

# HP Business Availability Center

for the Windows and Solaris operating systems

Software Version: 7.0

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## Using Service Level Management

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# Welcome to This Guide

This guide describes how to use Business Availability Center Service Level Management to monitor the contracts your organization has with service providers and customers, both internal and external, and produce reports that measure service level agreement (SLA) compliance.

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## How This Guide Is Organized

The guide contains the following parts:

### **Part I Service Level Management Administration**

Describes how to work with the Service Level Management Administration component to define Business Service CIs and agreements mapped to IT metrics, that represent the business services and business SLAs maintained by your organization.

### **Part II Service Level Management Reports**

Describes how to work with the Service Level Management application to produce reports that track and analyze service levels, and check compliance with business objectives.

### **Part III User Interface**

Describes the pages and dialog boxes used to work with Service Level Management.

## **Who Should Read This Guide**

This guide is intended for the following users of HP Business Availability Center:

- ▶ HP Business Availability Center administrators
- ▶ HP Business Availability Center application administrators
- ▶ HP Business Availability Center end users

Readers of this guide should be knowledgeable about navigating and using enterprise applications, and be familiar with HP Business Availability Center and enterprise monitoring and management concepts.

## **Getting More Information**

For a complete list of all online documentation included with HP Business Availability Center, additional online resources, information on acquiring documentation updates, and typographical conventions used in this guide, see the *HP Business Availability Center Deployment Guide* PDF.

# Part I

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## Service Level Management Administration



# 1

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## Service Level Management Introduction

This chapter introduces Service Level Management and discusses general topics that relate to working with Service Level Management.

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### Introducing Service Level Management

In Service Level Management, an administrator defines service agreements that represent the formal and informal contracts your organization has with your service providers, customers, and with internal business units. Service agreements include Service Level Agreements (SLAs), Operational Level Agreements (OLAs), and underpinning contracts (UCs).

Service Level Management determines compliance with your service agreements by measuring your business applications. You can define business service entities (CIs) that represent the service offerings in your service catalog, and map measurements for service-related processes and network components to each Business Service CI.

The data produced by these measurements helps you determine whether the availability and performance requirements of users and infrastructure are being met. Service Level Management compares KPIs for availability percentages and performance times with service levels, and displays the results in reports.

You begin by examining performance trends and setting baselines for a variety of business processes. These baselines in turn enable you to establish realistic service level objectives for system availability and performance, within the different subsidiaries, geographical locations, or organizations that you serve.

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**Note:** The terms **Agreement** and **SLA** are both generally used to include SLAs, OLAs, and UCs; the main exception to this is in certain places in the user interface where you specifically select **SLA** as the agreement type.

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Service Level Management administration and reporting are accessed from two different areas of HP Business Availability Center:

## **Service Level Management Administration**

To access the Service Level Management administration pages, select **Admin > Service Level Management**.

Service Level Management Administration includes the following tabs:

- ▶ **Agreements Manager.** From this tab, you can create an agreement and recalculate existing agreements.
  - ▶ **Agreements.** You manage SLAs, OLAs, and UCs that reflect actual agreements you have with your service providers or with internal business units. The agreements enable you to build reports showing the level of service management. For details, see “Building Agreements with the Agreements Wizard” on page 25.
  - ▶ **Recalculations.** You can run recalculations on an SLA, usually after making retroactive changes. For details, see “Recalculation for Agreements” on page 43.
- ▶ **Services Manager.** In this tab, you define business service CIs to represent services provided and consumed by your department, and offering levels that set service objectives. For details, see “Services Manager and Business Services” on page 61.



- ▶ **Downtime Events.** In this tab, you can define downtime or incidents that represent actual event occurrences that may skew results and which you may want to exclude from reports. For details, see “Downtime Events” on page 93.
- ▶ **Repositories.** From this tab, you can define calendars and outage categories, and edit or create KPIs and rules.
  - ▶ **Calendars.** Calendars specify periods during which objectives must be checked. Service Level Management provides two default calendars (**24x7** and **Business Hours**); you can define more if needed. For details, see “Calendars” on page 103.
  - ▶ **Outage Categories.** Outage categories can be used in Service Level Management reports, to make results more meaningful. Service Level Management provides default categories (Database, Network, Undefined, and Webserver); you can define more outages categories if needed. For details, see “Status Alerts for Agreements” on page 45.
  - ▶ **KPIs.** Service Level Management includes default KPIs that you use when defining agreements and offering levels. For details, see “KPIs” on page 121.
  - ▶ **Business Rules.** Service Level Management includes default business rules (also known as business logic) that you use when defining agreements and offering levels. For details, see “Rules” on page 121.

## Service Level Management Application

To access the Service Level Management application pages, select **Applications > Service Level Management**.

The Service Level Management application includes the following tabs:

- ▶ **Status Snapshot.** In this tab, you view current and forecast status for the worst-performing agreements, and a summary of status in previous periods. For details, see “Status Snapshot Report” on page 276
- ▶ **SLA Management.** In this tab, you select service-related views to view information about the connections between your business services, business units, and agreements. You can link to related reports that will assist you in understanding the connection. For details, see “About SLA Management” on page 131.

- ▶ **SLA Reports.** From this tab, you can access Service Level Management reports that show you results for KPIs, enable you to see how well service levels compare with your goals, and provide information on current, forecast, and over-time statuses for agreements and CIs. For details, see “About Service Level Management Reports” on page 126.
- ▶ **Outage Reports.** From this tab, you can access reports that show data on outages that have occurred for CIs included in agreements. For details, see “Outage Reports” on page 131.
- ▶ **User Reports.** From this tab, you can access the common reports that are part of the Business Availability Center User Reports feature. For details, see “User Reports Tab” on page 132.

## The Audit Log

You use the audit log to track configuration changes to your agreements and services. The audit log displays all configuration changes that can affect reports.

As the audit log can become very long, you can use filters to display only those agreements and services in which you are interested.

The audit log tracks the following changes:

- ▶ creation or deletion of an agreement
- ▶ any changes made to an agreement
- ▶ the addition of a configuration item (CI) to, or removal from, an agreement
- ▶ any changes made to a CI included in an agreement
- ▶ any changes made to business services, offering levels, and business units

- ▶ any changes to downtime or event scheduling, including the creation, editing, and removal of SLM and BPM events
- ▶ any changes to the calendars
- ▶ any changes to user permissions

For details on using the audit log, see “Audit Log” in *Platform Administration*.

## Data Purging

Data collection tables can grow to a very large size, and thus need occasional purging. For details on managing historical data and the Purging Manager, see “Partitioning and Purging Historical Data from Profile Databases” in *Platform Administration*.

Service Level Management calculates aggregated data for agreement reports, and this aggregated data is stored for long periods. However, the raw data from the various monitoring sources is stored in the database for limited periods, according to the purging policy for each data type (see the settings on the **Admin > Platform > Setup and Maintenance > Data Partitioning and Purging** page).

If you want to re-aggregate data (when doing agreement recalculations) from earlier periods, you need to make sure that the raw data is available to do the calculations for those periods. For example, if there is a two week purging policy for SiteScope data, but your organization sometimes needs to recalculate agreements 4 weeks retroactively, then you need to change the purging policy for SiteScope to 4 weeks so that SiteScope data is available for the calculations.

If you need to re-aggregate data for further back than three months, then as well as making sure that the raw data is available, you must also change the default three month limit for the recalculation policy. To modify the limit, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Service Level Management**, and locate the **Recalculation period limit** entry. Modify the value according to the period you need. (It is not recommended to lengthen the period because of the increased time required for the recalculation task.)

For information on recalculation, see “Recalculation for Agreements” on page 43.

---

**Important:**

- ▶ If you recalculate an agreement for a period when the raw data has already been purged, you lose the previously calculated data for that period.
  - ▶ Increasing the data stored in the database can impact on system performance. Changes to the purging policy and recalculation policy settings are advanced tasks that should be performed only by an administrator or Customer Support.
-

# 2

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## Agreements in Service Level Management

This chapter describes the main concepts and administration for agreements in Service Level Management.

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## About Agreements Manager

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**Note:** The terms **Agreement** and **SLA** are both generally used to include SLAs, OLAs, and UCs; the main exception to this is in certain places in the user interface where you specifically select **SLA** as the agreement type.

---

You use the Agreements Manager to create and manage your agreements, and to recalculate existing agreements.

You create service level agreements (SLAs, OLAs, and UCs) that represent contracts entered into by your department with service providers, customers, and internal business units. You define the agreements by extracting information from actual service agreements and duplicating the information in Service Level Management.

Service Level Management monitors the agreements to check compliance with your service contracts. Your users can view Service Level Management reports to see how well actual service levels compare with agreement goals.

The agreements are based on Business Service CIs representing the services you need to monitor. You build the Business Service CIs by mapping them to the service-related CI topology that supports the service; these are the CIs that actually measure the performance of your network components and business applications. (You also have the option to add the service-related CIs directly to an agreement.)

Before you start defining business services and agreements, the Business Availability Center views containing the service-related CIs must be set up. For details, see “IT Universe Manager” in *IT World Model Management*.

Compliance with agreement objectives is measured using Key Performance Indicators (KPIs). Service Level Management includes default KPIs and KPI rules that are attached automatically to the CIs in agreements, and you can attach additional KPIs.

If you want to use your own custom KPIs and rules with the CIs, you should define them before creating agreements. For details, see “Repositories” in *CI Attribute Customization*.

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**Note:** Service Level Management uses its own KPIs and rules, and not those of Dashboard.

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## Example of Interpreting a Service Level Agreement

The following is an example of clauses in a service level agreement:

Users will be able to access the HP Web site within 8 seconds for 98% of the time during West Coast business hours. After business hours, they will be able to access the site within 12 seconds for 95% of the time.

...

The average round-trip transmission between a UUNET-designated Hub Router in the Sunnyvale metropolitan area and a UUNET-designated Hub Router in the Chicago metropolitan area will take 120 milliseconds or less during business hours and 150 milliseconds or less after business hours.

When defining an agreement in Service Level Management to represent this SLA, the clauses are interpreted as the following calendars and KPI objectives (for previously created Business Process Monitor, SiteScope, and Real User Monitor CIs):

Term	During Business Hours	After Business Hours
<b>Calendar</b>	9 AM to 5 PM, Monday to Friday PST	5 PM to 9 AM, Monday to Friday PST 5 PM Friday to 9 AM Monday PST
<b>CI 1 (measures availability objective)</b>	98%	95%
<b>CI 2 (measures performance objective)</b>	Home page must download within 8 seconds.	Home page must download within 12 seconds.
<b>CI 3 (measures network performance)</b>	120 milliseconds from hub router in Sunnyvale to hub router in Chicago	150 milliseconds from hub router in Sunnyvale to hub router in Chicago



## Building Agreements with the Agreements Wizard

The Create Agreement Wizard provides two alternative wizard processes for building your agreement, service-based or legacy.

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**Note to HP Managed Software Solutions users:** By default, you can create up to ten agreements. To increase this number, contact HP Managed Software Solutions Support.

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Building agreements is described in the following sections:

- ▶ “Building Agreements—Service-Based Process” on page 25
- ▶ “Workflow for Using the Service-Based Process” on page 26
- ▶ “Building Agreements—Legacy Process” on page 28
- ▶ “Workflow for Using the Legacy Process” on page 28

### Building Agreements—Service-Based Process

The Create Agreement Wizard has the option to use a service-based process to build your agreement, and this is the recommended process to use. The service-based option enables you to build an agreement based on defined business services. This service-oriented approach bases your agreements on ITIL standards, and facilitates integration with other service-based solutions.

Each business service is represented by a Business Service CI. You can define the Business Service CIs in the Services Manager tab, or define them while creating a service-based agreement in the Create Agreement Wizard.

A Business Service CI contains all the CIs in the CMDB that are related to that service. For example, you might create a Business Service CI called *Online Payment Service*, and attach all CIs in the system that are related to the online payment service to that Business Service CI. The *Online Payment Service* CI can then be added to any agreement you create that involves the online payment service.

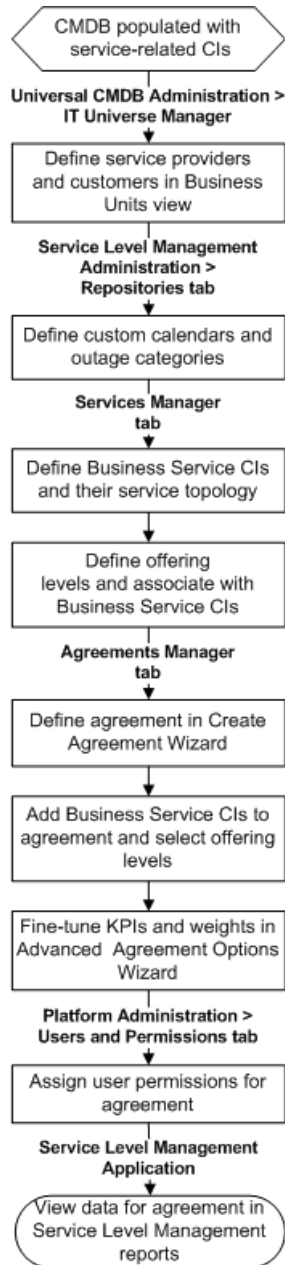
After adding a Business Service CI to your agreement in the Create Agreement Wizard, you have the option to filter the service-related CIs that are included in the business service topology. For example, the Online Payment Service CI includes all CIs that monitor a particular Web server. This Web server is not applicable for the agreement you are creating, so you filter the Online Payment Service topology to exclude the unnecessary CIs. All other service-related CIs that are part of the Online Payment Service CI topology remain attached to the agreement.

When there is a need to fine-tune information for the CIs (KPIs, objectives, outages, weights), you can do this after the agreement has been added to the Agreements Manager tab, in the Advanced Agreement Options Wizard (intended for users with advanced understanding of CI and KPI functioning).

See “Workflow for Using the Service-Based Process” on page 26.

### **Workflow for Using the Service-Based Process**

The following provides a suggested workflow for working with Service Level Management to build agreements based on business services. Many of the steps shown are optional, and do not need to be performed in the order shown. For an explanation, see “Building Agreements—Service-Based Process” on page 25. For more detailed information on the steps involved, see “Define a Service Agreement” on page 46.



## **Building Agreements—Legacy Process**

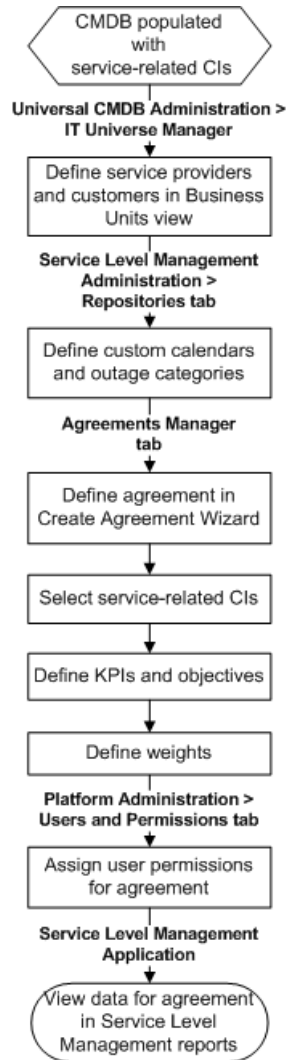
The Create Agreement Wizard offers an option to use the legacy process to build your agreement (this is the process that was used in previous Business Availability Center versions). The legacy version enables you to build an agreement by adding all CIs relating to the agreement services, and then fine-tuning the information for the CIs (KPIs, objectives, outages, weights).

The legacy version of the Create Agreement Wizard does not support the new features offered with the service-based version, such as offering levels and imported transaction thresholds. It is recommended that you use the service-based wizard to build agreements, in order to provide better ITIL management for your service contracts. (For details, see “Building Agreements—Service-Based Process” on page 25.)

See “Workflow for Using the Legacy Process” on page 28.

## **Workflow for Using the Legacy Process**

The following provides a suggested workflow for working with Service Level Management to build agreements using the legacy process. Many of the steps shown are optional, and do not need to be performed in the order shown. For an explanation, see “Building Agreements—Legacy Process” on page 28. For more detailed information on the steps involved, see “Define a Service Agreement” on page 46.



## Business Units for Services and Agreements

You create business units to manage business entities such as service providers, customers, and any other entities with which you conduct business. They can be part of your internal IT department or external. For each business unit, you can build a hierarchy of components.

Business Unit CIs representing your providers and customers are defined in the Business Unit view in the **Admin > Universal CMDB > Modeling > IT Universe Manager** page. After they are added to the Business Unit view, they are available for associating with agreements (providers and customers) and business services (providers only). If required, you can associate a provider with each business service, and associate a different provider with the agreement that contains those services.

You associate providers with business services in the Create Business Service Wizard (see “Define Business Service Properties Page” on page 189), and associate providers and customers with agreements in the Create Agreement Wizard (see “Define Agreement Properties Page” on page 168).

After linking business units to your agreements, you can see information organized by providers and customers in some of the Service Level Management reports and in the SLA Management tab. You can also see information on the business services associated with providers in the Service Providers view (available in the SLA Management tab and in Dashboard).

## SLAs, OLAs, and UCs

When defining an agreement in Service Level Management, you can classify it as one of the following agreement types:

- ▶ **OLA (Operational Level Agreement).** An internal agreement covering the delivery of services which support the IT organization in their delivery of services. OLA is usually used to indicate that the contract addresses system hardware (machines, routers, and so on).
- ▶ **SLA (Service Level Agreement).** Written agreement between a service provider and the customer(s), that documents agreed service levels for a service. SLA is usually used to indicate that the contract addresses services (applications, services, business processes, and so forth).
- ▶ **Underpinning contract.** A contract with an external supplier covering delivery of services that support the IT organization in their delivery of services.

These classifications are used to filter and organize agreement data in Service Level Management reports.

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**Note:** The terms **Agreement** and **SLA** are both generally used to include SLAs, OLAs, and UCs; the main exception to this is in certain places in the user interface where you specifically select **SLA** as the agreement type.

---

## CI and KPIs in Agreements

Service Level Management agreements are based on the CIs that measure the performance of your service-related network components and applications. The KPIs attached to each CI compare the data received for the CI with defined objectives, to provide an indication of how well agreement goals are being met.

For example, you might add the following CIs to your agreements, to check if availability percentages and performance times reflect the terms of the agreement:

- ▶ A Business Process Monitor CI that measures the time taken to add a purchase to a shopping cart.
- ▶ A SiteScope CI that measures runtime for a servlet on a WebLogic 6.x application server.
- ▶ A SiteScope Monitor CI that measures the percentage of free disk space on a database server.

The following sections describe adding CIs and KPIs to agreements:

- ▶ “Adding CIs to Agreements” on page 32
- ▶ “KPI Assignment” on page 33

### Adding CIs to Agreements

You add service-related CIs to agreements by selecting them directly (when defining a legacy process agreement) or by adding a Business Service CI that contains all the service-related CIs. For details, see “Building Agreements with the Agreements Wizard” on page 25.

By default, you can define up to 500 CIs in an agreement. To increase this value, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Service Level Management**, and locate the **Maximum number of CIs for SLA** entry. Modify the value as required; however, be aware that increasing the number of CIs may impact on performance.



Some CIs cannot be added to an agreement. For example, monitoring CIs that are defined to receive non-persistent samples cannot be included in an agreement. (Persistent data refers to data that is stored in the database, while non-persistent data is reported only to the Bus.) When working in the legacy Agreement Wizard, if you try to add prohibited CIs to the agreement, you get an error message on the Select CIs Page. When working in the service-based Agreement Wizard, if a business service containing a prohibited CI is added to the agreement, the prohibited CI is automatically excluded from the agreement.

The non-persistent CITs are defined in the **Prohibited configuration item types** XML file, accessed from the Infrastructure Settings Manager (**Admin > Platform > Setup and Maintenance > Infrastructure Settings > Applications > Service Level Management**).

## KPI Assignment

Service Level Management includes default KPIs and business rules that are automatically attached to the CIs that you add to an agreement. The functionality for attaching the KPIs depends on whether the agreement is built using the service-based process or the legacy process. (For information on the different processes, see “Building Agreements with the Agreements Wizard” on page 25.)

- ▶ **KPI assignment for service-based process.** KPI assignment is determined by the offering level for the parent Business Service CI, provided that each assignment is valid for the CI type. The valid mapping of KPIs and rules to CI types is defined in the **KPIs valid assignments** XML file. For more information, see “How KPI Assignment Works” on page 73.
- ▶ **KPI assignment for legacy process.** The mapping of default KPIs and rules to CIs, for various monitor and group CITs, is defined in the **Default KPIs** XML file. The KPIs are only attached to the CIs in the agreement if **Automatically define default KPIs for new CIs** is selected in the Select CIs page of the Agreement Wizard.

To view and edit the Default KPIs XML definitions, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Service Level Management**, and locate the **Default KPIs** entry in the table. If you need to edit the file, it is recommended that you copy the file contents to an XML editor.

For general information on KPI functionality, see “Introducing KPI Configuration” in *Using Dashboard*. For details on Service Level Management KPIs, see “List of Service Level Management KPIs and Details” in *CI Attribute Customization*.

Note the following:

- ▶ You can manually attach additional KPIs to the CIs in an agreement, and edit the attached KPIs. You can attach a KPI to any CI, at any level in the agreement hierarchy. For details on attaching and editing KPIs, see “KPI Definition Dialog Box” on page 207.
- ▶ The KPIs that you attach to a CI, or changes that you make to a KPI for a CI, are only active within the current agreement. These changes have no effect on the CI or KPIs within other agreements.
- ▶ During agreement creation, Service Level Management displays only applicable rules for each KPI, in the KPI Definition window. An empty Business rule field signifies that there are no applicable rules for the selected KPI, for the CI associated with the agreement. (That is, the same KPI, when used with another CI, may have applicable rules.)
- ▶ Service Level Management uses its own KPIs, only viewable in Service Level Management report. The exception to this is the PNR KPI, which is used to show agreement data in Dashboard. For details, see “Viewing PNR Data for Agreements in Dashboard” on page 40.
- ▶ When the Performance KPI and BPM Percentile rule are used for a BPM Transaction from Location CI in a service-based agreement, the definition for the rule includes an import mechanism that imports the transaction threshold settings. For details, see “Imported Transaction Thresholds” on page 38.

## Outages in Agreements

An outage is a period of time during which a measurement fails. Service Level Management calculates outages using the Outages KPI attached to a CI: a CI is considered to have failed if it does not meet the criteria defined in the KPI rule. For example, a CI can fail because the failure has a duration of at least the minimum duration defined in the outage rule. A CI can also fail if a minimum number of failures has been reached.

You define the Outages KPI for CIs in agreements, in the Add Outage dialog box, described in “Add Outage Dialog Box” on page 162. You can change the rule for the Outages KPI, modify the rule parameters, and define an outage category (see Outage Categories, below).

For information on the outage rules, see “Overview of Service Level Management Rules” in *CI Attribute Customization*.

You can attach one Outages KPI only for each CI. Monitoring CIs generally have the Outages KPI attached automatically, using a default outage rule. The Outages KPI then propagates up the tree using the default group rule, like other KPIs.

The Outages KPI does not itself appear in reports; however, it must be attached to a CI in order to view data in the outage reports (for details, see “Outage Reports” on page 131). If you want to view outage information in other Service Level Management reports, you can attach outage-connected KPIs to the CI, such as Number of Outages, Outage Duration, and Time Between Outages. These KPIs can be displayed in many of the reports in the SLA Reports tab.

---

**Note:** Changing the rule for the Outages KPI may affect results for the other outage-connected KPIs.

---

## Outage Categories

Outage categories are used in Service Level Management reports, to make results more meaningful. The outage categories enable you to categorize the probable outage cause for a CI.

You can assign an outage category to a CI as part of the Outages KPI definition (see “Add Outage Dialog Box” on page 162); you can also assign an outage category to an outage in the Outage Summary report (see “Outage Summary Report” on page 257). However, it is recommended to categorize outages during agreement creation.

Service Level Management contains preconfigured outage categories for **Database**, **Network**, **Webserver**, and **Undefined** (for outages from non-defined sources). You can create your own additional outage categories. For details, see “Outage Categories Page” on page 213.

---

**Note:** You cannot delete any outage categories, whether preconfigured or user-created.

---

## Weights for KPI Calculations

You can define weights for CIs included in agreements, either in the Agreement Wizard for legacy process agreements (see “Define Weights Page” on page 181) or in the Advanced Agreement Options Wizard for service-based agreements (see “Define Weights Page” on page 166).

You define weights on child CIs, so that the weighted child CI has more impact on the KPI calculations for the parent CI. The weights are only applied for KPIs that have a rule that uses weights, for example, if the rule calculates a percentage.

For example, your agreement includes a Business Process Group CI that contains two Business Process Step CIs. One child CI simulates a user buying a product at one location and the other CI simulates a user at a second location. You decide that availability and performance at the first location are more important than at the second, and so you give the CIs weights of 2 and 1. When Service Level Management calculates the Availability and Performance KPI values for the Business Process Group CI, child CI 1 contributes two thirds of the overall score and CI 2 contributes one third.

---

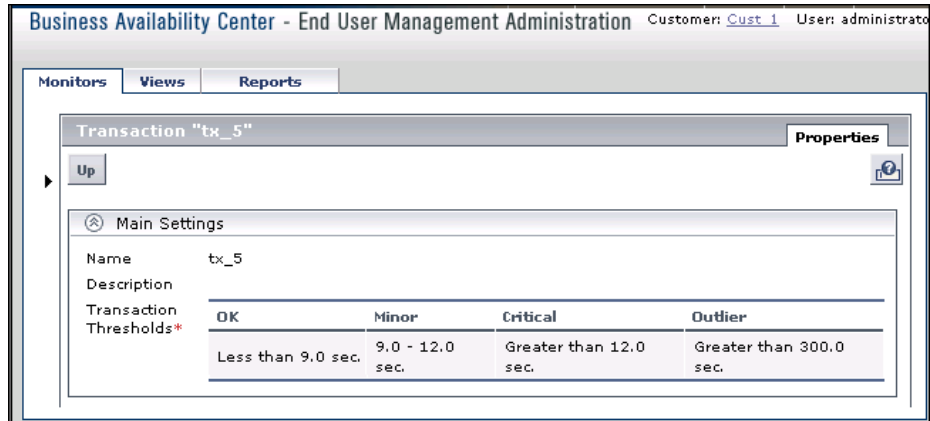
**Tip:** When assigning weights to CIs, it may be helpful to consider the percentage weight you want to give each CI. For example, say you have two CIs and you think one should carry 40% of the weight and the other 60%, you could set their weights at 40 and 60 respectively.

---

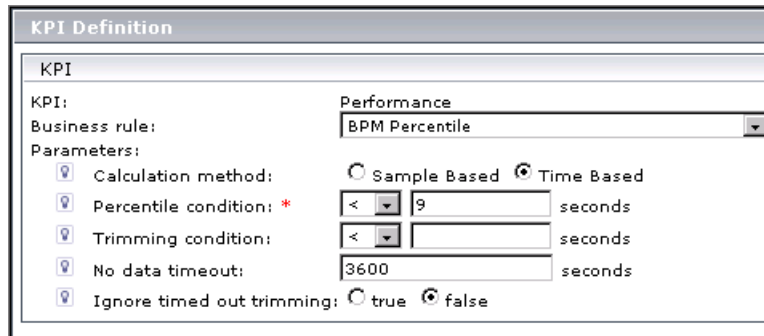
By default, Six Sigma calculations do not take weighting into account.

## Imported Transaction Thresholds

BPM Transaction from Location CIs are created based on the transaction monitors defined in **Admin > End User Management**. The transaction monitors include transaction threshold settings, defining OK, Minor, and Critical statuses for the monitor.



When the Performance KPI and BPM Percentile rule is used for a BPM Transaction from Location CI in a service-based agreement, the definition for the rule includes an import threshold mechanism that imports the value defined for the monitor's **OK** threshold into the **Percentile Condition** parameter for the rule. (For information on the rule, see "BPM Percentile" in *CI Attribute Customization* .)



Note the following:

- ▶ The import mechanism is only for Transaction from Location CIs in service-based agreements.
- ▶ You can override the imported threshold by editing the KPI in the Advanced Agreement Options Wizard.
- ▶ If the monitor does not have a threshold value in End User Management, or if the import mechanism fails, the threshold defined for the Percentile Condition parameter in the Rule repository is used.
- ▶ If you want to hard code a different value for the Percentile Condition parameter, you can do so in the KPIs Valid Assignments XML file. To edit the file, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Service Level Management**, and locate the **KPIs valid assignments** entry. Click the **Edit** button to view the assignments. It is recommended that you copy the file contents to an XML editor to make changes.

```

<CMDB_Classes>
  <CMDB_Class Name="bpm_tx_from_location"/>
</CMDB_Classes>
<KPIs>
  <KPI Id="101">
    <Rule Id="200"/>
  </KPI>
  <KPI Id="103">
    <Rule Id="201"/>
  </KPI>
  <KPI Id="106">
    <Rule Id="204">
      <Rule_parameters>
        <Parameter Key="Percentile condition" Value="&lt;XXX{0} ">
          <attribute Key="0" Value="rank_1_from"
            method="convertMilisecToSec"/>
        </Parameter>
      </Rule_parameters>
    </Rule>
  </KPI>

```

For example, you might change the Percentile condition to **Value="10"**.

## Six Sigma for Agreements

You can produce certain Service Level Management reports that show data from a Six Sigma perspective. To see Six Sigma data for a CI, you associate a Six Sigma KPI with the CI in the agreement (either in the Agreement Wizard or in the Advanced Agreement Options Wizard). Service Level Management uses two KPIs for measuring Six Sigma compliance, Availability Six Sigma and Performance Six Sigma.

When defining the Six Sigma KPI, you enter Six Sigma objective values between 0 and 6 with up to three decimal points. This defines the objective against which Service Level Management measures the time taken to execute a CI, or the time that a business application or a service is up and running.

For details on Six Sigma KPIs and rules, see “Six Sigma Rules” in *CI Attribute Customization*.

## Viewing PNR Data for Agreements in Dashboard

In the Dashboard views, you can display PNR (point of no return) data for CIs that are included in your agreements.

The PNR KPI enables you to view how well agreement objectives are being met. When the PNR KPI is defined for a CI, a bar is displayed in Dashboard indicating how much more time (in percentages) the CI can be unavailable before the agreement is in breach of contract.

The PNR KPI is defined for the CI in Dashboard Administration, and is calculated based on the Availability KPI attached to the CI in Service Level Management. For details on configuring the PNR KPI, see the example in “Configure a KPI” in *Using Dashboard*.



## Integration with HP SOA Systinet

If Business Availability Center is integrated with HP SOA Systinet, you can drill down to HP SOA Systinet during agreement creation or editing to view contract information for Web services in HP SOA Systinet. This information can then be used when configuring the agreement, enabling you to monitor the contract details in Service Level Management.

To enable the linkage with HP SOA Systinet, you must include in your agreement a CI that represents an HP SOA Systinet Web service. You can then drill down to HP SOA Systinet from the Define KPIs page, by first selecting the Web service CI, then clicking the **Drill down to Systinet** link that is displayed under the Outages KPI section. HP SOA Systinet opens in a new window.

- ▶ For service-based agreements, the linkage is from the Define KPIs Page in the Advanced Agreement Options Wizard (see “Define KPIs Page” on page 165).
- ▶ For legacy process agreements, the linkage is from the Define KPIs Page in the Agreement Wizard (see “Define KPIs Page” on page 178).

For more information on the integration, see “Integrating with HP SOA Systinet” in *Solutions and Integrations*. For details on working with HP SOA Systinet, see the HP SOA Systinet documentation.

## Integration with HP OVO

If Business Availability Center is integrated with HP OVO, you can include EMS Monitor CIs for the monitored HP OVO system in your agreements. For information on setting up the integration, see “Use the EMS Integration Tool for HP OVO Server Data” on page 423.

Service Level Management contains KPIs and rules specifically configured for the HP OVO EMS Monitor CIs. There are four KPIs that are attached by default to the CIs: **Application**, **Network**, **Security**, and **System**.

- **Application.** Displays information on the status of the HP OVO application, as supplied by the Application field in the HP OVO sample. This KPI uses the **Application Quality** monitor rule.
- **Network.** Displays information on the status of the network in the HP OVO application, as supplied by the Network field in the HP OVO sample. This KPI uses the **Network Quality** monitor rule.
- **Security.** Displays information on security in the HP OVO application, as supplied by the Security field in the HP OVO sample. This KPI uses the **Security Quality** monitor rule.
- **System.** Displays information on system status in the HP OVO application, as supplied by the System field in the HP OVO sample. This KPI uses the **System Quality** monitor rule.

For more information on the KPIs, see “List of Service Level Management KPIs and Details” in *CI Attribute Customization*.

## Permissions for Working with Agreements

After defining an agreement, the HP Business Availability Center administrator must give users permission to work with the agreement. Users with view permission can view or generate reports for their agreements. You define permissions in **Admin > Platform > Users and Permissions**.

For details, see “Permissions Management” in *Platform Administration*.

---

**Note:** If you change a user’s permissions for a specific agreement, the user must log out and log in again to view the changes.

---

## Recalculation for Agreements

---

**Note for HP Managed Software Solutions customers:** HP Operations administers the recalculation task functionality. For information about recalculation, contact HP Managed Software Solutions Support.

---

Service Level Management automatically recalculates the agreement data once an hour, for the data received two hours ago. That is, if the time is now 07:30 AM, Service Level Management recalculated the data at 7:00 AM for data that was received between 05:00 AM and 06:00 AM.

---

**Note:** If you create a new agreement for a period in the past, then Service Level Management automatically runs recalculation.

---

In addition, you can schedule recalculation tasks to update the data in your agreements. You generally use recalculation after making retroactive changes. For example:

- ▶ After defining a downtime event for the previous week, you should run the recalculation process to show the effect of the event on results.
- ▶ In the case of a connection problem with a site where data is sent after a one day delay, you should run recalculation so that this data is also included in calculations. (Service Level Management automatically supports “late arrivals,” that is, data that reaches the database up to one hour after the data is recorded. However, for data reaching the database after a longer period of time, you must run the recalculation function.)
- ▶ After viewing the reports of a specific agreement, you notice that the objective definition was set too high. You edit the objective and run recalculation so that the change is reflected in the historical data.

Service Level Management performs aggregation retroactively on existing data only when an agreement is recalculated. If the agreement is not recalculated, previous data is displayed in the report even though it may not answer the criteria set by the changes.

Recalculation tasks are scheduled from the “Agreements Manager Page” on page 184. Recalculation is only enabled if an agreement can be recalculated. The functionality is disabled for agreements with state **Preliminary** or **Pending**, and for **Terminated** agreements that ended too long ago for recalculation.

After scheduling a recalculation task, you can cancel the scheduled task if has not yet begun running. Once the task is running, a message is displayed in the **State** column on the Agreements Manager page, for example, Recalculation Progress: 25%.

By default, the earliest date at which the recalculation process can begin running is three months back (default set in the Infrastructure Settings Manager). For details, see “Data Purging” on page 19.

---

**Important:** If you recalculate an agreement for a period when the raw data has already been purged, you lose the data that was already calculated for that period. For more information, see “Data Purging” on page 19.

---

## Status Alerts for Agreements

You can create alert schemes to notify users if an agreement is not reaching its targets, or if its status is changing for the worse. You can also create alert schemes based on changes in the forecasted status.

The SLA Alerts report provides information on triggered alerts.

For details, see “SLA Alerts” in *Custom Reporting and Alerting*.

## Define a Service Agreement

This task describes a suggested working order for setting up an agreement in Service Level Management, either based on Business Service CIs (the recommended method) or using the legacy process.

---

**Note:**

- ▶ Many of the steps are optional.
  - ▶ The optional steps can generally be performed at any point after you have created the agreement.
- 

To view a workflow for creating an agreement based on business services, see “Workflow for Using the Service-Based Process” on page 26.

To view a workflow for creating a agreement using the legacy process, see “Workflow for Using the Legacy Process” on page 28.

This task includes the following steps:

- ▶ “Define Calendars” on page 46
- ▶ “Define Business Units” on page 47
- ▶ “Define Services and Offering Levels” on page 49
- ▶ “Define an Agreement” on page 51
- ▶ “Fine-Tune KPIs and Weights” on page 54

### Define Calendars

(Optional step)

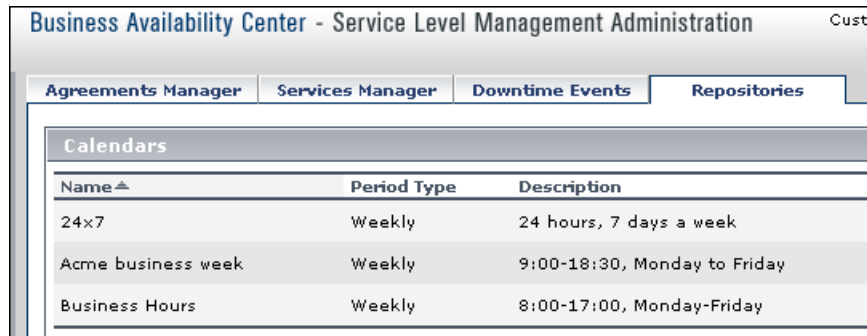
If you require custom calendars for your organization, to calculate data for periods other than those defined in the default calendars, define them using the Calendar Wizard. For details, see “Calendar Wizard” on page 192.

For examples of setting up a calendar, see “Calendar Examples” on page 106.

## Example

Acme Publishing house has an internal contract between the IT and eBusiness departments for a database service with a required service offering (offering level). The Service Level Administrator wants to set up a service level agreement in Service Level Management to monitor compliance for the contract.

Acme has business hours that differ from the predefined Business Hours calendar, so the administrator creates a custom calendar for the company hours:



The screenshot shows the 'Business Availability Center - Service Level Management Administration' interface. It features a navigation bar with tabs for 'Agreements Manager', 'Services Manager', 'Downtime Events', and 'Repositories'. The 'Downtime Events' tab is selected, and the 'Calendars' section is expanded. Below this, a table lists three calendars:

Name ▲	Period Type	Description
24x7	Weekly	24 hours, 7 days a week
Acme business week	Weekly	9:00-18:30, Monday to Friday
Business Hours	Weekly	8:00-17:00, Monday-Friday

## Define Business Units

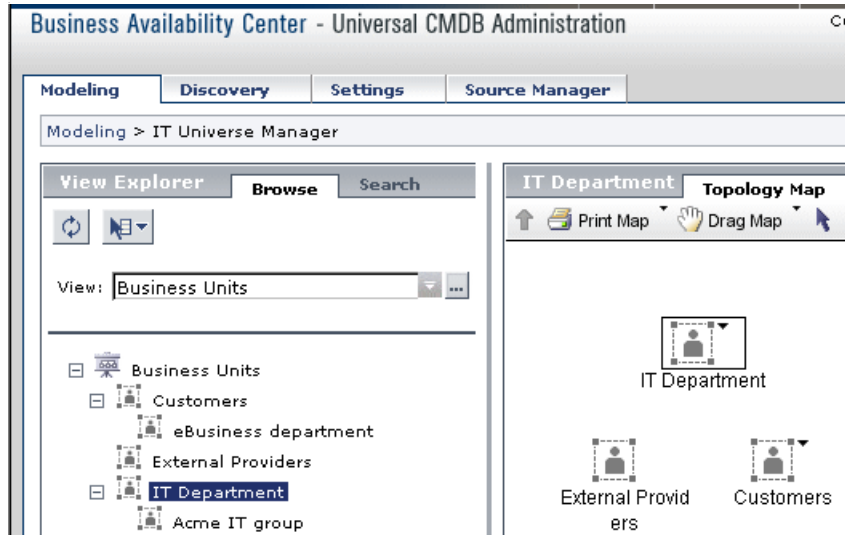
(Optional step)

Create Business Unit CIs in the Business Units view to represent your service providers and customers. The Business Unit CIs are then associated with the business services and agreements that you define. For more information, see “Business Units for Services and Agreements” on page 30

For details on how to add a CI to a view, see “Populate an Instance View”.

