

HPE Universal SLA Manager Installation and Configuration Guide

Release 4.3 Version: 1.0



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Preface

This guide is designed to be used as an installation and configuration manual for the HPE Universal SLA Manager that is used to manage Service Level Agreements.

This document also contains information about installing and configuring USLAM Services, Web UI, MyUSLAM portal, Reporting and ETL modules.

This document explains the procedures related to installation, configuration and uninstallation of the USLAM solution.

Intended Audience

This document is intended for the following user:

- HPE USLAM Administrator.
- Oracle Database Administrator

Abbreviations and Acronyms

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

Abbreviation	Description
BO	SAP Business Objects
BODS	SAP Business Objects Data Services
BOE	SAP BusinessObjects Business Intelligence platform
BIAR	Business Intelligence Archive
CMS	Central Management Server
CI	Configuration Item
ID	Identifier
EDB PPAS	Enterprise DB Postgres Plus Advanced Server
ETL	Extract, Transform, and Load
KPI	Key Performance Indicator
LTU	License To Use
SLI	Service Level Indicator
SLA	Service Level Agreement
SLO	Service Level Objective

SLM	Service Level Management
SD	Service Definition
SI	Service Instance
SNMP	Simple Network Management Protocol
SM	Service Manager
TTR	Time To Repair
USLAM	Universal Service Level Agreement Manager

Software Versions

The software versions referred to in this document are as follows:

Software	Version
HPE Universal SLA Manager	V4.3
Red Hat Linux 6.5 64-bit	6.5 (*)
Oracle client for Linux 64-bit	11g Release 2 (11.2.0.4) (*) or Oracle 12c
Oracle client for Windows 64-bit	11g Release 2 (11.2.0.4) (*) or Oracle 12c
Enterprise DB Postgres Plus Advanced	9.3
Server	
Windows	Windows Server 2012
Internet Explorer	9.0 or upper
Firefox	27.0 or upper
Google Chrome	32.0 or upper
SAP BusinessObjects Business Intelligence	4.1 SP6
platform	
SAP Business Objects Data Service	BO DS 4.2 SP2 (14.2.2.446)
Liferay Portal	6.1.1 CE GA2

(*) Specified servers versions have been successfully tested by Hewlett Packard Enterprise. Incremental releases of the specified versions defined by the last number in the server name will be supported as they are made available, but may not have been tested by Hewlett Packard Enterprise. Exceptions in support will be documented.

Associated Documents

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

- HPE Universal SLA Manager Release Notes
- HPE Universal SLA Manager Support Matrix
- HPE Universal SLA Manager User Guide

Reference Documents

A list of reference documents is given below for your reference:

Document Title	URL
Business Intelligence Platform Installation Guide	http://help.sap.com/bobip41
for Windows 4.2 SP 6	
Business Intelligence Platform Administrator	http://help.sap.com/bobip41
Guide 4.2 SP 6	
Product Availability Matrix (Supported Platforms)	http://help.sap.com/bobip41
BI Launch Pad User Guide 4.2 SP 6	http://help.sap.com/bobip41
Getting Started with SAP BusinessObjects Web	http://help.sap.com/bowebi41
Intelligence 4.1 SP6	
SAP BusinessObjects Information platform	https://help.sap.com/bods42/
services 4.1 Support Package 2	
SAP BusinessObjects Data Services [™] XI 4.2 SP2	https://help.sap.com/bods42/
Installation Guide for Unix	
SAP BusinessObjects Data Services [™] 4.2 SP2	https://help.sap.com/bods42/
Management Console: Administrator Guide	

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 Ex: Configuration Item (CI).
	Fields names, menus, window pane names
Bold type	
	Ex of menus: Admin \rightarrow Service Level Management \rightarrow Repository.
Italic type	Important information and/or concepts.
	Ex: The output is an .XML 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.

Support

Please visit our HPE Software Support Online Web site at: <u>https://softwaresupport.hpe.com/</u> for contact information, and details about HPE Software products, services, and support.

The Software support area of the Software Web site includes the following:

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

Chapter 1 USLAM License

After installation, USLAM Product will activate a trial license for 90 days (InstantOnLicense). After expiration of this date, you definitively need a commercial license to continue to use the product.

1.1 Obtaining a USLAM License

A license key password is required to use HPE Universal Service Level Agreement Manager (USLAM). Licensing is managed with AutoPassJ (automatically installed with the USLAM installation. You must obtain a license key to be able to start using the product).

The standard process for a released product is the following:

The system administrator of the product must go to the Hewlett Packard Enterprise Software Licenses and Downloads Portal site and download the perpetual license to use the product. To request perpetual license passwords, you need the following items:

- Entitlement Certificate, which contains the HPE product number and order number.
- Your company or organization information.

The best way to obtain product licenses is through the web site: https://h20575.www2.hpe.com/mysoftware/

You can also contact the HPE Password Center by using fax, email, or phone. This information is available on the Password Request Form and the License Entitlement Certificate. In order to obtain product licenses, you need the License Entitlement Certificate.

1.2 Using the web site

Activate your license key(s)

Step One: Sign-In

- Log in to the Software Licenses and Downloads Portal website with your HP Passport credentials.
- If you don't see your organization on the page this means that you are part of more than one company and you will have to choose the one that you would like to manage. Please press "Select organization" and choose from the list your organization. You can make the search process easier by using the Order number as a search criteria.

If the order number is not listed you will have to request access first

Step two: Manage Entitlements

- Go to the "Entitlements" or "Manage Entitlements" tabs where you will see the list of entitlements assigned to your organization.
- Please select the ones that are under the tab "Available for Activation" where you will see all the licenses that can be activated.
- Select the Entitlements that you would like to activate and press "Activate" **Note:** if you need to activate more than one item at the same time, you will be able to do that from the "Available for Activation" tab

Hewlett Packard S Enterprise	olutions Services	Products	The Vision Contact I	Us				Q
Home Entitlement	s Licenses Rehost D		:/SelfHelp English + ntity Access Management			Sign-out E	idit your profile	
View Ent	itlements							
Organization	Hol America Inc.							
All Product N Search by Product	ame Order Number	Order Number		×	Search			
Production	Non-Productio	n						
Show All Entitler	nents (thation 😗 🔾	Available for Update 😗 🔿 I	Eligible for Upg	rade 😝 🔿 Elig	ible for Migrati	on 😦	
Activate					[* Expand All	 Collapse All 	
Produc	t Name 🖕	Status	Order Number 🌻	Total Quantity	Activated Quantity	Unit of Measure	Action	
	a Protector Direct Backup IDNIP 100TB E-LTU S	Available	262033088003	20	2	Terabyte	Activate	
		Available	262033088003	6	0	Manager	Activate	
	enView Storage Data or Starter Pack for HIP-UX	Available	262033088003	10	٥	License	Activate	
Activate				¢	c 1 > > :	3 items, 1 page	6 1 00	

Step three: Activation information

- On the next page you will see the license details that you will need to provide. On the *Target Name you have the following options:
 - List: You will see a list of all the targets that have been previously created
 - Search: You can use this option to find an existing target by entering the name
 - New Target: You can use this option to enter a new target name or autogenerate it.
- Select the version and quantities that you want to activate the licenses for.
- Click on Activate.
- In the next page you will need to confirm your activation details and click on **Activate** once again.

