
HP Universal SLA Manager

Version 4.1



User Guide

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For the Linux and Windows Operating Systems

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Preface

This document provides an introduction to general SLA Management, identifying the challenges that exist and how these challenges are addressed and resolved by the *HP Universal SLA Manager* (USLAM) and builds upon the introduction by explaining the user interface and the several features that are offered by the USLAM.

This User Guide is designed as an aid to the user of the *HP Universal SLA Manager* to take maximum benefit from its various features by effectively using the USLAM to achieve their business goals.

Intended Audience

This document is intended for the following HP USLAM users:

- USLAM end-user.
- USLAM Contract Administrator
- USLAM Contract Manager
- USLAM Platform Administrator
- USLAM Report Manager

Abbreviations and Acronyms

The following table describes the abbreviations and acronyms used in this document.

| Abbreviation | Description |
|--------------|---|
| BIF | Business Impact Factor |
| BDTA | Business Day To Acknowledge |
| BDTR | Business Day To Resolve |
| BO | SAP Business Object |
| BO-DS | SAP Business Object Data Services |
| BSS | Business Support Systems |
| CMS | Central Management Server |
| CDTA | Calendar Day To Acknowledge |
| CDTR | Calendar Day To Resolve |
| CI | Configuration Item |
| ETL | Extract, Transform and Load |
| ID | Identifier |
| IT | Information Technology |
| ITIL | Information Technology Infrastructure Library |

| | |
|--------------|---|
| KPI | Key Performance Indicator |
| OLA | Operational Level Agreement |
| SA | Service Availability |
| SD | Service Definition |
| SCD | Service Component Definition |
| SCI | Service Component Instance |
| SCO | Service Clause Objective |
| SI | Service Instance |
| SCI | Service Component Instance |
| SLI | Service Level Indicator |
| SLA | Service Level Agreement |
| SLO | Service Level Objective |
| SLM | Service Level Management |
| SLR | Service Level Requirement |
| SLT | Service Level Template |
| SO | Service Offering |
| SNMP | Simple Network Management Protocol |
| SM | Service Manager |
| TAT | Total Activity Time |
| TMF | TeleManagement Forum (www.tmforum.org) |
| TTA | Time To Acknowledge |
| TTR | Time To Resolve |
| UPC | Underpinning Contract |
| USLAM | Universal Service Level Agreement Manager |
| XaaS | Everything as a Service |

Associated Documents

A list of existing HP Universal SLA Manager documents is given below for your reference:




| Document Title | Relevant Product |
|---|-----------------------|
| HP USLAM Installation & Configuration Guide | Universal SLA Manager |
| HP USLAM Administration Guide | Universal SLA Manager |
| HP USLAM User Guide | Universal SLA Manager |
| HP USLAM Modeling & Integration Guide (this guide is available on demand, please contact USLAM-Product-Management@hp.com) | Universal SLA Manager |

Typographic Conventions

This document uses the following conventions to identify special information:

| Convention | Information Type/Example |
|--------------------------|---|
| [] (square brackets) | Interface components requiring user actions e.g. Buttons. Ex: Click [Finish] to complete the Import wizard. |
| () [round brackets] | Supplementary information <i>Ex:</i> Configuration Item (CI). |
| Bold type | Fields names, menus, window pane names Ex of menus: Admin → Service Level Management → Repository. |
| <i>Italic</i> type | Important information and/or concepts. Ex: The output is an <i>.XML</i> file. |

Symbols Used in this Guide

| Symbols | Information |
|---|--|
|  | Note Draws your attention to additional information about a software function/feature. |
|  | Important Draws your attention to important information regarding the proper usage of a software function/feature. |
|  | Caution Draws your attention to an important warning. |

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- Problem reporting.
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Chapter 1

SLA Management: Principles and Concepts

Service level agreements (SLA) have been used since late 1980s by fixed line telecom operators as part of their contracts with their corporate/business customers. Put simply, a service level agreement (SLA) is a negotiated agreement between two parties where one is the customer and the other is the service provider.

The practice of SLA management has spread such that internal departments in larger organization have adopted the idea of using service-level agreements with their "internal" customers — users in other departments within the same organization. This is particularly true for the internal IT departments of enterprises in many industries and markets.

Telecom operators have managed SLAs for long addressing multiple hundreds of thousands of contracts with their business customers, especially in the fixed line segment. Historically, SLA management was addressed as part of the Business Support Systems (BSS) scope and SLAs were calculated and reported upon in batch mode using home grown solutions and significant manual reconciliations tasks.

SLA management in the telecom vertical has evolved overtime, driven by different factors such as increased dependency of enterprise businesses on communications services, success of mobile services into the corporate segment, legal obligations associated with the opening of the telecom market, and the need to reduce the operational spending on SLAs.

In the early 1990s, other industries were driven toward putting SLAs in place. Early SLM initiatives succeeded only where the IT organization had ways of measuring, controlling and understanding the impact of those things that would disrupt the service (e.g., changes) and by setting correct user expectations. Over time, industry best practice evolved drastically to address the full picture. Businesses are more and more dependent upon their own IT organization to satisfy corporate governance objectives, deliver competitive advantage, and meet increasing customer demand for 24x7 services. In addition, the trend to outsource IT services has forced IT organization to prove their value to the business. IT departments are forced to demonstrate accountability, with business resources—in particular, they must improve competitive advantage by driving business effectiveness and efficiency.

As a result of this evolution, Communications Service Providers (CSPs) as well as IT departments have been looking at having better and more real-time control on the actual implementation and execution of services. This has created new requirements for Operations organizations in terms of

automating the SLA management business processes in terms of instantiating SLA contracts, getting near real time visibility on SLAs status, pro-actively detecting and solving SLA affecting issues, reporting on SLA achievements and calculating rebates and penalties in case of SLA violation.

Despite CSP and Enterprises were aiming at similar objectives, they have approached SLA management separately, driven by their respective industry reference standard and best practices. This has shaped the vendor landscape between OSS vendors providing SLA management for Network and Communication and Network Services, aligned on TeleManagement Forum [TMF] ([http:// www.tmforum.org](http://www.tmforum.org)), and IT management vendors providing Service Level Management capabilities aligned on IT Infrastructure Library (ITIL).

1.1 Objectives of SLA Management

Whether SLAs are sold by CSP or under the responsibility of an internal IT department within an enterprise, managing SLAs is about meeting the commitments made to a user (or set of users) for a given service (or set of services) at a certain price. In this respect, SLA management/Service level management has similar objectives whether services are IT business services, or CSP communications services and value added services:

- Develop service offers and SLAs that meet customer demand and can be delivered without technical and financial risk
- Manage the obligation between the service provider and the consumer of the service(s)
- Negotiate, sell and maintain services which comply to their associated Service Level Agreement (SLA)
- Implement the service and turn on SLA management capabilities to monitor and operate the service in accordance to the agreed levels of service
- Monitor the service achievements against the SLA in near real-time and anticipate conditions that would lead to the SLA violation
- Produce service/SLA reports for internal and external use
- Account/bill for the service, including the SLA breaches financials
- Provide visibility on metrics that can help improve the service
- Control the SLA change processes associated with service improvement and retirement.
- Business impact for Service Operation for easy and reliable cost management
- Manage financial risks through proactive penalty prediction.

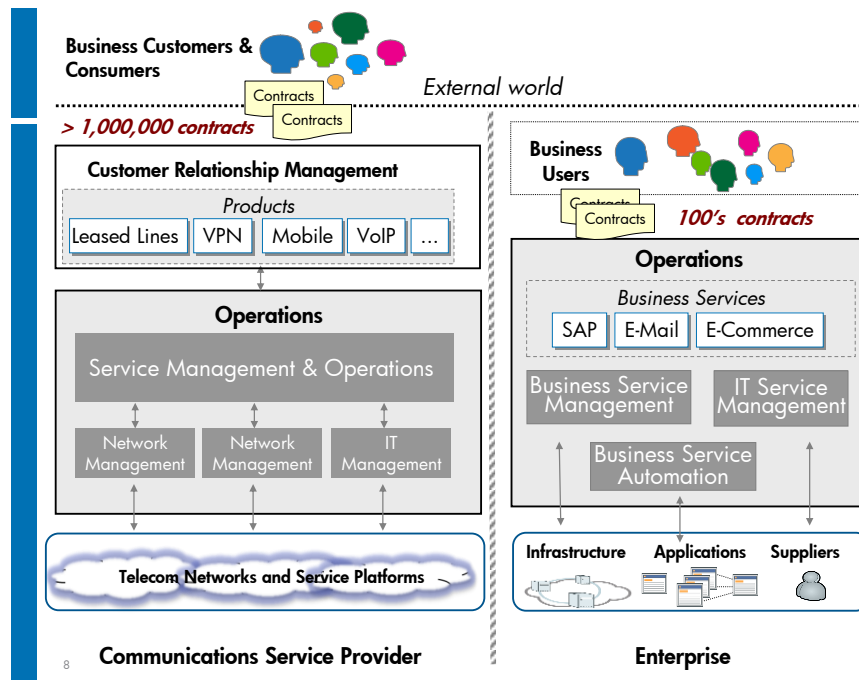
At the same time, there are a number of fundamental differences between SLA management for IT enterprise services and CSP communication services in terms of:

- Nature of the services for which an SLA is defined: IT business services versus Communications services
- Approach being used to manage the SLA: levels of service provided to group of users (IT) versus SLA contracted with individual end users or entities
- Volumes of SLAs to be managed: typically up to one million and more for fixed line communication services versus thousands in IT

- Nature of the operational environment SLA management is integrated to: OSS & BSS versus IT Service Management
- Reference industry standards and best practices for service management, mainly TeleManagement Forum in Telecoms (TMF) and ITIL in IT.

The following figure gives an overview of the SLA management context in CSPs and Enterprises.

Figure 1: SLA Management context



As said in the introduction, these differences along with distinct industry standards driving the SLA management discipline have shaped the SLA management landscape with a segmented offering for CSP communication services on one side and IT enterprise services on the other side.

This is where the HP Universal SLA Manager (USLAM) comes in, which is a highly scalable SLA manager with generic and service agnostic core capabilities that can answer the needs of Communications as well as Enterprise Services SLAs. One key benefit of HP Universal SLA Manager for CMS Customers is to be able address the entire spectrum of CSP business services SLAs with the same solution. Additionally, it has the built-in scalability to meet high numbers in the managed IT services market.

1.2 Relation of SLA and SLA Management

SLA management is primarily about managing the obligation between a Service Provider (SP) and a Consumer of a service, and the compliance of the consumed service against the contractual levels of service. A service level agreement is a document which defines the relationship between two parties: the provider and the customer. It addresses a wide range of clauses such as service(s) to be delivered, price for the service, time to deliver the service, service performance, tracking and reporting, trouble resolution, exclusions, legal compliance, resolution of disputes, customer duties and responsibilities, financial terms in case the SLA is not met, termination of the service, force majeure, etc.

In this respect, managing an SLA is very different from measuring how a service performs. What need to be managed are the service level achievements against the SLA commitments including the financial consequences should the contractual terms not be met. For example, a service may have contractual commitments for the time to provision the service, service availability and performance during the service hours, service restoration times, exclusion clauses if the service unavailability is caused by the customer and rebates on monthly charges if the objectives are not met. Measuring the service performance is about measuring the time to provision the service, time to restore the service, the service availability and what are the values of the performance indicators. SLA management is about evaluating if the mean times to provision and restore the service are in the committed timelines and if the service availability and performance during the service hours meet the objectives set in the contract. It must take into account the exclusions (e.g. Force Majeure events, service unavailability caused by the customer, etc). If the contractual terms are not met, the SLA management must calculate the rebates that the customer may request credits and/or rebates on its monthly charges.

1.3 Types of Agreements

There are 3 types of agreements:

- **SLA** is an agreement between the service provider and one of its customers.
- **OLA** (Operational Level Agreement) is an agreement internal to the Service provider for instance between two internal supplying organizations.
- **UC** (Underpinning Contract) is an agreement with an external third party supplier to underpin SLA.

The following figure depicts the relationship between the different types of agreements.

Figure 2: Type of Agreements



1.4 Service Level Agreement

A Service Level Agreement (SLA) is a contract between the Service Provider and the customer that specifies the level of service expected during the contract duration. An SLA is defined as a set of clauses, each defining objectives against service health indicators during the agreed reference period.

Example of SLA clauses:

- A web site must be available 99.9% of the reference time period
- Subscribers must be able to connect to the application within 3 seconds for 99.0 % of the time during business hours and 6 seconds for 98 % and 0 % of the time during non-business hours

- Number of Service incidents (e.g. Trouble Tickets) must be < 5 within the reference period.



Reference Period is defined by the SLA, for example it can be the first day of a week or a month.

1.4.1 Purpose of Service Level Agreement

The purpose of any Service Level Agreement is to describe and define the following:

- What service(s) are being made available to what customers
- What levels of service or quality of service the customer should expect
- What period of time will the SLA cover
- What the costs are to provide those levels of service
- How the service will be delivered
- How the service provider will monitor or track and report on performance
- When the SLA will be reviewed and how to make changes to the SLA.

1.4.2 Operational Level Agreement

An OLA is an agreement with internal IT resources to satisfy clients SLA. OLAs are required to ensure that the SLA targets agreed between customer and IT provider can be delivered in practice. They describe each of the separate components of the overall service delivered to the customer, often with one OLA for each support group and a contract for each supplier.

1.5 Typical Customer Profiles

| Profiles | SLA agreement needs |
|---|--|
| <p>Fixed line communications services</p> <p>(fixed line, bandwidth, access services)</p> | <ul style="list-style-type: none"> ▪ SLAs monitoring can be <u>requested by local regulations</u> ▪ Very high volumes of customer SLAs ▪ Few guaranteed metrics across service provisioning, service performance and restoration. ▪ Leverage service measurements from existing OSS (operational metrics) and BSS systems (process metrics) |
| <p>Mobile corporate services</p> <p>(Mobile Data, fleet management, etc)</p> | <ul style="list-style-type: none"> • Lower volume of 3PP provider (retail / access / wholesale relationship) or customer SLAs • Provisioning (type SIM card delivery), technical and restoration types of guarantees <ul style="list-style-type: none"> <i>example : Some company offers Business SLAs that include up to 36 technical KPIs, which are clearly defined, currently monitored and assessed on a regular basis and made available to customers in the form of a report</i> • Leverage is <u>OSS and IT Management systems</u> or a mix of these (operational metrics) and BSS systems (process metrics). |
| <p>Managed networks, enterprise services and hosted services</p> <p>(fixed, mobile, IT services)</p> | <ul style="list-style-type: none"> ▪ Less contracts but each SLA can contain up to hundreds of clauses (KPIs). ▪ KPIs measure the efficiency of the IT management business processes as well as the performance of the delivered services. ▪ Number of SLA contracts is likely to increase dramatically in the short to midterm especially with the <u>take off of XaaS</u>. ▪ The systems which provide the service measurements needed to calculate the SLA compliance are predominantly IT Management systems (operational metrics) and BSS systems (process metrics). |

Chapter 2

USLAM Product Goals

2.1 Introduction

For a service provider, HP Universal SLA Manager (USLAM) provides a comprehensive and powerful platform for the creation, calculation and reporting of all types of Service Level Agreements (SLAs), regardless of the underlying technical or business requirements of all parties.

HP Universal SLA Manager offers a complete and scalable SLA Management solution including:

- Services and SLAs design and repository
- Generic service models, service metrics and SLA clauses design and store capability.
- Automate creation, administration and reporting for high numbers of SLAs.
- Allows integration into existing environment / workflow for automated, secured and efficient dataload and synchronization
- High volume SLAs compliance calculation and reporting
- Business impact for Service Operation for easy and reliable cost management
- Manage financial risks through proactive penalty prediction.
- Data Collection framework for Data Records, Performance Metrics, Tickets and Exclusions
- Telco grade engines to compute real time SLA compliance status.
- Customer portal for end-user reports against contractual agreements and management analytics reports.
- Near real time monitoring of SLA clauses compliance with trending information.
- Root cause analysis available in web UI and Reporting, from SLA to individual downtimes and incidents.
- Support Service Improvement Plan process with SLA history related data and reports.
- Open and easy-to-use Business Objects Universe for developing any reports based on USLAM data model.
- Support a Data correction processing allowing adjustment and negotiation with customer for contractual report. It provides audit features like history and tracking.

2.2 USLAM Operation Overview

The USLAM allows SLAs to be monitored and reported upon and users are charged for the services they use. The business impact of SLA violations is quantified.

SLA monitoring consists in measuring and calculating in near-real time if the service meets the contracted levels of service, pro-actively detecting and alerting on potential and actual SLA breaches. The calculation takes in account conditions defined in the contract such as scheduled maintenance activities, office hours/non office hours, commitments, exclusions, etc. SLA monitoring collects raw indicators from different systems operational systems such as business process monitoring, provisioning and activation systems, performance management, fault management, trouble management/incident management, customer front desk, etc. These raw indicators are transformed into KPIs which are evaluated against the defined levels of service. The result of this evaluation is further aggregated over the SLA reference period to determine the compliance to the SLA.

SLA reporting consists in aggregating and reporting on the SLA compliance. These reports are both for internal use and viewable by end customers. Reports are pre-defined as well as user customizable and can be scheduled or on-demand. Reporting includes security mechanisms and user profile capabilities dealing with defining which information is visible to which user.

The reporting can also be tuned to provide SLA analytics data to provide tracking and analysis of the SLA trends for the purpose of SLA assessment and risk analysis.

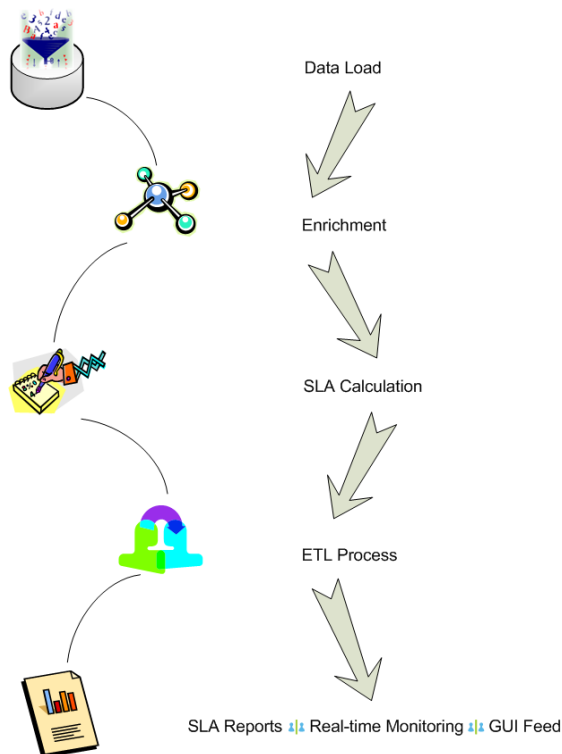
Finally, the service must be billed to the customer/end user. In Telecoms (and in managed services), this is the responsibility of a billing system. The bill must take into account SLA penalties and/or credits resulting from SLA breaches. The calculation of the financial impact associated SLA breaches can be co-located with the calculation of the SLA compliance in the SLA management system. This is slightly different in IT where financial accounting is oriented towards costs, violation impact and cost transfer.

These SLA functions can be run for the service globally (whoever use the service) or for a specific individual/entity. The ability to provide these capabilities for an individual (or business entity) makes a tremendous difference in terms of processing granularity and volume of data to be processed.

2.3 The USLAM Workflow

The USLAM workflow consists of the following major tasks depicted in the figure below. These tasks are discussed in detail in the subsequent sections.

Figure 3: USLAM Workflow



2.3.1 Data Load

The USLAM platform provides a multi-purpose repository that is used to store the catalogue of all Service definitions, services sold, contracting parties, SLA templates and SLA sold.

The first stage of the USLAM workflow involves the loading of entities (called data load), templates and metadata for the following objects required by the SLA repository.

- Calculation rules
- Raw data collectors
- Services definitions
- Customers
- Providers
- Suppliers
- Users, roles and their associated permissions

Service definitions specify the models (Service types, attributes mandatory or not; structure of the containment tree) the service instances have to be conformed to.

- Indicators definitions (Key Performance Indicators, Key Quality Indicator...)

Indicators are mainly defined by an identifier and the applicable collectors or calculation rules.

- Calendars (24x7, 10x5)
- Custom additional attributes required by the end user in addition to the standard attributes of an SLA.

A dedicated upload interface is available as the preferred way to import / export all objects from / to the USLAM repository and a Dataload Status Snapshot is available in the Platform administration user interface (see 8.2 Platform Management).

2.3.2 Enrichment

Enrichment processing service performs the attachment of the calculation objects and business rules to the Service so that SLAs calculation can be processed by the USLAM engines.

2.3.3 SLA Calculation

USLAM engines perform ongoing calculations and recalculation of all SLA metrics and applying all the calculation rules with their associated objectives to determinate statuses (clauses, SLA items and SLAs) for a reference period. Result of this calculation can be monitored by operators using Dashboard windows like the Agreement Status Snapshot (see 5.1 Agreements Status Snapshot) or the Clause Details Snapshot (see 5.2 Agreements Status Details)

2.3.4 ETL

ETL processing is dedicated to build the Datamart. The Datamart is an access layer to the database used for reporting and analysis (Datawarehouse). It will store and organize the historical data of the SLAs in order to optimize the production of reports.

2.3.5 Reports

The USLAM solution provides a comprehensive and dedicated Business Intelligence platform environment (provided by Business Objects) to support Customer Service functions in building, analysing and communicating various types of standard and customized operational and contractual SLA reports.

For pre-defined, standardized reports that need to be communicated automatically to interested groups, stakeholders or customers, the USLAM applications offer different mechanism to schedule and automate the production and communication of periodic SLA reports.

In general, the USLAM Reporting environment provides the foundation for all parties involved in the Service Level Management process to analyze the performance of the process, decide for Service Improvement plan and control the risks and financial impact of the Service Provider policy.



For more information about ETL and SLA Reports concepts and procedures, refer to Chapter 9 USLAM Reporting

2.3.6 User Interfaces

The ULAM solution offers 2 types of User Interfaces:

- A Web User interface that includes several modules allowing Service Level Managers to Sell, Monitor, Review and Report easily on SLAs.
- A new end user community portal called 'MyUSLAM'. This highly customizable portal embeds several USLAM portlets that can be used to build private or public business dashboards, extending business metrics visibility to business managers, end customers and partners.

2.3.6.1 Web User Interface

The ULAM Web UI provides several applications:

- Dashboard
- Contract Operations
- Contract Administration
- Platform Administration

Dashboard window allow monitoring of all active agreements and their status to detect any changes to anticipate SLA breaches by using available information to prioritize and assign the right group or function for the resolution of an incident.

Contract Operations window provides a powerful windows in charge of the data correction to adjust values and status on contractual report and their associated business impact.

Contract Administration window provides a powerful agreement manager to perform tasks like managing agreement and their lifecycle and Service Offerings.

Platform Administration window is dedicated to administrators in charge of the data loading process (status, browsing...), the end user management (creation, assignation of roles...) and general settings for the USLAM platform (security, display format...)

2.3.6.2 MyUSLAM portal and portlets

Although many concepts are common between the USLAM Web UI and the MyUSLAM portal, this user guide does not provide detailed documentation for the MyUSLAM portal. Please refer to MyUSLAM online documentation for details on how to use USLAM portlets. The portal's welcome page explains the main concepts, however, every portlet has its own help page available through the Help mode.

For more information on how to use the Liferay portal and its advanced features please refer to the Liferay User Guide (Using Liferay Portal 6.1).

Chapter 3

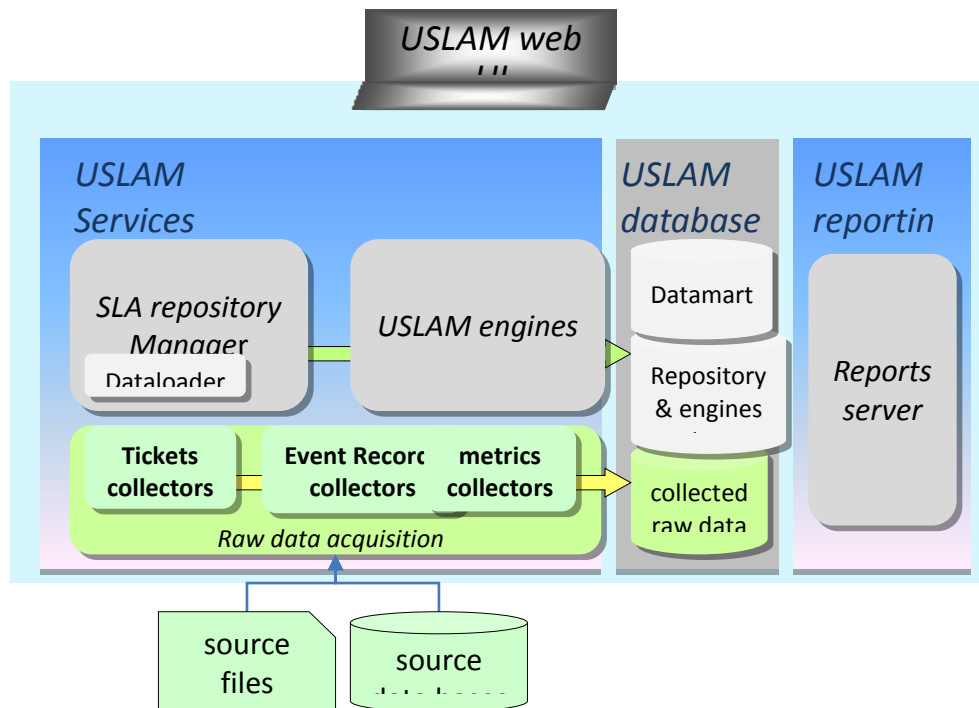
USLAM Concepts and Definitions

The following section presents the Universal SLA Manager concepts and explains the architecture and the simplified Model offered by the USLAM.

3.1 Overview Architecture

The USLAM solution consists of several integrated modules, each having a different set of functionality.

Figure 4: Simplified USLAM Architecture



These modules are listed below:

- **USLAM Services** that contains:
 - **SLA Repository Manager** in charge of the central repository that stores all objects like templates, definitions, services, customers and SLAs.
 - **USLAM Engines** in charge of the real-time SLA calculation, compliance assessment and SLA business impact calculations
 - **USLAM collectors** in charge of the raw collection acquisition of data (data records, performance records, tickets and exclusions)

- **USLAM Action executor** is a framework that can host any number of action executors. Standard SNMP and SMTP Action Executors are provided with the product.
- **USLAM Database** that contains:
 - **ETL** in charge of the Datamart that will store and organize the historical data of your SLA and order to optimize the production of reports. Powered by SAP Business Objects Data Services
 - **Collected Raw data** from collectors
 - **Repository and engine data.**
- **USLAM Reporting** offers a complete Reporting solution, including a predefined end-user SLA Intelligence Portal and a set of predefined standard reports (Operational, Contractual, Audit...). An open and easy-to-use BO universe design is provided to ease the production of customized reports. The package also includes a tool that can be scheduled for automatic publishing of contractual reports. Powered by SAP Business Objects Enterprise.
- **USLAM Web User Interface** is a comprehensive Web User Interface allowing the management and monitoring of SLAs, from an operational and business impact standpoint. It is also used to manage USLAM users and to monitor the result of the data load tools. It contains several applications:
 - **Dashboard** dedicated to monitor all active SLAs and their status to anticipate any compliance violation.
 - **Contract operations** window manage data correction to adjust values and status on contractual report and their associated business impact.
 - **Contract Administration** windows manage contracts and execute operations on agreements.
 - **Platform administration** to maintain the repository and manage users.

3.2 USLAM Model

USLAM Model offers **Entities**, **Templates** and **Metadata** objects. These objects are loaded by the USLAM Repository Manager and saved in the USLAM Database.

USLAM Entities are objects that are instantiated to support each individual agreement:

- Customer
- Provider
- Suppliers
- Services
- SLA (and SLA items)

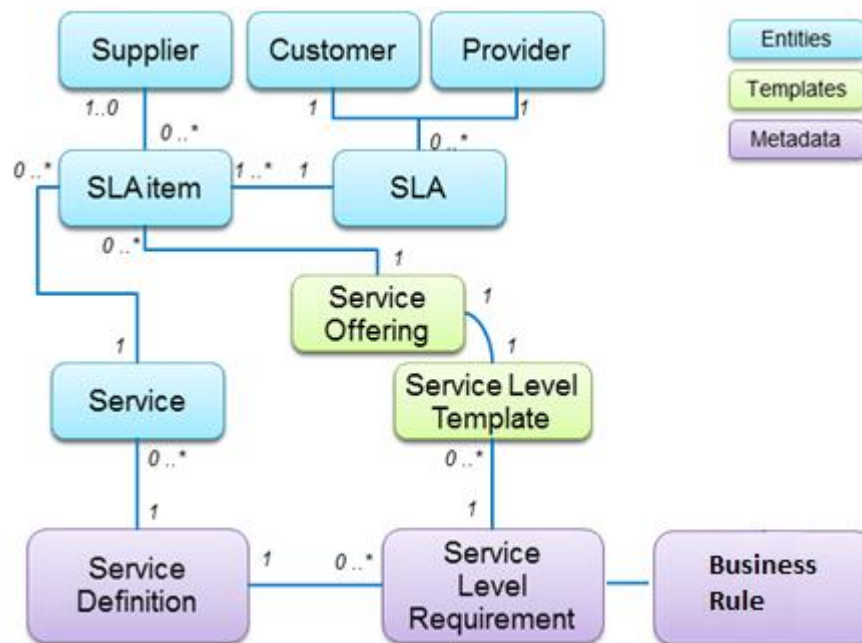
USLAM Templates are objects that are used to simplify creation of SLAs by specifying the set of SLA clauses and the associated objectives that will be automatically applied to a SLA under creation when existing template is selected by the creator:

- Service Offering
- Service Level Template
- Calendars

USLAM Metadata objects are :

- Service Definition
- Service Level Requirement
- Business Rule

Figure 5: USLAM Model (entities, Templates, Metadata)



3.2.1 Entities

3.2.1.1 Service Level Agreement (SLA)

A Service Level Agreement (SLA) is a contract between the Service provider and a customer. It specifies the expected service level to be delivered during its term.

There is different type of Service Level Agreements:

- **SLA** is an agreement between the service provider and one of its customers.
- **OLA** (Operational Level Agreement) is an agreement internal to the Service provider for instance between two internal supplying organizations.
- **UPC** (Underpinning Contract) is an agreement with an external third party supplier to underpin SLA.

A SLA can specify the agreement either about one single service or about a set of services using a component of SLA called SLA Item. One SLA item is included in the SLA for each Service instance identified in the agreement between the customer and the provider. A SLA item refers this Service instance together with the Service Offering selected for it. A third

party service supplier can also be specified when it is different from the service provider.

An SLA is defined a set of clauses, each one defining the objectives against service performance & health indicators during the agreed reference period. To ease the search of clauses in a huge volume, they are organized by domain and each domain have category. The UI usually display these clauses by domain and category (ex: Agreement Details...)

These clauses can be:

- service to be delivered
- time to deliver the service,
- service performance,
- tracking and reporting mechanisms
- exclusions, like Force majeure cases
- customer duties and responsibilities,
- financial terms (penalty) in case the SLA is violated.

Example of SLA clauses:

- A web site must be available 99.99% of the reference time period.
- The average response time of the MMS sending must be less than 2 seconds during the business hours.
- Number of Service incidents (e.g. Trouble Tickets) must be less than 5 within the reference period.

There are three types of clause:

- **Downtime**: Used to cumulate all the service or service element downtimes notified by the Service Level Status Change events during a reference period and then to calculate the Service Availability percentage before to check it compared to its Service Clause Objective (SCO).
- **Incident**: Used to count the number of incidents detected from a service or a service element during the reference period compared to the Service Clause Objective (SCO). Incident is a critical Service Level Status event without any duration.
- **Service Level Status**: Used to summarize a set of data measured during the reference period and compared to the assigned Service Level Objective (SLO).

For each type of the following compliance calculations, the relevant SLA clause defines an objective which must be met for the SLA to remain in compliance.

3.2.1.2 Customer

The Customer object contains the information required to identify and to contact the Subscriber of the Service.

A customer has the following attributes:

- identifier, name, description and alias
- Company name
- Organization name,
- Representative Contact name and email

- Main Contact information (name, email, phones)
- Address location including region and time zone
- Holiday Calendar (see 3.2.2.3.2 Holiday Calendar)
- Custom additional attributes required by the end user

3.2.1.3 Provider

The Provider object contains the information required to identify and to contact the Service Provider.

A provider has the following attributes:

- identifier, name, description and alias
- Company name
- Organization name,
- Representative Contact name and email
- Main Contact information (name, email, phones)
- Address location including region and time zone
- Holiday Calendar (see 3.2.2.3.2 Holiday Calendar)
- Custom additional attributes required by the end user

3.2.1.4 Supplier

A Supplier can be eventually assigned to a SLA item when the service is delivered by a third party provider. The Supplier object contains the information required to identify and to contact these third party provider of the associated Service.

A supplier has the following attributes:

- identifier, name, description and alias
- Company name
- Organization name,
- Representative Contact name and email
- Main Contact information (name, email, phones)
- Address location including region and time zone
- Holiday Calendar (see 3.2.2.3.2 Holiday Calendar)
- Custom additional attributes required by the end user

3.2.1.5 Service

A Service, meaning a Service Instance (SI), represents a Service provided to a customer. It contains a set of attributes that register its properties, and the tree of its underlying Service Component Instances (SCI) having themselves their own attributes. All these elements must be conformed to the referenced Service Definition and version.

A Service Instance must be registered with the USLAM repository prior to create a SLA against it.

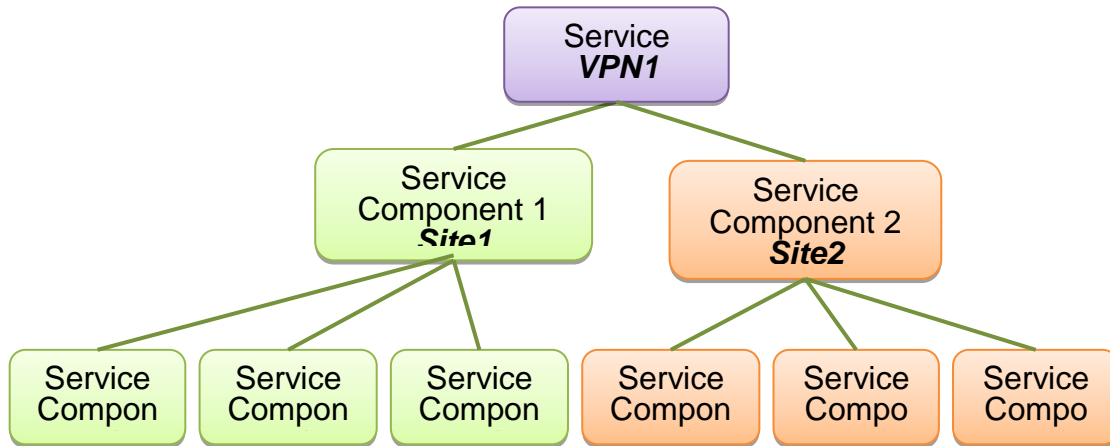
Service represents any kind of services can be subject to be sold with a SLA like Telco Services, Data and Communication Services (Voice and Internet, Triple Play, Data Center) or Outsourcing Services (Incident management, Customer satisfaction, Security Management, Continuity Management, Change Management...)

Examples:

- A Leased Line between two cities with a given speed
- A Data Server identified by its location and unique address

- A VPN dedicated to a customer with multiple sites and inside each site a set of equipment and applications.

Figure 6: Example of Service and its Service Components (VPN)



The Services, meaning Service Instances must conform to the Service definition they refer to (see 3.2.3.1 Service Definition). The SLA Repository Manager will reject Service Instances during data load which are not conformed to their Service Definition or that references a non-existing Service Definition.

3.2.1.6 Users

The user object contains the information required to identify end user of the USLAM Web User Interface and to define access control to USLAM objects.

A user has the following attributes:

- name, display name, password and description
- Role
- Filter name used to define access control on USLAM objects.
- State of the user (active or inactive)

3.2.2 Templates

3.2.2.1 Service Offering

A Service Offering (sometimes called SLA template) describes an offering, including the SLA clauses & objectives against the delivered Service.

Associated to the Service Offering the Service Level Template specifies the Service Level Objectives (SLO) assigned to the indicators used to calculate the SLA clauses statuses.

A Service Offering specifies:

- All the SLA clauses & their objectives part of the offering
- The default contract duration
- The reference period recurrence: Weekly, Monthly or Quarterly. It is used by USLAM Calculation Engines to deduce the agreement status by calculating the polled events during this reference period.

- Depending on the reference period recurrence it is possible to define some additional parameters to specify when the reference periods actually start:
 - If recurrence is Weekly: the day of the week (ex: Monday, Tuesday...)
 - If recurrence is Monthly: the day of the month (1 to 31)
 - If recurrence is Quarterly: the month of the year (January, February...) and the day of the month (1 to 31)
- The calendar that declares the service hours. (ex: 24x7 or 10x5)
- The type of exclusions that will be allowed, like 'Force majeure' or 'Unplanned maintenance' and their optional maximum authorized duration in minutes for each type of exclusion. This duration can be 'infinite' for the 'Force majeure' type of exclusion.
- The validity period of the service offering. After this period, this template is obsolete.



Currently USLAM only supports **weekly**, **monthly** and **Quarterly** recurrences

Example of clauses for several level of Service Offering:

| Service Offering | Premium | Standard |
|--------------------------|---------------------------------------|-------------------------------------|
| WIFI Performance | 99.8% Based on Bandwidth > 1.8Mbps | 99% Based on Bandwidth > 1.5Mbps |
| Internet Performance | 99.8% Based on Bandwidth > 15Mbps | 99% Based on Bandwidth > 10Mbps |
| VM Availability | 99.8% Based on ping < 500ms | 99% Based on ping < 500ms |
| VM Performance incidents | < 5 Based on ping < 500ms | < 10 Based on ping < 500ms |

If the Service Offering has variable objectives depending on the attributes of the service (or service component) or on input data value, a composite object named conditional SLA clause objective can be used to design the Service Offering. A conditional SLA clause objective is composed by a list of simple SLA clause objectives and condition to select the actual simple SLA clause objective to apply.



The condition for the SLA clause objective selection is a groovy code that must be done by the Service Offering Designer.

A Service offering must in addition, set the values of the business impact (e.g. Service Level Credit) parameters for the business impact categories

assigned by the underlying Service Level Requirement if there is such assignment that requires business impact parameter.

3.2.2.2 Service Level Template

Service Level Template is a template object which specifies the Service Level Objectives to be assigned to the underlying technical service performance & health indicators (such as Key Performance Indicators).

Service Offering and Service Level Template are tightly coupled. For each Service Offering, a Service Level Template needs to be created.

Service Offering provides a business perspective and the Service Level Template describe the engineering perspective.

Content of a Service Level Template depends on the Service structure as well as on the type of indicators that must be processed for that service.

A Service Level Objective (SLO) is assigned to an indicator to determine the service level status. This is done by comparison between the indicator value, the thresholds and the comparison operator specified in the SLO.

A SLO object contains a mandatory **Critical** threshold value and an optional **Major** threshold value. Each threshold value has a comparison operator: Less Than, Less Than Or Equal, Greater Than, Greater Than Or Equal.

In some cases the SLO assigned to an indicator might depend on the property of its service component (ex: the priority of a VPN site). In order to handle such cases, a composite object named conditional SLO refers to a set of simple SLO and a condition to select the simple SLO to apply.



The condition for the SLO selection is a groovy code that must be done by the Service Offering Designer.

3.2.2.3 Calendars

A calendar essentially defines the working and non-working times for a service, and must be considered before each SLA calculation.

USLAM support two types of calendars

- Service hour calendars
- Holiday calendars

Both determine the on-duty service time periods that must be applied to a given service or service element when assigned to a SLA item.

Unlike the exclusion periods that do not impact the Total Activity Time, the Service Hours calendar and the holiday calendar directly determine the **Total Activity Time** value.

The Total Activity Time is used to calculate the Service Availability percentage assigned to each SLA clause of type cumulated downtime.



Total activity time is sometimes called Agreed Service Time, a term defined by ITIL

3.2.2.3.1. Service Hour Calendar

The service hour (sometime also called business hour) defines the working and non-working times for a service under agreement. A service hour calendar is specified by setting the on-duty portions of each day in the week.

A service hour calendar also specifies if the holiday calendars have to be applied as off-duty periods or not.

The off-duty intervals defined by a service hour calendar are specified in the local time zone of the service.

The service hour calendar that must be applied to a Service is the calendar referenced by the Service Offering.



24x7 Service Hour calendar is predefined by USLAM, all other calendars have to be defined before being referenced by a Service Offering.

3.2.2.3.2. Holiday Calendar

A holiday calendar is associated to a country or to others criteria in the countries such as the religion specific holidays. It specifies the set of days which are off-duty for service elements in a given location. Holidays are applied only if this is requested by the service hour calendar setting.

3.2.3 Metadata

3.2.3.1 Service Definition

A Service Definition specifies the structure of a service model with the logical decomposition into service elements definition called Service Component Definition and the dependencies that exist between them.

Example: A Service Definition for Service VPN will specify Service Definition for Service Component Site and Routers.

3.2.3.2 Service Level Requirement

A Service Level Requirement is a metadata object that specifies all the calculation and business rules to be processed by USLAM engines to compute the SLA compliance. These Calculation rules are assigned per Service and Service Components.

Service Level Requirements are used as input of the USLAM enrichment service that performs the attachment of the calculation objects and business rules to the Service so that SLAs can be processed by the USLAM engines.



This Service Level Requirement metadata is not really implicitly exposed on the USLAM User Interface.

3.2.3.3 Business rule

Business Rule are metadata that must be uploaded to USLAM repository to describe a new custom business rule that can be used to compute the SLA clauses designed in the Service Level Requirements.

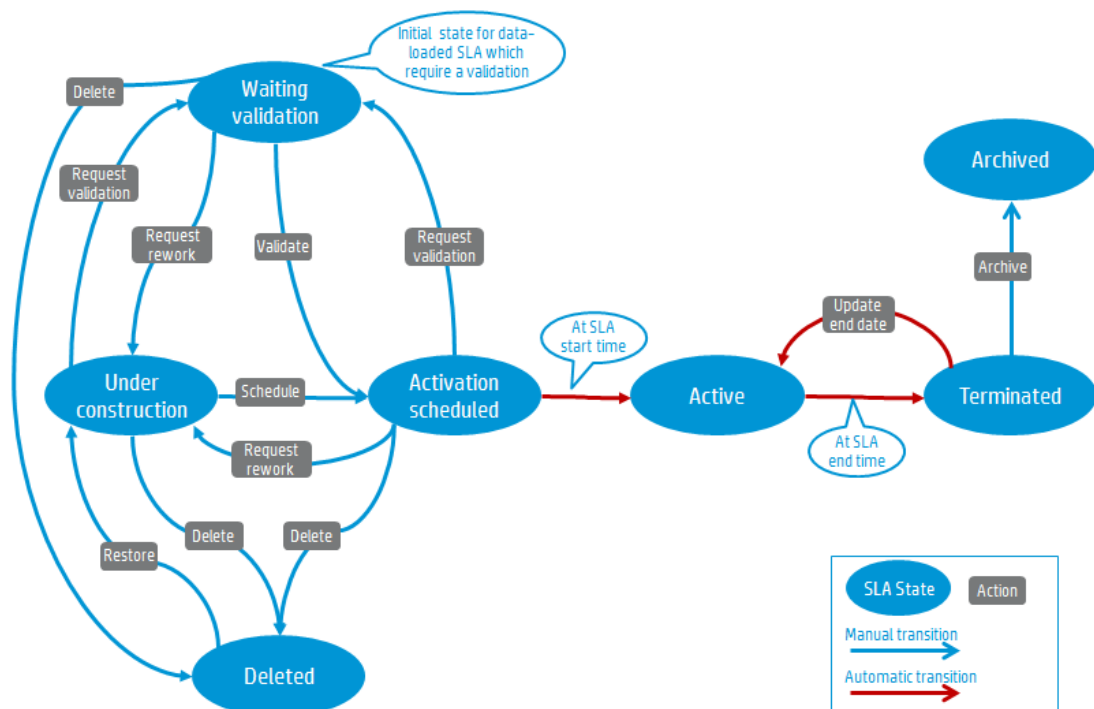
There are 3 categories of custom business rule handled by USLAM:








- Calculation rule based on data record key performance indicator (KPI)
- Calculation rules based on business impact factor (BIF)
- Calculation rules based on service Level indicator (SLI)

3.3 Agreement State and Lifecycle

The following figure depicts the lifecycle of a typical SLA, showing all the possible states from the point an SLA is created till it is terminated. Description of each possible state of an SLA is given in the table that follows the figure.