## Example

The Service Level Administrator defines provider and customer Business Unit CIs for the IT and eBusiness departments:



## Define Outage Categories

(Optional step)

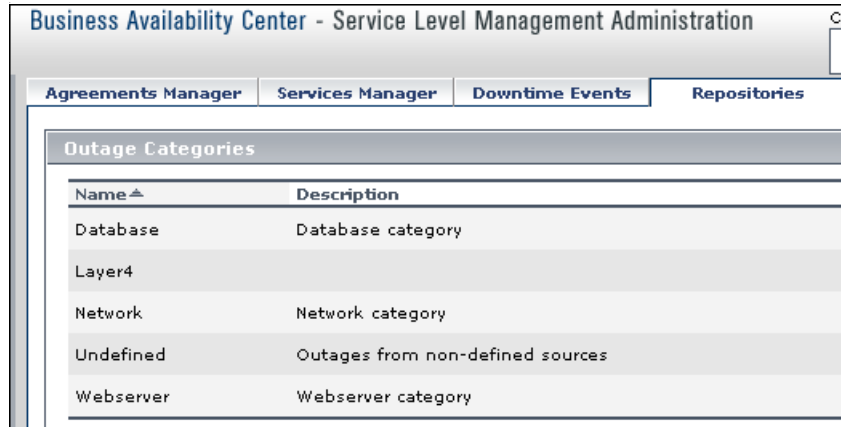
Define custom outage categories (to add to the preconfigured ones) to help categorize probable outage causes for the service-related CIs when generating Outage reports.

For details, see "Outage Categories Page" on page 213.



## Example

The Service Level Administrator adds a custom outage category, **Layer4**, that he wants to use for the Outage reports:



The screenshot shows the 'Business Availability Center - Service Level Management Administration' interface. The 'Outage Categories' table is displayed with the following data:

Name ▲	Description
Database	Database category
Layer4	
Network	Network category
Undefined	Outages from non-defined sources
Webserver	Webserver category

## Define Services and Offering Levels

(This step is only applicable if you are creating an agreement based on Business Service CIs.)

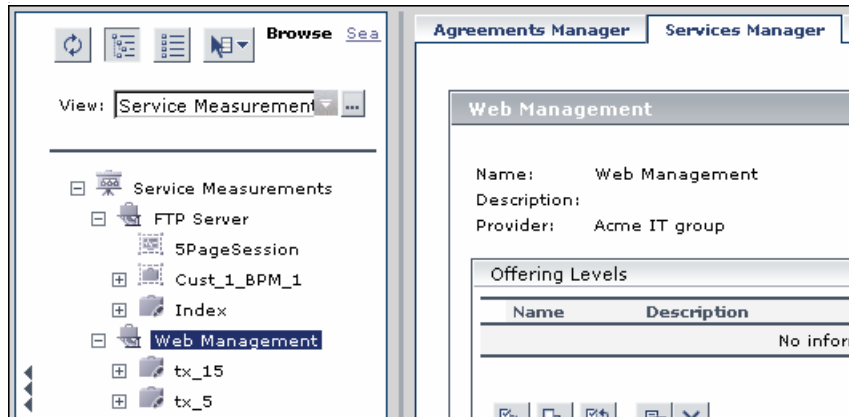
Create Business Service CIs in the Services Manager to represent your IT services, and associate offering levels with each business service. Each Business Service CI is mapped to the service topology that supports the service, and the offering levels define the KPI objectives to be used with the service topology.

For task details on defining Business Service CIs, see “Define Business Services for Agreements” on page 64.

For task details on associating offering levels, see “Create and Apply Offering Levels for Service-Based Agreements” on page 82.

### Example

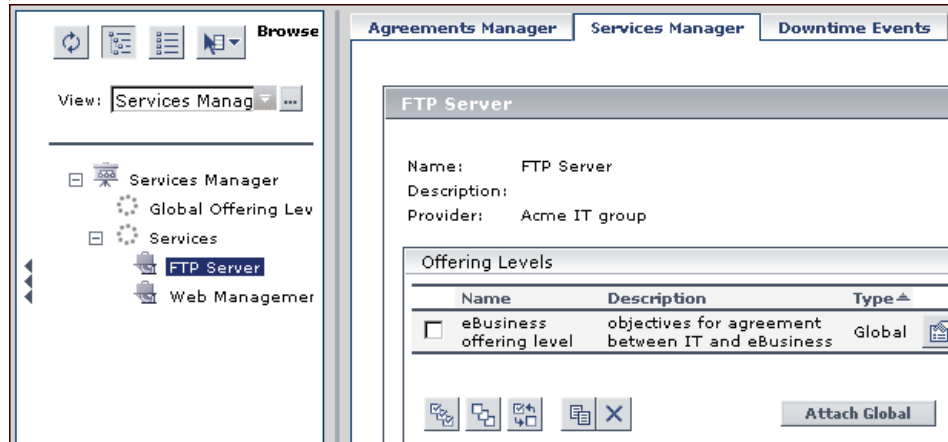
The Service Level Administrator accesses the Services Manager page and creates the two Business Service CIs, FTP Server and Web Management, that the agreement is to monitor, and defines the service-related CIs that support the services:



The administrator then creates a new global offering level, eBusiness offering level, that is based on the Acme business week calendar and reflects the key performance objectives specified in the service level contract between the IT and eBusiness departments:



The administrator associates the new global offering level with the FTP Server and Web Management Business Service CIs:



## Define an Agreement

Create an agreement in the Create Agreement Wizard, using the service-based or legacy process as required.

For details, see “Agreement Wizard” on page 167.

## Example

The Service Level Administrator opens the Create Agreement Wizard to define the agreement, IT-eBusiness SLA. He selects the service-based process, and defines the agreement properties, including the tracking periods and target objectives for which he wants to see data in the reports:

**Create Agreement Wizard**

Welcome

▶ **Define Agreement Properties**

Select Services

Select Service Offering Levels

Select Calendars

Summary

### Define Agreement Properties

Enter details about the SLA. The name of the SLA must be unique at the time of creation. To filter tracking periods or targets, click the link. To continue, click the Next button.

Name: \*

Description:

Agreement Details:

Start Date: \* [7/31/07 12:00 AM](#)

End Date: \* [7/31/17 12:00 AM](#)

Time zone: \*

Type:

Classification:

Creator: administrator

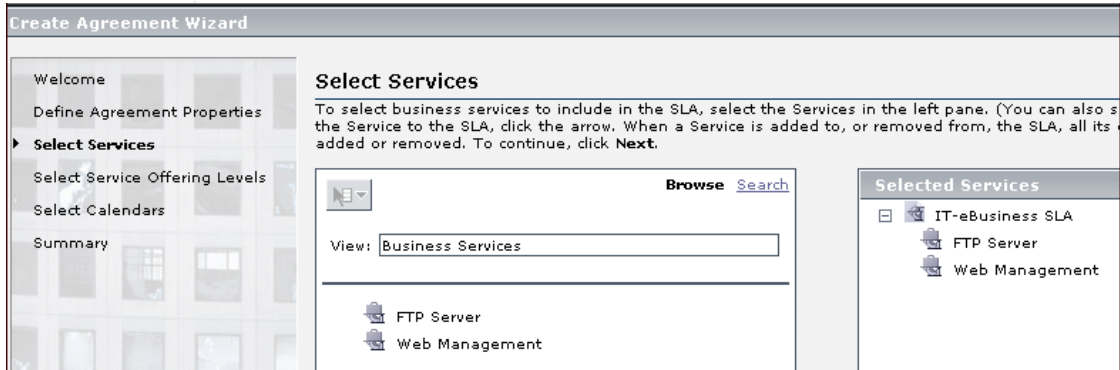
Customer:  ... [\(Clear\)](#)

Provider:  ... [\(Clear\)](#)

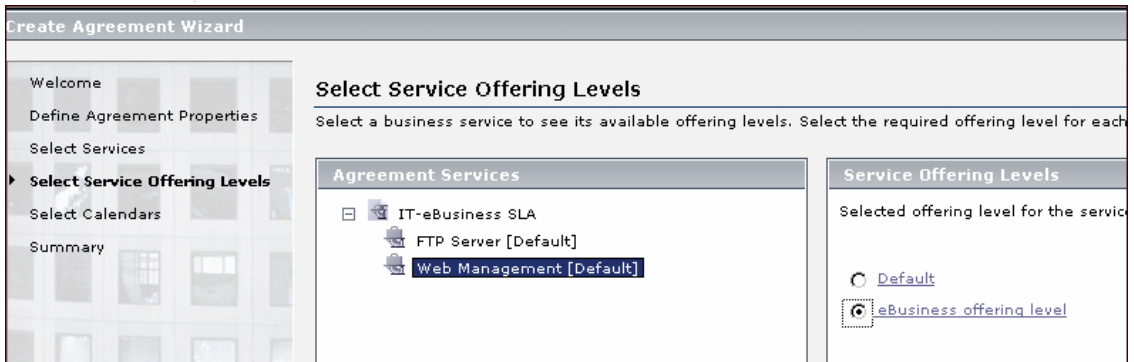
[Tracking period\(s\):](#) Day, Week, Month, Year

[Target\(s\):](#) Exceeded, Met, Minor Breached, Breached, Failed

In the Select Services page of the wizard, the administrator adds the two Business Service CIs to the agreement:



In the Select Service Offering Levels page of the wizard, the administrator selects the eBusiness offering level for both business services:



In the Select Calendars page of the wizard, the administrator selects both the 24x7 and the Acme business week calendars for monitoring by the agreement:



Create Agreement Wizard		
Welcome		
Define Agreement Properties		
Select Services		
Select Service Offering Levels		
▶ Select Calendars		
Summary		
<b>Calendars</b>		
Select Calendars		
Calendar Name	Service Name	
<input checked="" type="checkbox"/>	24x7	FTP Server , Web Management
<input checked="" type="checkbox"/>	Acme business week	FTP Server , Web Management

## Fine-Tune KPIs and Weights

(Optional step, only applicable if you are creating an agreement based on Business Service CIs, intended for users with advanced understanding of CI and KPI functioning.)

If required, open the Advanced Agreement Options Wizard for the agreement you created, to fine-tune the KPIs, objectives, and weights.

For details, see “Advanced Agreement Options Wizard” on page 164.

## Example

The Service Level Administrator opens the Advanced Agreement Options Wizard for the new agreement in order to fine-tune some of the agreement details.

In the Define KPIs page, the administrator changes the default Outage rule for some of the CIs:

Advanced Agreement Options Wizard

**Define KPIs**

Select the CIs in the SLA for which you want to set KPIs. You can define KPIs and outages for multiple CIs in a single definition. To add a KPI, click **Add KPI**. To edit a KPI, click its **Edit** button. To add or edit an outage definition, click **Outage** or click its **Edit** button. To define KPIs and outages for multiple CIs in a single definition, click one CI and click each additional CI to display the Global Settings pane. To continue, click **Next**.

SLA: IT-eBusiness SLA

- IT-eBusiness SLA
  - FTP Server
  - Web Management
    - tx\_15
    - tx\_5
      - tx\_5

Item: tx\_5

KPI	Business Rule
<input type="checkbox"/> Availability	BPM Average Available
<input type="checkbox"/> Performance	BPM Percentile

Outage: Outage Based on Availability

In the Define Weights page, the administrator adds weights for some of the CIs:

Advanced Agreement Options Wizard

**Define Weights**

To change the weight of a CI's direct descendants, select the CI and enter a new weighting value for those descendants that have greater importance. Values can be any real number between 0 and 100, with up to 3 digits after the decimal point. To enter one value for all items, enter the number in the All Items field, and click **Apply**. To continue, click **Finish**.

SLA: IT-eBusiness SLA

- IT-eBusiness SLA
  - FTP Server
  - Cust\_1\_BPM\_1
  - Index
  - Web Management

CI: Cust\_1\_BPM\_1

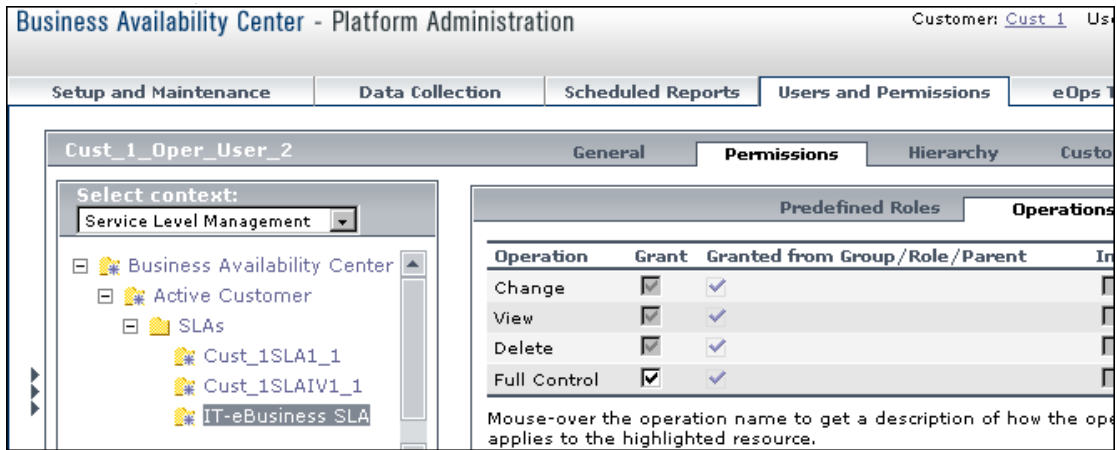
Name	Weight
tx_10	1.0
tx_1_failed	2.0
tx_15	1.0
tx_2_failed	2.0
tx_5	1.0
<b>Total Weight of Children</b>	7
<b>All CIs</b>	1.0

## Grant Permissions

Grant permission to users for the created agreement, so that other users can view, modify, or generate reports for the agreement. For details, see “Permissions for Working with Agreements” on page 43.

### Example

In the Users and Permissions page, the Service Level Administrator sets permissions for the new agreement, IT-eBusiness SLA:



## Define Downtime Events

(Optional step)

Define downtime events to exclude periods of planned downtime or scheduled events from the agreement calculations.

For details, see “Downtime Event Schedule Dialog Box” on page 202.



## Example

In the Downtime Events page, the Service Level Administrator defines an event for the weekly downtime of the FTP server for maintenance purposes:

Business Availability Center - Service Level Management Administration Customer: [Cust\\_1](#) User: admini

Agreements Manager Services Manager **Downtime Events** Repositories

**Downtime Events**

Name ▲	Start Date	End Date	Scheduling	Type	Impact	Actions
<input type="checkbox"/> FTP server down	7/31/07 1:35 AM	Unbound	Recurring	SLA	SLA: IT-eBusiness SLA, Items: FTP Server	

[New BPM Event](#) [New SLA Event](#)

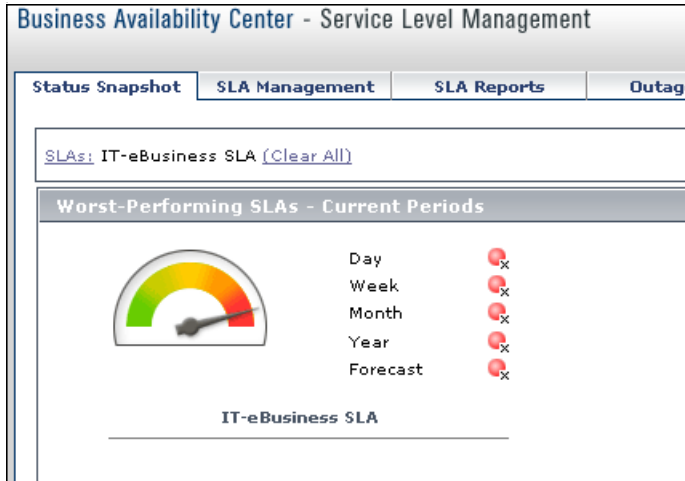
## View Agreement Data in Reports

Once data has been collected and aggregated for the agreement, you can view performance results in the various report tabs of the Service Level Management application.

For details, see “View SLA and Outage Reports” on page 150.

### Example

Users can see status for the IT-eBusiness SLA agreement in the Status Snapshot page:



## Displaying Additional Rule Parameters for KPIs

When editing KPIs in an agreement, the KPIs Definition dialog box and Add Outage dialog box display parameters used by the business rule, enabling users to modify the default parameter values or define new values, for that specific instance of the KPI.

Not all rule parameters are displayed for each rule—parameters that are intended for users with an advanced knowledge of Service Level Management are, by default, hidden from view.

If you want these advanced parameters to be displayed, you must change the default setting. Select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Service Level Management**, and locate the **Display advanced business logic parameters** entry. Change the value to **True**.

The following example shows the BPM Percentile rule before and after changing the flag to display the advanced parameters. In the second picture, the parameter **No data timeout** has been added to the displayed parameters.

The image shows two screenshots of the 'KPI Definition' dialog box. The top screenshot shows the 'BPM Percentile' rule with parameters: Calculation method (Time Based), Percentile condition (8 seconds), Trimming condition (seconds), and Ignore timed out trimming (false). The bottom screenshot shows the same rule but with an additional 'No data timeout' parameter set to 3600 seconds.

KPI Definition	
KPI	
KPI:	Performance
Business rule:	BPM Percentile
Parameters:	
Calculation method:	<input type="radio"/> Sample Based <input checked="" type="radio"/> Time Based
Percentile condition: *	< 8 seconds
Trimming condition:	< seconds
Ignore timed out trimming:	<input type="radio"/> true <input checked="" type="radio"/> false

KPI Definition	
KPI	
KPI:	Performance
Business rule:	BPM Percentile
Parameters:	
Calculation method:	<input type="radio"/> Sample Based <input checked="" type="radio"/> Time Based
Percentile condition: *	< 8 seconds
Trimming condition:	< seconds
No data timeout:	3600 seconds
Ignore timed out trimming:	<input type="radio"/> true <input checked="" type="radio"/> false

## Customizing Target Names

Administrators with advanced knowledge of HP Business Availability Center can change the names used for the Service Level Management targets.

Select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Service Level Management**, and locate the **Targets** entry in the table. Modify the values in the file as required. For example, to change the default name of **Breached SLA** to **Contravened SLA**, change:

```
<Target Color="ff3333" Default="true" Id="0"  
Name="settings.slm.targets.def.target.breached.text"/>
```

to:

```
<Target Color="ff3333" Default="true" Id="0" Name="Contravened SLA"/>
```

## Troubleshooting and Limitations

- ▶ **Profile database missing:** Some pages in Service Level Management cannot be displayed until a default profile database is set. For details on setting profile databases, see Database Administration in *Platform Administration*.
- ▶ **Data continuity issue:** If a transaction in an HP Virtual User Generator script is renamed, Business Availability Center considers it as a new transaction. A new BPM Transaction from Location CI is created in the CMDB using the new name, and the CI with the old transaction name is removed after it stops receiving samples. If the CI is included in a Service Level Management agreement, you will not see historical data for it (from before the transaction name change).

# 3

---

## Services Manager and Business Services

This chapter describes the administration of business services in Service Level Management.

This chapter describes:	On page:
<b>Concepts</b>	
About Business Services	61
Changes to the Business Service Topology	62
<b>Tasks</b>	
Define Business Services for Agreements	64

### About Business Services

Services Manager (**Admin > Service Level Management > Services Manager**) provides service-level management for the IT services provided by, or consumed by, your organization, such as project management services, application development for departmental applications, Web development services, publishing services, and so forth.

You document each IT service as a Business Service CI, creating a catalog of IT services for internal and external customers in the CMDB. A Business Service CI has a service topology that supports the business service, created by mapping to the CI the key business processes, applications, and infrastructure that the service depends on.

The monitoring metrics collected for the CIs in the service topology propagate up to the Business Service CI, enabling you to see the impact of performance problems on the service, and to analyze trends and performance objectives from a service level.

The Business Service CIs are used as the foundation for service-based agreements, working with defined offering level packages to measure compliance with service level management goals.

For a workflow for working with Business Service CIs, see “Define Business Services for Agreements” on page 64.

## Changes to the Business Service Topology

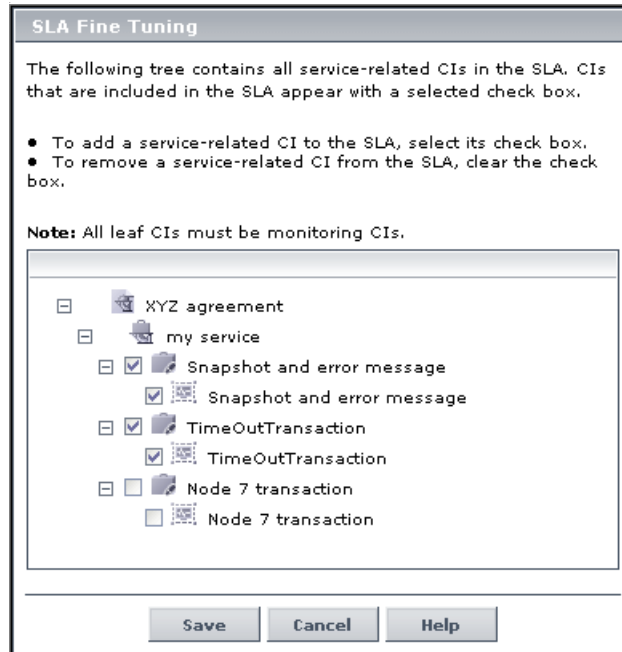
After creating a Business Service CI, you can change the service topology by editing the CI from the Services Manager page. In addition, the service topology is dynamically updated when changes are made in the CMDB, for example, if a monitor is added to, or removed from, a service-related branch.

When a CI is removed from the service topology, this change is automatically updated to the agreements containing the Business Service CI. However, CIs that are added to the service topology are not automatically added to agreements. In this case, follow these instructions to update the agreement.

**To update a service-based agreement with an addition to the service topology:**

- 1** In the **Service Level Management > Agreements Manager** page, open the Edit Agreement Wizard.
- 2** In the Select Services page, click **SLA Fine Tuning**. In the SLA Fine Tuning dialog box, select the check boxes for the added CIs.

In the example below, the CI Node 7 transaction has been added to the service topology for the CI my service, but is not included in the XYZ agreement as long as the check box for the CI is not selected.



- 3 Save the changes in the SLA Fine Tuning dialog box, and save the Edit Agreement Wizard, to update the new CIs to the agreement.
- 4 Run recalculation for the agreement. For details, see “Recalculation for Agreements” on page 43.

## Define Business Services for Agreements

This task describes how to define a business service to use in a service-based agreement, and a service provider to associate with the service.

This task includes the following steps:

- ▶ “Define a Service Provider” on page 64
- ▶ “Define a Business Service CI” on page 65
- ▶ “Associate Offering Levels with the Business Service” on page 68
- ▶ “Add the Business Service CI to an Agreement” on page 69
- ▶ “View Business Service and Provider Information in SLA Management” on page 69

### Define a Service Provider

(Optional step)

If you want to associate a service provider with your business service, you must define a Business Unit CI representing the provider. For details about service providers, see “Business Units for Services and Agreements” on page 30.

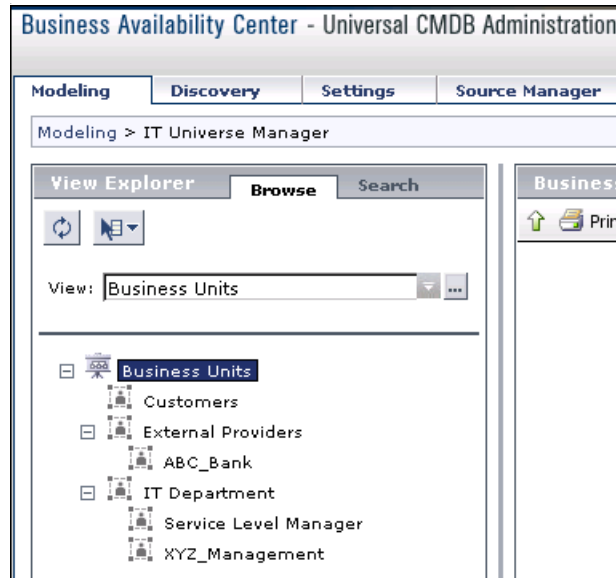
To define providers, select **Admin > Universal CMDB > Modeling > IT Universe Manager** and display the Business Units view. Add a Business Unit CI to the view for every provider. For details on adding CIs, see “New CI Wizard”.

The provider is associated with the business service in the Business Service Wizard (described in the next step).



## Example

In IT Universe Manager, Business Unit CIs are added to the Business Units view to represent two service providers: ABC\_Bank is an external provider, and XYZ\_Management is a provider of services within the organization:



## Define a Business Service CI

Open the **Admin > Service Level Management > Services Manager** page, and display either the Service Measurements or Services Manager view in the View Explorer pane.

Right-click the view name or the **Services** CI, to add the new service as a root node, or right-click an existing Business Service CI to add the service as the child of that CI. Select **Create new Business Service** to open the Business Service Wizard, and fill in the required information. For details, see “Business Service Wizard” on page 188.

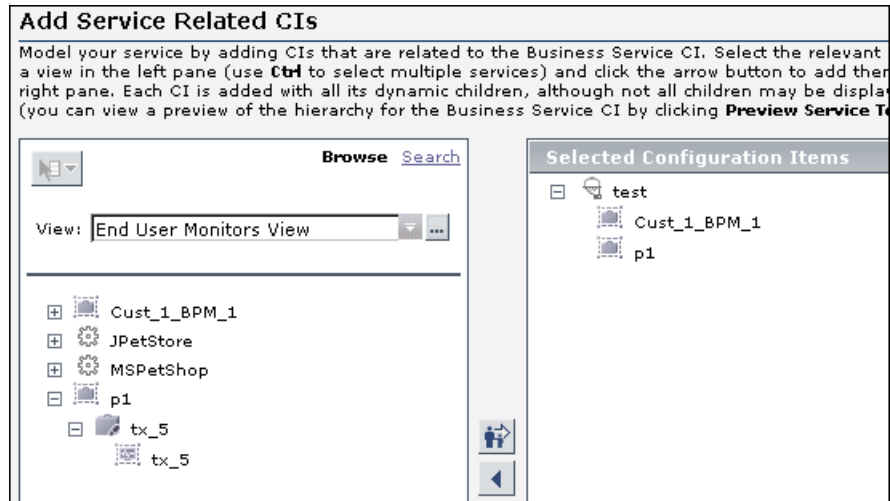
### Example

A new Business Service CI, `My_Service`, is defined in the Business Service Wizard. In the Define Business Service Properties page, the Business Unit CI `XYZ_Management` is selected as the **Provider**:

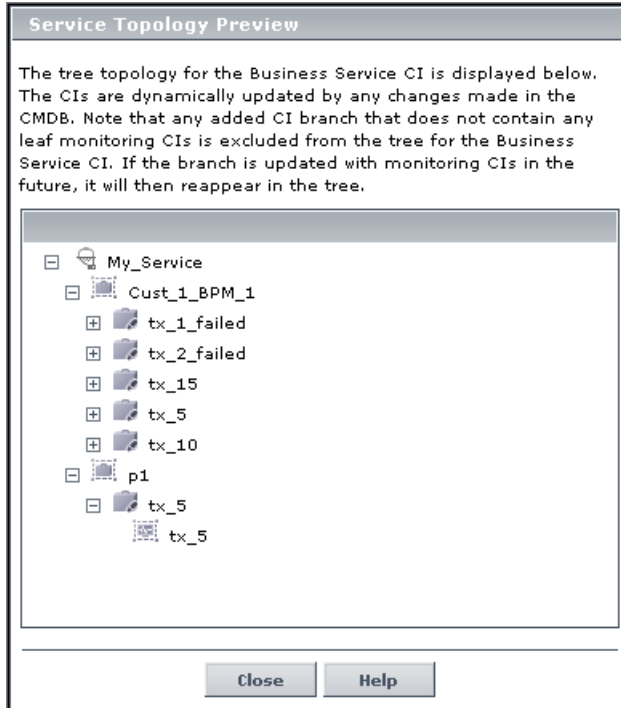
The screenshot shows a window titled "Business Service Wizard" with a sub-header "Define Business Service Properties". Below the sub-header is a instruction: "Enter details about the business service. The name must be uni". The form contains the following fields:

- Name:** \*
- Description:**
- Provision:**
- Country:**
- State:**
- City:**
- Provider:**   [\(Clear\)](#)

The service-related CIs that monitor the machines and processes related to the service are added in the Add Service Related CIs page, by selecting the relevant views and dragging the CIs to the right pane. All descendants of the dragged CIs are added automatically to the service, as long as each branch contains at least one monitoring CI.



In the Service Topology Preview dialog box (opened by clicking the **Preview Service Topology** button), the branch under the CI **labm1** is not included, because the branch did not contain any monitoring CIs (the **labm1** CI is automatically reactivated if monitoring CIs are added to the branch):



## Associate Offering Levels with the Business Service

(Optional step)

Associate offering levels with the Business Service CI, so that you can select the required offering level when defining an agreement that contains the CI. For details about offering levels, see "Offering Levels and KPI Assignment" on page 71.

For details on associating offering levels, see "Create and Apply Offering Levels for Service-Based Agreements" on page 82.

## Add the Business Service CI to an Agreement

You add the Business Service CI to an agreement using the Agreement Wizard, opened in one of the following ways:

- ▶ On the Services Manager page, right-click the CI and select **Create new SLA from Business Service**.
- ▶ On the Agreements Manager page, click **New Agreement** or open an existing agreement for editing.

For task details, see “Define a Service Agreement” on page 46.

## View Business Service and Provider Information in SLA Management

You can view data for the business service in the SLA Reports tab, and view provider information in the **Service Providers** view in the SLA Management tab (both accessible from **Applications > Service Level Management**).

### Example

The Service Providers view displays the Business Service CI My\_Service under the provider XYZ\_Management:

The screenshot shows the Business Availability Center - Service Level Management interface. The left pane displays a tree view of Service Providers, with the following structure:

- Service Providers
  - External Providers
  - ABC\_Bank
  - IT Department
    - Service Level Manage
    - XYZ\_Management** (highlighted)
    - My\_Service

The right pane shows the details for the selected Business Unit: XYZ\_Management. The description is "Provides Web services". The Contact Details section is empty. Below this, there is a table titled "Provider of SLAs" with the following data:

Provider of SLAs		
Name ▲	Provider	Cu
Web_SLA	XYZ_Management	

The CI Impact report displays data for the My\_Service Business Service CI:

**Business Availability Center - Service Level Management**

Status Snapshot | SLA Management | **SLA Reports** | Outage Reports | User Rep

SLA Reports > CI Impact

CI Impact 7/9/07 12:00 AM - 7/11/07 12:00 AM

View: Week to date

CI: My\_Service

Primary grouping: KPI [KPI: All \(Clear All\)](#)

Secondary grouping: Calendar [Calendar: All \(Clear All\)](#)

CI	Availability (%)		Performance (%)	
	24x7	Business Hours	24x7	Business
<a href="#">My_Service (Web SLA)</a>	60.000	60.000	33.333	
<a href="#">My_Service (my sla)</a>	60.000	-	33.333	

■ Exceeded
 ■ Failed
 ■ No Data

# 4

---

## Offering Levels and KPI Assignment

This chapter describes offering levels in Service Level Management.

<b>This chapter describes:</b>	<b>On page:</b>
<b>Concepts</b>	
Offering Levels for Services	72
How KPI Assignment Works	73
Global Offering Levels	75
Creating and Editing Offering Levels	78
<b>Tasks</b>	
Create and Apply Offering Levels for Service-Based Agreements	82
Troubleshooting and Limitations	92

## Offering Levels for Services

An offering level is a set of defined objectives for multiple KPIs, designed for use in service-based agreements. Applying offering levels to Business Service CIs avoids the need to edit each KPI individually (to assign objectives to the KPI).

You can define offering levels on the **Admin > Service Level Management > Services Manager** page (Service Level Management also provides preconfigured global offering levels, for details see “Global Offering Levels” on page 75). You then create an association between the offering levels and each Business Service CI.

When you create a service-based agreement, one of the associated offering levels must be selected for each included Business Service CI. The objectives specified in the offering level are then applied to that service and all its children, within the confines of the agreement. Only calendars included in the selected offering levels are available for use with the agreement.

You also have the option to define a new offering level for a Business Service CI, or attach a global offering level, within the agreement, without the need to associate offering levels first in Service Manager.

For information and examples on the task flow for defining and applying an offering, see “Create and Apply Offering Levels for Service-Based Agreements” on page 82.

---

**Note:** Offering levels are only used for service-based agreements. If you want to use offering levels with your legacy agreements, you must redefine them in the Create Agreement Wizard, using the service-based process.

---



## How KPI Assignment Works

Offering levels work together with the KPIs Valid Assignments XML definitions to define the KPIs and rules that are automatically attached to a Business Service CI, and all its child CIs, within a service-based agreement.

To view and edit the KPIs Valid Assignments XML definitions, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Service Level Management**, and locate the **KPIs valid assignments** entry. Click the **Edit** button to view the assignments. If you need to edit the file, it is recommended that you copy the file contents to an XML editor.

This section contains the following topics:

- ▶ “KPIs in Service-Based Agreements” on page 73
- ▶ “Editing KPIs in the Advanced Agreement Options Wizard” on page 74

### KPIs in Service-Based Agreements

When an offering level is selected for a Business Service CI when defining or editing an agreement in the Agreement Wizard (see “Agreement Wizard” on page 167), KPIs are attached to the Business Service CI and all its child CIs (included in the agreement) using the following assignment rules:

- ▶ A KPI is attached to a monitor CI under the Business Service CI if both the following are true:
  - ▶ The KPI is defined as assigned to that monitor CI type in the KPIs Valid Assignments XML file.
  - ▶ The KPI is included in the offering level selected for the Business Service CI.

If both these conditions are met, then the KPI is attached to the monitor CI using the rule (and any rule parameters) that are defined in the KPIs Valid Assignments XML file, and using the KPI thresholds defined in the offering level.

- ▶ Each KPI attached to the monitor CIs is propagated up to the parent CIs, if the KPI is defined as assigned to each relevant CI type in the KPIs Valid Assignments XML file. The rule used for the KPI is taken from the same definition, and the thresholds are taken from the offering level.
- ▶ If there is more than one instance of a service-based CI in the agreement, attached to different Business Service CIs with different offering levels, then the KPI definitions are merged, so that all relevant KPIs are attached to all instances of the service-based CI. The most stringent threshold values from the attached offering levels are used for each KPI.
- ▶ Only the targets (for example, **Exceeded** and **Failed**) defined for the agreement on the Define Agreement Properties page are included for each attached KPI, regardless of which target thresholds are defined in the offering level.

### **Editing KPIs in the Advanced Agreement Options Wizard**

In the Define KPIs page of the Advanced Agreement Options Wizard, you can select a CI to see the KPIs added by the offering level. (See “Advanced Agreement Options Wizard” on page 164.)

The KPI assignment rules, applied within service-based agreements by the KPIs Valid Assignments XML and the offering levels, are not used for KPIs added manually in the Advanced Agreement Options Wizard (accessed by clicking the **Define Advanced Options** button on the Agreements Manager page).



For example, the thresholds defined for a KPI in an offering level are not applied when that KPI is manually attached to a CI in the Advanced Agreement Options Wizard.

In the Advanced Agreement Options Wizard you can perform the following actions to fine tune the KPIs included in the agreement:

- ▶ Attach additional KPIs to any CI included in the agreement. In the Advanced Agreement Options Wizard, you can attach KPIs and rules to a CI according to the assignment definitions in the Repositories—this can include KPIs that are not defined for the CI in the KPIs Valid Assignments XML file, and not included in the offering level.

- Edit the rule, parameter, or thresholds for any KPI.
- Delete any KPI added to a CI.

## Global Offering Levels

Global offering levels are offering levels that are available to associate with any Business Service CI. You associate a global offering level with the CI by selecting the CI in the view tree on the **Admin > Service Level Management > Services Manager** page, and then clicking **Attach Global**. Alternatively, you can associate a global offering level with a Business Service CI within the Agreement Wizard.

Once a global offering level is associated with a Business Service CI, it is added to the Offering Levels table for the CI. The offering level can be opened from the table in read-only format.

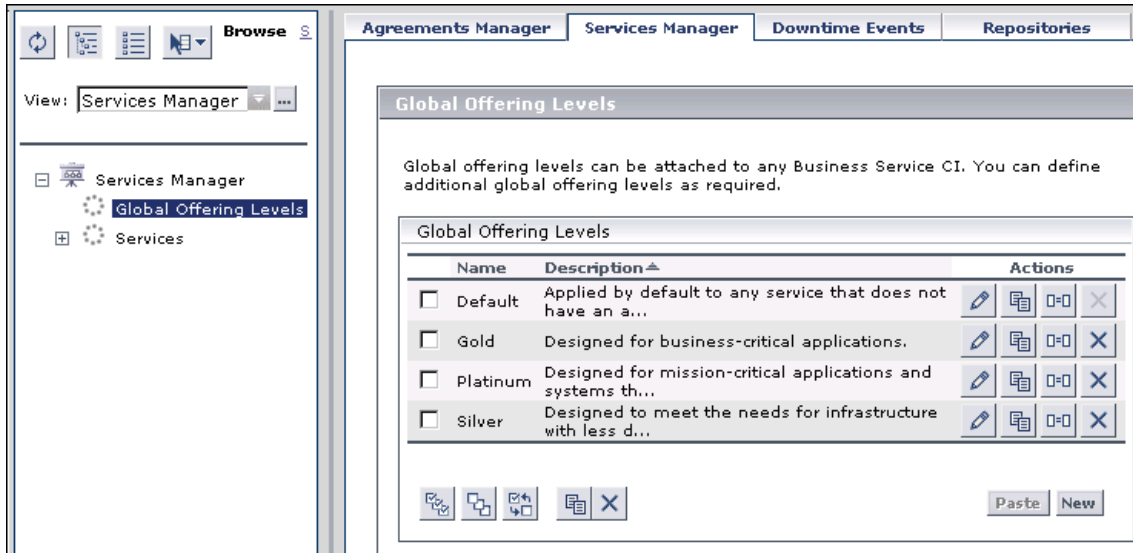
You can see and edit all available global offering levels in the Services Manager page, by displaying the Services Manager view and selecting **Global Offering Levels**. The Global Offering Levels table includes the preconfigured offering levels provided by Service Level Management, and any global offering levels that you add (user-defined).