Home Entitlements L	Contact Us / Self Help English + ExternalProd1@yehoo.com Sign-out Edit your Joenses Rehost Downloads Identity Access Management Reports ELA
License Ac	tivation
Environment Type	PRODUCTION.0 tensing locking information. Select the product and associated version and quantity to activate
	ensing locking information. Select the product and associated version and quantity to activate an asterisk (•) are required.
	List Search Add Manage
Target Name* Q:	testDP
and the second second	Autogenerate
Activation Notes:	
ACCEVERION PROTES.	
August and a	
AND YOUNT POPE.	
	ctor Direct Backup using NDMP 100TB E-LTU - 10014948
	ctor Direct Backup using NDMP 100TB E-LTU - 10014948
HP Data Prote	ctor Direct Backup using NDMP 100TB E-LTU - 10014948
HP Data Protect	

Step four: Complete Screen

- You will get the Activation Results page where you can Download the key, Send it by e-mail or View the Certificate.

t Packard lise	Solutions	Services	Products	The Vision Cor	ract Us			¢
Home	Entitlements	Licenses		Help English y ownload iden	ity Access Manage		Sign-out Edit your profile	
Target :		TestQC	015					
	Proc	luct Name		Version	Activated Quantity	Status	Activation Notes	
	ty Center Express tware E-LTU	Edition Names	d User 1 Year	12.20	10	Active		
🛎 Er	wnload ≺TestQC_ nail Key ew Certificate	H7U74AAE_1	6-09-2015.DAT>					

The license key received will be installed or updated following the process described in 3.1.8: Installing a USLAM License.

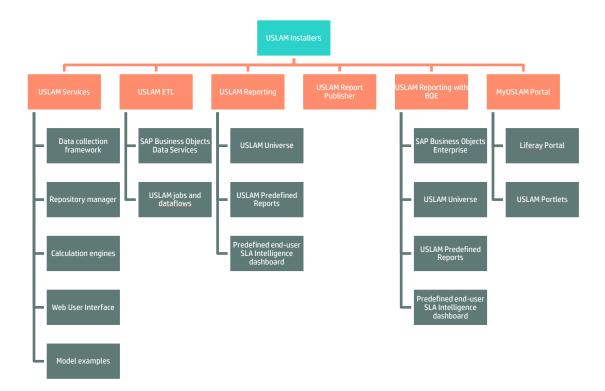
Chapter 2 USLAM Introduction

The USLAM installer is designed to aid the user in installing and configuring USLAM product with utmost ease and precision. The following section lists the various components of the USLAM solution, and explains how to install and configure these components, providing examples throughout the procedure.

2.1 Overview

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

The USLAM product is delivered as several software kits:





2.1.1 USLAM Services

The USLAM Services package contains 5 different modules:

- 1. Repository Manager
- 2. Web UI

- 3. Calculation Engines
- 4. Collectors
- 5. +Model examples

Repository Manager and the Web UI and Collectors have to be installed on the same host. Calculation Engines can be installed on different hosts.

2.1.2 Data collection framework

A framework allows you to build and run any number of data collectors. The supported types of data are: data records, performance metrics and tickets.

2.1.3 Calculation Engines

This is the heart of the solution where all compliance and business impact calculations take place.

2.1.4 Repository Manager

The Repository Manager also includes Dataload tools used to populate database. It is the starting point from which SLA information can be loaded into the system.

2.1.5 Web User Interface

It contains the USLAM Web User interface used by administrator or operators to monitor, manage and create SLA.

2.1.6 USLAM ETL

The USLAM ETL package is used to build the Datamart that will store and organize the historical data of your SLA in order to optimize the production of reports.

It is powered by SAP Business Objects Data Services.

2.1.7 USLAM Reporting

The USLAM Reporting package offers a complete Reporting solution. There are 3 kits available:

1. HPE USLAM Reporting Software:

the SAP BusinessObjects BI platform solution Note: This package must not be installed if you already have a Business Object Enterprise server installed

- 2. HPE USLAM Universe and Standard Reports: the USLAM Universe and USLAM standard reports, standard reporting dashboards relying on SAP BI platform
- 3. **HPE USLAM Report Publisher**: an optional tool for the automation of report publications

2.1.8 USLAM portlets and MyUSLAM Portal

As an option, USLAM delivers 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.

As an example, these portlets are embedded into a new end user community portal called 'MyUSLAM'.

Portlets bundled by MyUSLAM are:

- 1. SLA Status Snapshot
- 2. SLA Status
- 3. SLA Item Status
- 4. Clause Status
- 5. User Import

The following list identifies the installer kits for each of the modules described in the earlier section:

Package	OS	Installer
USLAM Services	Linux	HPE_USLAM_Services-V4.3-MR.bin
USLAM ETL	Linux	HPE_USLAM_ETL-V4.3-MR.bin
USLAM BOE	Windows	HPE_USLAM_BOE-V4.3-MR.tar (not needed if you have Business Objects Enterprise installed)
USLAM BOE Configuration Tool	Windows	HPE_USLAM_BOE_WithoutBI-V4.3-MR.exe
USLAM Report Publisher	Windows	HPE_USLAM_Report_Publisher-V4.3-MR.exe
MyUSLAM portal	Linux	HPE_USLAM_MyUSLAMPortal-V4.3-MR.bin
	Windows	HPE_USLAM_MyUSLAMPortal-V4.3-MR.exe

To install USLAM solution, you will have to install several components, it is recommended to install and configure the following components in order:

- 1. USLAM Services (see Chapter 3)
- 2. USLAM ETL (see Chapter 4)
- 3. USLAM Reporting (see Chapter 5)
- 4. MyUSLAM Portal (optional) (see Chapter 7)

2.3 Code Signing

The product is digitally signed and accompanied by a set of GnuPG keys.

Before proceeding with signature verification process, make sure that GnuPG gpg tool is installed in the system.

NOTE HPE strongly recommends using signature verification for theirs products but there is no obligation.