Figure 7: SLA Lifecycle












| State | Description |
|--|--|
| <p>Under construction</p>  | <p>The SLA has been created but is still under construction. No calculation will be performed in this state.</p> <p>Possible transitions:</p> <p><i>Request validation:</i> Update SLA state to <i>Waiting validation</i></p> <p><i>Schedule:</i> Update SLA state to <i>Scheduled</i></p> <p><i>Delete:</i> Remove this entity</p> |
| <p>Waiting validation</p>  | <p>The SLA needs to be manually validated by a user before being scheduled. No calculation will be performed in this state.</p> <p>Possible transitions:</p> <p><i>Request rework:</i> Update SLA state back to <i>Under Construction</i></p> <p><i>Validate:</i> Update SLA state to <i>Scheduled</i></p> <p><i>Delete:</i> Remove this entity</p> |
| <p>Activation Scheduled</p>  | <p>The SLA is ready to be taken into account by the Calculation Engine, which automatically updates the state to <i>Activated</i> as soon as the SLA Start Date is reached. No calculation will be performed in this state.</p> <p>Possible transitions:</p> <p><i>Request rework:</i> Update SLA state back to <i>Under Construction</i></p> <p><i>Delete:</i> Remove this entity</p> |
| <p>Activated</p>  | <p>The SLA is active and taken into account by the Calculation Engine.</p> <p>Possible transitions: SLA state automatically changes to <i>Terminated</i> at SLA end time.</p> |
| <p>Terminated</p>  | <p>The SLA is terminated. No calculation will be performed in this state.</p> <p>Possible transitions: SLA state can go back to <i>Activated</i> if the SLA end time is updated.</p> |
| <p>Deleted</p>  | <p>The SLA is deleted but can be restored. Calculations are no more performed by the Calculation Engine.</p> <p>Possible transitions:</p> <p><i>Restore:</i> Update SLA state back to <i>Under Construction</i></p> |
| <p>Archived</p>  | <p>The SLA is archived after termination. No calculation will be performed in this state.</p> <p>This is a final state; There is no possible transition to another state.</p> |

3.4 Agreement Status













The agreement status represents the compliance status of an agreement as a whole and also the compliance status of the clauses contained in an agreement.

The Agreement Status is equal to the worst status of its SLA items and can be one of the following:

| Status | Description |
|---|---|
| On Target  | An SLA is compliant if none of its SLA clauses are either Breach or At Risk . |
| At Risk High  | An SLA Status is At Risk High if none of its SLA clauses is violated but one or several are in close proximity of being violated |
| At Risk Medium  | An SLA Status is At Risk Medium if none of its SLA clauses is violated but one or several are in close proximity of being violated |
| At Risk Low  | An SLA Status is At Risk Low if none of its SLA clauses is violated but one or several are in close proximity of being violated |
| Breach  | An SLA is Breach if one of its SLA clauses is violated |
| On Target and Adjusted  | This agreement has the status On Target after a manual adjustment |
| Breach and Adjusted  | This agreement has the status Breach after a manual adjustment |
| At Risk High and Adjusted  | This agreement has the status At Risk High after a manual adjustment |
| At Risk Medium and Adjusted  | This agreement has the status At Risk Medium after a manual adjustment |
| At Risk Low and Adjusted  | This agreement has the status At Risk Low after a manual adjustment |

The Item Status is equal to the worst status of its clauses and can be one of the following:

| Status | Description |
|--------|-------------|
|--------|-------------|

| | |
|---|--|
| <p>On Target</p>  | <p>An SLA Item is compliant if none of its SLA clauses are either Breach or At Risk.</p> |
| <p>At Risk High</p>  | <p>An SLA Item Status is At Risk High if none of its SLA clauses is violated but one or several are in close proximity of being violated.</p> |
| <p>At Risk Medium</p>  | <p>An SLA Item Status is At Risk Medium if none of its SLA clauses is violated but one or several are in close proximity of being violated.</p> |
| <p>At Risk Low</p>  | <p>An SLA Item Status is At Risk Low if none of its SLA clauses is violated but one or several are in close proximity of being violated.</p> |
| <p>Breach</p>  | <p>An SLA Item is Breach if one of its SLA clauses is violated</p> |
| <p>On Target and Adjusted</p>  | <p>This Sla Item has the status On Target after a manual adjustment</p> |
| <p>At Risk High and Adjusted</p>  | <p>This SLA Item has the status At Risk High after a manual adjustment</p> |
| <p>At Risk Medium and Adjusted</p>  | <p>This SLA Item has the status At Risk Medium after a manual adjustment)</p> |
| <p>At Risk Low and Adjusted</p>  | <p>This SLA Item has the status At Risk Low after a manual adjustment</p> |
| <p>Breach and Adjusted</p>  | <p>This SLA Item has the status Breach after a manual adjustment</p> |
| <p>Exceed</p>  | <p>This SLA Item has the status Exceed</p> |
| <p>Exceed and Adjusted</p>  | <p>This SLA Item has the status Exceed after a manual adjustment</p> |



If the Agreement or Item Status has been adjusted manually during a data correction. Status Icons will have a small warning indicator 🚨

3.5 Business Impact Calculation

If the agreement clause objectives are not reached, it may result penalties to the customer. This penalty is calculated by an engine in charge of the impact named Business Impact Factor (BIF). On top of the agreement compliance processing, the Service Offering designer can optionally specify one or several business impact categories to be computed and published by USLAM platform.

Usual business impact of SLA is for instance the Service Level Credit the service provider must give to the customer when his SLA is not compliant during a reference period.

Example of service level credit agreement:

“Each site of a VPN service un-available during more than 99.8 % of the reference period will be credited to the subscriber with the value determined by the matrix below, and the maximum credit for all the sites will be 10% of the VPN service fee”.

| VPN site Availability % | | Credit (% of service fee) |
|-------------------------|-------|---------------------------|
| From | To | |
| 99.80 | 99.75 | 1 |
| 99.75 | 99.60 | 2 |
| 99.60 | 99.50 | 4 |
| 99.50 | 0 | 8 |

In order to allow the Service Offering designer to design his own business impacts, USLAM supports computation of Business Impact indicators called Business Impact Factor (BIF). A Business impact Factor can be assigned either to the SLA clause (ex: risk ratio that might be computed for each SLA clause) or to the SLA item.

The business impact parameter values can be modified reference period after reference period of an active SLA. Business Impact parameter can be a simple parameter, or a matrix, and it can be assigned globally to the SLA item, or to a SLA clause.

Several business impact rules can be defined for a SLA clause.

The business impact can be calculated for one reference period of the SLA or several consecutive reference periods. This period is called the business period.

3.6 Exclusions

Exclusion is a period of time which SLA Calculations should be excluded and will not have any impact the SLA Compliance.

Note: They are indicated in the SLA reports and seen in the Visual time based analysis window.

Example of usual exclusions:

- **Force Majeure:** It is an outage for which neither service provider nor the customer is responsible for damages or for delays or failures in performance resulting from acts or occurrences beyond their reasonable control (e.g. fire, war, explosion, etc.).
- **Maintenance:** Maintenance refers to upgrades or modifications of resources part of the service infrastructure. Maintenance may temporarily degrade the quality of delivered service, including the possibility of short-duration outages. Maintenance period generally does not lead to SLA degradation and penalty. We can have planned or unplanned (i.e. not scheduled) maintenance.

Exclusion has a name, a description and an optional maximum authorized duration in minutes for total duration in a reference period for this type of exclusion. If there is no maximum duration specified, there is no limit on the total exclusion duration for this exclusion reason type and the duration is seen as 'unlimited'.

A Service Offering defines a list of possible exclusion supported by this service offering.

For a given Service Offering, it can be specified that exclusions of a certain type will decrease or not the total activity time of the period (sometimes called "agreed service time").

A contract administrator can enter exclusions on multiple agreements on a specific reference period using the Time Period Exclusion window (see 6.1.5.1 Time Period Exclusion) or add a single exclusion on the current reference period using the Agreement Status Snapshot window (see 5.1 Agreements Status Snapshot)

3.7 SLA Alerting

By default USLAM is able to detect and notifies four types of Alerts:

- **The Service Level Compliance (SLC)** alerts to track any status change of any SLA, SLA item and SLA clause.
- **Time to Resolve (TTR)** alerts to track the status change when the indicator value crosses the Major threshold.
- **The Business Impact (BIF)** alerts to track events when a calculated BIF value crosses a defined threshold.
- **Exclusion creation/deletion** alerts to track events when exclusions are created/deleted

SLC and TTR alerts can be activated in the Service Level Requirement metadata (see 3.2.3.2 Service Level Requirement).
 Thresholds for BIF alerts are defined per-SLA.

3.8 User Roles

The following table provides information about the roles that may be assigned to different users and a typical set of tasks that can be performed by each user role.

| User Role | Description |
|-----------------------------|---|
| None | This role does not grant any access to any USLAM module. |
| Operator | This role grants access to the Dashboard windows. An operator can monitor the Agreement Status Snapshot, display the Clause Status Details. |
| Business Operator | This role grants access to the business impacted Application workspace only |
| Platform Administrator | This role grants access to the Platform Administration Windows. A platform administrator can set and change platform settings. |
| User Administrator | This role grants access to the Platform Administration Windows. A platform administrator can manage end users. |
| Dataload Administrator | This role grants access to the Platform Administration Windows. A platform administrator can access to the Dataload Status Snapshot and check data loaded USLAM objects. |
| Contract Administrator | This role grants access to Contract Administrator window to manage contracts and their associated lifecycle and also manage service offerings. |
| Contract Adjustment Manager | This role grants access to the View and edition of Agreement clauses value and status adjustment. |
| Contract Approval Manager | This role grants access to the Approval of the Agreement clauses value and status adjustment. |
| Data Correction Manager | This role grants access to the Data Correction and the view and edition of exclusions. |
| Report Manager | This role grants access to the USLAM reports |



User roles are defined in the USLAM Platform (see 8.1 User Management) but the user authentication can be delegated in an external way (for example using LDAP...)

The following table provides information about permission to access to USLAM UI windows by each user role.

| USLAM V4 | Business Operator | Operator | Platform administration | Dataload administration | Contract administration | Contract adjustment | Contract Approval | User administration | Data Correction Manager | Report Manager |
|--|-------------------|----------|-------------------------|-------------------------|-------------------------|---------------------|-------------------|---------------------|-------------------------|----------------|
| Contract administration | | | | | | | | | | |
| View Service Offerings | | | | | ✓ | ✓ | | | | |
| Edit Service Offerings | | | | | ✓ | | | | | |
| Clone Service Offering | | | | | ✓ | | | | | |
| View SLA contracts | ✓ | ✓ | | | ✓ | ✓ | | | | |
| Edit active SLAs (incl AEs) | | | | | ✓ | | | | | |
| Manage SLA lifecycle | | | | | ✓ | | | | | |
| Dashboard | | | | | | | | | | |
| View SLA Status/SLA Clause status | | ✓ | | | | | | | | |
| Agreements Reports | | | | | | | | | | ✓ |
| Business Impact monitoring | ✓ | | | | | | | | | |
| SLA events browser | ✓ | ✓ | | | | | | | | |
| Contract Operations | | | | | | | | | | |
| View exclusions | ✓ | ✓ | | | | ✓ | ✓ | | ✓ | |
| Create/Delete exclusions | | | | | | | | | ✓ | |
| View SLA adjustments | | ✓ | | | | ✓ | ✓ | | | |
| Create/Delete SLA adjustments | | | | | | ✓ | | | | |
| Approve SLA adjustments | | | | | | | ✓ | | | |
| View Business impact adjustment | ✓ | | | | | ✓ | ✓ | | | |
| View Business parameters | ✓ | | | | | ✓ | ✓ | | | |
| Create/Delete Business impact adjustment | | | | | | ✓ | | | | |
| Create/Update Business Parameters | | | | | | ✓ | | | | |
| Approve Business impact adjustment | | | | | | | ✓ | | | |
| Platform administration | | | | | | | | | | |
| Set options | | | ✓ | | | | | | | |
| Users management | | | | | | | | ✓ | | |
| Dataload status | | | | ✓ | | | | | | |

For more explanation about the End User Management, see 8.1 User Management to learn in detail how to create a new user and define restriction access to USLAM objects.

Chapter 4

USLAM User Interface Overview

4.1 Logging in to the USLAM UI

The USLAM graphical user interface can be accessed using a web browser (Microsoft Internet Explorer, Chrome or Firefox). You will need appropriate access credentials depending on your user role.

USLAM Web UI provides two user authentication modes:

- **Built-in:** In this mode, you have only two predefined users (This mode should only be used for testing or demonstration purposes. This is the default mode):
 - *Administrator*, which is granted with the several USLAM roles (Contract Approval Manager, Platform Administrator, Contract Administrator).
 - *Demo*, which is not assigned with any role.
- **LDAP:** Use this mode to connect USLAM Web UI to an external LDAP system. This mode requires additional configuration of the USLAM Web UI as described in the *HP USLAM Administration Guide*

Note: USLAM product install by default pre-defined set of user roles. An **Administrator** is allowed to access all features of the USLAM UI.

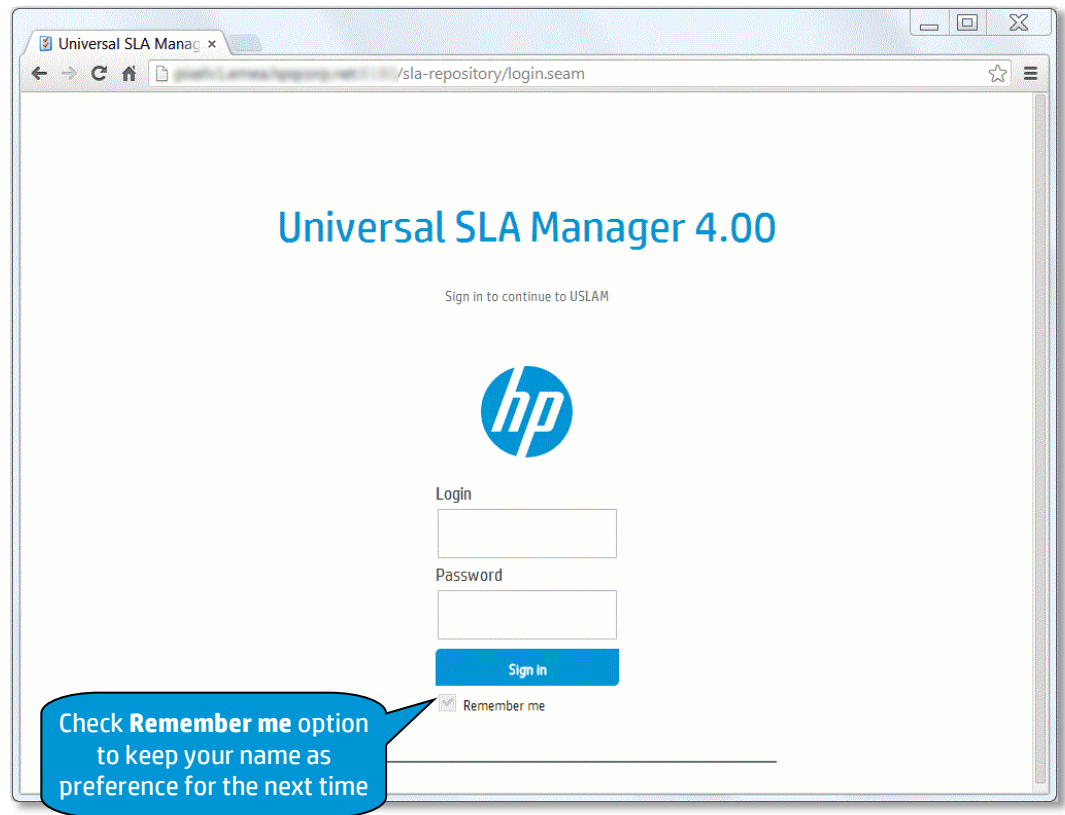
To login to the UI, you will be required to perform the following steps:

Open your web browser and enter the following URL to access the USLAM user interface.

```
http://<server address>:8080/sla-repository
```

The Universal SLA Manager window displays

Figure 8: Login page



Enter your user access credentials in the relevant text fields and then click **Sign in** to log in to the USLAM UI.

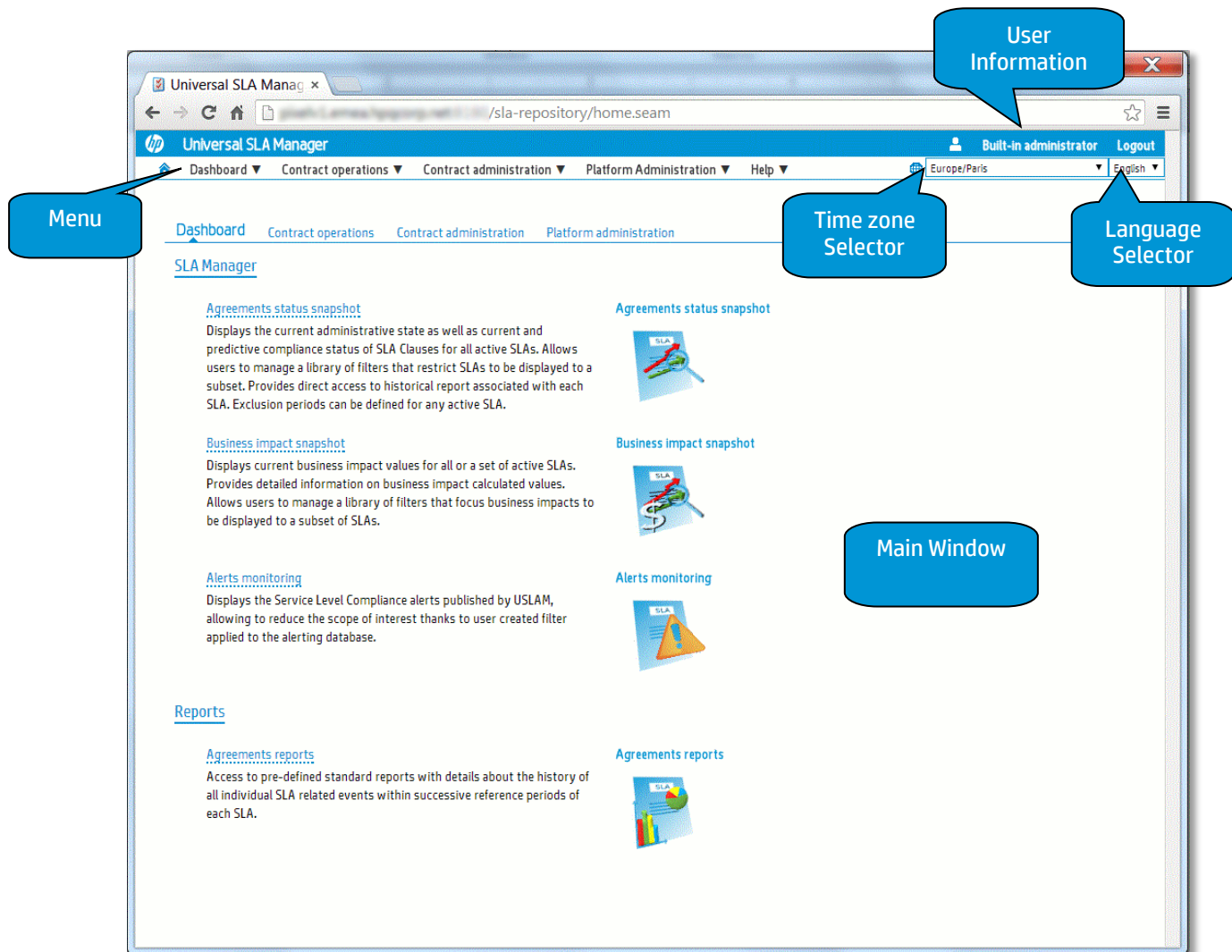


If you want to open several user sessions, please open multiple instances of your web browser. If you open a new tab instead of a new window, you will actually use the same session and this will have an impact on login/logout operations for all your tabs.

Therefore it is recommended to always use one web browser application for one user.

4.2 Home page

Once you login to the USLAM user interface, the **Home page** will display which is composed of the following elements:



This is main display area on the homepage and may consist of four tabs that group tasks per profile together:

- Dashboard
- Contract Operations
- Contract Administration
- Platform Administration



These tabs are only visible to user logged in with the right level of privileges (See 3.8 User Roles)

Each time the user interface is loading, refreshing and waiting for a server update, you will see a spinner animation to indicate you have to wait.

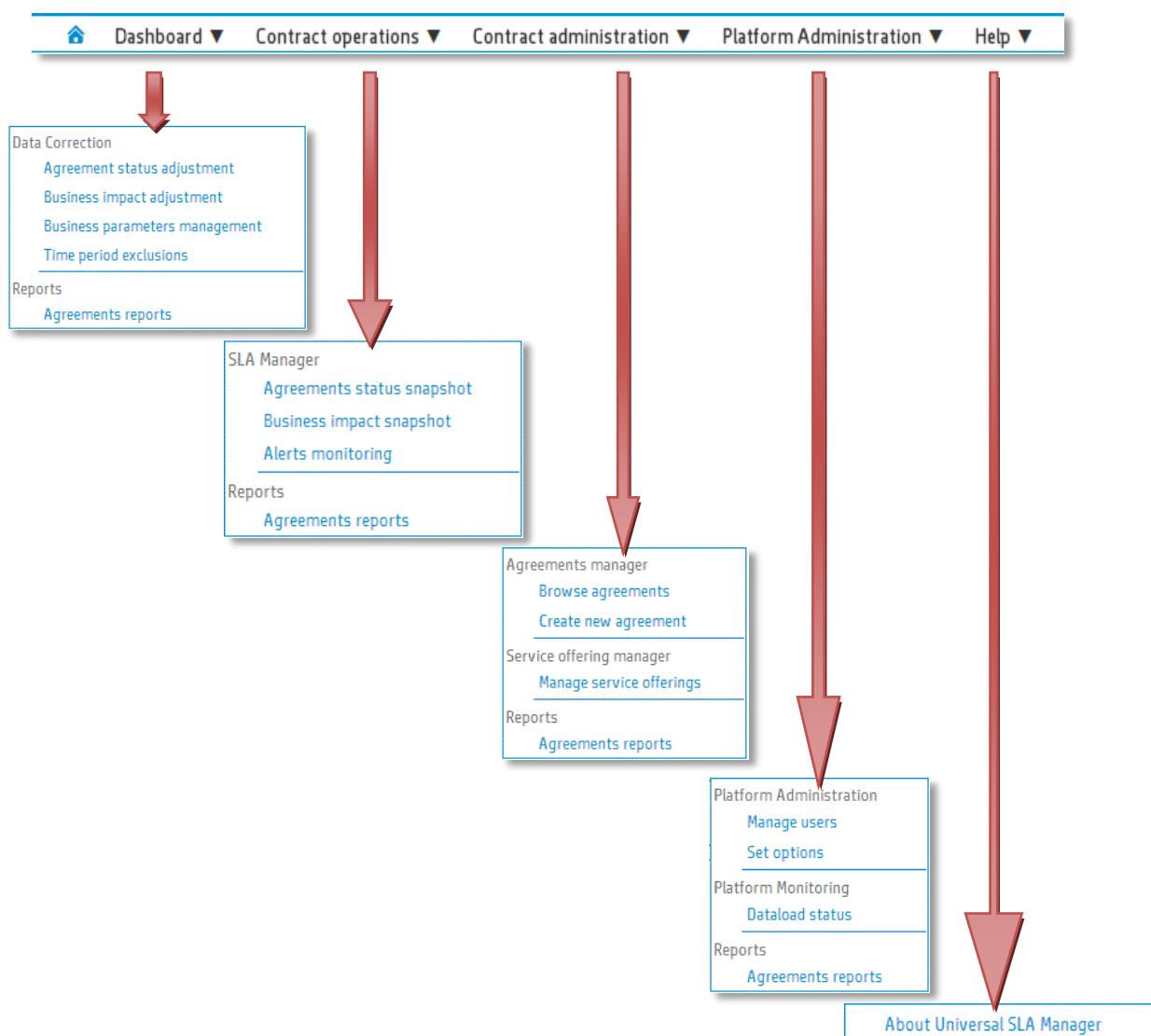
Figure 10: USLAM Spinner Animation



4.3 Menu

You can access the same features as the homepage from the main menu. Menu is organized by profile operations and group by tasks.

Figure 11: Menu



Menu will only display features you are authorized to do based on your user role.

4.4 Language Selector

The USLAM GUI supports multiple languages (localization). You can select one of the following languages from the Language Selector control located at the top-right corner on the main menu bar:

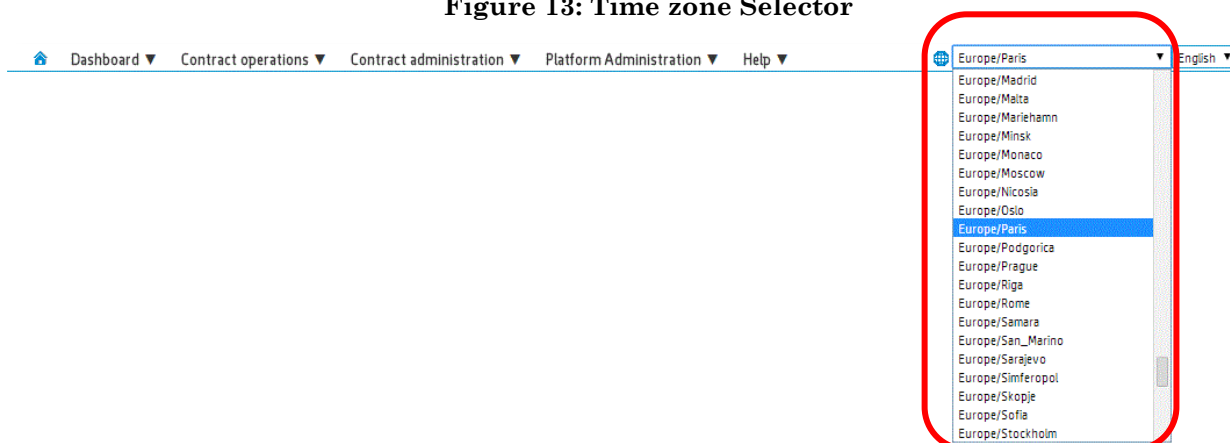
Figure 12: Language Selector



4.5 Time zone Selector

The USLAM UI uses a time zone setting to display date time using the specified time zone. After changing the time zone, all the page will be dynamically apply this setting.

Figure 13: Time zone Selector



4.6 User Information

You can view the user credential of the logged in user on the top-right corner of the screen near the Logout operation.

Figure 14: User Information



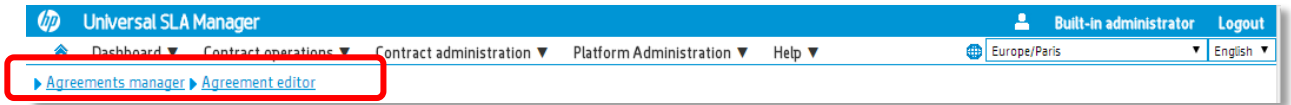
The name display is the **Display Name** defined during the user creation on the End User Management page that can be different from the login name used to log in.

4.7 Navigation Bar

Each time you navigate into the USLAM application, a navigation bar appears and remind you where exactly you are in the USLAM UI.

You can easily navigate back clicking on the link.

Figure 15: Navigation Bar



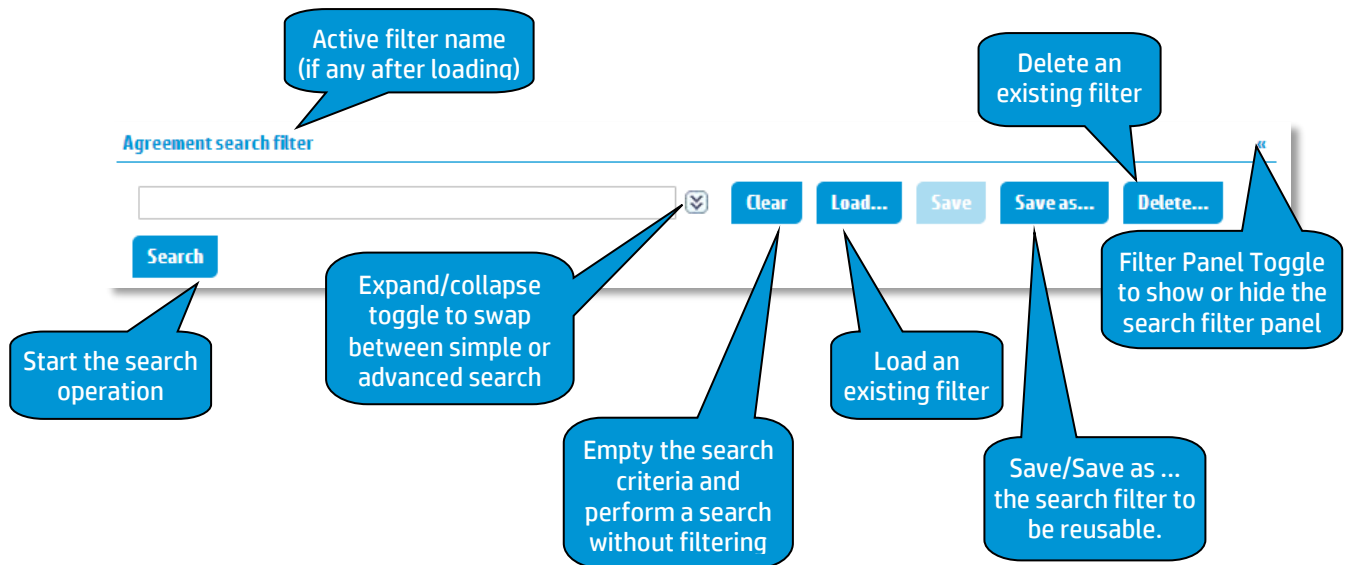
Navigation Bar is hidden if you already are at the USLAM home page

4.8 Filter Management

The USLAM GUI offers a very robust *Search* feature which allows you to search for different entities. The mechanism used by the Search feature is uniform across the USLAM UI and is based on customized search filters. In the following sections, we will discuss an example of creating, saving, loading and deleting a search filter and using it to search for a required entity.

4.8.1 Search Filter Panel

Search Panel is a panel that the user can hide/show. It provides a filter area and search operation (Search / Reset), and give access to the Filter library (load, delete, save filters). It also has a expand/collapse toggle to swap the search filter mode from Simple to Advanced and provide several levels of search filters.

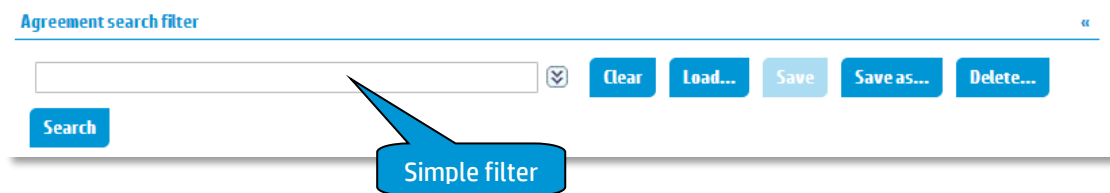


4.8.2 Creating a New Search Filter

4.8.2.1 Simple Search

An edit zone allows the end user to enter text and click Search to perform a global search on all the text criteria without specified on which attribute we want to search. This search will use automatically the list of pre-defined text criteria. This simple filter allows performing quick and simple search. You can use the expression 'OR' using the separator ';' (ex: SLA_1;SLA_2 will return all result containing "SLA_1" or "SLA_2")

Figure 17: Filter Management - Simple Search

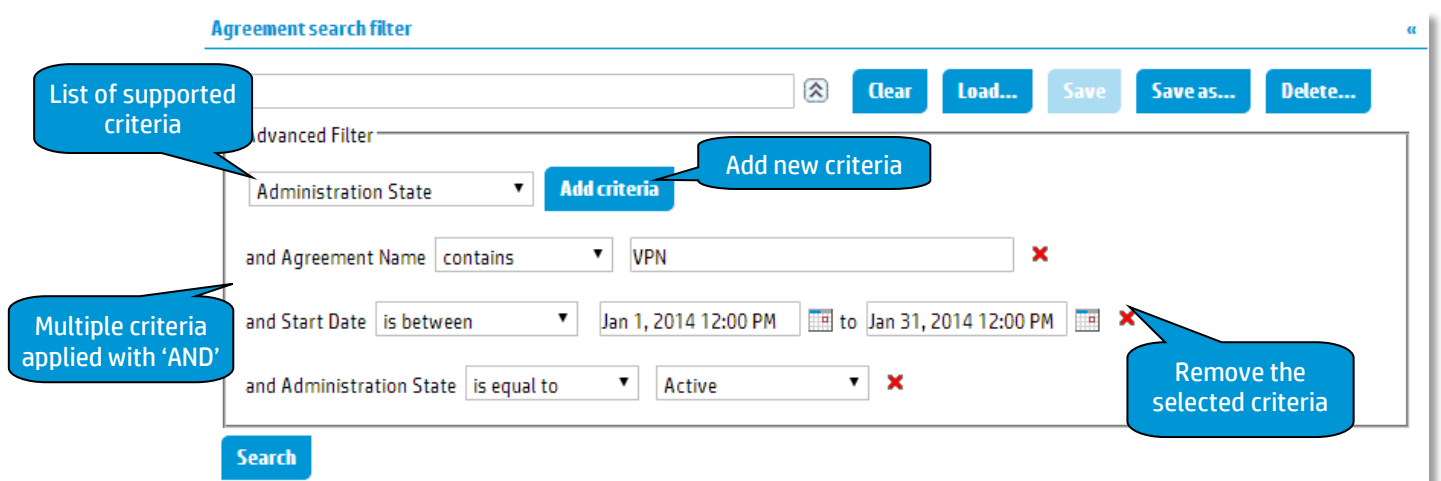


4.8.2.2 Advanced Search

To create an advanced search, the user has to select from the drop-down menu, the desired attribute and then click [Add criteria]. You can select multiple attributes in this step, and all the criteria will have the 'AND' expression between them. String Criteria values support also the ; for the expression 'OR'.

Once you have selected the attributes, select the comparison operator for each of the selected attributes depending on the type of the criteria e.g. date, text, numeric etc.

Figure 18: Filter Management - Advanced Search



| Criteria Type | Available Operators | Value |
|---------------|---|--|
| Text | Is not defined Is equal to Is different from Contains Starts with Ends with | Text (can be separated by ; to support 'OR' expression) |
| Numeric | Is not defined Is equal to Is different from Contains Starts with Ends with | Numerical (can be separated by ; to support 'OR' expression) |
| Date / Time | Is not defined Is equal to Is different from Before After Is between Is outside the range | One or two Date according to the operator. A calendar control will be available to select graphically the right date/time. |
| Enumeration | Is not defined Is equal to Is different from Is either | List to select one or multiple pre-defined values. |


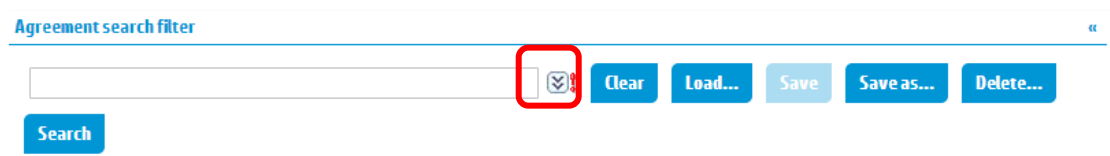
When an advanced search is executed, the filter panel collapse to extend the search result panel and an icon  indicates that advanced search criteria are applied.

Figure 19: Filter Management - Advanced applied filter

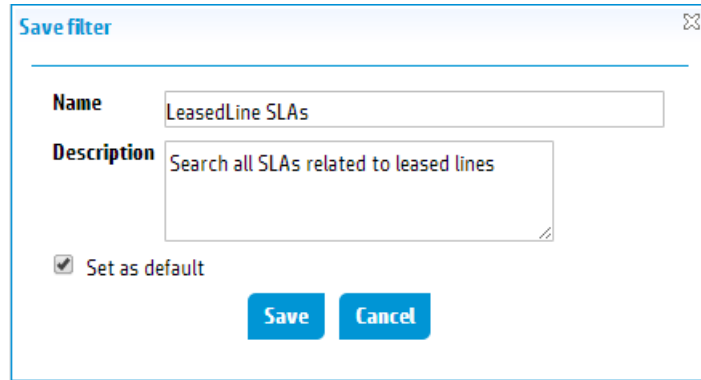


4.8.3 Saving a New Search Filter

Once you have created a simple or advanced search filter (see 4.8.2 Creating a New Search Filter), you can save the filter to be able to reload it later.

Click to the **Save** button on the filter panel and the Save filter dialog box appears:

Figure 20: Save filter dialog box



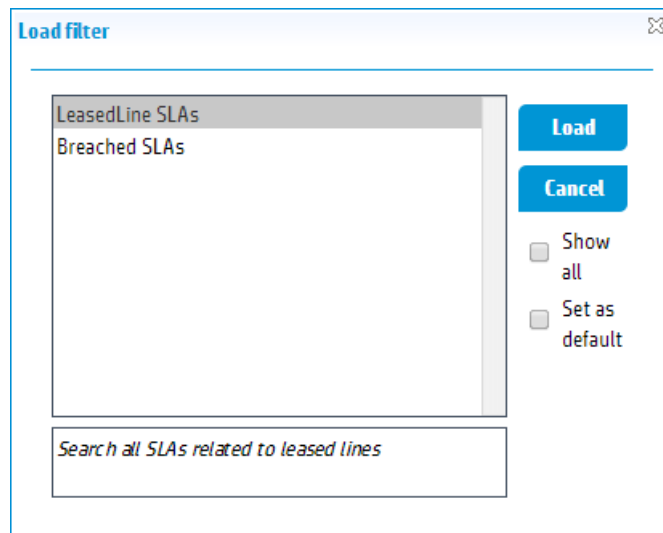
Enter the **Name** and **Description** for the new search filter. You can also save this search filter as a default filter for you by clicking the **Set as default** check. Click [Save] to save the new search filter.

Make sure the name of the new filter is unique and does not already exist.

4.8.4 Loading a Search Filter

You can load an existing search filter clicking to the button **Load** in the filter panel and the Load filter dialog box appears:

Figure 21: Load filter dialog box



Select an existing search filter from the list and then click **Load** to execute the selected search filter.

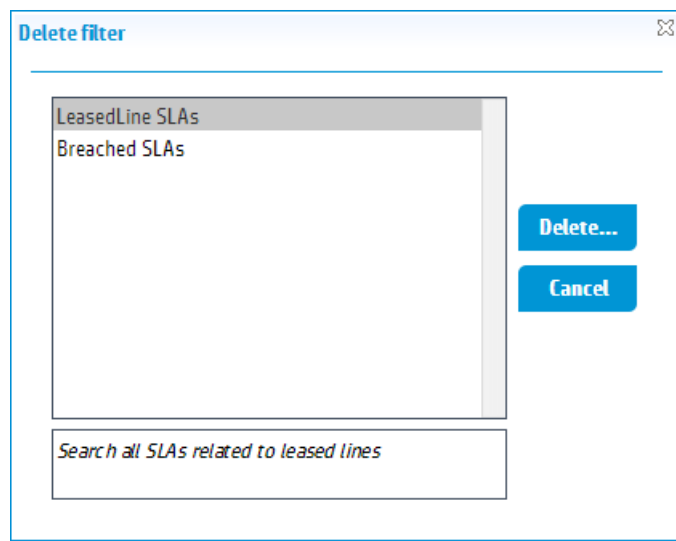
By default, you can only see the list of your personal filter, to select filter from another user, you need to set the check **Show all**.

You can also define this search filter as a default filter for you by clicking the **Set as default** check.

4.8.5 Deleting a Search Filter

You can delete an existing search filter clicking to the button **Delete** in the filter panel and the Delete filter dialog box appears:

Figure 22: Delete filter dialog box



Select an existing search filter from the list and then click **Delete** to delete the search filter from the list of saved filters.



A filter can only be deleted if it is not defined as the **default** filter. The filter cannot be deleted if it is used by another user.

4.9 Search Result

Search Result Panel is a table that contains the result of a search filter applied. All search result panel provides the same feature to ease the analysis of the result:


- Support icons and colors
- Sorting
- Custom visibility and order of columns
- Support huge volume of result with a pagination and customization page size.
- Tooltip in cells to help the user (description, summary information...)

Figure 23: Search Result

The screenshot shows a table titled "Agreement search results (15 items)". The table has columns: Agreement Name, Actions, Item Name, Customer, Provider, Supplier, Service, and Start date. The table contains 15 rows of data. Below the table is a pagination control showing page 1 of 2, and a "Number of agreements per page: 10" selector. Callouts point to various features: "Total number of elements matching the request" points to the table title; "Single sorting (ascending / descending)" points to the "Start date" column header; "Search result list with customized columns (order and visibility)" points to the table content; "Number of pages of result for the request. You can click on the number to go directly to the page. Controls allows you to navigate quickly to the First, Previous, Next, Last" points to the pagination controls; "Size of the result page to display (Default is 10, Add or remove 5 using the selector)" points to the "Number of agreements per page" selector; and "Columns configuration" points to a gear icon in the bottom right corner.

| A | Agreement Name | Actions | Item Name | Customer | Provider | Supplier | Service | Start date |
|---|-----------------------------------|-----------------------------|-------------------------|--------------------------|----------------------------------|--------------------|--|--|
| ▶ | SLA VPN Business Impact 01 | View / Edit | VPN Portugal | Worldwide Phone Solution | Avix Portugal | CCST Portugal | VPN Business Impact 01 | Dec 1, 2012 12:00 AM (Europe/Lisbon) |
| ▶ | SLA CallCenter001 1 | View / Edit | Call Center USA | Green Cafe | Avix US | CCST US | Call Center - USA | Dec 1, 2012 12:00 AM (Europe/London) |
| ▶ | SLA VPN Ticket 01 | View / Edit | VPN Mexico | Worldwide Phone Solution | Avix Hong Kong | CCST Mexico | VPN Ticket 01 | Nov 1, 2012 12:00 AM (America/Mexico_City) |
| ▶ | SLA VPN Aggregation 01 | View / Edit | VPN Italy | Worldwide Phone Solution | Avix Italy | CCST Italy | VPN Aggregation 01 | Nov 1, 2012 12:00 AM (Europe/Rome) |
| ▶ | SLA VPN Performance 01 | View / Edit | VPN China | Worldwide Phone Solution | Avix China | CCST China | VPN Perf1 | Nov 1, 2012 12:00 AM (Asia/Shanghai) |
| ▶ | SLA VPN BIF Detailed Penalty 01 | View / Edit | Florida VPN | Worldwide Phone Solution | Avix Florida | CCST Florida | VPN BIF detailed Florida | Oct 1, 2012 12:00 AM (America/New_York) |
| ▶ | SLA VPN BIF Detailed California | View / Edit | California VPN | Worldwide Phone Solution | Avix California | CCST California | VPN BIF detailed California | Oct 1, 2012 12:00 AM (America/New_York) |
| ▶ | SLA VPN Data Selectors 01 | View / Edit | Paris VPN | Worldwide Phone Solution | Avix Paris | CCST Paris | VPN DataSelectors | Oct 1, 2012 12:00 AM |
| ▶ | VPN Conditional Objectives SLA 01 | View / Edit | Florida Conditional VPN | Green Cafe | Avix International | CCST International | VPN Conditional Objectives 1 | Oct 1, 2012 12:00 AM |
| ▶ | USLAM Release Monitor | View / Edit | Code Quality | Product Management team | Continuous Integration Test team | CCST Test | Code Quality | Jan 1, 2012 12:00 AM |

Header will display tooltips to describe short name column and let the user toggle the single sorting.


The button **Columns configuration**  displays a dialog box to order and set the visibility of each column. This setting is saved in the user preference and will be available the next time the user goes to the same page (see 4.10 Columns Configuration)



Some search result page will be automatically refreshed by timer. This timer will be customizable on the page.

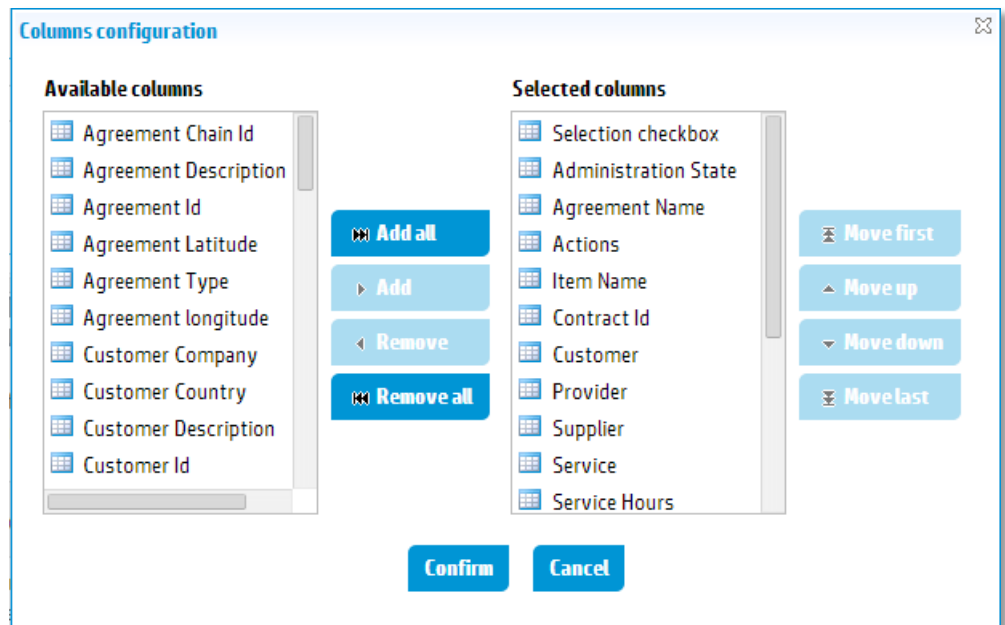
Example: Agreement Status Snapshot...