This section contains the following topics:

- “Preconfigured Global Offering Levels” on page 76
- “User-Defined Global Offering Levels” on page 78

## Preconfigured Global Offering Levels

Service Level Management provides four out-of-the-box offering levels, that contain preconfigured objectives for different quality of service.



The preconfigured offering levels are:

- ▶ **Platinum.** This offering level is designed for mission-critical applications, and systems that must function more or less continuously. Thresholds are set at high levels, for example, the threshold for **Exceeded** status for the **Availability, Performance, and System** KPIs is set at **> 99%**.
- ▶ **Gold.** This offering level is designed for business-critical applications. Thresholds are set at moderately high levels, for example, the threshold for **Exceeded** status for the **Availability, Performance, and System** KPIs is set at **> 97%**.
- ▶ **Silver.** This offering level is designed for infrastructure with less demanding availability requirements, such as test and development servers or non-mission critical websites. Thresholds are set at a moderate levels, for example, the threshold for **Exceeded** status for the **Availability, Performance, and System** KPIs is set at **> 95%**.

- **Default.** This offering level is designed to provide standard thresholds for any service without an offering level.

When you add a business service to an agreement, the Default offering level is automatically available as one of the offering level options, together with any other offering levels you associated with the business service in the Services Manager page. If there are no associated offering levels, the Default offering level is automatically used for that service.

The Default offering level cannot be associated with a business service from the Services Manager page (as it is associated by default with every service), and cannot be deleted from Service Level Management.

Each preconfigured offering level covers the two default calendars, **24x7** and **Business Hours**, and has thresholds defined for each status level for the following KPIs:

- Application
- Availability
- MTBF
- MTBSI
- MTTR
- Performance
- Response Time
- System
- System Availability
- User Availability
- User Performance

To view and edit a preconfigured offering level, click the appropriate **Edit** button in the Global Offering Level table to open the Offering Level Definition dialog box (described in “Offering Level Definition Dialog Box” on page 211). You can edit thresholds for the KPIs, and you can add additional calendars, but you cannot add additional KPIs.

## User-Defined Global Offering Levels

You can define your own custom global offering levels, that are then available for associating with any CI. These offering levels can include any of the Service Level Management KPIs. For details on defining offering levels, see “Creating and Editing Offering Levels” on page 78.

---

**Note:** Any custom global offering levels that you add can be edited and deleted by any user, even if the offering level is associated with a CI within an agreement.

---

## Creating and Editing Offering Levels

You can create offering levels in one of the following ways:

- ▶ In the **Admin > Service Level Management > Services Manager** page, by creating a new offering level, or by making a clone or copy of an existing offering level and editing it.

When you clone an offering level, a copy of the offering level is added to the same offering levels table. When you copy an offering level, it is copied to the clipboard. You can then attach the offering level to another business service, by using the **Paste** option.

- ▶ In the **Select Service Offering Levels** page of the Agreement Wizard, by selecting a service and clicking the **Create New** button (see “Select Service Offering Levels Page” on page 173).

You define and edit offering levels details in the Offering Level Definition dialog box. For details, see “Offering Level Definition Dialog Box” on page 211

For a task flow and examples for working with offering levels, see “Create and Apply Offering Levels for Service-Based Agreements” on page 82

This section contains the following topics:

- “Defining Offering Level Values” on page 79
- “Modifying Details for Assigned Offering Levels” on page 81

## Defining Offering Level Values

In the Offering Level Definition dialog box, you select the calendars to be included in the offering level. The list includes all calendars that are defined on the **Admin > Service Level Management > Repositories > Calendars** page.

In the objective tables, you define a threshold for each KPI target during each timeslot. If required, you have the option to select the timeslots for a whole calendar or for the whole table, and so define the values for all in one operation. There is no validation of the entered values, so you must check that they are logically ordered for the selected operator.

It is not mandatory to define a value for every KPI target:

- If you do not define any target values for a KPI during a timeslot, then in the reports the KPI displays the numerical value for the timeslot, but the status is **No Data** (gray).
- If there is at least one target value defined for a timeslot, then in the reports only the defined targets are used for KPI status during that timeslot (regardless of which targets are included in the agreement).

For example, if for a particular timeslot and KPI there is a value defined for **Exceeded**, and all other targets are left undefined, then for that timeslot in the reports the KPI only has two possible statuses, **Exceeded** or **Failed**.

In the following example, there are no threshold values defined for the **Performance** KPI in the **24x7/Day** timeslot:

Objectives Definition							
Set thresholds for KPI targets within each time period. You do not have to define a value for time slot or KPI target.							
Calendar(s): 24x7, Business Hours							
Select all table							
Calendar	Hour	Day	Week	Month	Quarter	Year	SLA per
24x7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Business Hours	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Unit	Operator	Exceeded	Met	Minor Breached	Breached	Failed	
Availability	%	>	95.0	90.0	85.0	80.0	Otherwis
Performance	%	>					Otherwis

This offering level is assigned to a Business Service CI in an agreement that includes all targets and all calendars. In the SLAs Summary report for the agreement, a daily status result is shown for the Performance KPI within the Business Hours calendar, but there is no status for the 24x7 calendar:

SLAs Summary 7/30/07 12:00 AM - 8/2/07 12:00 AM			
View:	Week to date	Every:	Day
SLAs: IT-eBusiness SLA 2 (Clear All)			
Primary grouping:	Time Period	KPI:	Performance
Secondary grouping:	Calendar	Calendar:	All (Clear All)
7/30			
SLAs	24x7	Business Hours	24x7
IT-eBusiness SLA 2	33.333	33.333	



## Modifying Details for Assigned Offering Levels

You may need to make changes to both custom and preconfigured offering levels as a result of changes made elsewhere in Service Level Management, and you may need to make changes after the offering level is used in an agreement. For example:

- If you add new calendars to Service Level Management, you must add definitions for the calendars to the relevant offering levels.
- If you add new KPIs in the repositories, and you want the KPIs to be assigned to service-related CIs, you must add the new KPIs to both the KPIs Valid Assignments XML (see “How KPI Assignment Works” on page 73) and to the relevant offering levels.
- If you want to remove a KPI from service-related CIs, you can remove the KPI from the relevant offering levels.
- You may want to change the threshold values used for a KPI by changing the values in the offering levels.

Changes you make to the offering levels are not automatically updated to the agreements where the offering levels are applied:

- If you added a calendar to the offering level, you can apply the change as follows: Open the relevant Edit Agreement Wizard, then save it. (This process also updates the agreement with any changes made in the service topology.)
- If you made any other sort of change to the offering level, you can apply the changes as follows: Open the relevant Edit Agreement Wizard, select a different offering level, and save. Then open the relevant Edit Agreement Wizard again, select the required offering level, and save. (This process overwrites any manual changes you made to the Agreement in the Advanced Agreement Options Wizard.)

## Create and Apply Offering Levels for Service-Based Agreements

This task describes how to create and associate offering levels with a Business Service CI (on the Services Manager page), and to apply an offering level for the service in an agreement.

---

**Note:** If you need custom calendars for your organization, it is recommended that you define these before creating and editing offering levels (though you can also add them to the offering levels later).

---

This task includes the following steps:

- “Create and Associate Offering Levels for a Business Service” on page 82
- “Add the Business Service CI to an Agreement” on page 85
- “Select an Offering Level for the CI” on page 86
- “Select Calendars for the Agreement” on page 87
- “Fine Tune KPI Assignment” on page 88
- “View Results in Reports” on page 91

### Create and Associate Offering Levels for a Business Service

Open the **Admin > Service Level Management > Services Manager** page. For details on the page, see “Services Manager Page” on page 219.

Select the required Business Service CI from the view tree. Add offering levels to the Offering Levels table for the CI, using either of the following methods:

- **Associate global offering level.** Click the **Attach Global** button to associate a global offering level with the CI. For information, see “Global Offering Levels” on page 75.
- **Associate offering level specific for the CI.** You can create an offering level for the CI using the **New**, **Clone**, or **Paste** buttons.

You define and edit offering level definitions in the Offering Level Definition dialog box. For details, see “Offering Level Definition Dialog Box” on page 211.

For general information on defining and editing offering levels, see “Creating and Editing Offering Levels” on page 78.

### Example

A new custom offering level, Offering\_level1, is defined for Business Service CI My\_service, with values for three calendars (24x7, Business Hours, Custom\_calendar) and for four KPIs (Availability, Performance, Response Time, System Availability). In the following picture, the Custom\_calendar link is selected in order to define values for all Custom\_calendar timeslots in one operation:

**Offering Level Definition**

Name: \*

Description:

**Objectives Definition**

Set thresholds for KPI targets within each time period. You do not have to define a value for every time slot or KPI target.

Calendar(s):      24x7, Business Hours, Custom\_calendar

**Select all table**

Calendar	Hour	Day	Week	Month	Quarter	Year	SLA period
<u>24x7</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Business Hours</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Custom_calendar</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

	Unit	Operator	Exceeded	Met	Minor Breached	Breached	Failed	Action
Response Time	seconds	< ▾	<input type="text" value="7.0"/>	<input type="text" value="8.0"/>	<input type="text" value="10.0"/>	<input type="text" value="12.0"/>	Otherwise	<input checked="" type="checkbox"/>
Availability	%	> ▾	<input type="text" value="99.0"/>	<input type="text" value="97.0"/>	<input type="text" value="95.0"/>	<input type="text" value="85.0"/>	Otherwise	<input checked="" type="checkbox"/>
System Availability	%	> ▾	<input type="text" value="99.0"/>	<input type="text" value="97.0"/>	<input type="text" value="95.0"/>	<input type="text" value="85.0"/>	Otherwise	<input checked="" type="checkbox"/>
Performance	%	> ▾	<input type="text" value="99.0"/>	<input type="text" value="97.0"/>	<input type="text" value="95.0"/>	<input type="text" value="85.0"/>	Otherwise	<input checked="" type="checkbox"/>

In addition to the custom offering level, two global offering levels (Platinum, Custom\_global) are associated with the Business Service CI:

**Add Global Offering Levels**

The table below displays the available global offering levels for the selected business service. Select the relevant check boxes and click OK to attach the global offering levels to the service.

Name	Description
<input checked="" type="checkbox"/> Custom_global	
<input type="checkbox"/> Gold	Designed for business-critical applications.
<input checked="" type="checkbox"/> Platinum	Designed for mission-critical applications and systems that can never go down.
<input type="checkbox"/> Silver	Designed to meet the needs for infrastructure with less demanding availability requirements, such as test and development servers or non-mission critical websites.

All associated offering levels are listed in the Offering Levels area for My\_Service:

The screenshot shows the 'Services Manager' tab in the interface. On the left, a tree view shows the hierarchy: Services Manager > Global Offering L > Services > 1 > My\_service. The main area displays details for 'My\_service':

- Name: My\_service
- Description:
- Provider: None

Below this, the 'Offering Levels' section contains a table:

Name	Description	Type	Actions
<input type="checkbox"/> Offering_level1			[Edit] [Copy] [Refresh] [Delete]
<input type="checkbox"/> Platinum	Designed for mission-critical applications and systems th...	Global	[Edit] [Copy] [Refresh] [Delete]
<input type="checkbox"/> Custom_global		Global	[Edit] [Copy] [Refresh] [Delete]

## Add the Business Service CI to an Agreement

Include the Business Service CI in a service-based agreement.

You define an agreement in the Agreement Wizard. For task details, see “Define a Service Agreement” on page 46.

### Example

A new agreement, `My_agreement`, is created in the Create Agreement Wizard. The agreement has tracking periods `Day` and `Week`, and targets `Exceeded`, `Met`, `Minor Breached`, `Failed`.

#### Define Agreement Properties

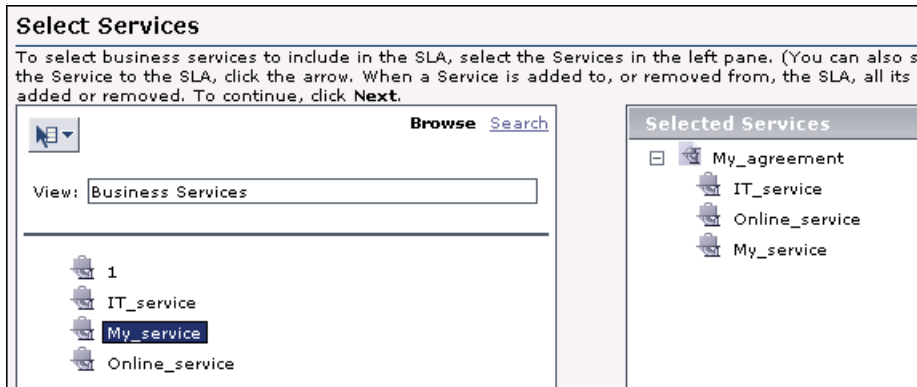
Enter details about the SLA. The name of the SLA must be unique across calendars, tracking periods, or targets, click the link. To continue, click the Next button.

Name: *	<input type="text" value="My_agreement"/>
Description:	<input style="height: 30px;" type="text"/>
Agreement Details:	<input style="height: 30px;" type="text"/>
Start Date: *	<a href="#">6/18/07 2:00 PM</a>
End Date: *	<a href="#">6/20/17 2:00 PM</a>
Time zone: *	<input type="text" value="America/New_York"/> ▼
Type:	<input type="text" value="SLA"/> ▼
Classification:	<input type="text" value="Formal"/> ▼
Creator:	administrator
Customer:	<input type="text" value="none"/> ... <a href="#">(Clear)</a>
Provider:	<input type="text" value="none"/> ... <a href="#">(Clear)</a>

[Tracking period\(s\):](#) Day, Week

[Target\(s\):](#) Exceeded, Met, Minor Breached, Failed

On the Select Services page, the Business Service CIs My\_service, IT\_service, and Online\_service are included in the agreement.



### Select an Offering Level for the CI

In the Select Service Offering Levels page of the Agreement Wizard, select the Business Service CI in the left pane, then in the right pane select the offering level that you want to be applied to the CI and its children for the current agreement.

---

**Note:** You can also click the **Create New** button to define a new offering level, or click the **Attach Global** button to use one of the global offering levels. In both cases, the offering level is added to the list of associated offering levels in the right pane.

---

## Example

In the Select Service Offering Levels page of the new agreement, Offering\_level1 is selected as the offering level to use with the My\_service Business Service CI and all its children, within this agreement.

### Select Service Offering Levels

Select a business service to see its available offering levels. Select the required offering level for each ser

Agreement Services	Service Offering Levels
<div style="border: 1px solid gray; padding: 5px;"> <ul style="list-style-type: none"> <li>☐ My_agreement               <ul style="list-style-type: none"> <li><b>My_service [Default]</b></li> <li>IT_service [Default]</li> <li>Online_service [Default]</li> </ul> </li> </ul> </div>	<div style="border: 1px solid gray; padding: 5px;"> <p>Selected offering level for the service:</p> <p><input type="radio"/> <a href="#">Custom_global</a></p> <p><input type="radio"/> <a href="#">Default</a></p> <p><input checked="" type="radio"/> <a href="#">Offering_level1</a></p> <p><input type="radio"/> <a href="#">Platinum</a></p> <p style="text-align: right;"> <input type="button" value="Create new"/> <input type="button" value="Attach Global"/> </p> </div>

## Select Calendars for the Agreement

The Select Calendars page of the Agreement Wizard lists the calendars that are included in all selected offering levels. Select the calendars you want to apply for the current agreement (up to three).

---

**Note:** Any calendar that is not selected is ignored for all KPIs, with the result that the KPIs have no results for that calendar.

---

### Example

The 24x7 calendar is not required for My\_agreement, and is therefore not selected on the Calendars page.

Calendars		
Select Calendars		
	Calendar Name	Service Name
<input checked="" type="checkbox"/>	Business Hours	IT_service , My_service
<input type="checkbox"/>	24x7	IT_service , My_service
<input checked="" type="checkbox"/>	Custom_calendar	My_service
<input checked="" type="checkbox"/>	Compound TI	Online_service

### Fine Tune KPI Assignment

If required, after defining a service-based agreement, you can check KPI assignment (as determined by the offering level and the KPIs Valid Assignments XML), and fine tune KPI details in the Advanced Agreement Options Wizard.

For details on the wizard, see “Advanced Agreement Options Wizard” on page 164.

For information on KPI assignment, see “How KPI Assignment Works” on page 73.



## Example

The Define KPIs page of the Advanced Agreement Options Wizard displays the KPIs assigned to the My\_service CI and its CI children, using the assignment rules and the definitions in Offering\_level1:

### Define KPIs

Select the CIs in the SLA for which you want to set KPIs. You can define KPIs and outages for multiple CIs in a single definition. To add a KPI, click **Add KPI**. To edit a KPI, click its **Edit** button. To add or edit an outage, click its **Edit** button. To define KPIs and outages for multiple CIs in a single definition, click each additional CI to display the Global Settings pane. To continue, click **Next**.

SLA:

- My\_agreement
  - IT\_service
  - My\_service
    - BillPay\_MakePayment
      - BillPay\_MakePayment
    - BillPay\_Service

Item: BillPay\_MakePayme

KPIs	
KPI	Business
<input type="checkbox"/> Availability	BPM Ave
<input type="checkbox"/> Performance	BPM Per
<input type="checkbox"/> Response Time	BPM Ave Time

The KPI Definition dialog box for a KPI (opened by clicking the **Edit** button for the KPI) displays the threshold values defined in *Offering\_level1*. However, only the calendars, tracking periods, and targets that are defined for the agreement (*My\_agreement*) are included for the KPI:

**KPI Definition**

**KPI:** Response Time

**Business rule:** BPM Average Response Time

**Parameters:**

Calculation method:  Sample Based  Time Based

Trimming condition: < [ ] seconds

Ignore timed out trimming:  true  false

---

**Objectives**

To add an objective, click a cell, enter the objective values, then click the cell again (or click a cell). To add an objective to all periods of a calendar, click a calendar, enter the objective values, then click the calendar again (or click a cell).

Calendar	Day	Week
Compound TI	<input type="checkbox"/>	<input type="checkbox"/>
Custom calendar	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Business Hours	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

---

<span style="display: inline-block; width: 15px; height: 15px; background-color: #00ff00; border: 1px solid black;"></span> Exceeded	<	[ 7.0 ]	seconds
<span style="display: inline-block; width: 15px; height: 15px; background-color: #90ee90; border: 1px solid black;"></span> Met	<	[ 8.0 ]	seconds
<span style="display: inline-block; width: 15px; height: 15px; background-color: #ffff00; border: 1px solid black;"></span> Minor Breached	<	[ 10.0 ]	seconds
<span style="display: inline-block; width: 15px; height: 15px; background-color: #ff0000; border: 1px solid black;"></span> Failed	Otherwise		

---

## View Results in Reports

The data for the agreement is viewed in the Service Level Management reports. For details, see “About Service Level Management Reports” on page 126.

### Example

The **Applications > Service Level Management > SLA Reports > CI Summary** report, generated for CI BillPay\_MakePayment in SLA My\_agreement, displays results for the KPIs assigned to the CI.

The calendar Compound\_TI is included in the report because it is defined for the agreement; however, it shows status **No Data** because the calendar is not included in Offering\_level1, the offering level defined for this CI.

CI Summary 6/20/07 12:00 AM - 6/21/07 12:00 AM America/New\_York

View: Last Day

CI: BillPay\_MakePayment (SLA: My\_agreement)

Primary grouping: KPI KPI: All (Clear All)

Secondary grouping: Calendar Calendar: All (Clear All)

CI	Availability (%)			Performance (%)			Response Time	
	Business Hours	Compound TI	Custom_calendar	Business Hours	Compound TI	Custom_calendar	Business Hours	Compound TI
BillPay_MakePayment	100.000	100.000	100.000	100.000	100.000	100.000	0.961	0

■ Exceeded 
 ■ Met 
 ■ Minor Breached 
 ■ Failed 
 ■ No Data 
 ■ Down

## Troubleshooting and Limitations

- ▶ The objective thresholds entered in the Offering Level Definition dialog box must be logical for the operator, and ordered logically; Service Level Management does not validate the entered values.
- ▶ After making changes to an offering level that is in use with an agreement, you must run a recalculation task if you want the changes to be reflected in the previously aggregated data for the reports. For details, see “Recalculation Task Dialog Box” on page 214.

# 5

---

## Downtime Events

This chapter describes main concepts for downtime events.

<b>This chapter describes:</b>	<b>On page:</b>
<b>Concepts</b>	
About Downtime Events	94
Retroactive Events	95
<b>General Reference</b>	
Event Examples	96

## About Downtime Events

The Downtime Events page enables you to schedule time periods of downtime and other events that affect data in agreements, so that the relevant periods are shown with Downtime status in Service Level Management reports. You can create events only for existing agreements.

You define an event for a specific agreement or for all agreements. You can define BPM and SLA events. You use BPM events when adding an event affecting Business Process Monitor data in agreements, and SLA events when adding an event that affects specific agreements. You can define an event retroactively and you can define a recurring event.

For details on defining a downtime event, see “Downtime Event Schedule Dialog Box” on page 202.

For examples of event definitions, see “Event Examples” on page 96.

---

**Note:** Service Level Management reports show downtime events defined for a specific agreement and for all agreements. If the Downtime Event Description is displayed for an event defined for all agreements, each of which has a different time zone, the event’s date and time may not be relevant for all the agreements.

---

---

**Note:** From version 5.0 FP1, the maximum duration for an event (not including a one-time event) is 23 hours and 59 minutes. If you have created events in previous versions of HP Business Availability Center that are longer than this duration, Service Level Management shortens the event to 23 hours and 59 minutes.

---

For details, about events for running agreements, see “Retroactive Events” on page 95.

## Retroactive Events

If a downtime event is defined for an agreement after the agreement has started running, the event affects data received after the event is defined. To affect data retroactively, Service Level Management must recalculate the agreement.

For example, if you change the event frequency, data may now be included in reports that was previously excluded. Once the changes are saved, any generated reports include the updated event.

---

**Note:** For events to affect reports retroactively, you must recalculate the agreement. For details, see “Recalculation for Agreements” on page 43.

---

## Event Examples

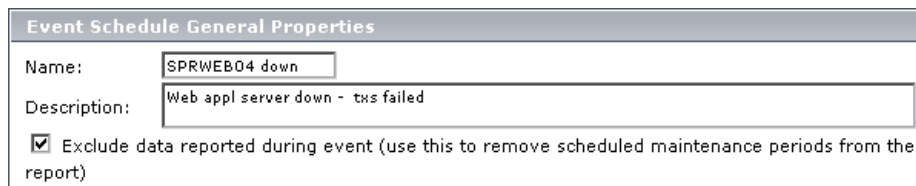
The following sections give use-case examples for downtime events running on different schedules:

- “Once” on page 96
- “Daily” on page 98
- “Weekly” on page 99
- “Monthly” on page 100
- “Yearly” on page 102

### Once

Every morning the VP of eBusiness looks through the previous day’s SLAs Summary reports. One morning, she realizes that due to maintenance in the Springfield office, the Web applications server had been down for three hours and all Business Process Monitor CIs from that location have failed. She needs to define a retroactive downtime event and adjust the reports to reflect the downtime.

- She accesses the Downtime Events tab and creates a new Business Process Monitor event by clicking the **New BPM Event** button.
- She enters a name and description for the downtime. She leaves the **Exclude data reported** check box selected.



Event Schedule General Properties	
Name:	SPRWEB04 down
Description:	Web appl server down - txs failed
<input checked="" type="checkbox"/>	Exclude data reported during event (use this to remove scheduled maintenance periods from the report)



- In the Scheduling section, she chooses the **Once** option and enters the start date, time, and duration of the server downtime.

**Scheduling**

Once
  Daily
  Weekly
  Monthly
  Yearly

---

**Duration and Recurrence range:**

Start date: 6/23/05 3:20 AM

End time: 6/23/05 12:26 AM

Event duration: 0 day(s), 03 hours, 00 minutes.

**Note:** Dates are specified according to the user timezone which is set to America/Los\_Angeles

- In the Event Schedule Action section, she selects one of the SLAs that cover the Springfield office contracts (she must create an event for each SLA).

**Event Schedule Action**

SLA: Springfield Finance server

[CI Filter](#): Please select

- She clicks **CI Filter** to select the SLA.
- She selects the relevant SLA and then clicks **CI Filter** to select the Springfield location.
- She saves the event.
- She recalculates the SLA over the relevant period of time.
- She next accesses the SLAs Summary page, generates reports for relevant KPIs, and verifies that during this time, the data is ignored and the status of the SLA is **downtime**.

## Daily

The operations support engineer is told that a server's graphics card is being upgraded for a new map application. A slowdown of the server may be expected for three days beginning today, while the R&D team tests the new application. To minimize problems, the team will be running tests for one hour each day. All SLAs that monitor this server will be affected, and he should define an event to appear in reports to explain the slowdown.

- He defines a new SLA event, and enters a name and detailed description for the downtime (each SLA needs its own event). He clears the **Exclude data reported** check box.

**Event Schedule General Properties**

Name:

Description:

Exclude data reported during event (use this to remove scheduled maintenance periods from the report)

- In the Scheduling section, he chooses the **Daily** option and enters a frequency of 1 day (the default). In the Duration and Recurrence range, he chooses today's date and time from the calendar. He chooses a duration of 1 hour, and the end date and time for three days' hence.

**Scheduling**

Once  Daily  Weekly  Monthly  Yearly

---

**Frequency:**  
Every  day(s)

**Duration and Recurrence range:**  
Start date: [7/26/05 2:26 PM](#)  
Event duration:  hours,  minutes.

No end date  
 End time: [7/29/05 2:26 PM](#)

**Note:** Dates are specified according to the user time zone which is set to GMT

- In the Event Schedule Action section, he selects the relevant SLA, clicks **CI Filter**, and selects the server.
- He saves the event.

- He accesses the CIs Over Time report (**Applications > Service Level Management > SLA Reports > CIs Over Time**) and clicks the Advanced Options link. He selects the **Downtime Event Description** check box.
- The next day he generates a CIs Over Time report and verifies that the event appears in the report.

---

**Note:** The operations support engineer has no need to recalculate the SLA, since the **Exclude data reported** check box was not selected.

---

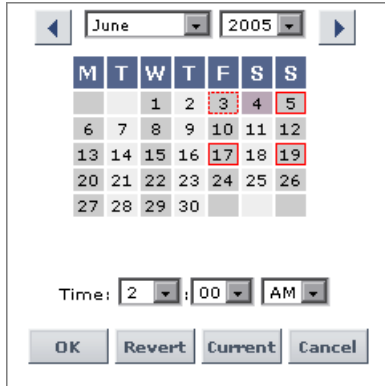
## Weekly

**Example 1:** You define an event to occur once every two weeks (**2**) with a start date of Tuesday, 7 Jun 05. For calculation purposes, the first week runs from Monday, 6 Jun 05 till Monday, 13 Jun 05.

The screenshot shows a date selection interface for June 2005. At the top, there are dropdown menus for the month (June) and year (2005). Below this is a calendar grid with days of the week (M, T, W, T, F, S, S) as column headers. The dates are arranged in a grid: Row 1 (6-12), Row 2 (13-19), Row 3 (20-26), and Row 4 (27-30). The date 7 is highlighted in a darker shade, indicating it is the selected date. Below the calendar, there is a 'Time' field with three dropdown menus: the first shows '2', the second shows ':00', and the third shows 'AM'. At the bottom of the dialog are four buttons: 'OK', 'Revert', 'Current', and 'Cancel'.

- If the event is to occur every second Tuesday, the first occurrence of the event will be on Tuesday, 7 Jun 05.
- If the event is to occur every second Thursday, the first occurrence of the event will be on Thursday, 9 Jun 05.
- If the event is to occur every second Monday, the first occurrence of the event will be on Monday, 20 Jun 05.

**Example 2:** You define a recurring event that occurs every second week on a Friday and a Sunday, to begin on a Saturday. In the first week, the event will run only on Sunday. In the second week, the event does not run. In the third week, the event runs on Friday and on Sunday, and so on.



## Monthly

Every other month, on the fourth Sunday, the Web server for the Finance department in the Unionville office is scheduled for maintenance at 1:00 AM for two hours. Therefore, the IT Ops director must define a recurring event and exclude all CIs from reports during this period.

- ▶ The IT Ops director accesses the Events tab and creates a new Business Process Monitor event by clicking the **New BPM Event** button.
- ▶ He enters a name and description for the maintenance. He leaves the **Exclude data reported** check box selected.

Event Schedule General Properties	
Name:	WEBFIN02 maint.
Description:	Finance Web server maintenance in Unionville office.
<input checked="" type="checkbox"/>	Exclude data reported during event (use this to remove scheduled maintenance periods from the report)

- In the Scheduling section, he chooses the **Monthly** option. In the Frequency section, he selects **Fourth, Sunday**, and **2**. He enters the start date and time and enters **2** for the event duration. He leaves **No end date** selected.

**Scheduling**

Once
  Daily
  Weekly
  Monthly
  Yearly

---

**Frequency**

Day  of every  month(s)

The   of every  month(s)

Last day of every  month(s)

**Duration and Recurrence range:**

Start date: [6/23/05 4:52 AM](#)

Event duration:  hours,  minutes.

No end date
   
 End time: [6/23/05 4:52 AM](#)

**Note:** Dates are specified according to the user timezone which is set to America/Los\_Angeles

- In the Event Schedule Action section, he selects one of the SLAs that cover the Unionville office contracts (each SLA needs its own event).

**Event Schedule Action**

SLA:

[CI Filter:](#) Please select

Note that this event will affect results also for the descendants of the selected CIs.

- He selects the SLA CI from the CI filter, so that all descendants are also affected.
- He saves the event.

## Yearly

The VP of eBusiness likes to be prepared. Each July 5th, her boss sends her an e-mail requesting network statistics for the previous day to compare to their targets. This year, on July 3rd, she prepares an SLA to measure network performance and creates an event that will run throughout the next 24 hours.

In the Scheduling section, she chooses the **Yearly** option. In the Frequency section, she selects **Every, July, and 4**. She enters the start date and time of July 4th at 12:00 AM and sets an event duration of 23 hours and 59 minutes. She leaves **No end date** selected.

On July 5th she is able to reply immediately to her boss's e-mail with the network performance results compared to the target objectives.

# 6

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## Calendars

This chapter explains how to define calendars for agreements.

<b>This chapter describes:</b>	<b>On page:</b>
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About Calendars	104
<b>General Reference</b>	
Calendar Examples	106
<b>Customization</b>	
Changing the First Day of the Week or First Month	108

## About Calendars

---

**Note:** Calendars were referred to as Time Intervals in previous versions.

---

Calendars define the periods for which Service Level Management performs data calculations.

In your organization, the same service levels are probably not required at all times of the day or night, or during all days of the week or year. For example, performance and availability are more crucial to a Web retailer during a busy shopping period before a holiday. Likewise, resource allocators in an ERP system must have 99% availability every working morning, whereas at other times 97% might be acceptable.

To monitor your business processes at these crucial times, you define calendars that span the period you want to monitor. This is the time range that Service Level Management checks for compliance to the agreement. Service Level Management includes two default calendars: **24x7** and **Business Hours**.

You define calendars for your organization in the Calendar Wizard. For details, see “Calendar Wizard” on page 192. The defined calendars are then available for using when defining offering levels and agreements. You can define as many calendars as required, but only can select up to three per agreement.

Service Level Management reports organize results according to calendars. You can add calendar descriptions to Service Level Management reports. For details, see “Advanced Options Dialog Box” on page 228.



**Note:**

- ▶ If you add new calendars to Service Level Management, you must add definitions for the calendars to the appropriate offering levels, including the preconfigured offering levels. For details, see “Creating and Editing Offering Levels” on page 78.
  - ▶ If you add or remove calendars from offering levels, you must edit the agreements containing the offering levels. For details, see “Modifying Details for Assigned Offering Levels” on page 81.
  - ▶ If you delete a calendar, it is automatically removed from all offering levels and agreements.
  - ▶ If you update one of the calendars included in a compound calendar, the compound calendar itself is also updated.
-

## Calendar Examples

The following sections give examples for creating custom calendars:

- “Weekly Calendar Example” on page 106
- “Compound Calendar Example” on page 107

### Weekly Calendar Example

To quickly create a calendar that spans the whole week, apart from work days: In the Weekly Calendar Definition page of the Calendar Wizard (“Calendar Pattern: Weekly Calendar Definition Page” on page 194) select a start time of 12 AM and an end time of 12 AM. Select all the days of the week. Click **Add**. Select a start time of 9 AM and an end time of 5 PM. Select Monday to Friday. Click **Clear**.

#### Weekly Calendar Definition

To add a time or date to the Calendar, click a cell. To remove the time or date, click the cell again. To edit a table and click **Add**. To remove part of a calendar, select the range in the lower table and click **Clear**. To continue, click **Finish**.

**Calendar**
 Active hours
 Free hours

hour	12:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	01:00	02:00	03:00
\day	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM
Sun																
Mon																
Tue																
Wed																
Thu																
Fri																
Sat																

**Add Range:**

Start time:  End time:  Day(s) of Week: 

- Sunday
- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday

### Compound Calendar Example

To define a calendar that monitors business hours but does not include the first day of the month. You define a yearly calendar (called **1st day of month**) that includes only the first day of each month:

**Yearly Calendar Definition**

To add a time or date to the Calendar, click a cell. To remove the time or date, click the times or dates in the lower table and click **Add**. To remove part of a calendar, s **Clear**. To remove all active times from the grid, click **Clear All**. To continue, click **Fin**

**Calendar**    **Active days**    **Free days**

day \ month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
January	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
February	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
March	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
April	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
May	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
June	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
July	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
August	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
September	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
October	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
November	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
December	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Add Range:**

Start day:    End day:    Month(s) of the Year:

- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December

Next, you define a **Compound** type calendar where you include the Business Hours calendar and exclude the **1st day of month** calendar.

Compound Calendar Definition				
<p>To include a calendar in the compound calendar, select its <b>In Use</b> check box. Then select <b>Include</b> for the calendar to be in the calculation, and <b>Exclude</b> for the calendar to be removed from the calculation. For example, to define a calendar that includes business hours but does not include the first day of the month, define a yearly calendar that includes the first day of the month. Select this calendar and the Business Hours calendar, then select the <b>Exclude</b> button for this calendar and the Include button for the Business Hours calendar.</p>				
Calendar				
In Use	Name	Period Type	Include	Exclude
<input checked="" type="checkbox"/>	Business Hours	Weekly	<input checked="" type="radio"/>	<input type="radio"/>
<input checked="" type="checkbox"/>	1st day of month	Yearly	<input type="radio"/>	<input checked="" type="radio"/>
<input type="checkbox"/>	24x7	Weekly	<input type="radio"/>	<input type="radio"/>

In this example, **24x7** is irrelevant to the compound calendar being defined and is not selected.

## Changing the First Day of the Week or First Month

By default, Business Availability Center takes Monday as the first day of the week, and January as the first month of the first quarter.

You can change either of these defaults in the Infrastructure Settings page. Select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Foundations**, and select **Calendar**. In the **Calendar Options** table, modify the required value. The change takes effect immediately, for example, if the reports that you generate.

After changing the setting for the first day of the week or for the first month, you must afterwards recalculate all agreements (from the **Admin > Service Level Management > Service Level Agreements** tab), otherwise the reports, and the Status Snapshot report for previous periods, may show no data for some of the tracking periods.

# 7

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## Integration with HP ServiceCenter

This chapter explains how system incidents from HP ServiceCenter are handled in Service Level Management.

This chapter describes:	On page:
<b>Concepts</b>	
About Integration with HP ServiceCenter	109
Service Level Management KPIs for System Incidents	110
<b>General Reference</b>	
Use Case Example: System Incident KPIs During a Single Period	115
Use Case Example: System Incident KPIs Across Periods	118

### About Integration with HP ServiceCenter

HP Business Availability Center integrates with HP ServiceCenter to collect information on open incidents for business services, and present the information within Business Availability Center applications.

The data for incidents is retrieved from HP ServiceCenter using the EMS Integration tool, which sets up a SiteScope HP ServiceCenter monitor to import the topology for the services and their incidents. The result of this process is to create new Business Service CIs with child EMS Monitor CIs (or to create EMS Monitor CIs attached to existing Business Service CIs). The topology can be seen in the Service Measurements view. For details on working with the EMS Integration tool, see “Use the EMS Integration Tool for HP ServiceCenter Data” in *Solutions and Integrations*.

The data for each EMS Monitor CI is updated by the incoming event samples from HP ServiceCenter, providing an ongoing record of the lifecycle for each incident. This information is used by the system incident KPIs in Service Level Management.

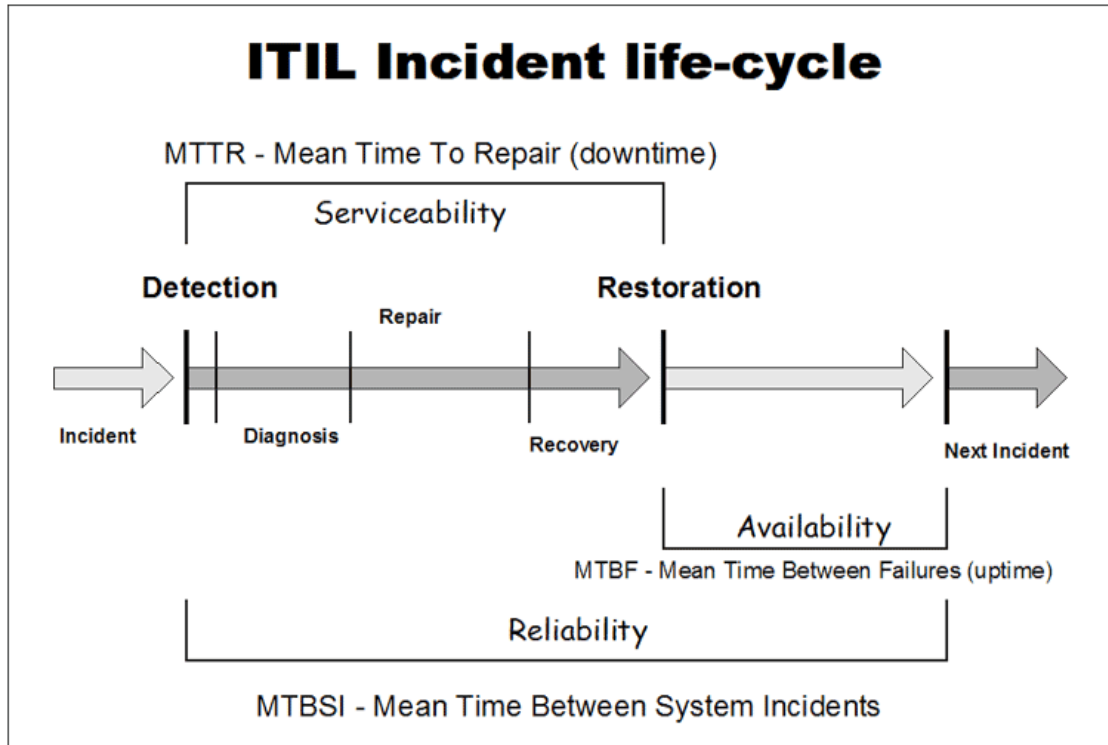
## Service Level Management KPIs for System Incidents

You include system incidents in service agreements by adding the relevant Business Service CI, or the child EMS Monitor CI, to the agreement in the **Admin > Service Level Management > Agreements Manager** page.

