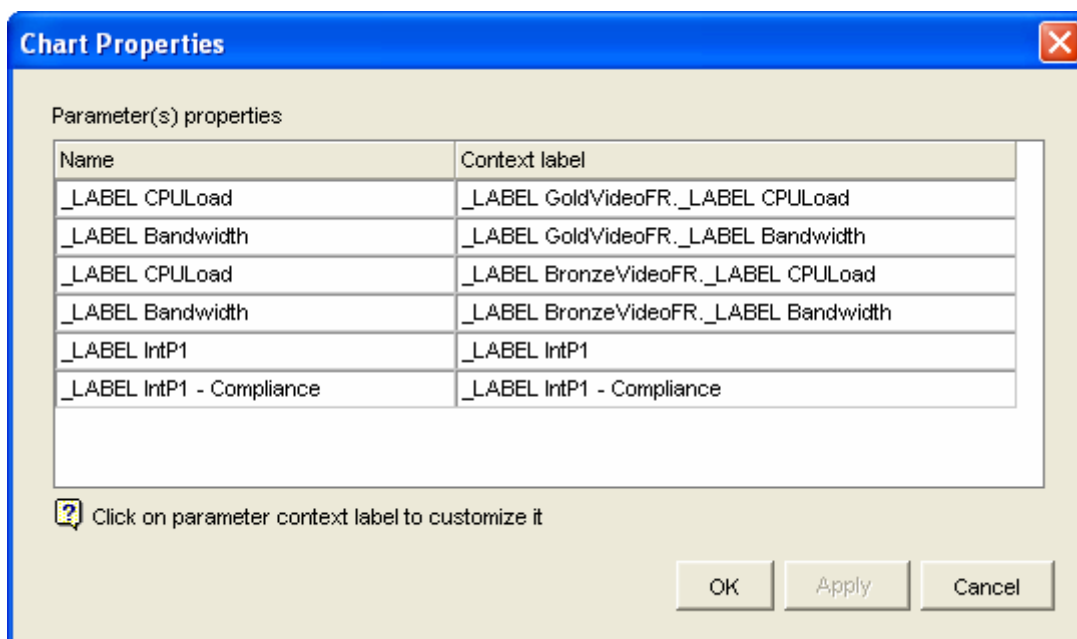
When clicking in the context label column, you can customize the label displayed as for charts configuration (see section 3.3.3.3 for more details).

3.4.3 Current value table tooltips

Some tooltips such as the one displayed in the figure below are available in the current value table.

Figure 53   Current Value Table - tooltips

3.5 How to build dashboards?

The dashboard is a particular place where you can monitor various parameters. Using the dashboard is particularly interesting for parameters that you monitor regularly. The dashboard content can saved as part of the configuration of the SLA Monitoring.

Using the dashboard panel to monitor parameters offers the following advantages:

- You can visualize parameters values either in charts or in a value table

- At **SQM SLA Monitoring** restart, you will retrieve the charts you had in your dashboard during your previous session if you have saved you configuration.

Note

The configuration can be saved either manually through the File/Save Current Configuration menu or automatically when you exit from the SLA Monitoring if this option is selected.

- You can mix parameters from different SLA/SI or SCI, which is not possible in a Details Window.

The Figure 54 illustrates a Dashboard containing:

- Two charts monitoring the IntP1 parameter for two different SLAs

- A current value table monitoring the IntP1 and the IntP2 parameters for different SLAs

Figure 54   Dashboard example
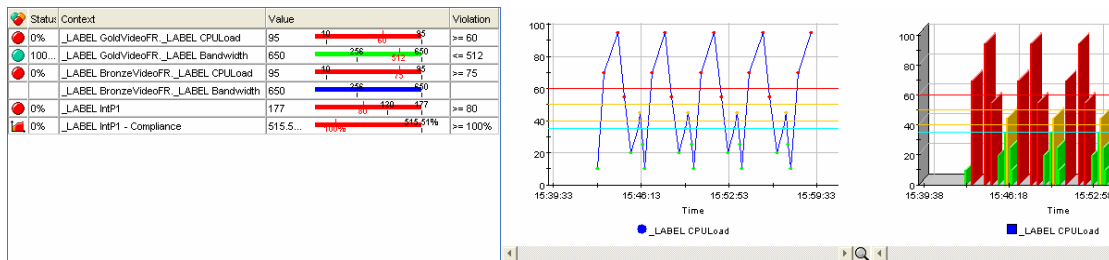
3.5.1   Managing dashboards

The user can:

- create as many dashboards as he wants (contextual menu in the dashboards perspective,

Figure 55   Menu Create new dashboard
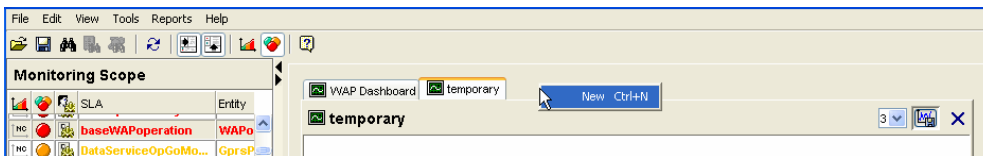
- Delete a dashboard

Figure 56   Delete a dashboard
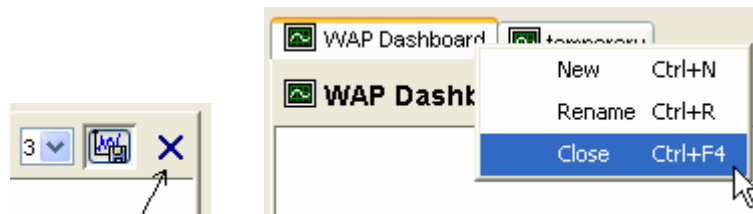
- Rename a dashboard

Figure 57   Rename a dashboard

This displays this dialog box where the operator enters the new name of the dashboard

Figure 58   Rename dashboard dialog box
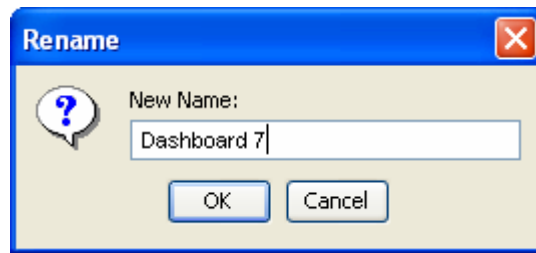
- Set the dashboard persistent / transient

Figure 59   Set the dashboard persistent / transient
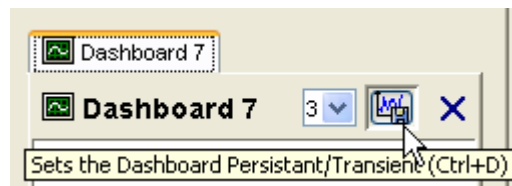
 : The dashboard is persistent. Its content will be saved with the user's settings ()

 : The dashboard is transient. Its content will be lost when the user will close the SLA Monitoring.

- Set the number of charts displayed on each row of the dashboard

Figure 60   Select the number of charts per row
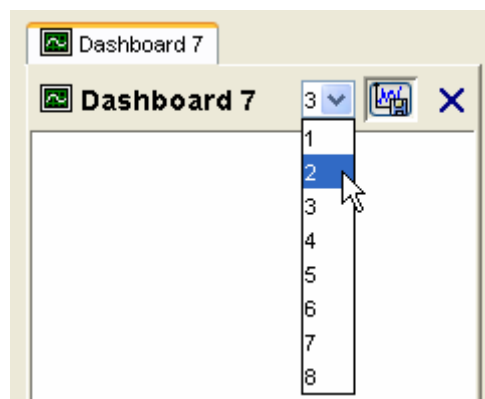
3.6 How to display SQM Reports?

When the SQM Reporting module is installed on the platform, a web portal gives access to SQM reports.
These reports can be displayed in the Reports perspective. Some of them are contextual to a selected object. These reports are based on Business Object technology.

3.6.1   Menus

Reports can be accessed:

- From main menu Reports

Figure 61   Report Main menu
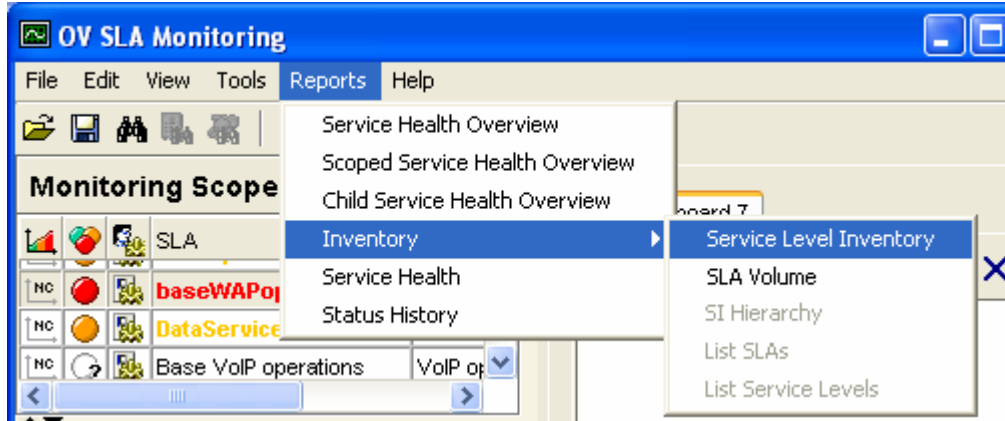
- From contextual menu when the focus is on a SLA, a Service or a Service component

Figure 62   Report Contextual menu
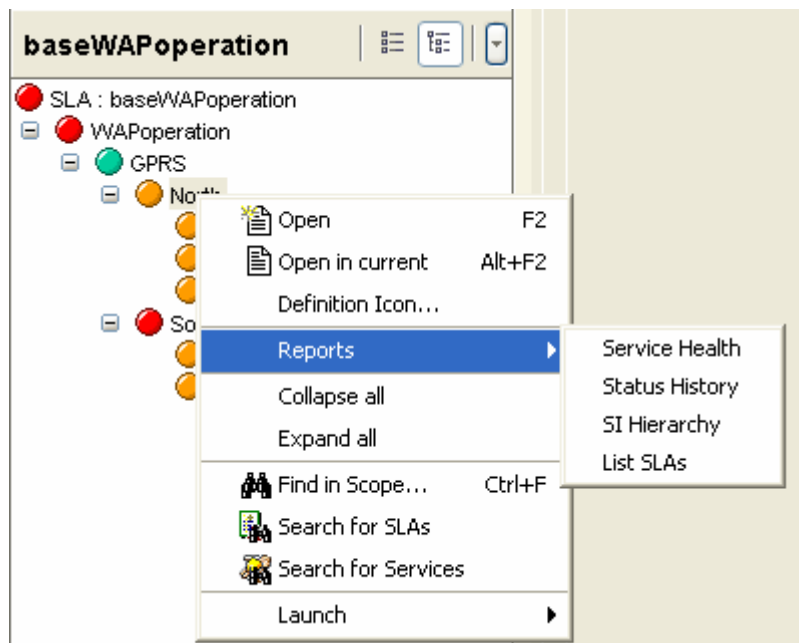
3.6.2   Business Object login

The first time the user wants to display a report, (s)he will be prompted for the Web portal connection attributes

Figure 63   Report Login dialog box

- **User name** is the Business Object user name of the operator

- **User password** is the Business Object password of the operator

- **Server address** is the hostname of the SQM Reporting HTTP web server. If the
  port of the HTTP web server is different than 80, then it as to be added to.
  Example : myserver.mydomain:8080

- If "**Use External browser**" is selected, then the reports will be displayed in an
  external browser (Microsoft Internet Explorer is the default browser).