2.3.1 Import HPE public key

Perform the following steps to import one of HPE public keys that is needed for verifying the integrity of the delivered product:

1. Create a directory where HPE public keys will be stored:

```
#>mkdir -p signcheck
```

2. Download the keys:

```
#>wget -P signcheck/ https://ftp.hp.com/pub/keys/HPE-GPG-Public-
Keys.tar.gz
```

3. Import a public key:

#>gpg --import signcheck/2BAF2262.pub

4. Configure level of trust for the imported key:

```
#>qpg --edit-key 2BAF2262
gpg (GnuPG) 2.0.14; Copyright (C) 2009 Free Software Foundation,
Inc.
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
pub 2048R/2BAF2262 created: 2015-12-10 expires: 2025-12-07
usage: SCEA
                     trust: unknown
                                          validity: unknown
[ unknown] (1). Hewlett Packard Enterprise Company RSA-2048-14
<signhp@hpe.com>
Command> trust
pub 2048R/2BAF2262 created: 2015-12-10 expires: 2025-12-07
usage: SCEA
                     trust: unknown
                                          validity: unknown
[ unknown] (1). Hewlett Packard Enterprise Company RSA-2048-14
<signhp@hpe.com>
Please decide how far you trust this user to correctly verify
other users' keys
(by looking at passports, checking fingerprints from different
sources, etc.)
 1 = I don't know or won't say
  2 = I do NOT trust
 3 = I trust marginally
 4 = I trust fully
 5 = I trust ultimately
 m = back to the main menu
Your decision? 5
Do you really want to set this key to ultimate trust? (y/N) {f y}
pub 2048R/2BAF2262 created: 2015-12-10 expires: 2025-12-07
usage: SCEA
                     trust: ultimate
                                          validity: unknown
[ unknown] (1). Hewlett Packard Enterprise Company RSA-2048-14
<signhp@hpe.com>
Please note that the shown key validity is not necessarily correct
unless you restart the program.
Command> quit
```

2.3.2 Verification

To verify the integrity of the delivered product, perform the following steps:

1. Take the signature (.sig) file shipped along with the product and use the following command:

```
#>gpg --verify hpe-smart-controller-umb-adapter-1.0.0-
Kit2SNAPSHOT.tar.sig hpe-smart-controller-umb-adapter-1.0.0-
Kit2SNAPSHOT.tar
```

2. Check the command output. If signature verification completed successfully, the

command output will contain the following lines:

```
gpg: Signature made Mon 25 Apr 2016 10:12:31 AM MSK using RSA key
ID 2BAF2262
gpg: Good signature from "Hewlett Packard Enterprise Company RSA-
2048-14 <signhp@hpe.com>"
```

NOTE

For more information on signature verification procedure, see https://h20392.www2.hpe.com/portal/swdepot/displayProductInfo.do?productNumbe PLinuxCodeSigngin

2.4 Prerequisite

Before the installation begins, the following primary system checks are made. If your operating system fails to meet any one of these checks, the installation will abort.

- Is the operating system 64-bit Red Hat Linux?
- Do you install with root?
- Is X window service installed on Linux system?
- Is there sufficient disk space?

Please refer to the HPE USLAM Support Matrix for hardware and software requirement.

Chapter 3 Installing and Configuring USLAM Services

3.1 Installing USLAM Services

3.1.1 Installation Kit

The installation kit for the USLAM solution is provided as *.bin* file: **HPE_USLAM_Services-V4.3-MR.bin**

3.1.2 Installation Wizard

To install the USLAM solution, you will be required to run the USLAM Installation Wizard and perform the following steps:

- 1. Log on to the Linux server with appropriate write access for the installation directory.
- 2. Locate and browse the USLAM installation kit and then run the installation wizard by running command line: ./HPE_USLAM_Services.bin



Please make sure that the HPE_USLAM_Services.bin file has 'execute' permission and that a X-Window service is installed on the Linux system

- 3. The installer displays a progress indicator and deploys the installation files on your Linux system
- 4. Once the installation files are deployed, the HPE Universal SLA Manager installation wizard displays

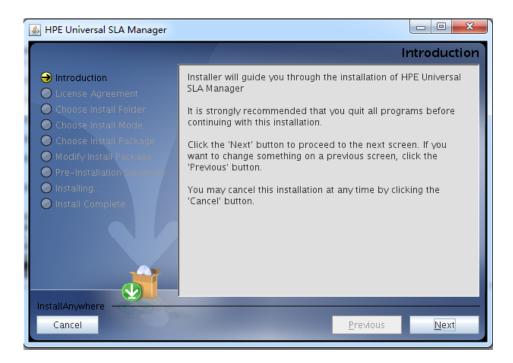


Figure 2: USLAM Services Installation - Introduction

- 5. Make sure you follow the instructions displayed on this window and then click [Next]
- 6. The License Agreement window displays



Figure 3: USLAM Services Installation - License Agreement

- 7. Select I accept the terms of the License Agreement and then click [Next].
- 8. The next screen asks you to choose an Installation Folder

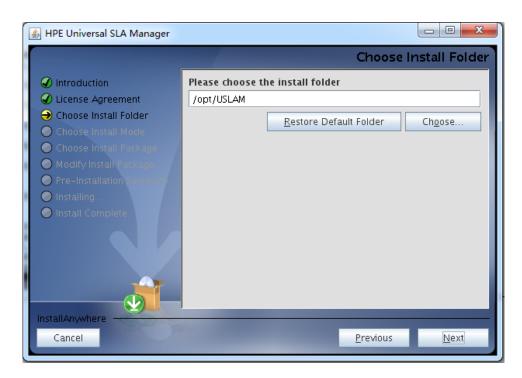


Figure 4: USLAM Services Installation - Choose Install Folder

- 9. Browse and select the location on your system where you would like to install USLAM Services. Click [Choose...] to browse or click [Restore Default Folder] to auto-enter the default installation path
- 10. Click [Next]. The next screen asks you to choose the Installation Mode

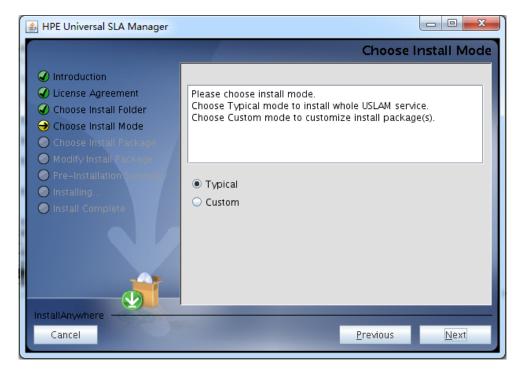


Figure 5: USLAM Services Installation - Choose Install mode

- 11. Select either Typical to install complete USLAM Services or Custom to choose the package(s) you want to install.
- 12. If you select Custom, the next screen asks you to select the package(s) you want to install

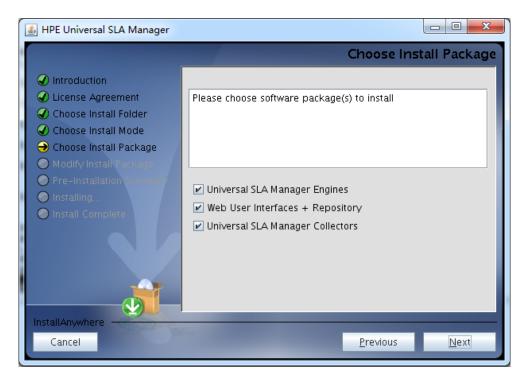


Figure 6: USLAM Services Installation - Choose Install Package

- 13. Select the software package(s) to install. At least one software package must be selected
- 14. Click [Next]. The Pre-Installation Summary window displays



Figure 7: USLAM Services Installation – Pre-installation Summary

- 15. Review the summary information and then click [Install] to begin installation.
- 16. Once the installation is complete, the 'Install Complete' window appears

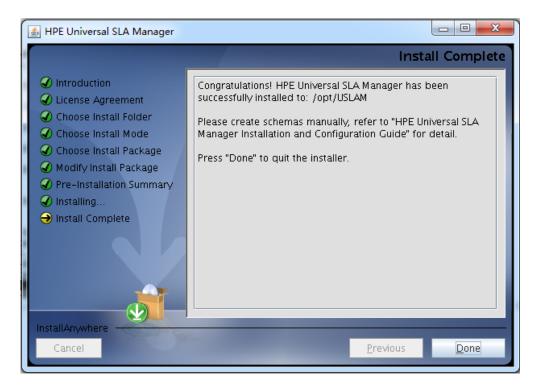


Figure 8: USLAM Services Installation - Installation Complete

17. Click [Done] to complete the installation and follow instructions in next chapters to configure USLAM Services



The install log is located at <INSTALL_DIR>/install.log.