When a system incident is added to an agreement, specific KPIs for handling HP ServiceCenter data are automatically attached to the EMS Monitor CI:

- ▶ **MTTR.** The Mean Time to Repair KPI provides information on the percentage of incidents during a time period whose repair time was within a specified threshold. The monitor rule for the KPI is the MTTR rule, described in “MTTR (Mean Time to Recover)” in *CI Attribute Customization*.
- ▶ **MTBF.** The Mean Time Between Failures KPI provides information on the average time span when there were no open incidents for a business service, during a time period. The monitor rule for the KPI is the MTBF rule, described in “MTBF (Mean Time Between Failures)” in *CI Attribute Customization*.

- **MTBSI.** The Mean Time Between System Incidents KPI provides information on the average time span between the opening of one incident to the opening of the next incident, during a time period. The monitor rule for the KPI is the MTBSI rule, described in “MTBSI (Mean Time Between System Incidents)” in *CI Attribute Customization*.



**Note:** The Business Service CI uses the Incidents Group Rule as the default group rule for the MTTR, MTBF, and MTBSI KPIs. The logic for this group rule assumes that there is a single child CI; however, if the Business Service CI has than one child using these KPIs (for example, in a hierarchy of Business Service CIs), you must manually change the group rule for these KPIs to the **Worst Child (Min)** rule.

Change the rule in the Define KPIs page of the appropriate agreement wizard: See “Agreement Wizard” on page 167 or the “Advanced Agreement Options Wizard” on page 164.

---

## Incident State and Severity Values

The calculations for the MTTR, MTBF, and MTBSI KPIs use the status (state) and severity values received for the incidents in the samples from HP ServiceCenter:

- ▶ The status of the incident received in a sample, for example, **Open** or **Pending**, indicates the current point in the lifecycle of the incident. A new sample is sent for every change in the incident status.

Service Level Management uses the incident status to define the **Initial State** parameter (marking the start of repair time) and **Final State** parameter (marking the end of repair time) for the system incident KPIs. By default, the incident statuses used for these parameters are **Open** and **Closed**.

- ▶ The severity for the incident received in the sample, for example, **High** or **Average**, enables filtering of the incidents to be included in calculations.

By default, Service Level Management sets the **Severity** parameter for the system incident KPIs to **3** (equivalent to **Average** severity in HP ServiceCenter). This means that incidents of severity 3 or higher (higher severities are 1 and 2) are included in the calculations for the KPI.

The default parameter values for the system incident KPIs are defined in the corresponding rules for the KPIs. You can change the default values from the **Admin > Service Level Management > Repositories > Business Rules** page. For details, see “Rule Details Dialog Box” in *CI Attribute Customization*.



You can also modify the default parameter values for the KPIs attached to individual CIs within a service agreement. You do this by editing the KPI within the Agreement Wizard from the **Admin > Service Level Management > Agreements Manager** page. For details, see “KPI Definition Dialog Box” on page 207.

**KPI Definition**

KPI: MTTR

Business rule:  ?

Parameters:

? Initial State:

? Final State:

? Severity:

? Percentile condition: \*   seconds

**Objectives**

To add an objective, click a cell, enter the objective values, then click the cell again (or click another cell). To add an objective to all periods of a calendar, click a calendar, enter the objective, then click the calendar again (or click a cell).

Calendar	Day	Week	Month
24x7	☑	☑	☑
Business Hours	☑	☑	☑

Exceeded   %

Failed Otherwise

If required, you can assign multiple instances of the system incident KPIs to a CI, and define different parameter values for each one, to compare different parts of the incident lifecycle. To do this you must clone the system incident KPIs in the KPIs Repository, and edit the parameters for the new KPIs as required (for example, you might create MTTR2, MTTR3, and so forth). You can then attach the new KPIs to CIs on the Define KPIs page of the Agreement Wizard.

For details on creating new KPIs, see “Overview of the KPIs Repository” in *CI Attribute Customization*.

## KPI Calculation Principles

The following principles apply when calculating the KPI values:

- ▶ All calculations take into consideration the calendars for the agreement, and exclude downtime.
- ▶ An incident is considered in the calculations for a calendar if its **Initial State** timestamp is within the calendar. Only the repair time within that calendar is counted for calculation purposes.
- ▶ If an incident starts in one tracking period and ends in a different tracking period, it is not included within the calculation for each period, but is included for a longer period that includes the two shorter periods. For example, if an incident starts on Monday and ends on Wednesday, the data for the incident is not included for Monday or for Wednesday—but is shown in the data for the entire week that includes these days.

## Use Case Example: System Incident KPIs During a Single Period

The following use case gives examples of calculations for incidents that were opened for a Business Service CI during a single day. Each new incident creates an EMS Monitor CI as a child of the Business Service CI, and the calculations are done for the system incident KPIs attached to the EMS Monitor CIs—MTTR, MTBF, and MTBSI KPIs.

### Use Case Details

The details for the use case are as follows:

- Calculations are made for a day tracking period.
- The monitored period during a day is 08:00 to 20:00.
- There are two calendars monitored by the SLA:
  - Business hours from **08:00-13:00** and **17:00-20:00** (shown in blue in results)
  - Off business hours from **13:00-17:00** (shown in gold in results)
- The SLA targets are **Exceeded** and **Failed**.
- The objective set for the MTTR KPI is: **70%** of the incidents must be resolved in:
  - **<= 01:30** in business hours
  - **<= 04:00** in off business hours

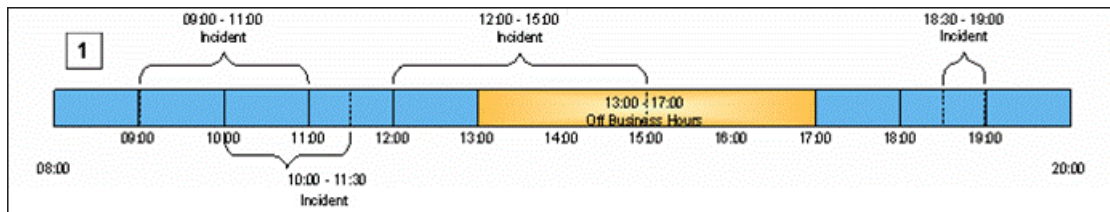
---

**Note:** In the MTTR results for each example, **m** means that the objective was met, **b** means that the objective was breached.

---

- The objective set for the MTBF KPI is: Average time between failures must be **>= 01:30**
- The objective set for the MTBSI KPI is: Average time between incidents occurring must be **>= 03:00**

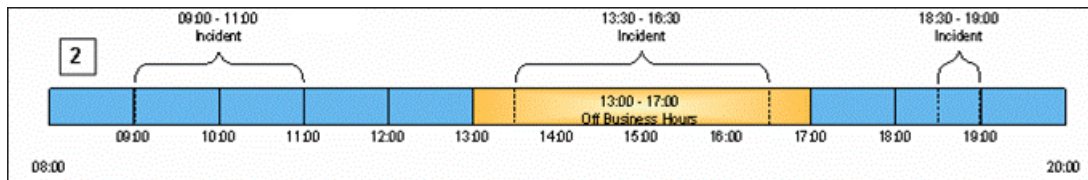
## Case 1 Results



1. **Case 1 – Business Hours:**
  - a. Incident 1: **start** 09:00; **end** 11:00 (duration 02:00).
  - b. Incident 2: **start** 10:00; **end** 11:30 (duration 01:30).
  - c. Incident 3: **start** 12:00; **end** 13:00 (duration 01:00).
  - d. Incident 4: **start** 18:30; **end** 19:00 (duration 00:30).
2. **Case 1 – Off Business Hours**
  - a. **No incidents**

Case 1	MTTR	MTBF	MTBSI
Business Hours	b,m,m,m = <b>75%</b>	$(1+0.5+1.5+1)/4=$ <b>01:00</b>	$(1+2+2.5)/3=$ <b>02:45</b>
Off Business Hours	No data	<b>02:00</b>	No data

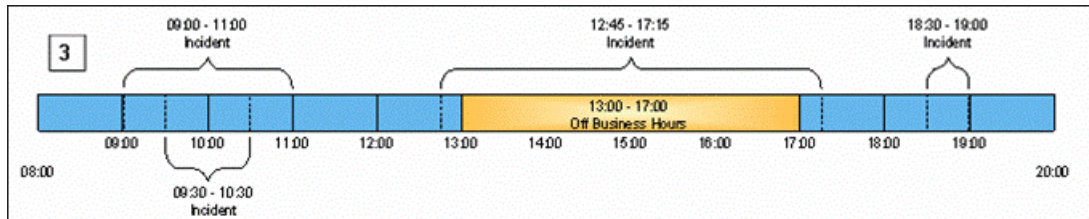
## Case 2 Results



1. **Case 2 – Business Hours:**
  - a. Incident 1: **start** 09:00; **end** 11:00 (duration 02:00).
  - b. Incident 2: **start** 18:30; **end** 19:00 (duration 00:30).
2. **Case 2 – Off Business Hours:**
  - a. Incident 1: **start** 13:30, **end** 16:30

Case 2	MTTR	MTBF	MTBSI
Business Hours	b,m = <b>50%</b>	$(1+3.5+1)/3=$ <b>01:53</b>	$(5.5)/1=$ <b>05:30</b>
Off Business Hours	m = <b>100%</b>	$(0.5+0.5)/2=$ <b>00:30</b>	No data

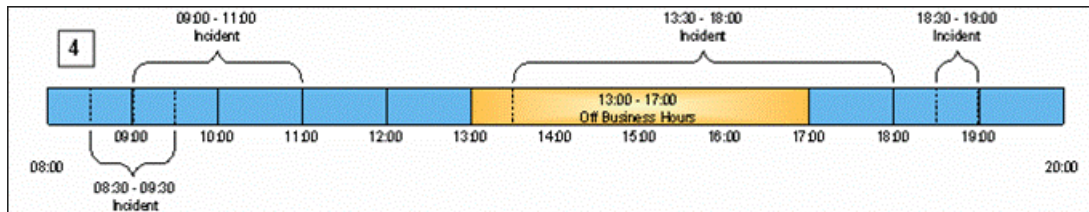
### Case 3 Results



1. **Case 3 – Business Hours:**
  - a. Incident 1: **start** 09:00; **end** 11:00 (duration 02:00).
  - b. Incident 2: **start** 09:30; **end** 10:30 (duration 01:00).
  - c. Incident 3: **start** 12:45; **end** 17:15 (duration 00:30).
  - d. Incident 4: **start** 18:30; **end** 19:00 (duration 00:30).
2. **Case 3 – Off Business Hours:**
  - a. **No Incidents.**

Case 3	MTTR	MTBF	MTBSI
Business Hours	b+m+m+m = <b>75%</b>	$(1+1.75+1.25+1)/4=$ <b>01:15</b>	$(0.5+3.25+2)/3=$ <b>01:40</b>
Off Business Hours	No data	No data	No data

### Case 4 Results



1. **Case 4 – Business Hours:**
  - a. Incident 1: **start** 08:30; **end** 09:30 (duration 01:00).
  - b. Incident 2: **start** 09:00; **end** 11:00 (duration 02:00).
  - c. Incident 3: **start** 18:30; **end** 19:00 (duration 00:30).
2. **Case 4 – Off Business Hours:**
  - a. Incident 1: **start** 13:30; **end** 17:00 (duration 03:30).

Case 4	MTTR	MTBF	MTBSI
Business Hours	m, b, m = <b>66%</b>	$(0.5+3.5+1)/3=$ <b>01:40</b>	$(0.5+5.5)/2=$ <b>03:00</b>
Off Business Hours	m = <b>100%</b>	$(0.5)/1=$ <b>00:30</b>	No data

## Use Case Example: System Incident KPIs Across Periods

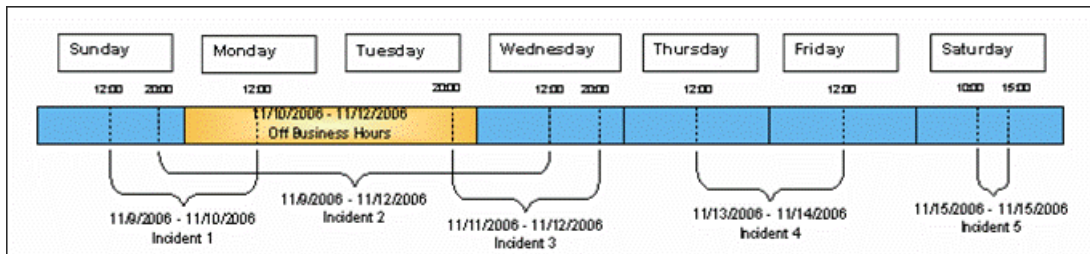
The following use case gives examples of calculations for incidents that were opened for a Business Service CI over the course of a week. Each new incident creates an EMS Monitor CI as a child of the Business Service CI, and the calculations are done for the system incident KPIs attached to the EMS Monitor CIs—MTTR, MTBF, and MTBSI KPIs.

### Use Case Details

The details for the use case are as follows:

- Calculations are made for day and week tracking periods.
- There are two calendars monitored by the SLA:
  - Business hours: Sunday, Wednesday, Thursday, Friday, Saturday (shown in blue in results)
  - Off business hours: Monday, Tuesday (shown in gold in results)
- The SLA targets are **Exceeded** and **Failed**.
- The objective set for the MTTR KPI is: **70%** of incidents must be resolved within 30 hours.

### Use Case Results



#### Business Hours (blue):

- **Sunday:** No closed incidents
- **Monday:** Not relevant - off-business hours

- **Tuesday:** Not relevant - off-business hours
- **Wednesday:** 1 incident (opened on Sunday) with duration of 16 hours (amount of open time during business hours)
- **Thursday:** No closed incidents
- **Friday:** 1 incident (opened on Thursday) with duration of 24 hours
- **Saturday:** 1 incident with duration of 5 hours

---

**Note:** Incidents that are opened on one day and are closed on a different day are ignored in the calculations for each day, but included in the week calculations.

---

KPI	Daily Results						
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
MTTR	No data	No data	No data	No data	no data	No data	100%
MTBF	No data	No data	No data	No data	no data	No data	09:30
MTBSI	No data	No data	No data	No data	No data	No data	No data

KPI	Week results
MTTR	100%
MTBF	14:45 $((12+16+22+9)/4)$
MTBSI	31:20 $((8+40+46)/3)$

**Off Business Hours (gold):**

KPI	Daily Results						
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
MTTR	No data	no data	No data	No data	No data	No data	No data
MTBF	No data	No data	No data	No data	No data	No data	No data
MTBSI	No data	No data	No data	No data	No data	No data	No data

KPI	Week results
MTTR	No data
MTBF	No data
MTBSI	No data





# 8

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## KPIs and Business Rules Repositories

The **Admin > Service Level Management > Repositories** tab includes the KPIs and Business Rules repository pages for Service Level Management.

### **KPIs**

KPIs help you to monitor your business objectives, and to track critical performance variables over time. For details on the Service Level Management KPIs, see “List of Service Level Management KPIs and Details” in *CI Attribute Customization*.

For details on defining and editing Service Level Management KPI, see “Overview of the KPIs Repository” in *CI Attribute Customization*.

### **Rules**

Service Level Management business rules define the logic to be used when calculating measurements for a KPI. For details on the Service Level Management rules, see “List of Service Level Management Business Rules” in *CI Attribute Customization*.

For details on defining and editing Service Level Management KPI, see “Overview of Service Level Management Rules” in *CI Attribute Customization*.



# Part II

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## Service Level Management Reports



# 9

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## Working with the Service Level Management Application

This chapter describes main concepts and elements specific to the application component of Service Level Management.

This chapter describes:	On page:
<b>Concepts</b>	
About Service Level Management Reports	126
Producing Reports	129
Status in Reports	130
About SLA Management	131
Outage Reports	131
User Reports Tab	132
Primary Grouping/Secondary Grouping	132
Tooltip for KPIs in Reports	134
Aggregated Data	135
Status Forecast for Agreements	136
Time Zones	140
Tracking Range and Granularity in Service Level Management	141
Additional Values in Reports	144

This chapter describes:	On page:
<b>Tasks</b>	
View SLA and Outage Reports	150
<b>General Reference</b>	
Working with Service Level Management Reports: Examples	152
The Reports Log	158
<b>Customization</b>	
Setting Number of Digits in Results	158

## About Service Level Management Reports

Service Level Management reports show you how well actual service levels compare with your goals. The reports provide you and your users with a bird's eye view of the whole system, and enable you to get an early warning of potential problems, before agreement violations occur.

You can view reports from a Six Sigma perspective, and you can store report data and share reports. You can also use the SLA Status Alerts report to view a log of alerts sent during a specified time period—for details, see “SLA Alerts” in *Custom Reporting and Alerting*.

---

**Tip:** You can also use the Service Report framework to create a custom report with elements from Service Level Management and Dashboard. The Service Report employs a multidimensional data model. For details, see “Service Report” in *Using My BAC*.

---

## Report Summaries

The following table summarizes the Service Level Management reports:

Report Name	Description	Use This Report To...
SLA Status Snapshot	Displays up-to-date information about the worst-performing agreements in the current tracking periods, and in previous, closed periods. For details, see “Status Snapshot Report” on page 276.	track worst-performing agreements, and get a quick snapshot of agreement status
SLA Status	Displays current and forecast status for agreements over a selected tracking period. For details, see “SLA Status Report” on page 267.	determine if current service levels may lead to a future breach of the agreement
SLAs Summary	Displays a list of agreements and their status, organized by KPI/calendar/time period. For details, see “SLAs Summary Report” on page 273.	view a summary of data for all (or specific) agreements
CI Summary	Drill-down from the SLA Summary report. The report displays status for CIs in the branch for a selected CI (up to four levels), organized by KPI/calendar/time period. For details, see “CI Summary Report” on page 240.	find CIs that did not reach their objectives
CI Impact	Displays a CI’s impact across several agreements. The report displays status organized by KPI/calendar/time period. For details, see “CI Impact Report” on page 231.	compare the availability and performance of a CI across several agreements

Report Name	Description	Use This Report To...
CI Status	<p>Displays status for CIs in the branch for a selected CI (up to four levels), for a selected time range, calendar, and KPI.</p> <p>For details, see “CI Status Report” on page 237.</p>	view configuration information, such as objectives, for each CI
Time Range Comparison	<p>Enables you to compare status for up to eight time ranges for CIs in an agreement.</p> <p>Displays status for CIs in the branch of a selected CI (up to four levels), for a selected calendar and KPI.</p> <p>The added value in this report is that it displays a trend between two time ranges.</p> <p>For details, see “Time Range Comparison Report” on page 260.</p>	compare time ranges to determine whether availability and performance have improved
CIs Over Time	<p>Displays a graphic display of status over time for selected CIs, for a specific KPI and calendar.</p> <p>For details, see “CIs Over Time Report” on page 246.</p>	follow the results of a particular CI over a time period and compare with other CIs
CI Over Time vs. Target	<p>Displays a graphic display of status over time for a selected CI, for a specific KPI and calendar, and compares results to the target objectives for the CI.</p> <p>For details, see “CI Over Time vs. Target Report” on page 234.</p>	see how well a CI has performed compared to its objectives
Outage Summary	<p>Displays a list of outages for selected CIs.</p> <p>For details, see “Outage Summary Report” on page 257.</p>	view outage information for a specific agreement



Report Name	Description	Use This Report To...
Outage Breakdown	Displays a graphic display for breakdown of outage categories by CI outages, or a breakdown of CI outages by outage categories. You view data according to outage duration or number of outages, for a specific calendar.  For details, see “Outage Breakdown Report” on page 249.	view a breakdown of all outages for certain CIs, to see to which category a CI belongs (Database, Network, Webserver, Undefined, or user-defined)
Outage Distribution	Displays a graphic display of outage distribution by CI or by outage category. You view data according to outage duration or number of outages, for a specific calendar.  For details, see “Outage Distribution Report” on page 252.	view the outage distribution for selected CIs, to see which CI or category has the most outages, or has outages with the longest duration

## Producing Reports

For a general explanation of how to work with all HP Business Availability Center reports, see “Working in Reports” in *Reference Information*.

If you have defined downtime or other events, Service Level Management reports exclude the data according to the downtime definitions. For details, see “Downtime Events” on page 93.

Service Level Management:

- displays a report with the last agreement selected.
- displays a report with the same filters (for example, KPI, configuration item, time period) as those chosen in a previous report, for the duration of the Web session.
- displays reports with a minimum time granularity of one hour.

- ▶ generates a report at the same level (for example, agreement, CI, CI's children) as that chosen in a previous report.
- ▶ generates a report according to the aggregated data stored in the database.
- ▶ updates the “to date” views once daily.
- ▶ enables users to add any report to a custom report.
- ▶ enables users to sort a report by any column.
- ▶ can display up to 60 data points in each table. For example, for a month time period, you can choose to view the data organized by weeks (four or five data points) or days (30 or 31 data points). However, you cannot choose to view by hours (~744 data points).

## Status in Reports

Statuses (targets) are color coded as follows:

Status	Color name	Color
Exceeded	Green	
Met	Olive green	
Minor Breached	Yellow	
Breached	Orange	
Failed	Red	

## About SLA Management

SLA Management enables you to view services provided by your department. You use the three default views shown in the View Explorer in the left pane to view services or business units, and their CIs. You can view data and agreement information about configuration items (CIs) that represent the business process, hardware, or software services, and about business units associated with agreements.

For information about defining business units, see “Business Units for Services and Agreements” on page 30.

To view data in reports, choose between the following views:

- ▶ **Business Services.** Enables you to view the related agreements for each business service, and link to the CI Impact report for the selected service.
- ▶ **Business Units.** Enables you to view the related agreements for each business unit (provider or customer), and link to the SLAs Summary report for the selected unit.
- ▶ **Service Providers.** Enables you to view the related agreements for business units (providers) and their services, and open the SLAs Summary report or CI Impact report for the selected unit or service.

## Outage Reports

Outage reports enable you and your users to manage and control outages (periods of time during which measurements fail), thus improving service levels. There are three outage reports available in Service Level Management:

- ▶ Outage Breakdown Report, described on page 249
- ▶ Outage Distribution Report, described on page 252
- ▶ Outage Summary Report, described on page 257

When you generate a report, Service Level Management calculates (on the fly) whether there have been any outages in the time period you chose, by running the outage business rule associated with the CI. The Minimum duration set in the outage rule determines the length of time considered an outage.

You define outages during agreement creation. For details, see “Outages in Agreements” on page 35.

## User Reports Tab

User reports is a feature common to the HP Business Availability Center applications. You configure and view user reports from the User Reports tab.

For complete details on creating, viewing, and administering user reports, see “User Reports” in *Custom Reporting and Alerting*.

## Primary Grouping/Secondary Grouping

In the SLAs Summary, CI Summary, and CI Impact reports, you can organize the results under two levels of headings, a primary grouping and a secondary grouping. The data is then organized according to the secondary grouping.

The grouping options are time period, KPI, and calendar. Once you select an option as the primary grouping, it is not available as an option for the secondary grouping.

If you only want one heading level, select **None** for the secondary grouping—the data is then organized only by the primary grouping.

In the following example, the time periods are shown as the primary heading, and the calendars are shown as secondary headings under each time period.

CI Summary 8/1/07 12:00 AM - 8/5/07 12:00 AM Asia/Jerusalem				
View: <input type="button" value="Month to date"/> <input type="button" value="◀"/> <input type="button" value="▶"/> Every: <input type="button" value="Day"/>				
CI: Web Server SLA (SLA: Web Server SLA)				
Primary grouping: <input type="button" value="Time Period"/>		KPI: Availability		
Secondary grouping: <input type="button" value="Calendar"/>		Calendar: All <a href="#">(Clear All)</a>		
<input type="button" value="Table"/> <input type="button" value="List"/>				
CI	8/1		8/2	
	24x7	Business Hours	24x7	Business Hours
Web Server SLA	16.383	16.673	16.673	16.673
└─ Web Server	16.383	16.673	16.673	16.673
└─ mercury tpslm	16.383	16.673	16.673	16.673
└─ GreenYellow Stripes	100.000	100.000	100.000	100.000

## Tooltip for KPIs in Reports

Hold the pointer over a result to view information about the KPI:

vugen1_tr2	vugen1_tr3	vugen1_tr7
0.00	0.000	94.782
0.00		
0.00		
0.00		

<b>CI:</b>	vugen1_tr2
<b>Date:</b>	8/1
<b>Availability:</b>	0.000 %
<b>Status:</b>	Failed
<b>Business Rule:</b>	BPM Average Availability
<b>Exceeded:</b>	>95.000 %
<b>Met:</b>	>90.000 %
<b>Samples:</b>	95

The tooltip displays information about the KPI, based on what is defined in the agreement (for details, see “Agreement Wizard” on page 167). The tooltip content varies, depending on the report and the selections made in the Advanced Options dialog box.

The following parameters may be included:

- **CI.** The name of the CI.
- **Date.** The date that the result is for.
- **<KPI>.** The actual calculated result for the KPI.
- **Status.** The status given to the KPI by comparing the result against the target objectives.
- **Business Rule.** The rule used for the KPI calculations.
- **Exceeded, Met, Minor Breached, Breached.** The value defined for each target objective for the KPI.

## Aggregated Data

All reports are calculated according to aggregated data stored in the database.

When calculating results for previously-aggregated data, Service Level Management rounds out the tracking period. The **From** time is rounded down to the nearest hour, and the **To** time is rounded up to the nearest hour.

Data aggregation for the status-to-date information (for example, week-to-date) displayed in the Status Snapshot report differs from the calculations done in other reports. The Status Snapshot report displays data that is correct up to one or two hours ago, while other Service Level Management reports display data calculated to the last closed day. This means that you may see different data displayed in the Status Snapshot report as compared with other reports, or that the Status Snapshot report already contains data while other reports do not yet have data.

For more information on data aggregation in HP Business Availability Center, see “Data Aggregation” in *Reference Information*.

## Status Forecast for Agreements

Service Level Management provides a forecast of agreement status at the end of a period, based on behavior in the past. The status forecast shows you whether continuing to maintain your services at the current levels will lead to a breach of the agreement in the future.

Status forecast is described in the following sections:

- ▶ “Status Forecast Calculations” on page 136
- ▶ “Status Forecast in Applications” on page 138

### Status Forecast Calculations

The forecast is calculated by looking at the behavior of each KPI in the agreement during a previous period, and assuming the same behavior pattern will continue during the forecast period. The extrapolated KPI data is used to calculate a forecast result for each KPI, and the status forecast for the agreement is based on the worst of all KPI statuses.

Two values are defined for the status forecast:

- ▶ **Base Forecasting On.** This is the period that the forecast calculations are based on, and the options are determined by the tracking periods defined for the agreement. Depending on the context, the analysis can be based on the “Last <aaa>,” or “<aaa> to date,” where <aaa> is a tracking period used for the agreement, for example, **Last Month** or **Month to date**. If it is currently halfway through May, selecting **Last Month** gives a forecast based on April’s results, and selecting **Month to date** gives a forecast based on the results for May so far.

---

**Note:** Forecasting cannot be based on a single hour or on the current day.

---



- ▶ **Give Forecasting For.** This is the period that the forecast is given for, and the options are also based on the tracking periods defined for the agreement, excluding hour and day. The forecast is given for the end of a period that includes the current date, for example **End of week** or **End of Quarter**. If it is currently halfway through May, selecting **End of Quarter** gives a forecast for the current quarter from April 1st to June 30th.

---

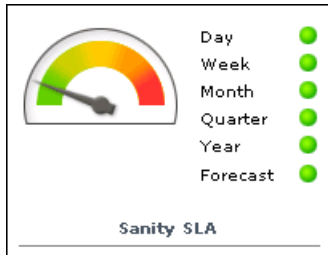
**Note:**

- ▶ The forecast calculations are based on averages, so if an agreement contains a KPI that is based on an accumulative result (as is the case for the Outage Duration, Number of Outages, MTBF, MTBSI, and MTTR KPIs), the calculations yield inaccurate forecast results. Do not rely on forecast results for agreements that contain any of these KPIs.
  - ▶ An agreement must have a tracking period of at least a week or more to generate a forecast for it.
  - ▶ If the agreement was inactive at any point during the analysis period, then that period cannot be used for forecasting.
  - ▶ The forecast does not take account of any downtime defined for the future period.
-

## Status Forecast in Applications

Status forecast is calculated in the following Service Level Management contexts:

- **Status Snapshot report.** A status forecast is calculated for the agreements displayed in the **Worst-Performing SLAs - Current Periods** pane of the **Applications > Service Level Management > Status Snapshot** report.



The forecast is calculated based on all calendars for the agreement, and using default tracking periods. To set different default periods, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Service Level Management**, and locate the required parameter. Modify the value as required.

The default tracking periods for the Status Snapshot report are as follows:

- **Week (base calculation period).** This is the default tracking period that the status forecast calculation is based on, meaning that calculations are based on the agreement results for the last (prior) week. To set a different default tracking period, modify the value for the **Status forecast: Base calculation period** parameter.
- **Quarter (calculated period).** This is the default tracking period that the status forecast is calculated for, meaning that the status forecast is given for the end of the current quarter. To set a different default tracking period, modify the value for the **Status forecast: Calculated period** parameter.

**Note:** Status forecast is only displayed for an agreement if the agreement is set to use both the default tracking periods (defaults defined in the Infrastructure Settings page), and if data is found that can be used to calculate the forecast result.

- ▶ **SLA Status report.** You can generate a status forecast for selected agreements in the **Applications > Service Level Management > SLA Reports > SLA Status** report. The forecast is calculated for the tracking periods and calendar that you select. The report also shows the status trend for the base forecasting period, and calculates the expected breach date for the agreement, where appropriate.

**SLA Status**

SLAs: All (Clear All)

Base Forecasting On: Last Quarter Give Forecasting For: End Of Week Calendar: All

SLAs	Last Quarter Trend	Current Status 8/13/2007- 8/15/2007	Forecasting Status 8/13/2007- 8/20/2007	Expected Breach Date
Copy of ema...om SC(24x7)	▲	Failed	Exceeded	-
Network from SC(24x7)	▲	Failed	Exceeded	-
UM from Per...ness Hours)	◊	Failed	No Data	-
email from SC(24x7)	▲	Failed	Exceeded	-

■ Exceeded  
 ■ Met  
 ■ Minor Breached  
 ■ Breached  
 ■ Failed  
 ■ No Data

- ▶ **SLA alert schemes.** You can define SLA alert schemes in the **Admin > Alerts > SLA Alerts** page, to monitor the status forecast for an agreement and trigger an alert if the status forecast changes. You define the forecast tracking periods as part of the alert scheme, and the status forecast is recalculated every hour, for all calendars.

The triggered alerts are viewed in the **Applications > Alerts > SLA Alerts Report**.

Severity	TimeStamp	Name	SLA	TrackingPeriod	Send E-mail to:
Exceeded	09:00 19/06/07	Forecast better	Cust_1SLA	Forecast... by week	Send E-mail to:
Failed	09:00 19/06/07	Forecast worse	Cust_1SLA	Forecast... by week	Send E-mail to:

## Time Zones

Service Level Management calculates reports according to an agreement's time zone, so that data is linked to the appropriate calendar. However, Service Level Management displays dates and times according to the time zone settings of the machine on which it is installed (the user's time zone).

Reports can contain data from different time zones: when reports include data for more than one agreement, and the agreements are defined for different time zones, each agreement's data is reported according to the agreement's time zone.

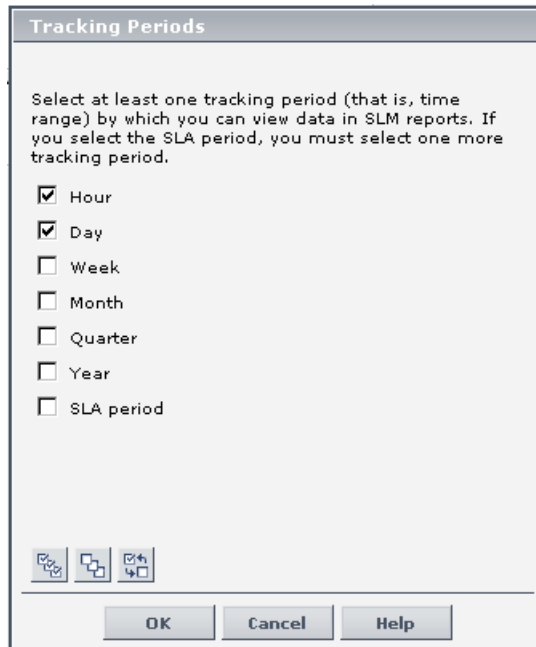
For reports calculated for the **last** time period, data is displayed according to the user's time zone.

## Tracking Range and Granularity in Service Level Management

Tracking periods in Service Level Management define the time periods for aggregating data, and are used for tracking the agreement. You select tracking periods in Service Level Management reports to define the granularity for calculations.

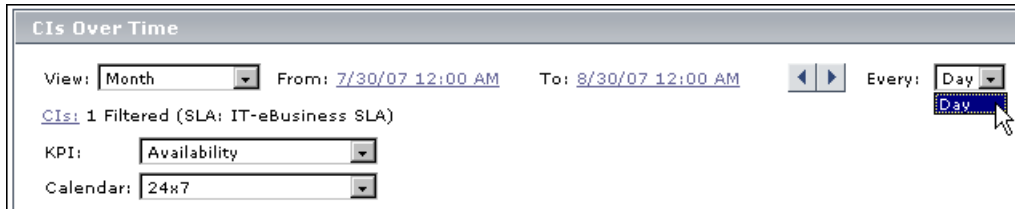
The tracking periods for an agreement are defined in the Agreement Wizard. (See “Define Agreement Properties Page” on page 168.) You select at least one tracking period from **Hour**, **Day**, **Week**, **Month**, **Quarter**, **Year**. In addition, you can select **SLA period**, which tracks status for the agreement from the start of the agreement till the present.

The tracking periods that you select in the agreement determine which granularities are available in reports. For example, say you select the **Hour** and **Day** tracking periods for an agreement:



The screenshot shows a dialog box titled "Tracking Periods". The dialog contains the following text: "Select at least one tracking period (that is, time range) by which you can view data in SLM reports. If you select the SLA period, you must select one more tracking period." Below this text is a list of tracking periods with checkboxes: "Hour" (checked), "Day" (checked), "Week" (unchecked), "Month" (unchecked), "Quarter" (unchecked), "Year" (unchecked), and "SLA period" (unchecked). At the bottom of the dialog, there are three buttons: "OK", "Cancel", and "Help".

In the CIs Over Time report, a user chooses to view a month's report. Because the **Week** tracking period was not defined for the agreement, the **Week** granularity is not available for the report (it does not appear in the **Every** list):



General information on working with the tracking range and granularity in reports can be found in “Choosing the Time Range and Granularity” in *Reference Information*.

The following additional information applies when using the tracking range and granularity settings in Service Level Management reports:

- ▶ For certain reports, the tracking periods that appear in the **View** list depend on the tracking periods defined for the agreement. That is, if the agreement includes only Day and Week, you cannot generate a report to show results by quarter.
- ▶ The **SLA to date** option may be included in the **View** list for reports that display data about a single agreement. When selected, the report time range begins at the start date of the agreement and continues till the current time.
- ▶ The **Last** option in the **View** list enables you to display data for the last part of a tracking period. For example, you could generate a report for the last week. When you use this option, the data is displayed according to the user time zone (whereas in all other views, the data is displayed according to the agreement time zone).
- ▶ Service Level Management can display up to 60 data points in one report. this means, for example, that if you select a month time period, you cannot view the report with an hourly granularity, because there are more than 60 hours in a month.

- For reports that are based on a weekly tracking period, calculations depend on which day is selected as the first day of the week. You define the first day of the week in the Infrastructure Settings Manager. For details, see “Changing the First Day of the Week or First Month” on page 108.
- Data for Service Level Management reports is calculated at midnight (12:00 AM). When the tracking range for a report is set “to date,” then the data is shown for up to the previous midnight. For example, if you select the tracking range **Month to date** on Wednesday May 14th, the report shows data for the month up to midnight on Tuesday May 13th (12:00 am on May 14th).

This means that for a report generated for **Month to date** on the first day of a new month, for example, May 1st, there is no available calculated data for that month, and the report instead shows the data up to the previous midnight, meaning the data for April. The same principle applies for reports for **Week to date**, **Quarter to date**, and **Year to date**. The actual time range of the data presented in the report is shown in the report header.

This logic is not applied for status forecast calculations—when a forecast is calculated on the first day of a new week/month/year based on status-to-date, it uses the to-date data for the new period, resulting in a no-data status.

- If a report is generated for a tracking period that has no defined objective targets, the value for the period is displayed without a status. For example, an outages KPI is defined with objectives for a month tracking period, but no objectives are defined for a week tracking period. If a report is then generated on a weekly basis, it gives only the number of outages for each week without a status.

## Additional Values in Reports

Service Level Management is able to perform statistical calculations on certain KPIs, so that additional information is provided along with the main value. For example, for an Availability KPI, you can view the total number of samples, the number of failed samples, deviation from target, and so forth.

The following sections describe the additional values and how to view them in the Service Level Management reports:

- “Additional Values List” on page 145
- “Displaying Additional Values” on page 146



## Additional Values List

The additional values available in Service Level Management reports are as follows (listed alphabetically):

Additional Value	Description
<b>Deviation from Target (numerical value or %)</b>	<p>The deviation of the KPI value from the <b>Exceeded</b> target for the KPI. There are two versions of this additional value, numeric or percentage.</p> <p>For example: If the average response time over a day is 5.5 seconds, and the Exceeded target for that day is 4 seconds, the <b>Deviation from target</b> value is (numerical) 1.5 seconds or (percentage) 37.5%.</p>
<b>DPMO</b>	<p>Defects per million opportunities. Used with the Six Sigma Availability and Performance KPIs.</p>
<b>Failures</b>	<p>The number of unsuccessful samples during the sampling period.</p>
<b>Met Threshold</b>	<p>The number of samples that met the <b>Exceeded</b> target threshold for the KPI during the sampling period.</p>
<b>Number of Periods</b>	<p>Used with MTBF and MTBSI KPIs. The number of periods between incidents that the KPI calculation is based on.</p>
<b>Number of Incidents</b>	<p>Used with the MTTR KPI. The number of incidents that the KPI calculation is based on.</p>
<b>Samples</b>	<p>The number of samples included in the KPI value calculation.</p>
<b>Standard Deviation</b>	<p>The standard deviation from the <b>Exceeded</b> target for the KPI.</p>
<b>Successes</b>	<p>The number of successful samples during the sampling period. Each KPI has its own “success” condition. For example, for the Availability KPI, a successful sample contains an “available” result, and for the Performance KPI, success is based on the sample meeting the threshold defined for the KPI parameter <b>Percentile Condition</b>.</p>

Additional Value	Description
Trimmed Samples	The number of samples that were excluded from the KPI value calculation, because of a filtering threshold set for the KPI (for example: Ignore any response time sample that exceeds 60 seconds).

## Displaying Additional Values

In order for an additional value to be displayed in a Service Level Management report, the additional value must be configured for use with the KPI, and the **Show Additional Values** setting must be selected in the report.

When the KPI uses a time-based calculation method, only the Samples additional value is displayed; the calculation method must be changed to sample-based in order to view other additional values.