4.10 Columns Configuration

You can configure the arrangement of the columns and also change which attributes are displayed in the search result table by clicking 

The Columns configuration window displays:

Figure 24: Columns configuration dialog box



Select the attributes that you want to display in the search results table, from the **Available columns** list, and then click **Add** to transfer the selected attributes to the **Selected columns** list. You can also add them all, remove or remove them all using the appropriate buttons.

Confirm button will save the setting in the user preference otherwise **Cancel** button will ignore any changes.

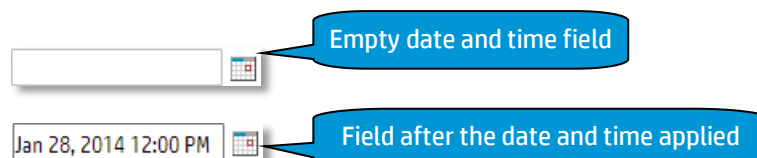
4.11 Date and Time Selector

Each time USLAM UI needs a date and/or time, the same widget is used. It allows you to enter directly the date/time or popup a calendar widget to ease the definition.



To define the date and the time with the calendar widget, you need to select the date first and close the calendar then open it again to click to the time to get a dialog box to set the time (hours, minutes).

Figure 25: Date and Time Selector



Click on the button to display the calendar widget

| << | < | January, 2014 | > | >> | x | |
|-----|-----|---------------|-----|-----|-----|-----|
| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
| 1 | 29 | 30 | 31 | 1 | 2 | 3 |
| 2 | 5 | 6 | 7 | 8 | 9 | 10 |
| 3 | 12 | 13 | 14 | 15 | 16 | 17 |
| 4 | 19 | 20 | 21 | 22 | 23 | 24 |
| 5 | 26 | 27 | 28 | 29 | 30 | 31 |
| 6 | 2 | 3 | 4 | 5 | 6 | 7 |

Clean 12:00 PM Today Apply

Clean will empty the time

Date area

Time area. Click on the time to popup a dialog to modify it

Today set the current date and time automatically

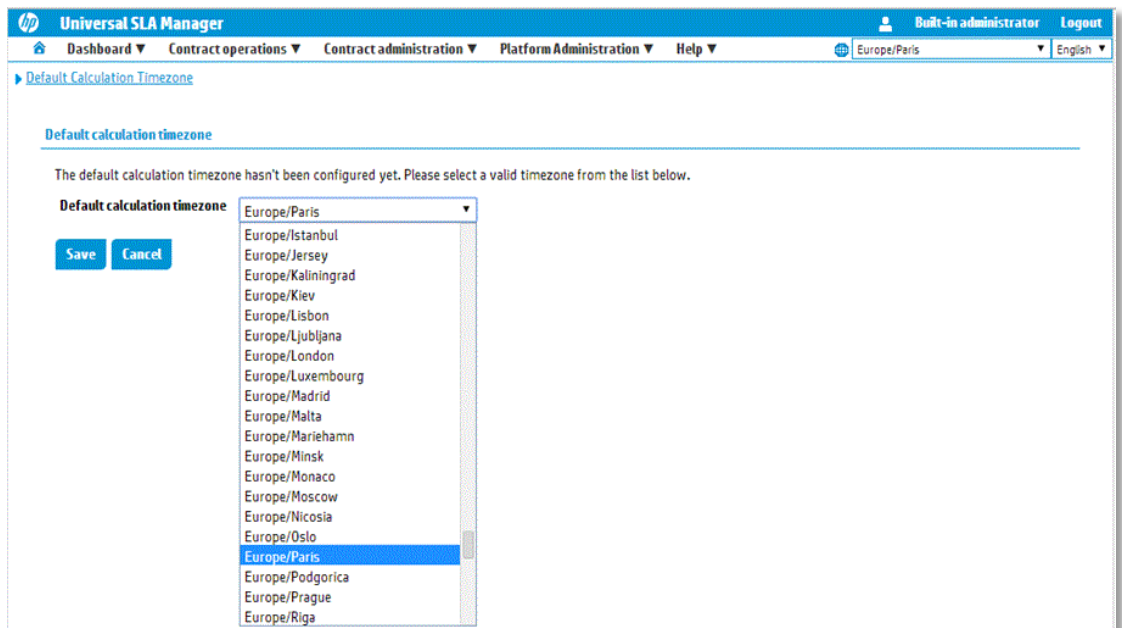
11 : 00 PM

OK Cancel

4.12 Default Calculation Time zone

The default calculation time zone is an USLAM parameter which is used by the USLAM engines when considering the Service Hours and Holidays for a given agreement when the Time zone has not been set in the Customer and/or Service and its components.

Figure 26: Default Calculation Time zone



Universal SLA Manager

Dashboard Contract operations Contract administration Platform Administration Help

Built-in administrator Logout

Europe/Paris English

Default Calculation Timezone

Default calculation timezone

The default calculation timezone hasn't been configured yet. Please select a valid timezone from the list below.

Default calculation timezone

Europe/Paris

Save Cancel

- Europe/Istanbul
- Europe/Jersey
- Europe/Kaliningrad
- Europe/Kiev
- Europe/Lisbon
- Europe/Ljubljana
- Europe/London
- Europe/Luxembourg
- Europe/Madrid
- Europe/Malta
- Europe/Mariehamn
- Europe/Minsk
- Europe/Monaco
- Europe/Moscow
- Europe/Nicosia
- Europe/Oslo
- Europe/Paris
- Europe/Podgorica
- Europe/Prague
- Europe/Riga



This parameter must be set before creating any agreement to let the USLAM engine know which time zone should be considered.

4.13 About Box

The menu **Help** → **About Universal SLA Manager** allow the user to know the detail of the USLAM product he is working with, and have access to a specific dialog box to describe the installation details (installed modules, version and patch level of these modules, and the installation directory) and statistics on the USLAM platform (active SLA, active clauses...)

Figure 27: About Universal SLA Manager



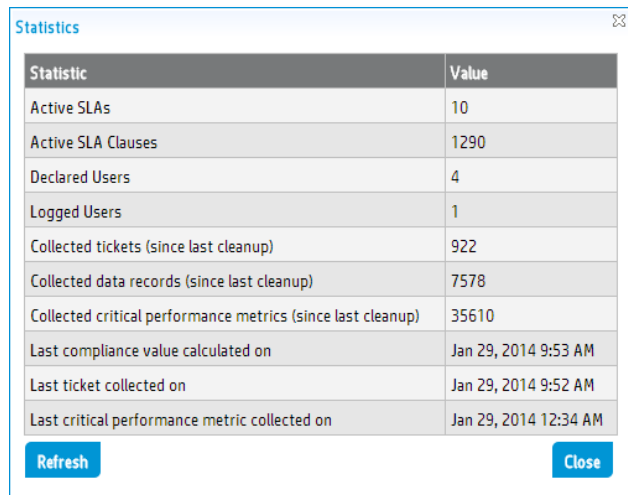
Figure 28: Installation Details

| Host name | Module name | Module version |
|------------|----------------------|----------------|
| [redacted] | Web UI | 4.0-SNAPSHOT |
| [redacted] | Action Executor | 4.0-SNAPSHOT |
| [redacted] | BIF Engine | 4.0-SNAPSHOT |
| [redacted] | Common Collector SDK | 4.0-SNAPSHOT |
| [redacted] | Event Collector | 4.0-SNAPSHOT |
| [redacted] | KQI Engine | 4.0-SNAPSHOT |
| [redacted] | Metric Collector | 4.0-SNAPSHOT |
| [redacted] | Repository Manager | 4.0-SNAPSHOT |
| [redacted] | SLA Engine | 4.0-SNAPSHOT |
| [redacted] | Ticket Collector | 4.0-SNAPSHOT |
| [redacted] | Ticket Engine | 4.0-SNAPSHOT |

USLAM Services is installed on host [redacted] in directory: [redacted].
Reporting Server is installed on host [redacted] on port [redacted]

Close

Figure 29: Statistics



The image shows a window titled "Statistics" with a close button in the top right corner. It contains a table with two columns: "Statistic" and "Value". The table lists various system metrics and their current values. At the bottom of the window, there are two buttons: "Refresh" on the left and "Close" on the right.

| Statistic | Value |
|---|-----------------------|
| Active SLAs | 10 |
| Active SLA Clauses | 1290 |
| Declared Users | 4 |
| Logged Users | 1 |
| Collected tickets (since last cleanup) | 922 |
| Collected data records (since last cleanup) | 7578 |
| Collected critical performance metrics (since last cleanup) | 35610 |
| Last compliance value calculated on | Jan 29, 2014 9:53 AM |
| Last ticket collected on | Jan 29, 2014 9:52 AM |
| Last critical performance metric collected on | Jan 29, 2014 12:34 AM |

Chapter 5

Dashboard

5.1 Agreements Status Snapshot



The Agreements Status Snapshot is a **real-time** window restricted to the user access right and dedicated to display the current administrative state and the predictive compliance status of the SLA clauses for all active agreements.

Operator will monitor agreements status using this window and can access to the Agreement Status Details window to get detailed status of all clauses for one selected agreement.

This window uses by default the current date/time to filter but it can be customized using a calendar widget and display current active agreement based on their reference period dates.

You can select your desired search criteria by defining a new filter or loading an existing one in the **Agreement search filter**. It is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and supports the agreement column customization (see 4.10 Columns Configuration).

Figure 30: Agreements Status Snapshot

| A | S | Agreement Name | IS | T | Actions | Item Name | Risk % | Customer | Provider | Supplier | Service | Period start date |
|---|---|---------------------------------|----|---|---------|--------------------|---------|--------------------------|----------------------------------|---------------|-----------------------------|----------------------|
| | | SLA CallCenter001 1 | | | Actions | Call Center USA | 97.22% | Green Cafe | Avix US | CCST US | Call Center - USA | Jan 25, 2014 1:00 AM |
| | | SLA VPN Aggregation 01 | | | Actions | VPN Italy | 0% | Worldwide Phone Solution | Avix Italy | CCST Italy | VPN Aggregation 01 | Jan 1, 2014 12:00 AM |
| | | SLA VPN BIF Detailed Penalty 01 | | | Actions | Florida VPN | 0% | Worldwide Phone Solution | Avix US | CCST East US | VPN BIF detailed Florida | Jan 1, 2014 6:00 AM |
| | | SLA VPN Business Impact 01 | | | Actions | California VPN | 0% | Worldwide Phone Solution | Avix US | CCST West US | VPN BIF detailed California | Jan 1, 2014 6:00 AM |
| | | SLA VPN Data Selectors 01 | | | Actions | VPN Portugal | 0% | Worldwide Phone Solution | Avix Portugal | CCST Portugal | VPN Business Impact 01 | Jan 1, 2014 1:00 AM |
| | | SLA VPN Performance 01 | | | Actions | Paris VPN | 0% | Worldwide Phone Solution | Avix International | CCST Portugal | VPN DataSelectors | Jan 1, 2014 12:00 AM |
| | | SLA VPN Ticket 01 | | | Actions | VPN China | 0% | Worldwide Phone Solution | Avix China | CCST China | VPN Perf1 | Dec 31, 2013 5:00 PM |
| | | USLAM Quarterly Defects Monitor | | | Actions | VPN Mexico | 375% | Worldwide Phone Solution | Avix Hong Kong | CCST Mexico | VPN Ticket 01 | Jan 1, 2014 7:00 AM |
| | | USLAM Release Monitor | | | Actions | Defects Management | 895.45% | Product Management team | Continuous Integration Test team | | Defects (for USLAMV4) | Nov 1, 2013 12:00 AM |
| | | | | | Actions | Code Quality | | | | | Code Quality (for USLAMV4) | Jan 1, 2014 12:00 AM |

To change the duration between each information refresh, you can modify the number displayed in the **Refresh every (in seconds)** field. You also can force the refresh manually clicking to the icon

The USLAM application calculates normalized indicators like a risk percentage and a breach estimate date for all types of SLAs. Together with a trend status that notifies a user a SLA keeps accumulating downtimes, those indicators helps operators sorting and organizing their activity based on the most impacting degraded SLAs.

Figure 31: Agreement Status Snapshot – Risk and Trend Indicator

| A | S | Agreement Name | IS | T | Actions | Risk % | W | |
|---|---|------------------------|----|---|--------------|---------|-------------------------------|--------------------|
| | | SLA VPN Ticket 01 | | 🔴 | ⬇️ Actions ▼ | 448.03% | -12h 56min 48s / 3h 43min 12s | Worldwide Phone Sc |
| | | SLA CallCenter001 1 | | 🟡 | ⬇️ Actions ▼ | 97.22% | None | Green Cafe |
| | | SLA VPN Aggregation 01 | | 🟢 | ➡️ Actions ▼ | 0% | None | Worldwide Phone Sc |

Clause name: Site availability
 Estimated breach date: Jan 29, 2014 1:44 AM

Trend Indicator (T) indicates whether the worst clause is accumulating service degradation.

The status can be one of the following:

- ➡️ Indicates that there is no open incident impacting an agreement
- ⬇️ Indicates that there is at least one open incident impacting an agreement

The column Actions allow the user to drop down an action menu to access to several tasks according to the user rights.

- View the clauses Details (see 5.2 Agreements Status Details)
- Manage exclusions (see 6.1.5.2 Exclusion Management)

Figure 32: Agreements Status Snapshot - Actions menu



The following table shows the column names and their descriptions:

| Column Name | Description |
|---------------------------------|---|
| Administration State (A) | Administration State of the agreement. It displays the current agreement state following the SLA lifecycle (see 3.3 “Agreement State and Lifecycle” above) You can view this information as a tooltip on the column header |
| Agreement Status (S) | Agreement Status You can view this information as a tooltip on the column header |
| Item Status (IS) | Agreement Item Status You can view this information as a tooltip on the column header |
| Trend Indicator (T) | Trend. Incident Status indicates whether the worst clause is accumulating service degradation. |
| Actions | Menu to select relevant operations that may be performed for an agreement. |
| SLA Id | Unique identifier for an agreement |
| Name | Name of the agreement |
| Item Name | Name of the agreement item |
| Customer | Customer for the agreement |
| Provider | Provider for the agreement |
| Supplier | Supplier for the agreement item |
| Service | Service for the agreement |
| Service offering | Service offering attached to an agreement |
| Worst clause info | Status information about the worst performing clause of an agreement (remaining value compare to its associated objective) |
| Risk ratio | Monitors the risk on the worst clause. 0% means no degradation, value >= 100% means that breached thresholds has been crossed. |
| Service hours | Service hours agreed upon |
| Start date | Date and time when the agreement becomes effective |
| End date | Date and time when the agreement expires |
| Recurrence | Recurrence rate for an agreement |
| Period start date | Date and time when the current period has started for an agreement |
| Period end date | Date and time when the current period will be over for an agreement. |
| Contract Identifier | Identifier of the contract for an agreement. |

5.2 Agreements Status Details


Agreements Status Details is only accessible from the Agreements Status Snapshot selecting **View Clause Details** in the action menu. It displays the current status, objectives and the compliance status of the SLA clauses for the selected agreement.

Figure 33: Agreements Status Details

The screenshot displays the 'Agreements status details' page in the HP Universal SLA Manager. At the top, there are navigation links for 'Dashboard', 'Contract operations', and 'Agreements status snapshot'. A status message indicates that the SLA for 'VPN Ticket 01' is 'Breached'. Below this is a search filter and a table of clause search results.








| Actions | Service component | Clause name | Objective | Value | Record Nb | Remaining value | Estimate | Weight |
|---------|-------------------|---|-----------|-------|-----------|-----------------|----------|--------|
| Actions | VPN Ticket 01 | Ratio of Critical Time To Resolve the incidents | < 0.2 | 0.75 | 4 | | | |
| Actions | VPN Ticket 01 | Mean Business Day To Acknowledge VPN tickets | < 2 | 0.31 | 2 | | | |
| Actions | VPN Ticket 01 | Critical Business Days To Acknowledge VPN tickets | < 2 | 1 | -- | 1 | 1 / 2 | |
| Actions | VPN Ticket 01 | Mean Business Day To Resolve the Incidents | < 2 | 0.37 | 4 | | | |
| Actions | VPN Ticket 01 | Ratio of Critical Business Days To Resolve the incidents | < 0.2 | 0.75 | 4 | | | |
| Actions | VPN Ticket 01 | Mean Calendar Day To Resolve the incidents | < 2 | 1 | 4 | | | |
| Actions | VPN Ticket 01 | Mean Time To Resolve the incidents | < 2 | 531 | 4 | | | |
| Actions | VPN Ticket 01 | Ratio of Critical Calendar Days To Acknowledge VPN tickets | < 2 | 0 | 2 | | | |
| Actions | VPN Ticket 01 | Percentage of Critical Calendar Days To Acknowledge VPN tickets | < 2 | 0 | 4 | | | |
| Actions | VPN Ticket 01 | Ratio of Critical Time To Acknowledge VPN tickets | < 0.2 | 0.5 | 2 | | | |

At the bottom of the table, there is a 'Refresh every (in seconds): 60' field and a 'Done' button. A callout indicates that the user can set the refresh period and manually refresh the window.

To change the duration between each information refresh, you can modify the number displayed in the **Refresh every (in seconds)** field. You also can force the refresh manually clicking to the icon 

You can also click **Done** to go back to the previous window.

The following table shows the column names and their descriptions:

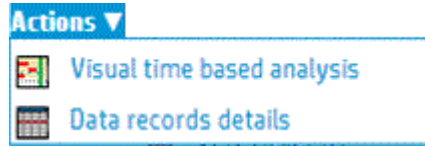
| Column Name | Description |
|---|---|
| S | Clause Status: On Target , At risk (High, Medium, low) or Breached You can view this information as a tooltip on the column header |
| Name | Name of the clause |
| Objective | Clause objective. It is the breach threshold of the monitored indicator with its operator and unit. |
| Value | Current value of the indicator depending of the clause type (availability, number of trouble ticket, record value) |
| Record Number | Number of samples used to compute the value. Only applicable for clause with the type Incident or Service Level Status. |
| Remaining Value (Time Left or Number Left) | Time left for a clause with the type Downtime, or the remaining number left of incident for clause with the type Incident |
| Estimate | Estimate value and breached date |
| Weight | Weight of the clause |
| Type | Clause Type : Downtime, Incident, Service Level Status |
| At risk when | At risk range with its operator and unit |
| Exceed when | Exceed threshold with its operator and unit |
| Category | Clause category (dedicated to organized clauses) |
| Domain | Clause domain (dedicated to organized clauses) |
| Summary | Provide a summary of several columns in a visual way with icon/values according to the clause type: <u>Downtime</u> : Availability  , Time Left  , Estimate  <u>Incident</u> : Incident number  , Estimate  <u>Service Level Status</u> : Value  , Counter (nb of samples)  |

The column Actions allow the user to drop down an action menu to access to several tasks according to the user rights and the type of clause (Downtime, Incident, Service Level Status).

- View the Visual time based analysis (see 5.3 Visual time based analysis). Available only for clause of type Availability or Incident.

- View Data records details (see 5.4 Clause Status Data Records). Available only for clause of type Service Level Status or Incident.

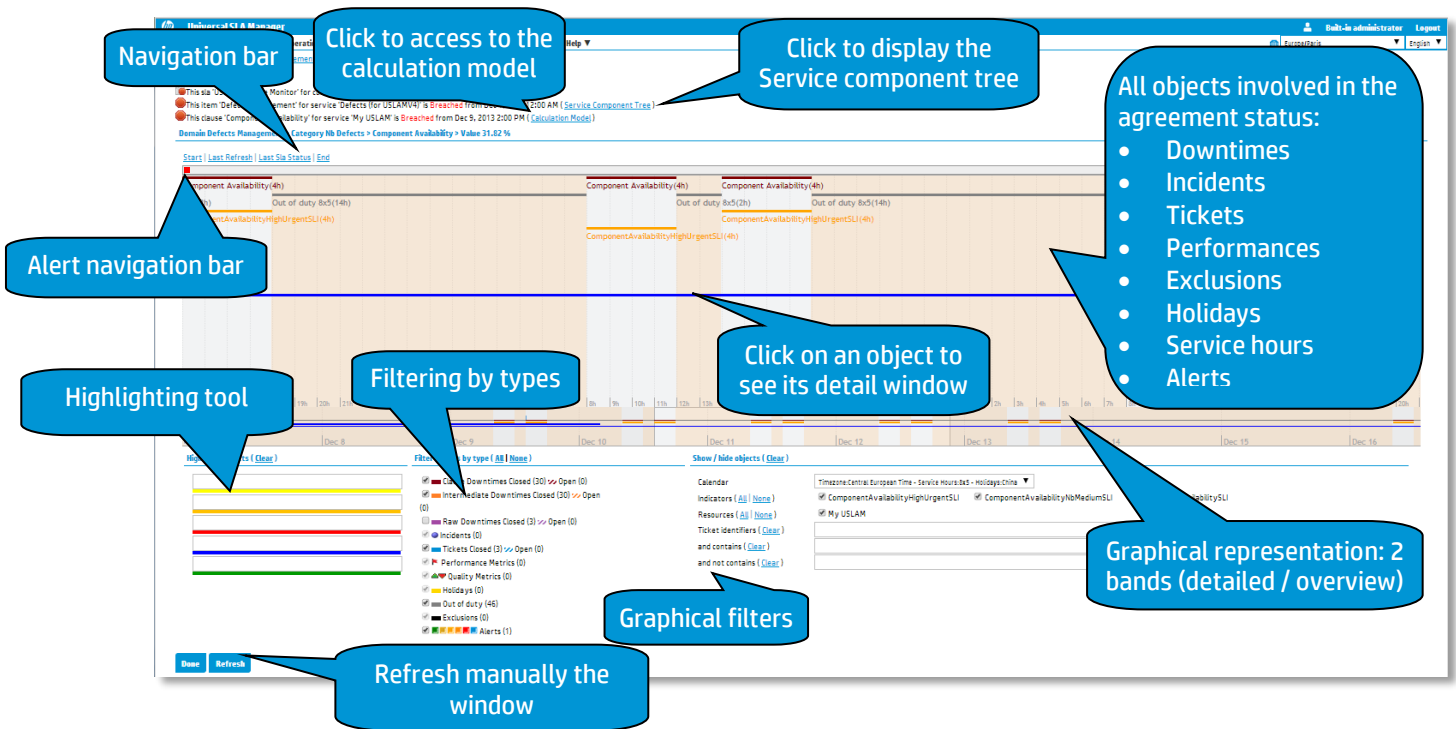
Figure 34: Agreements Status Details - Actions menu



5.3 Visual time based analysis

Visual time-based Analysis is only accessible from the Agreements Status details selecting in the action menu. It displays all objects involved in the agreement status and value presented in an interactive timeline representation. It is useful to correlate raw data objects and their impacts on the agreement status for the visible reference period.

Figure 35: Visual time based analysis – Timeline



This window is composed of:

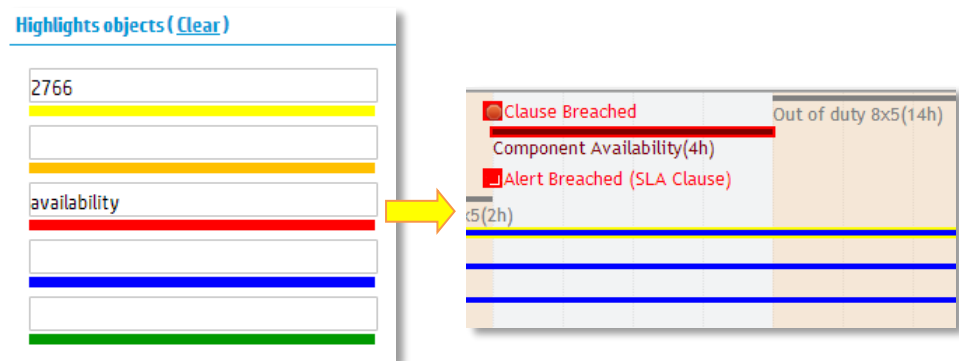
- **Summary panel** to display agreement status and agreement item status and clause status and provide a link to access to the calculation model (see 5.5 Calculation Model)
- **Navigation bar** that allows the users to move quickly to the start or end of a reference period, and focus automatically to the last refresh or last computed status. The right part allows the users to move quickly to the next or previous page.
- **Timeline representation** that visually display raw data and their impacts on the agreement mixed with holidays, exclusions, services hours... Two bands are displayed with different scale :

- Detailed view (scale in hours). Mouse wheel supports zoom up to hour / 15 minutes / 5 minutes / 1 minute.
- Overview (scale is day). This band does not support zoom.

Both bands are interactive and the user can use the mouse to navigate to the right object or time to analyze. Clicking on a visible object will pop up a detailed window with all properties of the objects.

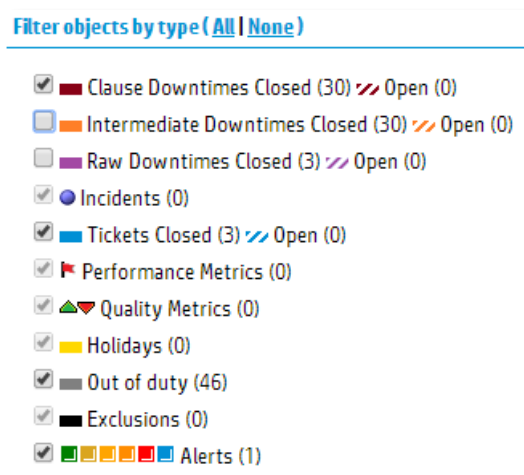
- **Highlighting tool** panel that allow coloring specific objects based on an entered text. Five different colors are available to ease analysis.

Figure 36: Visual time based analysis – Highlighting tool



- **Filtering by type** panel that drive the filter to apply at server side and reduce the volume of data to analyze on the timeline representation and speed up performance during analysis. These filters are based on the type of the objects (ticket, performance, downtimes, incidents...).

Figure 37: Visual time based analysis – Filters by types



- **Graphical filters** that allow the users to show or hide graphically objects based on criteria after applying a filter type. It allows filtering by time zone, calendars and holiday from a list of available combination. It is useful to correlate indicators and their associated raw data (ex: Ticket identifier will help to correlate ticket object and its impact like incident or downtime). It also

allows any free text search on objects to hide / show using operator “contains’ or “not contains”.

Figure 38: Visual time based analysis – Graphical filters

The screenshot shows a filter configuration interface. At the top, there is a link "Show / hide objects (Clear)". Below this, there are several filter categories:

- Calendar:** A dropdown menu showing "Timezone:Central European Time - Service Hours:8x5 - Holidays:China".
- Indicators (All | None):** Three checkboxes are checked: "ComponentAvailabilityHighUrgentSLI", "ComponentAvailabilityNbMediumSLI", and "ComponentAvailabilitySLI".
- Resources (All | None):** One checkbox is checked: "My USLAM".
- Ticket identifiers (Clear):** An empty text input field.
- and contains (Clear):** An empty text input field.
- and not contains (Clear):** An empty text input field.

5.4 Clause Status Data Records

Clause status data records window is only accessible from the Agreements Status details selecting in the action menu. It displays in a data table all data records objects involved in the agreement status and value for a reference period. It is useful to understand the computed value and status for a clause with the type Service Level Status.

This window is composed of:

- **Summary panel** to display agreement status and agreement item status and clause status and provide a link to access to the calculation model (see 5.5 Calculation Model) and Service Component tree (see 5.6)

Service Component tree).

- **Indicator selector** that allows selecting the Service Level indicator and displays its associated data records in the data records table.
- **Data records table** that provides through its headers, dynamic text filtering and sorting capabilities.

Figure 39: Clause status data records – Records table

The screenshot displays the 'Clause status data records' table in the Universal SLA Manager. The table has the following columns: Data timestamp, Data identifier, AgentHandled, and Target resource id. The data rows show records for various time periods, such as 'Jan 1, 2014 7:00:00 AM' through 'Jan 2, 2014 9:00:00 AM'. The 'AgentHandled' column contains numerical values, and the 'Target resource id' column lists 'CallCenter001'. The interface includes a navigation menu at the top, a header with filters, and a 'Reset' button. Callouts provide instructions on how to interact with these elements.

You can also click **Done** to go back to the previous window. You can also access to the Calculation Model using a dedicated link (see 5.5 Calculation Model) and to the Service Component tree (see 5.6

Service Component tree).

Figure 40: Clause status data records – Tickets table

The screenshot shows the HP Universal SLAM Manager interface. At the top, there is a navigation bar with 'Dashboard', 'Contract operations', 'Contract administration', 'Platform Administration', and 'Help'. Below this, there are links for 'Agreements status snapshot', 'Agreements status details', and 'Clause status data records'. The main content area displays a 'Tickets' table with columns for 'Ticket id', 'Open time', 'Resolved time', 'Business day to resolve', 'Severity', and 'Summary'. The table contains 18 rows of data. Several callout boxes are overlaid on the interface:

- Click to access to the Service Component tree**: Points to the 'Service Component Tree' link in the top navigation bar.
- Recurrence and Reference Period dates**: Points to the 'Monthly Reference period: Dec 1, 2013 12:00 AM -> Jan 1, 2014 12:00 AM' and 'Past reference date: Dec 29, 2013 4:46:53 PM' text.
- Click to access to the calculation model**: Points to the 'Calculation Model' link in the top navigation bar.
- Service Level Indicator selector**: Points to the 'MeanTimeToFixMediumLowDefectsSLI (S7)' dropdown menu.
- List of customizable columns. Enter a text to apply a filter on this column.**: Points to the 'Ticket id' column header.
- Click to access to the Columns configuration or reset the default columns visibility**: Points to the 'Reset' button in the top right corner.
- Data record table**: Points to the main table of ticket records.

At the bottom left of the interface, there is a 'Done' button.

You can also click **Done** to go back to the previous window. You can also access to the Calculation Model using a dedicated link (see 5.5 Calculation Model) and to the Service Component tree (see 5.6

Service Component tree).

By default, the data table displays only filled columns and hide empty columns to ease the reading and minimize the horizontal scrolling. It is possible to select visible or hidden columns using the columns configuration.

5.5 Calculation Model

Display the calculation model and their associated current values and statuses for one clause of the agreement item for the specified reference period. It displays all indicators (Service Level Indicators (SLIs) in a tree representation), list of clauses objectives, all Service Level Objectives (SLOs) and all indicators properties in an external window to ease the understanding and analysis on the Clause Status Drilldown window.

Figure 41: Calculation model

Calculation Model for Clause Component Availability

- Clause Component Availability
 - ComponentAvailabilitySLI
 - ComponentAvailabilityHighUrgentSLI
 - ComponentAvailabilityNbMediumSLI
 - MaxNbOpenMediumSLO

Domain Defects Management > Category Nb Defects > Clause Component Availability

| Clause | Type | Description | Weight | Objective | High risk when | Medium risk when | Low risk when | Exceed when | Status | Value |
|------------------------|----------|-------------|-------------|-----------|-----------------------|-----------------------|-----------------------|-------------|--------|-------|
| Component Availability | Downtime | Unspecified | Unspecified | ≥ 75 % | between 75 % and 80 % | between 80 % and 85 % | between 85 % and 90 % | ≥ 95 % | 🔄 | 100 % |

Service Level Objectives

| Service component | SLO |
|-------------------|--------------------|
| Component | MaxNbOpenMediumSLO |

Indicators Snapshot

| Name | Type | Weight | Service | Service version | Component | Timezone | Service hours | Holidays | Aggregation rule | Formal parameter | Status | Value |
|------------------------------------|----------|--------|-----------------|-----------------|---|---------------|---------------|----------|------------------|------------------|--------|-------|
| ComponentAvailabilityHighUrgentSLI | Downtime | | SI-USLAMDefects | 2 | Defects (for USLAMV4) > Action Executor component | Asia/Shanghai | 8x5 | China | | | ✅ | 100 % |
| ComponentAvailabilityNbMediumSLI | Downtime | | SI-USLAMDefects | 2 | Defects (for USLAMV4) > Action Executor component | Asia/Shanghai | 8x5 | China | | | ✅ | 100 % |
| ComponentAvailabilitySLI | Downtime | | SI-USLAMDefects | 2 | Defects (for USLAMV4) > Action Executor component | | | | | | 🔄 | 100 % |

Close

5.6 Service Component tree

Display the Service Component tree, starting from the Service Instance. It shows the Service structure (relationship between each Service Component) as well as the list of attributes for each Service Component whatever the level. Moreover it's possible to select another version of the same Service Instance in order to ease the comparison of 2 different versions (clicking on the new version will open a new window).

Service **TC401VPN1v4** version 4
valid from Jun 16, 2013 12:00:00 AM
other versions: [Previous](#) 1 2 3 4

Click to open the Service Component tree for other Service Instance version

Validity dates of the displayed Service version

Expanded list of Service Component attributes

- SD-TC401-VPN **TC401VPN1v4**
 - Attributes
 - Attributes
 - Site ID : TC401VPN1Site1
 - Priority : 1
 - SiteType : HIGH
 - Credit Weight : 1
 - Attributes
 - Application name : TC401VPN1Site1Appli1
 - Priority : 2
 - ApplicationType : StreamingVideo
 - Credit Weight : 1
- VPN Site **TC401VPN1Site1**
 - Application **TC401VPN1Site1Appli1**
 - Application **TC401VPN1Site1Appli2**
 - Equipment **TC401VPN1Site1Eq1**
 - Equipment **TC401VPN1Site1Eq2**
 - Equipment **TC401VPN1Site1Eq3**

Close

5.7 Business Impact Snapshot



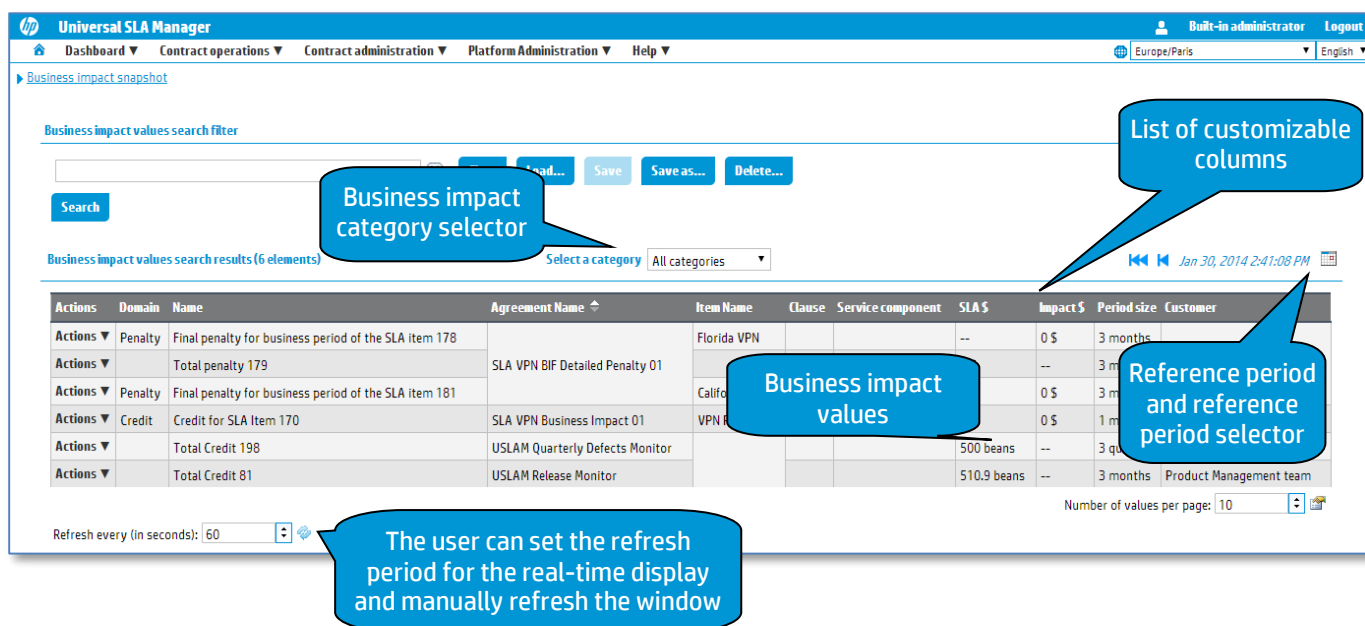
The Business Impact Snapshot is a **real-time** window restricted to the user access right and dedicated to display the current business impact values for all or a set of active agreements.


Operator will monitor the business impact values using this window and can access to the Business Impact Details window to get detailed information on business impact calculated values.

This window uses by default the current date/time to filter but it can be customized using a calendar widget and display current active agreement based on their reference period dates.

You can select your desired search criteria by defining a new filter or loading an existing one in the **Business impact values search filter**. It is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and supports the column customization (see 4.10 Columns Configuration).

Figure 42: Business Impact Snapshot



To change the duration between each information refresh, you can modify the number displayed in the **Refresh every (in seconds)** field. You also can force the refresh manually clicking to the icon 

The column Actions allow the user to drop down an action menu to access to several tasks according to the user rights.

- View the Business Impact Details (see 5.8 Business Impact Details)

Figure 43: Business Impact Snapshot - Actions menu



The following table shows the column names and their descriptions:

| Column Name | Description |
|---------------------------------|---|
| Administration State (A) | Administration State of the agreement. It displays the current agreement state following the SLA lifecycle (see 3.3 Agreement State and Lifecycle) You can view this information as a tooltip on the column header |
| Business impact category | Category of the business impact. |
| Business impact domain | Domain of the business impact. |
| Business impact name | Name of the business impact |

| | |
|----------------------------|--|
| SLA \$ | Business impact values for the agreement |
| Impact \$ | Business impact value for a given clause level |
| Finalization date | Finalization date for the business period |
| Period size | Duration of the business period (ex: 12 months) |
| Actions | Menu to select relevant operations that may be performed for an agreement. |
| SLA Id | Unique identifier for an agreement |
| Name | Name of the agreement |
| Item Name | Name of the agreement item |
| Customer | Customer for the agreement |
| Provider | Provider for the agreement |
| Supplier | Supplier for the agreement item |
| Service definition | Service definition for the agreement |
| Service | Service for the agreement |
| Service offering | Service offering attached to an agreement |
| Service hours | Service hours agreed upon |
| Start date | Date and time when the agreement becomes effective |
| End date | Date and time when the agreement expires |
| Recurrence | Recurrence rate for an agreement |
| Period start date | Date and time when the current period has started for an agreement |
| Period end date | Date and time when the current period will be over for an agreement. |
| Contract Identifier | Identifier of the contract for an agreement. |

5.8 Business Impact Details

Business Impact Details is only accessible from the Business Impact Snapshot selecting **View Details** in the action menu. It displays the current business impact values for the selected item.

Figure 44: Business Impact Details

The screenshot shows the 'Business impact details' page in the Universal SLA Manager. It includes a metadata panel, a search filter, a table of search results, and a refresh control. Callouts highlight the following features:

- Business impact details panel:** Points to the metadata section showing Agreement (SLA VPN BIF Detailed Penalty 01), Description (Unspecified), Contract ID (Contract001), Agreement type (Agreement), Customer (Worldwide Phone Solution), and Provider (Avix US).
- Business impact search filter:** Points to the 'Business impact values search filter' section.
- Business impact search result:** Points to the table of search results.
- Business impact values:** Points to the 'Calculated as' column in the table.
- List of customizable columns:** Points to the column headers in the table.
- The user can set the refresh period for the real-time display and manually refresh the window:** Points to the 'Refresh every (in seconds): 60' field and the refresh icon.

| Actions | Name | Service component | SLA \$ | SLA Item \$ | SLA Clause \$ | Calculated as | Is input for | Finalization date | Period size | |
|---------|--|-------------------|-----------------------------|------------------|---------------|--------------------------------|---|--|---------------------|---------|
| Actions | Total penalty | | 0 \$ | -- | -- | Sum | | Apr 1, 2014 6:00 AM | 3 months | |
| Actions | Penalty for reference period of the SLA Item | | -- | 0 \$ | -- | SumProtectedPerReferencePeriod | Final penalty for business period of the SLA Item | Feb 1, 2014 6:00 AM | 1 month | |
| Actions | Final penalty for business period of the SLA Item | | -- | 0 \$ | -- | | al penalty | Apr 1, 2014 6:00 AM | 3 months | |
| Actions | Final penalty for business period of the SLA Item | | -- | 0 \$ | -- | | al penalty | Apr 1, 2014 6:00 AM | 3 months | |
| Actions | critical TTR clause Penalty computed per reference period | Florida VPN | Critical TTR | VPNBIFDet01Site1 | -- | 0 \$ | Penalty for reference period of the SLA Item | Feb 1, 2014 6:00 AM | 1 month | |
| Actions | critical TTR clause Penalty computed per reference period | Florida VPN | Critical TTR | VPNBIFDet01Site2 | -- | 0 \$ | Penalty for reference period of the SLA Item | Feb 1, 2014 6:00 AM | 1 month | |
| Actions | MTR clause Penalty computed per reference period | Florida VPN | Mean Time To Resolve Ticket | VPNBIFDet01Site2 | -- | 0 \$ | RangeBasedPenaltyPerReferencePeriod | Penalty for reference period of the SLA item | Feb 1, 2014 6:00 AM | 1 month |
| Actions | MTR clause Penalty computed per reference period | Florida VPN | Mean Time To Resolve Ticket | VPNBIFDet01Site1 | -- | 0 \$ | RangeBasedPenaltyPerReferencePeriod | Penalty for reference period of the SLA Item | Feb 1, 2014 6:00 AM | 1 month |
| Actions | Site availability clause Penalty computed per reference period | Florida VPN | Site Availability | VPNBIFDet01Site1 | -- | 0 \$ | LinearPenaltyPerReferencePeriod | Penalty for reference period of the SLA Item | Feb 1, 2014 6:00 AM | 1 month |
| Actions | Site availability clause Penalty computed per reference period | Florida VPN | Site Availability | VPNBIFDet01Site2 | -- | 0 \$ | LinearPenaltyPerReferencePeriod | Penalty for reference period of the SLA Item | Feb 1, 2014 6:00 AM | 1 month |

To change the duration between each information refresh, you can modify the number displayed in the **Refresh every (in seconds)** field.

You also can force the refresh manually clicking to the icon

The column Actions allow the user to drop down an action menu to access to several tasks according to the user rights.

- View or adjust the item clauses or clause (see 6.1.1.2 Adjustment Agreement Details)

Figure 45: Business Impact Details - Actions menu

The image shows two examples of the 'Actions' menu. The first is a dropdown menu with the option 'View/Adjust item's clauses'. The second is a dropdown menu with the option 'View/Adjust Clause'. The word 'or' is placed between the two examples.

The following table shows the column names and their descriptions:

| Column Name | Description |
|---------------------------------|----------------------------------|
| Business Impact Category | Category of the business impact. |
| Business Impact Domain | Domain of the business impact. |
| Business Impact name | Name of the business impact |
| Clause Domain | Domain of the clause |

| | |
|---------------------------|--|
| Clause Category | Category of the clause |
| Clause Name | Name of the clause |
| SLA \$ | Business impact values for the agreement |
| Sla Item \$ | Business impact values for the agreement item |
| Sla Clause \$ | Business impact value for a given clause level |
| Calculated as | Calculation rule name |
| Is input for | Input for the calculation rule |
| Finalization date | Finalization date for the business period |
| Period size | Duration of the business period (ex: 12 months) |
| Actions | Menu to select relevant operations that may be performed for business impact values. |
| SLA Id | Unique identifier for an agreement |
| Name | Name of the agreement |
| Item Name | Name of the agreement item |
| Customer | Customer for the agreement |
| Provider | Provider for the agreement |
| Supplier | Supplier for the agreement item |
| Service Definition | Service definition for the agreement |
| Service | Service for the agreement |
| Service offering | Service offering attached to an agreement |
| Service hours | Service hours agreed upon |
| Start date | Date and time when the agreement becomes effective |
| End date | Date and time when the agreement expires |
| Recurrence | Recurrence rate for an agreement (Quarterly, Monthly, Weekly) |
| Period start date | Date and time when the current period has started for an agreement |
| Period end date | Date and time when the current period will be over for an agreement. |

5.9 Business Impact Calculation Model

Display the tree of the business impact calculation model and their associated current values for agreement, agreement items and clauses the specified business period. It displays all calculation rules, parameters and values in an

5.11 Agreement Reports



The Agreements reports allow the user to access to pre-defined standard reports with details about history and successive reference periods. It will launch Business Object Portal and requires authentication.

You can access to all your customized reports including all pre-defined USLAM reports (see Chapter 9 USLAM for detailed information)

Chapter 6

Contract Operations

6.1 Data Correction

6.1.1 Adjust Agreement Status



Sometime SLAs calculations are technically correct but a customer, a supplier or the service provider requests some changes. That kind of change has to go through a negotiation process and need to be approved before amended data can finally be reported and archived. In this scenario, data correction needs to be properly tracked and stored with detailed records as required by future possible audits.

USLAM solution supports this data adjustment for those SLA calculated values that need to be adjusted. The purpose of the **Adjust Agreement Status** is to provide a user interface to help users to adjust, capture the history of the adjusted values together with the audit information.

Adjustment and negotiation are done per agreement clauses (not agreement) on a reference period, and all actions are logged with comments, date and user name for audit purpose.



Adjustment tasks like adjust or approve are restricted based on user role assign to the end user. You may only are able to adjust and not approve the changes.