3.1.3 Creating USLAM Services Database User

Before the installation, you must create a new user for the USLAM Services in the Database (the user name taken as example in this document is USLAM_SERVICE).

Please contact your system Database DBA to create the user, performing the following steps:

- 1. Log in to the database server as dba user
- 2. To create a user, use the following command (example with user name="USLAM SERVICE" and password="USLAM SERVICE"):

SQL> create user USLAM_SERVICE identified by USLAM_SERVICE;
3. To grant proper privileges:
SQL> grant create session, create procedure, create
sequence, create table, create trigger, create view to
USLAM_SERVICE;
SQL> grant unlimited tablespace to USLAM_SERVICE

3.1.4 Creating USLAM Services Database Schemas

You need to create database schema for USLAM Services manually before performing any other configuration. The following figure provides a depiction of the steps:

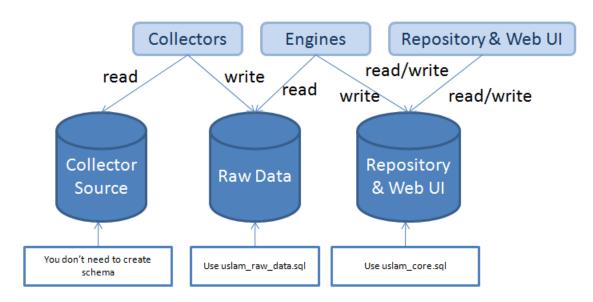


Figure 9: USLAM Services Database Schema

3.1.4.1 Creating USLAM Services Database Schemas in Oracle database

You will require *sqlplus* to execute the scripts mentioned in the following steps.

The following database scripts will be automatically installed to *<INSTALL_DIR*>/scripts by the USLAM Services installer.

- uslam_core.sql
- uslam_core_oracle.sql
- uslam_raw_data.sql

To create the schema, you will be required to perform the following steps:

- Log in to the Oracle with sqlplus tool using the USLAM_SERVICE username and password, by entering: sqlplus <USLAM_SERVICE _User >/< USLAM_SERVICE _Password>@ < ORACLE_SID>
- 2. To create the Universal SLA Manager Engines schema and the Web User Interfaces/Repository schema, you will be required to execute uslam_core.sql and uslam_core_oracle.sql scripts.

@/<USLAM_INSTALL_DIR>/scripts/uslam_core.sql

@/<USLAM_INSTALL_DIR>/scripts/uslam_core_oracle.sql

3. To create the Raw Data schema (output tables of the USLAM collectors: tickets, data records), you will be required to execute the uslam_raw_data.sql script. @/<USLAM_INSTALL_DIR>/scripts/uslam_raw_data.sql

3.1.4.2 Creating USLAM Services Database Schemas in EnterpriseDB database

You will require *edbplus* to execute the scripts mentioned in the following steps.

The following database scripts will be automatically installed to *<INSTALL_DIR*>/scripts by the USLAM Services installer.

- uslam_core.sql
- uslam_core_edb.sql
- uslam_raw_data.sql

To create the schema, you will be required to perform the following steps:

- Log in to the EnterpriseDB with edbplus tool using the USLAM_SERVICE username and password, by entering: edbplus.sh <USLAM_SERVICE _User >/< USLAM_SERVICE _Password>@ < DATABASE NAME>
- To create the Universal SLA Manager Engines schema and the Web User Interfaces/Repository schema, you will be required to execute *uslam_core.sql* and *uslam_core_edb.sql* scripts.

@/<USLAM_INSTALL_DIR>/scripts/uslam_core.sql @/<USLAM_INSTALL_DIR>/scripts/uslam_core_edb.sql

To create the Raw Data schema (output tables of the USLAM collectors: tickets, data records), you will be required to execute the uslam_raw_data.sql script.
 @/<USLAM INSTALL DIR>/scripts/uslam raw data.sql

3.1.5 Configuring USLAM Services Database

To run USLAM Services Configuration tool, you need to create a schema for USLAM Services (as described in 3.1.4 Creating USLAM Services Database Schemas) and then run the tool, performing the following steps:

- 1. Log in to Linux server with appropriate write access for the installation directory.
- 2. Locate and browse to <INSTALL_DIR>/bin and then run the configuration tool for USLAM Services by running the command line: ./configuration_tool.sh



Please make sure that the **configuration_tool.sh** file has 'execute' permission and that a X-Window service is installed on the Linux system

- 3. The installer displays a progress indicator and deploys the installation files on your Linux system
- 4. Once the installation files are deployed, the HPE USLAM Services Configuration Tool wizard displays.

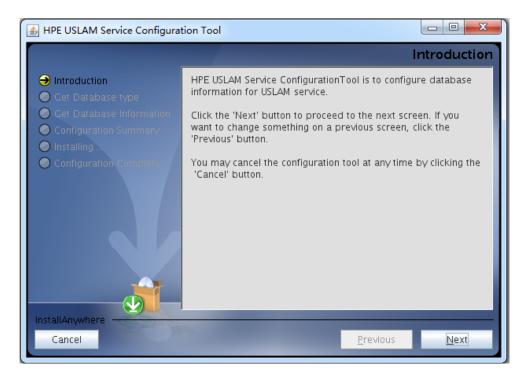


Figure 10: USLAM Services Configuration Tool - Introduction

5. Click [Next]. The Get Database type window displays

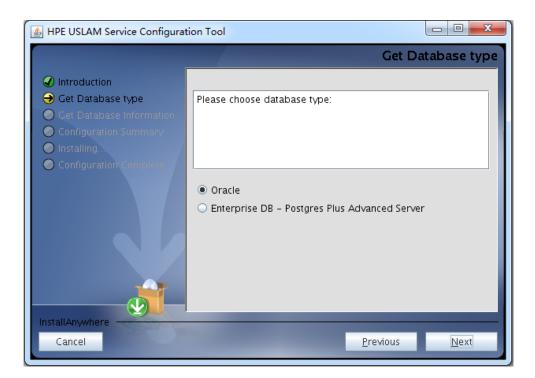


Figure 11: USLAM Services Configuration Tool - Introduction

6. Select database type .Click [Next]. The Get Database Information window displays

🛃 HPE USLAM Service Configurat	tion Tool
	Get Database Information
 Introduction Get Database type Get Database Information Configuration Summary Installing Configuration Complete 	Please Input Database information for USLAM service. Click "Next" to test database connection Oracle Host:
InstallAnywhere Cancel	Previous Next