The following sections describe how to configure these settings:

- “Configuring Additional Values to Use with KPIs” on page 147
- “Configuring Sample-Based Calculation for KPIs” on page 149
- “Configuring Reports to Display Additional Values” on page 149

## Configuring Additional Values to Use with KPIs

The KPI/additional value settings are defined in the **Additional Values XML**. This XML file lists the additional values that are valid for each KPI, and shows whether the additional value is configured for use in the reports (`calculate="true"`).

The **Samples**, **Number of Periods**, and **Number of Incidents** options are by default configured for use in the reports with all relevant KPIs. All other options are set to not be used (`calculate="false"`). For example, the following shows the default settings for the **User Performance** KPI:

```
</KPI>
<KPI id="111" name="User Performance">
  <Additional-Value calculate="true" id="1" name="numOfSamples"/>
  <Additional-Value calculate="false" id="5" name="Deviation From Targets"/>
  <Additional-Value calculate="false" id="6" name="Deviation From Targets
  (%)"/>
</KPI>
```

To modify which additional values are configured for use with each KPI, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Service Level Management**, and locate the **Additional Values** entry on the page. Click the **Edit** button to view the file contents. It is recommended that you copy the file contents to an XML editor to make changes.

---

**Note:** Configuring more additional values for calculation may cause slower report generation.

---

If an additional value is not listed for a specific KPI, it is not valid for that KPI. The following table shows the additional values that are valid for each KPI:

KPI/Additional Value	Samples	Trimmed Samples	Successes	Failures	Deviation from Target	STD	DPMO	Met Threshold
Availability System Availability User Availability	Yes	No	Yes	Yes	Yes	No	No	No
Performance	Yes	Yes	No	Yes	Yes	No	No	Yes
System Performance	Yes	Yes	No	No	Yes	Yes	No	No
User Performance	Yes	No	No	No	Yes	No	No	No
Response Time	Yes	Yes	No	No	Yes	Yes	No	No
Six Sigma Availability	Yes	No	Yes	Yes	Yes	No	Yes	No
Six Sigma Performance	Yes	Yes	No	Yes	Yes	No	Yes	Yes
System Network Security Application	Yes	No	No	No	No	No	No	No

---

**Note:** There is also a **Number of Periods** option for the MTBF and MTBSI KPIs, and a **Number of Incidents** option for the MTRR KPI.

---

## Configuring Sample-Based Calculation for KPIs

When the calculation method used for a KPI is time-based, the only additional value that is displayed in the reports is **Samples**. In order to see other additional values, you must change the calculation method to sample-based.

The calculation method is defined in the monitor rule for the KPI (at leaf CI level) in the **Calculation Method** parameter. This parameter is only applicable for certain monitor rules, and by default is set to time-based. (For information on which rules use the Calculation Method parameter, see “List of Service Level Management Business Rules” in *CI Attribute Customization*.)

You change the calculation method to sample-based in the KPI Definition dialog box, described in “KPI Definition Dialog Box” on page 207. You must make the change individually for each KPI of a leaf CI, if you want to see all additional values for that KPI.

The screenshot shows the 'KPI Definition' dialog box. The 'KPI' field is set to 'Performance' and the 'Business rule' is 'BPM Percentile'. Under the 'Parameters' section, the 'Calculation method' is set to 'Sample Based' (indicated by a red box around the radio button). Other parameters include 'Percentile condition' (set to 8 seconds), 'Trimming condition' (set to seconds), 'No data timeout' (set to 3600 seconds), and 'Ignore timed out trimming' (set to false).

If you make the change after the agreement has been calculated, you need to run recalculation (see “Recalculation for Agreements” on page 43).

## Configuring Reports to Display Additional Values

Additional values can be viewed in all reports in the **Applications > Service Level Management > SLA Reports** and **Outage Reports** tabs, with the exception of the SLA Status report.

In order to view additional values in a report, the **Additional Values** option must be selected in the Advanced Options dialog box. This option is selected by default for all applicable reports. For details, see “Advanced Options Dialog Box” on page 228.

The additional values are displayed in the tooltip for a cell in the report (and also in additional columns in the CI Status report).

<a href="#">Cust 1 BPM 1</a>	60.000	Exceeded: > 98.0 % Met: > 95.0 % Minor Breached: > 90.0 % Breached: > 85.0 %	Sa
<a href="#">tx 10</a>	100.00	<b>Availability:</b> 60.000 % <b>Status:</b> Failed <b>Business Rule:</b> Group Average Value <b>Exceeded:</b> >98.000 % <b>Met:</b> >95.000 % <b>Minor Breached:</b> >90.000 % <b>Breached:</b> >85.000 % <b>Samples:</b> 543	
<a href="#">tx 15</a>	100.00		

CI	Availability (%)	Objectives	Additional Values
Test SLA	60.000	Exceeded: > 95.0 % Met: > 90.0 % Minor Breached: > 80.0 % Breached: > 70.0 %	Samples: 543
<a href="#">Cust 1 BPM 1</a>	60.000	Exceeded: > 98.0 % Met: > 95.0 % Minor Breached: > 90.0 % Breached: > 85.0 %	Samples: 543
<a href="#">tx 10</a>	100.000	Exceeded: > 98.0 % Met: > 95.0 % Minor Breached: > 90.0 % Breached: > 85.0 %	Samples: 90

## View SLA and Outage Reports

The following steps explain how to work with Service Level Management to view reports in the SLA Reports and Outage Reports tabs.

### Define Agreements

Define agreements using the Agreement Wizard.

For task details, see “Define a Service Agreement” on page 46.

### Select Required Report

Select the report you want to view from the **Applications > Service Level Management > SLA Reports** or **Outage Reports** tab. For a brief description of each report and when you would use it, see “About Service Level Management Reports” on page 126.

## **Set Report Filters**

Select the required values for filters such as the View granularity bar, CI, KPIs, Calendars, and so forth. For details, see the relevant report in “Service Level Management Application User Interface” on page 227.

## **Add Descriptions and Additional Values to Reports**

Use the Advanced Options link to add descriptions to the report. For details, see “Advanced Options Dialog Box” on page 228.

## **Add a Header and Footer to a Report**

A header or footer defined for a report in the Custom Manager takes precedence over a header or footer defined in the Infrastructure Settings Manager Reporting section. That is, the former overwrites the latter. For details on defining headers and footers, see “Configuring a Report Header and Footer” in *Platform Administration*.

## **Generate Report and Use to Evaluate Agreement Goals**

Click the **Generate** button to generate a report for the data you have chosen, and drill down in the report as required.

## **View the Report According to a Six Sigma Calculation**

You can view results from a Six Sigma perspective. This is on condition that the agreement has been defined with a Six Sigma KPI. For details, see “Six Sigma for Agreements” on page 40.

## **Share the Report or Save Report Data**

You can print, format, and export reports. For details, see “Sharing and Storing Reports” on page 25 in *Reference Information*.

## Working with Service Level Management Reports: Examples

The following scenarios suggest ways that you can use Service Level Management summary reports.

This section contains the following topics:

- “Sending an SLAs Summary Report Each Month” on page 152
- “Preventing Breaches of Contract with the CI Summary Report” on page 156
- “Comparing Services in the CI Impact Report” on page 157

### **Sending an SLAs Summary Report Each Month**

Every month, the VP of eBusiness wants to know how well the department met its SLAs. On the last day of each month she wants to see the SLAs Summary report in her e-mail inbox.

**To set up Service Level Management to send the VP a monthly report:**

- 1** Access the Custom Report Manager, and create a new report.



To access the Manager: **Applications > Service Level Management > User Reports > Custom Report Manager.**

**Custom Report Properties**

Report title:

Report name:

**Time Period**

Use global settings for all components

Enable time period per component

**Report Auto-Refresh Settings**

Do not refresh page.

Refresh page every 1 minutes.

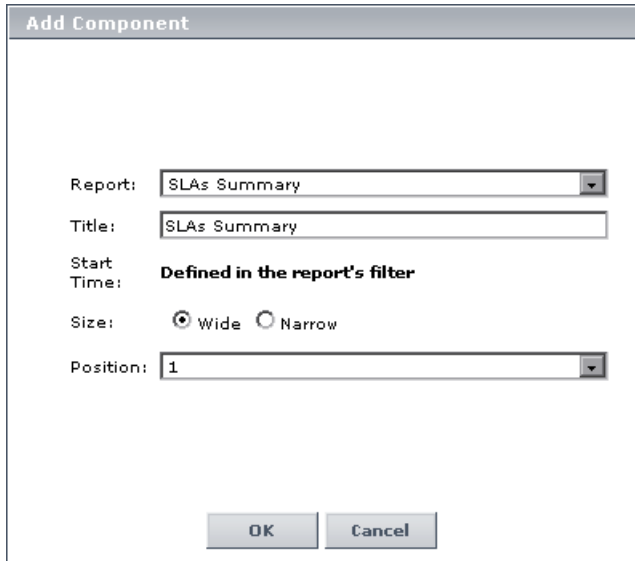
Refresh page every 5 minutes.

Refresh page every 10 minutes.

Refresh page every 15 minutes.

Insert a page break after each component when printing the report

**2** Add the SLAs Summary report as a component to this report:

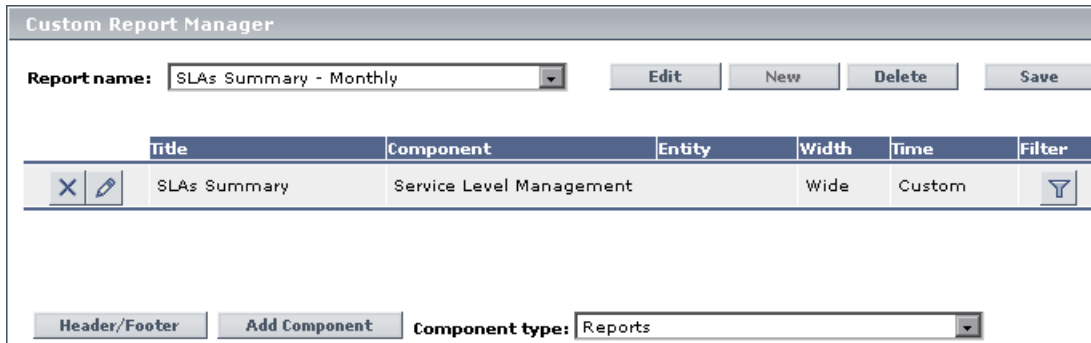


The 'Add Component' dialog box contains the following fields and options:

- Report: SLAs Summary (dropdown)
- Title: SLAs Summary (text input)
- Start Time: Defined in the report's filter
- Size:  Wide  Narrow
- Position: 1 (dropdown)



Buttons: OK, Cancel

The report details appear in the Custom Report Manager page:



The Custom Report Manager interface shows the following details:

- Report name: SLAs Summary - Monthly (dropdown)
- Buttons: Edit, New, Delete, Save
- Table:

	Title	Component	Entity	Width	Time	Filter
 	SLAs Summary	Service Level Management		Wide	Custom	

Buttons: Header/Footer, Add Component

Component type: Reports (dropdown)

**3** Filter the report (by clicking the **Filter** button to open the Filters window) to show:

- **View:** Month to date
- **SLAs:** All
- **Primary grouping:** KPI
- **Secondary grouping:** Calendar

- **Calendar:** All
- **KPI:** All

**4** Save the report.

**5** Access the Scheduled Reports page (**Admin > Platform > Scheduled Reports**), and create a new schedule (click **New Scheduled Report**), adding the VP as the recipient of the e-mail.

6 Save the schedule.

On the last day of the month, the VP receives the SLAs Summary report. She is pleased to note that most of the objectives have been met.

### Preventing Breaches of Contract with the CI Summary Report

Every morning the Director of Applications generates reports for the previous day. In the case of any problems, he analyzes them, and acts accordingly.

- This morning he accesses Service Level Management and generates an SLAs Summary report from the previous day (**Applications > Service Level Management > SLA Reports > SLAs Summary**). He sees that yesterday afternoon the sales SLA was about to be breached (the Performance KPI has a yellow status).
- He clicks a configuration item (CI) to navigate to the CI Summary report. He notices that performance of the Sales home page was poor during business hours for a specific transaction:

CI▲	Business Hours	
	Availability (%)	Performance (seconds)
access saleshomepage	63.882	10.727
... tx 2 failed	0.000	-
... tx 5	100.000	4.9
... tx random	83.296	12.9
... tx 15	100.000	14.9
... tx 10	100.000	10.0
... tx 1 failed	0.000	-

**Performance:** 10.727 seconds  
**Status:** Minor Breached  
**Business Rule:** Group Average Value  
**Exceeded:** < 8.0 seconds  
**Met:** < 9.0 seconds  
**Minor Breached:** < 11.0 seconds

- He continues to navigate through the CI hierarchy following the trail of the minor breached measurement. He reaches the leaf node CI, which is a Business Process Monitor transaction script that monitors a database server.
- He sends the report by e-mail to the DBAs with a request for them to investigate and let him know what action they have taken. Shortly after, he receives a phone call to say the database server had slowed down while new software was being installed on it.
- He fills out a Business Process Monitor events form (**Admin > Service Level Management > Downtime Events**), and adds a description about the server slow down.

- He returns to the Summary Reports tab and selects the CI Summary report.
- He clicks the **Advanced Options** link and selects the **Downtime Event Description** check box. He generates the report again and verifies that the report includes the reason for the downtime.

### **Comparing Services in the CI Impact Report**

A lawyer for a well-known ISP writes the service level agreements. During negotiations over a new network contract with an important Gold customer, she requests a report from IT to show whether the ISP is meeting its obligations for network speeds for all Gold customers. This report will help her calculate prices and conditions for the new contract.

IT gives the task to the HP Business Availability Center admin who rolls up his sleeves and gets to work.

- He verifies the names of the CIs that measure network performance for each Gold customer (he had previously created a view, to which he had added a network CI, for each customer).
- He creates an SLA and adds the network CIs for all Gold customers to it.
- He generates the CI Impact report (with a Year to Date and Quarter view), and chooses the SLA.
- He drills down to the CI Summary report to view performance data for the network CIs for the past year.
- He creates a custom report, and sends it by e-mail to the lawyer, explaining to her how she can get more information by accessing the CI Impact and CI Summary reports.

## The Reports Log

HP Business Availability Center records errors that occur when generating Service Level Management reports in a reports log. The reports log can also include the following activities: report creation, report generation, report filters modification, report drill down, and so on. For details, see “Reports Log” in *Platform Administration*.

## Setting Number of Digits in Results

You can select the number of digits after the decimal point (up to three) to be displayed in reports. Note, however, that even if you choose to change the default (three figures after the digit), Service Level Management calculates objectives using this default value. To change the number of digits to be displayed in a report, click the **Advanced Options** link, choose the number of digits from the list, and click **OK**.

# Part III

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## User Interface





# 10

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## Service Level Management Administration User Interface

This chapter describes the pages and dialog boxes that are part of the Service Level Management Administration user interface, listed alphabetically.

<b>This chapter describes:</b>	<b>On page:</b>
Add Outage Dialog Box	162
Advanced Agreement Options Wizard	164
Agreement Wizard	167
Agreements Manager Page	184
Business Service Wizard	188
Calendar Wizard	192
Calendars Dialog Box	199
Calendars Page	199
CI Selection Dialog Box	201
Downtime Event Schedule Dialog Box	202
Downtime Events Page	206
KPI Definition Dialog Box	207
Offering Level Definition Dialog Box	211
Outage Categories Page	213
Recalculation Task Dialog Box	214
Select Customer Dialog Box	216

This chapter describes:	On page:
Select Provider Dialog Box	217
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## Add Outage Dialog Box

<b>Description</b>	<p>Enables you to define the business rule and parameters for an Outage KPI attached to a CI in an agreement.</p> <p><b>To access:</b> In the Agreement Wizard or Advanced Agreement Options Wizard, click <b>Add Outage</b> in the Define KPIs page.</p>
<b>Included in Tasks</b>	<p>“Define a Service Agreement” on page 46</p>
<b>Useful Links</b>	<p>“Status Alerts for Agreements” on page 45</p> <p>For information on outage business rules and parameters, see “Outage Business Rules” in <i>CI Attribute Customization</i>.</p>

The Add Outage dialog box includes the following elements (listed alphabetically):

GUI Element	Description
<b>Business Rule</b>	<p>Select the business rule that you want to use for the outage KPI. Only the rules appropriate to the CI are included in the dropdown list.</p> <p><b>Tooltip:</b> For a short explanation of the business rule, place the cursor over the icon to the right of the box.</p>
<b>Default Category</b>	<p>Select the outage category that defines the most probable cause of an outage for this CI, or leave the category as <b>Undefined</b>. The outage categories can be used to filter and organize data in the outage reports.</p> <p>You can also assign an outage category after an outage occurs, in the Outage Summary report page (see “Outage Summary Report” on page 257). However, it is recommended to categorize outages during agreement creation.</p>
<b>New Outage Category</b>	<p>Click to open the Outage Category dialog box, where you define a name and description for the new outage category. The new outage category is automatically added to the list on the <b>Admin &gt; Service Level Management &gt; Repositories &gt; Outage Categories</b> tab.</p>
<b>Parameters</b>	<p>Edit the rule parameters as required.</p> <p><b>Tooltip:</b> For a short explanation of the parameters, place the cursor over the parameter name.</p>

## Advanced Agreement Options Wizard

<b>Description</b>	<p>Enables you to fine-tune KPIs and weights for the CIs included in the service topologies in a service-based agreement.</p> <p><b>To access:</b> On the <b>Admin &gt; Service Level Management &gt; Agreements Manager</b> page, click the <b>Define advanced options for agreement</b> button.</p>
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ The Advanced Agreement Options Wizard is only applicable for service-based agreements.</li> <li>▶ All fine-tuning functionality provided in the wizard is optional.</li> <li>▶ Fine-tuning should be performed by users with advanced knowledge of CI processes.</li> </ul>
<b>Included in Tasks</b>	<p>“Define a Service Agreement” on page 46</p>
<b>Wizard Map</b>	<p>The Advanced Agreement Options Wizard contains: Define KPIs Page &gt; Define Weights Page</p>
<b>Useful Links</b>	<p>“Building Agreements—Service-Based Process” on page 25</p>

## Define KPIs Page

<b>Description</b>	Enables you to edit the KPIs (including the Outage KPI) that were automatically assigned to the CIs in the agreement, and define new KPIs.
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ General information about the wizard is available in “Advanced Agreement Options Wizard” on page 164.</li> <li>▶ This page contains the same elements as the Define KPIs page in the Agreement Wizard. For an explanation, see “Define KPIs Page” on page 178.</li> <li>▶ The offering level attached to a CI has no influence on the thresholds of new KPIs that you define for the CI. For more information, see “Creating and Editing Offering Levels” on page 78.</li> <li>▶ If Business Availability Center is integrated with HP SOA Systinet, you can drill down from certain CIs to view Web service information in HP SOA Systinet. Right-click a CI in the left pane of the Define KPIs page, and select <b>Drill down to Systinet</b> to open HP SOA Systinet in a new window. For more information, see “Integration with HP SOA Systinet” on page 41.</li> </ul>
<b>Wizard Map</b>	The Advanced Agreement Options Wizard contains: <b>Define KPIs Page</b> > Define Weights Page
<b>Useful Links</b>	“CIs and KPIs in Agreements” on page 32

## Define Weights Page

<b>Description</b>	Enables you to define a weight for each CI to reflect its relative importance in KPI calculations.
<b>Important Information</b>	This page contains the same elements as the Define Weights page in the Agreement Wizard. For an explanation, see “Define Weights Page” on page 181.
<b>Wizard Map</b>	The Advanced Agreement Options Wizard contains: Define KPIs Page > <b>Define Weights Page</b>
<b>Useful Links</b>	“Weights for KPI Calculations” on page 36

## Agreement Wizard

<p><b>Description</b></p>	<p>Enables you to define and edit entities representing your service contracts: Service Level Agreements (SLAs), Operational Level Agreements (OLAs), and underpinning contracts (UCs).</p> <p><b>To access:</b></p> <ul style="list-style-type: none"> <li>▶ On the <b>Admin &gt; Service Level Management &gt; Agreements Manager</b> page, click <b>New Agreement</b>, or click the <b>Edit</b> button for an existing agreement.</li> <li>▶ On the <b>Admin &gt; Service Level Management &gt; Services Manager</b> page, right-click a service and select <b>Create new SLA from Business Service</b>.</li> </ul>
<p><b>Important Information</b></p>	<p>There are two modes for the Agreement Wizard:</p> <ul style="list-style-type: none"> <li>▶ <b>Service-based process.</b> Define an agreement based on business services. For details, see “Building Agreements—Service-Based Process” on page 25.</li> </ul> <p><b>Note:</b> You can select existing business services, or define new business services during the creation of the agreement.</p> <ul style="list-style-type: none"> <li>▶ <b>Legacy process.</b> Define an agreement by adding service-related CIs (this is the process used in previous versions). For details, see “Building Agreements—Legacy Process” on page 28.</li> </ul> <p>You select the process you want on the Welcome page (if you are creating an agreement from a business service, the wizard is automatically set to the service-based process). The pages included in the wizard depend on the process that is selected. See the appropriate <b>Wizard Map</b>, below.</p>
<p><b>Included in Tasks</b></p>	<p>“Define a Service Agreement” on page 46</p>
<p><b>Wizard Map - Service-Based Process</b></p>	<p>The Agreement Wizard contains:</p> <p><b>Welcome &gt; Define Agreement Properties Page &gt; Select Services Page &gt; Select Service Offering Levels Page &gt; Select Calendars Page &gt; Summary Page</b></p>

<b>Wizard Map - Legacy Process</b>	The Agreement Wizard contains: <b>Welcome</b> > Define Agreement Properties Page > Select CIs Page > Define KPIs Page > Define Weights Page > Summary Page
<b>Useful Links</b>	“Agreements in Service Level Management” on page 21

## Define Agreement Properties Page

<b>Description</b>	Enables you to define properties for the agreement, and set criteria for data storage and calculations.
<b>Important Information</b>	Much of the information defined in the Define Agreement Properties page can be displayed in Service Level Management reports; for details, see “Advanced Options Dialog Box” on page 228.
<b>Wizard Map - Service-Based Process</b>	The Agreement Wizard contains: Welcome > <b>Define Agreement Properties Page</b> > Select Services Page > Select Service Offering Levels Page > Select Calendars Page > Summary Page
<b>Wizard Map - Legacy Process</b>	The Agreement Wizard contains: Welcome > <b>Define Agreement Properties Page</b> > Select CIs Page > Define KPIs Page > Define Weights Page > Summary Page



The Define Agreement Properties page includes the following elements (listed alphabetically):

GUI Element	Description
<b>Agreement details</b>	Enter details about the agreement that you want available to Service Level Management users, for example, the agreement aims, provisioning, and special information. The length of the string must not be longer than 600 characters.
<b>Calendar(s)</b> (Previously called Time Intervals)	(Only displayed for legacy-process agreements) Click the link to open the Calendars dialog box where you select the calendars to be monitored by the agreement.
<b>Classification</b>	Select how you want the agreement classified: <ul style="list-style-type: none"> <li>➤ <b>Formal.</b></li> <li>➤ <b>Informal.</b></li> </ul> <b>Default value:</b> Formal
<b>Creator</b>	Displays the user name of the person that defined the agreement.
<b>Customer</b>	The customer associated with the agreement. Click the <b>Select customer</b> (ellipsis) button to open the Select Customer dialog box, where you can select a customer from the Business Units view.
<b>Description</b>	Enter a description of the agreement. The length of the string must not be longer than 600 characters.
<b>End date</b>	The date and time that the agreement stops calculating, according to the time zone selected for the agreement. To change the date, click the date link to open a calendar, and select the date and time you require.  <b>Default Value:</b> 10 years after the current date and time.
<b>Name</b>	Define a name for the agreement. The name must be unique and must not be longer than 100 characters.

GUI Element	Description
<b>Provider</b>	<p>The service provider associated with the agreement. Click the <b>Select provider</b> (ellipsis) button to open the Select Provider dialog box, where you can select a provider from the Business Units view.</p>
<b>Start date</b>	<p>The date and time from which the agreement starts calculations, according to the time zone selected for the agreement.</p> <p>To change the date, click the date link to open a calendar, and select the date and time you require. The start date cannot be more than 3 months prior to the current date. (If you need longer than 3 months, the data purging policy for Service Level Management must be changed. For details, see “Data Purging” on page 19.)</p> <p><b>Default Value:</b> The current date and time (to the nearest hour).</p> <p><b>Note:</b> When a new agreement starts running from the current date and time, Service Level Management immediately begins calculations. However, the agreement will not have results of value until at least an hour after raw data is available in the database for calculations.</p>
<b>Target(s)</b>	<p>Click the link to open the Targets dialog box, where you select the KPI statuses to be used with this agreement. KPI target objectives are only defined for these statuses, within the current agreement.</p>
<b>Time zone</b>	<p>Specify the time zone for the agreement. Service Level Management calculates the data in reports according to this time zone.</p> <p><b>Default Value:</b> The time zone of the user.</p>

GUI Element	Description
Tracking period(s)	<p>Click the link to open the Tracking Periods dialog box where you select the tracking periods for compiling agreement data, and for viewing data in Service Level Management reports.</p> <p><b>Default value:</b> Day, Week, Month</p>
Type	<p>Select the type of agreement:</p> <ul style="list-style-type: none"> <li>➤ <b>OLA</b> (Operational Level Agreement)</li> <li>➤ <b>SLA</b> (Service Level Agreement)</li> <li>➤ <b>UC</b> (Underpinning contract)</li> </ul> <p><b>Default value:</b> SLA</p> <p>For more information, see “SLAs, OLAs, and UCs” on page 31.</p>

## Select Services Page

Description	<p><b>Important:</b> Part of service-based wizard.</p> <p>Enables you to select the business services to include in the agreement.</p>
Important Information	<p>This page is included in the Agreement Wizard if you selected the <b>Service-based</b> process on the Welcome page.</p>
Wizard Map - Service-Based Process	<p>The Agreement Wizard contains:</p> <p>Welcome &gt; Define Agreement Properties Page &gt; <b>Select Services Page</b> &gt; Select Service Offering Levels Page &gt; Select Calendars Page &gt; Summary Page</p>
Useful Links	<p>“View Explorer User Interface” in <i>Reference Information</i></p> <p>“Services Manager and Business Services” on page 61</p> <p>“Building Agreements—Service-Based Process” on page 25</p> <p>“CIs and KPIs in Agreements” on page 32</p>

The Select Services page includes the following elements (listed alphabetically):

GUI Element	Description
<b>&lt;Left pane&gt;</b>	<p>Enables you to select the business services on which the agreement is based. The pane displays the contents of the Business Services view, and uses View Explorer functionality.</p> <p>Add services from the Business Services view to the <b>Selected Services</b> list:</p> <ul style="list-style-type: none"> <li>▶ To add a Business Service CI to the Selected Services list, select the Business Service CI in the left pane and use the upper arrow.</li> <li>▶ To remove a Business Service CI from the Selected Services list, select the service in the list and use the lower arrow.</li> <li>▶ Select multiple CIs by holding down the Ctrl key while making your selections.</li> </ul>
<b>Create New Business Service</b>	<p>Opens the Business Service Wizard, where you can define a new business service without exiting the Agreement Wizard. The new Business Service CI is automatically added to the Business Services view and displayed in the left pane.</p>
<b>Selected Services pane</b>	<p>Lists the business services included in the agreement.</p>
<b>SLA Fine Tuning</b>	<p>Opens the SLA Fine Tuning dialog box, where you can add and remove CIs included in the business service topologies.</p>

## Select Service Offering Levels Page

<b>Description</b>	<b>Important:</b> Part of service-based wizard. Enables you to select the offering level to be applied for each business service.
<b>Important Information</b>	This page is included in the Agreement Wizard if you selected the <b>Service-based</b> process on the Welcome page.
<b>Wizard Map - Service-Based Process</b>	The Agreement Wizard contains: Welcome > Define Agreement Properties Page > Select Services Page > <b>Select Service Offering Levels Page</b> > Select Calendars Page > Summary Page
<b>Useful Links</b>	"Offering Levels and KPI Assignment" on page 71

The Select Service Offering Levels page includes the following elements (listed alphabetically):

GUI Element	Description
<b>Agreement Services</b>	Lists the business services included in the agreement. Select a service to view its offering levels in the <b>Service Offering Levels</b> pane.
<b>Attach Global</b>	Click the button to open the Add Global Offering Levels dialog box, where you can select global offering levels to associate with the currently selected service.  For information on global offering levels, see “Global Offering Levels” on page 75.  <b>Note:</b> If you want the added global offering level to be used for the service, you must select its radio button.
<b>Create New</b>	Click the button to open the Offering Level Definition dialog box, where you can define a new offering level to associate with the currently selected service.  <b>Note:</b> If you want the new offering level to be used for the service, you must select its radio button.
<b>Service Offering Levels</b>	Displays the offering levels associated with the selected service. Select the radio button for the offering level you want to apply to the service within the current agreement.  Click an offering level name to open the relevant Offering Level Definition window, where you can view the thresholds set for each KPI (non-editable).  <b>Default value:</b> The <b>Default</b> offering level is selected.  <b>Tooltip:</b> Hold the cursor over an offering level name to display its description.

## Select Calendars Page

<b>Description</b>	<p><b>Important:</b> Part of service-based wizard.</p> <p>Enables you to select the calendars that are monitored by the agreement.</p>
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ This page is included in the Agreement Wizard if you selected the <b>Service-based</b> process on the Welcome page.</li> <li>▶ Only calendars that are included in at least one of the selected offering levels are listed.</li> <li>▶ If any of your selected calendars are not used by one or more of the included services, an information message is displayed.</li> </ul>
<b>Wizard Map - Service-Based Process</b>	<p>The Agreement Wizard contains:</p> <p>Welcome &gt; Define Agreement Properties Page &gt; Select Services Page &gt; Select Service Offering Levels Page &gt; <b>Select Calendars Page</b> &gt; Summary Page</p>
<b>Useful Links</b>	<p>“Calendars” on page 103</p>

## Select CIs Page

<p><b>Description</b></p>	<p><b>Important:</b> Part of legacy process wizard.</p> <p>Enables you to select configuration items (CIs) to include in the agreement, representing the services on which the agreement is based.</p>
<p><b>Important Information</b></p>	<ul style="list-style-type: none"> <li>▶ This page is included in the Agreement Wizard if you selected the <b>Legacy</b> process on the Welcome page.</li> <li>▶ After selecting CIs, you can click <b>Finish</b> to move directly to the Summary page; Service Level Management applies default KPIs and weights to the selected CIs (the <b>Automatically define default KPIs for CIs</b> option must be selected).</li> <li>▶ If you clear the <b>Automatically define default KPIs for CIs</b> option and move forward in the wizard, the functionality cannot be applied later for the CIs you have already added to the agreement, only for new CIs that you add.</li> </ul>
<p><b>Wizard Map - Legacy Process</b></p>	<p>The Agreement Wizard contains:</p> <p>Welcome &gt; Define Agreement Properties Page &gt; <b>Select CIs Page</b> &gt; Define KPIs Page &gt; Define Weights Page &gt; Summary Page</p>
<p><b>Useful Links</b></p>	<p>“View Explorer User Interface” in <i>Reference Information</i></p> <p>“CIs and KPIs in Agreements” on page 32</p>



The Select CIs page includes the following elements (listed alphabetically):

GUI Element	Description
<Left pane>	<p>Enables you to select the CIs to include in the agreement. The pane uses View Explorer functionality. Select the view containing the required CIs from the <b>View</b> list, or use the <b>Search</b> option to search for the required CIs. (You can select CIs from more than one view to include in the agreement.)</p> <p>Add CIs from the left pane to the <b>Selected Configuration Items</b> list:</p> <ul style="list-style-type: none"> <li>▶ To add a CI to the <b>Selected Configuration Items</b> list, select the service in the left pane and use the upper arrow.</li> <li>▶ To remove a CI from the <b>Selected Configuration Items</b> list, select the CI in the list and use the lower arrow.</li> <li>▶ Select multiple CIs by holding down the CTRL key while making your selections.</li> </ul> <p>If you select a parent CI, all descendants are automatically selected. (This is known as recursive selection.)</p>
<b>Automatically define default KPIs for new CIs</b>	Instructs Service Level Management to add the relevant default KPIs to all CIs included in the agreement.
<b>Selected Configuration Items</b>	Displays the CIs added to the agreement.

## Define KPIs Page

<b>Description</b>	<b>Important:</b> Part of legacy process wizard. Enables you to define and edit KPIs and outage conditions for the CIs in the agreement.
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ This page is included in the Agreement Wizard if you selected the <b>Legacy</b> process on the Welcome page.</li> <li>▶ From this page, you can click <b>Finish</b> to move directly to the Summary page (in which case Service Level Management applies default weights to the CIs in the agreement).</li> <li>▶ If Business Availability Center is integrated with HP SOA Systinet, you can drill down from certain CIs to view Web service information in HP SOA Systinet. For more information, see “Integration with HP SOA Systinet” on page 41.</li> </ul>
<b>Wizard Map - Legacy Process</b>	The Agreement Wizard contains: Welcome > Define Agreement Properties Page > Select CIs Page > <b>Define KPIs Page</b> > Define Weights Page > Summary Page
<b>Useful Links</b>	<p>“CIs and KPIs in Agreements” on page 32</p> <p>“Status Alerts for Agreements” on page 45</p>

## Left Pane: SLA Tree

<b>Description</b>	Enables you to select a CI or multiple CIs in the agreement, so that you can view and edit KPI and outage information for those CIs in the right pane.
<b>Important Information</b>	The left pane uses partial View Explorer functionality, enabling you to search for CIs within the agreement.
<b>Useful Links</b>	“View Explorer User Interface” in <i>Reference Information</i>



The left pane includes the following elements (listed alphabetically):

GUI Element	Description
<SLA tree>	<p>Displays the hierarchy of CIs that are associated with the current agreement (according to your selections on the Select CIs page).</p> <ul style="list-style-type: none"> <li>▶ Select a CI to display information for that CI in the right pane. For details, see “Right Pane: Single CI Settings” on page 180.</li> <li>▶ Select multiple CIs by holding down the CTRL key while making your selections. After selecting multiple CIs, the right pane changes to display the <b>Global Settings</b> area. For details, see “Right Pane: Global Settings” on page 181.</li> </ul> <p><b>Context Menu:</b> Right-click a CI to view menu options. For certain CIs, the menu options include <b>Drill down to Systinet</b>. Select this option to open HP SOA Systinet in a new window.</p>
SLA	Displays the name of the current agreement.

## Right Pane: Single CI Settings

<b>Description</b>	Displays KPI and outage information for a single CI selected in the left pane, and enables you to add and edit KPIs and outage settings.
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The Item: <CI name> area in the right pane includes the following elements (listed alphabetically):

<b>GUI Element</b>	<b>Description</b>
	Click the <b>Delete</b> button for a KPI or for <b>Outage</b> to remove the KPI from the CI; or you can remove multiple KPIs from the CI by selecting the relevant check boxes and clicking the <b>Delete</b> button under the KPIs list.
	Click the <b>Edit</b> button for a KPI or for <b>Outage</b> to edit the KPI rule and parameters.
<b>Add KPI</b>	Opens the KPI Definition dialog box, where you can define a new KPI to attach to the CI.
<b>Add Outage</b>	Click to open the Add Outage dialog box, where you can define parameters for the Outage KPI for the CI.
<b>KPIs</b>	Lists the KPIs associated with the CI, together with the Business Rule for each KPI.
<b>Outage</b>	Describes the outage rule that is used with the Outage KPI for the CI.

## Right Pane: Global Settings

<b>Description</b>	Enables you to edit the KPIs and outage settings for multiple CIs. Displayed by selecting more than one CI in the left pane.
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The Global Settings area in the right pane includes the following elements (listed alphabetically):

GUI Element	Description
<b>Add/Replace KPI</b>	Opens the KPI definition dialog box, where you can define a new KPI to attach to all selected CIs. If the KPI is already attached to one of the selected CIs, then the new KPI definition replaces the previous one (for example, the new KPI definition may use a different business rule than the old one).
<b>Add/Replace Outage</b>	Opens the Add Outage dialog box, where you can define Outage KPI parameters for all selected CIs. The defined parameters replace any previous outage definition.
<b>Delete KPI</b>	Opens the Delete KPI dialog box where you select the KPI to delete from all selected CIs.
<b>Delete Outage</b>	Click to remove the Outage KPI from all selected CIs.

## Define Weights Page

<b>Description</b>	<b>Important:</b> Part of legacy process wizard. Enables you to define a weight for each CI to reflect its relative importance in KPI calculations.
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ This page is included in the Agreement Wizard if you selected the <b>Legacy</b> process on the Welcome page.</li> <li>▶ This page is optional. All CIs are given a weighting of 1 by default.</li> </ul>

<b>Wizard Map - Legacy Process</b>	The Agreement Wizard contains: Welcome > Define Agreement Properties Page > Select CIs Page > Define KPIs Page > <b>Define Weights Page</b> > Summary Page
<b>Useful Links</b>	“Weights for KPI Calculations” on page 36

**Left Pane: SLA Tree**

<b>Description</b>	Select a CI in the current agreement, so that you can view and edit (in the right pane) the weights assigned to the children of that CI. For details, see “Right Pane: CI Weights Information,” below.
<b>Important Information</b>	The left pane uses partial View Explorer functionality, enabling you to search for CIs within the agreement.
<b>Useful Links</b>	“View Explorer User Interface” in <i>Reference Information</i>

**Right Pane: CI Weights Information**

<b>Description</b>	Displays weights information for the children of the CI selected in the left pane.
<b>Important Information</b>	If you set all weights to zero, KPIs are marked with a hyphen for all calculated reports.

The CI: <CI name> area in the right pane includes the following elements (listed alphabetically):

<b>GUI Element</b>	<b>Description</b>
<b>All CIs</b>	To assign the same weight to all the displayed CIs, enter the value in the <b>All CIs</b> box and click <b>Apply</b> .
<b>Name</b>	Lists the child CIs of the CI currently selected in the left pane.
<b>Weight</b>	Displays the weight assigned to each CI. Enter a new weight in the box. Weights can be between 0 and 100, with up to 3 digits after the decimal point.

## Summary Page

<b>Description</b>	Displays a summary of the agreement details, and enables you to start running the agreement.
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ Use the <b>Back</b> button to modify the agreement details. You cannot change the wizard process used for the agreement.</li> <li>▶ You can display most of the information on this page in Service Level Management reports. For details, see “Additional Values in Reports” on page 144.</li> <li>▶ After creating the agreement, you must verify that users are granted permissions to work with it.</li> </ul>
<b>Wizard Map - Service-Based Process</b>	The Agreement Wizard contains: Welcome > Define Agreement Properties Page > Select Services Page > Select Service Offering Levels Page > Select Calendars Page > <b>Summary Page</b>
<b>Wizard Map - Legacy Process</b>	The Agreement Wizard contains: Welcome > Define Agreement Properties Page > Select CIs Page > Define KPIs Page > Define Weights Page > <b>Summary Page</b>
<b>Useful Links</b>	“Permissions for Working with Agreements” on page 43

The Summary page includes the following element:






<b>GUI Element</b>	<b>Description</b>
<b>Start SLA</b>	Select this check box for Service Level Management to begin running the agreement immediately. If you clear this check box, the agreement is at preliminary state, and you can manually start the agreement at a later time from the Agreements Manager Page.