6.1.1.1 Adjustment Status Agreements

Adjustment Agreements List window is restricted to the right user access and allows the user to search agreements, and perform adjustment, manages the lifecycle of the negotiation process.

You can select your desired search criteria by defining a new filter or loading an existing one in the **Agreement search filter**. It is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and supports the agreement column customization (see 4.10 Columns Configuration).

Figure 48: Adjustment Agreements List



The screenshot shows the 'Adjustment Agreements List' in the Universal SLA Manager. The interface includes a search filter, a table of agreements, and navigation controls. Callouts provide the following information:

- Agreement Adjustment State:** A callout pointing to the 'Adjustment State' column in the table.
- Actions Menu:** A callout pointing to the 'Actions' column in the table.
- Date Navigation control:** A callout pointing to the 'Show statuses from' and 'to' date range selector at the bottom of the table.
- List of customizable columns:** A callout pointing to the column headers of the table.

Table Data (from screenshot):

| Agreement Name | Comment | Item Name | Period start date | Period end date | Risk % | Contract ID | Customer | Provider | Supplier | Service | Service hours | Recurrence | Service offering |
|---------------------------------|---------|-----------------|-----------------------|----------------------|--------|-------------------------|--------------------------|---------------|----------|--------------------------|---------------|------------|---|
| SLA CallCenter001 1 | | Call Center USA | Jan 4, 2014 1:00 AM | Jan 11, 2014 1:00 AM | 0% | | | | | Call Center - USA | 24x7 | Weekly | Call Center standard offering |
| SLA VPN Aggregation 01 | | VPN Italy | Jan 1, 2014 12:00 AM | Feb 1, 2014 12:00 AM | 0% | | | | | VPN Aggregation 01 | 24x7 | Monthly | Service Offering VPN Aggregation Gold |
| SLA VPN BIF Detailed Penalty 01 | | Florida VPN | Jan 1, 2014 6:00 AM | Jan 1, 2014 6:00 AM | 0% | | | | | VPN BIF detailed Florida | 24x7 | Monthly | Service Offering with detailed penalty calculation for VPN P1 |
| SLA VPN Business Impact 01 | | California VPN | Jan 1, 2014 1:00 AM | Feb 1, 2014 1:00 AM | 0% | BusinessImpactContract1 | Worldwide Phone Solution | Avia Portugal | | VPN Business Impact 01 | 24x7 | Monthly | Service Offering for VPN Ticket Business Impact |
| SLA VPN Data Selectors 01 | | Paris VPN | Jan 1, 2014 12:00 AM | Feb 1, 2014 12:00 AM | 0% | Contract001 | Worldwide Phone | Avia | | VPN DataSelectors | 24x7 | Monthly | Service Offering for VPN with DataSelectors |
| SLA VPN Performance 01 | | VPN China | Dec 31, 2013 12:00 AM | Jan 1, 2014 12:00 AM | 0% | | | | | VPN Perf1 | 24x7 | Monthly | Service Offering VPN Performance Gold |

Detailed description of the Adjustment State:

| Adjustment State | Description |
|---|--|
|  | Frozen Adjustment is frozen and cannot be change anymore. |
|  | Available Ready for adjustment. The end user can continue to make changes on clauses status and values. |

The following table shows the column names and their descriptions:

| Column Name | Description |
|-----------------------------|--|
| Actions | Click View to view details of an agreement. Click Edit to edit or complete or modify an agreement which is <i>Under Construction</i> Click Add comment to attach a comment about adjustment to the agreement. |
| Adjustment State (A) | Adjustment State of the agreement <i>The tooltip indicates what operation you can do on this agreement (adjust, approve...)</i> |
| Agreement Status (S) | Status of the agreement. <i>Note: A tooltip indicates if the agreement already has adjustments.</i> |
| Agreement Name | Name of an agreement |
| Comment | Comment about data correction entered by end user with the action Add comment . |
| Item Name | Name of the SLA Item. Component under the agreement. |
| Period start date | Date and time when the current period has started for an agreement |
| Period end date | Date and time when the current period will be over for an agreement. |
| Risk Ration (Risk %) | Monitors the risk on the worst clause. 0% means no degradation, value $\geq 100\%$ means that breached thresholds has been crossed |
| Contract Id | Optional identifier of global (e.g. corporate) contract this agreement is associated with. This is an informational data that could be used to search all the agreement created within the same global contract. |
| Agreement Chain Id | Optional information which can be used for instance to link one SLA to its underlying supporting OLA and underpinning contracts. |
| Agreement Type | Type of the agreement : SLA, OLA, or UC (see 1.3 Types of Agreements) |
| SLA Id | Unique identifier for an agreement |
| SLA Description | Agreement description of the agreement |
| SLA Item Description | Agreement description of the SLA item. |

| | |
|--------------------------------|---|
| SLA Item Link Id | SLA Item Link Identifier used to link the item with other agreements (for example an OLA that would backup this item) |
| Customer | Customer description of the agreement |
| Customer Company | Company of the customer under the agreement |
| Customer Country | Country of the customer under the agreement |
| Customer Region | Region of the customer under the agreement |
| Customer Description | Description of the customer under the agreement |
| Customer Id | Identifier of the customer under the agreement |
| Customer Representative | Main contact for the customer under the agreement |
| Provider | Provider description under the agreement |
| Provider Company | Company of the Provider under the agreement |
| Provider Country | Country of the Provider under the agreement |
| Provider Region | Region of the Provider under the agreement |
| Provider Description | Description of the Provider under the agreement |
| Provider Id | Identifier of the Provider under the agreement |
| Provider Representative | Main contact for the Provider under the agreement |
| Supplier | Supplier description under the agreement |
| Supplier Company | Company of the Supplier under the agreement |
| Supplier Country | Country of the Supplier under the agreement |
| Supplier Region | Region of the Supplier under the agreement |
| Supplier Description | Description of the Supplier under the agreement |
| Supplier Id | Identifier of the Supplier under the agreement |
| Supplier Representative | Main contact for the Supplier under the agreement |
| Service | Service description under the agreement |

| | |
|---------------------------------------|--|
| Service Country | Country of the provided service under the agreement |
| Service Region | Region of the provided service under the agreement |
| Service Description | Description for the Service under the agreement |
| Service Definition | Service Definition of the provided service under the agreement |
| Service Definition Identifier | Identifier of the Service Definition of the provided service under the agreement |
| Service Definition Description | Description for the Service Definition of the provided service under the agreement |
| Service Offering | Service offering attached to an agreement |
| Service Offering Id | Service offering identifier attached to an agreement |
| Service Offering Description | Service offering description attached to an agreement |
| Service Hours | Service hours is the working and non-working times for a service under agreement |
| Service Hours Id | Service hours identifier of the provided service |
| Service Hours Description | Description for the Service Hours of the provided service under the agreement |
| Recurrence | Recurrence rate for an agreement (Quarterly, Monthly, Weekly) |
| Start date | Date and time when the agreement becomes effective |
| End date | Date and time when the agreement expires |
| Validation required | Indicates whether a validation is always required before scheduling the activation of an SLA |
| Creation warning | Indicates whether a problem occurred during the creation of an SLA by the dataload tool. |
| Last modification | Displays the date and time of the latest modification made to an agreement |
| Modified by | Displays information about the origin of the latest modification made to an agreement |

The column Actions allow the user to drop down an action menu to access to several tasks according to the user rights.

Figure 49: Adjustment Agreements List – Actions menu



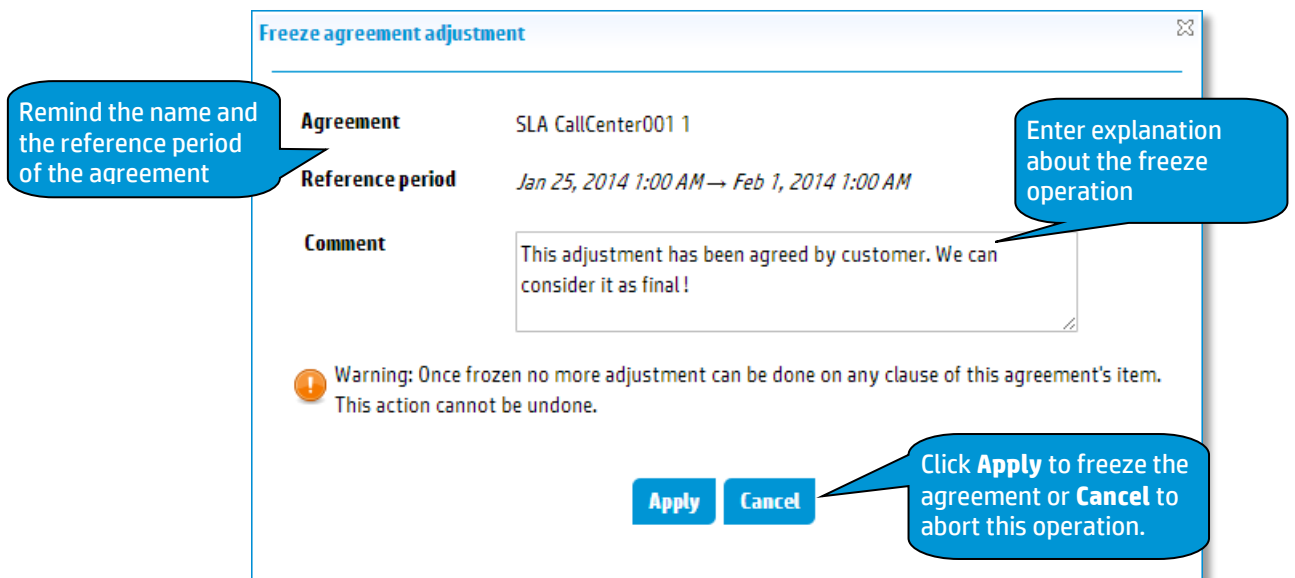
6.1.1.1.1. View / adjust clauses

Select **View / adjust clauses** to navigate to the **Adjustment Agreement Clauses** (see 6.1.1.2 Adjustment Agreement Details) to view the adjustment on this agreement and make new changes.

6.1.1.1.2. Freeze

Select **Freeze** to navigate to popup a dialog box to finalize all the adjustment and the negotiation process.

Figure 50: Freeze Agreements Adjustment



After a **freeze** operation, an agreement (frozen state frozen) cannot be adjust anymore. The action cannot be undone.

Note that the calculation still running after the freeze.

6.1.1.1.3. Add a comment

Select **Add comment** to add or edit additional information about changes done on this agreement. This comment is dedicated to the report and can be seen as an executive summary for the customer.

Only one comment is allowed, if there is already a comment, it will be display in edition to be completed.

Figure 51: Adjustment Agreements List – Add a comment

Add a comment

Agreement SLA CallCenter001 1

Reference period Jan 18, 2014 1:00 AM → Jan 25, 2014 1:00 AM

Comment New SLA Status negotiated and agreed with my customer for the reference period Jan 2014

Apply **Cancel**

Remind the name and the reference period of the agreement

Enter comment to give more details on the data correction

Click **Apply** to validate and save the comment or **Cancel** to close and lose this comment.

6.1.1.2 Adjustment Agreement Details

Adjustment Agreement Details window is dedicated to make adjustment on agreement clause and ease the negotiation process with your customer.

Its access is restricted based on the user role and allows to search clauses, and perform adjustment, manages the lifecycle of the negotiation process.

It is composed of a SLA panel, a business impact panel, SLA Items panel where you can explicitly select the SLA items and a Clauses panel where you can search specific agreement clause. You can select your desired search criteria by defining a new filter or loading an existing one in the **Clauses search filter**. It is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and supports the agreement column customization (see 4.10 Columns Configuration).

Figure 52: Adjustment Agreement Details

SLA detail, including its reference period

Agreement's Business impact values

SLA Item's Business impact values

SLA Item Navigation Controls First, Previous, Next and Last

Adjustment information

- Objective, Value
- Base Reference Value
- Adjusted Value
- Adjusted Status

Clauses Search and Search Result panel

Adjustment State

Bulk operations on the agreement clauses (Action, Scope)

Audit information (Who, when, why) Tooltip displays the complete history of actions

The following table shows the column names and their descriptions:

| Column Name | Description |
|-----------------------------|---|
| Actions | Click Adjust to adjust the clause of the agreement. Click Approve to approve the adjustment done on the clause of the agreement <i>Note: Users with the correct user right will have access to the Adjust or Approve actions.</i> |
| Adjustment State (A) | Adjustment State of the agreement <i>See explanation below.</i> |
| Service Component | Name of an Service associate to this clause |
| Clause Name | Name of the clause |
| Objective | Clause Objective and its current value depending on its type (downtime, incident or service level status) |

| | |
|-----------------------------|---|
| Hold Value | Hold Value i.e. the reference value used for the adjustment. It is a copy of the value after a Snap operation (or adjust if the reference is not set). This base is a value used as a reference during the negotiation process. |
| Adjusted Value | Adjusted Value is the current adjusted value we will propose to the customer |
| Adjusted Status (AS) | Adjusted Status is the new status for clause after adjustment |
| Comment | Comment about data correction entered by end user. |
| Changed by | Displays information about the user who did the latest modification |

Adjustment State is important information that indicates the stage of the adjustment and negotiation process.

Several bulk operations are available:

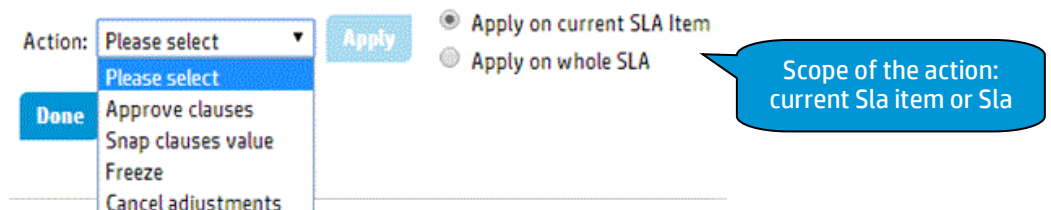
- **Approve clauses:** Execute an approval operation on the adjusted value for this clause. (see 6.1.1.2.1 Adjust Clause Value)
- **Snap clauses value:** Capture and keep the existing value as a reference for the negotiation. The value will be saved in the field **Hold Value**.



USLAM Calculation engine still running and may update the current value. We need to keep the reference value used to start the ongoing negotiation with the customer.





- **Freeze** to finalize the adjustment. No more changes will be authorized.
- **Cancel** to cancel all selected adjustments done on clauses.

Figure 53: Adjustment Agreement Clauses – Actions menu



Actions **Freeze** and **Cancel** always apply on the whole SLA

Detailed description of the Adjustment State:

| Adjustment State | Description |
|---|---|
|  | <p>Locked</p> <p>The hold value has been snapped and kept for reference (after Snap or Adjust action)</p> |
|  | <p>Adjusted</p> <p>Value has been modified and an adjusted value is available for negotiation (after Adjust action)</p> |
|  | <p>Approved</p> <p>The adjusted value has been approved (after Approve action)</p> |
|  | <p>Automatic Locked</p> <p>The adjusted value has been automatically locked.</p> |



It is possible to modify values (Hold value, adjusted value, status) until the agreement has state **Locked** or **Automatic Locked**.

6.1.1.2.1. Adjust Clause Value

This dialog box allows you to make change on the current adjusted value and its associated status.

Figure 54: Adjustment Agreement Clauses – Adjust Clause Value

The screenshot shows a dialog box titled "Adjust clause value for Site Availability". It contains the following fields and controls:

- Achieved value:** 100 %
- Snapped value:** 100 %
- Adjusted value:** A text input field containing "95". A callout bubble points to this field with the text "Enter adjusted value".
- Comment:** A text area containing "Site was actually availability at 95% this month". A callout bubble points to this area with the text "Enter comment to give more details on the adjustment".
- Buttons:** "Apply" and "Cancel". A callout bubble points to these buttons with the text "Click **Apply** to validate and save the comment or **Cancel** to close and abort this adjustment".

Additional callouts include:

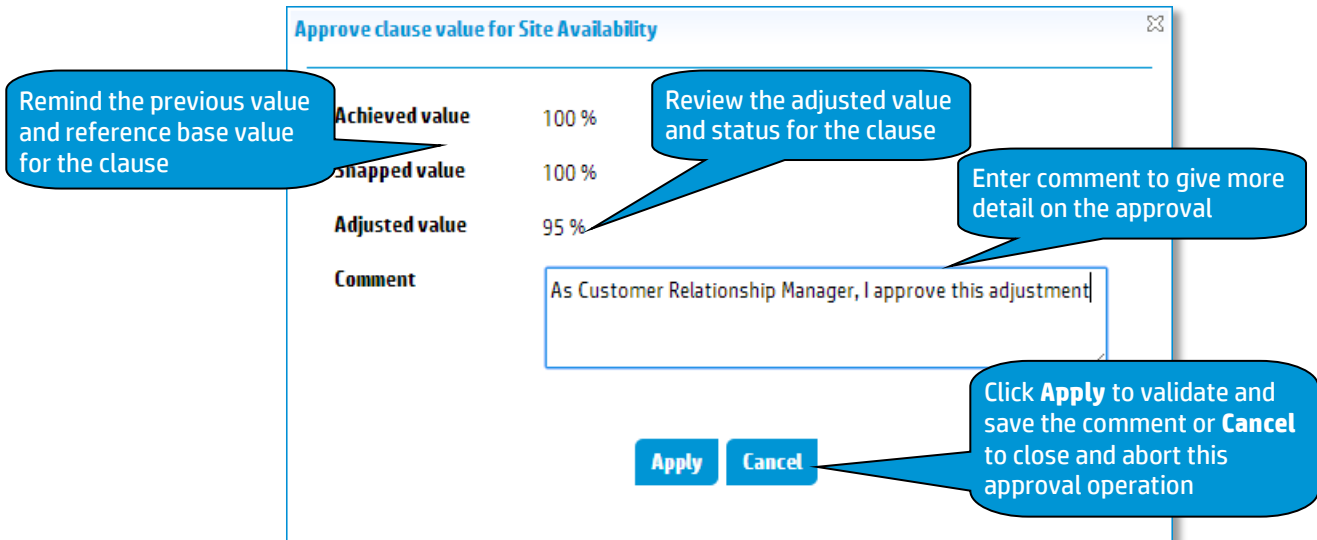
- A bubble on the left side pointing to the "Achieved value" and "Snapped value" fields with the text "Remind the previous value and reference base value for the clause".

After Apply or Cancel, you will go back to the Adjustment Agreement Clauses with updated changes.

6.1.1.2.2. Approve Clause Value

This dialog box allows you to approve the current adjusted value and status.

Figure 55: Adjustment Agreement Clauses – Approve Clause Value



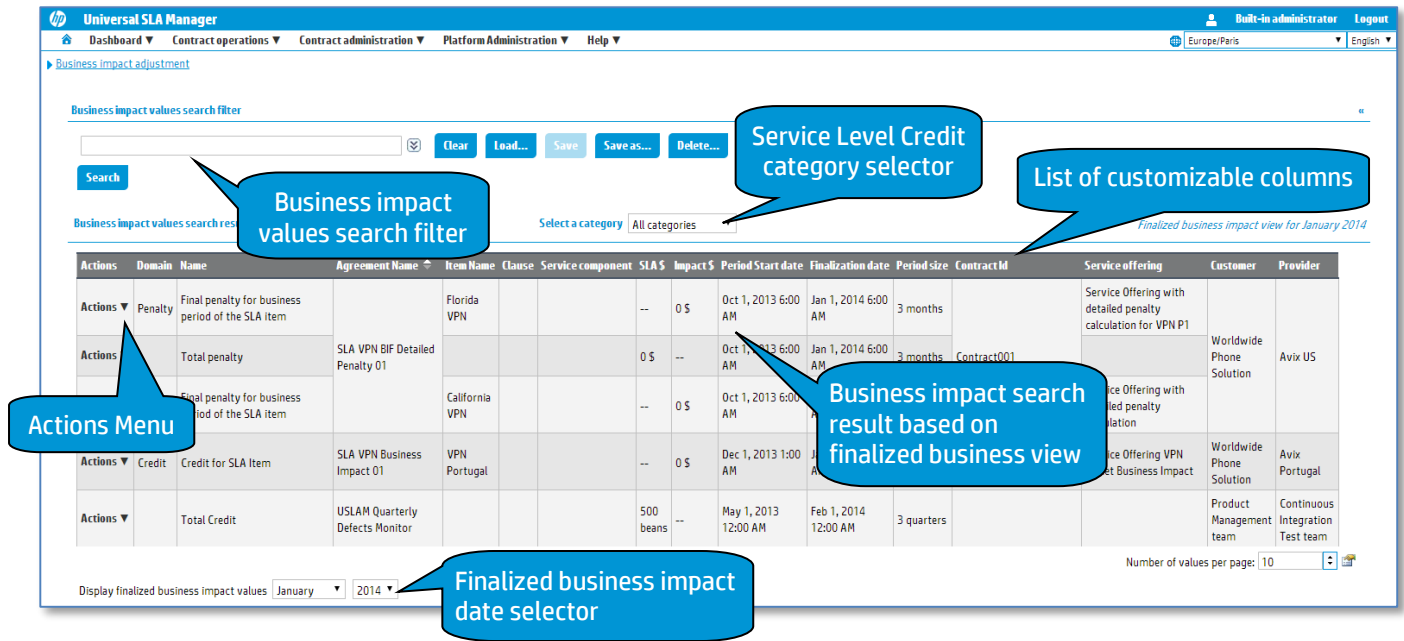
6.1.2 Adjust Business Impact



Business Impact Adjustment window displays a list of past and finalized business impact values for all or a set of active agreements. Contract managers can access to this windows to get detailed information on the business impact calculated values over past reference period and allows them to adjust or approve clause values and check impact on business impact values.

You can select your desired search criteria by defining a new filter or loading an existing one in the **Business impact values search filter**. It is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and supports the column customization (see 4.10 Columns Configuration).

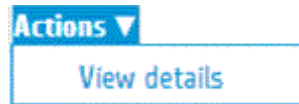
Figure 56: Business Impact Adjustment



The column Actions allow the user to drop down an action menu to access to several tasks according to the user rights.

- View the Business Impact Details (see 5.8 Business Impact Details)

Figure 57: Business Impact Adjustment - Actions menu



The following table shows the column names and their descriptions:

| Column Name | Description |
|---------------------------------|--|
| Actions | Menu to select relevant operations that may be performed for business impact values. |
| Business impact category | Category of the business impact. |
| Business impact domain | Domain of the business impact. |
| Business impact name | Name of the business impact |
| Clause domain | Domain of the clause |
| Clause category | Category of the clause |
| Clause name | Name of the clause |
| SLA \$ | Business impact values for the agreement |
| Impact \$ | Business impact value for a given clause level |

| | |
|---------------------------------|--|
| Calculated as | Calculation rule name |
| Is input for | Input for the calculation rule |
| Finalization date | Finalization date for the business period |
| Period size | Duration of the business period (ex: 12 months) |
| SLA Id | Unique identifier for an agreement |
| Name | Name of the agreement |
| Item Name | Name of the agreement item |
| Customer | Customer for the agreement |
| Provider | Provider for the agreement |
| Supplier | Supplier for the agreement item |
| Service definition | Service definition for the agreement |
| Service | Service for the agreement |
| Service offering | Service offering attached to an agreement |
| Service hours | Service hours agreed upon |
| Start date | Date and time when the agreement becomes effective |
| End date | Date and time when the agreement expires |
| Recurrence | Recurrence rate for an agreement (Quarterly, Monthly, Weekly) |
| Period start date | Date and time when the current period has started for an agreement |
| Period end date | Date and time when the current period will be over for an agreement. |
| Administration state (A) | Administration State of the agreement |
| Contract Id | Optional identifier of global (e.g. corporate) contract this agreement is associated with. This is an informational data that could be used to search all the agreement created within the same global contract. |
| Agreement Chain Id | Optional information which can be used for instance to link one SLA to its underlying supporting OLA and underpinning contracts. |
| Agreement Type | Type of the agreement : SLA, OLA, or UC (see 1.3 Types of Agreements) |

6.1.3 Manage Business Parameters



Business Parameters Management window displays a list of selected agreement and provides detailed information on the business impact calculation parameters over past, current or future reference periods. Contract managers can access to set values of variables business impact calculation parameters per reference period.

First step is to select all or a set of agreements using the search filter criteria window.

You can select your desired search criteria by defining a new filter or loading an existing one in the **Agreement search filter**. It is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and supports the column customization (see 4.10 Columns Configuration).

Figure 58: Business Parameters Management

| Actions | Agreement Name | Item Name | Contract Id | Customer | Provider | Supplier | Service | Service hours | Recurrence | Service offering | Start date | End date |
|---------|-----------------------------------|-------------------------------|-------------------------|--------------------------|--------------------|---------------|------------------------------|---------------|------------|--|--|----------|
| Actions | SLA CallCenter001 1 | Call Center USA | CallCenter001 | Green Cafe | Avix US | CCST US | Call Center - USA | 24x7 | Weekly | Call Center standard offering | Dec 1, 2012 12:00 AM (Europe/London) | |
| Actions | SLA VPN Aggregation 01 | VPN Italy | AggregationContract1 | Worldwide Phone Solution | Avix Italy | CCST Italy | VPN Aggregation 01 | 24x7 | Monthly | Service Offering VPN Aggregation Gold | Nov 1, 2012 12:00 AM (Europe/Rome) | |
| Actions | SLA VPN BIF Detailed Penalty 01 | Florida VPN California VPN | Contract001 | Worldwide Phone Solution | Avix US | US West US | VPN Business Impact 01 | 24x7 | Monthly | Service Offering VPN Ticket Business Impact | Oct 1, 2012 12:00 AM (America/New_York) | |
| Actions | Business Impact | VPN Portugal | BusinessImpactContract1 | Worldwide Phone Solution | Avix Portugal | CCST Portugal | VPN Business Impact 01 | 24x7 | Monthly | Service Offering for VPN with DataSelectors | Dec 1, 2012 12:00 AM (Europe/Lisbon) | |
| Actions | VPN Data Selectors 01 | Paris VPN | Contract001 | Worldwide Phone Solution | Avix International | | VPN DataSelectors | 24x7 | Monthly | Service Offering for VPN with DataSelectors | Oct 1, 2012 12:00 AM | |
| Actions | SLA VPN Performance 01 | VPN China | PerformanceContract1 | Worldwide Phone Solution | Avix China | CCST China | VPN Perf1 | 24x7 | Monthly | Service Offering VPN Performance Gold | Nov 1, 2012 12:00 AM (Asia/Shanghai) | |
| Actions | SLA VPN Ticket 01 | VPN Mexico | TicketContract1 | Worldwide Phone Solution | Avix Hong Kong | CCST Mexico | VPN Ticket 01 | 24x7 | Monthly | Service Offering template for VPN ticket | Nov 1, 2012 12:00 AM (America/Mexico_City) | |
| Actions | VPN Conditional Objectives SLA 01 | Florida Conditional VPN | Contract001 | Green Cafe | Avix International | | VPN Conditional Objectives 1 | 24x7 | Monthly | Service Offering for VPN with Conditional Objectives | Oct 1, 2012 12:00 AM | |

The column Actions allow the user to drop down an action menu to access to several tasks according to the user rights.

- Set business parameters (see 6.1.4 Set Business Parameters)

Figure 59: Business Parameters Management - Actions menu



The following table shows the column names and their descriptions:

| Column Name | Description |
|---------------------------------|---|
| Selection checkbox | User selection to perform SLA lifecycle operations |
| Administration State (A) | Administration State of the agreement You can view this information as a tooltip on the column header |
| Agreement Name | Name of an agreement |
| Actions | Click View to view details of an agreement. Click Edit to edit or complete or modify an agreement which is <i>Under Construction</i> <i>Note: Users with the correct user right will have access to the Edit action.</i> |
| Item Name | Name of the SLA Item. Component under the agreement. |
| Contract Id | Optional identifier of global (e.g. corporate) contract this agreement is associated with. This is an informational data that could be used to search all the agreement created within the same global contract. |
| Agreement Chain Id | Optional information which can be used for instance to link one SLA to its underlying supporting OLA and underpinning contracts. |
| Agreement Type | Type of the agreement : SLA, OLA, or UC (see 1.3 Types of Agreements) |
| SLA Id | Unique identifier for an agreement |
| SLA Description | Agreement description of the agreement |
| SLA Item Description | Agreement description of the SLA item. |
| SLA Item Link Id | SLA Item Link Identifier used to link the item with other agreements (for example an OLA that would backup this item) |
| Customer | Customer description of the agreement |
| Customer Company | Company of the customer under the agreement |
| Customer Country | Country of the customer under the agreement |
| Customer Region | Region of the customer under the agreement |

| | |
|--------------------------------|--|
| Customer Description | Description of the customer under the agreement |
| Customer Id | Identifier of the customer under the agreement |
| Customer Representative | Main contact for the customer under the agreement |
| Provider | Provider description under the agreement |
| Provider Company | Company of the Provider under the agreement |
| Provider Country | Country of the Provider under the agreement |
| Provider Region | Region of the Provider under the agreement |
| Provider Description | Description of the Provider under the agreement |
| Provider Id | Identifier of the Provider under the agreement |
| Provider Representative | Main contact for the Provider under the agreement |
| Supplier | Supplier description under the agreement |
| Supplier Company | Company of the Supplier under the agreement |
| Supplier Country | Country of the Supplier under the agreement |
| Supplier Region | Region of the Supplier under the agreement |
| Supplier Description | Description of the Supplier under the agreement |
| Supplier Id | Identifier of the Supplier under the agreement |
| Supplier Representative | Main contact for the Supplier under the agreement |
| Service | Service description under the agreement |
| Service Country | Country of the provided service under the agreement |
| Service Region | Region of the provided service under the agreement |
| Service Description | Description for the Service under the agreement |
| Service Definition | Service Definition of the provided service under the agreement |

| | |
|---------------------------------------|--|
| Service Definition Identifier | Identifier of the Service Definition of the provided service under the agreement |
| Service Definition Description | Description for the Service Definition of the provided service under the agreement |
| Service Offering | Service offering attached to an agreement |
| Service Offering Id | Service offering identifier attached to an agreement |
| Service Offering Description | Service offering description attached to an agreement |
| Service Hours | Service hours is the working and non-working times for a service under agreement |
| Service Hours Id | Service hours identifier of the provided service |
| Service Hours Description | Description for the Service Hours of the provided service under the agreement |
| Recurrence | Recurrence rate for an agreement (Quarterly, Monthly, Weekly) |
| Start date | Date and time when the agreement becomes effective |
| End date | Date and time when the agreement expires |

6.1.4 Set Business Parameters

Business parameters setting is only accessible from the Business parameters manager selecting **Set business parameters** in the action menu. It displays the business parameters values for the selected item and allows a contract manager to modify business parameters for a specific reference period or from a specific reference period for all of future ones. It provides also tracking information about changes (date, users, and comments).

Figure 60: Business Parameters Setting

Business parameters standard values

| Name | Value | For category | Description |
|---|---------|-----------------|---|
| Service fee per Reference Period | 1000 \$ | DetailedPenalty | Price of the service |
| Maximum penalty that can be demanded per reference period | 700 \$ | DetailedPenalty | Maximum penalty that can be demanded per reference period |
| Credit as percentage of service fee per number of incident interval | 4 rows | DetailedPenalty | Critical TTR |
| Credit as percentage of service fee per MTTR Interval | 3 rows | DetailedPenalty | Mean Time To Resolve Ticket |

Reference period selector: Feb 1, 2014 6:00 AM → Mar 1, 2014 6:00 AM

Business parameters customized values for periods

| Action | Name | Value | For category | Description | Changed by | Change comment | Change time |
|------------|---|---------|-----------------|-----------------------------|------------|----------------|----------------------|
| Edit value | Credit as percentage of service fee per MTTR interval | 3 rows | DetailedPenalty | Mean Time To Resolve Ticket | Dataload | -- | Feb 4, 2014 12:25 AM |
| Edit value | Credit as percentage of service fee per number of incident interval | 4 rows | DetailedPenalty | Critical TTR | Dataload | -- | Feb 4, 2014 12:25 AM |
| Edit value | Maximum penalty that can be demanded per reference period | 700 \$ | DetailedPenalty | -- | Dataload | -- | Feb 4, 2014 12:25 AM |
| Edit value | Service fee per Reference Period | 1000 \$ | DetailedPenalty | -- | Dataload | -- | Feb 4, 2014 12:25 AM |

Edit value action for the selected parameter

The column Actions allows the user set the business value for the selected parameter.

Figure 61: Business Parameters Setting – Edit value

Set value for Service fee per Reference Period

Current value: 1000 since Oct 1, 2012 6:00 AM

New value: 1050

Next planned value: None

Comment: 5% Increase starting from Feb 1st

Buttons: Set from now, Set for period only, Cancel

- Remind the service, its reference period and associated business parameter current value
- Modify the value and enter an explanation about your modification
- The user can **Cancel** the setting
- Set for now** to modify the business parameter value for this reference period and all the future ones
- Set for period only** to modify the business parameter value only for this specific reference period. Next reference period will use the standard value.

6.1.5 Manage Exclusions

Exclusion is a period of time which SLA Calculations should be excluded and will not have any impact the SLA Compliance (ex: maintenance, force majeure...). It can be define based on an available list of exclusion specified in the Service Offering and be compliant with the left remaining time possible for this type of exclusion. See 3.6 Exclusions for more details.



Exclusions period of time are automatically considered with on-going re-calculation by USLAM calculation engines.

There are two way to manage exclusion.

- If you work on a active agreement, you can select directly the **Exclusion Management** window from the **Agreement Status Snapshot** (see 5.1 Agreements Status Snapshot)
- If you want to exclude period on multiple agreements in a bulk mode on a set of filtered SLAs for a specific reference period, you can use the **Time Period Exclusion** window.

6.1.5.1 Time Period Exclusion



The **Time Period Exclusion** is a window restricted to the user with the Contract Administrator role and dedicated to explicitly exclude periods of time in a bulk mode using manual selected agreements or search result list of agreements. It is also possible to see the detailed history of exclusion and delete an existing exclusion using the **View / Edit Exclusion** action on the **Time Period Exclusion** window for a specific agreement.

It is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and supports the agreement column customization (see 4.10 Columns Configuration).

You can select your desired search criteria by defining a new filter or loading an existing one in the **Agreement search filter**.

To enter a new exclusion period, you need to enter the start and end date of the exclusion, its reason, and optionally you can explain this exclusion filling the description field.



Start Date (**From**) will be used to identify the reference period to use to select agreements and to compute correctly exclusion time.

Figure 62: Time Period Exclusion

Enter the period of time to exclude using the dates start date (**From**) / End date (**To**) or using start date (**From**) and a duration in days, hours and minutes.

Note: duration will be automatically computed if you changes dates, else the end date (**To**) will be computed based on the changes done on duration

Exclusion Reason to select in a list

Optional description to enter

Agreements matching the exclusion requested

Scope of the exclusion: All search result or selection

| Actions | Agreement Name | Item Name | Max duration | Remaining duration | Customer | Provider | Supplier | Service | Service hours | Recurrence | Service offering | Period start date | Period end date |
|-----------------------------------|---------------------------------|----------------|--------------|--------------------|--------------------------|----------------|---------------|---|---------------|------------|---|---------------------|---------------------|
| Manage exclusions | SLA VPN BIF Detailed Penalty 01 | California VPN | 7d | 7d | Worldwide Phone Solution | Avix US | CEST West US | VPN BIF detailed California | 24x7 | Monthly | Service Offering with detailed penalty calculation | Feb 1, 2014 6:00 AM | Mar 1, 2014 6:00 AM |
| Manage exclusions | SLA VPN BIF Detailed Penalty 01 | Florida VPN | 7d | 7d | Worldwide Phone Solution | Avix US | CEST East US | VPN BIF detailed Florida | 24x7 | Monthly | Service Offering with detailed penalty calculation for VPN P1 | Feb 1, 2014 6:00 AM | Mar 1, 2014 6:00 AM |
| Manage exclusions | SLA VPN Business Impact 01 | VPN Portugal | 7d | 7d | Worldwide Phone Solution | Avix Portugal | CEST Portugal | VPN Business Impact 01 | 24x7 | Monthly | | Feb 1, 2014 6:00 AM | Mar 1, 2014 6:00 AM |
| Manage exclusions | SLA VPN Performance 01 | VPN China | 7d | 7d | Worldwide Phone Solution | Avix China | CEST China | VPN Per 01 | 24x7 | Monthly | | Feb 1, 2014 6:00 AM | Mar 1, 2014 6:00 AM |
| Manage exclusions | SLA VPN Performance 01 | VPN Mexico | 7d | 7d | Worldwide Phone Solution | Avix Hong Kong | CEST Mexico | VPN Ticket 01 | 24x7 | Monthly | | Feb 1, 2014 6:00 AM | Mar 1, 2014 6:00 AM |



Exclusions reason list is a complete list of defined exclusion in USLAM product.

After entering these criteria, you click **Search** to see which agreements can match the requested exclusion period of time and allow the requested exclusion reason (based on their Service Offering definition).

The following table shows the column names and their descriptions:

| Column Name | Description |
|-------------------------|---|
| Actions | Click View / Edit Exclusions to manage exclusion and history of exclusion on the selected agreement. |
| Selection checkbox | User selection to perform exclusion bulk operations |
| Status (S) | Agreement status |
| Agreement Name | Name of an agreement |
| Item Name | Name of the SLA Item. Component under the agreement. |
| Item Status (IS) | SLA Item Status |
| Max Duration | Maximum duration allowed based on the selected exclusion reason and the Service Offering of the agreement. |

| | |
|--------------------------------|---|
| Remaining Duration | <p>Current remaining duration. This is the maximum duration allowed – total of exclusion for this exclusion reason.</p> <p>It is the maximum duration if there is no exclusion already defined.</p> <p>This column is very useful because it also indicate with an icon how will be apply the current exclusion as a preview and estimate in the tooltip the remaining duration after the exclusion operation.</p> <p><i>See detail below with several use cases.</i></p> |
| Agreement Chain Id | Optional information which can be used for instance to link one SLA to its underlying supporting OLA and underpinning contracts. |
| Agreement Type | Type of the agreement : SLA, OLA, or UC (see 1.3 Types of Agreements) |
| Customer | Customer description of the agreement |
| Customer Company | Company of the customer under the agreement |
| Customer Country | Country of the customer under the agreement |
| Customer Region | Region of the customer under the agreement |
| Customer Description | Description of the customer under the agreement |
| Customer Id | Identifier of the customer under the agreement |
| Customer Representative | Main contact for the customer under the agreement |
| Provider | Provider description under the agreement |
| Provider Company | Company of the Provider under the agreement |
| Provider Country | Country of the Provider under the agreement |
| Provider Region | Region of the Provider under the agreement |
| Provider Description | Description of the Provider under the agreement |
| Provider Id | Identifier of the Provider under the agreement |
| Provider Representative | Main contact for the Provider under the agreement |
| Supplier | Supplier description under the agreement |

| | |
|---------------------------------------|--|
| Supplier Company | Company of the Supplier under the agreement |
| Supplier Country | Country of the Supplier under the agreement |
| Supplier Region | Region of the Supplier under the agreement |
| Supplier Description | Description of the Supplier under the agreement |
| Supplier Id | Identifier of the Supplier under the agreement |
| Supplier Representative | Main contact for the Supplier under the agreement |
| Start date | Date and time when the agreement becomes effective |
| End date | Date and time when the agreement expires |
| Recurrence | Recurrence rate for an agreement (Quarterly, Monthly, Weekly) |
| Period Start Date | Start Date of the Reference Period for the agreement |
| Period End Date | End Date of the Reference Period for the agreement |
| Service | Service description under the agreement |
| Service Country | Country of the provided service under the agreement |
| Service Region | Region of the provided service under the agreement |
| Service Description | Description for the Service under the agreement |
| Service Definition | Service Definition of the provided service under the agreement |
| Service Definition Identifier | Identifier of the Service Definition of the provided service under the agreement |
| Service Definition Description | Description for the Service Definition of the provided service under the agreement |
| Service Offering | Service offering attached to an agreement |
| Service Offering Id | Service offering identifier attached to an agreement |

| | |
|-------------------------------------|--|
| Service Offering Description | Service offering description attached to an agreement |
| Service Hours | Service hours is the working and non-working times for a service under agreement |
| Service Hours Id | Service hours identifier of the provided service |
| Service Hours Description | Description for the Service Hours of the provided service under the agreement |

A useful column named **Remaining Duration** that indicates a preview execution of the exclusion operation for all agreement in the search result list. It also provides in tooltip an estimated new remaining duration if this exclusion is applied.

Figure 63: Time Period Exclusion - Remaining Duration


An icon indicate if the exclusion can be perform completely, partially or is not possible for this agreement

| Remaining duration | Customer | Provider | Supplier | Service |
|--|--------------------------|----------|--------------|---|
| 7d | Worldwide Phone Solution | Avix US | CCST West US | VPN BIF detailed California |
| Success: Remaining duration after exclusion will be 6d 23h 30min | | | | |
| | Solution | AVIX US | US | Florida |

The tooltip indicates the remaining duration if the ongoing exclusion operation is executed

Detailed description of the Remaining Duration:

| Icon | Description | Root Cause |
|------|---|---|
| | <p>Success</p> <p>The exclusion can be added without any problem. The complete period of exclusion time will be used, and the remaining duration computed accordingly.</p> | |
| | <p>Warning</p> <p>The exclusion operation will not be completely success. Only a partial exclusion will be executed and will not be exactly what you want to exclude or it will be crossing two reference periods.</p> | <p><u>Several root causes are possible:</u></p> <ul style="list-style-type: none"> The remaining duration for this reference period is less than exclusion duration you wanted. (ex: you want to exclude 2 hours, but the remaining duration is only 1 hour). So, the exclusion will be apply on the maximum remaining duration (best effort mode i.e. 1 hour in the previous example) The exclusion is across two reference period, and in this case 2 different exclusions will be created on the 2 reference period impacted. The first one using the possible duration until the end of the reference period, the second will start the first day |

| | | |
|---|--|---|
| | | <p>of the next reference period with the remaining exclusion duration not used yet.</p> <p><u>Note:</u> It is possible to create exclusion across two reference periods maximum only (all other reference period will be ignored)</p> |
|  | <p>Error.</p> <p>The exclusion defined cannot be applied to the agreement. If you perform a bulk exclusion operation, this agreement will be ignored.</p> | <ul style="list-style-type: none"> The remaining duration is 0 for this reference period. You cannot add anymore exclusion. You reached the maximum exclusion authorized by the Service Offering of the agreement. |

After review of the expected result, you can select the **Apply on whole result set** option if you want the bulk exclusion to apply on all the agreements listed in the Agreement search results list.

You can select the **Apply on selected agreements** option if you want the bulk exclusion to apply only on selected agreements (with the selection checkbox column).

Then click **Apply** Button to add this new exclusion to agreements. The Search Result list will be refreshed to display changes (remaining duration changes...)

6.1.5.2 Exclusion Management

Exclusion Management window provides an detailed and historical view of exclusion on a n agreement. You can navigate to this window if you work on a active agreement in the **Agreement Status Snapshot** (see 5.1 Agreements Status Snapshot), or through the action **View/Edit Exclusion** of the **Time Period Exclusion** (see 6.1.5.1 Time Period Exclusion)

The mandatory field is the reference date used to identify the reference period to search the correct exclusion. By default, the current date / time are used.

Figure 64: Exclusion Management

The screenshot shows the 'Exclusion Management' page in the Universal SLA Manager. It includes a breadcrumb trail: Dashboard > Contract operations > Contract a > Time Period Exclusion > Exclusion Management. The main heading is 'Exclusion period management: SLA VPN BIF Detailed Penalty 01 (SLA... Penalty) - Item = California VPN'. A 'Reference date' field is set to 'Feb 3, 2014'. A red arrow points from this field to a 'Current reference period' box showing 'Feb 1, 2014 6:00 AM → Mar 1, 2014 6:00 AM'. Below this, a table lists agreement details: Service (VPN BIF detailed California), Customer (Worldwide Phone Solution), Provider (Avix US), Supplier (CCST West US), Service Hours (24x7), and Exclusion reasons (UnplannedMaintenance, ForceMajeure). A table titled 'Exclusion periods for the selected reference period' lists two entries for 'UnplannedMaintenance' with start and end times, descriptions, and durations. At the bottom, there are buttons for 'New exclusion...', 'Delete selected exclusion(s)', 'Save', and 'Cancel'. Callouts provide instructions: 'Select a reference date to identify the reference period you want to see the historical list of exclusions.' (pointing to the date field), 'Useful information on the agreement (customer, service, service hours, exclusions available)' (pointing to the agreement details), 'Total of exclusion period' (pointing to the 'Total = 45min' row), 'Delete selected exclusions' (pointing to the delete button), 'Historical list of exclusion created in the selected reference period.' (pointing to the exclusion table), and 'Click Save to save your changes (new exclusion, deleted exclusion) • Cancel close the window without saving any change' (pointing to the save/cancel buttons). A 'Create a new exclusion' callout points to the 'New exclusion...' button.

The following table shows the column names and their descriptions:

| Column Name | Description |
|---------------------|--|
| Selection checkbox | User selection to perform deletion operation |
| Max Duration | Maximum duration allowed based on the selected exclusion reason and the Service Offering of the agreement. |
| Start Time | Date and time when the exclusion becomes effective |
| End Time | Date and time when the exclusion is over |
| Description | Explanation entered by the creator of the exclusion |
| Created By | Name of the user who created this exclusion |
| Duration | Duration of the exclusion (end time – start time) |

Once the required reference period is found you can perform any of the following operation:

- Create a new exclusion
- Delete an existing exclusion

To delete one or multiple exclusion, you need to select them using the checkbox, and click **Delete selected exclusion(s)**.