Figure 12: USLAM Services Configuration Tool – Database Information

 Enter the required information in the relevant text fields i.e. Database Host, Database Port, Database Name, User Name and Password (this is the DB user created in 3.1.3 "Creating USLAM Services Database User")

- 8. Click [Next]. The configuration tool will check the information you entered, and display warning message if the check fails.
- 9. If the information is not correct, the installer displays the following warning. Click [OK] to enter again



Figure 13: USLAM Services Configuration Tool – Incorrect Database Information

10. If USLAM schema cannot be found, the installer displays the following warning. Click [OK] to enter the information again

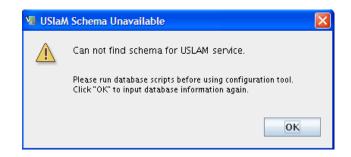


Figure 14: USLAM Services Configuration Tool - Unavailable USLAM Schema

11. If the information check is successfully, the installer displays the following message.

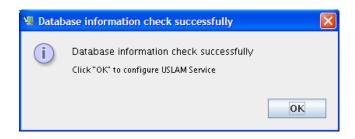


Figure 15: USLAM Services Configuration Tool – Successfully Check

12. Click [OK]. The Configuration Summary window displays.

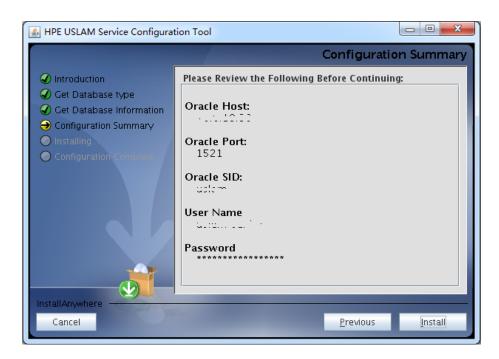


Figure 16: USLAM Services Configuration Tool – Configuration Summary

- 13. Review the Configuration information before beginning to configure USLAM Services. Click [Install] to begin the configuration.
- 14. Once the configuration is complete, the Configuration Complete window displays.

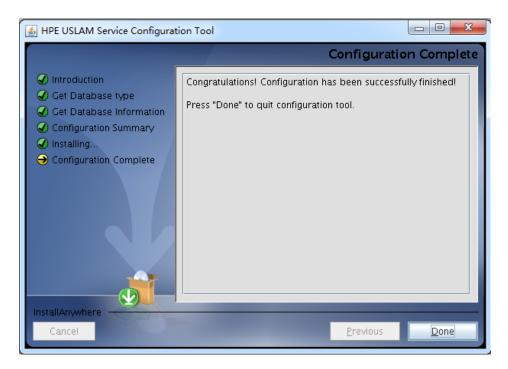


Figure 17: USLAM Services Configuration Tool - Configuration Complete

15. Click [Done] to finish the configuration.

3.1.6 Specific Settings for Oracle Database Connection (Oracle RAC, ...)

The JBOSS data source files generated by the USLAM installer work only for a simple DB server host configuration. In case specific Oracle connection requirement is needed, such as connecting to an Oracle RAC data base configuration, the

\${USLAM_HOME}/jboss/server/default/deploy/uslam-ds.xml need to be manually
patched before USLAM start.

If the entry for your database connection in your \${ORACLE HOME}/NETWORK/ADMIN/tnsnames.ora file is:

```
USLAM_prod=(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=<myDbHost>)(PORT = 1530))
(CONNECT DATA = (SERVER = DEDICATED) (SERVICE NAME=<myDbServiceName>)))
```

Then the content of the file: \${USLAM_HOME}/jboss/server/default/deploy/uslamds.xml should be manually patched as follows (where slam_user, slam_password will be set with the correct values):

```
<datasources>
 <local-tx-datasource>
    <jndi-name>uslamDatasource</jndi-name>
   <connection-
url>jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=<myDbHost>)(PORT=1530))
(CONNECT_DATA=(SERVER=DEDICATED)(SERVICE_NAME=<myDbServiceName>)))</connection-url>
    <driver-class>oracle.jdbc.OracleDriver</driver-class>
    <user-name>slam user</user-name>
    <password>slam password</password>
   <min-pool-size>3</min-pool-size>
    <max-pool-size>32</max-pool-size>
    <check-valid-connection-sql>select 1 from dual</check-valid-connection-sql>
   <exception-sorter-class-
name>org.jboss.resource.adapter.jdbc.vendor.OracleExceptionSorter</exception-sorter-
class-name>
    <valid-connection-checker-class-name>...</valid-connection-checker-class-name>
    <metadata>
       <type-mapping>Oracle10g</type-mapping>
    </metadata>
 </local-tx-datasource>
</datasources>
```

3.1.7 Configuring USLAM Services properties

Please check the "USLAM Platform Configuration" chapter from the HPE USLAM Administration Guide where you can find the mandatory USLAM parameters.

3.1.8 Installing a USLAM License

The USLAM service will verify the license at startup and the status will be recorded in console and in a log file. You can view the license status message from the log file located at: <INSTALL_DIR>/jboss/server/default/ slam_licensecheck.log.

If the USLAM license expires, it will not be possible to restart the USLAM services after a stop.

Please refer to chapter 1 of this Guide in order to request a valid USLAM license.

3.1.9 Starting USLAM Services

Once you have installed and configured the USLAM Services you can start these services by performing the following steps:

- 1. After the installation and configuration of USLAM Services, go to <INSTALL_DIR>/bin and type *uslam_start.sh* to start USLAM services
- 2. It can take few minutes to be completely started. You can check if the USLAM services are running by executing the following command:

```
export JAVA_HOME=<INSTALL_DIR>/jre
<INSTALL DIR>/jboss/bin/twiddle.sh get "jboss.system:type=Server" Started
```

- 3. If the response from this command is: Started=true, then the USLAM services are running
- 4. Going forward from this point, you can start the USLAM Web User Interface or start to data load information into the USLAM database.
 - Launch the USLAM Web UI (see 6.1 Logging in to the USLAM UI)
 - Run the USLAM dataload tool located at <INSTALL_DIR>/bin/uslam_load.sh

At this stage, the USLAM Services are installed and configured.



uslam_start script will also execute the license tool before starting to validate you get an valid license. It will warm you in the log file in case you have an expired license.