- If "**Use Embedded browser**" is selected, then the reports will be displayed in
  the Report perspective.

  These settings can be changed in the Tools /Option dialog box, tab "Reporting".

  These settings are stored with the other user settings when the user clicks on save
  button ( )

<table>
<tr><td align="center">**Note**</td></tr>
</table>

If a proxy needs to be configured to contact the SQM Report Web server, it can be
done in the Option dialog box. See

3.6.3   Report Viewer

Reports are displayed in the "Reports" perspective. The operator can navigate within
reports using hypertext links. When the user opens a new report from a menu of SLA
Monitoring, the report is opened in a new tab.

Figure 64   Report Viewer
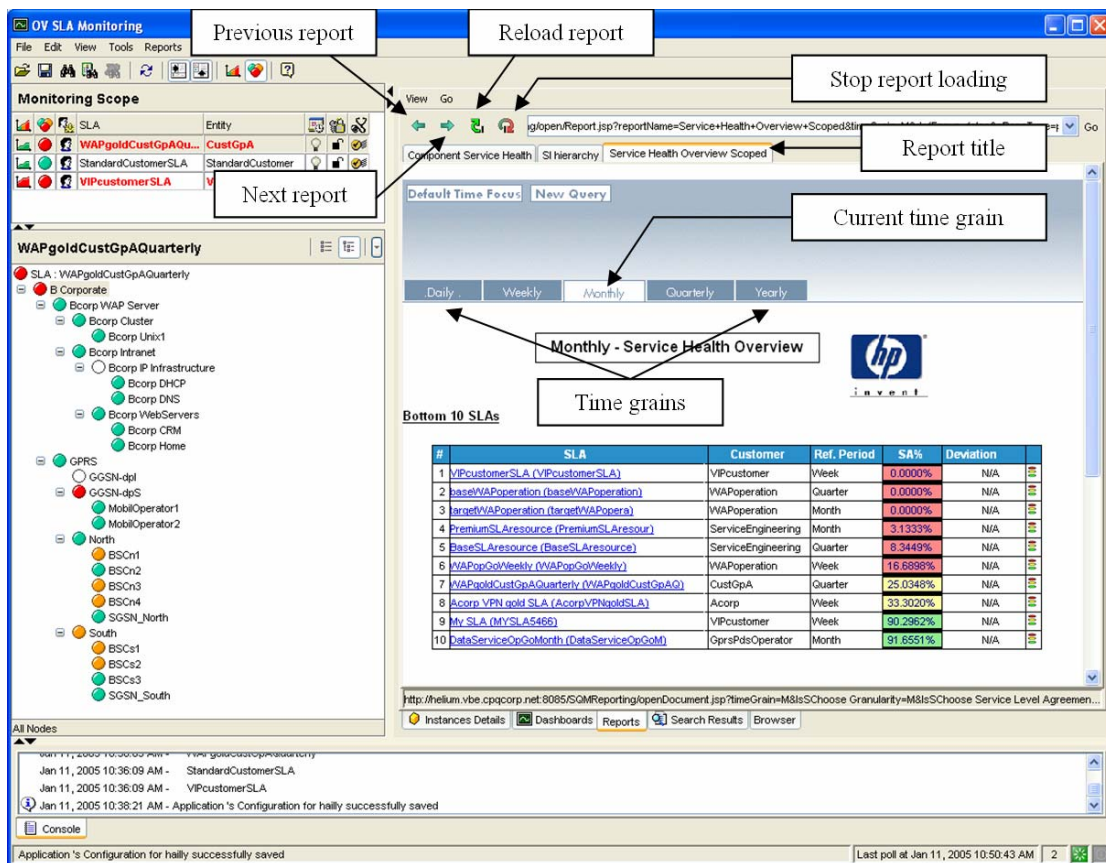
Note

The operator can delete a tab clicking the right button when the mouse is over the title of the tab. The last tab cannot be removed.

3.7 How to set SLA Monitoring options?

SLA Monitoring options can be set by selecting **Options…** from the **File** menu.

These settings are saved when the user clicks on save (⊞).

Figure 65   SLA Monitoring - General options
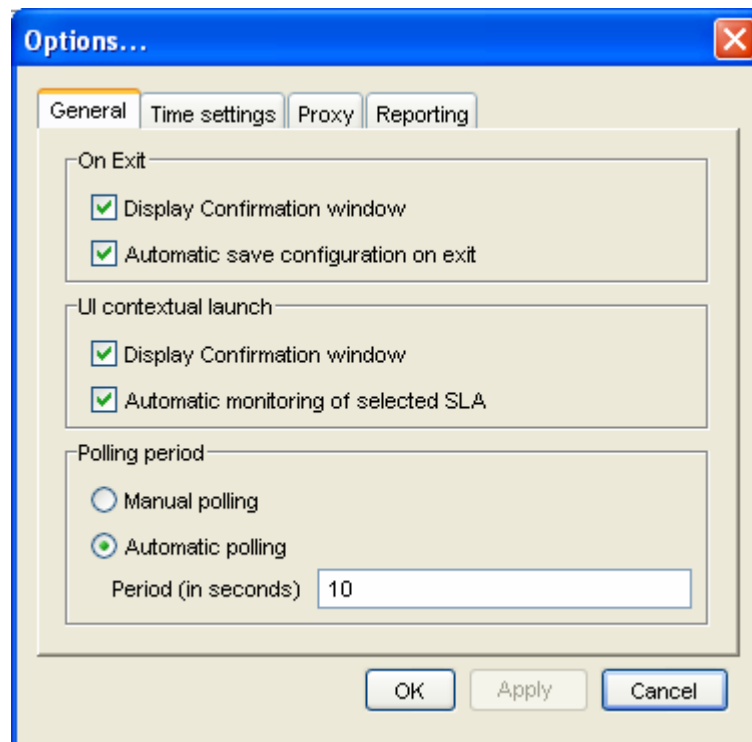
3.7.1   How to save your configuration automatically on exit?

If you check the **Display Confirmation window** box of the **On Exit** section, a confirmation window will be displayed each time you exit from the application.

Otherwise, you will be able to choose to save your configuration or not.

If you check the **Automatic save configuration on exit** box, your current configuration will be automatically saved when you exit from the application.

The configuration saved includes:

- SLA scope
- Dashboard
- Chart properties

3.7.2   How to tune application polling?

The **Polling period** section in the **General** tab allows changing the polling period.

Two kinds of polling are available: manual or automatic.

In case of manual polling, states and values will be refreshed only each time you use the Polling Refresh menu (or you press the ⟳ button or the F5 key).

In case of automatic polling, data will be refreshed automatically every *N* seconds. *N* is called the polling period has to be greater than or equal to 5.

3.7.3   How to tune time settings?

The **Time settings** tab of the **Options…** dialog box allows setting the different time parameters:

Figure 66   SLA Monitoring - Time settings options
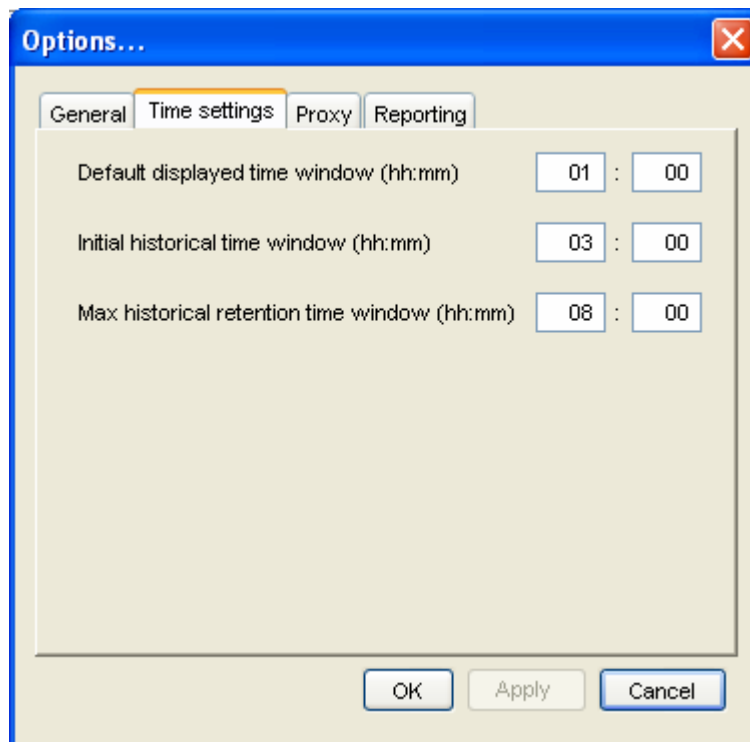
Default displayed time window: sets the time window displayed by default for any new chart.

Initial historical time window: sets the initial history data at chart creation.

Max. historical retention time window: sets the maximum retention of history data.

3.7.4   How to tune proxy configuration?

The **Proxy settings** tab of the **Options…** dialog box allows setting the proxy parameters. A proxy may need to be configured to contact the SQM Reporting Web Server or to display Web pages called from a Launch Application.