To create a new exclusion on the selected reference period, click **New Exclusion** to popup a creation dialog box.

Figure 65: Exclusion Management - New Exclusion Period

Exclusion Reason to select in a list (including the remaining duration)

Enter the period of time to exclude. Start Time / End Time

Enter an optional explanation for this exclusion period

- Click **Add** to add this exclusion period to the reference period of the agreement.
- **Cancel** close the window without saving any change



All the exclusion operations (new / delete) will be saved on the server at the same time when you click the button **Save**

After review of the exclusion you can click **Save** to make all changes permanent, or **Cancel** to abort all ongoing changes and go back to the previous windows.

6.2 Contracts Reports



The Contracts reports allow the user to access to pre-defined standard reports related to contracts operations especially the data correction management. It will launch Business Object Portal and requires authentication.

You can access to all your customized reports including all pre-defined USLAM reports (see Chapter 9 USLAM for detailed information)

Chapter 7

Contract Administration

7.1 Agreement Manager

7.1.1 Browse Agreements



Browse Agreements window is restricted to the user access right and allows the user to search, edit or view existing agreement, and perform changes on the administration state of multiple agreements in a single operation to manage agreement Lifecycle.

You can select your desired search criteria by defining a new filter or loading an existing one in the **Agreement search filter**. It is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and supports the agreement column customization (see 4.10 Columns Configuration).

Figure 66: Agreement Manager – Manage Agreements

The screenshot shows the 'Universal SLA Manager' interface. At the top, there's a navigation bar with 'Dashboard', 'Contract operations', 'Contract administration', 'Platform Administration', and 'Help'. Below this is the 'Agreements manager' section. It features an 'Agreement search filter' with a search input and buttons for 'Clear', 'Load...', 'Save', 'Save as...', and 'Delete...'. A 'Search' button is also present. Below the search filter is a table of 'Agreement search results (8 items)'. The table has columns: Agreement Name, Actions, Item Name, Contract Id, Customer, Provider, Supplier, Service, Service hours, Recurrence, Service offering, Start date, and End date. The table contains 8 rows of agreement data. At the bottom left, there's an 'Action:' dropdown menu with options like 'Apply on selected agreements' and 'Apply on whole result set (when applicable)'. At the bottom right, there's a 'Number of agreements per page:' dropdown set to '10'. Callouts point to various features: 'Administrative State' points to the 'Actions' column; 'List of customizable columns' points to the search filter; 'SLA Lifecycle Management' points to the 'Action:' dropdown; and 'Show agreements Lifecycle Management' points to the 'Number of agreements per page:' dropdown.

The following table shows the column names and their descriptions:

| Column Name | Description |
|--------------------|--|
| Selection checkbox | User selection to perform SLA lifecycle operations |

| | |
|---------------------------------|---|
| Administration State (A) | Administration State of the agreement You can view this information as a tooltip on the column header |
| Agreement Name | Name of an agreement |
| Actions | Click View to view details of an agreement. Click Edit to edit or complete or modify an agreement which is <i>Under Construction</i> <i>Note: Users with the correct user right will have access to the Edit action.</i> |
| Item Name | Name of the SLA Item. Component under the agreement. |
| Contract Id | Optional identifier of global (e.g. corporate) contract this agreement is associated with. This is an informational data that could be used to search all the agreement created within the same global contract. |
| Agreement Chain Id | Optional information which can be used for instance to link one SLA to its underlying supporting OLA and underpinning contracts. |
| Agreement Type | Type of the agreement : SLA, OLA, or UC (see 1.3 Types of Agreements) |
| SLA Id | Unique identifier for an agreement |
| SLA Description | Agreement description of the agreement |
| SLA Item Description | Agreement description of the SLA item. |
| SLA Item Link Id | SLA Item Link Identifier used to link the item with other agreements (for example an OLA that would backup this item) |
| Customer | Customer description of the agreement |
| Customer Company | Company of the customer under the agreement |
| Customer Country | Country of the customer under the agreement |
| Customer Region | Region of the customer under the agreement |
| Customer Description | Description of the customer under the agreement |
| Customer Id | Identifier of the customer under the agreement |

| | |
|--------------------------------------|--|
| Customer Representative | Main contact for the customer under the agreement |
| Provider | Provider description under the agreement |
| Provider Company | Company of the Provider under the agreement |
| Provider Country | Country of the Provider under the agreement |
| Provider Region | Region of the Provider under the agreement |
| Provider Description | Description of the Provider under the agreement |
| Provider Id | Identifier of the Provider under the agreement |
| Provider Representative | Main contact for the Provider under the agreement |
| Supplier | Supplier description under the agreement |
| Supplier Company | Company of the Supplier under the agreement |
| Supplier Country | Country of the Supplier under the agreement |
| Supplier Region | Region of the Supplier under the agreement |
| Supplier Description | Description of the Supplier under the agreement |
| Supplier Id | Identifier of the Supplier under the agreement |
| Supplier Representative | Main contact for the Supplier under the agreement |
| Service | Service description under the agreement |
| Service Country | Country of the provided service under the agreement |
| Service Region | Region of the provided service under the agreement |
| Service Description | Description for the Service under the agreement |
| Service Definition | Service Definition of the provided service under the agreement |
| Service Definition Identifier | Identifier of the Service Definition of the provided service under the agreement |

| | |
|---------------------------------------|--|
| Service Definition Description | Description for the Service Definition of the provided service under the agreement |
| Service Offering | Service offering attached to an agreement |
| Service Offering Id | Service offering identifier attached to an agreement |
| Service Offering Description | Service offering description attached to an agreement |
| Service Hours | Service hours is the working and non-working times for a service under agreement |
| Service Hours Id | Service hours identifier of the provided service |
| Service Hours Description | Description for the Service Hours of the provided service under the agreement |
| Recurrence | Recurrence rate for an agreement (Quarterly, Monthly, Weekly) |
| Start date | Date and time when the agreement becomes effective |
| End date | Date and time when the agreement expires |
| Validation required | Indicates whether a validation is always required before scheduling the activation of an SLA |
| Creation warning | Indicates whether a problem occurred during the creation of an SLA by the data load tool. |
| Last modification | Displays the date and time of the latest modification made to an agreement |
| Modified by | Displays information about the origin of the latest modification made to an agreement |

A lot of useful information is summarized in tooltip. For example, customer name will display tooltip with the complete profile of the customer.

Figure 67: Agreements Browser – Customer tooltip

| Customer | Provider | Supplier | Service |
|--------------------------|---|----------|---------------------------|
| Green Cafe | Id: WPS Contact name: Mr Dupond Organization: WPS Importance: High Representative name: Tintin Representative email: Tintin@Herge.com Contact email: Dupond@wps.com Contact home phone: -- Contact work phone: (+33) 1 99887766 (Preferred) Location: Tour Eiffel 75001 Paris France Timezone: Unspecified | | |
| Worldwide Ph Solution | | | |
| Worldwide Ph Solution | | | |
| Worldwide Ph Solution | | | |
| Worldwide Ph Solution | | | |
| Worldwide Ph Solution | | | |
| Worldwide Ph Solution | | | |
| | Avix China | China | VPN Perf1 |

7.1.1.1 Agreement Lifecycle Management

Agreement Lifecycle Management is an important feature provided by the Universal SLA Manager which allows the user you to change the administration state of multiple agreements in a single action.

Search for the required agreements using a search filters or select manually the agreements by clicking the check-box adjacent to each agreement.



The Administrative State choices are dynamically updated with possible changes. In case of multiple selections, only the possible common actions will be available in the drop-down menu.

Figure 68: Agreements Manager – SLA Lifecycle Management

Agreement search results (7 items)

| A | Agreement Name | Actions | Item Name | Contract Id | Customer | Provid |
|-------------------------------------|------------------------|-----------------------------|-----------------|-------------------------|--------------------------|-------------|
| <input type="checkbox"/> | SLA CallCenter001 1 | View / Edit | Call Center USA | CallCenter001 | Green Cafe | Avix U |
| <input type="checkbox"/> | SLA VPN Aggregation 01 | View / Edit | VPN Italy | AggregationContract1 | Worldwide Phone Solution | Avix It |
| <input type="checkbox"/> | SLA VPN BIF Detailed | View / | Florida VPN | Contract001 | Worldwide Phone Solution | Avix U |
| <input type="checkbox"/> | | Edit | Portugal | BusinessImpactContract1 | Worldwide Phone Solution | Avix Portug |
| <input checked="" type="checkbox"/> | SLA VPN Performance 01 | View / Edit | VPN China | PerformanceContract1 | Worldwide Phone Solution | Avix Cl |
| <input type="checkbox"/> | SLA VPN Ticket 01 | View / Edit | VPN Mexico | | Worldwide Phone | Avix H |

Selection checkbox to select manually agreement from the result list for action (if the action applies on selection only)

List of possible action to change the SLA Lifecycle

Scope of the action: All search result or selection

Action: Apply on selected agreements Apply on whole result set (when applicable)


You can select the **Apply on whole result set** option if you want the bulk transition to apply on all the agreements listed in the Agreement search results list.

You can select the **Apply on selected agreements** option if you want the bulk transition to apply only on selected agreements (with the selection checkbox column).

Then click **GO!** Button to perform the Administration State change.

7.1.1.2 Show Agreements Lifecycle

To ease the SLA lifecycle management, a help online is available describing the complete SLA lifecycle (see 3.3 Agreement State and Lifecycle).

Click on the icon  to display a window containing the complete SLA lifecycle description.

7.1.2 Agreement Viewer

From the Agreements Browser, we can display the detail of the agreement using **View** action.

The Agreement Viewer displays several panels on the page:

- Agreement Details
- Customer Details
- Provider Details
- Automatic Actions
- One or more SLA Items Details, for each SLA Item, you can see:
 - SLA Item Details
 - Supplier Details
 - Service Details
 - Service Offering Details with all clauses objectives organized by Domain and Category.



You can display one SLA Item at a time but in case of multiple SLA Items defined, a navigation control is available and allow you to navigate quickly to the **First, Previous, Next** and **Last** item or select in the drop-down menu the SLA Item you want to display.

Figure 69: Agreement Viewer

The screenshot displays the HP Universal SLA Manager Agreement Viewer interface. The top navigation bar includes 'Universal SLA Manager', 'Dashboard', 'Contract operations', and 'Contract administration'. A callout box points to the title of each panel, stating: 'Each panel has the name and its identifier in the title ex: ServiceOffering VPN Gold (SO-VPN-GOLD)'. The interface is divided into several sections:

- Agreement Details:** Shows fields for ID (SLA01-CallCenter001), Name (SLA CallCenter001), Description, Coordinates, Contract Id (CallCenter001), Agreement Chain Id, and Type (Agreement).
- Customer Details:** Shows information for 'Green Cafe (GreenCafe)', including Description, Aliases, Organization (Helpdesk), Company (GreenCafeCorp), Importance, Report mailing list, and Representative. A 'Customer Contact' callout points to the contact information for Mike (Mike@gc.com).
- Provider Details:** Shows information for 'Avix US (Avix_US)', including Description, Aliases, Organization (Avix), Company, Importance, Report mailing list, and Representative. A 'Provider Contact' callout points to the contact information for Tom (Tom@avix.com).
- SLA Item Details:** Shows details for 'Call Center USA', including Item Name, Description, Link Id, and Coordinates. A callout points to the 'SLA Item Navigation Controls' (First, Previous, Next, Last).
- Supplier Details:** Shows information for 'CCST US (CCST_US)', including Description, Aliases, Organization (CCST), Company, Importance, Report mailing list, and Representative. A 'Supplier Contact' callout points to the contact information for Kim (Kim@ccst.com).
- Service Details:** Shows details for 'Call Center - USA (CallCenter_USA)', including Service Definition (Call Center), Description, Location (Chicago -- USA AMERICAS), Timezone (America/Chicago), and Coordinates.
- Service Offering Details:** Shows details for 'Call Center standard offering (ServiceOffering-CallCenter)', including Description, Service Level (24x7), Recurrence (Weekly), and Exclusion reasons (No exclusion allowed).
- List of Clauses and their objectives:** A table at the bottom lists domain clauses and objectives organized by Domain / Category Panels.

| Domain Clauses > Category ServiceCall | Type | Weight | Objective Id | Objective | High risk when | Medium risk when | Low risk when | Exceed when |
|---------------------------------------|----------------------|--------|------------------------------|-----------|----------------------|---------------------|---------------------|-------------|
| Percentage of abandoned SD calls | Service Level>Status | 1 | PercentageOfAbandonedSDcalls | < 10 % | between 8 % and 10 % | between 6 % and 8 % | between 4 % and 6 % | Unspecified |

At the bottom, there are 'Save' and 'Cancel' buttons and a timestamp: 'Last modified on Feb 5, 2014 12:25 AM by Dataloader tool.'

7.1.3 Agreement Editor

From the Agreements Browser, we can display the detail of the agreement to modify them using **Edit** action.



Depending on the Administrative State of the SLA, not all fields can be edited.

The Agreement Editor displays several panels on the page like the Agreement Viewer (see 7.1.2 Agreement Viewer)

- Agreement Details that allow you to modify the information.
- Customer Details that allow you to select another customer.
- Provider Details that allow you to select another provider
- One or more SLA Items Details panel that allow you to remove a complete SLA item or add a new SLA Item to the agreement. For each SLA Item, you can see:
 - SLA Item Details that allow you to modify current information
 - Supplier Details that allow you to select another supplier.
 - Service Details that allow you to select another service.
 - Service Offering Details with all clauses objectives organized by Domain and Category that allow you to select another existing Service Offering.



You can display one Sla Item at a time but in case of multiple SLA Items defined, a navigation control is available and allow you to navigate quickly to the **First**, **Previous**, **Next** and **Last** item or select in the drop-down menu the SLA Item you want to display.

Some panels are in edit mode (Agreement Details and SLA Item Details) and let you directly modify the field in the panel (see 7.1.4 Create New Agreement). Other panels have two actions: **Change** and **Clear**, dedicated to select an USLAM object (Customer, Provider, Supplier, Service and Service Offering). **Clear** action will remove the selected object (see 7.1.3.2 Change / Clear)

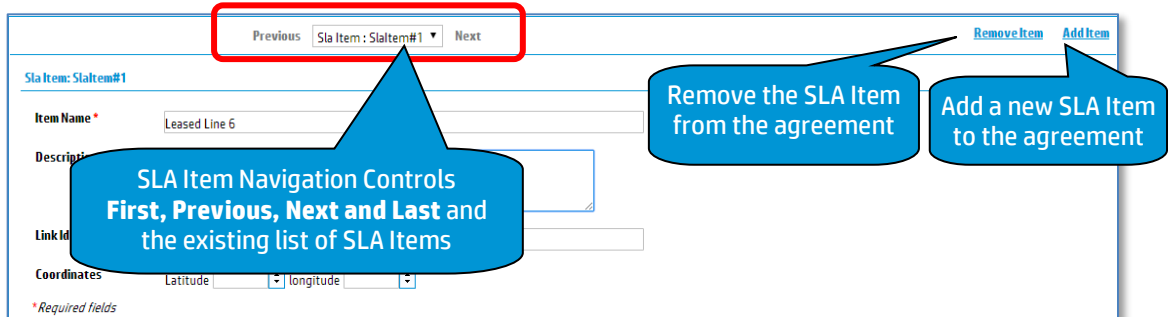
Note that information about the last edit performed on the agreement is displayed in the bottom-left corner of the window (user and date/time of the last modification)

When you finish editing the agreement, click **Save** to save any changes or **Cancel** to ignore all changes.

7.1.3.1 Add / Remove Items

SLA Items panel provides a control to navigate between existing SLA items and also allow you to remove the current displayed SLA Item or add a new item to fill.

Figure 70: Agreements Editor – Add / Remove Items

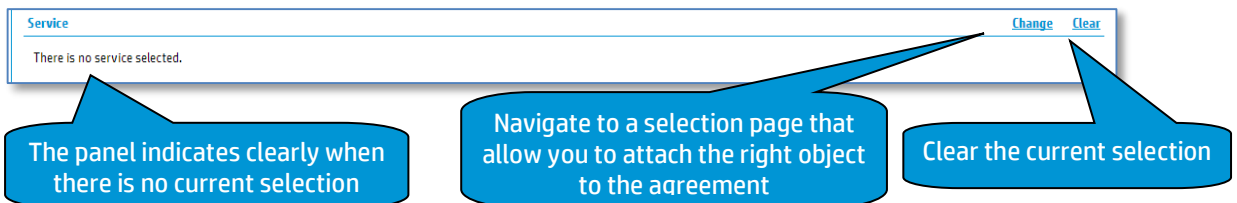


After adding a new SLA Item, you have an empty SLA Item and you have to select each USLAM object using the **Change** action (see 7.1.3.2 Change / Clear).

7.1.3.2 Change / Clear

Panels with actions: **Change** and **Clear** are dedicated to select an existing USLAM object (Customer, Provider, Supplier, Service and Service Offering). **Clear** action will remove the selected object.

Figure 71: Agreements Editor – Change/Clear Actions



Change Action will display a specific selection page according to the USLAM object to select. These selection pages are the same when you create a new agreement using the agreement Wizard (see 7.1.4 Create New Agreement), refer to these description for details:

- Customer (see 7.1.4.5 Select Customer)
- Provider (see 7.1.4.6 Select Provider)
- Supplier (see 7.1.4.7 Select Supplier)
- Service (see 7.1.4.4 Select Service)
- Service Offering (see 7.1.4.3 Select Service Offering)

7.1.4 Create New Agreement



An agreement wizard is available to define a new agreement associating the right USLAM objects (Service Definition, Customer, Supplier, Provider, Service, Service Offering).

The agreement entities must already exist in the repository before you can define a new agreement.



If the Default Calculation time zone has not been set yet, a window will ask you to specify the correct time zone to use by default (see 4.12 Default Calculation Time zone)

All available steps are displayed in the left panel of the Agreement Wizard, the right panel is the editable part where you can enter or select USLAM objects.

Figure 72: Agreement Wizard

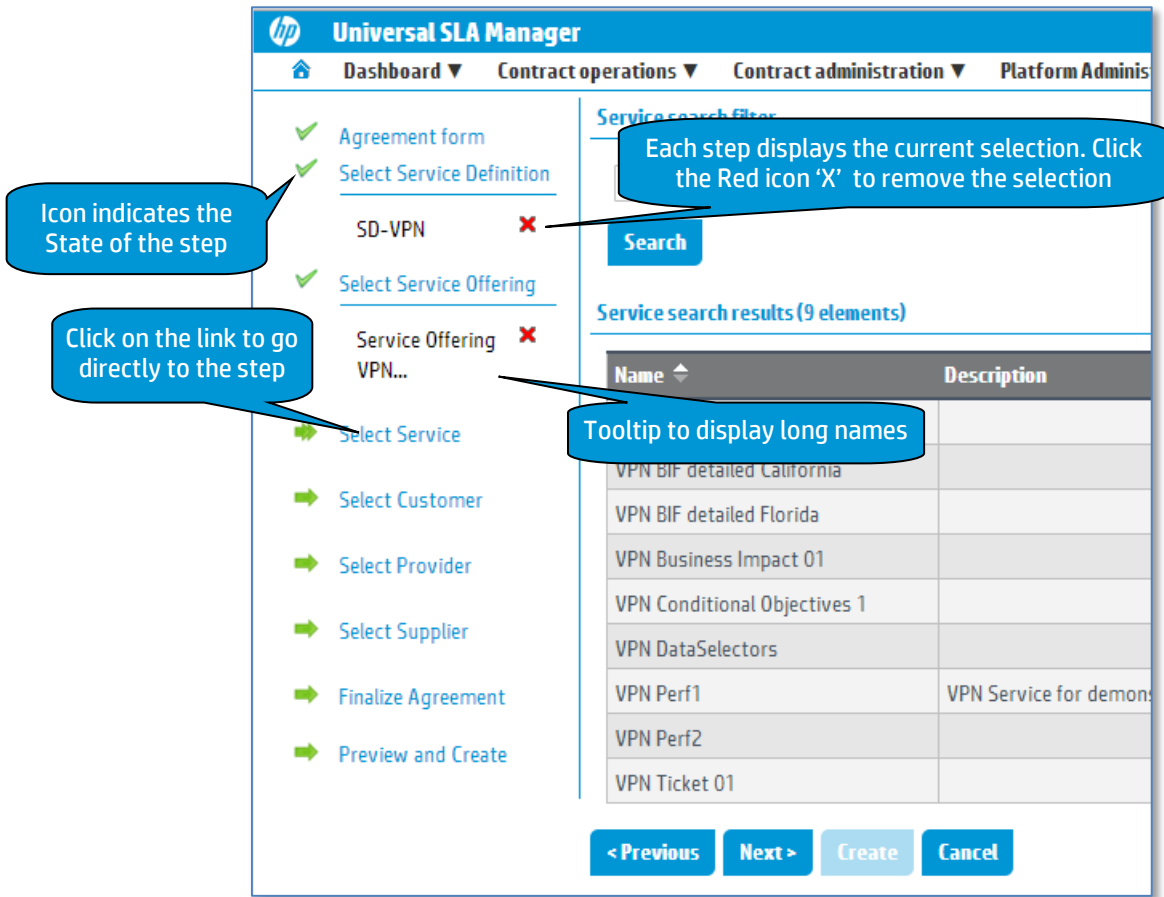
Navigation panel: Wizard provides several steps to complete to create a new agreement

Right panel: Wizard displays the current step and allows edition or selection

Navigation controls to navigate between wizard steps: Previous, Next, Create and Cancel

Navigation panel is updated after each step with the state of the step and the selected objects (in case of selection panel)

Figure 73: Agreement Wizard – Navigation Panel



Icons are described below:

| Step State | Description |
|------------|---|
| | Current step visible on the right panel |
| | Step is not completed |
| | Step is completed |
| | Step is not completed. You can go directly to this step if you want to complete it or you can be skip it in case of a partial agreement creation. |

There are 9 steps to create completely a new agreement:

- Agreement form
- Service Definition Selection
- Service Offering Selection
- Service Selection
- Customer Selection
- Provider Selection

- Supplier Selection
- Finalize Agreement
- Preview and Create



Agreement Wizard creates automatically one SLA item with the Service, Service Offering and Supplier. You can add items using the **Agreements Manager** → **Agreement Editor** and the **Edit** action (see 7.1.3.1 Add / Remove Items)

7.1.4.1 Agreement Form

The agreement form step is a mandatory first step to indicate the identifier and name of the agreement. A check will be done to ensure the agreement you are creating does not already exist.

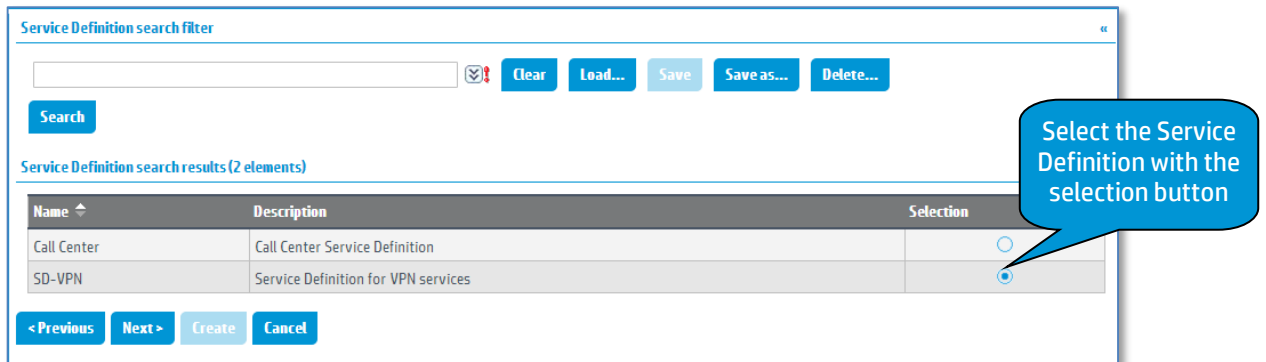
Figure 74: Agreement Wizard – Agreement Form

7.1.4.2 Select Service Definition

The Service Definition Selection window is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and displays a set of useful field to select the right service definition for the agreement.

| Column Name | Description |
|-------------|---|
| Selection | User selection. Only one selection is possible. |
| Name | Name of the Service Definition. <i>Note: A Tooltip displays the Service Definition Identifier.</i> |
| Description | Description of the Service Definition |

Figure 75: Agreement Wizard – Service Definition Selection



Select a Service Definition using the selection radio button, and click **Next** to continue to a next agreement step.



There is a dependency between Service, Service Offering and Service Definition.

Only possible Services and Service Offerings will be displayed in other agreement wizard steps

7.1.4.3 Select Service Offering

The Service Offering Selection window is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and displays a set of useful field to select the right service offering for the agreement.

The following table shows the column names and their descriptions:

| Column Name | Description |
|--------------------------|--|
| Selection | User selection. Only one selection is possible. |
| Name | Name of the Service Offering. <i>Note: A Tooltip displays the Service Offering Identifier.</i> |
| Description | Description of the Service Offering |
| Recurrence | Recurrence rate for the Service Offering (Quarterly, Monthly, Weekly) |
| Service Hours | Service Hours is the working and non-working times for the Service Offering (10x5, 24x7...) |
| Creation Date | Creation date and time for the Service Offering |
| Number of clauses | Number of clauses defined in the Service Offering. <i>Note: A Tooltip describe the the first clause Objectives in a textual format.</i> |

| | |
|---------------|---|
| Action | <p>View action popup an external Window with the Service Offering Details.</p> <p>Clone action navigate to a window able to create a new Service Offering cloning an existing one.</p> <p>See 7.2 Service Offerings Manager for more details</p> |
|---------------|---|

Figure 76: Agreement Wizard – Service Offering Selection

Service offering search filter

Search

Service offering search results (5 elements)

| Name | Description | Recurrence | Service hours | Valid from | Valid until | Service hours | Nb clauses | Actions | Selection |
|---|---|------------|---------------|------------|-------------|---------------|------------|--------------|-----------------------|
| Service Offering VPN Performance Gold | Service Offering for VPN performance, level gold | Monthly | 24x7 | | | 24x7 | 2 | View Clone | <input type="radio"/> |
| Service Offering VPN Ticket Business Impact | 24x7 Service Offering for business impact based on simple VPN Tickets SLA clauses | Monthly | 24x7 | | | 24x7 | 2 | View Clone | <input type="radio"/> |
| Service Offering template for VPN ticket | 24x7 Service Offering template for Tickets related simple SLA clauses | Monthly | 24x7 | | | 24x7 | 28 | View Clone | <input type="radio"/> |
| Service Offering with detailed penalty calculation | 24x7 Service Offering template for detailed business impact on VPN tickets SLA clauses | | | | | | 1 | View Clone | <input type="radio"/> |
| Service Offering with detailed penalty calculation for VPN P1 | 24x7 Service Offering template for detailed business impact on priority 1 VPN, based on tickets | | | | | | 3 | View Clone | <input type="radio"/> |

< Previous Next > Create Cancel

Select the Service Offering with the selection button

Click to View action to display an external window with the Service Offering details

Figure 77: Agreement Wizard – Service Offering Detail

Service offering ServiceOffering-BusinessImpact-DetailedPenaltyForVPN_P1 (version 1)

Name Service Offering with detailed penalty calculation for VPN P1

Description 24x7 Service Offering template for detailed business impact on priority 1 VPN, based on tickets

Service Definition SD-VPN

Service Hours 24x7

Recurrence Monthly

Exclusion reasons UnplannedMaintenance , ForceMajeure

Created on Feb 6, 2014 12:25 AM.

Clauses Objectives

Clauses search filter

Clauses search results (3 elements)

| Domain | Category | Type | Weight | Clause name | Objective id | Objective | High risk when | Medium risk when | Low risk when | Exceeded when |
|--------|----------------------|----------------------|--------|-----------------------------|-------------------------|-----------|---------------------------|------------------|-----------------|---------------|
| Ticket | MTTR | Service Level Status | 5.0 | Mean Time To Resolve Ticket | meanTimeToResolveTicket | < 120 | Unspecified | Unspecified | Unspecified | Unspecified |
| Ticket | Incident | Incident | 3.0 | Critical TTR | criticalTTR | < 2 | Unspecified | Unspecified | between 1 and 2 | Unspecified |
| Ticket | Service availability | Availability | 3.0 | Site Availability | siteAvailability | ≥ 99.5 % | between 99.5 % and 99.7 % | Unspecified | Unspecified | Unspecified |

Number of clauses per page: 10

Select Cancel

Service Offering Details

List of Clauses and their objectives defined for this Service Offering

- Select button will go back to the selection step and automatically select this Service Offering.
- Cancel close the window without any selection

The Service Offering Detail window is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) to search in the volume of clauses defined for this Service Offering and displays useful columns.

The following table shows the column names and their descriptions:

| Column Name | Description |
|-----------------|--|
| Category | Clause category |
| Domain | Clause domain |
| Type | Clause Type : Downtime, Incident, Service Level Status |
| Weight | Weight of the clause |

| | |
|---|--|
| Name | Name of the clause |
| Objective | Clause objective. It is the breach threshold of the monitored indicator to compute the clause status with its operator and unit. |
| At (High / Medium / Low) risk when | It is the At Risk threshold (high, medium and low) of the monitored indicator to compute the clause status with its operator and unit. |
| Exceed when | Exceed threshold with its operator and unit |

Select a Service Offering using the selection radio button, and click **Next** to continue to a next agreement step.



There is a dependency between Service, Service Offering and Service Definition.

Only possible Service Offerings will be displayed in this agreement wizard step.

If you select the Service Offering before the Service Definition, The Service Definition associated to the selected Service Offering will be automatically selected and Service Definition Selection will be updated accordingly.

7.1.4.4 Select Service

The Service Selection window is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and displays a set of useful field to select the right service for the agreement.

The following table shows the column names and their descriptions:

| Column Name | Description |
|-------------|---|
| Selection | User selection. Only one selection is possible. |
| Name | Name of the Service. <i>Note: A Tooltip displays the Service Identifier and its custom fields (if any)</i> |
| Description | Description of the Service |
| Service Id | Service Identifier |

Figure 78: Agreement Wizard – Service Selection

Service search filter

Search

Service search results (6 elements)

| Name | Description | Service Id | Selection |
|-----------------------------|--|-----------------------------|----------------------------------|
| VPN BIF detailed California | | VPN_BIF_detailed_California | <input type="radio"/> |
| VPN BIF detailed Florida | | VPN_BIF_detailed_Florida | <input type="radio"/> |
| VPN Business Impact 01 | | VPN_BIF1 | <input type="radio"/> |
| VPN Perf1 | VPN Service for demonstrating performance metrics management | VPN_PERF1 | <input checked="" type="radio"/> |
| VPN Perf2 | | VPN_PERF2 | <input type="radio"/> |
| VPN Ticket 01 | | VPN_TICKET1 | <input type="radio"/> |

< Previous Next > Create Cancel

Select the Service with the selection button

Select a Service using the selection radio button, and click **Next** to continue to a next agreement step.



There is a dependency between Service, Service Offering and Service Definition.

Only possible Services will be displayed in this agreement wizard step. If you select the Service before the Service Definition, The Service Definition associated to the selected Service will be automatically selected and Service Definition Selection will be updated accordingly.

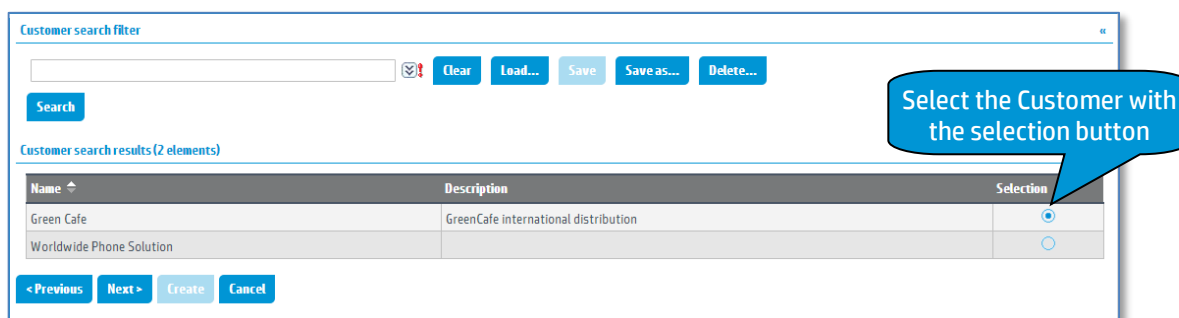
7.1.4.5 Select Customer

The Customer Selection window is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and displays a set of useful field to select the right customer for the agreement.

The following table shows the column names and their descriptions:

| Column Name | Description |
|--------------------|--|
| Selection | User selection. Only one selection is possible. |
| Name | Name of the Customer. <i>Note: A Tooltip displays the Customer Identifier and the contact information of the customer</i> |
| Description | Description of the Customer |

Figure 79: Agreement Wizard – Customer Selection



Select a Customer using the selection radio button, and click **Next** to continue to a next agreement step.

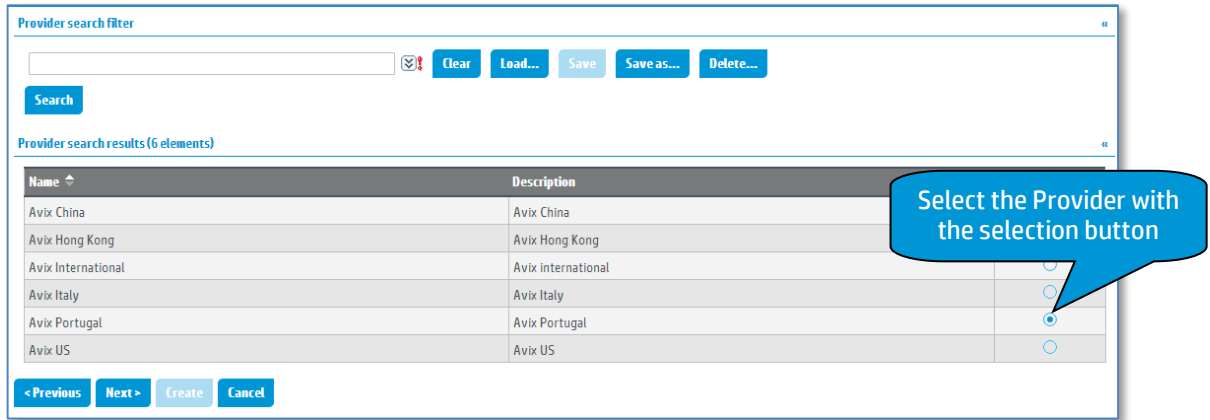
7.1.4.6 Select Provider

The Provider Selection window is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and displays a set of useful field to select the right provider for the agreement.

The following table shows the column names and their descriptions:

| Column Name | Description |
|--------------------|--|
| Selection | User selection. Only one selection is possible. |
| Name | Name of the Provider. <i>Note: A Tooltip displays the Provider Identifier and the contact information of the provider</i> |
| Description | Description of the Provider |

Figure 80: Agreement Wizard – Provider Selection



Select a Provider using the selection radio button, and click **Next** to continue to a next agreement step.

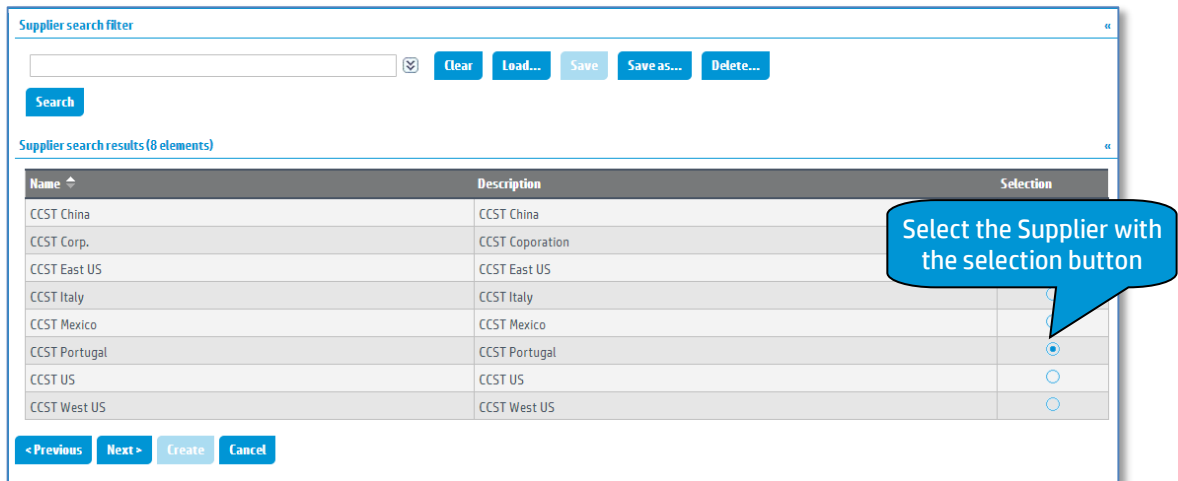
7.1.4.7 Select Supplier

The Supplier Selection window is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and displays a set of useful field to select the right supplier for the agreement.

The following table shows the column names and their descriptions:

| Column Name | Description |
|--------------------|--|
| Selection | User selection. Only one selection is possible. |
| Name | Name of the Supplier. <i>Note: A Tooltip displays the Supplier Identifier and the contact information of the supplier</i> |
| Description | Description of the Supplier |

Figure 81: Agreement Wizard – Supplier Selection



Select a Supplier using the selection radio button, and click **Next** to continue to a next agreement step.

7.1.4.8 Finalize Agreement

The Finalize Agreement step is the last editable step. This window reminds you several fields you already filled in the first step (see 7.1.4.1 Agreement Form) and let you complete the agreement with additional information.

| Fields | Description |
|-----------------------------|--|
| Agreement Name | Name of an agreement |
| Agreement Identifier | Identifier of the agreement |
| Description | Description for the agreement |
| Coordinates | Latitude and Longitude for this SLA |
| Contract Id | Optional identifier of global (e.g. corporate) contract this agreement is associated with. This is an informational data that could be used to search all the agreement created within the same global contract. |
| Agreement Chain Id | Optional information which can be used for instance to link one SLA to its underlying supporting OLA and underpinning contracts. |
| Start date | Date and time when the agreement becomes effective and computation of the compliance. Note: Start date is mandatory to schedule an activation of the agreement, and can be in the past (no more than the data retention delay) |

| | |
|-----------------------------|---|
| End date | Date and time when the agreement expires and will be automatically terminated. Note: This information is optional. |
| Agreement Type | Type of the agreement : SLA, OLA, or UC (see 1.3 Types of Agreements) |
| Validation required | Indicates whether a validation is always required before scheduling the activation of an SLA |
| Administration State | Administration State of the agreement, depending on the agreement information entered, it can be : <ul style="list-style-type: none"> • Under Construction • Waiting Validation • Activation Scheduled |
| SLA Item | SLA Item information that can be modified. <ul style="list-style-type: none"> • SLA item name • SLA item description • Link Identifier • SLA item coordinates (longitude, latitude) |

The Navigation panels summarize choices done for Service Definition, Service Offering, Service, Customer, Provider, and Supplier and allow you to remove or change these objects.

Figure 82: Agreement Wizard – Finalize Agreement

Previous information from the Agreement Form: Id, Name, Description

Additional fields you can modify to complete the agreement creation and prepare its activation

Navigation panel summarize choices done and allow you to remove or modify these objects

Complete the agreement information and click **Next** to see a preview of your current agreement before creation.

7.1.4.9 Preview and Create

Preview and Create step is the last confirmation before creating the agreement.

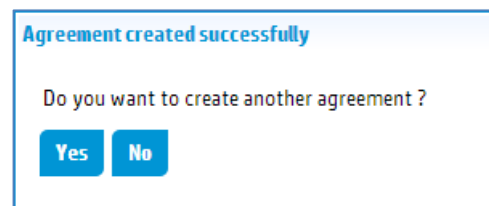
When you finish, click **Create** to create the agreement in the USLAM Repository or **Cancel** to ignore this agreement creation.

Review the information you provided for the new agreement and then click **Create** to create the new agreement. You can cancel the new agreement creation process by clicking **Cancel**.

Once the agreement created, a popup dialog confirms the success of the creation and asks you if you want to create another agreement.

Click **Yes** start creating another agreement and reuse the information you provided during the last agreement creation process. Click **No** to go back to the USLAM homepage.

Figure 83: Agreement Wizard – Multiple Creation



7.2 Service Offerings Manager

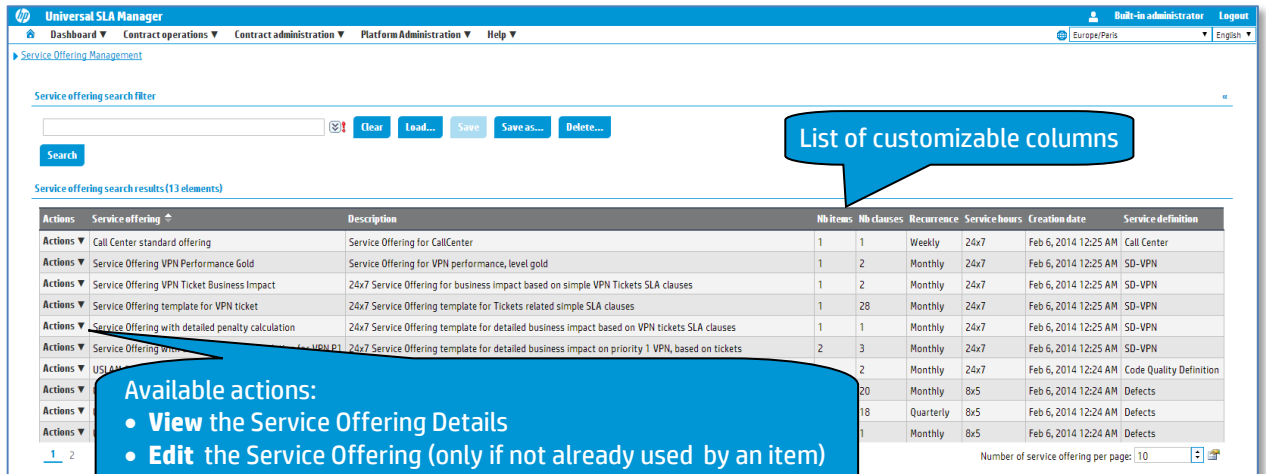


Service Offering Management is a set of several windows restricted to the user with the right access that allows searching, viewing, and cloning existing Service Offerings. The cloned Service Offering can be edited and its objectives can be modified. The new Service Offering will be ready for using and create a new agreement in the agreement creation wizard.

7.2.1 Manage Service Offering

It is composed of the Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and supports the agreement column customization (see 4.10 Columns Configuration). You can select your desired search criteria by defining a new filter or loading an existing one in the **Service Offering search filter**.