3.2 Stopping USLAM Services

To stop USLAM Services you will be required to perform the following steps:

- 1. Browse to the directory where USLAM Services are installed, and browse to: <INSTALL_DIR>/bin
- 2. Type *uslam_stop.sh* with the correct parameters to stop USLAM services (uslam_stop –h to get the complete usage)
- 3. You can check if the jboss has stopped by executing the following command:

ps -ef | grep jboss

4. If there are no active processes for jboss, it implies USLAM Services is not running.

3.3 Modifying USLAM Services Installation

To modify an existing installation (i.e. either install a new module or remove a previously installed module) of the software package(s), you will be required to run the USLAM Installation Wizard performing the following steps:



Make sure you stop completely the USLAM Services before modifying the installation

(see 3.2 Stopping USLAM Services)

- 1. Locate and browse to the USLAM installation kit and then run the installation wizard by running command line ./HPE_USLAM_Services.bin
- 2. The installer displays a progress indicator and deploys the installation files on your Linux system
- 3. Once the installation files are deployed, the HPE Universal SLA Manager installation wizard displays

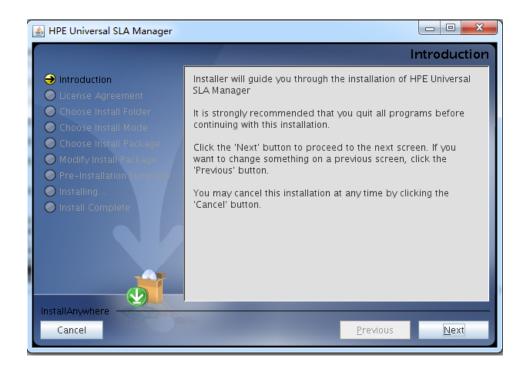


Figure 18: USLAM Services Installation - Introduction

- 4. Make sure you follow the instructions displayed on this window and then click [Next]
- 5. Click [Next]. The Choose Install Folder window displays

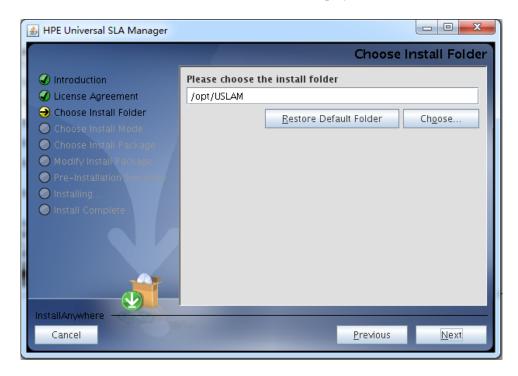


Figure 19: USLAM Services Installation - Choose Install Folder

- 6. Choose the folder that USLAM has been installed in. If the folder chosen is not USLAM installed folder, installer will run with the new install mode
- 7. Click [Next]. The Modify Install Package window displays. The software package(s) which has been installed will be shown in the previously selected state. Select the packages you want to install or un-install. Selected package(s) will be installed if not installed already. Un-selected package(s) will be un-installed if installed already

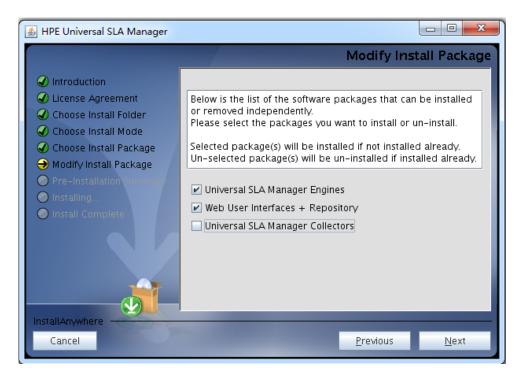


Figure 20: USLAM Services Installation - Choose Install Package

8. Click [Next]. The Pre-Installation Summary window displays



Figure 21: USLAM Services Installation – Pre-installation Summary

- 9. Review the summary information before beginning to install/uninstall USLAM. Click [Install] to begin installation
- 10. Once the Install/Uninstall completes, the Install Complete window displays

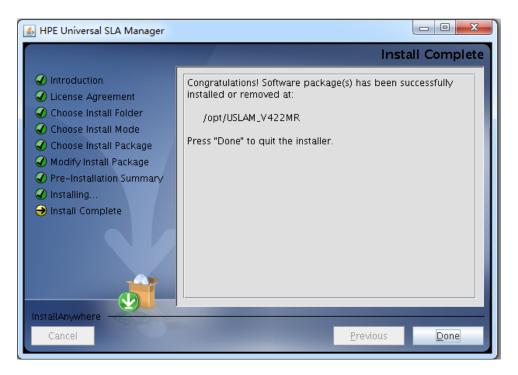


Figure 22: USLAM Services Installation – Installation Complete

11. Click [Done] to finish software package installation or un-installation.

Please refer to HPE USLAM User Guide, "Logging in to the USLAM UI" in order to start the USLAM web UI.

3.4 Uninstalling USLAM Services

To uninstall the USLAM services, you will be required to run the USLAM Installation Wizard performing the following steps:



Make sure you stop completely the USLAM Services before uninstalling

(see 3.2 Stopping USLAM Services)

1. Run command *<INSTALL_DIR>/Uninstall/Uninstall* to uninstall USLAM services



Please make sure that the Uninstall file has 'execute' permission and that a X-Window service is installed on the Linux system

2. Once the progress indicator completes, the Uninstall HPE Universal SLA Manager wizard displays

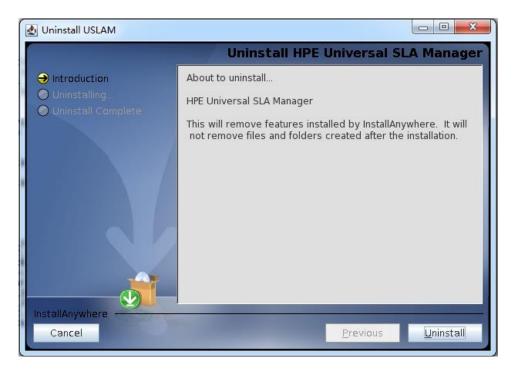


Figure 23: USLAM Services Uninstallation - Introduction

- 3. Review the Uninstall summary and then click [Uninstall]
- 4. You can manually remove the files that could not be removed by the uninstaller

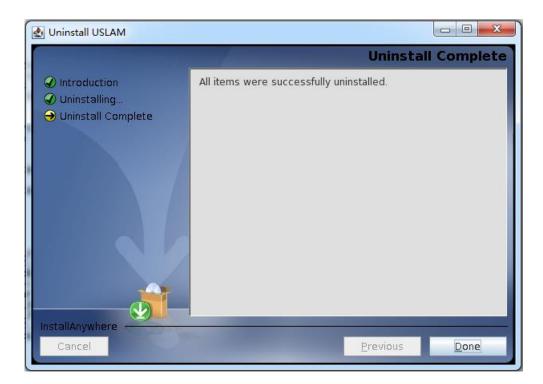


Figure 24: USLAM Services Uninstallation – Uninstallation Complete

5. Click [Done] to exit the un-installation wizard.

Chapter 4 Installing and Configuring USLAM ETL

This chapter is designed as a guide to install and configure the HPE Universal SLAM ETL software kit.

The software kit includes the following ETL components:

- USLAM ETL jobs, functions and datastores based on:
 - SAP Business Objects Information Platform Services (SBOP IPS) 4.1 SP3
 - SAP Business Objects Data Services (BODS) 4.2 SP2
- USLAM Datamart Scripts in charge of generating the schema for USLAM reporting solution. The installer extracts these scripts to the USLAM_datamart_scripts folder, and the scripts should be executed before running ETL Configuration Tool.