Figure 67 **SLA Monitoring - proxy settings options**
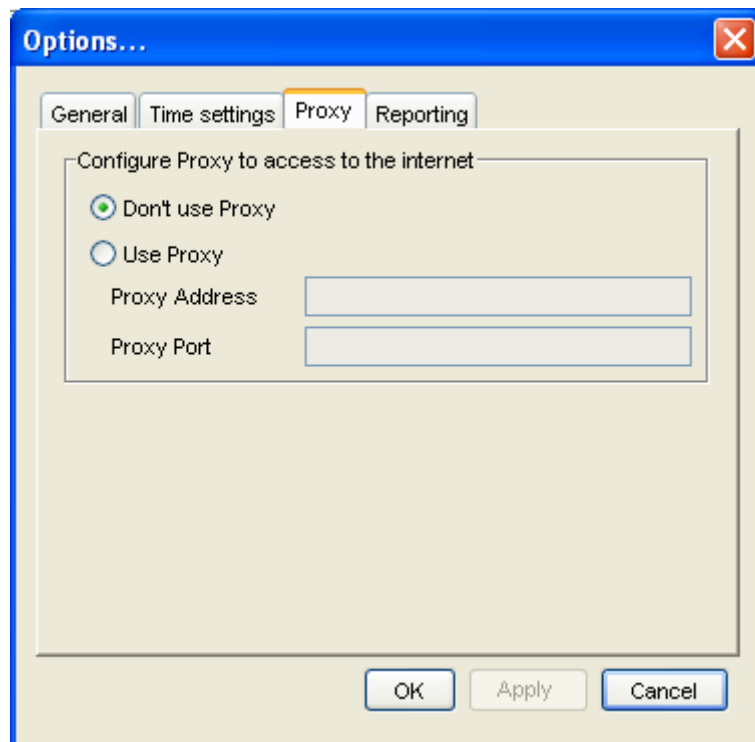
Don't use proxy: no proxy is used.

Use Proxy: the **Proxy address** and **Proxy port** settings are used to display web pages and SQM reports

3.7.5 How to tune reporting settings?

The **Reporting settings** tab of the **Options…** dialog box allows setting the different reporting parameters:

Figure 68 SLA Monitoring - Reporting settings options
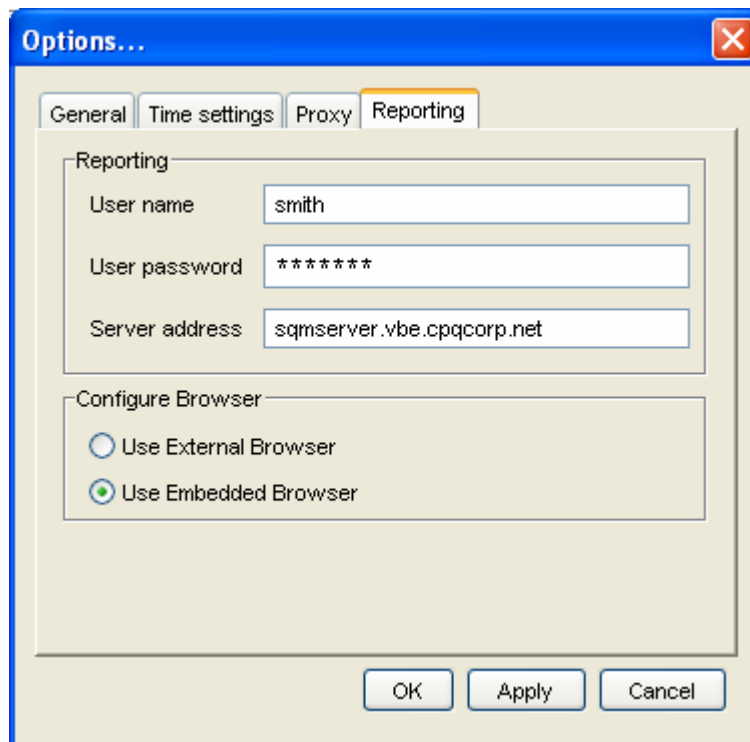
User name: User name used to log to the reporting server.

User password: User password used to log to the reporting server.

Server address: Reporting HTTP server address. If the port is not 80, then the address should contain the port number.
For example: sqmserver.vbe.cpqcorp.net:8080

Note

User name and password are the ones configured in Business Object user database.

See the Reporting Installation and configuration guide to know how to add users.

3.8 How to manage Service Model changes?

When an SLA Monitoring is impacted by a change in the Service Model, the Presentation Server detects it and informs the UI. A dialog box is displayed, allowing the user to take the changes into account or not.

Figure 69   Service model change dialog box
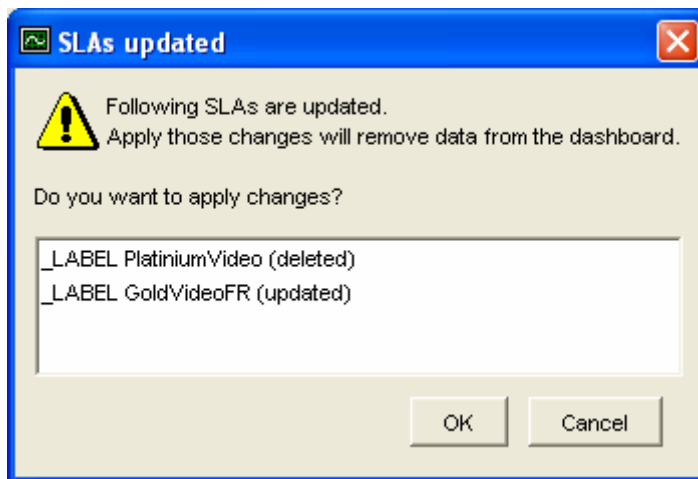
If you accept the changes, all the windows and charts related to the impacted SLAs will be closed.

Chapter 4

Advanced Features

This chapter describes the advanced features of the SLA Monitoring User Interface. It contains the following sections:

- Section 4.1, Users' Configurations storage

- Section 4.2, Launched Applications

4.1.1.1   Section 4.2.6.3, How to execute a Java Class?

Executing Java code from the SLA Monitoring UI is possible but it has to be done very carefully in order not to make the SLA Monitoring UI unstable

This is mainly a task for integrators or SQM developers.

Several steps are to be done and are described here after.

Build Java Archive

The integrator has to write and compile the java class

    (e.g. com.mypackage.MyLaunch)

Note that it is forbidden to use a package starting with <com.compaq.temip.servicecenter>

This class must implement the interface:

    com.compaq.temip.servicecenter.ui.common.launched.v1_2.engine.LaunchedApp
    liExecuteAble

Then he has to build a java archive:

    (e.g. my_launch.jar)

Deploy the jar in a standard installation

This step is to be executed on each PC where a standard installation of SQM SLA Monitoring UI has been performed.

Deploy the jar file in a sub folder of %TEMIP_SC_HOME%

    (e.g. my_custom)

Add the jar file in the classpath.

Edit the file %TEMIP_SC_HOME%\UI\SLMClient\bin\TeSCUISLMClient_extra_var_env.bat

Add the line

    set CLASSPATH_UI_SLM_FULL=./my_custom/my_launch.jar;
    %CLASSPATH_UI_SLM_FULL%

Deploy the jar when the SLA Monitoring UI is deployed using Java WebStart

If the SLA Monitoring UI is deployed using Java WebStart, this step is to be executed on the Web server:

Deploy the jar file in a sub folder of the installation folder of SQM in the WebServer

> (e.g. my_custom)

Create a specific Webstart declaration file

> (e.g. my_custom/my_custom.jnlp)

You can use the file <sqm_install_dir>/webstart/sqm_3pp_misc.jnlp as an example.

Reference my_custom/my_custom.jnlp in the main JNLP file <sqm_install_dir>/webstart/TeSCUISLMClient.jnlp

Add a line like

> <extension name="SQM SLA Monitoring – my custom" href=" my_custom/my_custom.jnlp "/>

Declare the launch in the Launch definition file

The Integrator must modify the Launched Applications definition file.

This file is located in the presentation director at $TEMIP_SC_VAR_HOME/UI/UIServer/users/config

The XM node <ui:ActiveOn> must contain a subnode <ui:JavaClass>.

A <ui:JavaClass> node contains the following attributes:

classname (Mandatory)

Name of the class to load (e.g. com.mypackage.MyLaunch)

autostart (optional)

Possible values are "True" or "False". The default value is "False".

If autostart is set to "True", the launch will be executed at the startup of the SLA Monitoring UI.

How to define "fixed or predefined arguments"?

Fixed and predefined arguments are defined in the same way than launched applications that open URLs in a browser.

See paragraphs "How to define a Fixed argument" and "How to define a Predefined argument" of chapter 4.2.6.2How to open an URL in a (embedded or external) Web browser?

4.1.1.2 Main menu and contextual menu description

The main menu is described in the XML node <ui:MainMenu>.

The contextual menu is described in the XML node <ui:PopupMenu>.

The root nodes contain a list of <ui:MenuItem> nodes.

Each MenuItem will be displayed in the menu by:

- A submenu if the <ui:MenuItem> contains a <ui:SubMenu> node

- A menu entry if the <ui:MenuItem> contains a <ui:MenuLaunch> node

The association between the LaunchedAppli (definition of the launch) and the Menu nodes is done by the field id.launch.

A LaunchAppli can be associated with:

- <ui:MenuLaunch> in both main and contextual menu.

  This is generally the case for contextual launched applications

- Only one <ui:MenuLaunch> in main menu

  This is generally the case for a launched application that is not contextual (always active)

- Only one <ui:MenuLaunch> in contextual menu

  This is generally the case for a launched application that is strongly contextual (active on few contexts)

- No <ui:MenuLaunch> (neither in main menu nor in popoup menu)

  This can be the case for a launched application that has to be automatically started on SLA Monitoring UI startup and that must not be restarted by the user

Node <ui:SubMenu>

A submenu contains a list of <ui:MenuItem> nodes.

As <ui:MenuItem> can contain <ui:SubMenu> nodes, as many sub menus as the user wants.

```
<ui:MenuItem>

    <ui:SubMenu label="Examples">

    …

    </ui:SubMenu>

<ui:MenuItem>
```

Label

The label of the submenu.

Node <ui:MenuLaunch>

It represents a menu entry that will be used by the user to execute a lauched application:

```
<ui:MenuItem>

    <ui:MenuLaunch id.launch="launch_url_hp_home"

                    label="hp on the web"/>

<ui:MenuItem>
```

Label

The label of the submenu.