Figure 84: Service Offering Management



The following table shows the column names and their descriptions:

| Column Name | Description |
|----------------------------------|--|
| Action | Click View to view details of a Service Offering Click Edit to open the Service Offering editor (this action is available only if the Service Offering is not already referenced by an item) Click Clone to clone and edit a Service Offering |
| Service Offering Name | Name of the Service Offering. <i>Note: A Tooltip displays the Service Offering Identifier.</i> |
| Service Offering Id | Identifier of the Service Offering |
| Description | Description of the Service Offering |
| Recurrence | Recurrence rate for the Service Offering (Quarterly, Monthly, Weekly) |
| Service Hours | Service Hours is the working and non-working times for the Service Offering (10x5, 24x7...) |
| Service Hours Description | Description associated to the Service Hours |
| Service Hours Id | Identifier of the Service Hours |
| Creation Date | Creation date and time for the Service Offering |
| Number of clauses | Number of clauses defined in the Service Offering. <i>Note: A Tooltip describe the clauses and theirs objectives in a textual format.</i> |
| Service Definition | Service Definition name |

| | |
|------------------------------|-------------------------------|
| Service Definition Id | Service Definition Identifier |
|------------------------------|-------------------------------|

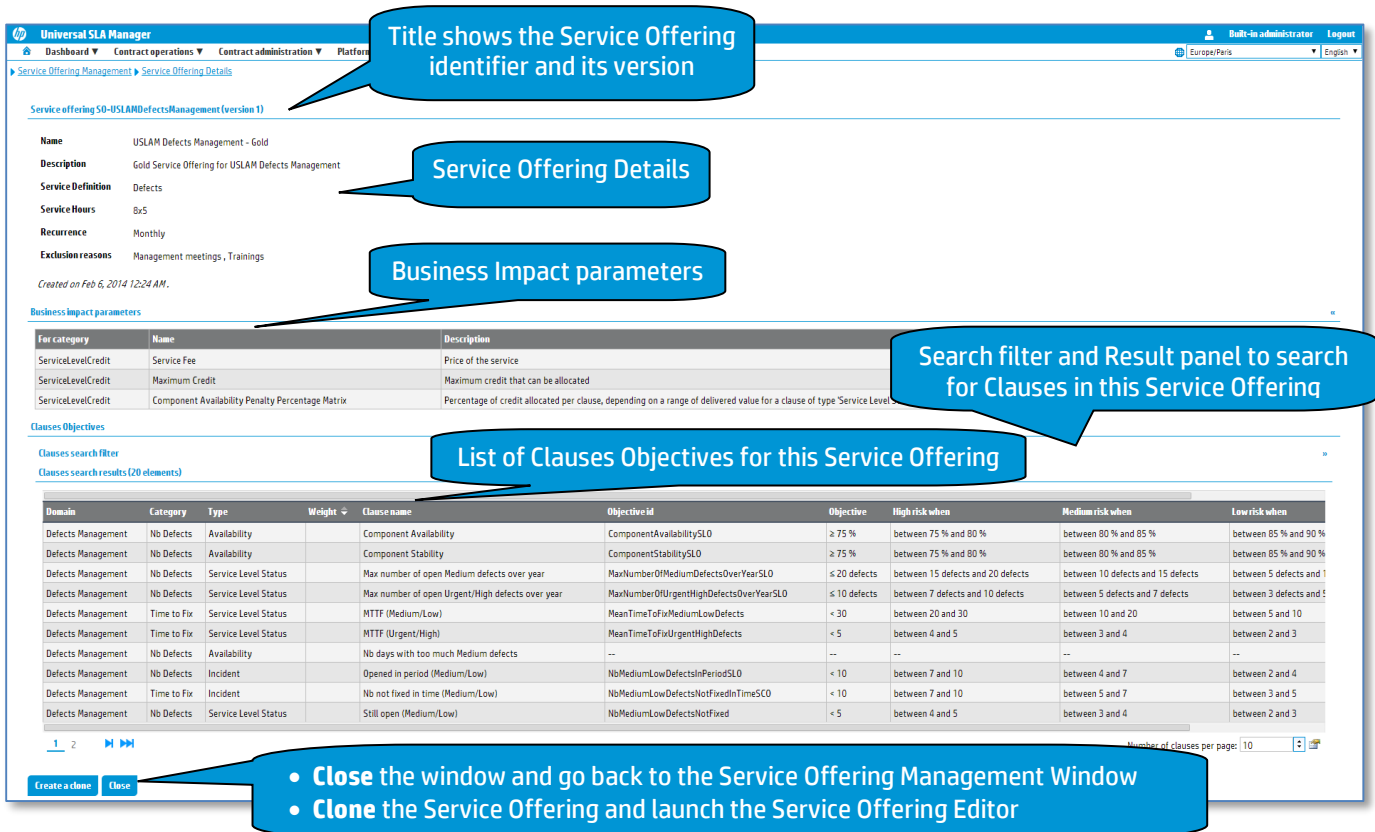
7.2.1.1 Service Offering Details

Service Offering Details is dedicated to view and validate that the selected Service Offering is the right one to clone and edit.

It is composed of detail panel on the Service Offering, a panel describing the business impact parameters and tables that list all the Clauses and their objectives.

This Clause Objectives panel is composed of a Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and supports the agreement column customization (see 4.10 Columns Configuration). You can select your desired search criteria by defining a new filter or loading an existing one in the **Clauses search filter**.

Figure 85: Service Offering Details



The following table shows the column names for the clause objectives and their descriptions:

| Column Name | Description |
|-----------------|-----------------|
| Category | Clause category |

| | |
|---------------------|--|
| Domain | Clause domain |
| Type | Clause Type : Downtime, Incident, Service Level Status |
| Weight | Weight of the clause |
| Name | Name of the clause |
| Objective | Clause objective. It is the breach threshold of the monitored indicator to compute the clause status with its operator and unit. |
| At risk when | It is the At Risk threshold of the monitored indicator to compute the clause status with its operator and unit. |
| Exceed when | Exceed threshold with its operator and unit |

7.2.1.2 Service Offering Editor

Service Offering Editor is dedicated to edit and customize a new Service Offering.

It is composed of detail panel on the Service Offering with information you can modify, a panel of business impact parameters and a list of Service Clauses and their objectives that you can edit.

The first step is to review and modify the pre-defined identifier and name of the Service Offering. A check will be done to ensure the Service Offering you are creating does not already exist.

Figure 86: Service Offering Editor

The screenshot shows the 'Service Offering Editor' interface in the Universal SLA Manager. It includes several callout boxes with the following text:

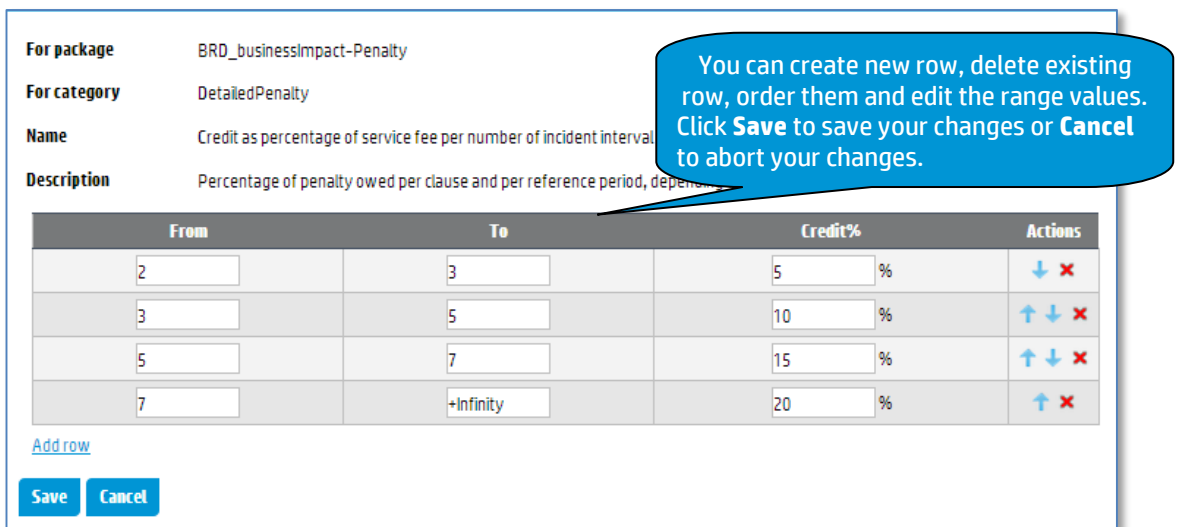
- Service Offering panel in edition:** Points to the 'New service offering' section with fields for Identifier, Version, Name, and Description.
- Business impact parameters panel in edition:** Points to the 'Business impact parameters' section, which includes a table for 'For category' with columns for Name, Description, Clause, and Value.
- List of exclusion Reasons available for this Service Offering. You can create new exclusion reasons:** Points to the 'Exclusion reasons' table with columns for Exclusion reason, Description, duration, and Actions.
- List of clauses and their objectives:** Points to the 'Service Clauses Objectives' table with columns for Clause, Type, Weight, Objective id, Objective, High risk when, Medium risk when, Low risk when, Exceed when, and Actions.
- Click to Clause configuration to launch the Service Offering Clause Configuration and select or unselect clauses you would like to include in this service offering:** Points to the 'Clauses configuration' link.
- Click Save to create this Service Offering or Cancel to abort the creation:** Points to the 'Save' and 'Cancel' buttons at the bottom left.
- Click to Edit on the selected clause to launch the clause editor:** Points to the 'Edit' button in the 'Service Clauses Objectives' table.

Service Offering panel provide all the modifiable attributes of the Service Offering with the value by default of the cloned Service Offering.

You can modify the Business Impact parameters either directly (for simple parameters) or using the Matrix Business Impact parameters editor. You can easily customize the list of exclusion reasons using the Exclusion reasons panel.

Use the 'Clauses configuration' link to configure the list of clauses you would like to select or unselect on this service offering using the Service Offering Clauses Configuration page (see 7.2.1.3 Service Offering Clauses Configuration)

Figure 87: Service Offering Editor – Matrix Business Impact Parameters

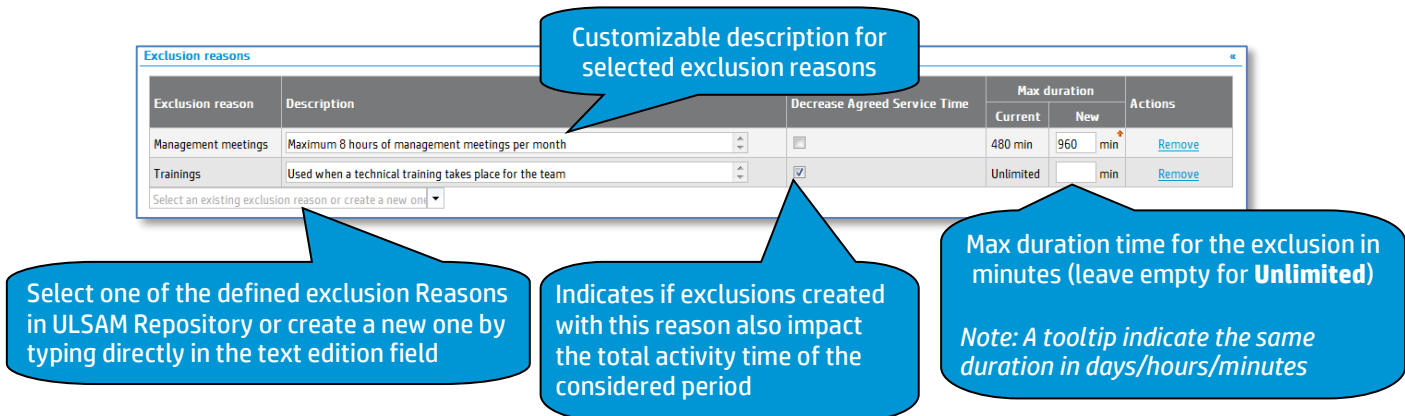


For package BRD_businessImpact-Penalty
For category DetailedPenalty
Name Credit as percentage of service fee per number of incident interval
Description Percentage of penalty owed per clause and per reference period, dependent on

| From | To | Credit% | Actions |
|------|-----------|---------|---------|
| 2 | 3 | 5 % | ↓ × |
| 3 | 5 | 10 % | ↑ ↓ × |
| 5 | 7 | 15 % | ↑ ↓ × |
| 7 | +Infinity | 20 % | ↑ × |

[Add row](#)
Save **Cancel**

Figure 88: Service Offering Editor - Exclusion Reasons





Exclusion reasons

| Exclusion reason | Description | Decrease Agreed Service Time | Max duration | | Actions |
|---------------------|---|-------------------------------------|--------------|---------|------------------------|
| | | | Current | New | |
| Management meetings | Maximum 8 hours of management meetings per month | <input type="checkbox"/> | 480 min | 960 min | Remove |
| Trainings | Used when a technical training takes place for the team | <input checked="" type="checkbox"/> | Unlimited | min | Remove |

Select an existing exclusion reason or create a new one



A graphical indicator appears when you modify a max duration value indicating clearly if you enter a higher value  or lower value .

It eases the final review of the Service Offering changes.

The following table shows the column names for the clause objectives and their descriptions:

| Column Name | Description |
|---|--|
| Action | Click Edit to launch the Service Offering Clause Editor (see 7.2.1.4 Service Offering Clause Editor) |
| Clause | Name of the clause |
| Type | Clause Type (Downtime, Incident, Service Level Status) |
| Description | Description of the clause |
| Weight | Weight of the clause |
| Objective | Clause objective. It is the breach threshold of the monitored indicator to compute the clause status with its operator and unit. |
| At (High, Medium, Low) risk when | It is the At Risk threshold of the monitored indicator to compute the clause status with its operator and unit. |
| Exceed when | Exceed threshold with its operator and unit |

Service Offering Editor always displays the current definition for your Service Offering you are going to create clicking the **Save** button.

Cancel button will go back the Service Offering Management window (see 7.2.1 Manage Service Offering)

7.2.1.3 Service Offering Clauses Configuration

Service Offering Clauses Configuration allows selecting the clauses attached to the service offerings. It is composed of clauses list panel with clause details and a checkbox that let you select or unselect this clause for this service offering.

You can select the checkbox to select/unselect the clause, or uses link to select or unselect all clauses.

Clauses are displayed by domain and category to ease the search and selection.

Figure 89: Service Offering Clauses Configuration

Select or unselect all clauses using these links

List of clauses and their objectives

| Selected | Order | Clause | Type | Weight | Objective Id | Objective | High risk when | Medium risk when | Low risk when | Exceed when |
|-------------------------------------|-------|--|----------------------|-------------|---|-------------------|-----------------------------------|-----------------------------------|----------------------------------|------------------|
| <input checked="" type="checkbox"/> | 1 | Component Availability | Availability | Unspecified | ComponentAvailabilitySLO | $\geq 75\%$ | between 75% and 80% | between 80% and 85% | between 85% and 90% | $\geq 95\%$ |
| <input checked="" type="checkbox"/> | 2 | Platform Stability | Availability | Unspecified | PlatformStabilitySLO | $\geq 95\%$ | | | | $\geq 95\%$ |
| <input checked="" type="checkbox"/> | 2 | Component Stability | Availability | Unspecified | ComponentStabilitySLO | $\geq 95\%$ | | | | $\geq 95\%$ |
| <input checked="" type="checkbox"/> | 3 | Still open (Urgent/High) | Service Level Status | Unspecified | NbUrgentHighDefectsNotFixed | < 5 | between 4 and 5 | between 3 and 4 | between 2 and 3 | Unspecified |
| <input checked="" type="checkbox"/> | 4 | Still open (Medium/Low) | Service Level Status | Unspecified | NbMediumLowDefectsNotFixed | < 5 | between 4 and 5 | between 3 and 4 | between 2 and 3 | Unspecified |
| <input checked="" type="checkbox"/> | | Max number of open Medium defects over year | Service Level Status | Unspecified | MaxNumberOfMediumDefectsOverYearSLO | ≤ 20 defects | between 15 defects and 20 defects | between 10 defects and 15 defects | between 5 defects and 10 defects | ≤ 1 defects |
| <input checked="" type="checkbox"/> | | Max number of open Urgent/High defects over year | Service Level Status | Unspecified | MaxNumberOfUrgentHighDefectsOverYearSLO | ≤ 10 defects | between 7 defects and 10 defects | between 5 defects and 7 defects | between 3 defects and 5 defects | ≤ 0 defects |
| <input checked="" type="checkbox"/> | | No days of instability | Availability | Unspecified | | Unspecified | Unspecified | Unspecified | Unspecified | Unspecified |
| <input checked="" type="checkbox"/> | | No days with too much Medium defects | Availability | Unspecified | | Unspecified | Unspecified | Unspecified | Unspecified | Unspecified |
| <input checked="" type="checkbox"/> | | Opened in period (Medium/Low) | Incident | Unspecified | NbMediumLowDefectsInPeriodSLO | < 10 | between 7 and 10 | between 4 and 7 | between 2 and 4 | < 0 |
| <input checked="" type="checkbox"/> | | Opened in period (Urgent/High) | Incident | Unspecified | NbUrgentHighDefectsInPeriodSLO | < 5 | between 3 and 5 | between 2 and 3 | between 1 and 2 | < 0 |

Select or unselect the clauses included in this service offering

| Selected | Clause | Type | Weight | Objective Id | Objective | High risk when | Medium risk when | Low risk when | Exceed when |
|-------------------------------------|--------------------|----------------------|-------------|-------------------------------------|-----------|-------------------|-------------------|------------------|-------------|
| <input checked="" type="checkbox"/> | % not acknowledged | Service Level Status | Unspecified | HighDefectsNotAcknowledgedInTime | < 50 | between 25 and 50 | between 10 and 25 | between 5 and 10 | Unspecified |
| <input checked="" type="checkbox"/> | % not acknowledged | Service Level Status | Unspecified | HighDefectsNotAcknowledgedInTimeSCO | < 2 | between 1 and 2 | Unspecified | Unspecified | Unspecified |

Click Done save your changes and return to the Service Offering Editor with the updated list of clauses.

7.2.1.4 Service Offering Clause Editor

Service Offering Clause Editor is dedicated to view / edit the clause defined for the service offering.

It is composed of detail panel on the Clause with several information you can modify and Service Clause Objectives and their Service Level Objectives that you can edit.

Figure 90: Service Offering Clauses Editor

The screenshot shows the 'Service Offering Clause Editor' interface. At the top, there are navigation controls: 'First', 'Previous', 'Next', and 'Last'. Below this, the 'Clause' details are shown, including 'Clause *' (Component Availability), 'Clause description', 'Objective id' (ComponentAvailabilitySLO), 'Objective description', 'Type' (Availability), 'Service Component' (Component), and 'Weight'. To the right, there are 'Clause Details' for 'Order', 'Domain', 'Category', and 'Label 1-4'. Below these are two tables: 'Service Clauses Objectives' and 'Service Level Objectives'. A 'Done' button is located at the bottom left. Callouts point to 'Navigation Controls', 'Clause Details', 'Service Clause Objectives and their thresholds', and 'Service Level Objectives and their thresholds'.



A graphical indicator appears when you modify threshold value indicating clearly if you enter a higher value ↑ or lower value ↓.

It eases the final review of the Clause changes.

The following table shows the column names and their descriptions:

| Column Name | Description |
|--------------------|---|
| Clause Name | Name of the clause |
| Description | Description of the clause |
| Weight | Weight of the clause |
| Order | Index used to order the clause in the list. |
| Domain | Name of the domain related to this clause |
| Category | Name of the category related to this clause |

| | |
|---|--|
| Label 1...5 | Optional label used to organize clauses |
| Type | Clause Type : Downtime, Incident, Service Level Status <i>Note: this is not an editable information</i> |
| Service Component | Name of the service associated to this clause <i>Note: this is not an editable information</i> |
| Service Clauses Objectives | Description |
| Objective | Clause objective. It is the breach threshold of the monitored indicator to compute the clause status with its operator and unit. You can see its original value (not editable) and its current value you can modify. Note: This is a mandatory value |
| At (High, Medium, Low) risk when | It is the At Risk threshold of the monitored indicator to compute the clause status with its operator and unit. You can see its original value (not editable) and its current value you can modify. Unspecified indicates there is not associated value for this threshold. Note: This is a optional value |
| Exceed when | Exceed threshold with its operator and unit. You can see its original value (not editable)_ and its current value you can modify. Unspecified indicates there is not associated value for this threshold. Note: This is a optional value |
| Service Level Objectives | Description |
| Service Component | Hierarchy list of service component associated to this SLO (ex: Service1 > Component1 > Component 2 > Name) <i>Note: this is not an editable information</i> |
| SLO | Name of the Service Level Objectives |
| Critical | It is the critical threshold of the monitored indicator used to determine the Service Level Status with its operator and unit. You can see its original value (not editable) and its current value you can modify. Note: This is a mandatory value |
| Major | It is the Major threshold of the monitored indicator used to determine the Service Level Status with its operator and unit. You can see its original value (not editable) and its current value you can modify. Note: This is an optional value |

Threshold values have to be consistent. An error will be dynamically displayed around all invalid values.



Example of inconsistent At High Risk Threshold compare to its objective.

| High Risk | |
|-------------------------|-------------------------|
| Current | New |
| between 99.5% and 99.7% | between 99.5% and 99.2% |

After changing the needed values, you can click **DONE** to go back to the Service Offering Editor (see 7.2.1.2 Service Offering Editor) or use the navigation controls to move to another clause and keep the Service Offering Clause Editor window.



To apply changes and create the new Service Offering, you have to go back to the Service Offering Editor for a final review and click **Save**.

7.3 Contracts Reports



The Agreements reports allow the user to access to pre-defined standard related to contracts administration especially agreements and service offerings management. It will launch Business Object Portal and requires authentication.

You can access to all your customized reports including all pre-defined USLAM reports (see Chapter 9 USLAM for detailed information)

Chapter 8

Platform Administration

8.1 User Management



The User Management Windows is dedicated to platform administrator to create or edit end users and assign them an USLAM role.

Role defines a set of available tasks accessible through the user interface (ex: an operator will not have any access to any administration tasks or able to modify any contract).

On top of the role, it is also possible to restrict access to specific USLAM objects using filters. These filters are named **implicit filters** and are automatically applied before any user filters to grant that a user do not see or select any restricted USLAM objects (SLAs, Service Offerings, Parties, Service Instance, Service Definition, Customers, Suppliers, Providers, etc...)



Implicit Filters dedicated to restrict access to specific USLAM objects are system filters and are not visible to the end user in the user interface. Only an administrator can access to this details.

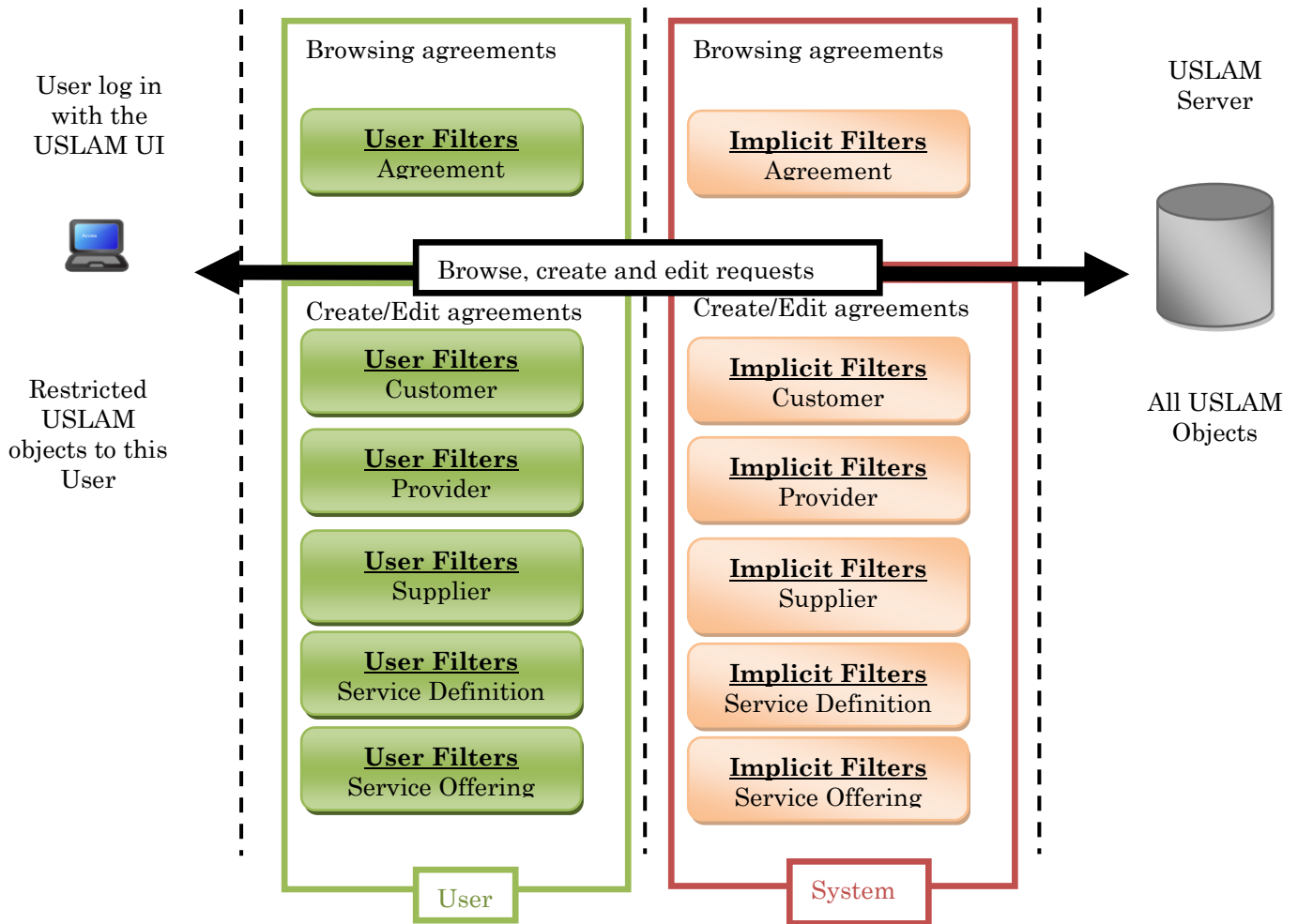


Admin is the built-in administrator account always available to log in. It cannot be deactivated (see 8.1.5 Activate / Deactivate Users)

Implicit filters are optional and pre-defined filters defined by your platform administrator to restrict access to USLAM objects based on your work. It is mainly to secure task and avoid mistake managing agreements (ex: filter on contract id to list only SLA associated to this contract and its USLAM objects, SLA restricted to a specific customer, ...)

These filters can be set for the display of agreements and hide unauthorized SLA, or can be defined to hide all unauthorized USLAM objects during selection when the user creates or edit agreements.

Figure 91: Implicit Filters Overview



All requests related to the browsing, creation and edition between the USLAM database and the end user are filtered by the two levels of filters: **Implicit** (i.e. system) and **User** (the one created and loaded by the end user to ease his work).

The end user will always see and manage restricted list of USLAM objects.



The current USLAM product has a limitation and do not allow a deletion of implicit filters.

8.1.1 Manage users

It is composed of the Default user role panel, Search Filter Panel (see 4.8 Filter Management) and the Search Filter Result table (see 4.9 Search Result) and supports the agreement column customization (see 4.10 Columns Configuration). You can select your desired search criteria by defining a new filter or loading an existing one in the **User search filter**.

Figure 92: User Management

The screenshot shows the 'Universal SLA Manager' interface. At the top, there's a navigation bar with 'Dashboard', 'Contract operations', 'Contract administration', 'Platform Administration', and 'Help'. The current page is 'End user management'. A dropdown menu for 'Default user role' is set to 'Platform administrator'. Below this is a search filter section with a search box and buttons for 'Clear', 'Load...', 'Save', and 'Save as...'. A table titled 'User search results (4 elements)' displays user information with columns for Name, Display name, Group name, Roles, and Actions. Callouts provide the following information:

- Default User Role:** Points to the 'Default user role' dropdown menu.
- List of existing USLAM Users:** Lists attributes: Login, Name, Group, Description, Roles.
- Option to display only active users or all users:** Points to the 'Show deactivated users' checkbox.
- Click Add new user... to create a new USLAM user:** Points to the 'Add new user...' button.
- Click to Save to confirm the modification of the Default User role or click Cancel to abort this change:** Points to the 'Save' and 'Cancel' buttons at the bottom.
- List of actions available on existing users: Edit, Reactivate or Deactivate:** Points to the 'Edit' and 'Deactivate' links in the table.



Only active users are displayed by default in the user search result table. To see the complete list of users including the disabled ones, you need to check the **Show deactivated users**.

The default user role will be granted to all users correctly authenticated but not explicitly listed in the list of USLAM users. The default user role is **Platform administrator**.

See 3.8 User Roles for more details about the user role and their associated tasks

The following table shows the column names and their descriptions.

| Column Name | Description |
|--------------|--|
| Name | Login name to enter on the USLAM login page |
| Display Name | Complete name to use for display. It could be different from the login name. |
| Group Name | Name of the group this user belongs to. |

| Roles | List of assigned role for this users |
|--------|--|
| Action | <ul style="list-style-type: none"> Click Edit to modify an existing user (see 8.1.3 Edit an existing user) Click Activate to enable the user to log in. By default all new users are active and do not require an activation. Click Deactivate to disable the user. He will not be able to log anymore and seen as not active or obsolete user. <p><i>Note: After a deactivation, it is always possible to use activate action.</i></p> |

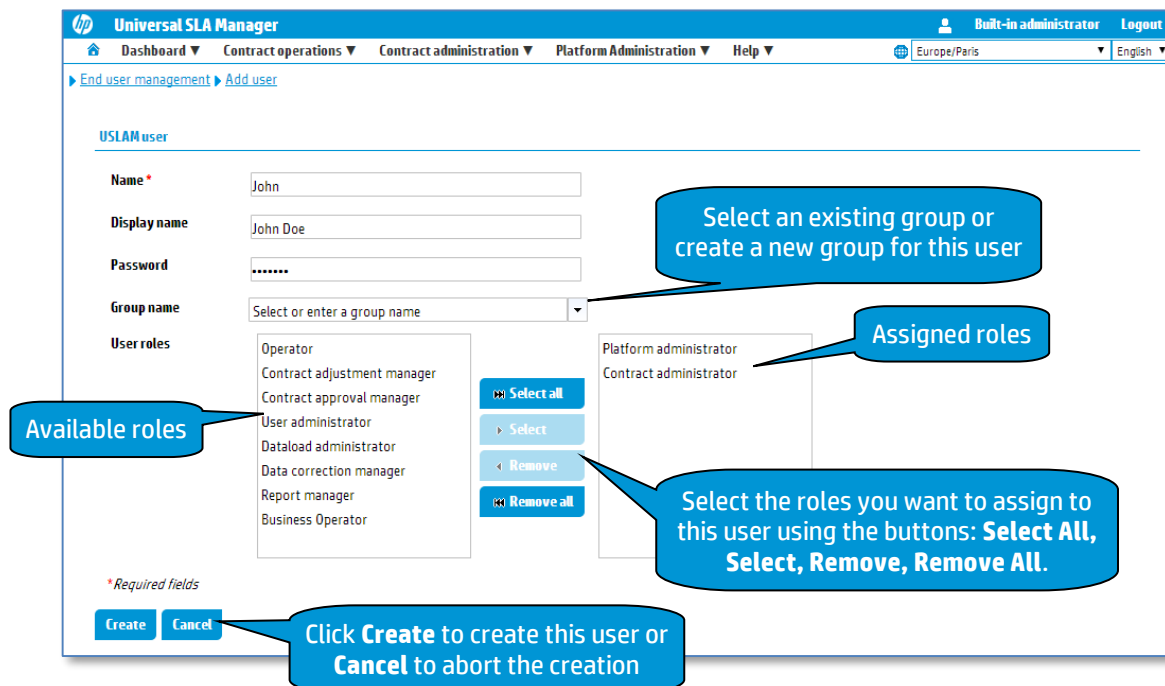
8.1.2 Add a new user

A platform administrator can easily create a new USLAM user clicking to the link **Add new user...**

The administrator have to enter a mandatory and unique name (login name), a display name more user friendly for the user interface, a password and a set of roles.

A check will be done to ensure the user you are creating does not already exist.

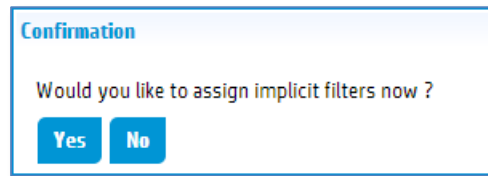
Figure 93: User Management - Add a new user



Click **Cancel** to abort the user creation and go back previous window (see 8.1.1 Manage users).

Click **Create** to add a new user, a confirmation box will ask you if you want to assign implicit filter to this user now.

Figure 94: User Management – Assign Implicit Filters



Click **Yes** to assign now implicit filters to restrict the access to USLAM objects. You can also add these filters later on editing the user in the user Management window (see 8.1.1 Manage users). For more detail about editing a user and his implicit filters, refer to 8.1.4 Manage Implicit Filters.

8.1.3 Edit an existing user

Edit an existing user to make changes or new assignment will display the following window.

Figure 95: User Management – Edit an existing user

The screenshot shows the 'Edit User' page in the Universal SLA Manager. The user's name is 'John' and display name is 'John Doe'. The 'Group name' dropdown is highlighted with a callout: 'Select an existing group or create a new group for this user'. The 'User roles' section shows a list of available roles on the left and assigned roles on the right. A callout points to the available roles: 'Available roles'. Another callout points to the assigned roles: 'Assigned roles'. A large callout explains the role selection process: 'Select the roles you want to assign to this user using the buttons: **Select All**, **Select**, **Remove**, **Remove All**.' Below the roles, there are sections for 'Implicit filters for agreements view' and 'Implicit filters for agreements creation'. A callout points to these sections: 'Implicit filter used when browsing agreements'. Another callout points to the 'Supplier filter' section: 'Implicit filters used when you create or edit an agreement. You can restrict: Customer, Provider, Supplier, Service Definition, Service Offering'. At the bottom, there are 'Update' and 'Cancel' buttons. A callout points to them: 'Click **Update** to save your changes on this user or **Cancel** to abort the edition'.



Editing a user **does not allow to change the name used to log in**, but you can change the display name.

If you really want to change this login name, you need to Deactivate this user and create a new one.

8.1.4 Manage Implicit Filters

During the User creation after confirmation (see 8.1.2 Add a new user) or during edition, you can create new implicit filters.

A popup dialog asks for an unique filter name and an optional description.

Clicking **Create** you can continue and defines filter criteria, or choose **Cancel** to abort the implicit filter creation.

Figure 96: Create Implicit Filter (ex: Agreement Filter)

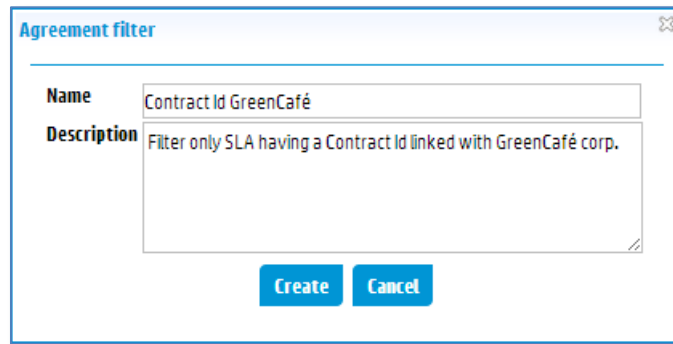
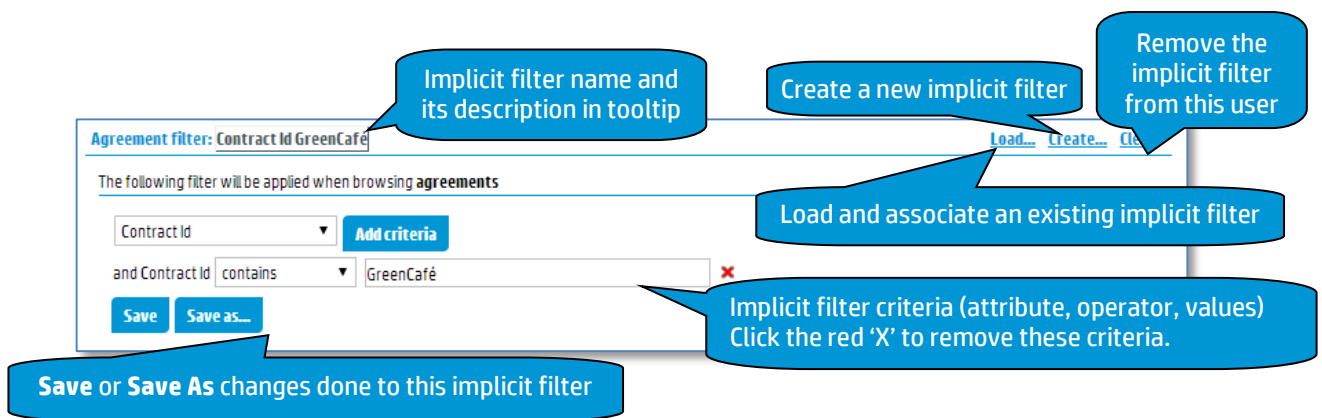


Figure 97: Implicit Filter Panel (ex: Agreement Filter)



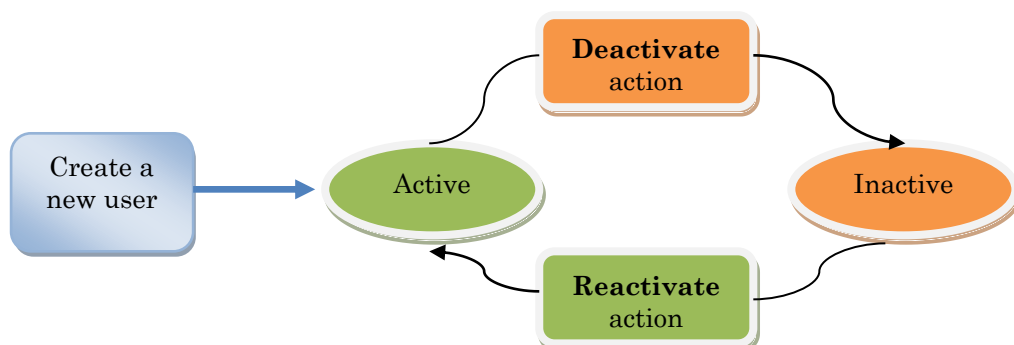
Implicit filter definition is very identical to the user filtering described in 4.8.2.2 Advanced Search. Refer to this section for more details.

8.1.5 Activate / Deactivate Users

A platform administrator can disable the access of an existing user if the user account is obsolete for example. The User Management window provides 2 actions: **Reactivate** and **Deactivate** in the column Action to manage correctly the state of the user account.

- An active user can log in and work with USLAM UI.
- An inactive (i.e. deactivated) cannot log in anymore and work with USLAM UI.

Figure 98: User Management – User State lifecycle



8.2 Platform Management



The USLAM Options component is designed to display and set the options available for the platform. These options are split in several parts: General options, Display options, Reporting options and Security options.

General options allow setting options on Engine server host, maximum simultaneous SQL requests to the database, optional features to hide or show (simple search, alert browser) and the default business category.

Figure 100: Configuration Options – General options

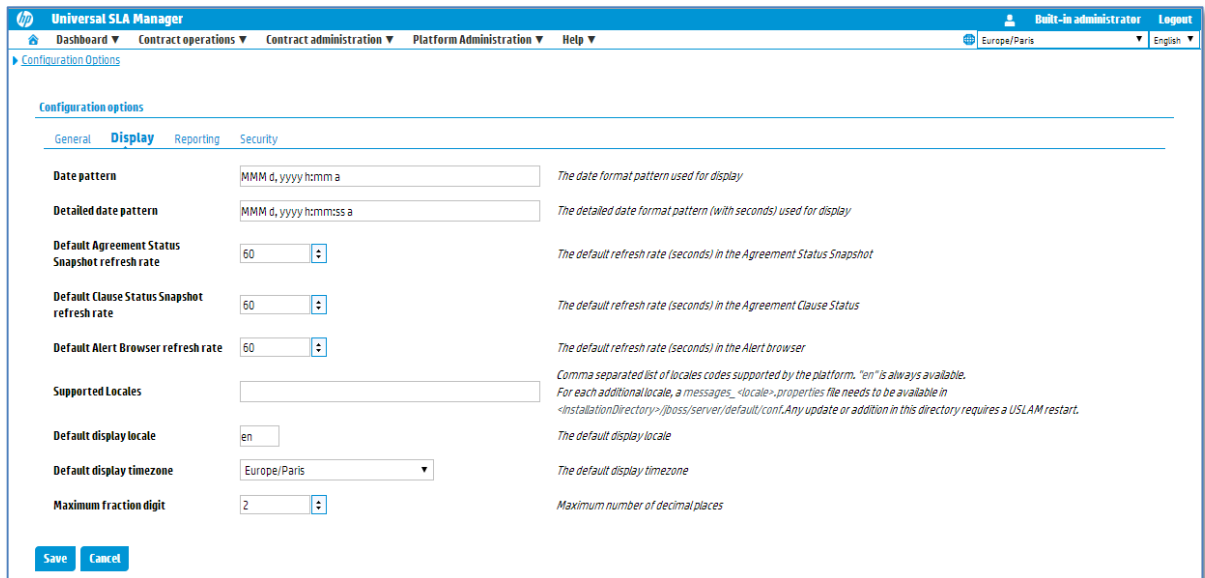
The screenshot shows the 'Configuration Options' page in the 'Universal SLA Manager' application. The page is titled 'Configuration options' and has four tabs: 'General', 'Display', 'Reporting', and 'Security'. The 'General' tab is selected. The page contains several configuration items:

- USLAM servers (engines):** A text input field containing 'localhost'. A tooltip explains: 'Comma separated list of host names on which USLAM Servers are running. RMI port name can be specified if different from the default (1099). Ex: host1.mycorp.com,host2.mycorp.com:1199'. The maximum number of simultaneous SQL requests that can be executed by the SLAM UI. A zero value means unlimited and will require a restart of USLAM Server.
- Maximum simultaneous SQL request:** A numeric input field with a dropdown arrow, set to '20'. A tooltip explains: 'The maximum number of simultaneous SQL requests that can be executed by the SLAM UI. A zero value means unlimited and will require a restart of USLAM Server'.
- Simple search enabled:** Radio buttons for 'Yes' (selected) and 'No'. A tooltip explains: 'True if the simple search feature is enabled in filter panels'.
- 'Request count' cache expiration period:** A numeric input field with a dropdown arrow, set to '600'. A tooltip explains: 'Period (in seconds) used to reset the 'request count' cache'.
- Alert browser enabled:** Radio buttons for 'Yes' (selected) and 'No'. A tooltip explains: 'True if the alert browser is accessible for Platform administration'.
- Default business category:** A text input field containing 'ServiceLevelCredit'. A tooltip explains: 'The default business category in the Business Impact Snapshot and Adjustment screens. Empty value will display all categories.'

At the bottom left, there are 'Save' and 'Cancel' buttons.

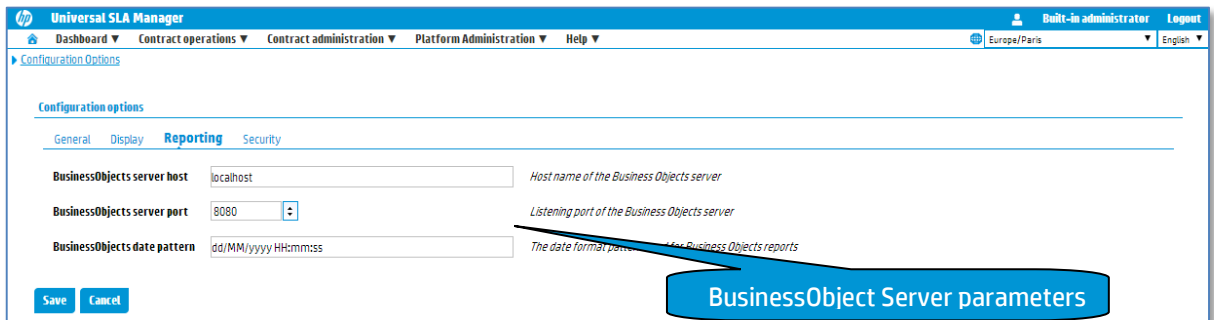
Display options allow setting options on several display format (date or numeric), default time zone and supported locale, and refresh rates settings for real-time screen.

Figure 101: Configuration Options – Display options



Reporting options allow setting options on BusinessObject server host and port and its display date format.

Figure 102: Configuration Options – Reporting options



Security options allow setting options on the USLAM authentication mode (built-in or LDAP) and the optional LDAP parameters, and optional SSO configuration.

Figure 103: Configuration Options – Security options

The screenshot shows the 'Security' configuration page in the Universal SLA Manager. The page is divided into sections for 'Authentication mode', 'LDAP server host', 'LDAP Bind DN', 'LDAP Bind Credentials', 'LDAP user name attribute', 'LDAP user attribute', 'LDAP user display attribute', 'Base DN for users lookup', 'LDAP uses secure connection', 'TrustStore file', 'SSO Login Name method', and 'SSO Display Name method'. Three callout boxes highlight specific areas: 'Authentication mode: built-in (default) or LDAP' points to the radio buttons; 'LDAP Server parameters' points to the LDAP server host, port, and DN fields; and 'SSO parameters' points to the SSO Login Name and Display Name method fields.

| Field | Value | Description |
|-----------------------------|--|---|
| Authentication mode | <input checked="" type="radio"/> Built-in <input type="radio"/> LDAP | The security authentication mode |
| LDAP server host | | LDAP Server Address |
| LDAP server port | 389 | Listening port of the LDAP server |
| LDAP Bind DN | cn=Manager,dc=siam,dc=com | LDAP Bind DN (needed if anonymous bind is disallowed) |
| LDAP Bind Credentials | | LDAP Bind Credentials (needed if anonymous bind is disallowed) |
| LDAP user name attribute | uid | LDAP User Name Attribute |
| LDAP user attribute | cn | LDAP user attribute used for the login |
| LDAP user display attribute | cn | LDAP user attribute used for the display of the user name |
| Base DN for users lookup | | The Base DN for users lookup |
| LDAP uses secure connection | <input type="radio"/> Yes <input checked="" type="radio"/> No | True if LDAP provider uses secure connection |
| TrustStore file | | Path to the TrustStore file, if required by the LDAP provider (backslashes must be doubled) |
| SSO Login Name method | com.hp.usiam.sso.MySSOClass.getUserId | Fully qualified java method name used to retrieved the unique user name when SSO is enabled (ex: "com.mycorp.MySSOClass.getUserid"). Leave blank to disable SSO. This method must be available in the classpath and must return a String. |
| SSO Display Name method | com.hp.usiam.sso.MySSOClass.getUserDisplayName | Fully qualified java method name used to retrieved the user display name when SSO is enabled (ex: "com.mycorp.MySSOClass.getUserDisplayName"). If not specified, it will be set to the login name. This method must be available in the classpath and must return a String. |

8.3 Dataload Status



The USLAM Dataload component is designed to write audit information in the database for every entity that has been loaded. This information is set at the entity-level granularity. A Dataload Status Snapshot is also integrated in the USLAM UI which can be used as an audit tool to track whether the entities were loaded successfully or rejected.

Therefore, for each object loaded, following information is recorded:




- Date on which the object was loaded (dataload time)
- Type of loaded entity
- Creation status i.e. *Success* , *Partial* , *Failure* 
- Explanation text, giving more information about the reason for the assigned creation status.