4.1 Installing USLAM ETL

4.1.1 Installation kit

The installation kit of USLAM ETL is: HPE_USLAM_ETL.bin

Make sure that all these statements are valid in your environment before starting the USLAM ETL installation

- the server Linux version is RHEL 6.5 or higher
- the server has a minimum of 4 processors (or 2 dual core processors) (with a minimum of 2GHz) and 8 GB of memory
- 19 GB of disk space are available
- the Security-Enhanced Linux (SELinux) is disabled (sestatus command returns disabled)
- X Window and OpenGL libraries are installed (glxinfo command returns some information)
- The following libraries are available on your system:



Library	Ver. ^(*)	How to check
Glibc	32bit	rpm -qwhatprovides "/lib/libc.so.6"
libstdc++.so.5	32bit	rpm -qwhatprovides "/usr/lib/libstdc++.so.5"
libstdc++.so.6	64bit	rpm -qwhatprovides "/usr/lib64/libstdc++.so.6"
libXext-devel.i686	32bit and 64bit	rpm -qwhatprovides libXext-devel
libXext-devel.x86_64	1.1-3 or higher	

(*) Package names end with 'i686' for 32bit libraries and 'x86_64' for 64bit libraries.

- If not installed, please install missing packages from the Red Hat installation CD or use a package-management utility such as Yum for Linux operating systems.
- There is a high speed network connection between the ETL server and the DB server

- hostname command returns the name of the host (and not localhost)
- hostname -f command returns the complete Fully Qualified Domain Name of the system (and not localhost)
- ping `hostname` command returns IP address
- ifconfig command output contains the IP address returned by ping `hostname`
- /bin/ksh must be present

It's recommended that you use the following user resource limits.

You can display these settings by running the ulimit -a command from your hpuslametl user.

User resource limit	Value
core file size (blocks)	unlimited
data seg size (kbytes)	unlimited
stack size (kbytes)	2048
open files	1024
core file size (blocks)	unlimited
max memory size (kbytes)	unlimited
max locked memory (kbytes)	64
max user processes	7168
cpu time (seconds)	unlimited

4.1.2 Creating Groups and Users

A specific local operating system group and user are required if you are installing HPE USLAM ETL:

- a HPE USLAM ETL group (for example: hpuslametl)
- a HPE USLAM ETL user (for example: hpuslametl)

To determine whether this group and user already exist, and if necessary, to create them, follow these steps:

- To determine whether the **hpuslametl** group exists, enter the following command:
 # grep hpuslametl /etc/group
- 2. If the output of this command shows the **hpuslametl** group name, then the group already exists.
- If necessary, enter the following commands to create the hpuslametl group: #/usr/sbin/groupadd hpuslametl
- 4. To determine whether the **hpuslametl** user exists and belongs to the correct group, enter the following command:

id hpuslametl

- 5. If the hpuslametl user exists, then this command displays information about the group to which the user belongs, for example:
 - uid=12842 (hpuslametl)
 - gid=12843 (hpuslametl)
 - groups=12843 (hpuslametl)
- 6. If necessary, complete one of the following actions:
 - If the **hpuslametl** user exists, but its primary group is not **hpuslametl** or it is not a member of the **hpuslametl** group, then enter the following command:

#/usr/sbin/usermod -g hpuslametl -G hpuslametl hpuslametl

• If the **hpuslametl** user does not exist, enter the following command to create it:

#/usr/sbin/useradd -g hpuslametl -G hpuslametl hpuslametl

This command creates the **hpuslametl** user and specifies **hpuslametl** as the primary group.

7. Enter the following command to set the password of the **hpuslametl** user (**hpuslametl** user should have read/write/execute permissions to run the ETL package):

passwd hpuslametl

Before the USLAM ETL installation, the hpuslametl user must define the value of NLS_LANG environment variable in its shell environment profile. The NLS_LANG environment variable must define the correct character set.

The format of the variable is

NLS_LANG=<language>_<country>.<characters_encoding>

Those three fields must match the 'NLS_LANGUAGE', 'NLS_TERRITORY', 'NLS_CHARACTERSET' values from your database server.



For example, on Oracle, to determine the currently configured character set, you can use the following request:

select * from nls_database_parameters where PARAMETER =
'NLS_LANGUAGE' OR PARAMETER = 'NLS_TERRITORY' OR
PARAMETER = 'NLS_CHARACTERSET';

Example: export NLS_LANG=AMERICAN_AMERICA.UTF8

The installation program requires the system to be configured with a UTF-8 locale. To set your system locale to UTF-8, set the LANG or LC_ALL environment variables.



For example: export LANG=en_US.utf8 export LC_ALL=en_US.utf8



the hpuslametl user must have read access to the Oracle home directory

4.1.3 Installation Wizard

Make sure that you have an X-server running before performing this procedure. To start the installation, perform the following steps:

- 1. Log as **hpuslametl**
- 2. Use the command ./HPE_USLAM_ETL.bin to start up the installation.

The Introduction dialog displays



Figure 25: USLAM ETL Installation - Introduction

4. The Choose Install Folder window displays. Enter the location for your HPE USLAM ETL installation

🛓 HPE Universal Service Level A	greement Manager BO ETL	
	Select Inst	allation Folder
Introduction	Select USLAM ETL Installation Folder	
Select Installation Folder	/home/hpuslametl/HPE_Universal_SLAM_BO_E	TL
O Pre-Installation Summary	<u>R</u> estore Default Folder	Ch <u>o</u> ose
Installing		
InstallAnywhere		
Cancel	Previous	Next
Cancer	Elenga	<u>IT</u> CAN

Figure 26: USLAM ETL Installation – Installation Folder

- Specify the location where USLAM ETL must be installed. The default location is <hpuslametl_home_directory>/HPE_Universal_SLAM_BO_ETL (Restriction: the location must not contain any multi-byte characters. You must specify the installation location with single-byte characters only).
- 6. Click [Next] to continue
- 7. Pre-Installation Summary screen displays.

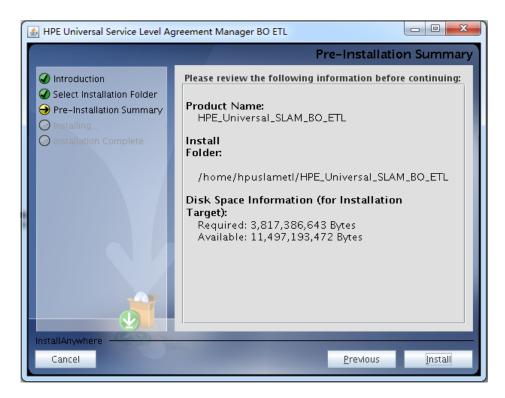


Figure 27: USLAM ETL Installation - Summary

8. Click [Install] to complete

USLAM ETL requires a specific DB instance to store its data. It is strongly recommended to use a DB instance different from the one used by USLAM Services Database.



Depending on the database server you are using, 'Oracle' or 'EnterpriseDB Postgres Plus Advanced Server', please read the following section or the next one

4.1.4 Configuration of USLAM ETL with Oracle Database

Make sure that all these statements are valid in your environment before starting the USLAM ETL configuration with Oracle Database



Oracle 11g client for Linux (64 bits) is installed (installation type must be 'Runtime' or 'Administrator' but not 'Instant Client') or Oracle 11g server for Linux (64 bits) is installed



The 2 following variables must also be defined for the hpuslametl user before the USLAM ETL installation:

export ORACLE_HOME=<64bOracleClientHome>
export LD LIBRARY PATH=\$LD LIBRARY PATH:\$ORACLE HOME/lib/

4.1.4.1 Define TNS Name Alias for USLAM ETL DB instance

First, you must define the Oracle TNS Name aliases for the database instance that will contain the 3 USLAM ETL schemas.