Id.launch

Corresponds to the id.launch of the associated <ui:LaunchAppli> node.

Example of launched application

On the presentation director, you will find examples of launched applications in the file:

```
$TEMIP_SC_VAR_HOME/UI/UIServer/users/config/UIS_AllUsers_
ServiceLevelMonitoring_LaunchedAppli_v1_2.xml
```

4.1.1.3 Launched Applications delivered with the SQM SLA Monitoring UI

4.1.1.4 Display Associated Alarms in TeMIP Client GUI

OpenView SQM SLA Monitoring UI and OpenView TeMIP Client can communicate together in order to display in one of the GUIs the related information to an information selected in the other GUI.

GUI	Context of selection	Menu	Action in the other GUI
TeMIP Client Alarm List	Select an alarm emitted by SQM	Launch → Find Managed Object in SLA Monitoring	Open the Detail View of the SQM element (SLA, Service, Component or parameter) that is referenced in the "AO Target entity" column.
SLA Monitoring	Select a SLA, a Service, a Component or a Parameter	Launch → Display associated QoS Alarms in TeMIP Client	Opens a new Alarm list. This list is filtered to display only QoS alarms emitted on the target entity related to the selected element in SQM

Note

For more details on the plug in to install in order to make TeMIP Client and SQM SLA Monitoring work together, please refer the SQM documentation *OpenView Service Quality Manager TeMIP Alarm SA Installation, Configuration and User's Guide*.

The link "SLA Monitoring => TeMIP Client" is realized through a Java Class declared as a launch in the file that contains the Launch declarations for all the users ($TEMIP_SC_VAR_HOME/UI/UIServer/users/config/UIS_AllUsers_ServiceLevel Monitoring_LaunchedAppli_v1_2.xml).

The name of this class is
`"com.compaq.temip.servicecenter.ui.monitoring.launched.v1
_2.appli.alarms.DisplayAssoLaunchClass"`

This class is able to:

- Build a TeMIP Entity name

- Call the TeMIP Client AH CORBA service "DisplayAssociatedAlarms". This service will open a new alarm list. This list is filtered to display only alarms about the entity sent as argument of the CORBA call

This Class can be used in 2 different ways

- Build the entity that corresponds to the element selected in the SLA Monitoring and send it to the TeMIP client. In that case, arguments are:

Arguments				
Name	type	value	key/sub.key	

desktop.id	Predefined		DESKTOP_ID	An ID sent by TeMIP client, used to establish the CORBA link
sla.id	Predefined		CTX_SLA_ID	The ID of the selected SLA
si.id	Predefined		CTX_SI_ID	The ID of the selected SI (if any)
sci.id	Predefined		CTX_SCI_ID	The ID of the selected SCI (if any)
Param.id	Predefined		CTX_PARAM_ID	The ID of the selected parameter (if any)

- Use the value identified of the argument as the entity to send to the TeMIP Client.

  The argument's name must be "entity".

  The argument can be either a fixed or a predefined argument

  For example,

  - The value can be retrieved from a property

    <ui:PredefinedArg name="entity"

    key="PROPERTY_VALUE"

    sub.key="my_ppty_id">

    Such a launch can be activated when the component or the service that contains this property is selected in the SLA Tree View

  - The value can be retrieved from a parameter

    <ui:PredefinedArg name="entity"

    key="CTX_PARAM_VALUE">

    Such a launch can be activated when the parameter is selected in the Detail View. In that case, arguments are:

Arguments				
Name	type	value	key/sub.key	
desktop.id	Predefined		DESKTOP_ID	An ID sent by TeMIP client, used to establish the CORBA link
entity	Fixed	Any string representing a valid TeMIP entity		The entity to send to TeMIP
	Predefined		Any valid key but in general: PROPERTY_VALUE / my_ppty_id CTX_PARAM_VALUE	

Arguments				
Name	type	value	key/sub.key	
exact-match (optional)	Fixed	true / false (default value)		The filtering will be done on the exact entity if the flag is set to true. If it is set to false, alarms of sub entities will be displayed too
remove-ns (optional)	Fixed	true / false (default value)		If true, the TeMIP namespace of the Entity will be removed (if it is present).

- How to add new Reports in the Report menu?

4.2 Users' Configurations storage

Users' configuration (list of monitored SLAs, settings of the Options Dialog Box, content of the dashboard) and the definition of launch Applications (content of menus Launch) are retrieved through the Presentation server. For launched Applications and for Configurations, two levels of settings are taken into account:

- Data for All Users: these data are applicable to any users. They can be considered as Default values.

- User dependant data: these data are read after "all users" data and overlap them. They correspond to a customization per user.

SLA Monitoring is delivered with a subset of launched Applications defined for all the users. These launched applications are used to start SLA Reporting in a browser.

The following paragraphs describe how to manage these definitions, how to create a default configuration for all the users, how to add definitions of new launched applications,…

4.2.1 Files location storage

All the user's configurations are stored in files on the presentation director, in the folder:

$TEMIP_SC_VAR_HOME/UI/UIServer/users/config

4.2.2 Configuration files naming conventions

The naming of the files respect the following format

UIS_<login_name>_<application>_<type_of_settings>

Where

- <login_name> can be

  - The login: name of the user used in the login box. It identifies files that will only be loaded for this user.

  - AllUsers: loaded for all the users before their own file. It is used to share some default settings between all the users.

- `<application>`: the application the data related to.
  Example: `ServiceLevelMonitoring` is the keyword for the SLA Monitoring.

- `<type_of_settings>`: identifies the type of settings stored in the file. An application can use several configuration files. The SLA monitoring uses:

  - `SLMSettings.cfg` : General configuration

    - o SLA list scope,

    - o Dashboard content,

    - o Settings of the Option dialog box…

  - `SLAScope_v1_2.xml`: SLA scope

    - o List of the SLAs in the scope

    - o Operator rights concerning the modification of this scope

  - `Node_Definition_Conf_….cfg`: Configuration relative to one component definition.

    - o Icon associated to a component definition in the SLA View (See 3.2.4.4, Associating an icon to a Definition)

    - o Default chart settings associated to a parameter (See 3.3.4.6, Creating a default chart style).

  - `Launched_appli_v1_2.xml`: definition of the Launched applications (See 4.3, Launched Applications)

  - `ReportingDef_v1_2.xml`: definitions of the links to load the reports from the SQM Reporting portal.
    (See 3.6, SQM Reports)

4.2.3 Configuration files loading policy

For a given `<login_name>`, `<application>` and `<type_of_settings>`, two files are loaded:

- First, UIS_AllUsers_<application>_<type_of_settings>

- Then UIS_<login_name>_<application>_<type_of_settings>

Note

If a setting is defined into the two files, then the value that will be used is the value from the `UIS_<login_name>_...` file.

4.2.4 How to create a default configuration for all the users?

SQM SLA Monitoring allows the operator to save his (her) configuration (menu file/ save current configuration). It can be interesting to predefine for all the operators some default settings.
Example: set a Polling Period, Time settings for any new chart

To do this, the administrator has to:

1. Use the SLA Monitoring to create his (her) configuration.

    a. Set the polling period in Option Dialog Box

    b. Define the Default Representation for the parameters he (she) wants (See section 3.3.4.6 Creating a default chart style)

    c. …

2. Save the desired configuration (so for his login name)

3. Publish his configuration as the default configuration for all the users

    a.   Open a UNIX console on the Presentation director server

    b.   Source SQM environment
```
. /var/opt/OV/SQM/slmv12/temip_sc_env.sh
```

    c.   Go in the folder that contains all user configurations
```
cd $TEMIP_SC_HOME/UI/UIServer/users/config
```

    d.   Use the file that contains his (her) **general settings** as the default for all users
```
mv
UIS_<the_admin_unix_login>_ServiceLevelMonitoring_
SLMSettings.cfg
UIS_AllUser_ServiceLevelMonitoring_SLMSettings.cfg
```

    e.   Use the files that contains his (her) **settings for Component Definitions** as the default ones for all users.
For all files that follows the pattern
```
UIS_<login_name>_ServiceLevelMonitoring_Node_Defi
nition_Conf…,
```
replace `<login_name>` by `AllUsers`

NB: These files contain the name of the icon to use in the SLA tree (See 3.2.4.4, Associating an icon to a Definition) and the "default chart Settings" (See 3.3.4.6, Creating a default chart style).

Note

The operators will use the new default settings the next time they will restart the SLA Monitoring. The Presentation server (UIS) does not need to be restarted.

4.2.5 How to force the SLA scope of a user?

The SLA scope (the list of SLAs the operator is currently monitoring) of an operator can be set by the SQM Administrator. In that case, the operator can neither add other SLAs to his scope, nor remove one SLA from his current scope. The operator can do anything (store his options, create charts, customize their representation,…) except changing the scope.

This behavior is controlled by a flag in the file that manages the SLA scope of the operator:

```
UIS_<operator_login>_ServiceLevelMonitoring_SLAScope_v1_2.xml
```

It is located in the presentation director, in the folder `$TEMIP_SC_HOME/UI/UIServer/users/config`.

In this file, the administrator has to change the value of the variable "`is_read_only`" from `false` to `true`. This variable is part of the section "`application`".

There are two ways (manual and automatic) to create a file `UIS_<operator_login>_ServiceLevelMonitoring_SLAScope_v1_2.xml` dedicated to a specific operator.

4.2.5.1 Manual process

To manually create the `UIS_<operator_login>_ServiceLevelMonitoring_SLAScope_v1_2.xml` file, the SQM administrator has to:

- Log in the SLA monitoring with his login name (or another one that has rights to modify the SLA scope: admin_login in this example)

- Add SLAs the operator will have to monitor

- Save the configuration in the SLA monitoring

- On the Presentation director, rename the file, UIS_**admin_login**_ServiceLevelMonitoring_SLAScope_v1_2.xml in UIS_**oper_login**_ServiceLevelMonitoring_SLAScope_v1_2.xml

- On the Presentation director, edit the file UIS_**oper_login**_ServiceLevelMonitoring_SLAScope_v1_2.xml change the value of the variable "is_read_only" (located in the section "application") from false to true

- Save the file

4.2.5.2   Automatic process

UIS_oper_login_ServiceLevelMonitoring_SLAScope_v1_2.xml is a text file that can easily be generated.

It contains one section "application" and one section per SLA in the scope.