Figure 104: Dataload Status Snapshot

Dataload Status:


- Success
- Partial
- Failed




Description of the problem in case of dataload failure

Filename containing the loaded entity

| Entity Identifier | Entity type | Description | Dataload time | File name |
|--|------------------|-------------|---------------------|---|
| SLA1-VPN_BIF_detailedPenalty | Agreement | | Feb 7, 2014 8:43 AM | SLA1-BusinessImpact_DetailedPenalty.xml |
| SLA1-VPN_ConditionalObjectives | Agreement | | Feb 7, 2014 8:43 AM | SLA1-VPN-ConditionalObjectives.xml |
| SLA01-VPN-Perf | Agreement | | Feb 7, 2014 8:43 AM | SLA1-VPNPerf.xml |
| SLA01-CallCenter001 | Agreement | | Feb 7, 2014 8:43 AM | SLA1-CallCenter.xml |
| SLA1-VPN-DataSelectors1 | Agreement | | Feb 7, 2014 8:43 AM | SLA1-VPN-DataSelectors.xml |
| SLA01-VPN-Ticket | Agreement | | Feb 7, 2014 8:43 AM | SLA1-VPN-Ticket.xml |
| SLA01-VPN-BusinessImpact | Agreement | | Feb 7, 2014 8:43 AM | SLA1-VPN-BusinessImpact.xml |
| SLA01-VPN-Aggregation | Agreement | | Feb 7, 2014 8:43 AM | SLA1-VPN-Aggregation.xml |
| ServiceOffering-VPN-ticket_allSimpleSLI-template | Service Offering | | Feb 7, 2014 8:43 AM | ServiceOffering-VPN-ticket_template.xml |
| ServiceOffering-VPN-Aggregation-Gold | Service Offering | | Feb 7, 2014 8:43 AM | ServiceOffering-VPN-AggregationGold.xml |



A successful dataload is marked by  adjacent to each loaded entity. So, filtering on the status allow the platform administrator to find easily dataload problems.

| Column Name | Description |
|----------------------------|--|
| Dataload Status (S) | Dataload Status: Success  , Partial  or Failure  You can view this information as a tooltip on the column header |
| Entity Identifier | Identifier of the dataloaded entity |

| | |
|----------------------|---|
| Entity Type | Type of the dataloaded entity. It can be <ul style="list-style-type: none"> • SLA • Service • Service Definition • Services Hours • Party • SLT (Service Level Template) • SLR (Service Level Requirement) • Holidays • Raw Data Collector • Collector • Users • Action Executors • Business Rules |
| Description | Explanation about the possible root cause of the dataload problem in case of partial or failed dataload. |
| Dataload Time | Date / time of the dataload operation executed by USLAM Dataload tools. |
| Filename | Name of the file containing the definition of the loaded entity. <i>Note: tooltip on this column will describe the full path of the file.</i> |

8.4 Agreement Reports



The Agreements reports allow the user to access to pre-defined standard reports related to the USLAM platform. It will launch Business Object Portal and requires authentication.

You can access to all your customized reports including all pre-defined USLAM reports (see Chapter 9 USLAM for detailed information)

Chapter 9

USLAM Reporting

The USLAM platform is built with a full dedicated SLA Intelligence reporting environment to store, aggregate, analyse and report on SLAs. Powered by market leader Business Intelligence software, the reporting module allows manual or automatic production of operational, analytical and contractual end-user reports that can be fully customized, communicated and published in a secured web portal.

In that reporting environment, the solution offers:

- A pre-defined **dashboard** with pre-defined **standard reports**
- a comprehensive **Universe** that is the abstraction layer of the **USLAM Datamart**, allowing the design of USLAM reports and custom operational and analytics reports
- a tool for the automatic publication of SLA reports

Vocabulary:

USLAM standard reports are based on USLAM universe.



USLAM Universe relies on USLAM Datamart which stores and organizes historical data (definition, status, compliance, business impact ...) of the SLAs

USLAM Datamart is a database built and updated regularly by the **USLAM ETL** processing (see *HP USLAM Administration Guide* for more information about ETL).

9.1 Predefined dashboard and predefined reports

USLAM Reporting solution offers a pre-defined **dashboard** with a number of pre-defined **standard reports**.

Pre-defined reports can be generated and communicated for any type of SLA that is active in the USLAM platform.

Pre-defined reports can be copied, edited and further customized at any time to fit particular needs or contexts.

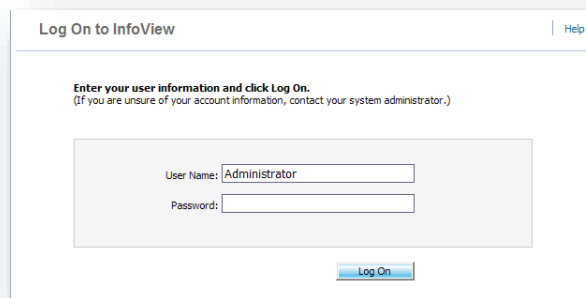
In order to connect to the USLAM BOE Reporting server, open your web browser and enter the following URL to log on:

```
http://<BO server>:8080/InfoViewApp/logon.jsp
```

or

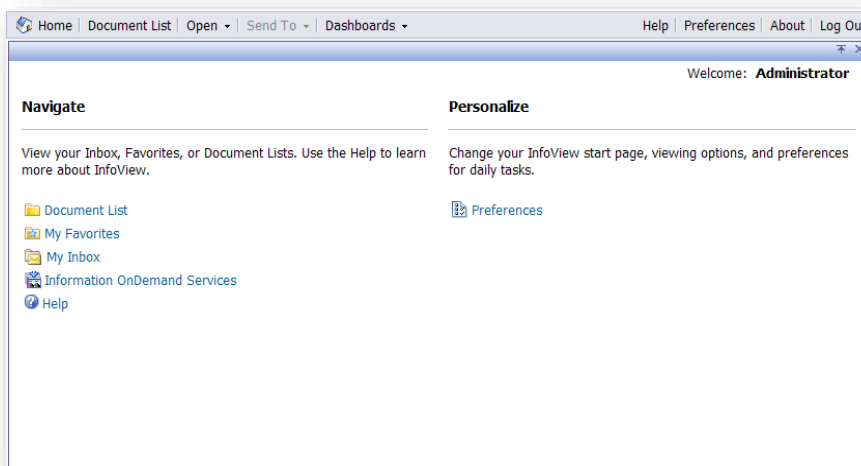
Start the USLAM Web Interface and select the access to report from the home page or menu (refer to the 5.11 Agreement Reports, 6.2 Contracts Reports, 7.3 Contracts Reports or 8.4 Agreement Reports.)

Figure 105: USLAM reporting - Reporting Login page



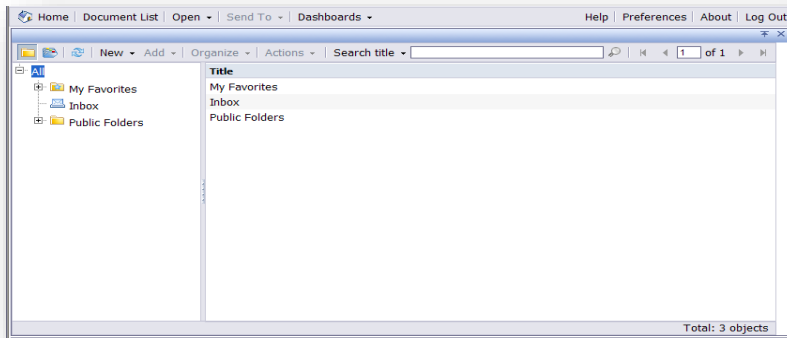
- Enter your *BOE XI* username and password
- The main navigation window is displayed.

Figure 106: USLAM reporting - Reporting navigation window



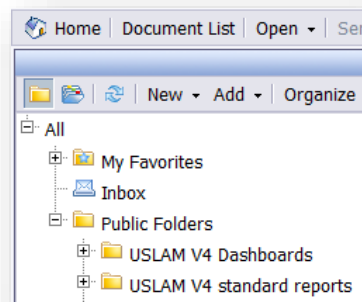
- Click on "*Document List*"

Figure 107: USLAM reporting - Reporting document list

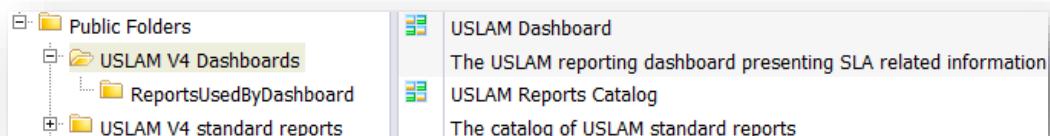


- Expand the “*Public Folders*”

Figure 108: USLAM reporting - Public Folders



The ***USLAM V4 Dashboards*** folder contains 2 “dashboards”:



- **USLAM Dashboard**: an example of USLAM reporting dashboard
- **USLAM Reports Catalog**: not really a dashboard but a single board giving quick access to all the USLAM standard reports

Let’s look first at the **USLAM dashboard**.

It contains six boxes, which give an overview of the analytics that can be done on top of the USLAM Datamart.

The top 3 boxes focused on the current reference period:

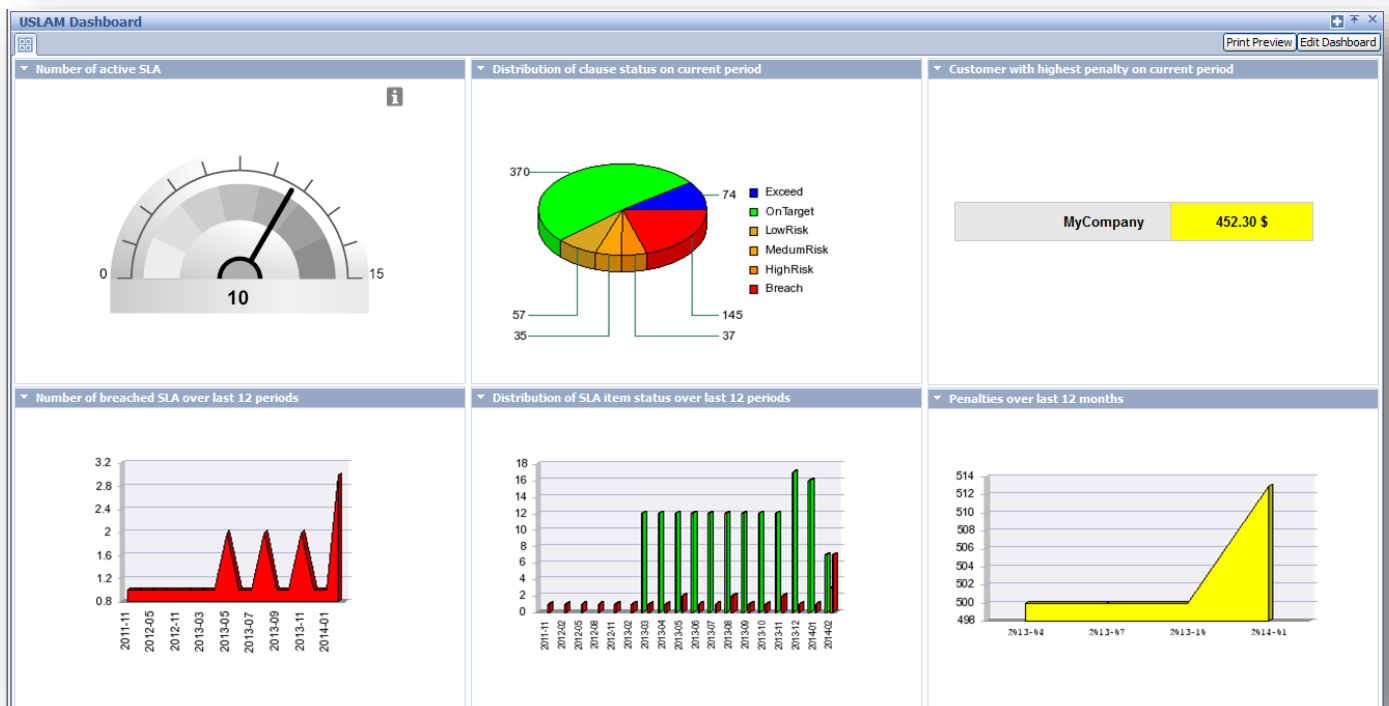
- **Number of active SLA**: a speedometer which shows the number of SLA which are currently activated on the USLAM platform. This allows you to know how many SLA you are monitoring on your platform.

- **Distribution of clause status on current period:** a pie chart which gives the number of SLA clauses per status (*exceed, on target, low risk, medium risk, high risk, breach*).
This allows you to determine if the SLA clauses you are managing are globally ok or not.
- **Customer with highest penalty on current period:** a simple informational panel which gives the customer name having the highest penalty on current period.
This allows you to proactively determine (before the end of the reference period) what would be the highest penalty you would pay for a customer.

The bottom 3 boxes focused on historical views:

- **Number of breached SLA over last 12 periods:** an area chart which shows the history of the number of breached SLA over the last 12 periods.
This allows you to globally understand the historical trend of the SLA statuses.
- **Distribution of SLA item status over last 12 periods:** a bar chart which shows the history over the last 12 periods of the number of SLA item classified by their status (*exceed, on target, low risk, medium risk, high risk, breach*).
This allows you to globally understand how the SLA item have performed over the last 12 periods.
- **Penalties over last 12 months:** an area chart which shows the history over the last 12 months of the total amount of penalties.
This allows you to understand the historical trend of the total amount of penalties you paid over one year.

Figure 109: USLAM Reporting Dashboard



Obviously, you can modify this dashboard by adding new analytics or designing your own specific dashboard using the BOE dashboarding and reporting capabilities based on the USLAM Universe.



When launching the standard USLAM Dashboard, if you get the following pop-up message: “*The Adobe SVG Viewer is not installed. Download now ?*”, do not click ‘OK’. This plug-in is not needed.

Click ‘Cancel’, and then click on the Infoview ‘Preferences’ Menu. Then in ‘Dashboard and Analytics’ section **check** the box “*Use Macromedia Flash when available*”

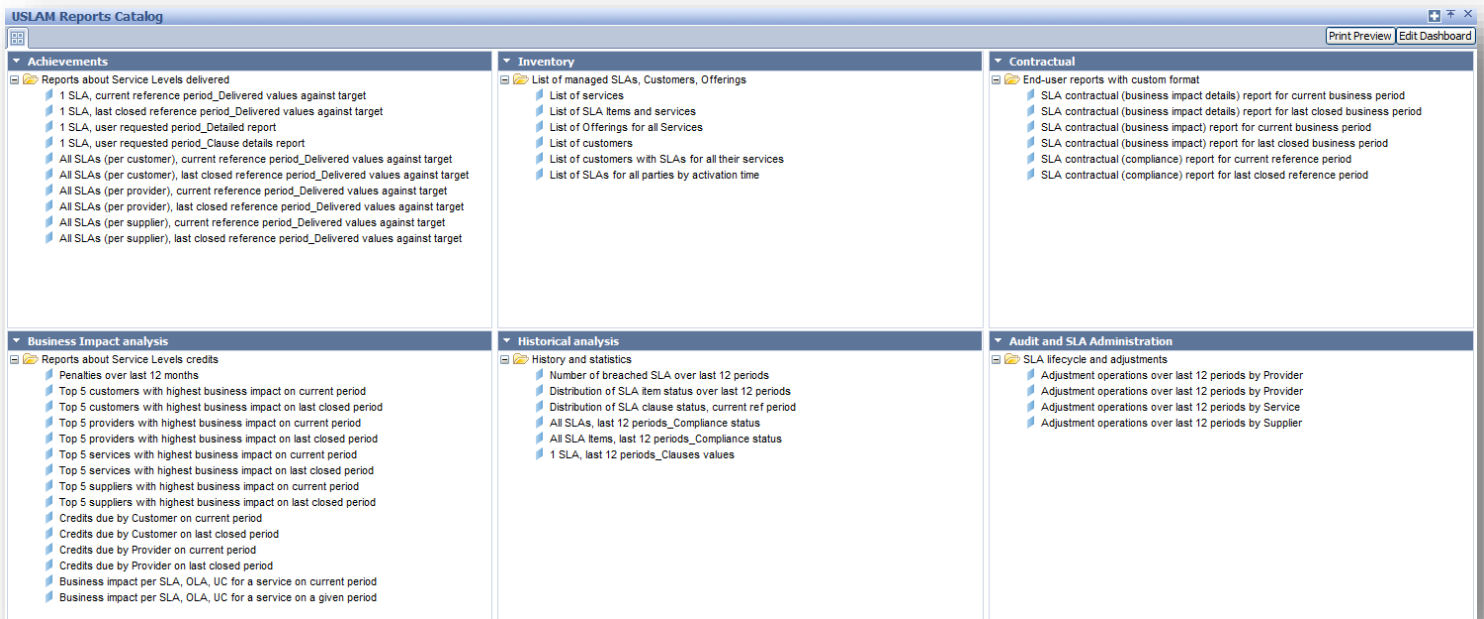
The dashboarding capabilities of BOE allow also to design some panels containing some links to existing reports.

This can be seen in the ‘USLAM Reports Catalog’.

You can access it, in the following way:

- Click on “USLAM V4 Dashboards” folder
- Click on “USLAM Reports Catalog” object

Figure 110: USLAM Reports Catalog



You can find here all the standard reports embedded within the USLAM product.

The categories illustrate the USLAM capabilities in term of operational and analytical reports: Achievements, Inventory, Contractual, Business Impact Analysis, Historical analysis, Audit and SLA Administration.



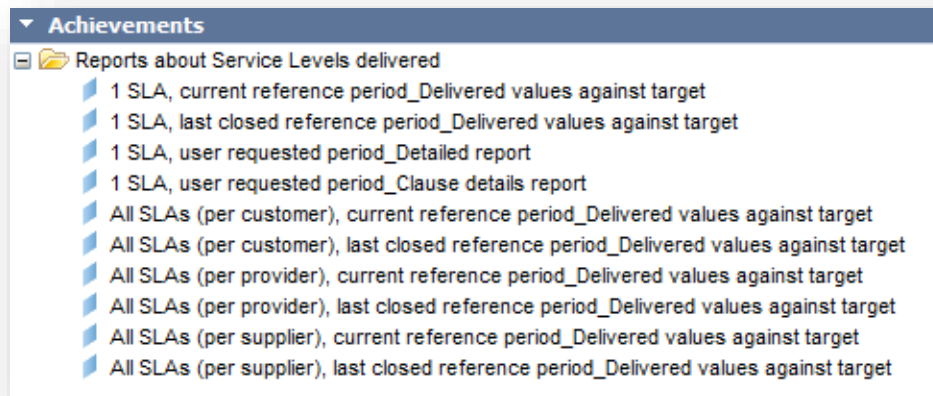
Note that you can define any dashboard as your **Reporting home page** by clicking on the “*Preferences*” menu, and set the *InfoView Start Page as Dashboard* and then choosing any existing dashboard (for example the *Public Folders / USLAM Dashboard*)

Let’s look now at all the standard reports.

9.1.1 Achievement reports

This category gathers reports that show the actual service levels values delivered against service levels committed for selected SLA, by customer, service, offerings ...

Figure 111: USLAM reporting - Achievements reports

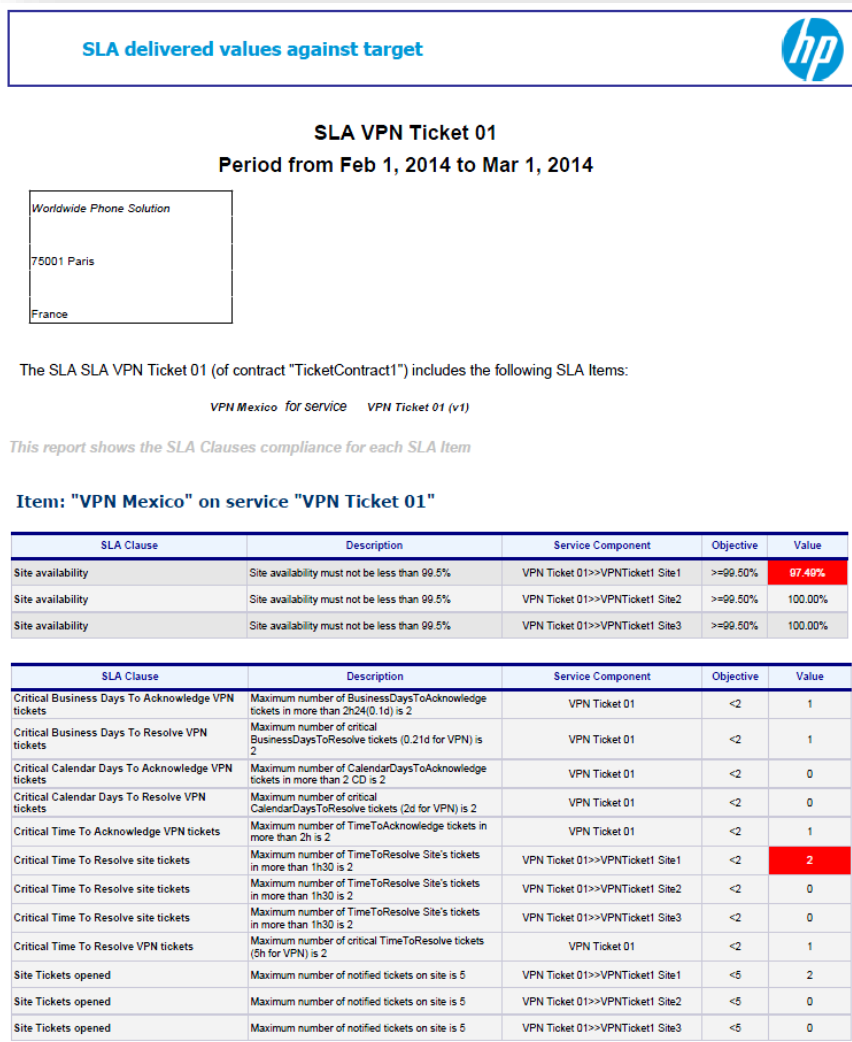


Some of the reports from this category are explained below.

9.1.1.1 1 SLA,current reference period, delivered values against target

After requesting the SLA for which you are interested in, this report shows the SLA clauses compliance for each SLA item of the given SLA, for the current reference period. Here is an extract of example of such report:

**Figure 112: USLAM reporting -
1 SLA, current reference period, delivered values against target**



This report shows all the SLA clause descriptions, objectives, and delivered values for each SLA item of the selected SLA. The red color allows quickly pinpointing the breached SLA clauses.

There is also the same kind of report but focusing on the last closed reference period: '1 SLA, last closed reference period_Delivered values against target'. While the first report allows you to proactively check what are the SLA achievements even if the reference period is not completed, this one allows you to analyze the results of the SLA achievements on the previously completed reference period.

Those reports are easy to use; there is not any need for the end user to enter any parameter for the generation of them because the filters 'current reference period' or 'Previous Reference Period' are part of the report definition.



In case you want the reports to focus on a specific reference period in the past, you can modify the report and replace the '*current reference period*' or '*Previous Reference Period*' filter by the '*Select Requested Date*' filter, which will prompt the user for a specific date.

In the same reports category, other pre-defined reports show:

- *the service levels delivered for all SLA, grouped by customers*
- *the service levels delivered for all SLA, grouped by providers*
- *the service levels delivered for all SLA, grouped by suppliers*

also for current reference period or for last closed reference period.

These reports allow a different analysis focusing on some specific parties rather than focusing on unique SLA.

Obviously, you can modify and enhance the reports in order to match your requirements in term of data displayed, prompts requested by the report, formatting ...

Let's focus now on the SLA details reports.

9.1.1.2 1 SLA, user requested period, detailed report

This report gives you detailed information about the SLA calculation. After requesting the SLA and the date that determines the SLA reference period you are interested in, the report presents information about the SLA, SLA Items and all the SLA clauses status and delivered values.

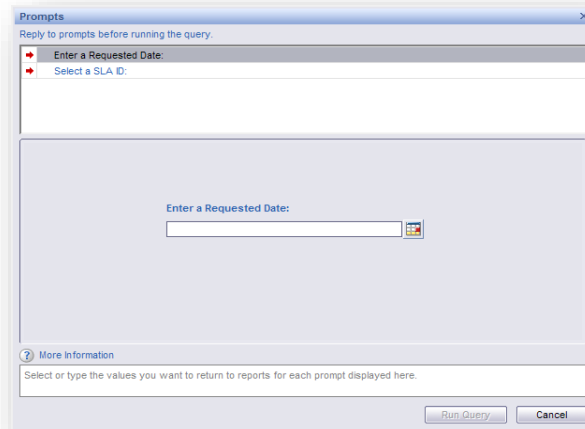
Moreover, the report gives you all the necessary information in order to analyze SLA clause details and to answer questions like:

- How the SLA clause was calculated?
- What was the collected data used for this calculation?

Here is an example:

Click on '*1 SLA, user requested period_Detailed report*'

Figure 113: USLAM reporting - SLA details prompts



You are then required to enter the input parameters ('prompts') of the report:

- SLA ID:** choose one SLA within the list
- Requested Date:** choose a date that will be used to find the reference period you are interested in



SLA Compliance status and clause values in USLAM Datamart have a granularity which is the SLA reference period.

The choice of the date automatically defines which reference period must be displayed. For this, the following condition is used:

```
SLA RefPeriod StartTime > Chosen Date > SLA RefPeriod EndTime
```

The '*1 SLA, user requested period_Detailed report*' is then generated.


Here is the overall structure of the SLA details report:

- SLA properties
- SLA Items Compliance Summary
- SLA Items Compliance Details
- Exclusion periods
- Collected data (Tickets, Performance metrics)

9.1.1.3 *SLA properties*

The first part of the report contains general SLA information like contract, customer, provider, list of SLA items and associated services (with their versions)

Figure 114: USLAM reporting - SLA details report: SLA properties

SLA details report for a reference period


SLA01-VPN-Ticket for Worldwide Phone Solution
Feb 1, 2014 -> Mar 1, 2014

Dates and times are stated in Europe/Paris

| | |
|----------------------------------|-----------------|
| Contract ID | TicketContract1 |
| Current SLA Administrative State | ACTIVATED |
| Agreement Chain ID | |

SLA Properties :

| | | | |
|---------------------------------|------------------------|-----------------------|--------------------------------|
| SLA ID: | SLA01-VPN-Ticket | Customer: | Worldwide Phone Solution |
| Requested Report Date: | 2/19/2014 12:00:00 AM | Customer ID | WPS |
| Service Provider: | Avix Hong Kong | Contact Name | Mr Dupond |
| SLA Version | 1 | Aliases | |
| Contract Definition Start Time: | Nov 1, 2012 7:00:00 AM | Importance | High |
| Contract Definition End Time: | | Report Mail List | |
| | | Contact Email | Dupond@wps.com |
| | | Work Phone | (+33) 1 99887786 |
| | | Home Phone | -- |
| | | Mobile Phone | |
| | | Preferred Phone | 2 |
| | | Location | Tour Eiffel 75001 Paris France |
| | | Holiday Calendar Name | |

Here are the SLA Items and services included in this SLA:

VPN Mexico for service VPN Ticket 01 (v1)

9.1.1.4 SLA Items compliance summary

The “*SLA Items Compliance Summary*” part presents all the SLA Item clause statuses and values.

It is divided in the following parts.

9.1.1.5 SLA Item information

This part gives many information about the underlying SLA item and its related service.

Figure 115: USLAM reporting - SLA details report: SLA Item properties

SLA Items Compliance Summary :

This section shows the SLA Clauses compliance for each SLA Item

SLA Item: VPN Mexico

| | | | |
|------------------------------|--|-----------------------|---------------|
| Service ID: | VPN Ticket 01 | Service Version Name: | VPN Ticket 01 |
| Service Definition: | SD-VPN | Region: | |
| Service Offering Template: | Service Offering template for VPN ticket | Country: | |
| Service Hours: | 24x7 | District: | |
| Service Offering Recurrence: | MONTHLY | City: | |
| SLA Item Link ID | | Time Zone: | |
| | | Holiday Calendar Name | |
| | | Localization: | |
| Supplier: | CCST Mexico | Contract | Contract001 |
| Reference Period: | Feb 01, 2014 07:00:00 -Mar 01, 2014 06:59:59 | Priority | 1 |
| | | Service identifier | VPN_TICKET1 |
| | | VPN number | 1 |

9.1.1.6 SLA Item clause status and values (ordered by Domain and Category)

This part shows all the SLA item underlying clauses, with their descriptions, the service component on which the clause applies, the objective of the clause and the delivered value on the selected reference period.

Note that a delivered value with a red background allows to immediately pinpoint the breached clauses.

You may also see some dark grey background, this corresponds to *objectiveless* clauses.

You can find below some examples with *Availability* and *Incident* clauses.

Figure 116: USLAM reporting
- SLA details report: SLA item clause status and values

Domain: Site Tickets Category: Incident

| Clause | Description | Service Component | Objective | Value |
|---------------------------------------|---|---------------------------------|-----------|-------|
| Critical Time To Resolve site tickets | Maximum number of TimeToResolve Site's tickets in more than 1h30 is 2 | VPN Ticket 01>>VPNTicket1 Site1 | <2 | 2 |
| Critical Time To Resolve site tickets | Maximum number of TimeToResolve Site's tickets in more than 1h30 is 2 | VPN Ticket 01>>VPNTicket1 Site2 | <2 | 0 |
| Critical Time To Resolve site tickets | Maximum number of TimeToResolve Site's tickets in more than 1h30 is 2 | VPN Ticket 01>>VPNTicket1 Site3 | <2 | 0 |
| Site Tickets opened | Maximum number of notified tickets on site is 5 | VPN Ticket 01>>VPNTicket1 Site1 | <5 | 2 |
| Site Tickets opened | Maximum number of notified tickets on site is 5 | VPN Ticket 01>>VPNTicket1 Site2 | <5 | 0 |
| Site Tickets opened | Maximum number of notified tickets on site is 5 | VPN Ticket 01>>VPNTicket1 Site3 | <5 | 0 |

Domain: Site Tickets Category: Availability

| Clause | Description | Service Component | Objective | Value |
|-------------------|---|---------------------------------|-----------|---------|
| Site availability | Site availability must not be less than 99.5% | VPN Ticket 01>>VPNTicket1 Site1 | >=99.50% | 97.49% |
| Site availability | Site availability must not be less than 99.5% | VPN Ticket 01>>VPNTicket1 Site2 | >=99.50% | 100.00% |
| Site availability | Site availability must not be less than 99.5% | VPN Ticket 01>>VPNTicket1 Site3 | >=99.50% | 100.00% |

9.1.1.7 SLA Items compliance details

In this “*SLA Items Compliance Details*” part, all the details of the clauses are displayed.

The details are grouped by SLA Item, clause domain, clause category, and service.

In this example, you can see the tickets which were taken into account for the calculation of:

- the clause “*Site Tickets Opened*” for the *Site1* of *VPNTicket1*
- the clause “*Critical Time To Resolve site tickets*” for the same site

Figure 117: USLAM reporting - SLA details report: Incident clause details

| Domain: Site Tickets | | Category: Incident | | |
|--|----------------------------|-----------------------|---------------------------------|--------------------------|
| Clause: Site Tickets opened | | | | |
| Incident time | Indicator | Indicator Aggregation | Service Resource | Source Details Reference |
| Feb 1, 2014 11:00:00 | siteTicketOpen_sl | | VPN Ticket 01->VPNTicket1 Site1 | VPN_TICKET1-Av001 |
| Feb 19, 2014 01:01:00 | siteTicketOpen_sl | | VPN Ticket 01->VPNTicket1 Site1 | VPN_TICKET1-Av002 |
| Clause: Critical Time To Resolve site tickets | | | | |
| Incident time | Indicator | Indicator Aggregation | Service Resource | Source Details Reference |
| Feb 1, 2014 12:30:00 | siteCriticalTTRincident_sl | | VPN Ticket 01->VPNTicket1 Site1 | VPN_TICKET1-Av001 |
| Feb 19, 2014 02:31:00 | siteCriticalTTRincident_sl | | VPN Ticket 01->VPNTicket1 Site1 | VPN_TICKET1-Av002 |

In that other following example you can see the details of a clause of type *Availability*: “Site availability”.

In the following table, you can see:

- the ‘*Open time*’ and ‘*Close time*’ of the calculated downtime
- ‘*Closure type*’ which explains why the downtime has been considered as closed by USLAM (termination of a ticket, entering an off-duty period...)
- the ‘*Duration*’ of the downtime. If empty, it means that a ticket is not closed, and that the downtime is not completed
- the ‘*Indicator*’ (SLI) for which the downtime was calculated
- ‘*Indicator Aggregation*’: when valued, it gives the type of aggregation that is used; it explains how was done the calculation of the downtime from the underlying downtimes in the case of several levels of indicators in the calculation tree.
 Note: the ‘*calculation tree*’ of indicators/downtimes is presented with different indents. Lines with ‘*Open time*’ on the first column correspond to downtimes from ‘*top*’ indicators. Then, lines with ‘*Open time*’ indented correspond to underlying indicators (/downtimes).
- the ‘*Service Resource*’ on which the downtime applies

Figure 118: USLAM reporting - SLA details report: Availability clause details

| Domain: Site Tickets | | Category: Availability | | | | | |
|----------------------------------|----------------------|--------------------------|--------------------|---------------------|-----------------------|---------------------------------|--------------------------|
| Clause: Site availability | | | | | | | |
| Open Time | Close Time | Closure Type | Duration | Indicator | Indicator Aggregation | Service Resource | Source Details Reference |
| Feb 1, 2014 11:00:00 | Feb 1, 2014 14:00:00 | normal | 3h | siteAvailability_sl | | VPN Ticket 01->VPNTicket1 Site1 | VPN_TICKET1-Av001 |
| Feb 19, 2014 01:01:00 | | normal | | siteAvailability_sl | | VPN Ticket 01->VPNTicket1 Site1 | VPN_TICKET1-Av002 |
| | | Downtime Summary: | 16h 52mn 3s | | | | |



The last column of this table gives a reference to the collected ticket. The associated raw ticket information can be seen at the bottom of the report. See next section.

9.1.1.8 Exclusion periods

This part displays all the exclusions and holidays for the SLA Item that occurs during the given reference period.

9.1.1.9 Collected data

In this last part of the report, you can see all the collected data which are referenced from the upper part “*SLA Items Compliance Details*“. The performance metrics, tickets are displayed in this part.

For example, you can see below the tickets which have impacted the clauses of the SLA during the reference period.

Figure 119: USLAM reporting - SLA details report: Collected data

| Collected data | | | | | | | | | |
|---|----------------------|-----------------------|----------------------|----------------------|------------|-----------------|----------|----------------|---------------|
| <i>These sections show the collected data</i> | | | | | | | | | |
| Tickets details | | | | | | | | | |
| Ticket ID | Collector | Open Time | Resolved Time | Close Time | Cause Code | Resolution Code | Severity | Suspend Reason | Resume Reason |
| VPN_TICKET1-Av001 | VPN-ticket-collector | Feb 1, 2014 11:00:00 | Feb 1, 2014 14:00:00 | Feb 1, 2014 14:30:00 | | | | | |
| VPN_TICKET1-Inc002 | VPN-ticket-collector | Feb 19, 2014 01:01:00 | | | | | | | |
| VPN_TICKET1-Av002 | VPN-ticket-collector | Feb 19, 2014 01:01:00 | | | | | | | |
| VPN_TICKET1-Inc001 | VPN-ticket-collector | Feb 1, 2014 11:00:00 | Feb 1, 2014 14:00:00 | Feb 1, 2014 14:30:00 | | | | | |



Note that the ‘*Ticket ID*’ values are the ones referenced in the previous ‘*SLA Items Compliance Details*’ part.

9.1.1.10 1 SLA, user requested period, clause details report

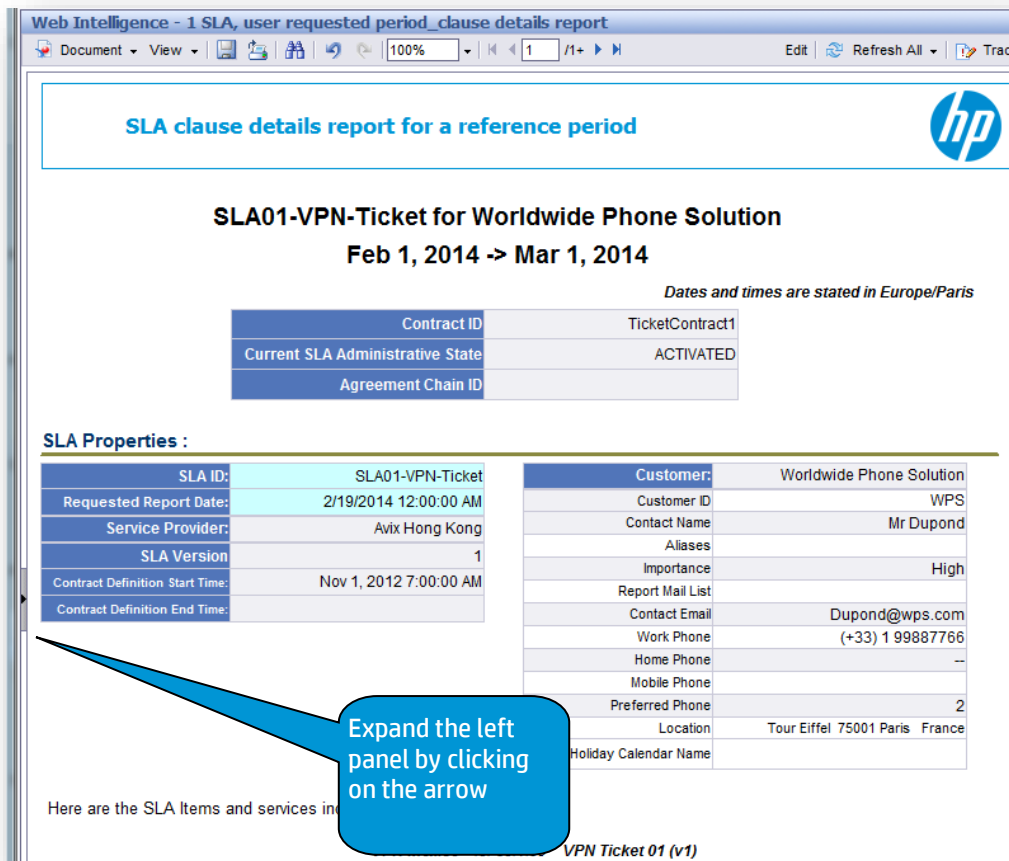
This is the same kind of report than the previous one, allowing you to analyze a SLA and its underlying SLA items and clauses details calculation, except that this report focus on user specified clause only.

So, in the same way than previously, when opening the '1 SLA, user requested period, clause details' report, the prompt asks you for the requested SLA and the date that determines the SLA reference period you are interested in. Then the report generates SLA details information on one specific clause only.

How to choose the clause to focus on?

First, if not displayed, expand the left-panel by clicking on the right arrow located in the middle of the page on the left.

Figure 120: USLAM reporting - SLA clause details report: left panel expand



You might then see the navigation map, but you can switch to the "Input Controls" tab using the third icon at the bottom of the window.

Figure 121: USLAM reporting - SLA clause details report: Input Controls

The screenshot displays the 'Web Intelligence - 1 SLA, user requested period_clause details report' interface. On the left, the 'Input Controls - USLAM SLA Clause Details for a Reference Period' panel is active, showing a dropdown menu with various SLA clause options. A blue callout bubble points to this panel with the text 'First, switch to the Input Controls tab'. Another blue callout bubble points to the dropdown menu with the text 'Then, choose the clause to focus on'. The main report area on the right is titled 'SLA clause details report for a reference period' and shows details for 'SLA01-VPN-Ticket for Worldwide Phone Solution' for the period 'Feb 1, 2014 -> Mar 1, 2014'. It includes a table with contract and administrative state information, and a section for 'SLA Properties' with fields like SLA ID, Report Date, Provider, and Contract Definition.

You are now able to generate a *SLA details* report on only one specific clause by choosing the name of the clause from the drop down list. The report will automatically be updated by filtering clause information.

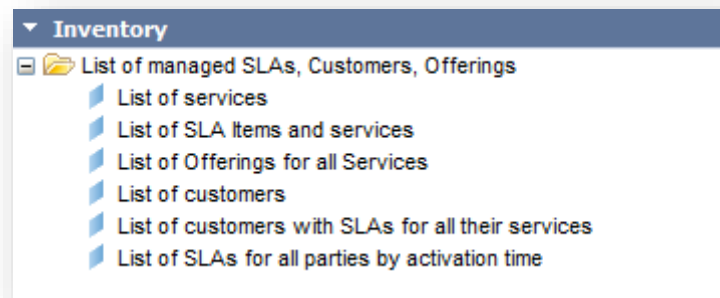


Like any other report, this one can be exported as a .pdf file for example; but in this case, it will contain only the specified SLA clause details.

9.1.2 Inventory reports

This category gathers reports listing the managed SLAs, the services, the customers, the offerings monitored on the platform but without focusing on statuses. They allow understanding what is currently managed by the USLAM platform.

Figure 122: USLAM reporting - Inventory reports




You can find below explanations of some of those reports.

9.1.2.1 List of customers with SLAs for all their services

This report shows the list of customers with their SLAs for all their services.

Here is an example of such report:

Figure 123: USLAM reporting - List of customers with SLAs for all their services


| List of customers with SLAs | | | |
|---|--------------------------|------------------------------|-------------|
|  | | | |
| <i>This report shows the list of customers with SLAs for all their services</i> | | | |
| Customer | Green Cafe | | |
| Importance | | | |
| SLA | SLA Item | Service | Admin State |
| SLA CallCenter001 1 | Call Center USA | Call Center - USA | ACTIVATED |
| SLA | SLA Item | Service | Admin State |
| VPN Conditional Objectives SLA 01 | Florida Conditional VPN | VPN Conditional Objectives 1 | ACTIVATED |
| Customer | Worldwide Phone Solution | | |
| Importance | High | | |
| SLA | SLA Item | Service | Admin State |
| SLA VPN Aggregation 01 | VPN Italy | VPN Aggregation 01 | ACTIVATED |
| SLA | SLA Item | Service | Admin State |
| SLA VPN BIF Detailed Penalty 01 | California VPN | VPN BIF detailed California | ACTIVATED |
| | Florida VPN | VPN BIF detailed Florida | ACTIVATED |
| SLA | SLA Item | Service | Admin State |
| SLA VPN Business Impact 01 | VPN Portugal | VPN Business Impact 01 | ACTIVATED |

9.1.2.2 List of SLA for all parties ordered by activation time

This report shows the list of all the SLAs and their associated Contract ID, Customer, Service Provider, Administrative State. They are ordered by their activation time.