## Agreements Manager Page

<b>Description</b>	<p>You use this page to create agreements or to perform actions on existing agreements. Service Level Management displays those agreements which you, the logged-in user, have permissions to change or delete.</p> <p><b>To access:</b> Select Admin &gt; Service Level Management &gt; Agreements Manager</p>
<b>Important Information</b>	<p><b>Note for HP Managed Software Solutions users:</b> By default, you can create up to ten agreements. To increase this number, contact HP Managed Software Solutions Support.</p>
<b>Included in Tasks</b>	<p>“Define a Service Agreement” on page 46</p> <p>“Recalculation for Agreements” on page 43</p>
<b>Useful Links</b>	<p>“Agreements in Service Level Management” on page 21</p>



The Agreements Manager page includes the following elements (listed alphabetically):

GUI Element	Description
	<p>Click the <b>Schedule recalculation task</b> button to open the Recalculation Task dialog box where you can schedule recalculation of the agreement. Click the <b>Cancel scheduled recalculation task</b> button to cancel the recalculation. For details, see “Recalculation for Agreements” on page 43.</p> <p><b>Tooltip:</b> Displays the date and time of the last calculation for the agreement data. Service Level Management recalculates the agreement data once an hour, for the previous hour. That is, if the time is now 07:30 AM, Service Level Management recalculated the data at 7:00 AM for data that was received between 05:00 AM and 06:00 AM.</p>
	<p>Click to begin running the agreement. You can use this button to immediately start running an agreement, even when it is set to begin running in the future.</p>
	<p>Click to terminate the agreement. A terminated agreement cannot be restarted.</p>
	<p>Opens the Edit Agreement Wizard, where you can modify most agreement properties.</p> <p>Note the following:</p> <ul style="list-style-type: none"> <li>▶ If the agreement to be edited is not in a preliminary state, the agreement start date and time zone cannot be changed and the agreement end date can be changed only to a future date.</li> <li>▶ If the changes you make to the agreement affect historical data, you must run the recalculation process.</li> </ul>
	<p>Opens the Advanced Agreement Options Wizard, where you can modify KPIs and weights for an agreement created using the service-based process.</p> <p><b>Note:</b> This button is only enabled for service-based agreements.</p>

GUI Element	Description
	<p>Click to clone the agreement. A copy of the agreement is added to the list of agreements, named <b>Copy of &lt;name&gt;</b>. You can then edit the details of the copy, including renaming it</p> <p>The cloned agreement inherits all the properties of the existing agreement. The creator of the new agreement is the user who cloned it.</p> <p>The start date of the clone is the present date and time. If the start and end dates of the original agreement are no longer valid (for example, the agreement terminated a week ago or the start date falls before the allowed start date of the cloned agreement), then Service Level Management sets the following default dates: The start date is the original start date or three months before the current date, and the end date is the original end date.</p> <p><b>Note:</b> You can clone an agreement on condition that you are an administrator or have been given change permissions on the agreement.</p>
	<p>Click to delete the agreement. This completely removes the agreement, and all calculations for it, from Service Level Management.</p>
	<p>Click the required button to select all options, clear all options, or reverse the current selection.</p>
	<p>To perform an action on more than one agreement simultaneously, select the check boxes of the relevant agreements, and click the relevant button to start, stop, or delete the agreements.</p>
<p><b>Description</b></p>	<p>The description of the agreement. Hold the cursor over the description to view the complete text in a tooltip.</p>
<p><b>Name</b></p>	<p>The name of the agreement. For a long name, hold the cursor over the name to view it in full in a tooltip.</p>
<p><b>New Agreement</b></p>	<p>Click to open the Agreement Wizard where you define a new agreement.</p>

GUI Element	Description
<b>Start date</b>	<p>The date when Service Level Management began/will begin calculating the agreement.</p> <p><b>Note:</b> This date is not the agreement creation date.</p>
<b>State</b>	<p>The current state of the agreement. Can be one of the following:</p> <ul style="list-style-type: none"> <li>▶ <b>Preliminary.</b> The agreement has not begun running. The agreement is at this state if you did not select the <b>Start SLA</b> check box on the Summary page of the Create Agreement Wizard. Click the <b>Start</b> button to start calculations for the agreement.</li> <li>▶ <b>Pending.</b> The agreement has been started, but its start date is in the future. You can terminate a pending agreement (click the <b>Stop</b> button).</li> <li>▶ <b>Recalculation Process:&lt;x&gt;%.</b> The agreement is in the process of being recalculated. The progress of the recalculation is shown in percentages. For details, see “Recalculation for Agreements” on page 43.</li> <li>▶ <b>Running.</b> The agreement begins collecting data. You cannot change the start date and time zone, but you can change the end date to any future end date. That is, the end date cannot be in the past. You can terminate a running agreement (click the <b>Stop</b> button).</li> <li>▶ <b>Scheduled for &lt;date and time&gt;:</b> The agreement is scheduled for recalculation at the displayed date and time.</li> <li>▶ <b>Terminated.</b> The agreement finished running and no longer collects data. A terminated agreement cannot be restarted. (However, you can click the <b>Clone</b> button to clone a terminated agreement.)</li> </ul> <p>An agreement is terminated in one of two ways: By manually stopping it (clicking the <b>Stop</b> button), or when its end date has passed. The agreement terminates on the next hour after it is stopped.</p> <p><b>Note:</b> You can recalculate a terminated agreement, up to the termination date.</p>

GUI Element	Description
Type	Whether the agreement is an SLA, OLA, or UC. For an explanation of these agreement types, see “SLAs, OLAs, and UCs” on page 31.

## Business Service Wizard

<b>Description</b>	<p>Enables you to define a Business Service CI representing a service provided by or consumed by your organization.</p> <p><b>To access:</b> In Services Manager, click the <b>Create new Business Service</b> link, or select <b>Create new Business Service</b> or <b>Edit Business Service</b> from the context menu for a CI.</p>
<b>Included in Tasks</b>	“Define Business Services for Agreements” on page 64
<b>Wizard Map</b>	<p>The Create Business Service Wizard contains:</p> <p>Welcome Page &gt; Define Business Service Properties Page &gt; Add Service Related CIs Page &gt; Summary Page</p>
<b>Useful Links</b>	“View Explorer User Interface” in <i>Reference Information</i>

## Define Business Service Properties Page

<b>Description</b>	Enables you to define properties for the Business Service CI.
<b>Important Information</b>	The Description, Provider, and Provision information are displayed for the business service in the <b>Service Level Management Application &gt; SLA Management</b> page.
<b>Wizard Map</b>	The Business Service Wizard contains: Welcome Page > <b>Define Business Service Properties Page</b> > Add Service Related CIs Page > Summary Page

The Define Business Service Properties page includes the following elements (listed alphabetically):

<b>GUI Element</b>	<b>Description</b>
<b>City</b>	Select the city name. The list is automatically updated when you select a country (or state, when applicable).
<b>Country</b>	Select the country relevant to the business service. You must define a geographical location—country, state (if applicable), and city—if you want the Business Service CI to appear on the Geographical Map in Dashboard. For more information, see “Understanding Geographical Maps” in <i>Using Dashboard</i> .
<b>Description</b>	Enter a description for the business service. The length of the string must not be longer than 600 characters.
<b>Name</b>	Enter a unique name for the business service, up to 50 characters.
<b>Provider</b>	Defines the service provider. Click the ellipsis button (...) to open the Select Provider dialog box, where you can select the relevant provider from the Business Units view.

GUI Element	Description
<b>Provision</b>	Enter information on the provision used by the service. The length of the string must not be longer than 600 characters.
<b>State</b>	Select the name of the state, when applicable for the selected country. The list is automatically updated when you select a country.

### Add Service Related CIs Page

<b>Description</b>	Enables you to define the service topology that supports the Business Service CI.
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ You do not need to define the service-related CIs when defining the Business Service CI; the service-related CIs can be added at a later time.</li> <li>▶ If service-related CIs are added to the service topology for a Business Service CI <i>after</i> it has been included in an agreement, you must edit the agreement if you want the agreement to include the new CIs. For details, see “Changes to the Business Service Topology” on page 62.</li> </ul>
<b>Wizard Map</b>	The Business Service Wizard contains: Welcome Page > Define Business Service Properties Page > <b>Add Service Related CIs Page</b> > Summary Page
<b>Useful Links</b>	“View Explorer” in <i>Reference Information</i>

The Add Service Related CIs page includes the following elements (listed alphabetically):

GUI Element	Description
<Left pane>	<p>Enables you to select service-related CIs to add to the business service. The pane uses View Explorer functionality.</p> <p>Select the view containing the required CIs from the <b>View</b> list (or use the <b>Search</b> option to search for the required CIs), then add CIs from the left pane to the <b>Selected Configuration Items</b> list (this adds them to the service topology):</p> <ul style="list-style-type: none"> <li>▶ To add a CI to the service topology, select the CI in the left pane and use the upper arrow. The CI is added to the <b>Selected Configuration Items</b> list.</li> <li>▶ To remove a CI from the service topology, select the CI in the list and use the lower arrow.</li> <li>▶ Select multiple CIs by holding down the CTRL key while making your selections.</li> </ul> <p>If you select a parent CI, all descendants are automatically selected. (This is known as recursive selection.)</p> <p>You can select CIs from more than one view to include in the service topology.</p>
<b>Preview Service Topology</b>	Click to open the Service Topology Preview window, where you can view the full topology for the business service.
<b>Selected Configuration Items</b>	Lists the CIs added under the business service. The child CIs for each added CI may be hidden in the Selected Configuration Items list. You can view the full topology by clicking <b>Preview Service Topology</b> .

## Calendar Wizard

<b>Description</b>	<p>You use the Calendar Wizard to define calendar schedules to use with your agreements.</p> <p><b>To access:</b> On the <b>Admin &gt; Service Level Management &gt; Repositories &gt; Calendars page</b>, click the <b>New Calendar</b> button, or the <b>Edit</b> button for an existing calendar.</p>
<b>Wizard Map</b>	<p>The Calendar Wizard contains:</p> <p>Calendar Properties Page &gt; Calendar Pattern: Weekly          Calendar Definition Page / Calendar Pattern: Yearly          Calendar Definition Page / Calendar Pattern:          Compound Calendar Definition Page &gt; Calendar          Summary Page</p>
<b>Useful Links</b>	<p>“Calendars” on page 103</p>

## Calendar Properties Page

<b>Description</b>	<p>Enables you to define calendar properties and select the period type for the calendar.</p> <p><b>To access:</b> On the <b>Admin &gt; Service Level Management &gt; Calendars page</b>, click the <b>New Calendar</b> button, or the <b>Edit</b> button for an existing calendar.</p>
<b>Important Information</b>	<p>When you open the Calendar Wizard in edit mode, the Properties page lists any agreements that are using the calendar.</p>
<b>Wizard Map</b>	<p>The Calendar Wizard contains:</p> <p><b>Calendar Properties Page</b> &gt; Calendar Pattern: Weekly          Calendar Definition Page / Calendar Pattern: Yearly          Calendar Definition Page / Calendar Pattern:          Compound Calendar Definition Page &gt; Calendar          Summary Page</p>
<b>Useful Links</b>	<p>“Calendars” on page 103</p>



The Calendar Properties page includes the following elements (listed alphabetically):

GUI Element	Description
<b>Choose period type</b>	<p>Select the radio button for the period type on which you want to base the calendar:</p> <ul style="list-style-type: none"> <li>▶ <b>Weekly.</b> The calendar is based on a weekly cycle, for example, every Sunday from 1:00 AM to 3:00 AM.</li> <li>▶ <b>Yearly.</b> The calendar is based on a yearly cycle, for example, the month of December or annual vacations.</li> <li>▶ <b>Compound.</b> The calendar combines existing calendars. For example, if you have a yearly calendar monitoring January to October, and a weekly calendar monitoring business hours, you can combine the two calendars into a compound calendar that monitors business hours from January to October.</li> </ul>
<b>Description</b>	Enter a description. The description should not be longer than 500 characters and can consist of any characters and spaces.
<b>Name</b>	Enter a name for the calendar. The name should not be longer than 50 characters and can consist of alphanumeric characters and spaces.

## Calendar Pattern: Weekly Calendar Definition Page

<b>Description</b>	Enables you to define a weekly pattern of active times for the calendar.
<b>Important Information</b>	You see this page in the Calendar Wizard if you selected <b>Weekly</b> on the Calendar Properties Page.
<b>Wizard Map</b>	The Calendar Wizard contains: Calendar Properties Page > <b>Calendar Pattern: Weekly Calendar Definition Page</b> / Calendar Pattern: Yearly Calendar Definition Page / Calendar Pattern: Compound Calendar Definition Page > Calendar Summary Page
<b>Useful Links</b>	“Calendar Examples” on page 106

The Calendar Pattern: Weekly Calendar Definition page includes the following elements (listed alphabetically):

GUI Element	Description
<Calendar grid>	<p>A time grid containing a cell for each day of the week/30 minute period. Click a cell to make that day/time “active” in the calendar. Click the cell again to remove it from the calendar.</p> <p>Active times are shown in blue, free times (times not included in calendar) in gray.</p>
<b>Add</b>	Click to add the selected time range to the calendar grid.
<b>Add Range</b>	<p>Set a time range as “active” by selecting the start time and end time for the range, then selecting the day(s) of the week for which the time range is to apply. Click <b>Add</b> to add the period to the calendar grid.</p> <p>Select a range and click <b>Clear</b> to remove that range from the calendar grid.</p> <p><b>Tip:</b> Use the CTRL and SHIFT keys to select multiple days.</p>
<b>Clear</b>	Click to remove the selected time range from the calendar grid.
<b>Clear All</b>	Click to remove all active times from the grid.

## Calendar Pattern: Yearly Calendar Definition Page

<b>Description</b>	Enables you to define a yearly pattern of active times for the calendar.
<b>Important Information</b>	You see this page in the Calendar Wizard if you selected <b>Yearly</b> on the Calendar Properties Page.
<b>Wizard Map</b>	The Calendar Wizard contains: Calendar Properties Page > Calendar Pattern: Weekly Calendar Definition Page / <b>Calendar Pattern: Yearly Calendar Definition Page</b> / Calendar Pattern: Compound Calendar Definition Page > Calendar Summary Page
<b>Useful Links</b>	“Calendar Examples” on page 106

The Calendar Pattern: Yearly Calendar Definition page includes the following elements (listed alphabetically):

GUI Element	Description
<Calendar grid>	<p>A time grid containing a cell for each month/day. Click a cell to make that date “active” in the calendar. Click the cell again to remove it from the calendar.</p> <p>Active times are shown in blue, free times (times not included in calendar) in gray.</p>
<b>Add</b>	Click to add the selected time range to the calendar grid.
<b>Add Range</b>	<p>Set a time range as “active” by selecting the start day and end day for the range, then selecting the months of the year for which the date range is to apply. Click <b>Add</b> to add the period to the calendar grid.</p> <p>Select a range and click <b>Clear</b> to remove that range from the calendar grid.</p> <p><b>Tip:</b> Use the CTRL and SHIFT keys to select multiple days.</p>
<b>Clear</b>	Click to remove the selected time range from the calendar grid.
<b>Clear All</b>	Click to remove all active times from the grid.

## Calendar Pattern: Compound Calendar Definition Page

<b>Description</b>	Enables you to select the calendars to include in the new compound calendar.
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ You see this page in the Calendar Wizard if you selected <b>Compound</b> on the Calendar Properties Page.</li> <li>▶ If you update one of the calendars included in a compound calendar, the compound calendar itself is also updated.</li> </ul>
<b>Wizard Map</b>	The Calendar Wizard contains: Calendar Properties Page > Calendar Pattern: Weekly Calendar Definition Page / Calendar Pattern: Yearly Calendar Definition Page / <b>Calendar Pattern: Compound Calendar Definition Page</b> > Calendar Summary Page
<b>Useful Links</b>	"Calendar Examples" on page 106

The Calendar Pattern: Compound Calendar Definition page includes the following elements (listed alphabetically):

GUI Element	Description
<Calendar table>	Lists all existing calendars.
<b>In Use</b>	Select the check box for each calendar that impacts on the new calendar.
<b>Include/Exclude</b>	<p>Enabled after selecting the <b>In Use</b> check box for a calendar. Select either the <b>Include</b> or <b>Exclude</b> radio button for each calendar, as follows:</p> <ul style="list-style-type: none"> <li>▶ <b>Include</b>. This option includes the active times for the selected calendar in the calculations for the new calendar.</li> <li>▶ <b>Exclude</b>. This option excludes the active times for the selected calendar in the calculations for the new calendar.</li> </ul>




## Calendars Dialog Box

<b>Description</b>	Enables you to select the calendars that are monitored by the agreement. <b>To access:</b> Click the <b>Calendars</b> link in the Define Agreement Properties page of the Agreement Wizard.
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ The two default calendars are always included, <b>24x7</b> and <b>Business Hours</b>. Additional calendars are defined in the <b>Service Level Management Administration &gt; Repositories &gt; Calendars</b> tab.</li> <li>▶ You can select up to three calendars per agreement.</li> </ul>
<b>Included in Tasks</b>	“Define a Service Agreement” on page 46
<b>Useful Links</b>	“Calendars” on page 103

## Calendars Page

<b>Description</b>	Lists the calendars defined for Service Level Management (including the preconfigured calendars) and enables you to create, edit and delete calendars. <b>To access:</b> Select <b>Admin &gt; Service Level Management &gt; Repositories &gt; Calendars</b>
<b>Important Information</b>	Calendars were called Time Intervals in previous versions.
<b>Useful Links</b>	“Calendars” on page 103

The Calendars page includes the following elements (listed alphabetically):

GUI Element	Description
	Opens the Calendar Wizard, where you can edit properties of the calendar.
	Creates a clone of the calendar named Copy of <calendar name>. You can use the copy to define a new calendar with a similar schedule.
	Deletes the calendar. You cannot delete a calendar if it is associated with an agreement.
<b>Description</b>	Displays a description of the calendar.
<b>Name</b>	The calendar name.
<b>New Calendar</b>	Click to open the Calendar Wizard, where you define a new calendar.
<b>Period Type</b>	Displays whether the calendars is based on weekly, yearly, or compound periods.



## CI Selection Dialog Box

<b>Description</b>	<p>Enables you to select the CIs that are affected by a downtime or scheduled event.</p> <p><b>To access:</b> In the Downtime Event Schedule dialog box (accessed from the Downtime Events page), click <b>CI Filter</b>.</p>
<b>Important Information</b>	<p>The CI Selection dialog box is used for defining either:</p> <ul style="list-style-type: none"> <li>▶ CIs in agreements, if you are defining an SLA event.</li> <li>▶ Business Process Monitor-related CIs, if you are defining a BPM event.</li> </ul> <p>The descendants of the selected CIs are also affected by this event (including descendants added in the future to a CI).</p>
<b>Useful Links</b>	<p>“About Downtime Events” on page 94</p> <p>The dialog box uses View Explorer functionality. For details, see “View Explorer” in <i>Reference Information</i>.</p>

The CI Selection dialog box includes the following elements (listed alphabetically):

<b>GUI Element</b>	<b>Description</b>
<b>SLA</b>	<p>Displayed if you are defining an SLA event. The <b>SLA</b> box displays the name of the SLA (agreement) you selected in the Downtime Event Schedule dialog box. select the check boxes for the relevant CIs in the SLA tree.</p>
<b>View</b>	<p>Displayed if you are defining a BPM event. Select one of the End User views from the <b>View</b> list, then select the check boxes for the relevant CIs in the view tree.</p> <p><b>Note:</b> You can select any of the displayed CIs, even if they are not currently included in the agreement (so they are affected by the event if they are added to the agreement in the future).</p>

## Downtime Event Schedule Dialog Box

<b>Description</b>	<p>Enables you to define downtime and other scheduled events affecting agreements, so that the relevant periods are shown with Downtime status in Service Level Management reports.</p> <p><b>To access:</b> In the Downtime Events page, click <b>New BPM Event</b> or <b>New SLA Event</b>, or click the <b>Edit</b> button for an event.</p>
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ The Downtime Event Schedule dialog box is used for defining both BPM events and SLA events.</li> <li>▶ When editing a defined event, you cannot change the defined agreement or CIs.</li> <li>▶ If a new event is to affect agreement data retroactively, or if you make changes to an event that retroactively affects agreement data, you must recalculate the relevant agreements. For more information, see “Retroactive Events” on page 95.</li> </ul>
<b>Included in Tasks</b>	<p>“Define a Service Agreement” on page 46</p>
<b>Useful Links</b>	<p>“About Downtime Events” on page 94</p> <p>For examples of event definitions, see “Event Examples” on page 96</p>

## Event Schedule General Properties Area

The Event Schedule General Properties area includes the following elements (listed alphabetically):

GUI Element	Description
<b>Description</b>	Enter a description of the event. You can view the event description in reports for the event. For details, see “Advanced Options Dialog Box” on page 228.
<b>Exclude data reported during event</b>	Select the check box to exclude data such as scheduled maintenance periods.
<b>Name</b>	Enter the name of the event.

## Scheduling Area

<b>Description</b>	Enables you to schedule the time periods during which data is affected. You can define a one-time event ( <b>Once</b> ) or a recurring event ( <b>Daily, Weekly, Monthly, or Yearly</b> );
<b>Important Information</b>	<ul style="list-style-type: none"> <li>➤ Dates are specified according to the user’s time zone.</li> <li>➤ The specific elements displayed in this area depend on the schedule type you select.</li> </ul>

The Scheduling area includes the following elements (listed alphabetically):

GUI Element	Description
<Schedule type>	<p>Select the schedule type for the event: Either a one-time event (<b>Once</b>) or a recurring event (<b>Daily, Weekly, Monthly, or Yearly</b>).</p> <p>Your selection determines the parameters displayed in the rest of the Scheduling area.</p>
<b>End time</b>	<p>Select the <b>End time</b> radio button if you want to define an end date for the event, or to limit the event recurrences to end at a certain date.</p> <p>Click the date link to set the required end date and time.</p> <p><b>Default value:</b> Current date and time.</p>
<b>Event duration</b>	<p>For a one-time event, select the <b>Event duration</b> radio button if you want to define a fixed duration for the event, and set the duration in days, hours, and minutes.</p> <p>For a recurring event, set the duration of the event in hours and minutes.</p>
<b>Frequency</b>	<p>In the <b>Frequency</b> area, you define how often a recurring event is to occur. For example, you can set the event to occur:</p> <ul style="list-style-type: none"> <li>▶ For a <b>Daily</b> event—every 5th day.</li> <li>▶ For a <b>Weekly</b> event—every 3 weeks, on Tuesday and Friday.</li> <li>▶ For a <b>Monthly</b> event—on the 10th day of every month, or the first Sunday of every fourth month, or the last day of every sixth month.</li> <li>▶ For a <b>Yearly</b> event— every July 4th, or the last Friday in December every year.</li> </ul>
<b>No end date</b>	<p>Select the <b>No end date</b> radio button if you want the recurring event to be open-ended (unbound).</p>
<b>Start date</b>	<p>Click the link to set the required start date and time.</p> <p><b>Default value:</b> Current date and time.</p>

## Event Schedule Action Area



The Event Schedule Action area includes the following elements (listed alphabetically):

GUI Element	Description
<b>CI Filter</b>	<p>Displays the specific CIs that are impacted by the event.</p> <p>Click the <b>CI Filter</b> link to open the CI Selection dialog box, where you select the CIs that are impacted by the event.</p> <p><b>Note:</b> When defining an SLA event for <b>All SLAs</b>, the <b>CI Filter</b> parameter is hidden; you do not select specific CIs, the event is recursively defined for all CIs in each SLA.</p>
<b>SLA</b>	<p>Select the SLA (agreement) from the list that the event affects. If the event affects all existing SLAs and any future SLAs, select <b>All SLAs</b> (you must have edit permissions for all SLAs).</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>▶ The SLA list includes only those SLAs that you have permissions to change.</li> <li>▶ If you select <b>All SLAs</b>, and the SLAs have different time zones, then the downtime event date and time displayed in reports may not be relevant for all the SLAs.</li> </ul> <p><b>Default value:</b> All SLAs</p>

## Downtime Events Page

<b>Description</b>	Lists the defined events, and enables you to create, edit, or delete events.  <b>To access:</b> Select <b>Admin &gt; Service Level Management &gt; Downtime Events</b>
<b>Included in Tasks</b>	“Define a Service Agreement” on page 46
<b>Useful Links</b>	“Downtime Events” on page 93

The Downtime Events page includes the following elements (listed alphabetically):

GUI Element	Description
	Click to open the Downtime Event Schedule dialog box for the event, in edit mode.
	Click to delete the selected event or events.  Any reports generated from this time reflect the deletion. Service Level Management also updates the Audit Log. For details, see “The Audit Log” on page 18.  <b>Note:</b> If you delete a retroactive event for which you previously ran a recalculation of agreement data, then you must recalculate again after deleting the event, if you want to remove the impact of the event on the agreement data. For details, see “Recalculation for Agreements” on page 43.
<b>End Date</b>	The date and time when the event terminates. If there is no end date, the event is considered <b>unbound</b> .
<b>Impact</b>	Displays the agreements and CIs that are affected by the event.
<b>Name</b>	The name defined for the event.
<b>New BPM Event</b>	Click to open the Downtime Event Schedule dialog box, where you can define a new event affecting Business Process Monitor data.

GUI Element	Description
New SLA Event	Click to open the Downtime Event Schedule dialog box, where you can define a new event affecting agreements.
Scheduling	The frequency of the event: <ul style="list-style-type: none"> <li>▶ <b>Single.</b> This is an event scheduled to occur one-time.</li> <li>▶ <b>Recurring.</b> This is an event scheduled for repeated occurrence (daily, weekly, monthly, or yearly).</li> </ul>
Start Date	The date and time when the event begins.
Type	The type of event, either <b>BPM</b> or <b>SLA</b> .

## KPI Definition Dialog Box

Description	Enables you to define and edit KPIs and KPI objectives for CIs in agreements.  <b>To access:</b> Click <b>Add KPI</b> or the <b>Edit</b> button for a KPI in the Define KPIs page of the Create Agreement Wizard or the Advanced Agreement Options Wizard.
Important Information	The KPI definitions apply only to the KPI within the current agreement; different definitions can be applied to the same KPI defined for the same CI in a different agreement.
Included in Tasks	“Define a Service Agreement” on page 46
Useful Links	“CIs and KPIs in Agreements” on page 32.  For information on the KPIs used in Service Level Management, see “List of Service Level Management KPIs and Details” in <i>CI Attribute Customization</i> .  For general information on working with KPIs and business rules, see “Repositories” in <i>CI Attribute Customization</i> .

## KPI Area

The KPI area includes the following elements (listed alphabetically):

GUI Element	Description
<b>Business rule</b>	<p>Select the business logic to be used for calculating the KPI value.</p> <p><b>Tooltip:</b> Hold the pointer over the icon to the right of the box to display a short explanation of the business rule.</p> <p><b>Note:</b> If no business rule is displayed for a KPI, this indicates that the selected KPI is not applicable for the current CI.</p>
<b>KPI</b>	<p>Select a KPI from the list. Service Level Management displays only those KPIs that have not yet been attached to the CI.</p>
<b>Parameters</b>	<p>Define or edit the parameter values, as required. Parameters are generally displayed for monitor rules, and for some group rules.</p> <p>A red asterisk after a parameter name signifies that this parameter is mandatory.</p> <p><b>Tooltip:</b> Hold the pointer over the icon to the left of the parameter to display a short explanation of the parameter.</p>



**Objectives Area**

<b>Description</b>	Enables you to define the objective thresholds to be used during each calendar and tracking period, for the KPI.
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ The displayed calendars, tracking periods, and objective categories (targets) depend on the definitions for the agreement that contains the KPI.</li> <li>▶ If you do not define objectives, Service Level Management still performs calculations for the agreement and Service Level Management reports include data. However, reports do not show status by colors.</li> <li>▶ Service Level Management includes default objective values for all KPIs, via an XML file for agreements created using the legacy-process Agreement Wizard, and via the offering levels for agreements created using the service-based Agreement Wizard.</li> <li>▶ The objective thresholds must be logical; Service Level Management does not validate the entered values.</li> <li>▶ For information on defining objectives for Six Sigma KPIs, see “Six Sigma for Agreements” on page 40.</li> </ul>

The Objectives area includes the following elements (listed alphabetically):

GUI Element	Description
<Objective targets>	<p>Displayed below the Calendar table. Each row displays an objective category (target) defined for the agreement, with its corresponding color.</p> <p>When a timeslot(s) is selected in the Calendar table:</p> <ul style="list-style-type: none"> <li>▶ Select the relevant operator to use with the thresholds.</li> <li>▶ Enter the required threshold value for each objective in the appropriate box.</li> </ul> <p><b>Note:</b> The units that are displayed for the objectives (for example, %) are defined by the selected business rule.</p>
<b>Calendar</b>	<p>Displays a table of the agreement calendars broken down by tracking periods, so that each cell represents a timeslot.</p> <p>Click the appropriate cell, then define objective values for it (below the Calendar table). After entering the values in the objective boxes, click any other cell in the Calendar table; the defined cell changes from empty to selected, and the cell's tooltip changes to <b>Defined</b>.</p> <p>To add the same objective values to all tracking periods of a calendar, click the calendar name, enter the objective values in the target boxes, then click the calendar again (or click any cell).</p>

## Offering Level Definition Dialog Box

<b>Description</b>	<p>Enables you to create an offering level to be used with business services. Each offering level defines the objective thresholds to be used during each calendar and tracking period, for KPIs associated with the Business Service CI.</p> <p><b>To access:</b></p> <ul style="list-style-type: none"> <li>▶ Click the <b>New</b> or <b>Edit</b> button in the Offering Levels area/Global Offering Levels area displayed in the <b>Admin &gt; Service Level Management &gt; Services Manager</b> tab.</li> <li>▶ Click the <b>Create New</b> button in the Select Service Offering Levels page of the Agreement Wizard.</li> </ul>
<b>Important Information</b>	The objective thresholds must be logical; Service Level Management does not validate the entered values.
<b>Included in Tasks</b>	“Create and Apply Offering Levels for Service-Based Agreements” on page 82
<b>Useful Links</b>	<p>“Offering Levels and KPI Assignment” on page 71</p> <p>“Creating and Editing Offering Levels” on page 78</p>

The Offering Level Definition dialog box includes the following elements (listed alphabetically):


GUI Element	Description
<Calendar table>	<p>Upper table in the <b>Objectives Definition</b> area. Displays a row for each selected calendar, and a column for each tracking period, so that each cell represents a timeslot. Click the appropriate cell to define objective threshold values for it. After entering the values in the KPIs table, click any other cell; the defined cell changes from empty to selected, and the cell's tooltip changes to <b>Defined</b>.</p> <p>To add the same objective values to all tracking periods of a calendar, click the calendar name, enter the objective target values in the target boxes, then click the calendar again (or click any cell).</p>
<KPIs table>	<p>Lower table in the <b>Objectives Definition</b> area. Displays a row for each KPI associated with this offering level, and a column for each of the KPI targets. When a calendar/tracking period cell is selected, you can define the threshold for each target of each KPI (together with the relevant operator).</p> <p>Availability and Performance KPIs are included in the table by default (but can be removed).</p>
Calendar(s)	<p>Displays the calendars for which this offering level can apply. Click the link to modify the selections.</p> <p><b>Default Values:</b> 24x7, Business Hours</p>
Description	<p>Enter a description of the offering level.</p>
Name	<p>Enter a name for the offering level. The name must not be longer than 100 characters.</p>
Objectives Definition area	<p>Area for defining the offering level objectives. You select time periods in the Calendar table, and define objective thresholds for KPIs during the selected time periods in the KPIs table.</p>

GUI Element	Description
Select all table	Click to select all timeslots in the Calendar table.
Select KPI to add	Select a KPI from the dropdown list to add to the KPIs table, then click <b>Add KPI</b> .

## Outage Categories Page

<b>Description</b>	Lists the outage categories defined for Service Level Management and enables you to create and edit outage categories. The outage categories enable you to categorize the probable outage cause for a CI.  <b>To access:</b> Select <b>Admin &gt; Service Level Management &gt; Repositories &gt; Outage Categories</b>
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ You cannot delete an outage category.</li> <li>▶ New outage categories can also be defined from the Add Outage Dialog Box described on page 162.</li> </ul>
<b>Useful Links</b>	“Status Alerts for Agreements” on page 45

The Outage Categories page includes the following elements (listed alphabetically):

GUI Element	Description
	Click to edit the outage category name or description. The new name is automatically updated in agreements that use the outage category.
<b>New Outage Category</b>	Click to open the Outage Category dialog box, where you define a new outage category. Enter a name and description for the new outage category.
<b>Outage Categories table</b>	Lists the default and user-defined outage categories.

## Recalculation Task Dialog Box

<b>Description</b>	<p>Enables you to run the recalculation process to update the data in your agreements. You generally run recalculation tasks after making retroactive changes.</p> <p><b>To access:</b> Click the <b>Schedule recalculation task</b> button for an agreement on the <b>Admin &gt; Service Level Management &gt; Agreements Manager</b> page.</p>
<b>Important Information</b>	<p><b>Note for HP Managed Software Solutions customers:</b> HP Operations administers the recalculation task functionality. For information about recalculation, contact HP Managed Software Solutions Support.</p>
<b>Useful Links</b>	<p>“Recalculation for Agreements” on page 43</p>

The Recalculation Task dialog box includes the following elements (listed alphabetically):

GUI Element	Description
<b>Recalculate from</b>	<p>Click the date and time link to open the calendar, where you define from when the Service Level Management should recalculate the agreement.</p> <ul style="list-style-type: none"> <li>▶ The selected date and time must be later than the start date and time for the agreement (this is the date and time displayed by default for the <b>Recalculate from</b> parameter).</li> <li>▶ The selected date and time should be earlier than the <b>Last Calculation</b> date and time (which you can view from the tooltip for the <b>Schedule recalculation task</b> button in the Agreements Manager page).</li> <li>▶ The selected date and time cannot be more than the default recalculation period (3 months). For information on changing the default, see “Data Purging” on page 19.</li> </ul>
<b>Schedule the task to start</b>	<p>Click the date and time link to open the calendar, where you define when the recalculation task should start.</p> <ul style="list-style-type: none"> <li>▶ If you select a date and time that has already passed, the recalculation tasks starts immediately.</li> <li>▶ If the recalculation date and time are in the future, the scheduling information is displayed in the State column on the Agreements Manager page.</li> </ul>

## Select Customer Dialog Box

<b>Description</b>	<p>Enables you to select the customer associated with the agreement from the Business Units view.</p> <p><b>To access:</b> Click the <b>Select customer</b> button in the Create Agreement Wizard.</p>
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ You can add customers to the Business Units view in <b>Admin &gt; Universal CMDB &gt; Modeling &gt; IT Universe Manager</b>, by defining a new CI of type Business Unit to represent each provider.</li> <li>▶ The Select Customer dialog box provides View Explorer search functionality, enabling you to search for CIs within the Business Units view.</li> </ul>
<b>Useful Links</b>	<p>“Business Units for Services and Agreements” on page 30</p> <p>“View Explorer User Interface” in <i>Reference Information</i></p>



## Select Provider Dialog Box

<b>Description</b>	<p>Enables you to select the service provider associated with the agreement or business service from the Business Units view.</p> <p><b>To access:</b> Click the <b>Select provider</b> button in the Create Agreement Wizard or the Create Business Service Wizard.</p>
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ You can add service providers to the Business Units view in <b>Admin &gt; Universal CMDB &gt; Modeling &gt; IT Universe Manager</b>, by defining a new CI of type Business Unit to represent each provider.</li> <li>▶ The Select Provider dialog box provides View Explorer search functionality, enabling you to search for CIs within the Business Units view.</li> </ul>
<b>Useful Links</b>	<p>“Business Units for Services and Agreements” on page 30</p> <p>“View Explorer User Interface” in <i>Reference Information</i></p>

## Service Topology Preview Dialog Box

<b>Description</b>	<p>Provides a preview of the CI topology for a business service.</p> <p><b>To access:</b> Click the <b>Preview Service Topology</b> button in the Add Service Related CIs Page of the Business Service Wizard.</p>
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ The topology for each CI included in the tree is automatically updated when a change is made in the CMDB, for example, when a new child CI is added.</li> <li>▶ Each branch in the tree for the business service should contain at least one monitoring CI (a CI that is receiving monitoring data from the samples on the Bus). If a branch does not contain a monitoring CI, then the contents of the branch are hidden in the Service Topology Preview dialog box, and none of the CIs in the branch are attached to the created business service.</li> </ul> <p>If a monitoring CI is later added to the branch in the CMDB, then the entire branch is automatically reactivated in the business service tree.</p>
<b>Included in Tasks</b>	<p>“Define Business Services for Agreements” on page 64</p>
<b>Useful Links</b>	<p>“Changes to the Business Service Topology” on page 62</p> <p>“The Role of Monitor CIs in a View” in <i>IT World Model Management</i></p>

## Services Manager Page

<b>Description</b>	<p>Enables you to manage the business services and offering levels used with agreements.</p> <p><b>To access:</b> Click <b>Admin &gt; Service Level Management &gt; Services Manager</b></p>
<b>Important Information</b>	<p>Each business service can be linked to a service provider. For details, see “Business Units for Services and Agreements” on page 30.</p>
<b>Included in Tasks</b>	<p>“Define Business Services for Agreements” on page 64</p> <p>“Create and Apply Offering Levels for Service-Based Agreements” on page 82</p>
<b>Useful Links</b>	<p>“About Business Services” on page 61</p> <p>“Offering Levels and KPI Assignment” on page 71</p> <p>“View Explorer User Interface” in <i>Reference Information</i></p>





The Services Manager page includes the following elements (listed alphabetically):

GUI Element	Description
<p><b>Left Pane: View Explorer</b></p>	<p>In View Explorer for Services Manager, you can display one of the following views:</p> <ul style="list-style-type: none"> <li>▶ <b>Services Manager view.</b> Contains the global offering levels and the Business Service CIs.</li> <li>▶ <b>Service Measurements view.</b> Contains the Business Service CIs and the service-related CIs that are part of the topology for each Business Service CI.</li> </ul> <p><b>Context Menu:</b> Right-click a CI to view menu options. For details on the context menu items see “CI Context Menu” on page 223.</p>
<p><b>Right Pane: Services Manager</b></p>	<p>The right pane content changes according to the current selection in the view tree displayed in View Explorer:</p> <ul style="list-style-type: none"> <li>▶ When the view name or a service-related CI is selected, then the right pane displays introductory information about Services Manager.</li> <li>▶ When a Business Service CI is selected, the right pane displays the name, description, and provider for the service, and lists the offering levels attached to that service. You can define new offering levels for the service, or attach global offering levels. For more information on the offering levels user interface, see “Offering Levels/Global Offering Levels” on page 221</li> <li>▶ When Global Offering Levels is selected (in the Services Manager view), the right pane lists the defined global offering levels. You can define new global offering levels. For more information on the offering levels user interface, see “Offering Levels/Global Offering Levels” on page 221.</li> </ul>

## Offering Levels/Global Offering Levels

<b>Description</b>	<p>The Global Offering Levels area, and the Offering Levels area for a specific business service, both contain similar functionality, as described in this section:</p> <ul style="list-style-type: none"> <li>▶ The Global Offering Levels table lists the offering levels that are available to attach to any business service.</li> <li>▶ The Offering Levels table for a specific business service lists the attached offering levels.</li> </ul>
<b>Important Information</b>	<p>Service Level Management provides a <b>Default</b> offering level, listed in the Global Offering Levels table. The Default offering level cannot be attached to a business service, and is automatically used in agreements for any business service without an offering level. The Default offering level can be edited, but not deleted.</p>
<b>Useful Links</b>	<p>“Offering Levels and KPI Assignment” on page 71</p>

The Offering Levels area/Global Offering Levels area includes the following elements (listed alphabetically):

<b>GUI Element</b>	<b>Description</b>
	<p>Opens the Offering Level Definition dialog box, where you can edit the offering level details.</p>
	<p>Opens the Offering Level Definition dialog box for a global offering level in read-only format. You can only edit details for a global offering level from the Global Offering Levels table.</p>
	<p>Click the <b>Copy</b> button to copy the offering level (or all selected offering levels, if you use the <b>Copy</b> button below the offering levels table) to the clipboard. You can then attach the offering levels to another business service, by using the <b>Paste</b> button.</p>
	<p>Clones the offering level. The copy of the offering level is added to the table with the name “Copy of &lt;name&gt;”. You can then edit the copy as required and rename it.</p>

GUI Element	Description
<b>Attach Global</b>	(Displayed only for business services.) Click the <b>Attach Global</b> button to open the Add Global Offering Levels dialog box, where you can select global offering levels to assign to the business service. (Only global offering levels that have not yet been assigned to the service are listed.)
<b>Description</b>	The description defined for the offering level. Hold the cursor over the description to view the complete text in a tooltip.
<b>Name</b>	The offering level name.
<b>New</b>	Click to open the Offering Level Definition dialog box, where you define a new offering level.
<b>Paste</b>	Click the <b>Paste</b> button to add the offering levels on the clipboard to the offering levels table. Offering levels can be copied from another business service or from the global offering levels.
<b>Type</b>	(Displayed only for business services.) Displays <b>Global</b> if the offering level is one of the Global Offering Levels.