The Application section

It contains :

- the "is_read_only" flag that controls the capability to change the scope or not

- the number of SLAs

Example:

```
<ConfigSection SectionName="application">

  <ConfigVariable VariableName="nb_sla_in_monitoring_scope">

    <ConfigValue>

      <IntValue>5</IntValue>

    </ConfigValue>

  </ConfigVariable>

  <ConfigVariable VariableName="is_read_only">

    <ConfigValue>

      <BoolValue>true</BoolValue>

    </ConfigValue>

  </ConfigVariable>

</ConfigSection>
```

The scope_sla_<index> section

This section has an index. This index must be greater or equal than 0 and lower than nb_sla_in_monitoring_scope.

nb_sla_in_monitoring_scope sections of this type must be declared.

Each section contains

- The Service Definition ID (SQM internal reference) of the SLA

- The SLA ID (SQM internal reference) of the SLA

Example :

```
<ConfigSection SectionName="scope_sla_1">

  <ConfigVariable VariableName="sla_sd_name">

    <ConfigValue>

      <StrValue>Video</StrValue>

    </ConfigValue>

  </ConfigVariable>

  <ConfigVariable VariableName="sla_name">

    <ConfigValue>

      <StrValue>GoldVideoFR</StrValue>

    </ConfigValue>

  </ConfigVariable>

</ConfigSection>
```

4.3 Launched Applications

4.3.1 What are launched applications?

The SLA Monitoring provides a way to execute commands configured by the administrator. These commands are called Launched Applications.

These launched applications:

- Can open URLs in the perspective "Browser" or in an external Web browser (Microsoft Internet Explorer is the default one).

- Can execute batch commands in a separate DOS process.

- Can be enabled depending on the current selected object in the SLA Monitoring

- Can have fixed arguments: strings defined in the definition of the launch

- Can have predefined arguments: arguments that will indicate to use data relative to the current selected object in the SLA Monitoring

The user has access to the Launched Applications:

- From the main menu Tools / launch

- From the contextual menu launch if the selected node matches the definition of some Launched Applications

The administrator can add new Launched Applications in the file `UIS_AllUsers_ServiceLevelMonitoring_LaunchedAppli_v1_2.xml`. This file is locate din the presentation director at `$TEMIP_SC_VAR_HOME/UI/UIServer/users/config`

The `...LaunchedAppli_v1_2.xml` files are XML files. They must respect the DTD `tsc_ui_launched_appli_v1_2.dtd` (located in the folder `%TEMIP_SC_HOME%/DTD`

4.3.2 How is structured the XML file?

The XML contains three main parts:

- Definition of the launched applications
  The description is associated to a `id.launch`,key that will be used to build the launch menus

- Description of the main menu tools/launch
  Description of the launch menu. It can contain

    o submenus

    o menu entries that are associated with the `id.launch` of the launch to execute when the user clicks on the menu

  When the selection in the SLA Monitoring does not allow executing the launch, then corresponding menu entries are disabled (greyed).

- Description of the contextual menu
  As the Main menu Launch, it can contain submenus and menu entries.
  When the selection in the SLA Monitoring does not allow executing the launch, then corresponding menu entries are not displayed in the contextual menu.

4.3.3 What do LaunchedAppli nodes represent?

A `LaunchedAppli` is identified by an `id.launch` that will be used in the menu descriptions to associate a string in a menu to the launch.

The `LaunchedAppli` contains `ActiveOn` nodes.

4.3.4 What do ActiveOn nodes represent?

A menu item can be activated (or not) regarding selection context i.e. the object

An `ActiveOn` is the association of:

- the OR / AND combination of criteria that indicates if the menu has to be enabled

- the description of the action to perform when the user clicks on the menu

In most cases, a `LaunchedAppli` will contain 1 `ActiveOn` node.

In some cases, it can be interesting to use the same menu entry to execute commands that are totally different (depending on the selected object in the SLA Monitoring).

To do it, the `LaunchedAppli` (so the unique `id.launch` so the unique menu entry) will contain several `ActiveOn` nodes:

- the menu is enabled (in the GUI) if at least one `ActiveOn` node is "valid" (i.e. the OR / AND) combination indicates that the menu has to be enabled

- the action executed when the user clicks on the menu is the action corresponding to the first "valid" ActiveOn.

4.3.4.1 How to define when the menu is enabled for the user?

The launch menu will be enabled if at least one ActiveOn node is "valid". The state of the ActiveOn node is driven by its CriteriaList and Criteria nodes:

The ActiveOn node is "valid" if AT LEAST one CriteriaList is "valid".

A CriteriaList is "valid" if ALL its Criteria are valid.

A Criteria is "valid" when the condition (defined in the Criteria) is successful for the current selection

Note

If no CriteriaList is defined, then the ActiveOn node is always "valid"

Examples:

- The launch is active if Criteria 1 or criteria 2 are valid:

```
<CriteriaList>

  <Criteria 1 ...>

</CriteriaList>

<CriteriaList>

  <Criteria 2...>

</CriteriaList>
```

- The launch is active if Criteria 1 is valid or if both criteria 2 and criteria 3 are valid:

```
<CriteriaList>

  <Criteria 1 ...>

</CriteriaList>

<CriteriaList>

  <Criteria 2...>

  <Criteria 3...>

</CriteriaList>
```

Note

In such declaration, two criteria can:

- Test values of different data (TYPE = COMPONENT and TYPE_DEFINITION = WEB_SERVER

- Test different values on the same data (TYPE = SERVICE or TYPE = COMPONENT)

4.3.4.2   How to define a criteria?

A criteria condition if defined by three attributes:

- Operator : possible values are "Equals" or "Exists"

- key [/subkey] : represents one of the characteristics of the GUI selection context. Some keys require a subkey. Other keys have no subkeys.

- Value : the value that is tested on the GUI selection context's characteristic identified by the key [/subkey]

Example of Criteria:

The following ui:Criteria will be valid if the currently select object in the GUI is a COMPONENT

```
<ui:Criteria operator="Equals" key="CTX_TYPE"
value="COMPONENT"/>
```

4.3.5   What type of data can be tested in a Criteria?

4.3.5.1   Test if the selected object is a SLA

operator="Equals" key="CTX_TYPE" value="SLA"

4.3.5.2 Test if the selected object is a Service

operator="Equals" key="CTX_TYPE" value="SERVICE"

4.3.5.3 Test if the selected object is a Component

operator="Equals" key="CTX_TYPE" value="COMPONENT"

4.3.5.4 Test if the selected object is a Parameter

operator="Equals" key="CTX_TYPE" value="PARAMETER"

4.3.5.5 Test if the selected object is "seen" through a SLA owned by a Customer

operator="Equals" key="CTX_ENTITY_TYPE" value="CUSTOMER"

4.3.5.6 Test if the selected object is "selected" through a SLA owned by an Operation

operator="Equals" key="CTX_ENTITY_TYPE" value="OPERATION"

4.3.5.7 Test if the selected object is "selected" through a SLA owned by an entity (Customer or Operation) of ID "my_entity_id"

operator="Equals" key="CTX_ENTITY_ID" value="my_entity_id"

4.3.5.8 Test if the selected object is "selected" through a SLA owned by an entity (Customer or Operation) of name "my_entity_name"

operator="Equals" key="CTX_ENTITY_NAME" value="my_entity_name"

4.3.5.9 Test if the ID of the selected object is "my_node_id".

operator="Equals" key="CTX_NODE_ID" value="my_node_id"

The "node" can be a SLA, Service or a Component.

When a Parameter is selected, then the node is the Service or the Component of the Parameter.

4.3.5.10 Test if the name of the selected object is "my_node_name".

operator="Equals" key="CTX_NODE_NAME" value="my_node_name"

The "node" can be a SLA, Service or a Component.

When a Parameter is selected, then the node is the Service or the Component of the Parameter.

4.3.5.11 Test if the ID of definition of the selected object is "my_node_def_id"

operator="Equals" key="CTX_NODE_DEF_ID" value="my_node_def_id"

When the "node" is a SLA or a Service, then the node definition is a Service definition.

When the "node" is a Component, then the node definition is a Component definition.

4.3.5.12 Test if the NAME of definition of the selected object is "my_node_def_name".

operator="Equals" key="CTX_NODE_DEF_NAME" value="my_node_def_name"

When the "node" is a SLA or a Service, then the node definition is a Service definition.

When the "node" is a Component, then the node definition is a Component definition.

4.3.5.13 Test if the selected object is selected "through" a SLA of ID "my_sla_id"

operator="Equals" key="CTX_SLA_ID" value="my_sla_id"

4.3.5.14 Test if the selected object is selected "through" a SLA of name "my_sla_name"

operator="Equals" key="CTX_SLA_NAME" value="my_sla_name"

4.3.5.15 Test if the selected object is selected "through" a SLA based on the Service Definition of ID "my_sd_id"

operator="Equals" key="CTX_SD_ID" value="my_sd_id"

4.3.5.16 Test if the selected object is selected "through" a SLA based on the Service Definition of name "my_sd_name"

operator="Equals" key="CTX_SD_NAME" value="my_sd_name"

4.3.5.17 Test if the selected object is selected "through" a Service of ID = "my_si_id"

operator="Equals" key="CTX_SI_ID" value="my_si_id"

The criteria will be valid if the selected object is:

- a Service of ID = "my_si_id"

- a Service Component and its parent Service has its ID equals to "my_si_id"

- a Parameter that is owned by a Service or a Service Component that respects the condition described above

4.3.5.18 Test if the selected object is selected through a Service of name = "my_si_name"

operator="Equals" key="CTX_SI_NAME" value="my_sd_name"

Same as above with the name of the Service.

4.3.5.19 Test if the selected object is selected through a component with definition ID = "my_scd_id"

operator="Equals" key="CTX_SCD_ID" value="my_scd_id"

The criteria will be valid if the selected object is:

- a Service Component based on a Service Component Definition of ID "my_scd_id"

- a Parameter that is owned by a Service Component that respect the condition described above

4.3.5.20 Test if the selected object is selected through a component with definition name = "my_scd_name"

operator="Equals" key="CTX_SCD_NAME" value="my_scd_name"

Same as above with the name of the Component Definition name.