Here is an example of such report:

Figure 124: USLAM reporting
- List of SLA for all customers ordered by activation time

| List of SLAs for all parties  | | | | | | |
|--|-------------------------|--------------------------|--------------------|-------------|-------------------------|--------------------------|
| <i>This report shows the list of SLA (for all parties), ordered by activated time (more recent first)</i> | | | | | | |
| SLA | ContractID | Customer | Service Provider | Admin State | Activated Time | Terminated Time |
| SLA CallCenter001 1 | CallCenter001 | Green Cafe | Avix US | ACTIVATED | Feb 19, 2014 2:13:13 PM | Dec 31, 2020 11:00:00 PM |
| SLA VPN BIF Detailed Penalty 01 | Contract001 | Worldwide Phone Solution | Avix US | ACTIVATED | Feb 19, 2014 2:13:13 PM | Dec 31, 2020 11:00:00 PM |
| SLA VPN Data Selectors 01 | Contract001 | Worldwide Phone Solution | Avix International | ACTIVATED | Feb 19, 2014 2:13:13 PM | Dec 31, 2020 11:00:00 PM |
| SLA VPN Performance 01 | PerformanceContract1 | Worldwide Phone Solution | Avix China | ACTIVATED | Feb 19, 2014 2:13:13 PM | Dec 31, 2020 11:00:00 PM |
| SLA VPN Ticket 01 | TicketContract1 | Worldwide Phone Solution | Avix Hong Kong | ACTIVATED | Feb 19, 2014 2:13:13 PM | Dec 31, 2020 11:00:00 PM |
| VPN Conditional Objectives SLA 01 | Contract001 | Green Cafe | Avix International | ACTIVATED | Feb 19, 2014 2:13:13 PM | Dec 31, 2020 11:00:00 PM |
| SLA VPN Aggregation 01 | AggregationContract1 | Worldwide Phone Solution | Avix Italy | ACTIVATED | Feb 19, 2014 2:13:12 PM | Dec 31, 2020 11:00:00 PM |
| SLA VPN Business Impact 01 | BusinessImpactContract1 | Worldwide Phone Solution | Avix Portugal | ACTIVATED | Feb 19, 2014 2:13:12 PM | Dec 31, 2020 11:00:00 PM |

In the same reports category, other pre-defined reports show:

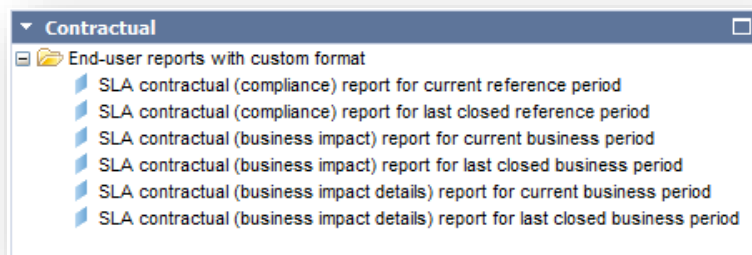
- the *list of services* with their associated service versions
- the *list of service offerings for all the service definitions*
- the *list of customers* (without any SLA information)
- the *list of SLA Items and their associated services*

9.1.3 Contractual reports

This category gathers end-user contractual reports; they concern:

- **compliance contractual reports**
 (how were the service levels delivered compared to the contractual objectives)
- **business impact contractual reports**
 (what are the business impact of the service levels delivered)

Figure 125: USLAM reporting - Contractual reports

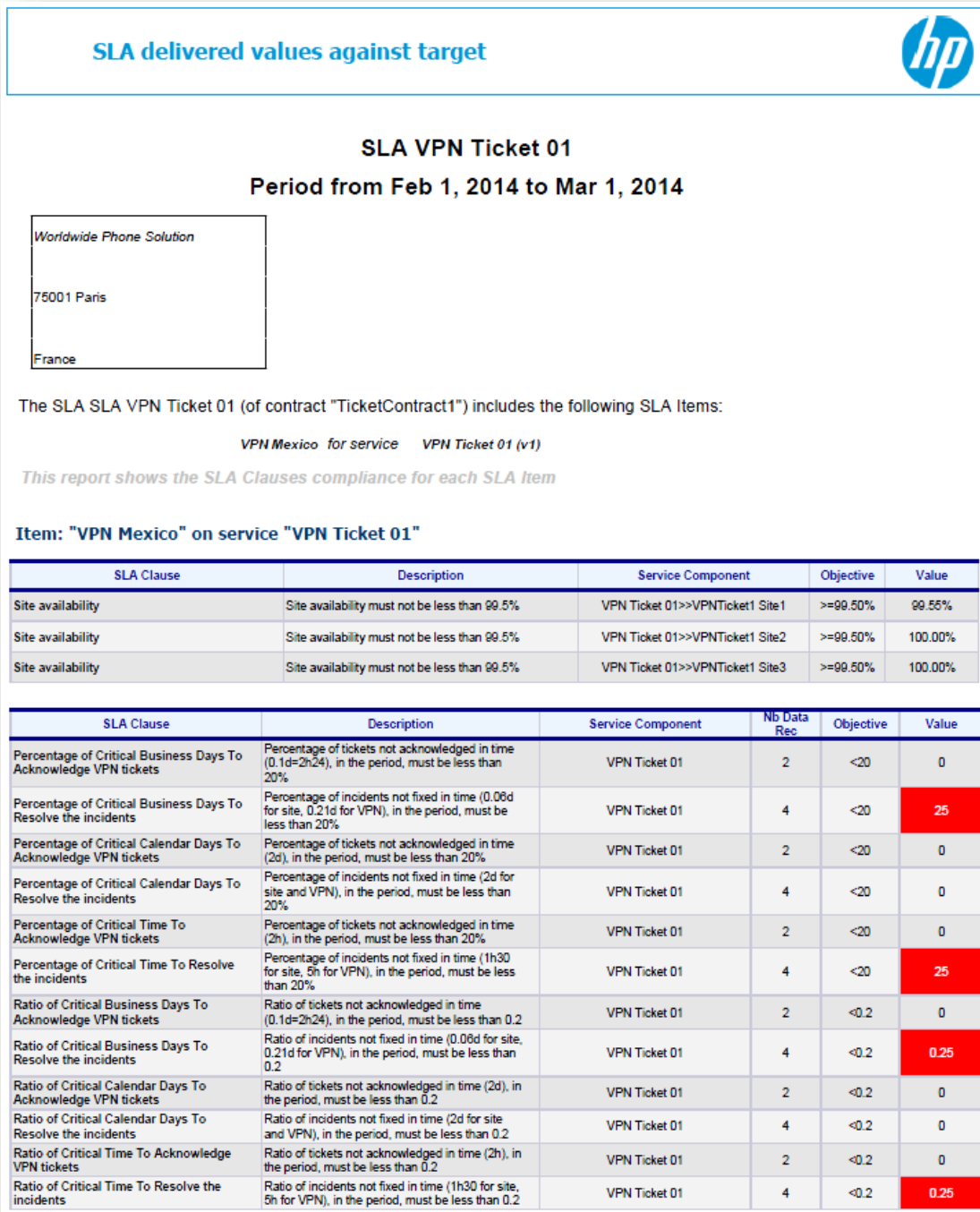


9.1.3.1 SLA contractual (compliance) report

This report shows the service levels delivered compared to the contractual objectives for a given SLA.

Here is an extract of example of such report:

Figure 126: USLAM reporting - SLA contractual (compliance) report



This report shows all the SLA clause descriptions, objectives, and delivered values for each SLA item of the selected SLA. The red color allows quickly pinpointing the breached SLA clauses which could prevent the SLA contract from being performed correctly.

Two reports of the same kind exist: one focusing on the current reference period ('*SLA contractual (compliance) report for current reference period*'), the other focusing on the last closed reference period ('*SLA contractual (compliance) report for last closed reference period*')

9.1.3.2 SLA contractual (business impact) report

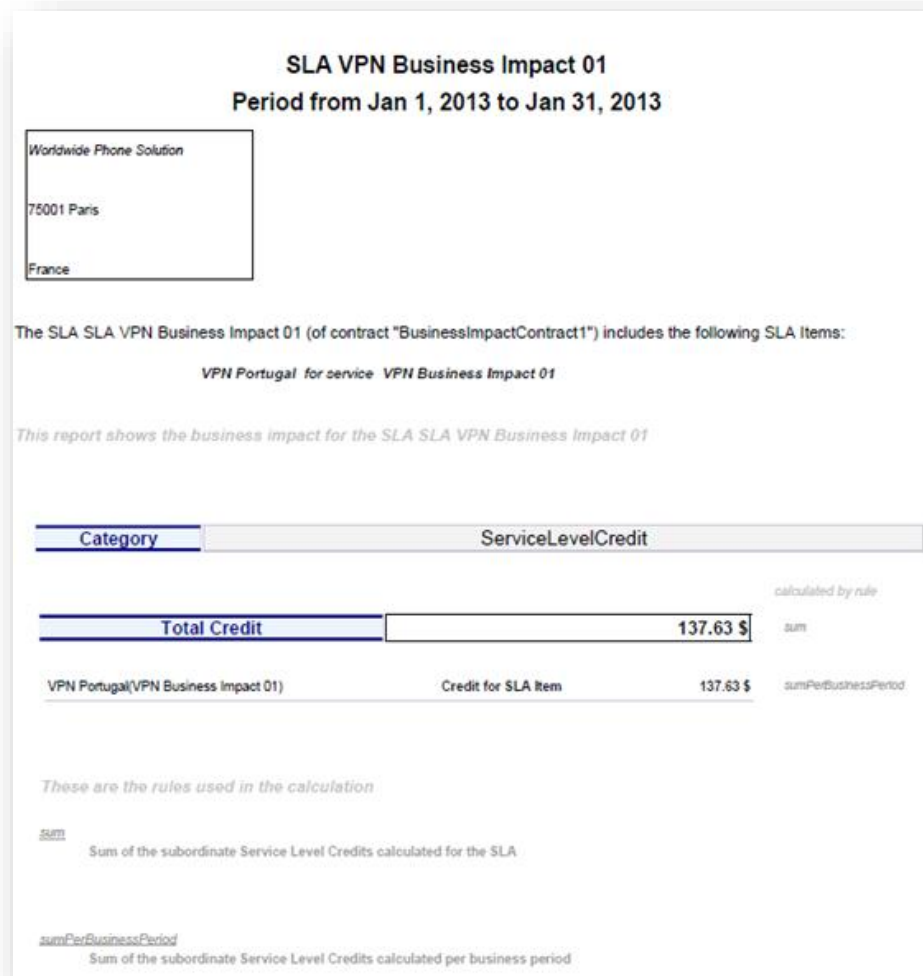
This report shows the business impact of the service levels delivered for a given SLA, both at SLA Item and at SLA level.

This gives a high level view of the business impact calculation (compared to the other report – see next paragraph – which presents the details).

Note that the business impacts are ordered by their ‘*Category*’.

Here is an example of such a report where there is only one *Category* ‘*ServiceLevelCredit*’.

Figure 127: USLAM reporting - SLA contractual (business impact) report



9.1.3.3 SLA contractual (business impact details) report

This report shows the financial details of a business impact calculation for a given SLA.

In addition to what is shown in the ‘*SLA contractual (business impact) report*’ (see previous paragraph), this report shows also the business impact at clause level.

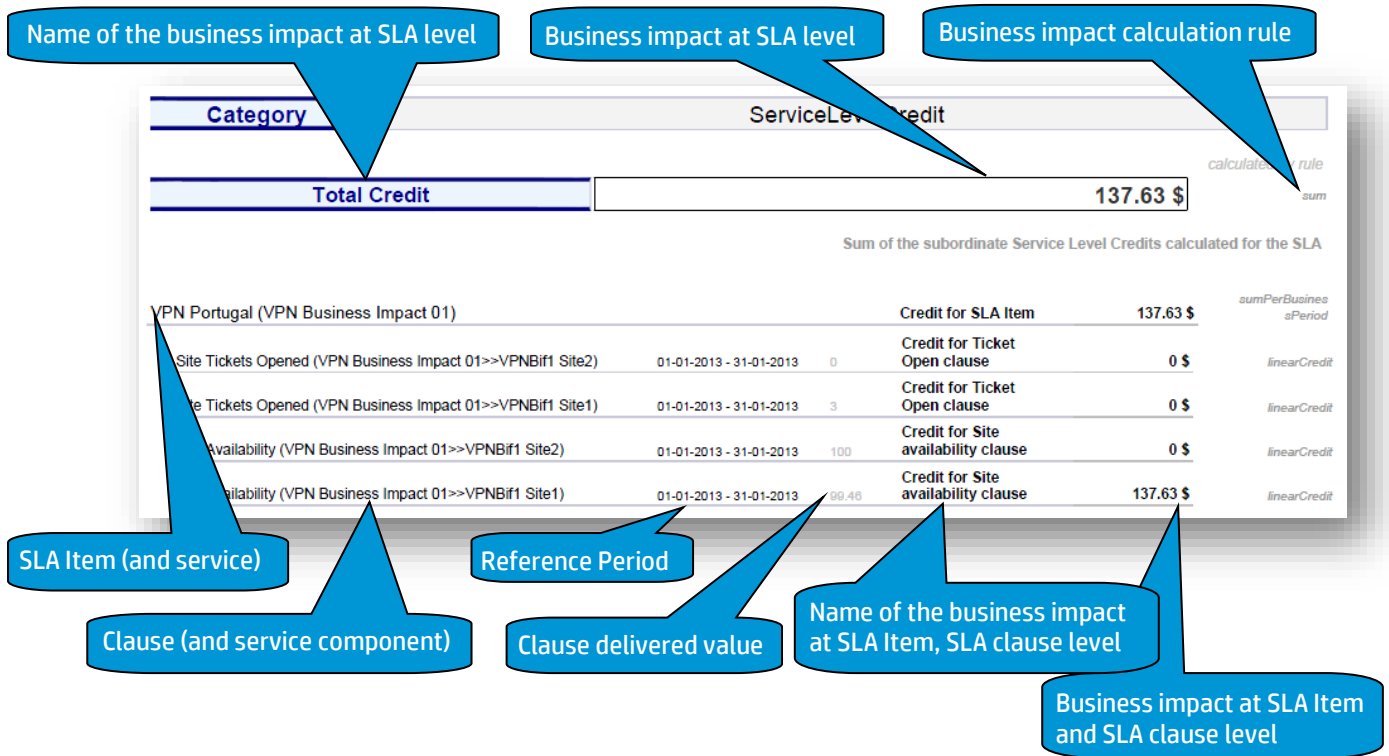
Below is an example of such report:

Figure 128: USLAM reporting - SLA contractual report (business impact details)

| Category | | ServiceLevelCredit | | |
|---|-------------------------|---------------------|-------------------------------------|----------------------------------|
| Total Credit | | 137.63 \$ | | <i>calculated by rule</i> sum |
| Sum of the subordinate Service Level Credits calculated for the SLA | | | | |
| VPN Portugal (VPN Business Impact 01) | | Credit for SLA Item | 137.63 \$ | <i>sumPerBusinessPeriod</i> |
| Site Tickets Opened (VPN Business Impact 01>>VPNBif1 Site2) | 01-01-2013 - 31-01-2013 | 0 | Credit for Ticket Open clause | 0 \$ <i>linearCredit</i> |
| Site Tickets Opened (VPN Business Impact 01>>VPNBif1 Site1) | 01-01-2013 - 31-01-2013 | 3 | Credit for Ticket Open clause | 0 \$ <i>linearCredit</i> |
| Site Availability (VPN Business Impact 01>>VPNBif1 Site2) | 01-01-2013 - 31-01-2013 | 100 | Credit for Site availability clause | 0 \$ <i>linearCredit</i> |
| Site Availability (VPN Business Impact 01>>VPNBif1 Site1) | 01-01-2013 - 31-01-2013 | 99.46 | Credit for Site availability clause | 137.63 \$ <i>linearCredit</i> |
| <i>These are the descriptions of the rules used in the calculation for VPN Portugal</i> | | | | |
| <i>linearCredit</i> | | | | |
| Service Level Credit based on the clause delivered value, calculated for one reference period | | | | |
| <i>These are the parameters used</i> | | | | |
| | Service fee | 1000 | \$ | 01-01-2013 - 31-01-2013 |
| <i>sumPerBusinessPeriod</i> | | | | |
| Sum of the subordinate Service Level Credits calculated per business period | | | | |

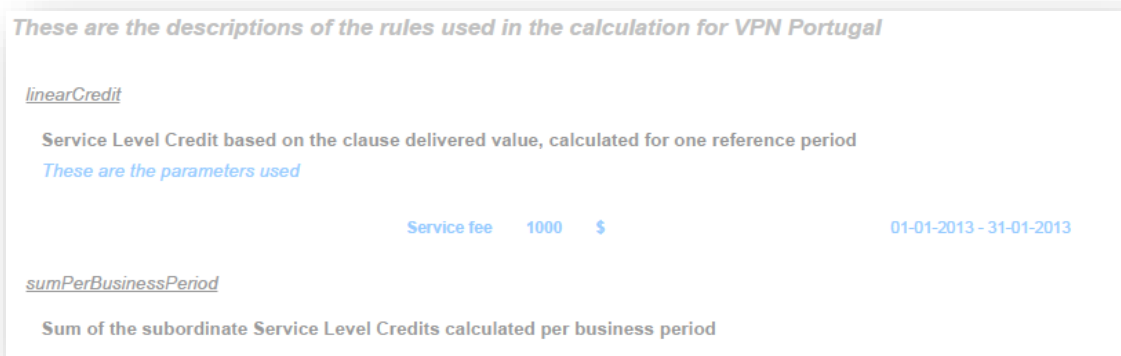
Here are some explanations:

Figure 129: USLAM reporting - SLA contractual report (business impact details) – explanations



Furthermore, this detailed report shows also detailed information about the business calculation rules used (definition and parameters used in the calculation).

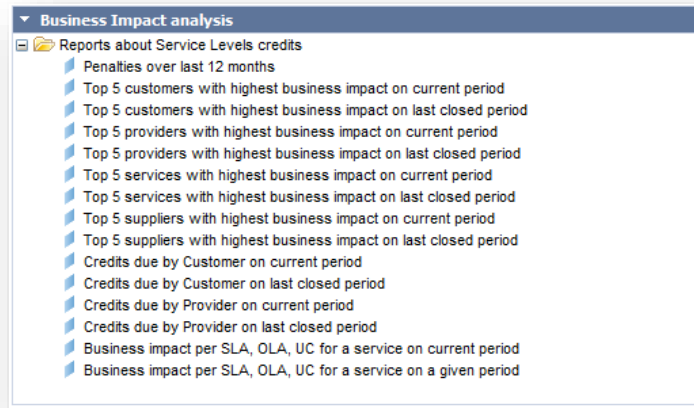
Figure 130: USLAM reporting - SLA contractual report (business rules details)



9.1.4 Business impact analysis reports

This category gathers reports about business impact values. They aim at listing the business impacts per services, per parties (customers, suppliers, providers), per offerings, per SLA, OLA, UC, or showing the parties with the highest business impact.

Figure 131: USLAM reporting - Business impact analysis reports

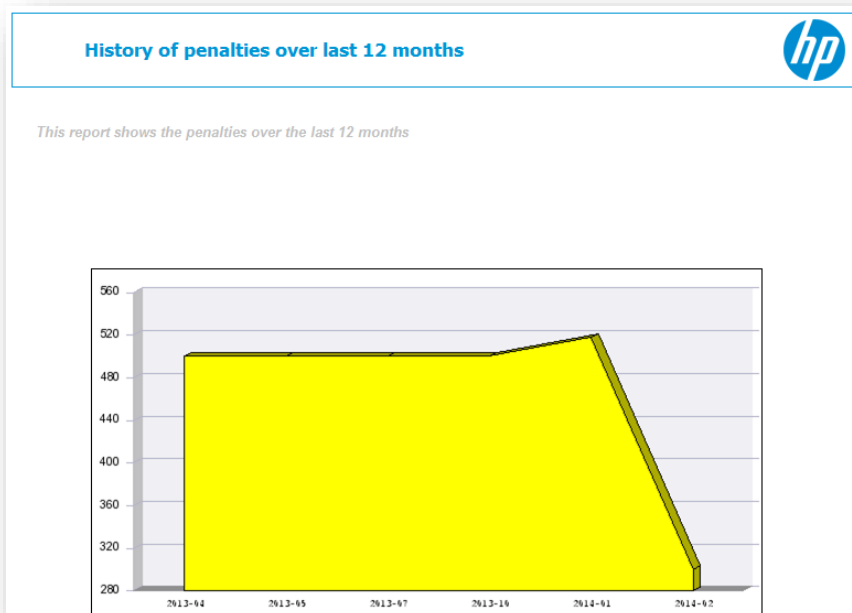


Please find below some examples of such reports.

9.1.4.1 History of penalties over last 12 months

This report shows the overall (cross SLA) penalties over the last 12 months.

Figure 132: USLAM reporting – History of penalties over last 12 months



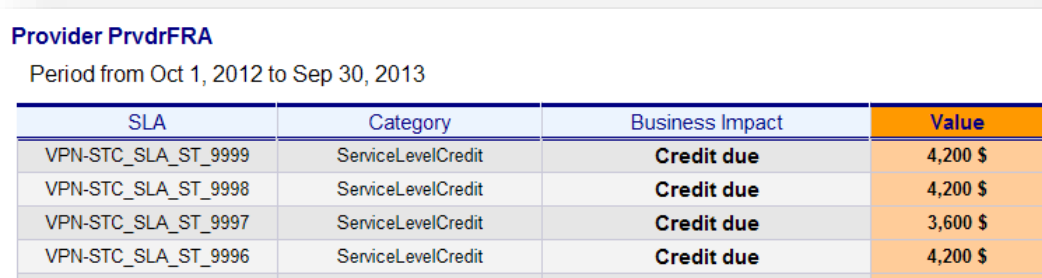
This report allows you to understand the historical trend of the total amount of penalties you paid over one year

9.1.4.2 Credits due by Provider on current period

This report shows the SLAs business impacts per provider.

For example:

Figure 133: USLAM reporting - Credits due by Provider on current period



| SLA | Category | Business Impact | Value |
|---------------------|--------------------|-----------------|----------|
| VPN-STC_SLA_ST_9999 | ServiceLevelCredit | Credit due | 4,200 \$ |
| VPN-STC_SLA_ST_9998 | ServiceLevelCredit | Credit due | 4,200 \$ |
| VPN-STC_SLA_ST_9997 | ServiceLevelCredit | Credit due | 3,600 \$ |
| VPN-STC_SLA_ST_9996 | ServiceLevelCredit | Credit due | 4,200 \$ |

This report allows you to understand if the providers performed correctly and what was the business impact for the SLA they are involved in.

The same kinds of reports exist for a grouping per customer, on the last closed reference period, or on the current reference period.

9.1.4.3 Top 5 customers, providers, suppliers, or services with highest business impact

Those reports give some ranking information about business impacts: ranking customers, providers, suppliers or services.

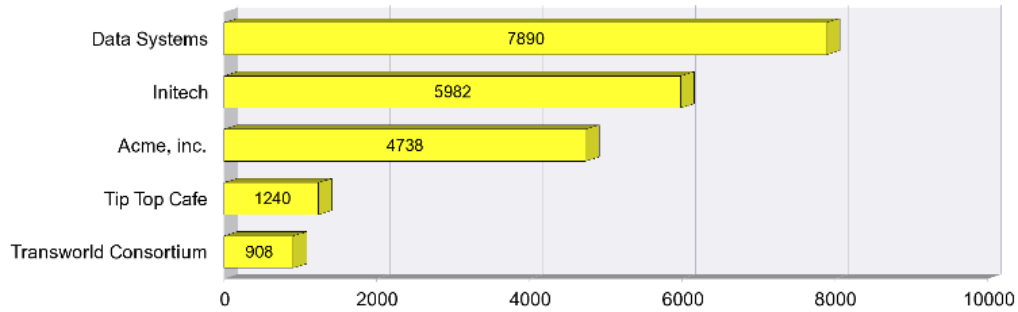
For example, here is a report *'Top 5 customers with highest business impact'*.

Figure 134: USLAM reporting - Top 5 customers with highest business impact

Customers with highest business impact on current period



This report shows the 5 customers having the highest business impact on current period



The same kind of report exists for:

- *Top 5 providers with highest business impact*
- *Top 5 suppliers with highest business impact*
- *Top 5 services with highest business impact*

Those reports exist for current period or for last closed period.

Those reports allow you to quickly identify which are the parties (customers, providers, suppliers) or services mainly involved in business impact.

9.1.4.4 Business impact per SLA, OLA, UC

Two reports show the business impact values per SLA, OLA and UC (items) for a given service (on a current period, or on a given period, depending on the report executed).

For example:

Figure 135: USLAM reporting – Business impact per SLA, OLA, and UC

Period from Jun 1, 2013 to Jul 1, 2013

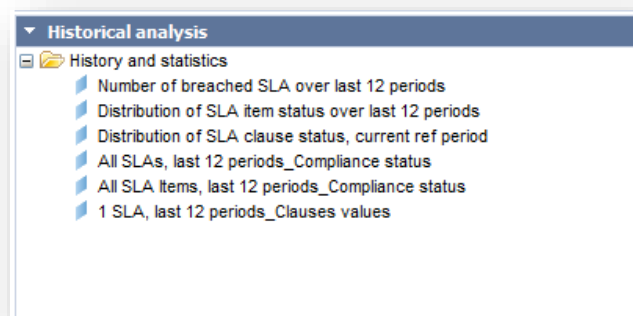
| Business impact analysis for Site B - West | | | |
|--|---------------------------|-----------------------------|---------------|
| SLA | SLA Item | Service provider / supplier | \$ |
| SLA Availability – Bank Jones | SLA Availability Site B - | Enterprise Services | 0 |
| SLA Fulfillment – Bank Jones | SLA Fulfillment Site B | Enterprise Services | 350 |
| SLA Performance – Bank Jones | SLA Performance Site B - | Enterprise Services | 0 |
| SLA Restoration – Bank Jones | SLA Restoration Site B | Enterprise Services | 0 |
| Total SLA | | | 350 \$ |
| OLA Availability – Network | OLA Availability Site B | Network organization | 0 |
| OLA Fulfillment – Network | OLA Fulfillment Site B | Network organization | 0 |
| OLA Performance – Network | OLA Performance Site B | MPLS Operations | 0 |
| OLA Restoration – Network | OLA Restoration Site B | Network organization | 0 |
| Total OLA | | | 0 \$ |
| UC Fulfillment – FieldExt | UC Fulfillment Site B | Unknown | 350 |
| Total UC | | | 350 \$ |

Those reports allow you to understand what is the involvement (in term of business impact) of a service for SLA, OLA and UC.

9.1.5 Historical analysis reports

This category gathers reports which give some historical analytics.

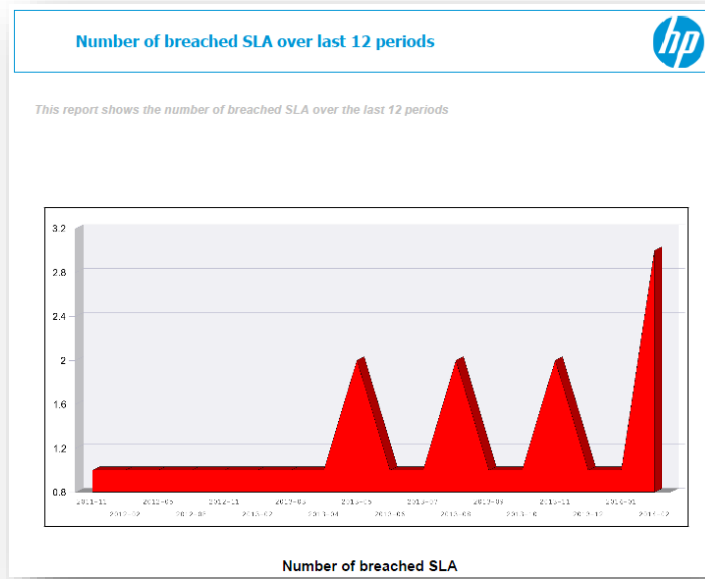
Figure 136: USLAM reporting – Historical analysis reports



9.1.5.1 Number of breached SLA over last 12 periods

This report shows the history of the total amount of penalties over the last 12 months.

Figure 137: USLAM reporting – Number of breached SLA over last 12 periods

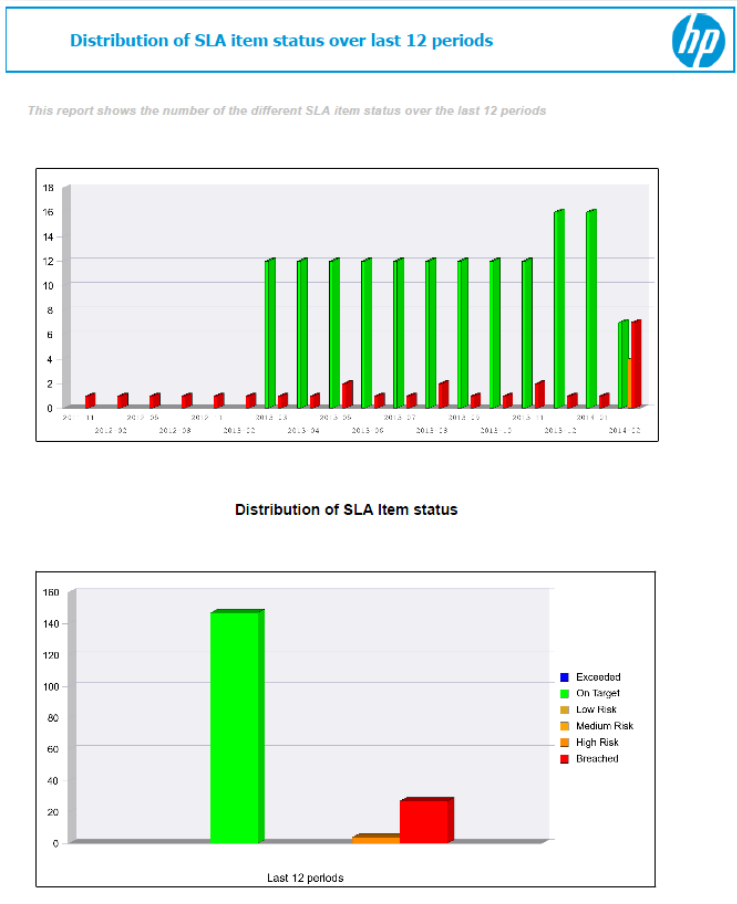


This report allows you to understand the historical trend of the total amount of penalties you paid over one year.

9.1.5.2 Distribution of SLA item status over last 12 periods

This report shows the history over the last 12 periods of the number of SLA item classified by their status (*exceed, on target, low risk, medium risk, high risk, breach*).

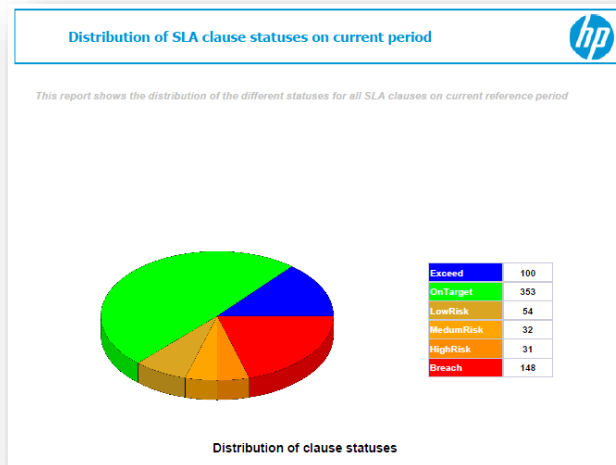
Figure 138: USLAM reporting – Distribution of item status over last 12 periods



This report allows you to globally understand how the SLA items have performed over the last 12 periods.

9.1.5.3 Distribution of SLA clause statuses

Figure 139: USLAM reporting – Distribution of SLA clause status



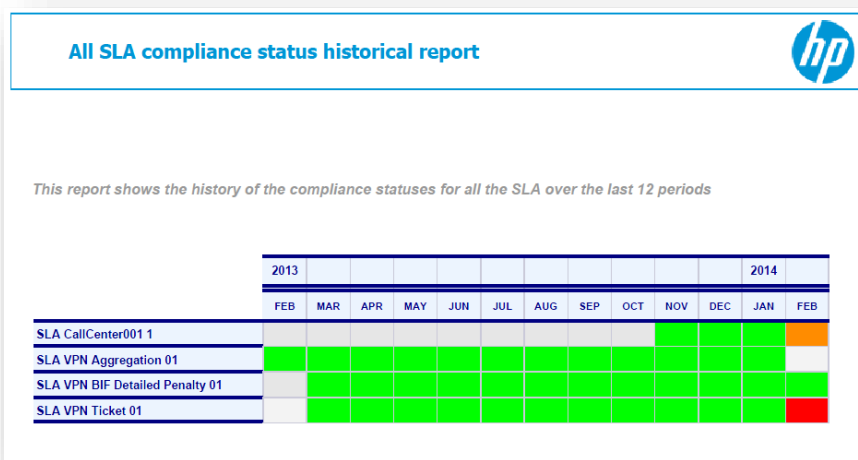
This report gives the number of SLA clauses per status (*exceed, on target, low risk, medium risk, high risk, breach*). This allows you to determine if the SLA clauses you are managing are globally ok or not.

9.1.5.4 All SLAs, last 12 periods, compliance status

This report shows the history, over the last 12 periods, of the SLA compliance status for all the SLA.

Here is an example:

Figure 140: USLAM reporting - All SLAs, last 12 periods, compliance status



9.1.5.5 All SLA Items, last 12 periods, compliance status

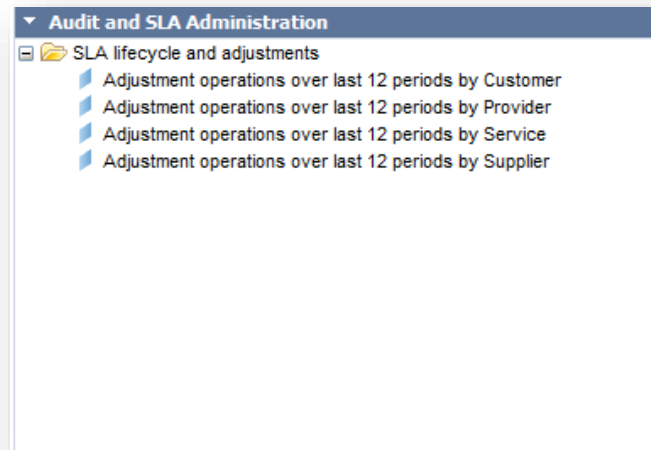
This report shows the history over the last 12 periods of the compliance statuses for all the SLA Items (classified per SLA)

Here is an example of such report:

9.1.6 Audit and SLA administration reports

This category gathers reports giving historical information about all the SLA adjustments operations (when the clause values were adjusted / approved, to which value, by which user ...).

Figure 143: USLAM reporting - Audit and SLA administration reports



Each report has his different grouping: per customer, provider, supplier or service.

Those reports allow analyzing how the SLA contracts were negotiated during the year; and determining which are the parties or services that implied the most important number of manual adjustments.



All those predefined reports are accessible directly through the predefined 'USLAM Reports Catalog' or from the "**Document List**" hierarchy tree: "**Public Folders**" / "**USLAM V4 standard reports**"

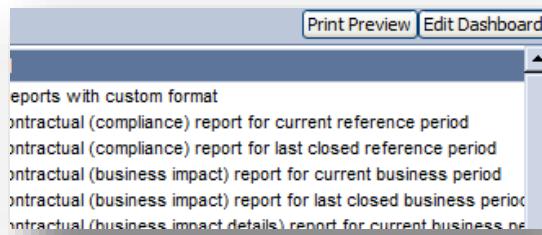
9.2 Customizing your USLAM Reporting

There are many ways for customizing your USLAM Reporting portal:

- The content of the dashboard is fully customizable:

When displaying the dashboard, click "*Edit Dashboard*"

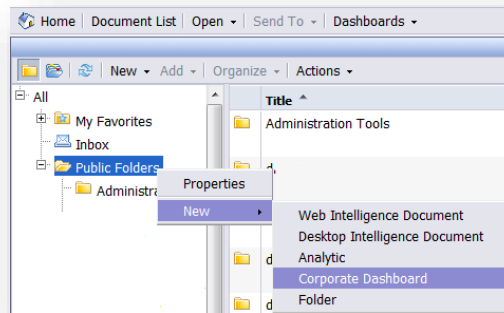
Figure 144: USLAM reporting - Edit the dashboard



- You can also define your own dashboard:

When the “Document List” is displayed, right-click on “Public Folders” -> “New” -> “Corporate dashboard”

Figure 145: USLAM reporting - Create a new dashboard



- You can customize the already predefined reports
- You can create your own custom reports (see section below) that you may want to add to an existing dashboard or a new dashboard.

Here are some references to documents that would help you in customizing reports and dashboards.

| Document Title | URL |
|---|---|
| SAP BusinessObjects Enterprise™ InfoView User's Guide | http://help.sap.com/boe31sp3 |
| SAP BusinessObjects Web Intelligence XI 3.1 documents | http://help.sap.com/bowebi31/ |
| SAP BO Building reports using Web Intelligence | http://help.sap.com/businessobject/product_guides/boexir3/en/xi3_web_intelligence_html_report_panel_en.pdf |
| Getting Started Creating Dashboards | http://help.sap.com/businessobject/product_guides/boexir3/en/xi3_getting_started_creating_dashboards_en.pdf |
| SAP BusinessObjects Dashboard Builder User Guide | http://help.sap.com/businessobject/product_guides/boexir31SP3/en/xi31_sp3_dashboard_user_en.pdf |

9.2.1 USLAM Universe overview

The USLAM predefined reports rely on the USLAM universe.

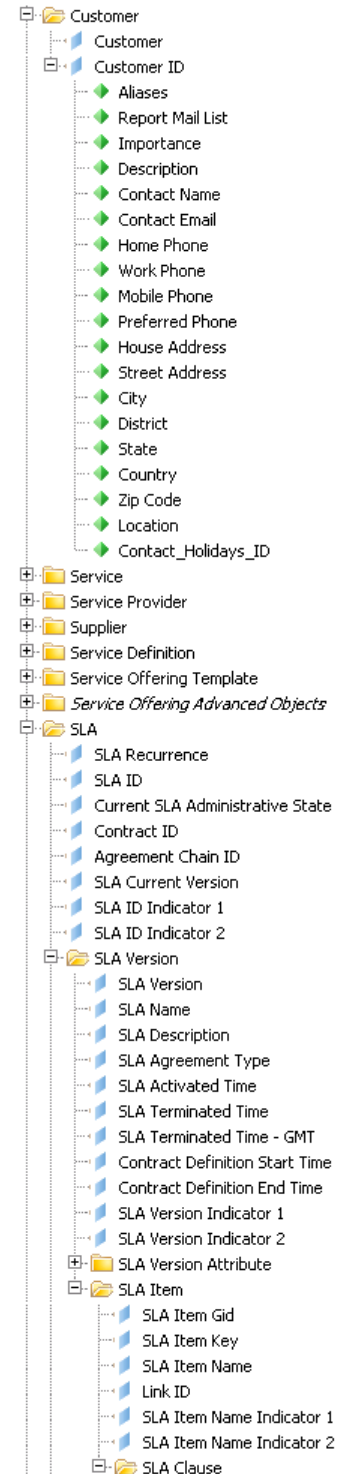
This universe is an abstraction layer of the Datamart (the USLAM historical database) which offers all necessary SLA related objects in order to build reports.

Here is a list of the main objects.

- **SLA definitions** and its objects:

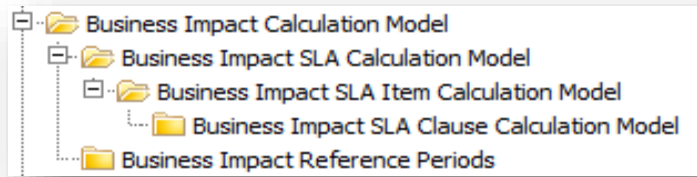
- Time Definition
- Customer
- Service Provider
- Supplier
- Service Definition
- Service
- Service Attribute
- Service Component
- Service Offering
- Exclusion Periods
- SLA
- SLA Item
- SLA Clause
- SLA Reference Period

Figure 146: USLAM reporting - Universe objects



- **Business Impact calculation model**

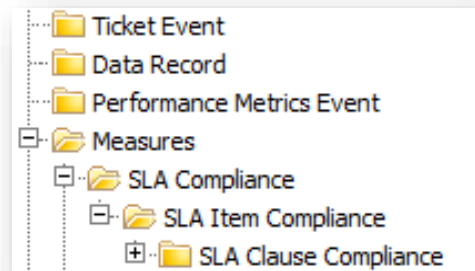
Figure 147: USLAM reporting - Universe: business impact calculation model



- **Service levels delivered** values and status, and details about the calculation:

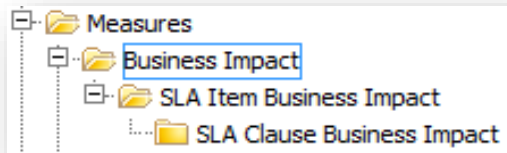
Figure 148: USLAM reporting - Universe: SLA calculation

- Tickets
- Data Records
- Performance Metrics
- SLA compliance
- SLA Item compliance
- SLA Clause compliance



- **Business Impact** at SLA, SLA Item, SLA Clause level

Figure 149: USLAM reporting - Universe: business impact calculation

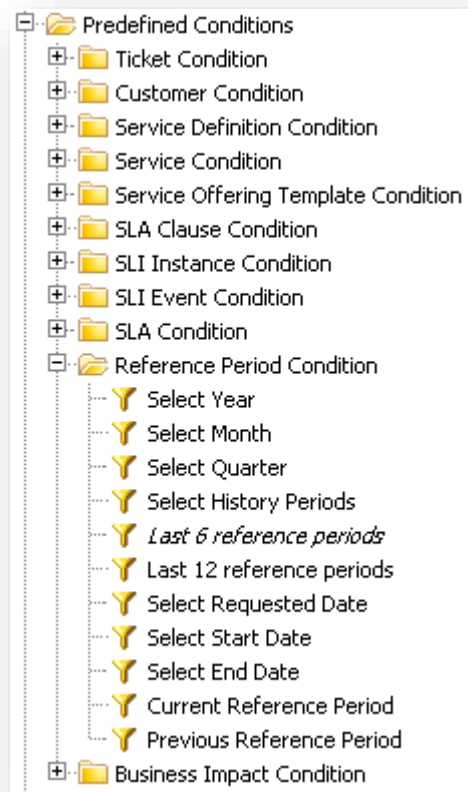


- **Predefined conditions;** by drag and dropping those objects to your report they allow using predefined filtering criteria or input parameters for your report.

You can find in this '*Predefined Conditions*' class some conditions about:

- Date
- Reference Period
- Business Period
- Customer
- Service Definition
- Service
- Service Offering
- SLA
- SLA clause

Figure 150: USLAM reporting - Universe: predefined conditions



9.3 USLAM End User portal functionality

The USLAM End User portal leverages SAP Business Object technology (Infoview). Therefore, a summary of available functionalities is listed below (more details can be found in BO User guides)

| Document Title | URL |
|---|---|
| SAP BusinessObjects Enterprise™ InfoView User's Guide | http://help.sap.com/boe31sp3 |

Setting Preferences

- General preferences
- Selecting viewing preferences
- Selecting a creation/editing tool
- Selecting a default universe
- Selecting your drill options
- Selecting an MS Excel format
- Changing your password

Working with Objects

- Navigating through folders or categories
- Accessing objects in your personal folders or inbox
- Viewing objects
- Selecting which objects to display
- Opening objects for viewing
- Changing viewers
- Searching for objects
- Performing advanced searches
- Organizing objects
- Creating folders or categories
- Setting the properties of a folder or category
- Adding objects to a folder
- Assigning objects to a category
- Sorting objects
- Scheduling objects
- Enabling notification
- Printing an instance
- Scheduling with events
- Viewing object history
- Viewing instances of objects
- Deleting an instance
- Sending objects or instances
- Creating new objects in InfoView
- Adding objects to InfoView
- To add a document from your computer to InfoView
- Copying objects
- Moving objects
- Deleting objects
- Creating shortcuts
- Creating hyperlinks
- Setting object properties

Using Discussions

- Using the Discussions panel
- Creating a note

- Replying to a note
- Editing a note
- Deleting a note

Working with USLAM reports as Web Intelligence Documents

- Viewing Web Intelligence documents
- Web Intelligence toolbar
- Displaying the navigation map
- Displaying user prompts
- Finding text in documents
- Creating Web Intelligence documents
- Selecting the USLAM Universe for a new document
- Editing queries in existing documents
- Data tracking
- Tracking changes in your data

Working with Publishing

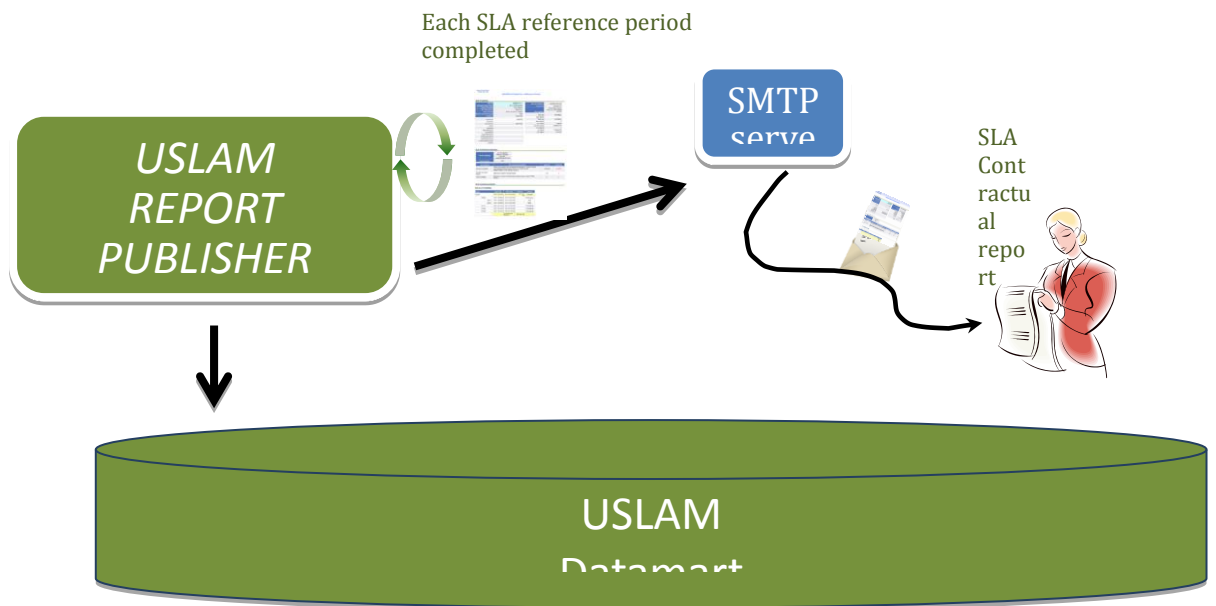
- About Publishing
- Delivery rules
- Formats
- Destinations
- Subscription
- To create a new publication in InfoView

9.4 Reports Publication

USLAM Report Publisher is a separate and optional tool that provides the automatic generation of reports.

It allows the scheduling of automatic generation and publication of SLA reports to the corresponding SLA stakeholders.

Figure 151: USLAM Report publisher



Concretely, this process regularly monitors each SLA reference period. At the end of each SLA reference period, a delay is observed (defined by the configuration parameter '*bi.reporting.sla_delay_period*.'); then, the SLA report is generated and sent to the mailing list specified in the SLA customer '*reportMailingList*' attribute.

Note: the generated report file (.pdf) is also stored on the local reporting server (the directory where the report is stored is specified by the configuration parameter '*bi.reporting.report_gen.folder_id*')

Please read the *HP USLAM Administration Guide* in order to configure and execute the *USLAM Report Publisher*.