## CI Context Menu

A context menu is displayed when you right-click an item in the View Explorer pane. The options included in each context menu vary, depending on the selected item.

Each menu includes one or more of the following options (listed alphabetically):

GUI Element	Description
<b>Create new Business Service</b>	Opens the Business Service Wizard, where you create a new Business Service CI. <b>Note:</b> You can add a new Business Service CI as a child of an existing Business Service CI; the new CI is included in the service-related CIs that form the foundation of the original service.
<b>Create new SLA from Business Service</b>	Opens the Agreement Wizard in service-based mode, where you can create a new agreement that includes the selected Business Service CI.
<b>Delete Business Service</b>	Deletes the Business Service CI. <b>Note:</b> This also deletes the Business Service CI from any agreement in which it is included.
<b>Edit Business Service</b>	Opens the Business Service Wizard in edit mode, where you can modify the CI details.
<b>Properties</b>	Displays the General Properties window for the CI.
<b>Show Related CIs</b>	Displays related CIs in the View Explorer search pane.

## SLA Fine Tuning Dialog Box

<b>Description</b>	Enables you to fine tune the service topology included in the agreement. <b>To access:</b> Click the <b>SLA Fine Tuning</b> link in the Select Services page of the Create Agreement Wizard.
<b>Important Information</b>	At least one leaf (monitoring) CI must be selected for each business service branch.
<b>Included in Tasks</b>	“Define Business Services for Agreements” on page 64
<b>Useful Links</b>	“Changes to the Business Service Topology” on page 62

The SLA Fine Tuning dialog box includes the following element:

<b>GUI Element</b>	<b>Description</b>
<Service topology tree>	<p>Displays the service topology for each selected business service. Each CI with a selected check box is included in the agreement.</p> <p>You can select or clear the check box for each CI to include it in, or remove it from, the current agreement. When you clear the check box for a CI, all its subtree is removed (even if it has selected children).</p> <p>For example, if a new monitor CI is added to a service, the new CI is not automatically included in an agreement containing the service—you must open the agreement for editing and select the check box for the new CI in the SLA Fine Tuning dialog box, to include the CI in the agreement.</p>



## Targets Dialog Box

<b>Description</b>	<p>Enables you to select the target (objective) categories associated with the agreement. Only the selected targets are available for defining KPI objectives, for the KPIs within this agreement.</p> <p><b>To access:</b> Click the <b>Targets</b> link in the Define Agreement Properties page of the Agreement Wizard.</p>
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ The <b>Exceeded</b> and <b>Failed</b> targets are always selected by default.</li> <li>▶ You can change the default names used for the targets. For details, see “Customizing Target Names” on page 60.</li> </ul>
<b>Included in Tasks</b>	“Define a Service Agreement” on page 46
<b>Useful Links</b>	“KPI Objectives” in <i>Using Dashboard</i>

## Tracking Periods Dialog Box

<b>Description</b>	<p>Enables you to select the tracking periods that are used to track agreement status and compile data. The tracking periods define the granularity for calculation in Service Level Management reports. For example, data can be compiled per hour or per week.</p> <p><b>To access:</b> Click the <b>Tracking periods</b> link in the Define Agreement Properties page of the Agreement Wizard.</p>
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ Select <b>SLA period</b> to enable users to view reports that include data from the start date of the agreement till the present.</li> <li>▶ You must select at least one tracking period (not including <b>SLA period</b>).</li> </ul>
<b>Included in Tasks</b>	<p>“Define a Service Agreement” on page 46</p>
<b>Useful Links</b>	<p>“Tracking Range and Granularity in Service Level Management” on page 141</p>

# 11

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## Service Level Management Application User Interface

This chapter describes the pages and dialog boxes that are part of the Service Level Management Application user interface, listed alphabetically.

<b>This chapter describes:</b>	<b>On page:</b>
Advanced Options Dialog Box	228
CI Impact Report	231
CI Over Time vs. Target Report	234
CI Status Report	237
CI Summary Report	240
CIs Dialog Box	243
CIs Over Time Report	246
Outage Breakdown Report	249
Outage Distribution Report	252
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Time Range Comparison Report	260
SLA Management Page	264
SLA Status Report	267
SLAs Dialog Box	272
SLAs Summary Report	273
Status Snapshot Report	276

## Advanced Options Dialog Box

<b>Description</b>	<p>Enables you to add descriptions and additional values to the report, or customize display aspects of the report.</p> <p><b>To access:</b> Click <b>Advanced Options</b> in a Service Level Management report.</p>
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ Not all options are available for all reports.</li> <li>▶ Each option of type <b>&lt;xxx&gt; Description</b> displays the relevant information in a separate area below the report data.</li> <li>▶ After selecting an option in the Advanced Options dialog box and generating a report, that option remains selected for all Service Level Management reports where it applies, until you clear the selection in a report and regenerate.</li> </ul>
<b>Included in Tasks</b>	“View SLA and Outage Reports” on page 150

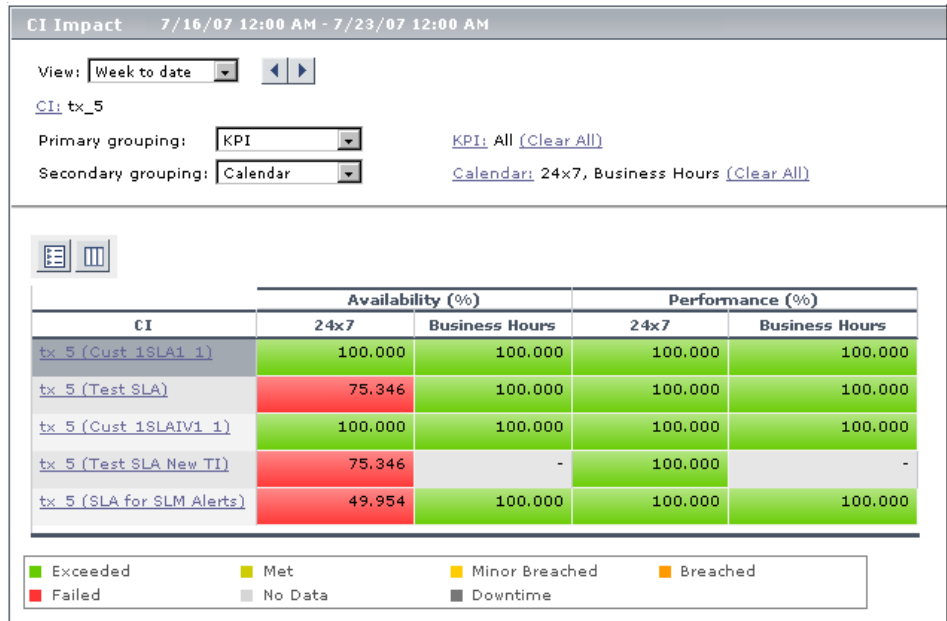
The Advanced Options dialog box includes the following elements (listed alphabetically):

<b>GUI Element</b>	<b>Description</b>
<b>Calendar Description</b>	Displays a description and details for the calendars selected for the report, as defined during calendar creation.
<b>CI Description</b>	Includes the name and description of all CIs that are included in the report.

GUI Element	Description
<b>Downtime Event Description</b>	<p>Displays details of all events that meet the following criteria:</p> <ul style="list-style-type: none"> <li>▶ the event falls within the report's time period</li> <li>▶ the event action affects a CI that is included in the report</li> </ul> <p>The <b>Impact</b> column displays the name of the CI that is affected by the downtime event.</p> <p>The <b>Excluded from Reports</b> column takes its information from the <b>Exclude data reported during event</b> check box in the Downtime/Event Schedule window. For details, see "Downtime Event Schedule Dialog Box" on page 202.</p>
<b>Hierarchy Depth</b>	<p>Select a value between 0 and 3 to define the number of CI levels that are displayed in the report under the selected CI.</p> <p><b>Default value:</b> 3</p>
<b>Number of digits after decimal point</b>	<p>Select a value between 0 and 3 to define the number of digits after the decimal point that is displayed for numerical values in the report.</p> <p><b>Default value:</b> 3</p>
<b>Show Additional Values</b>	<p>Includes additional values in the report, as relevant for the KPIs. For details, see "Additional Values in Reports" on page 144.</p> <p>The additional values are displayed in the tooltip for a cell. In addition, in the CI Status report, the data is displayed in columns in the report. You can select the column format:</p> <p><b>Expanded columns.</b> (Default value) Displays each additional value in a separate column.</p> <p><b>Grouped column.</b> Displays the additional values grouped in a single column.</p>
<b>Show objective details as columns</b>	<p>(Only for Time Range Comparison report) Adds a column displaying objectives for the selected KPI per CI to a Time Range Comparison report.</p>

GUI Element	Description
<b>Show SLA details as columns</b>	(Only for SLAs Summary report) Adds columns displaying agreement type, customer, and provider for each agreement to the SLAs Summary report (instead of displaying this information in a tooltip for the agreement name).
<b>SLA Description</b>	Displays various information on the agreement, according to the properties defined on the Define Agreement Properties Page during agreement creation. The SLA Description is displayed for all agreements included in the report.

## CI Impact Report



<b>Description</b>	Displays KPI results for a selected CI across all the agreements in which it is included. <b>To access:</b> Applications > Service Level Management > SLA Reports > CI Impact
<b>Important Information</b>	You would use this report when you want to compare the KPI results for a CI across several agreements.
<b>Included in Tasks</b>	“View SLA and Outage Reports” on page 150
<b>Useful Links</b>	For an example of working with a CI Impact report, see “Comparing Services in the CI Impact Report” on page 157.

## Report Settings

GUI Element	Description
<Common report settings>	See “Understanding Common Report Elements” in <i>Reference Information</i> . Also see “Tracking Range and Granularity in Service Level Management” on page 141.
Advanced Options	Enables you to include descriptions and additional values in the report, and customize some display aspects. For details, see “Advanced Options Dialog Box” on page 228.
Calendar	Displays the names of the calendars selected for inclusion in the report. To change the selection, click the <b>Calendar</b> link to open the Calendar dialog box. The dialog box lists all calendars attached to the selected CI (in all agreements). <b>Note:</b> You can include all relevant calendars by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b> .
CI	Displays the name of the CI selected for inclusion in the report. To change the selection, click the <b>CI</b> link. For details, see “CIs Dialog Box” on page 243.
KPI	Displays the names of the KPIs selected for inclusion in the report. To change the selection, click the <b>KPI</b> link to open the KPI dialog box. The dialog box lists all KPIs that are attached to the selected CI in all agreements. <b>Note:</b> You can include all relevant KPIs by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b> .
Primary Grouping/ Secondary Grouping	Select the first and second level column headers to be used for presenting data in the report. For details, see “Primary Grouping/Secondary Grouping” on page 132.

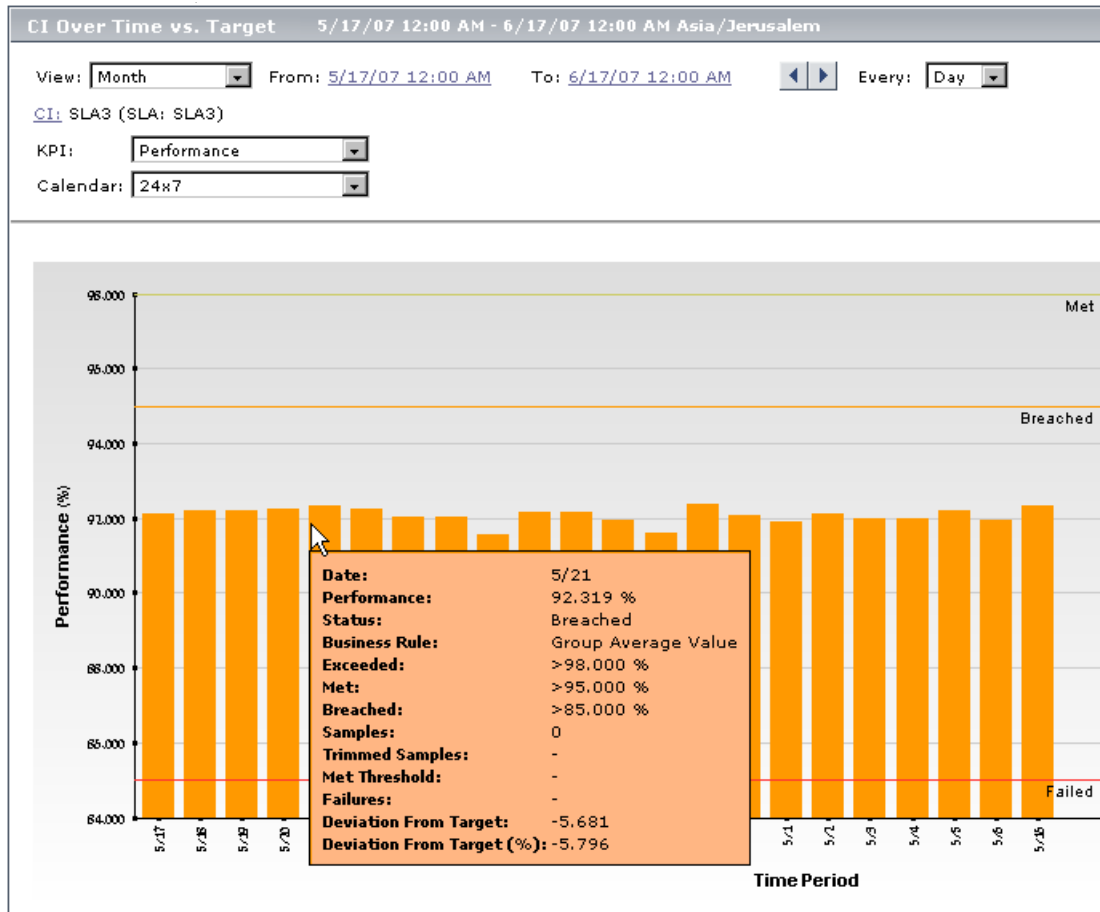


## Report Content

The CI Impact report includes the following elements (listed alphabetically):

GUI Element	Description
<Table cell>	<p>Displays the numerical result for the KPI. The background color shows the status for the KPI (based on the target objectives).</p> <p><b>Tooltip:</b> Hold the pointer over a cell to view information about the KPI. For details, see “Tooltip for KPIs in Reports” on page 134.</p>
CI	<p>Lists each instance of the CI in all agreements. The name of the agreement appears in brackets after the name of the CI.</p> <p>Click on a CI name to drill down to the CI Summary report, which displays the branch for the CI. Use the breadcrumbs at the top of the page to return to the CI Impact report.</p> <p><b>Tooltip:</b> Hold the pointer over the name of a CI to view the full name in a tooltip.</p>

## CI Over Time vs. Target Report



<p><b>Description</b></p>	<p>Displays KPI results over a time period for a selected CI, against the target objective for each time period.</p> <p><b>To access:</b> Applications &gt; Service Level Management &gt; SLA Reports &gt; CI Over Time vs Target</p>
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<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ You would use this report when you want to see how well a CI has performed compared to its objectives.</li> <li>▶ Results can be displayed in graph or table format.</li> </ul>
<b>Included in Tasks</b>	“View SLA and Outage Reports” on page 150

## Report Settings



GUI Element	Description
<Common report settings>	See “Understanding Common Report Elements” in <i>Reference Information</i> . Also see “Tracking Range and Granularity in Service Level Management” on page 141.
<b>Advanced Options</b>	Enables you to include descriptions and additional values in the report, and customize some display aspects. For details, see “Advanced Options Dialog Box” on page 228.
<b>Calendar</b>	Select a calendar. The lists includes the calendars relevant for the selected CI.
<b>CI</b>	Displays the name of the CI selected for inclusion in the report. To change the selection, click the <b>CI</b> link. For details, see “CIs Dialog Box” on page 243.
<b>KPI</b>	Select a KPI. The lists includes the KPIs relevant for the selected CI.

## Report Content

The CI Over Time vs Target report includes the following elements (listed alphabetically):

GUI Element	Description
<b>Objectives</b>	The objective targets for the KPI in each time period are displayed in a column in the table, and superimposed on the graph.
<Table cell/graph bar>	<p>Displays the numerical result and status for the KPI during that time period (based on the target objectives).</p> <p><b>Tooltip:</b> Hold the pointer over a cell or bar to view information about the KPI. For details, see “Tooltip for KPIs in Reports” on page 134.</p>
<b>Time Period</b>	<p>Lists the time periods included in the report, according to the selected granularity.</p> <p><b>Tooltip:</b> In table format, hold the pointer over a time period to view the exact time and date that the time period started.</p>

# CI Status Report

CI Status 7/1/07 12:00 AM - 8/1/07 12:00 AM Asia/Jerusalem							
View: <input type="button" value="Month"/> From: <a href="#">7/1/07 12:00 AM</a> To: <a href="#">8/1/07 12:00 AM</a> <input type="button" value="◀"/> <input type="button" value="▶"/>							
CI: <a href="#">SLA3 (SLA: SLA3)</a>							
KPI: <input type="button" value="Availability"/>							
Calendar: <input type="button" value="24x7"/>							
 							
CI	Availability (%)	Objectives	Samples	Successes	Failures	Deviation From Target	
SLA3	73.831	Exceeded: > 98.0 % Met: > 95.0 % Breached: > 85.0 %	17,718	-	-	-24.169	
└ Exchange	96.493	Exceeded: > 98.0 % Met: > 95.0 % Breached: > 85.0 %	2,726	-	-	-1.507	
└└ dogbert	-	Exceeded: > 98.0 % Met: > 95.0 % Breached: > 85.0 %	0	-	-	-	
└└└ dogbert	-	Exceeded: > 98.0 % Met: > 95.0 % Breached: > 85.0 %	0	-	-	-	
└└└ GreenYellow Stri	89.480	Exceeded: > 98.0 % Met: > 95.0 % Breached: > 85.0 %	0	-	-	-8.52	
└└└└ GreenYellow :	89.480	Exceeded: > 98.0 % Met: > 95.0 % Breached: > 85.0 %	0	-	-	-8.52	
└└└└ MellowYellow	100.000	Exceeded: > 98.0 % Met: > 95.0 % Breached: > 85.0 %	1,363	-	-	2	
<span style="color: green;">■</span> Exceeded <span style="color: yellow;">■</span> Met <span style="color: orange;">■</span> Breached <span style="color: red;">■</span> Failed <span style="color: gray;">■</span> No Data							

<b>Description</b>	Displays KPI results, objectives, and sample information, for a CI and its descendants.  <b>To access:</b> Applications > Service Level Management > SLA Reports > CI Status
--------------------	--

<b>Important Information</b>	You would use this report when you want to view configuration information, such as objectives, for each CI.
<b>Included in Tasks</b>	“View SLA and Outage Reports” on page 150

## Report Settings

GUI Element	Description
<Common report settings>	See “Understanding Common Report Elements” in <i>Reference Information</i> . Also see “Tracking Range and Granularity in Service Level Management” on page 141.
<b>Advanced Options</b>	Enables you to include descriptions and additional values in the report, and customize some display aspects. You can include additional values in columns in the report. For details, see “Advanced Options Dialog Box” on page 228.
<b>Calendar</b>	Select a calendar. The lists includes the calendars relevant for the selected CI.
<b>CI</b>	Displays the name of the CI selected for the report, and the name of the agreement that contains the CI. The report includes all CIs in the branch under the selected CI.  You can also select the CI representing the whole agreement, to include all CIs in the agreement in the report.  To change the selection, click the <b>CI</b> link. For details, see “CIs Dialog Box” on page 243.
<b>KPI</b>	Select a KPI. The lists includes the KPIs relevant for the selected CI.

## Report Content

The CI Status report includes the following elements (listed alphabetically):

GUI Element	Description
<Additional values columns>	<p>If the report is set to show additional values (set in the Advanced Options dialog box), the values are displayed either in a single grouped column or in multiple columns, according to your selection.</p> <p>For details, see “Additional Values in Reports” on page 144.</p>
<KPI cell>	<p>Displays the numerical result for the KPI. The background color shows the status for the KPI (based on the target objectives).</p> <p><b>Tooltip:</b> Hold the pointer over a cell to view information about the KPI. For details, see “Tooltip for KPIs in Reports” on page 134.</p>
CI	<p>Displays the CIs included in the selected branch of the agreement (up to four levels). Click on a CI name to drill down to the branch under that CI. (You can return to the previous level using the breadcrumbs at the top of the page.)</p> <p><b>Tooltip:</b> Hold the pointer over a CI name to view the full name in a tooltip.</p>
Objectives	<p>Displays the objectives defined for the KPI, for the selected calendar.</p>

## CI Summary Report

CI Summary 7/30/07 12:00 AM - 8/3/07 12:00 AM America/Los_Angeles					
View: <input type="text" value="Week to date"/> <input type="button" value="◀"/> <input type="button" value="▶"/>					
CI: <a href="#">IT-eBusiness SLA 2 (SLA: IT-eBusiness SLA 2)</a>					
Primary grouping: <input type="text" value="KPI"/>		<a href="#">KPI: All (Clear All)</a>			
Secondary grouping: <input type="text" value="Calendar"/>		<a href="#">Calendar: All (Clear All)</a>			
<input type="button" value="☰"/> <input type="button" value="☷"/>					
CI	Availability (%)			Performance (%)	
	24x7	Acme business week	Business Hours	24x7	Acme business week
IT-eBusiness SLA 2	60.000	66.667	66.667	33.333	33.333
└─ FTP Server	60.000	66.667	66.667	33.333	33.333
└─ Cust 1 BPM 1	60.000	66.667	66.667	33.333	33.333
└─ tx 10	100.000	-	-	0.000	0.000
└─ tx 15	100.000	100.000	100.000	0.000	0.000
└─ tx 1 failed	0.000	-	-	-	-
└─ tx 2 failed	0.000	0.000	0.000	-	-
└─ tx 5	100.000	100.000	100.000	100.000	100.000

<b>Description</b>	Displays KPI results for configuration items (CIs) in a specific agreement. <b>To access:</b> Applications > Service Level Management > SLA Reports > CI Summary
<b>Important Information</b>	You would use this report when you want to find the CIs that failed to reach their objectives.
<b>Included in Tasks</b>	“View SLA and Outage Reports” on page 150
<b>Useful Links</b>	For a use-case example of the CI Summary report, see “Preventing Breaches of Contract with the CI Summary Report” on page 156.



## Report Settings

GUI Element	Description
<Common report settings>	<p>See “Understanding Common Report Elements” in <i>Reference Information</i>.</p> <p>Also see “Tracking Range and Granularity in Service Level Management” on page 141.</p>
<b>Advanced Options</b>	<p>Enables you to include descriptions and additional values in the report, and customize some display aspects. For details, see “Advanced Options Dialog Box” on page 228.</p>
<b>Calendar</b>	<p>Displays the names of the calendars selected for inclusion in the report. To change the selection, click the <b>Calendar</b> link to open the Calendar dialog box. The dialog box lists the calendars attached to the selected agreement.</p> <p><b>Note:</b> You can include all relevant calendars by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b>.</p>
<b>CI</b>	<p>Displays the name of the CI selected for the report, and the name of the agreement that contains the CI. The report includes all CIs in the branch under the selected CI.</p> <p>You can also select the CI representing the whole agreement, to include all CIs in the agreement in the report.</p> <p>To change the selection, click the <b>CI</b> link. For details, see “CIs Dialog Box” on page 243.</p>

GUI Element	Description
<b>KPI</b>	<p>Displays the names of the KPIs selected for inclusion in the report. To change the selection, click the <b>KPI</b> link to open the KPI dialog box. The dialog box lists the KPIs that are relevant for the CIs in the selected branch.</p> <p><b>Note:</b> You can include all relevant KPIs by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b>.</p>
<b>Primary Grouping/ Secondary Grouping</b>	<p>Select the first and second level column headers to be used for presenting data in the report. For details, see “Primary Grouping/Secondary Grouping” on page 132.</p>

### Report Content



The CI Summary report includes the following elements (listed alphabetically):

GUI Element	Description
<b>&lt;Table cell&gt;</b>	<p>Displays the numerical result for the KPI. The background color shows the status for the KPI (based on the target objectives).</p> <p><b>Tooltip:</b> Hold the pointer over a cell to view information about the KPI. For details, see “Tooltip for KPIs in Reports” on page 134.</p>
<b>CI</b>	<p>Displays the CIs included in the selected branch of the agreement (up to four levels). Click on a CI name to drill down to the branch under that CI. (You can return to the previous level using the breadcrumbs at the top of the page.)</p> <p><b>Tooltip:</b> Hold the pointer over a CI name to view the full name in a tooltip.</p>

## CI's Dialog Box

<b>Description</b>	<p>Enables you to select the CI or CIs to be included in a Service Level Management report, for the duration of a Web session. The report provides information based on the selected CIs.</p> <p><b>To access:</b> In a Service Level Management report, click <b>CI</b> or <b>CIs</b> in the reports settings area.</p>
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ The elements included in the dialog box vary, depending on the current report.</li> <li>▶ For some reports (for example, CI Impact), you can select from the Business Services CIs in the Business Services view.</li> </ul>
<b>Useful Links</b>	<p>“View Explorer” in <i>Reference Information</i></p>

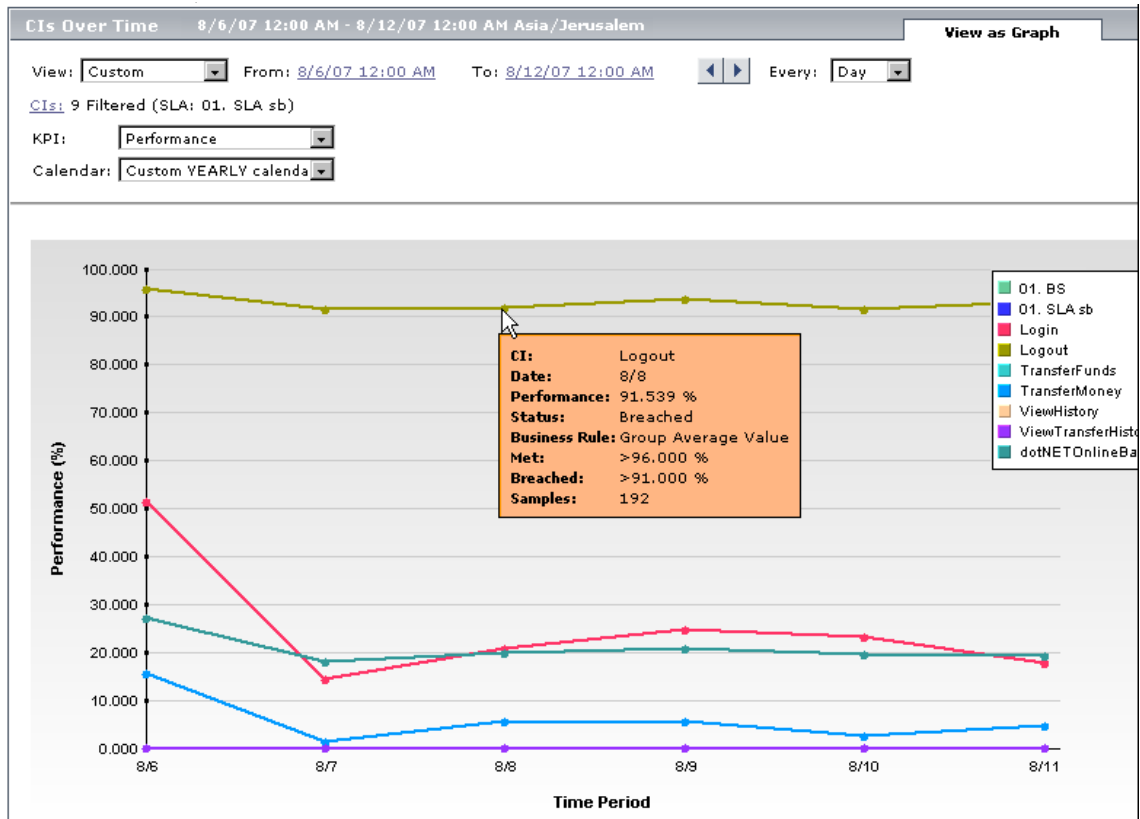
The CIs dialog box includes the following elements (listed alphabetically):

GUI Element	Description
	<p>(Displayed when you can select multiple CIs) Click the required button to select all CIs, clear all CIs, or invert the current selection.</p>
	<p>Click to display context menu options for the currently selected CI.</p>

GUI Element	Description
<CI topology tree>	<p>Displays the CIs in the selected agreement (or the Business Service CIs in the Business Services view, if you selected <b>SLA Management</b> for the <b>Select From</b> option (see below).</p> <p>Select the required CI, or, for reports that have multiple CI selection, select the check boxes for the required CIs.</p> <p><b>Context menu:</b> One or more of the following menu options may be displayed for a CI:</p> <ul style="list-style-type: none"> <li>▶ <b>Properties.</b> Opens a dialog box displaying properties for the selected CI.</li> <li>▶ <b>Show Related CIs.</b> Moves to Search mode and displays a list of the CIs that have a relationship to the selected CI.</li> </ul> <p><b>Note:</b> For some reports, when you select a CI, the entire branch under the CI is displayed in the report.</p>
<b>Browse</b>	<p>The default mode for the CIs dialog box, enabling you to select an agreement and CIs.</p>
<b>Search</b>	<p>Click <b>Search</b> to move to Search mode, where you can search for CIs in all agreements. (Search in <b>Current SLA</b> is enabled only after you have changed the agreement selection.) For details on using the Search functionality, see “Using the Search Tool” in <i>Reference Information</i>.</p>

GUI Element	Description
<b>Select From</b>	<p>(Displayed for CI Impact report) Enables you to choose how you locate the required CI:</p> <ul style="list-style-type: none"> <li>▶ <b>SLAs.</b> Select this option to select a CI from an agreement.</li> <li>▶ <b>SLA Management.</b> Select this option to select a Business Service CI from the Business Services view (only relevant for Business Service CIs that are included in an agreement).</li> </ul>
<b>SLA</b>	<p>Select the agreement containing the required CIs from the dropdown list (start typing in the agreement name to filter the list), or click the ellipsis button to open the Select SLA dialog box, where you can select an agreement from the full list of agreements.</p> <p><b>Note:</b> If you select another agreement before clicking <b>OK</b>, all previous CI selections are discarded. Only the CIs selected in the currently displayed agreement are saved for the report filter when you click <b>OK</b>.</p>

## CIs Over Time Report



<b>Description</b>	Displays KPI results over a time period for selected CIs. <b>To access:</b> Applications > Service Level Management > SLA Reports > CIs Over Time
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ You would use this report when you want to compare the behavior of CIs over time</li> <li>▶ Results can be displayed in graph or table format.</li> </ul>
<b>Included in Tasks</b>	“View SLA and Outage Reports” on page 150

## Report Settings

GUI Element	Description
<Common report settings>	<p>See “Understanding Common Report Elements” in <i>Reference Information</i>.</p> <p>Also see “Tracking Range and Granularity in Service Level Management” on page 141.</p>
<b>Advanced Options</b>	<p>Enables you to include descriptions and additional values in the report, and customize some display aspects. For details, see “Advanced Options Dialog Box” on page 228.</p>
<b>Calendar</b>	<p>Select a calendar. The lists includes the calendars relevant for the selected CIs.</p>
<b>CIs</b>	<p>Displays the number of CIs selected for the report, and the name of the agreement that contains the CIs.</p> <p><b>Tooltip:</b> Hold the cursor over the CIs link to view the names of the selected CIs.</p> <p>To change the selection, click the <b>CIs</b> link. For details, see “CIs Dialog Box” on page 243.</p>
<b>KPI</b>	<p>Select a KPI. The lists includes the KPIs relevant for the selected CIs.</p>

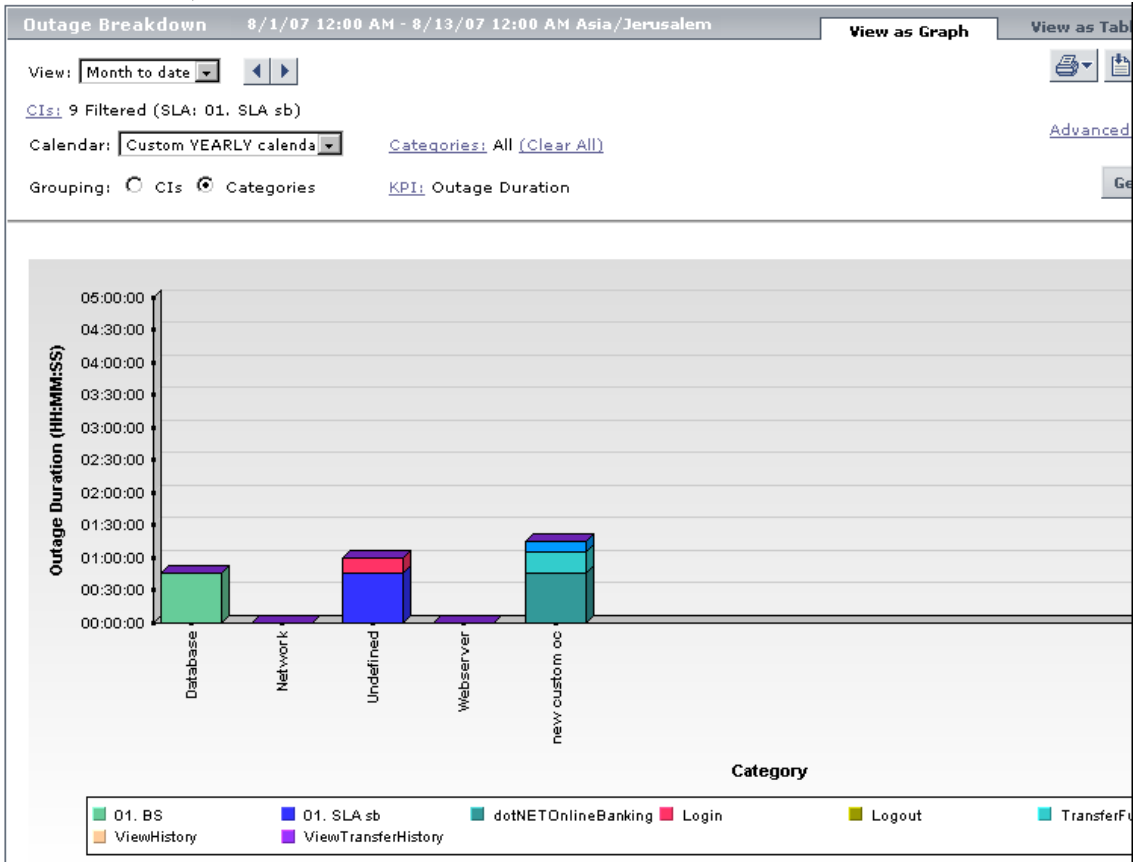
## Report Content

The CIs Over Time report includes the following elements (listed alphabetically):

GUI Element	Description
<Table cell/graph node>	<p>Displays the numerical result and status for the KPI during that time period (based on the target objectives).</p> <p><b>Tooltip:</b> Hold the pointer over a cell or node to view information about the KPI. For details, see “Tooltip for KPIs in Reports” on page 134.</p>
<b>Time Period</b>	<p>Lists the time periods included in the report, according to the selected granularity.</p> <p><b>Tooltip:</b> In table format, hold the pointer over a time period to view the exact time and date that the time period started.</p>



# Outage Breakdown Report



<p><b>Description</b></p>	<p>Displays a breakdown of outage categories by selected CIs, or a breakdown of CI outages by outage categories. You view data according to outage duration or number of outages, during a specific calendar.</p> <p><b>To access:</b> Applications &gt; Service Level Management &gt; Outage Reports &gt; Outage Breakdown</p>
<p><b>Important Information</b></p>	<p>► Results can be displayed in graph or table format.</p>

<b>Included in Tasks</b>	“View SLA and Outage Reports” on page 150
<b>Useful Links</b>	“Outages in Agreements” on page 35

## Report Settings

GUI Element	Description
<Common report settings>	See “Understanding Common Report Elements” in <i>Reference Information</i> . Also see “Tracking Range and Granularity in Service Level Management” on page 141.
<b>Advanced Options</b>	Enables you to include descriptions and additional values in the report, and customize some display aspects. For details, see “Advanced Options Dialog Box” on page 228.
<b>Calendar</b>	Select a calendar. The list includes only those calendars that have been assigned to the agreement.
<b>Categories</b>	Displays the names of the outage categories selected for inclusion in the report. To change the selection, click the <b>Categories</b> link to open the Categories dialog box. The dialog box lists the available predefined outage categories— <b>Database</b> , <b>Network</b> , <b>Webserver</b> , and <b>Undefined</b> —and any user-defined categories. <b>Note:</b> You can include all relevant outage categories by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b> . <b>Default:</b> All
<b>CIs</b>	Displays the number of CIs selected for the report, and the name of the agreement that contains the CIs. <b>Tooltip:</b> Hold the cursor over the CIs link to view the names of the selected CIs. To change the selection, click the <b>CIs</b> link. For details, see “CIs Dialog Box” on page 243.