4.3.5.21 Test if the selected object is selected through a component of ID = "my_sci_id"

operator="Equals" key="CTX_SCI_ID" value="my_sci_id"

The criteria will be valid if the selected object is:

- a Service Component of ID "my_sci_id"

- a Parameter that is owned by a Service Component that respects the condition described above

4.3.5.22 Test if the selected object is selected through a component of name = "my_sci_name"

operator="Equals" key="CTX_SCI_NAME" value="my_sci_name"

Idem with the name of the Component.

4.3.5.23 Test if the selected object is a parameter of id = "my_param_id"

operator="Equals" key="CTX_PARAM_ID" value="my_param_id"

4.3.5.24 Test if the selected object is a parameter of name = "my_param_name"

operator="Equals" key="CTX_PARAM_NAME" value="my_param_name"

4.3.5.25 Test if the selected object is a parameter of name = "my_param_value"

operator="Equals" key="CTX_PARAM_VALUE" value="my_param_value"

4.3.5.26 Test if the selected service or component has a property "my-property-name" with value = "my_property_value"

operator="Exists" key="PROPERTY_VALUE" subkey="my_property_id"

4.3.6 What type of action can be declared in the ActiveOn Node?

In a launch file, three kinds of actions can be declared:

- Start a shell script

- Open an URL (in the embedded browser or in an external browser)

- Execute a java class

4.3.6.1 How to execute a shell script?

To execute a shell script when the user clicks on the menu, use a `<ui:CommandLine>` node.

Node CommandLine

The attributes of this kind of nodes are:

bin.path (mandatory)

The value of this field contains the file name to start. The file must be an absolute file path name or its directory must be in the PATH of the computer (recommended solution).

autostart (optional)

Possible values are "True" or "False".

The default value is "False".

If set to "True", this launch is executed at the startup of the monitoring UI.

exe.dir (optional)

Directory in which the launch has to be executed.

If it is not set, the launch is executed in:

- the SQM installation directory if SLA monitoring has been installed using the standard way

- the user's desktop if the SLA Monitoring has been ran using Java Web Start

args.format (optional)

This attribute describes the command line attributes to send.

This string can contain text (that will be sent as it is) and tags][. In that case, the `<ui:CommandLine>` must contain as many nodes `<ui:CommandLinePredefinedArg>` as tags.

When the launch is executed, the Nth tag is replaced by the value identified by the Nth node `<ui:CommandLinePredefinedArg>`.

Node CommandLinePredefinedArg

The node `<ui:CommandLinePredefinedArg>` contains attributes key [/ subkey]:

See "How to define a predefined Argument" paragraph below for details

prefix / suffix (optional)

If the key / subkey identifies a data, then the value identified by the CommandLinePredefinedArg node if the concatenation of

    `<prefix><data identified by key/subkey><suffix>`

Example:

- the prefedinedCommandLineArg contains

    key="CTX_SCI_ID" prefix="sci_id="" suffix="""

    (NB : " is the XML representation of a double quote (").

- If the ID of the selected component is SCI_1 then the tag][that corresponds to the prefedinedCommandLineArg will be replaced by:

    sci_id="SCI_1"

- If the selected component is another one, the tag][will be replaced by an empty string.

4.3.6.2 How to open an URL in a (embedded or external) Web browser?

To open an URL in a Web Browser when the user clicks on the menu, use a `<ui:UrlDisplay>` node.

The URL to open can be fixed (defined in the launch) or predefined (dynamically computed from a characteristic of the current selection on the GUI).

In both cases, arguments of the url can be either fixed or predefined (dynamically computed from a characteristic of the current selection on the GUI).

A `<ui:UrlDisplay>` node can contain the following attributes:

use.external.browser (optional)

Possible values are "True" and "False".

The default value is "False".

If set to "True", then the page is displayed in an external Web Browser (Internet Explorer on Windows).

If set to "False", then the page is displayed in the embedded browser (perspective Browser).

Note

If `use.external.browser ="false"`, then HTML page <u>must not reference Java Applets</u>.

As Web technologies are always evolving, all technologies have not been certified.

The officially supported Web technologies are:

- HTML
- PDF
- JavaScript

Others may run but are not officially supported.

useDoPost (optional)

Possible values are "True" and "False".

The default value is "False".

This setting is used only if `use.external.browser ="false"`.

If set to "True", the browser uses the HTTP POST method. All attributes will be sent in the post header.

If set to "FALSE", the browser uses the HTTP GET method. All attributes will be added in the URL.

autostart (optional)

Possible values are "True" and "False".

The default value is "False".

If set to "True", then the URL is loaded in the browser at the startup of the SLA Monitoring.

How to define a fixed URL?

A fixed URL is an URL that is specified in the XML using a node

url (mandatory)

The url attribute contains the url to open when the user clicks:

```
<ui:FixedUrl url="http://www.mywebsite.com">

   <ui:FixedArg …/>

   <ui:PredefinedArg …/>

</ui:FixedUrl>
```

Fixed arguments and predefined arguments can still be added

How to define a predefined URL?

The url will be dynamically computed regarding the characteristic of the object (selected in the GUI) identified by the key and optionally the subkey.

Example:

```
<ui:PredefinedUrl key="PROPERTY_VALUE"
subkey="my_ppty_web_site">

   <ui:FixedArg …/>

   <ui:PredefinedArg …/>

</ui:PredefinedUrl>
```

Key (Mandatory) / subkey (optional)

All keys and subkeys used in the <ui:Criteria> nodes are available.

(See 4.3.5, What type of data can be tested in a Criteria for their description)

How to define "fixed arguments"?

Use a <ui:FixedArg name="my_arg_name" value="my value"> node to define a fixed argument in an launch that has to open an URL in a browser>

Name (Mandatory)

Name of the URL attribute.

Value (Mandatory)

Value used for the URL attribute.

Example of a fixed argument:

```
<ui:FixedUrl url="http://www.mywebsite.com">

   <ui:FixedArg name="arg1", value="value1"/>

   <ui:FixedArg name="arg2", value="value2"/>

</ui:FixedUrl>
```

The generated URL will be:

```
http://www.mywebsite.com?arg1=value1&arg2=value2
```

How to define "predefined arguments"?

For a `UrlDisplay` node, use a `<ui:PredefinedArg>` node.

For a `CommandLine` node, use a `<ui:CommandLinePredefinedArg>` node.

The value is dynamically computed regarding the characteristic of the object (selected in the GUI) identified by the key and optionally the subkey.

Name (Mandatory)

Name of the URL attribute.

No name field is used in `<ui:CommandLinePredefinedArg>` because the identification of the location of computed value is done using][tags.

Key (Mandatory) / subkey (optional)

All keys and subkeys used in the `<ui:Criteria>` nodes are available.

(See 4.3.5, What type of data can be tested in a Criteria for their description).

Few other values are available:

LIST_SCOPE_SLA_ID

The value sent for this keyword is the list of the IDs of the SLAs in the scope. The Separator is ','.

LIST_SCOPE_SLA_NAME

The value sent for this keyword is the list of the Names of the SLAs in the scope.

The Separator is ','.

Restriction: This list is available except if the SLA Names contain some ',' characters.

DATAFILE

An XML File containing information about the selected object is generated.

The value sent for this keyword is the full path file name of this generated file.

DESKTOP_ID

If the SLA Monitoring is started with the System Property desktop_id=XXX, the value sent is XXX. Else, a random value is assigned once and then sent.

The value remains the same during the whole life of the SLA Monitoring process.

USER

The value sent is the login of the user who logged into the SQM SLA Monitoring.

Note

Field "name" of arguments must be a unique identifier among all the arguments of node `<UrlDisplay>`.

If both Fixed and Predefined arguments are used, the DTD requires declaring the Fixed argument nodes first.

4.3.6.3   How to execute a Java Class?

Executing Java code from the SLA Monitoring UI is possible but it has to be done very carefully in order not to make the SLA Monitoring UI unstable

This is mainly a task for integrators or SQM developers.

Several steps are to be done and are described here after.

Build Java Archive

The integrator has to write and compile the java class

(e.g. com.mypackage.MyLaunch)

Note that it is forbidden to use a package starting with <com.compaq.temip.servicecenter>

This class must implement the interface:

com.compaq.temip.servicecenter.ui.common.launched.v1_2.engine.LaunchedAppliExecuteAble

Then he has to build a java archive:

(e.g. my_launch.jar)

Deploy the jar in a standard installation

This step is to be executed on each PC where a standard installation of SQM SLA Monitoring UI has been performed.

Deploy the jar file in a sub folder of %TEMIP_SC_HOME%

(e.g. my_custom)

Add the jar file in the classpath.

Edit the file
%TEMIP_SC_HOME%\UI\SLMClient\bin\TeSCUISLMClient_extra_var_env.bat

Add the line

```
set CLASSPATH_UI_SLM_FULL=./my_custom/my_launch.jar;
%CLASSPATH_UI_SLM_FULL%
```

Deploy the jar when the SLA Monitoring UI is deployed using Java WebStart

If the SLA Monitoring UI is deployed using Java WebStart, this step is to be executed on the Web server:

Deploy the jar file in a sub folder of the installation folder of SQM in the WebServer

(e.g. my_custom)

Create a specific Webstart declaration file

(e.g. my_custom/my_custom.jnlp)

You can use the file <sqm_install_dir>/webstart/sqm_3pp_misc.jnlp as an example.

Reference my_custom/my_custom.jnlp in the main JNLP file
<sqm_install_dir>/webstart/TeSCUISLMClient.jnlp

Add a line like

```
<extension name="SQM SLA Monitoring – my custom" href="
my_custom/my_custom.jnlp "/>
```

Declare the launch in the Launch definition file

The Integrator must modify the Launched Applications definition file.

This file is located in the presentation director at
$TEMIP_SC_VAR_HOME/UI/UIServer/users/config

The XM node <ui:ActiveOn> must contain a subnode <ui:JavaClass>.

A <ui:JavaClass> node contains the following attributes:

classname (Mandatory)

Name of the class to load (e.g. com.mypackage.MyLaunch)

autostart (optional)

Possible values are "True" or "False". The default value is "False".

If autostart is set to "True", the launch will be executed at the startup of the SLA Monitoring UI.

How to define "fixed or predefined arguments"?

Fixed and predefined arguments are defined in the same way than launched applications that open URLs in a browser.

See paragraphs "How to define a Fixed argument" and "How to define a Predefined argument" of chapter 4.2.6.2How to open an URL in a (embedded or external) Web browser?

4.3.6.4   Main menu and contextual menu description

The main menu is described in the XML node <ui:MainMenu>.

The contextual menu is described in the XML node <ui:PopupMenu>.

The root nodes contain a list of <ui:MenuItem> nodes.

Each MenuItem will be displayed in the menu by:

- A submenu if the <ui:MenuItem> contains a <ui:SubMenu> node

- A menu entry if the <ui:MenuItem> contains a <ui:MenuLaunch> node

The association between the LaunchedAppli (definition of the launch) and the Menu nodes is done by the field id.launch.

Note

A LaunchAppli can be associated with:

- <ui:MenuLaunch> in both main and contextual menu.

  This is generally the case for contextual launched applications

- Only one <ui:MenuLaunch> in main menu

  This is generally the case for a launched application that is not contextual (always active)

- Only one <ui:MenuLaunch> in contextual menu

  This is generally the case for a launched application that is strongly contextual (active on few contexts)

- No <ui:MenuLaunch> (neither in main menu nor in popoup menu)

  This can be the case for a launched application that has to be automatically started on SLA Monitoring UI startup and that must not be restarted by the user

---

Node <ui:SubMenu>

A submenu contains a list of <ui:MenuItem> nodes.

As <ui:MenuItem> can contain <ui:SubMenu> nodes, as many sub menus as the user wants.

```
<ui:MenuItem>

    <ui:SubMenu label="Examples">

    …

    </ui:SubMenu>

<ui:MenuItem>
```

Label

The label of the submenu.

Node <ui:MenuLaunch>

It represents a menu entry that will be used by the user to execute a lauched application:

```
<ui:MenuItem>

    <ui:MenuLaunch id.launch="launch_url_hp_home"

                   label="hp on the web"/>

<ui:MenuItem>
```

Label

The label of the submenu.

Id.launch

Corresponds to the id.launch of the associated <ui:LaunchAppli> node.

Example of launched application

On the presentation director, you will find examples of launched applications in the file:

```
$TEMIP_SC_VAR_HOME/UI/UIServer/users/config/UIS_AllUsers_
ServiceLevelMonitoring_LaunchedAppli_v1_2.xml
```

4.3.6.5 Launched Applications delivered with the SQM SLA Monitoring UI

4.3.6.6 Display Associated Alarms in TeMIP Client GUI

OpenView SQM SLA Monitoring UI and OpenView TeMIP Client can communicate together in order to display in one of the GUIs the related information to an information selected in the other GUI.

GUI	Context of selection	Menu	Action in the other GUI
TeMIP Client Alarm List	Select an alarm emitted by SQM	Launch → Find Managed Object in SLA Monitoring	Open the Detail View of the SQM element (SLA, Service, Component or parameter) that is referenced in the "AO Target entity" column.
SLA Monitoring	Select a SLA, a Service, a Component or a Parameter	Launch → Display associated QoS Alarms in TeMIP Client	Opens a new Alarm list. This list is filtered to display only QoS alarms emitted on the target entity related to the selected element in SQM

Note

For more details on the plug in to install in order to make TeMIP Client and SQM SLA Monitoring work together, please refer the SQM documentation *OpenView Service Quality Manager TeMIP Alarm SA Installation, Configuration and User's Guide*.

The link "SLA Monitoring => TeMIP Client" is realized through a Java Class declared as a launch in the file that contains the Launch declarations for all the users ($TEMIP_SC_VAR_HOME/UI/UIServer/users/config/UIS_AllUsers_ServiceLevel Monitoring_LaunchedAppli_v1_2.xml).

The name of this class is
"com.compaq.temip.servicecenter.ui.monitoring.launched.v1_2.appli.alarms.DisplayAssoLaunchClass"

This class is able to:

- Build a TeMIP Entity name

- Call the TeMIP Client AH CORBA service "DisplayAssociatedAlarms". This service will open a new alarm list. This list is filtered to display only alarms about the entity sent as argument of the CORBA call

This Class can be used in 2 different ways

- Build the entity that corresponds to the element selected in the SLA Monitoring and send it to the TeMIP client. In that case, arguments are:

Arguments				
Name	type	value	key/sub.key	
desktop.id	Predefined		DESKTOP_ID	An ID sent by TeMIP client, used to establish the CORBA link
sla.id	Predefined		CTX_SLA_ID	The ID of the selected SLA
si.id	Predefined		CTX_SI_ID	The ID of the selected SI (if any)
sci.id	Predefined		CTX_SCI_ID	The ID of the selected SCI (if any)
Param.id	Predefined		CTX_PARAM_ID	The ID of the selected parameter (if any)

- Use the value identified of the argument as the entity to send to the TeMIP Client.

  The argument's name must be "entity".

  The argument can be either a fixed or a predefined argument

  For example,

  - The value can be retrieved from a property

    <ui:PredefinedArg name="entity"

    key="PROPERTY_VALUE"

    sub.key="my_ppty_id">

    Such a launch can be activated when the component or the service that contains this property is selected in the SLA Tree View

  - The value can be retrieved from a parameter

    <ui:PredefinedArg name="entity"

    key="CTX_PARAM_VALUE">

    Such a launch can be activated when the parameter is selected in the Detail View. In that case, arguments are:

Arguments				
Name	type	value	key/sub.key	
desktop.id	Predefined		DESKTOP_ID	An ID sent by TeMIP client, used to establish the CORBA link
entity	Fixed	Any string representing a valid TeMIP entity		The entity to send to TeMIP

Arguments				
Name	type	value	key/sub.key	

	Predefined		Any valid key but in general:
			
			`PROPERTY_VALUE / my_ppty_id`
			
			`CTX_PARAM_VALUE`	

exact-match (optional)	Fixed	true / false (default value)		The filtering will be done on the exact entity if the flag is set to true. If it is set to false, alarms of sub entities will be displayed too
remove-ns (optional)	Fixed	true / false (default value)		If true, the TeMIP namespace of the Entity will be removed (if it is present).

4.4 How to add new Reports in the Report menu?

4.4.1 What are SQM Reports?

SQM platform contains a Reporting module that can expose reports related to data stored in SQM.

SQM Reporting module provides a set of predefined reports. These reports can be accessed within the SQM SLA Monitoring (see chapter 3.6 How to display SQM Reports).

Custom reports can be defined in SQM Reporting module. Please refer to the *OV SQM Reporting Customization and User's Guide* for a description on how to define new reports.

These custom reports can also be accessed within the SQM SLA monitoring (through the Report menu). This requires some customization in order to create specific menu entries in the Report menu.

The description of the Report menu and the related report is done in a file that is based on SQM Launched Applications (See 4.3, Launched Applications).

The differences with a description file of launched applications are:

- The name of the files that store the definitions are:

    - File that contains reports available for all the users:
      `UIS_AllUsers_ServiceLevelMonitoring_ReportingDef_v1_2.xml`

    - File that contains reports available for the user `<login_name>`
      `UIS_<login_name>_ServiceLevelMonitoring_ReportingDef_v1_2.xml`

    - Note that, as Launch Applications description files:

- these files are located in
  `$TEMIP_SC_VAR_HOME/UI/UIServer/users/config`

- these files must respect the DTD
  `tsc_ui_launched_appli_v1_2.dtd` (located in the folder `%TEMIP_SC_HOME%/DTD`

- The unique type of action that can be declared in an ActiveOn Node is "SqmReportDisplay".

4.4.2 What are the options for the action SqmReportDisplay?

Node SqmReportDsiplay

The attributes of this kind of nodes are:

report.key (mandatory)

The value of this field contains the identifier of the report to send to the SQM Report Web Portal.

autostart (optional)

Possible values are "True" and "False".

The default value is "False".

If set to "True", the report is loaded in the browser at the startup of the SLA Monitoring.

time.grain (optional)

Time.grain defines the grain of the data (when the report allows it).

Possible Values are stored in the "Prompt and timeframe mapping" configuration file in the SQM Report Web Server.

This file name is located in the webapps forlder of the Servlet Engine `webapps\SQMReporting\WEB-INF\classes\report_definition.xml`.

The default servlet engine is TOMCat and is delivered in `<Business Objects install dir>\ThirdParties\tomcat folder`

Remark: there is only one file per SQM Report Web Server and the values of that file are defined for a specific language

start.date (optional)

Defines the start date of the report (when the report allows it).

Possible Values are:

- A GMT date time in SQM Format : "YYYY-MM-DD hh:mm:ss"
  example "2004-07-20 12:00:00"

- A predefined keyword that indicates the timeframe of the report to consider.

  These values are defined in:

    o Database DMPROD,

    o Table rpt_time_frames,

    o Column TIME_FRAME.

  These values are defined for a specific language. Example, in US English :

    o "past 48 hours"

    o "past 7 days", "past 14 days", "past 30 days"

- o "past 12 weeks", "past 6 months", "past 12 months", "past 2 years"
- o "since beginning"

end.date (optional)

Defines the end date of the report (when the report allows it).

Possible Values are:

- A GMT date time in SQM Format : idem start.date
- A predefined keyword that indicates the end Date

This value is defined for a specific language. Example, in US English:

- o "Now"

Fields XXX.name

These field names are:

- entity.name: identifies either the Customer or the Operation
- sd.name: identifies the Service Definition
- sla.name: identifies the Service Level Agreement
- si.name: identifies the Service (Instance)
- scd.name: identifies the Service Component Definition
- sci.name: identifies the Service Component (Instance)
- param.name: identifies the parameter (of a Service or of a Service Component)

They represent the field presentation name of the XXX type objects.

Possible values are:

- "CTX": the Presentation name of the currently selected object that will be sent to the SQM Report Web Portal.
  The report will be related to the selected XXX Object.
- "ALL": "*" will be sent to the SQM Report Web Portal.
  In that case, the report will be related to all the instances of the XXX objects.
- "NOT_SET": (same as if the field is not defined).
  No information will be sent to the SQM Report Web Portal for this XXX type of Object.

show.prompt.XXX (optional)

These field names are:

- show.prompt.entity:
- show.prompt.sd: identifies the Service Definition
- show.prompt.sla: identifies the Service Level Agreement
- show.prompt.si: identifies the Service (Instance)
- show.prompt.scd: identifies the Service Component Definition
- show.prompt.sci: identifies the Service Component (Instance)
- show.prompt.param: identifies the parameter (of a Service or of a Service Component)

This type of field indicates if the prompt (for the corresponding type of object) has to be displayed. The allowed types of prompts are not meaningful for all the reports. Check the content of the configuration file in the SQM Report Web Server.

Possible values are "True" and "False".