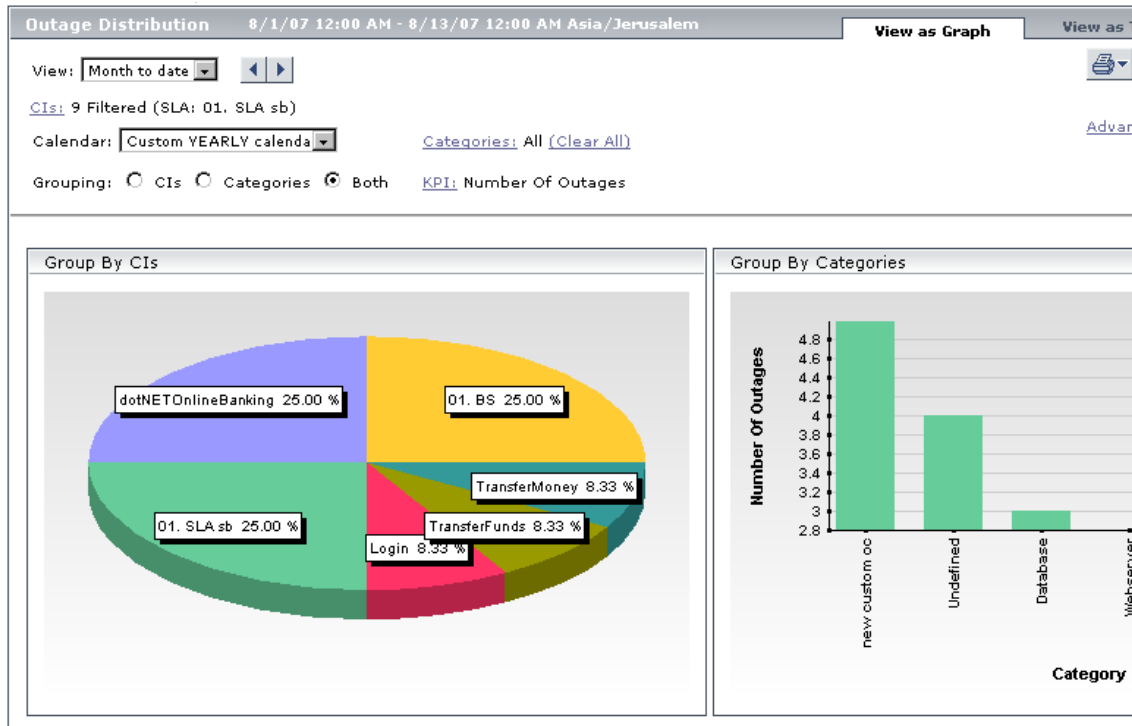
GUI Element	Description
<b>Grouping</b>	<p>Select a radio button according to how you want the data organized in the report:</p> <ul style="list-style-type: none"> <li>▶ <b>CIs.</b> Displays outage data and outage categories per included CI.</li> <li>▶ <b>Categories.</b> Displays outage data for CIs per included outage category.</li> </ul>
<b>KPI</b>	<p>Displays the name of the outage KPI used for outage calculations in the report, either <b>Number of Outages</b> or <b>Outage Duration</b>. To change the selection, click the <b>KPI</b> link to open the KPI dialog box.</p>

## Report Content

The Outage Breakdown report includes the following element:

GUI Element	Description
<Table cell/Graph bar>	<p>Displays the number of outages or duration of outages for each CI or outage category during the selected time period.</p> <p>The bars on the graph tab are color-coded by either CI or category, according to your <b>Grouping</b> selection.</p> <p>Click on a bar section or table cell to drill down to the Outage Summary Report, which displays information on the outage for the relevant CI and category, during the same time period. Use the breadcrumbs at the top of the page to return to the Outage Breakdown report.</p> <p><b>Tooltip:</b> Hold the pointer over a cell or bar to view the CI and category name, and KPI results.</p>

## Outage Distribution Report



<b>Description</b>	Displays outage distribution by CIs or outage categories. <b>To access:</b> Applications > Service Level Management > Outage Reports > Outage Distribution
<b>Important Information</b>	<ul style="list-style-type: none"> <li>▶ Use the Outage Distribution report to see which CI or category has the most outages, or has outages with the longest duration.</li> <li>▶ Results can be displayed in graph or table format.</li> </ul>
<b>Included in Tasks</b>	“View SLA and Outage Reports” on page 150
<b>Useful Links</b>	“Outages in Agreements” on page 35

## Report Settings

GUI Element	Description
<Common report settings>	<p>See “Understanding Common Report Elements” in <i>Reference Information</i>.</p> <p>Also see “Tracking Range and Granularity in Service Level Management” on page 141.</p>
<b>Advanced Options</b>	<p>Enables you to include descriptions and additional values in the report, and customize some display aspects. For details, see “Advanced Options Dialog Box” on page 228.</p>
<b>Calendar</b>	<p>Select a calendar. The list includes only those calendars that have been assigned to the agreement.</p>
<b>Categories</b>	<p>Displays the names of the outage categories selected for inclusion in the report. To change the selection, click the <b>Categories</b> link to open the Categories dialog box. The dialog box lists the available predefined outage categories—<b>Database</b>, <b>Network</b>, <b>Webserver</b>, and <b>Undefined</b>—and any user-defined categories.</p> <p><b>Note:</b> You can include all relevant outage categories by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b>.</p> <p><b>Default value:</b> All</p>
<b>CIs</b>	<p>Displays the number of CIs selected for the report, and the name of the agreement that contains the CIs.</p> <p><b>Tooltip:</b> Hold the cursor over the CIs link to view the names of the selected CIs.</p> <p>To change the selection, click the <b>CIs</b> link. For details, see “CIs Dialog Box” on page 243.</p>

GUI Element	Description
<p><b>Grouping</b></p>	<p>Select a radio button according to how you want the data organized in the report:</p> <ul style="list-style-type: none"> <li>▶ <b>CIs.</b> Displays outage distribution across the included CIs. In the graph tab, this information is shown in pie chart format.</li> <li>▶ <b>Categories.</b> Displays outage distribution per included outage category. In the graph tab, this information is shown in pie chart format.</li> <li>▶ <b>Both.</b> Displays both the CIs and the categories groupings on the page. In the graph tab, Group by CIs is in pie chart format, and Group by Categories is in bar chart format.</li> </ul>
<p><b>KPI</b></p>	<p>Displays the name of the outage KPI used for outage calculations in the report, either <b>Number of Outages</b> or <b>Outage Duration</b>. To change the selection, click the <b>KPI</b> link to open the KPI dialog box.</p>

## Report Content

The Outage Distribution report includes the following elements (listed alphabetically):

GUI Element	Description
<Bar chart>	<p>(Displayed on the <b>View as Graph</b> tab, when <b>Both</b> is selected as the <b>Grouping</b> option.)</p> <p>For each outage category, displays the total number of outages or total outage duration during the selected time period.</p> <p>Click on a bar to drill down to the Outage Summary Report, which displays outage information for all outages in the relevant outage category, during the same time period. Use the breadcrumbs at the top of the page to return to the Outage Breakdown report.</p> <p><b>Tooltip:</b> Hold the pointer over a bar to view the KPI results.</p>
<Pie chart>	<p>(Displayed on the <b>View as Graph</b> tab)</p> <p>Displays outage distribution (in percentage) for the included CIs (if you selected <b>CIs</b> or <b>Both</b> as the <b>Grouping</b> option) or for the included outage categories (if you selected <b>Categories</b> as the <b>Grouping</b> option).</p> <p>The percentages are based on the results for the selected KPI, so that each pie slice shows either the percentage of the total outages, or the percentage of the overall outage time (within the filters selected for the report).</p> <p>Click on a pie slice to drill down to the Outage Summary Report, which displays outage information from all outages for the relevant CI, or for all outages in the relevant outage category, during the same time period. Use the breadcrumbs at the top of the page to return to the Outage Breakdown report.</p> <p><b>Tooltip:</b> Hold the pointer over a pie slice to view the actual KPI results.</p>

GUI Element	Description
<p><b>Group by CIs/Group by Categories table</b></p>	<p>(Displayed on the <b>View as Table</b> tab.)</p> <p>Displays either the total number of outages or total outage duration, by CI or by outage category, for the selected time period.</p> <p>Click on a cell to drill down to the Outage Summary Report, which displays outage information from all outages for the relevant CI, or for all outages in the relevant outage category, during the same time period. Use the breadcrumbs at the top of the page to return to the Outage Breakdown report.</p> <p><b>Tooltip:</b> Hold the pointer over a cell to view the KPI results.</p>



## Outage Summary Report

Outage Summary 8/1/07 12:00 AM - 8/5/07 12:00 AM Asia/Jerusalem					
View: <input type="text" value="Month to date"/>					
CIs: 6 Filtered (SLA: Web Server SLA)					
Calendar: <input type="text" value="24x7"/> <a href="#">Categories: All (Clear All)</a>					
CI	Start Date	End Date	Duration (HH:MM:SS)	Description	Category
tx-25%-Availability	8/4/07 10:04 PM	8/4/07 10:19 PM	00:15:01	-	Undefined
tx-25%-Availability	8/4/07 10:19 PM	8/4/07 10:34 PM	00:14:56	-	Undefined
tx-25%-Availability	8/4/07 10:34 PM	8/4/07 10:49 PM	00:15:02	-	Undefined
tx-25%-Availability	8/4/07 10:49 PM	8/4/07 11:04 PM	00:15:14	-	Undefined
tx-25%-Availability	8/4/07 11:04 PM	8/4/07 11:19 PM	00:14:56	-	Network
tx-25%-Availability	8/4/07 11:19 PM	8/4/07 11:34 PM	00:15:02	-	Network
tx-25%-Availability	8/4/07 11:34 PM	8/4/07 11:49 PM	00:14:56	-	Network
tx-25%-Availability	8/4/07 11:49 PM	8/5/07 12:04 AM	00:14:53	-	Network
vugen1_tr7	8/1/07 4:07 AM	8/1/07 5:22 AM	01:15:08	-	Webserver
vugen1_tr7	8/3/07 4:19 AM	8/3/07 5:19 AM	01:00:10	-	Webserver
vugen1_tr7	8/4/07 4:19 AM	8/4/07 5:34 AM	01:15:13	-	Webserver


<b>Description</b>	Lists the outages for selected CIs. <b>To access:</b> Applications > Service Level Management > Outage Reports > Outage Summary
<b>Important Information</b>	Use this report to view outage information for a specific agreement, to see the reason for the breach of contract.  After generating a report, you can add a comment to each outage explaining the reason for the outage, and you can categorize the outages, so that you or your users can sort the report by category.
<b>Included in Tasks</b>	“View SLA and Outage Reports” on page 150
<b>Useful Links</b>	“Outages in Agreements” on page 35

## Report Settings

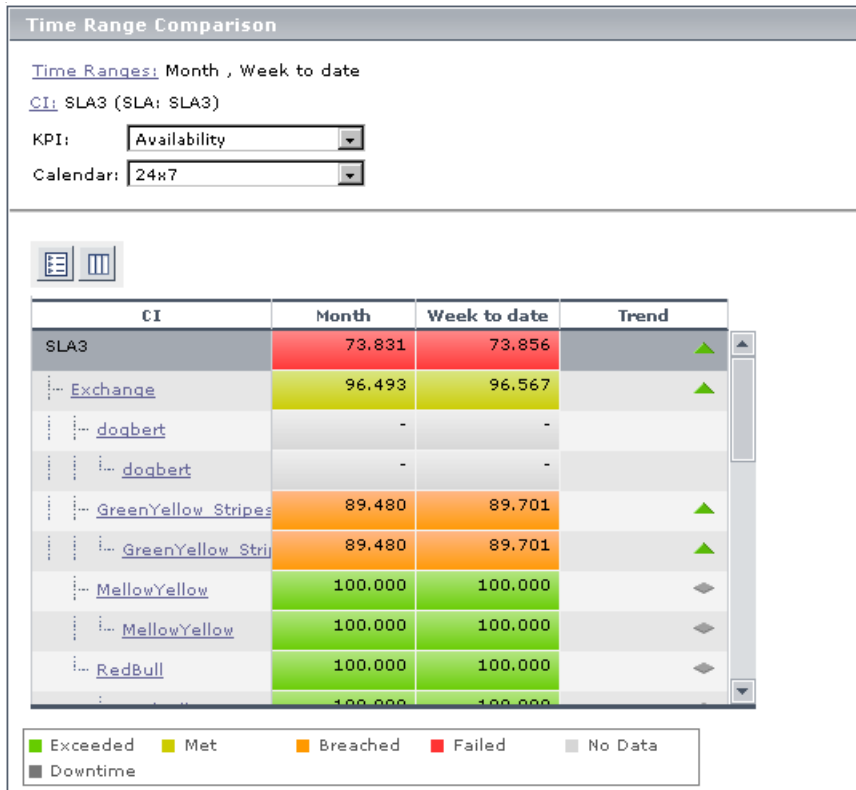
GUI Element	Description
<Common report settings>	<p>See “Understanding Common Report Elements” in <i>Reference Information</i>.</p> <p>Also see “Tracking Range and Granularity in Service Level Management” on page 141.</p>
<b>Advanced Options</b>	<p>Enables you to include descriptions and additional values in the report, and customize some display aspects. For details, see “Advanced Options Dialog Box” on page 228.</p>
<b>Calendar</b>	<p>Select a calendar. The lists includes the calendars relevant for the selected CIs.</p>
<b>Categories</b>	<p>Displays the names of the outage categories selected for inclusion in the report. To change the selection, click the <b>Categories</b> link to open the Categories dialog box listing all available outage categories.</p> <p><b>Note:</b> You can include all categories by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b>.</p>
<b>CIs</b>	<p>Displays the number of CIs selected for the report, and the name of the agreement that contains the CIs.</p> <p><b>Tooltip:</b> Hold the cursor over the CIs link to view the names of the selected CIs.</p> <p>To change the selection, click the <b>CIs</b> link. For details, see “CIs Dialog Box” on page 243.</p>

## Report Content

The Outage Summary report includes the following elements (listed alphabetically):

GUI Element	Description
	<p>(Displayed in the toolbar above the report, after a report is generated.)</p> <p>Select a row in the report, then click this button to open the Outage Details dialog box, where you can assign a category to the outage or enter a description for it. If you need additional outage categories, define them in the Outage Categories Page. For more information, see “Outage Categories” on page 36.</p> <p>It is recommended to categorize each outage to make outage reports more meaningful.</p> <p><b>Note:</b> The change takes effect the next time the report is generated.</p>
<b>Category</b>	The category allocated to the outage. You can categorize the outage in this report.
<b>CI</b>	The name of the CI.
<b>Description</b>	<p>The description of the outage. You can add a description to an outage in this report.</p> <p><b>Tooltip:</b> To view the description in full, if it is concatenated, hold the pointer over the Description field.</p>
<b>Duration</b>	The duration in hours, minutes, and seconds.
<b>End Date</b>	The end date and time of the outage.
<b>Start Date</b>	The start date and time of the outage.

## Time Range Comparison Report



<b>Description</b>	Displays KPI results for a CI branch across different time ranges. <b>To access:</b> Applications > Service Level Management > SLA Reports > Time Range Comparison.
<b>Important Information</b>	You would use this report when you want to compare KPI results over different time periods.
<b>Included in Tasks</b>	“View SLA and Outage Reports” on page 150

## Report Settings

GUI Element	Description
<Common report settings>	<p>See “Understanding Common Report Elements” in <i>Reference Information</i>.</p> <p>Also see “Tracking Range and Granularity in Service Level Management” on page 141.</p>
Advanced Options	<p>Enables you to include descriptions and additional values in the report, and customize some display aspects. You can add a column to the report displaying objectives for the selected KPI.</p> <p>For details, see “Advanced Options Dialog Box” on page 228.</p>
Calendar	<p>Select a calendar. The lists includes the calendars relevant for the selected CI.</p>
CI	<p>Displays the name of the CI selected for the report. The report displays all CIs in the branch for the selected CI (you can also select the agreement CI).</p> <p>To change the selection, click the <b>CI</b> link. For details, see “CIs Dialog Box” on page 243.</p>

GUI Element	Description
<b>KPI</b>	Select a KPI. The lists includes the KPIs relevant for the selected CI.
<b>Time Ranges</b>	<p>Displays the time ranges selected for the report. Two time ranges are selected by default.</p> <p>To select time ranges, click the <b>Time Ranges</b> link to open the Time Ranges dialog box.</p> <ul style="list-style-type: none"> <li>▶ Select the check box for a row to include that time range in the report.</li> <li>▶ By default, the time range label is the name in the <b>Time Range</b> box. If you want a different label displayed in the report, enter it in the relevant <b>Label</b> box.</li> <li>▶ Select the time range for each row. The available time ranges depend on the tracking periods defined for the agreement containing the selected CI.</li> <li>▶ Set dates as required.</li> </ul> <p><b>Note:</b> The trend column is displayed in the report only when exactly two time ranges are selected.</p>

## Report Content

The Time Range Comparison report includes the following elements (listed alphabetically):

GUI Element	Description
<KPI cell>	<p>Displays the numerical result for the KPI during that time range. The background color shows the status for the KPI (based on the target objectives).</p> <p><b>Tooltip:</b> Hold the pointer over a cell to view information about the KPI. For details, see “Tooltip for KPIs in Reports” on page 134.</p>
CI	<p>Displays the CIs included in the selected branch of the agreement (up to four levels). Click on a CI name to drill down to the branch under that CI. (You can return to the previous level using the breadcrumbs at the top of the page.)</p> <p><b>Tooltip:</b> Hold the pointer over a CI name to view the full name in a tooltip.</p>
Objectives	<p>Displays the objectives defined for the KPI. This column is displayed if you selected <b>Show Objectives in Column</b> in the Advanced Options dialog box.</p>
Trend	<p>Displays the status trend between the first time range column and the second time range column. This column is displayed only if exactly two time ranges are selected.</p>

## SLA Management Page

<b>Description</b>	Enables you to select service-related views to view information about the connections between your business services, business units, and agreements. You can link to related reports that will assist you in understanding the connection.  <b>To access:</b> Applications > Service Level Management > SLA Management
<b>Useful Links</b>	“Business Units for Services and Agreements” on page 30  “View Explorer User Interface” in <i>Reference Information</i>



The SLA Management page includes the following elements (listed alphabetically):

GUI Element	Description
<b>Left Pane: View Explorer</b>	<p>In View Explorer for SLA Management, you can display one of the following views:</p> <ul style="list-style-type: none"> <li>▶ <b>Business Services.</b> Contains all Business Service CIs defined in the CMDB. For details, see “About Business Services” on page 61.</li> <li>▶ <b>Business Units.</b> Contains all Business Unit CIs, representing service providers and customers, defined in the CMDB. For details, see “Business Units for Services and Agreements” on page 30.</li> <li>▶ <b>Service Providers.</b> Contains all Business Unit CIs that represent internal and external service providers, and the Business Service CIs associated with the provider. For details, see “Define Business Services for Agreements” on page 64.</li> </ul> <p><b>Context Menu:</b> Right-click a CI to view a menu containing one or more of the following options:</p> <ul style="list-style-type: none"> <li>▶ <b>CI Impact Report.</b> Opens the CI Impact report for the selected Business Service CI in a new window, using default filter settings or the report filter settings last used during the current Web session.</li> <li>▶ <b>Related CIs.</b> Displays related CIs in the View Explorer search pane.</li> <li>▶ <b>Properties.</b> Displays the General Properties window for the CI.</li> <li>▶ <b>SLAs Summary Report.</b> Select either <b>Customer</b> or <b>Provider</b> from the sub-menu to open the SLAs Summary report for the selected customer (or for all customers) or selected provider (or for all providers) in a new window. All agreements that are associated with the customer/provider are included in the report. The report uses using default filter settings or the report filter settings last used during the current Web session.</li> </ul>

GUI Element	Description
<p><b>Right Pane: SLA Management</b></p>	<p>The right pane content changes according to the current selection in the view tree displayed in View Explorer:</p> <ul style="list-style-type: none"> <li>▶ <b>Introductory information</b> about SLA Management is displayed when you first enter the page or select the view name.</li> <li>▶ When the <b>Business Services view</b> name is selected, the right pane displays a table listing the business services, their associated providers, and their descriptions.</li> <li>▶ When a <b>Business Service CI</b> is selected (in the Business Services view or the Service Providers view), the right pane displays details about the service (description, provision, and provider). If there are associated agreements for the service, the pane also displays details about the agreements in a table. Click the <b>CI Impact Report</b> button to open the CI Impact report for the selected Business Service CI in a new window, using default filter settings or the report filter settings last used during the current Web session.</li> <li>▶ When a <b>Business Unit CI</b> representing a provider or customer is selected (in the Business Services view or the Service Providers view), the right pane displays details about the CI (description, contact details). If there are associated agreements for the provider or customer, the pane also displays details about the agreements in a table. Click the <b>SLAs Summary Report</b> button to open the report for all customers or for all providers (as relevant) in a new window. All agreements that are associated with the customers/providers are included in the report. The report uses using default filter settings or the report filter settings last used during the current Web session.</li> </ul>

## SLA Status Report

**SLA Status**

[SLAs: All](#) ([Clear All](#))

Base Forecasting On:  Give Forecasting For:  Calendar:

---

SLAs	Last Quarter Trend	Current Status 8/13/2007- 8/15/2007	Forecasting Status 8/13/2007- 8/20/2007	Expected Breach Date
Copy of ema...om SC(24x7)	▲	Failed	Exceeded	-
Network from SC(24x7)	▲	Failed	Exceeded	-
UM from Per...ness Hours)	◊	Failed	No Data	-
email from SC(24x7)	▲	Failed	Exceeded	-

Exceeded
  Met
  Minor Breached
  Breached
  Failed
  No Data

<b>Description</b>	<p>Displays agreement status for the current period, and provides a forecast of agreement status at the end of a calculation period.</p> <p><b>To access:</b> Applications &gt; Service Level Management &gt; SLA Reports &gt; SLA Status</p>
--------------------	---

<p><b>Important Information</b></p>	<ul style="list-style-type: none"> <li>▶ You can use this report to see if continuing to maintain your services at the current levels will lead to a breach of the agreement on a future date.</li> <li>▶ Agreements that do not correspond to the filtering criteria (for example, they do not use the defined calendar) are not included in the report. The excluded agreements are listed under the report.</li> <li>▶ The usual logic used in Service Level Management reports when generating a report for week/month/year to date on the first day of a new period, is to use the results for the last week/month/year; however, in the SLA Status report, the <b>Current Status</b> for &lt;x&gt; to date on the first day of a period is calculated from the beginning of that period (the first hours). As a result, you may see different current status when you compare results for &lt;x&gt; to date in the SLA Status report and in the SLAs Summary report.</li> </ul>
<p><b>Included in Tasks</b></p>	<p>“View SLA and Outage Reports” on page 150</p>
<p><b>Useful Links</b></p>	<p>For information on calculating status forecast, see “Status Forecast for Agreements” on page 136.</p>

### Report Settings

GUI Element	Description
<p>&lt;Common report settings&gt;</p>	<p>See “Understanding Common Report Elements” in <i>Reference Information</i>.</p> <p>Also see “Tracking Range and Granularity in Service Level Management” on page 141.</p>
<p><b>Advanced Options</b></p>	<p>Enables you to include descriptions and additional values in the report, and customize some display aspects. For details, see “Advanced Options Dialog Box” on page 228.</p>

GUI Element	Description
<b>Base Forecasting On</b>	<p>Select the time period to be used as the base calculation period for the forecast calculation.</p> <p>The available options are determined by the tracking periods defined for the included agreements (excluding hour or the current day).</p>
<b>Calendar</b>	<p>Select the calendar for which the status calculation should be made. The available options are the calendars defined for the selected agreements, or <b>All</b>.</p> <p>When you select <b>All</b>, the forecast is calculated for all calendars, and the worst results for each agreement are shown in the report.</p>
<b>Give Forecasting For</b>	<p>Select the time period that you want the forecast to cover. The current status is calculated for the same tracking period to-date. For example, selecting <b>End of Quarter</b> gives a forecast for the end of the current quarter, and current status for the current quarter-to-date.</p> <p>The available options are determined by the tracking periods defined for the included agreements (excluding hour and day).</p>
<b>SLAs/Customers/Providers</b>	<p>The <b>SLAs</b> field (may be called <b>Providers</b> or <b>Customers</b>, if you previously filtered by one of these options) displays the names of the agreements, providers, or customers selected for the report. To change the selection, click the <b>SLAs/Providers/Customers</b> link. For details, see “SLAs Dialog Box” on page 272.</p> <p><b>Note:</b> You can select all <b>SLAs/Customers/Providers</b> by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b>.</p>

## Report Content

The SLA Status report includes the following elements (listed alphabetically):


GUI Element	Description
<b>&lt;Base Forecasting On period&gt; Trend</b>	<p>Displays an arrow indicating the trend direction for the agreement. The arrow is green for improving agreement status, grey if the status is constant (or if there is no data), and red if status is deteriorating.</p> <p>The trend calculation is based on the difference between the current status (shown in the <b>Current Status</b> column) and the status for the base calculation period.</p> <p><b>Tooltip:</b> Hold the pointer over the trend arrow to see the dates for the trend periods.</p>
<b>Current Status</b>	<p>Displays the status-to-date for the agreement based on the <b>Give Forecasting For</b> tracking period and the selected calendar. For example, the current status could be calculated from the agreement results from the start of the month to the current date, during business hours.</p> <p><b>Tooltip:</b> Hold the pointer over the status bar to see the status and tracking period.</p>
<b>Expected Breach Date</b>	<p>Displays the date and time that agreement status is expected to fall below status <b>Exceeded</b>. A value is displayed in this column only if:</p> <ul style="list-style-type: none"> <li>➤ The agreement current status is exceeded (green)</li> <li>➤ The forecast status is less than exceeded</li> </ul>

GUI Element	Description
<b>Forecasting Status</b>	Displays the status forecast for the selected tracking period and calendar. For example, the forecast could be calculated for the end of the current month for business hours, based on the agreement results for the last day. <b>Tooltip:</b> Hold the pointer over the status bar to see the status and forecast tracking period.
<b>SLAs</b>	Lists the agreements included in the report. <b>Tooltip:</b> Hold the pointer over a long agreement name to view it in full.

## SLAs Dialog Box

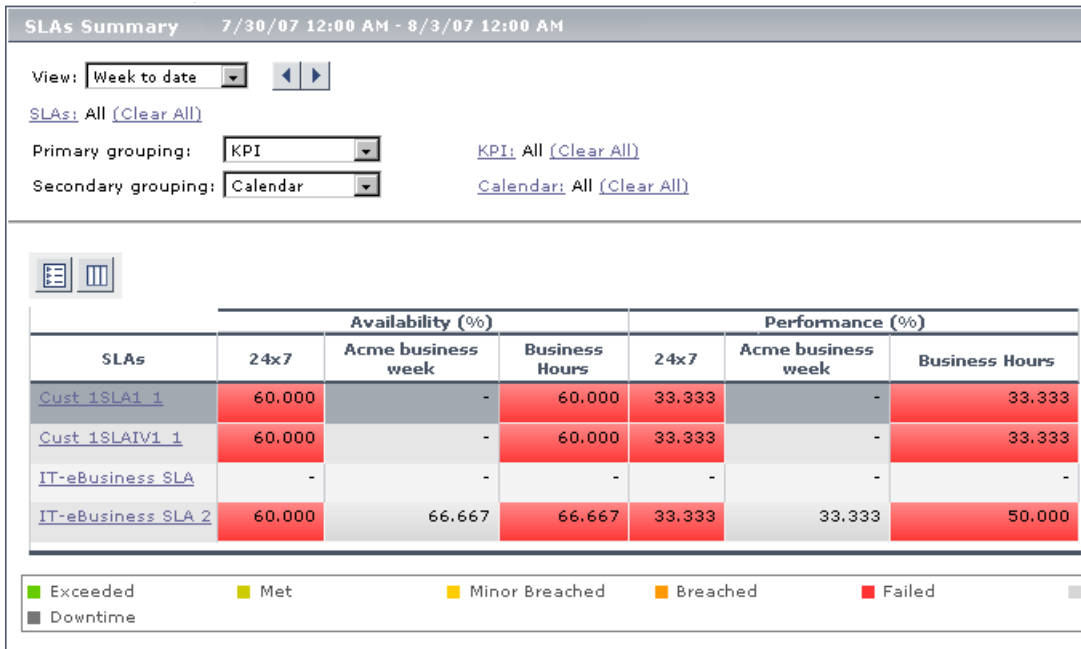
<b>Description</b>	Enables you to select agreements to be included in a Service Level Management report, for the duration of a Web session.  <b>To access:</b> In a Service Level Management report, click <b>SLAs</b> or <b>Providers</b> or <b>Customers</b> in the reports settings area. (The link name depends on what option you previously selected for filtering.)
<b>Important Information</b>	Only the agreements for which you have viewing permission are displayed in the SLAs dialog box and in the report.
<b>Useful Links</b>	“Business Units for Services and Agreements” on page 30 “SLAs, OLAs, and UCs” on page 31

The SLAs dialog box includes the following elements (listed alphabetically):

GUI Element	Description
	Click the required button to select all CIs, clear all CIs, or invert the current selection.
<Agreements/ Providers/Customers list>	Select the check boxes for each option that you want to include in the report filter.
<b>Select From</b>	Select an option to determine whether you select from agreements or business units in the dialog box: <ul style="list-style-type: none"> <li>▶ <b>SLAs.</b> Enables you to select from the available SLAs, OLAs, and UCs.</li> <li>▶ <b>Providers.</b> Enables you to select from the defined agreement providers. All agreements associated with the selected providers are included in the report.</li> <li>▶ <b>Customers.</b> Enables you to select from the defined customers. All agreements associated with the selected customers are included in the report.</li> </ul>



## SLAs Summary Report



<b>Description</b>	<p>Displays a list of agreements and their status for selected KPIs and calendars.</p> <p>You would use this report when you want to view a summary of data for all (or specific) agreements.</p> <p><b>To access:</b> Applications &gt; Service Level Management &gt; SLA Reports &gt; SLAs Summary</p>
<b>Important Information</b>	<p>You can drill down from this report to the CI Summary report. This enables you to identify the measurement causing a problem in an agreement.</p>
<b>Included in Tasks</b>	<p>“View SLA and Outage Reports” on page 150</p>
<b>Useful Links</b>	<p>For a use-case example of the SLAs Summary report, see “Sending an SLAs Summary Report Each Month” on page 152.</p>

## Report Settings

GUI Element	Description
<Common report settings>	<p>See “Understanding Common Report Elements” in <i>Reference Information</i>.</p> <p>Also see “Tracking Range and Granularity in Service Level Management” on page 141.</p>
<b>Advanced Options</b>	<p>Enables you to include descriptions and additional values in the report, and customize some display aspects. For details, see “Advanced Options Dialog Box” on page 228.</p>
<b>Calendar</b>	<p>Displays the names of the calendars selected for inclusion in the report.</p> <p>To change the selection, click the <b>Calendar</b> link to open the Calendar dialog box. The dialog box lists all calendars attached to the selected agreements.</p> <p><b>Note:</b> You can include all relevant calendars by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b>.</p>
<b>KPI</b>	<p>Displays the names of the KPIs selected for inclusion in the report. To change the selection, click the <b>KPI</b> link to open the KPI dialog box. The dialog box lists all KPIs attached to the selected agreements.</p> <p><b>Note:</b> You can include all relevant KPIs by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b>.</p>

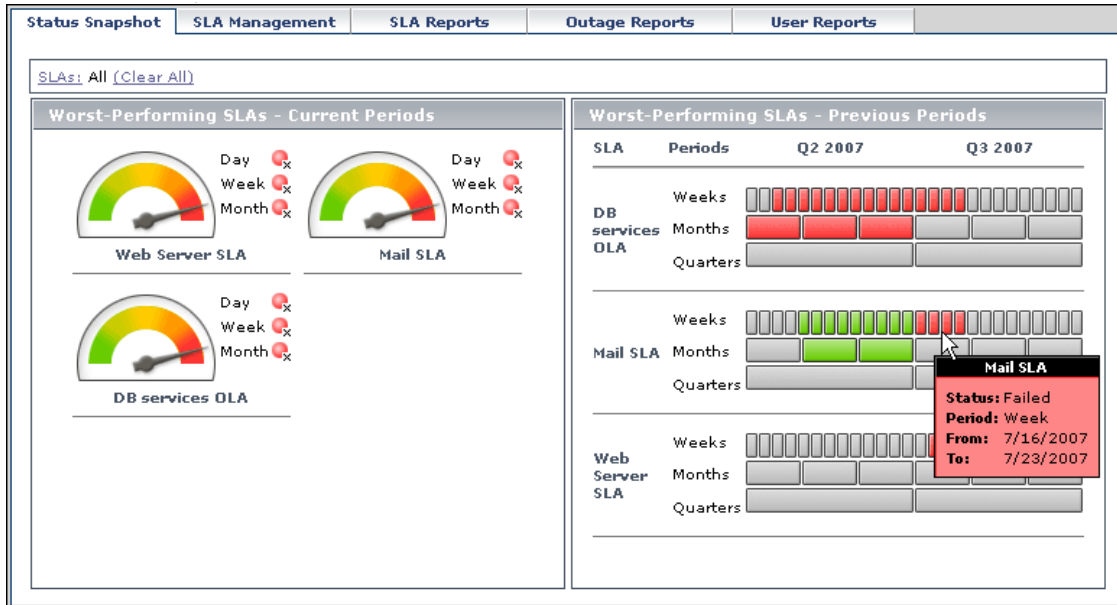
GUI Element	Description
<b>Primary Grouping/ Secondary Grouping</b>	Select the first and second level column headers to be used for presenting data in the report. For details, see “Primary Grouping/Secondary Grouping” on page 132.
<b>SLAs</b>	<p>The <b>SLAs</b> field (may be called <b>Providers</b> or <b>Customers</b>, if you previously filtered by one of these options) displays the names of the agreements, providers, or customers selected for the report. To change the selection, click the <b>SLAs/Providers/Customers</b> link. For details, see “SLAs Dialog Box” on page 272.</p> <p><b>Note:</b> You can select all SLAs/Customers/Providers by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b>.</p>

## Report Content

The SLAs Summary report includes the following elements (listed alphabetically):

GUI Element	Description
<Table cell>	<p>Displays the numerical result for the KPI. The background color shows the status for the KPI (based on the target objectives).</p> <p><b>Tooltip:</b> Hold the pointer over a cell to view information about the KPI. For details, For details, see “Tooltip for KPIs in Reports” on page 134.</p>
<b>SLAs</b>	<p>Displays the agreements included in the report. Click on an agreement name to drill down to the CI Summary report for that agreement. (You can return to the SLAs Summary report using the breadcrumbs at the top of the page.)</p> <p><b>Tooltip:</b> Hold the pointer over the name of an agreement to view information in a tooltip. To display the information in the table, instead of in the tooltip, click <b>Advanced Options</b>, and select <b>Show SLA details as columns</b>.</p>

## Status Snapshot Report



<p><b>Description</b></p>	<p>Displays up-to-date information for the worst-performing agreements in the current tracking periods and in previous tracking periods.</p> <p><b>To access:</b> Applications &gt; Service Level Management &gt; Status Snapshot</p>
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<p><b>Important Information</b></p>	<ul style="list-style-type: none"> <li>➤ An agreement is included in the Status Snapshot page only if it has relevant data.</li> <li>➤ The report displays up to ten worst-performing agreements in the current period, and up to six worst-performing in previous periods; different agreements may be displayed for each of these categories.</li> <li>➤ Hold the pointer over a long agreement name to view it in full.</li> <li>➤ The Status Snapshot page is refreshed every five minutes. You can change this value in <b>Admin &gt; Platform &gt; Setup and Maintenance &gt; Infrastructure Settings</b>, choose <b>Applications</b>, select <b>Service Level Management</b>, and locate the <b>SLA Status Snapshot refresh timing</b> entry.</li> </ul>
<p><b>Useful Links</b></p>	<p>“Status in Reports” on page 130</p>

## Report Settings

GUI Element	Description
<p><b>SLAs/Providers/Customers</b></p>	<p>The <b>SLAs</b> field (may be called <b>Providers</b> or <b>Customers</b>, if you previously filtered by one of these options) displays the names of the SLAs (agreements), providers, or customers selected for the report. To change the selection, click the <b>SLAs/Providers/Customers</b> link. For details, see “SLAs Dialog Box” on page 272.</p> <p>When you filter by providers or customers, the Status Snapshot report displays the worst-performing agreements that are associated with the selected providers/customers.</p> <p><b>Note:</b> You can select all <b>SLAs/Customers/Providers</b> by clicking the <b>Clear All</b> link. This clears the displayed selection and replaces it with <b>All</b>.</p>

## Worst-Performing SLAs – Current Periods Area

<b>Description</b>	Displays status information for the ten worst-performing agreements in the current tracking periods, and the predicted agreement status at the end of the forecast period.
<b>Important Information</b>	The status-to-date information displayed in the Status Snapshot report (for example, <b>Week</b> , which gives week-to-date information) shows real-time data that is correct up to one or two hours ago. In other Service Level Management reports, status-to-date information is calculated to the last closed day. This means that you may see different data displayed in the Status Snapshot report as compared with other reports, or that the Status Snapshot report already contains data while other reports do not yet have data.

The area includes the following elements (listed alphabetically):

<b>GUI Element</b>	<b>Description</b>
<b>&lt;Gauge&gt;</b>	<p>The gauge for each agreement provides a pictorial representation of the status for the worst tracking period (for example, Day or Week).</p> <p>Click on a gauge to link to the SLA Status report for that agreement.</p> <p><b>Tooltip:</b> States the status and worst tracking period. If two periods have the same worst status, the tooltip shows the longer period.</p>
<b>&lt;Tracking period&gt;</b>	<p>Displays the status to date for each tracking period defined for the agreement (not including <b>Hour</b>). For example, <b>Week</b> gives the week-to-date status, <b>Month</b> gives the month-to-date status.</p> <p><b>Tooltip:</b> Hold the pointer over a status icon to see details about its status.</p>

GUI Element	Description
<b>Forecast</b>	<p>Displays the status forecast for the end of the forecast period.</p> <p>The status forecast is not displayed if the agreement does not have the default forecast calculation tracking periods (as defined in infrastructure settings), or if no data is found that can be used to calculate the forecast.</p> <p><b>Tooltip:</b> Hold the pointer over <b>Forecast</b> to see the period the forecast is based on, and the period that the forecast is for.</p> <p><b>Default values:</b> The default base period is <b>Week</b>, and the default forecasted period is <b>Quarter</b>. The default values can be changed in the Infrastructure Settings page.</p> <p>For information on how the status forecast is calculated, and on changing the default values, see “Status Forecast for Agreements” on page 136.</p>

### Worst-Performing SLAs – Previous Periods

<b>Description</b>	<p>Displays information for the six worst-performing agreements (out of the agreements selected) in previous, closed tracking periods (periods that have passed their end date), over the past six months.</p>
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The area includes the following element:

GUI Element	Description
<Bar chart>	<p>The bar chart for each agreement shows the status of week, month, and quarter periods.</p> <p>If a period is grey, either the period has not yet finished, or no data exists for that period.</p> <p><b>Tooltip:</b> Hold the pointer over a bar to view information on the bar period and status.</p>





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