The default value is "False".

add.sla.scope. (optional)

Possible values are "True" and "False".

The default value is "False".

If set to "True", the list of the SLA labels is sent to the Reporting Web Server.

Chapter 5

Help

This chapter provides assistance on how to troubleshoot problems in hp OpenView Service Quality Manager **SLA Level Monitoring User Interface**.

5.1 Help

There is no **Context-Sensitive** Help available in this version of the hp OpenView Service Quality Manager SLA Monitoring application. You can obtain **Help** from the On-line version of this manual.

5.2 On-line Manual

This manual is available on-line.

To display it:

1. From the **Help** menu, choose **Help Topics**

or

2. Press F1.

You can use the search facilities to find Help on the subject you want in the manual.

5.3 How to get information and errors display?

The Service Quality Manager SLA Monitoring User Interface **Console** displays messages providing information on the actions that you have performed.

Messages relating to the last action you have performed are also displayed in the Status bar of the screen.

5.4 How to reconnect the User Interface Server?

An icon is displayed on the Status bar of the SLA Monitoring User Interface Window to indicate the status of the connection with the User Interface Server.

- indicates that the connection is down.

- indicates that the connection is up.

When the connection goes down, a popup menu is displayed (see Figure 70) and a critical message is logged in the console.

Figure 70   Disconnection popup
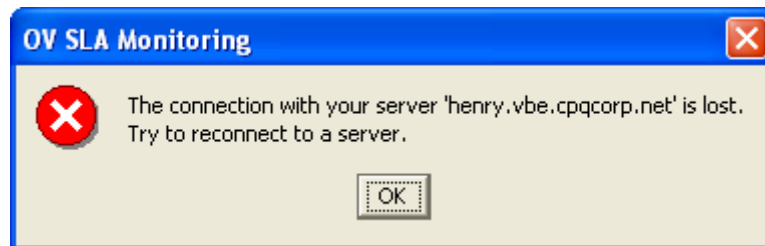
You can reconnect using the **File**-**Reconnect** menu.

5.5 SLA Monitoring doesn't start using Java Web Start

This section describes the most common reasons why SLA Monitoring could not be started using web start.

5.5.1 Check SQM SLA Monitoring download Web page URL

Be sure you are using the correct URL to open the SQM Download Web Page (ask the SQM Administrator for the complete URL).

5.5.2 Check if Java is installed

Java web start tuning is done starting the Java Web start console (start menu / programs / Java Web Start / Java Web Start).

If this menu is not present, it means that you did not install Java 1.4.2_06.

To install the correct version of Java:

- Open a Web browser on the SQM download WEB page (ask the SQM Administrator the complete URL)

- Click on the link "Download the Java Runtime" to install Java

5.5.3 Check settings of Java Web Start

In the Java Web Start Console, click on the menu "File / Preferences…"

- The "General" tab contains the proxy settings. Set the proxy only if it is required. Refer to the SQM Administrator for information about this.

- The "Java" tab lists the Versions of java that can be used. Verify that:

- At least one java version 1.4.2_xx is enabled (xx must be 06 or higher). If no 1.4.2_xx line is visible, please install the correct version of java (See 5.5.2, Check if Java is installed).

- No java version 1.4.1_xx is enabled

- No java version 1.5.xx is enabled

- The "Advanced" tab contains information on tracing and caching:

o   If you still have problems to run SLA Monitoring through Web Start, click on the button "Clear Folder", reopen the SQM download WEB page and re-click on the "Start SQM SLA Monitoring" link.

5.6 How to turn tracing on?

It is possible to trace the activity of the Monitoring for troubleshooting purposes. Please refer to the *OpenView SQM Quality Manager Administration Guide* for further information on how to set traces.

Appendix A

Service Level Monitoring User Interface Icons

This appendix is a glossary of the icons used in OpenView Service Quality Manager SLA Monitoring User Interface.

Some icons are used in the OpenView Service Quality Manager SLA Monitoring, but are also Service Quality Manager Core icons. This is indicated in the description of the icon.

The icons are presented here in the alphabetical order of their filename.

Icon	Description
	Monitor selected parameter in details window
	Chart properties
	Area Chart
	Line chart
	Bar chart
	Clear
	Clearance flag
	SLA Compliance state
	Console
	Copy
	Critical (Icon used in the Console)
	Dashboard
	Open in current details window

Icon	Description
	Duty type
	Service on duty
	Service off duty
	Show/Hide bottom panel
	Show/Hide SLA monitoring scope
	Find services
	Find SLAs
	Search results – Find in scope
	SLA Objective state
	Help
	Information (Icon used in the Console)
	New line (Icon used in the Console)
	Service Level Agreement (Service Quality Manager core icon)
	Service Group (Service Quality Manager core icon)
	Service Instance (Service Quality Manager core icon)
	Service Component Instance (Golden Cube) (Service Quality Manager core icon)
	Customer (Service Quality Manager core icon)
	Operation (Service Quality Manager core icon)
	Service Level (Service Quality Manager core icon)
	Open a new details window
	Off Line: displayed on the bottom bar of the SLA Monitoring User Interface Window when the connection to the User Interface Server is not operational

Icon	Description
✳	On Line: displayed on the bottom bar of the SLA Monitoring User Interface Window when the connection to the User Interface Server is operational.
📂	Define monitoring scope
👤	Customer dependency
🗒	Parameter properties
🔃	Force polling refresh
📊	Remove chart from panel
💾	Save current configuration
🗃	SLA Type
⚠	Warning (Icon used in the Console)
🔍	Zoom
🔍	Zoom out
🔍	Zoom in

Appendix B

Keyboard Shortcuts

This appendix provides a list of the keyboard shortcuts used in hp Service Quality Manager **SLA Monitoring User Interface**.

For example **Ctrl+S** indicates that you press the **Control** key and **S** at the same time.

Key Stroke(s)	Action Performed
Ctrl+B	Default chart in dashboard
Ctrl+D	Default chart in details
Ctrl+E	Chart properties
Ctrl+F	Find in scope
Ctrl+M	Show/Hide Monitoring scope
Ctrl+O	Define Monitoring scope
Ctrl+S	Save current configuration
F1	Help
F2	Opens a new details window
Alt+F2	Opens in current details window
Alt+F4	Exits the application
F5	Force polling refresh

Glossary

This glossary defines the commonly used OpenView SQM terminology.

BI

Acronym for *Business Intelligence*. A broad category of applications and technologies for gathering, storing, analyzing, and providing access to data that helps users make better business decisions.

Business intelligence

See *BI.*

CNM

Acronym for *Customer Network Management*. Tools that provide business customers with access to management information originating from the service provider.

Component service level

Set objectives for the parameters belonging to a service component.

Customer

Companies or organizations that make use of the *services* offered by a *service provider* based on a contractual relationship.

Customer network management

See *CNM*.

Data collection interval

The time interval at which performance parameters are retrieved from the monitored service resources. This interval does <u>not</u> have to be the same as the *measurement interval* because *service adapters* or service resources may buffer statistics.

Data feeder

OpenView SQM's source of data. A data feeder models service resources by defining one or more service parameters.

Data feeder definition

The static definition of a data feeder that models service resources by defining one or more service parameters.

Degraded service

The presence of anomalies or defects that cause degradation in the *quality of service*, but do not result in the total failure of the *service*.

Duty type

SLA duty type can be *On Duty*, which means that the current time falls within the service working hours, or *Off Duty*, which means that the current time falls outside the service working hours.

UI / GUI

User Interface / Graphical user interface. Program that controls a display for the user (usually on a computer monitor) and that allows the user to interact with the system using menus, icons and a mouse.

Measurement interval

The interval over which each service parameter is measured. For example, a parameter may be the number of discarded packets, measured over a 15-minute measurement interval.

Mobile virtual network operator

See *MVNO*.

MVNO

Acronym for *Mobile Virtual Network Operator*. A mobile operator that does not own its own spectrum and usually does not have its own network infrastructure. Instead, MVNOs have business arrangements with traditional mobile operators to buy minutes of use for resale to their own customers.

Parameter

Values that are periodically updated and that help determine the quality of service.

Parameter instance

Service instances and service component instances consist of a set of parameter instances. The value of the parameter instance is provided either by a data feeder or by the parameters of other service components.

Property

Special static parameters that have a value only when an instance of an OpenView SQM object is created. For example, a service component can have a property called "location".

QoS

Acronym for Quality of Service. ITU-T has defined quality of service as "the collective effect of service performances that determine the degree of satisfaction of a user of the service".

Quality of service

See *QoS*.

SAP

Acronym for Service Access Point. The logical element given on the interface between different domains (such as the customer and the service provider). It represents the point at which a *service* is provided.

Service

A service is a set of independent functions (or service components) that consist of hardware and software elements, as well as an underlying communications medium. A service can include anything from a single leased-line service, to a complex application, such as video conferencing.

Service access point

See *SAP.*

Service availability

A measurement made in the context of a *service level agreement* that is expressed as a percentage. This percentage indicates the time during which the *service* at the respective *service access points* is operational.

Service component

An independent function that is part of a *service*, such as hardware, software elements, or the underlying communications medium.

Service component instance

The instantiation of a service component definition that is active in the network, such as an instance of the IPAccess service component definition called "pop".

Service instance

See *SI*.

Service instance group

See *SIG*.

Service level

Defines service parameters and operational data enforced by the service level agreement (for example, Max Jitter < 10 ms). A service level agreement is composed of individual objectives.

Service level agreement

See *SLA*.

Service level objective

See *SLO*.

Service parameter

See *parameter*.

Service provider

A company or an organization that provides *services* as a business. Service providers may operate networks or may integrate the services of others providers.

SI

Acronym for *Service Instance*. The instantiated service definition that is active in the network, such as an instance of the video service definition called "Paris".

SIG

Acronym for *Service Instance Group*. A group of *service instances* against which the *service availability* must be reported. Each *service instance* belongs to one or more SIG and each SIG contains at least one *service instance*. The relationship between the SIG and the service instances defined in their *service level agreement*.

SLA

A Service Level Agreement is a contract between a service provider and a customer, which specifies in measurable terms what the service provider supplies to its customers.

SLO

Acronym for *Service Level Objective*. Set of objectives for the parameters belonging to a service.

Subscriber

The entity responsible for payment of charges incurred by one or more *users*.

User

An entity delegated by a *customer* to use the services of a telecommunication network, such as a person using a UMTS mobile station as a portable telephone.

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