As oracle user,

```
# vi $ORACLE_HOME/network/admin/tnsnames.ora
```

The following is a sample output displayed this command:

```
SLAMDM = (DESCRIPTION = (ADDRESS = (PROTOCOL = TCP) (HOST =
myhost.mydomain.com) (PORT = 1521)) (CONNECT_DATA = (SID =
SLAMDM)))
```

Modify this file according to your hostname and SID (or Service Name) of the database instance that will contain the 3 schemas.

Once done, you can test the connection to the Oracle server listener with the following command (SLAMDM is the TNS entry name taken as example here):

\$ORACLE_HOME/bin/tnsping SLAMDM

In order to optimize the connectivity to the oracle server listener, you must define the oracle server hostname and IP address in the /etc/hosts system configuration file (this avoids DNS calls and points directly to the oracle listener server).

4.1.4.2 Create USLAM ETL internal database users

It is required to create two new database users for the USLAM **IPS** schema and the USLAM **BODS Repository** schema (small schemas used by ETL BODS to store internal data). User names taken <u>as example</u> in this document are: *IPS* and *BODS_REPOS*.

Please contact your Oracle database administrator to create the users, performing the following steps:

Log in to the oracle database server as sysdba

Create the **IPS** user:

SQL> create user IPS identified by IPS;

Grant privileges:

SQL> grant connect, resource to IPS;

Create the **BODS Repository** user:

SQL> create user BODS REPOS identified by BODS REPOS;

Grant privileges:

SQL> grant connect, resource, create view to BODS_REPOS;

4.1.4.3 Create Datamart database User

User name taken as example in this document is: SLA_DATAMART

Please contact your system Oracle DBA to create the user, performing the following steps:

- 1. Log in to the oracle database server as sysdba
- 2. Create the datamart schema:

SQL> create user SLA DATAMART identified by SLA DATAMART;

3. Grant privileges:

```
SQL> grant connect, resource to SLA_DATAMART;
```

SQL> grant unlimited tablespace to SLA_DATAMART;

4.1.4.4 Configuration Wizard

Make sure that you have an X-server running before performing this procedure. To start the configuration, perform the following steps:

- 1. Log as hpuslametl
- 2. Go to the directory <USLAM_ETL_Install_Dir>/bin
- 3. Use command ./ETL_Configuration_Tool.bin to start up configuration tool
- 4. The ETL Configuration tool screen displays

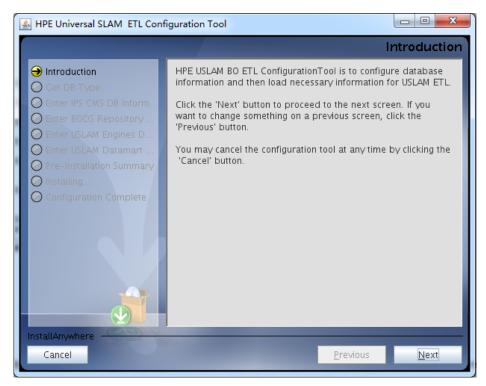


Figure 28: USLAM ETL Configuration Tool – Introduction

5. Click [Next] to continue, the installation will check the pre-requisites

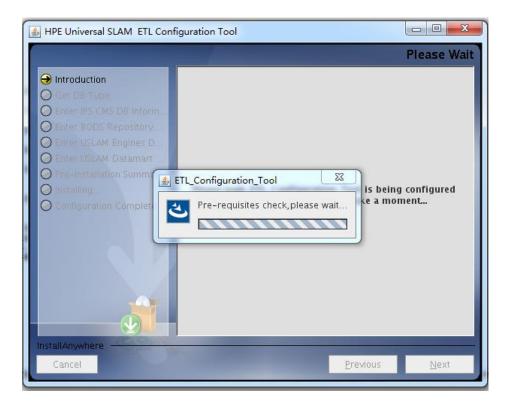


Figure 29: USLAM ETL Configuration Tool – Check pre-requisites

6. If pre-requisites check are OK, choose database type ,select Oracle

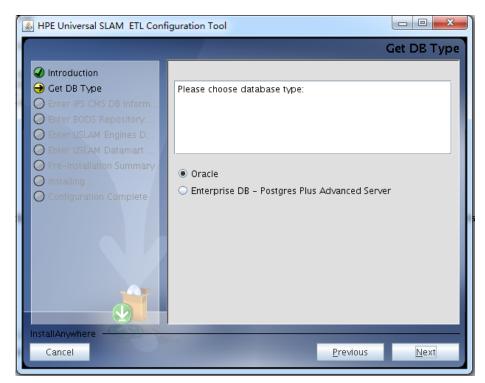


Figure 30: USLAM ETL Configuration Tool –Database Type

7. Click [next].

🛃 HPE Universal SLAM ETL Conf	figuration Tool	X
	Enter IPS CMS DB Informat	ion
 ✓ Introduction ✓ Get DB Type → Enter IPS CMS DB Inform 	Please enter Oracle database information for IPS CMS. TNS Name Alias (Specified in the \$ORACLE_HOME/network/admin/tnsnames.ora)	
Enter BODS Repository	USLAM	
Enter USLAM Engines D Enter USBAM Datamart	Username	
Pre-Installation Summary	IPS	
Installing Configuration Complete	Password	
	••••••	
InstallAnywhere		
Cancel	<u>P</u> revious <u>N</u> ext	

Figure 31: USLAM ETL Configuration Tool – IPS Database Information

- 8. Enter the connection information for the IPS Database
- 9. Click [next].

	Enter BODS Repository DB Information
 Introduction Get DB Type Enter IPS CMS DB Inform Enter BODS Repository Enter USLAM Engines D Enter USLAM Datamart Pre-Installation Summary Installing. Configuration Complete 	TNS Name Alias Uslam Database server name IMM.10.01 Database port 1521 SID Uslam Username BODS_REPOS Password
InstallAnywhere	

Figure 32: USLAM ETL Configuration Tool – BODS Repository Database

10. Enter the connection information for your BODS Repository Database. Many information are needed in order to configure correctly the underlying BODS server.(When entering the Database server name, put the full name of the server)

HPE Universal SLAM ETL Conf	iguration Tool
	Enter USLAM Engines DB Information
 Introduction Get DB Type Enter IPS CMS DB Inform Enter BODS Repository 	Please enter Oracle database Information for USLAM Engines. TNS Name Alias Specified in the \$ORACLE_HOME/network/admin/tnsnames.ora)
Enter USLAM Engines D	uslam
Enter USLAM Datamart Pre-Installation Summary	Username
O Installing	USLAM_SERVICE
O Configuration Complete	Password
	••••••
InstallAnywhere	
Cancel	Previous <u>N</u> ext

Figure 33: USLAM ETL Configuration Tool –USLAM Engine Database

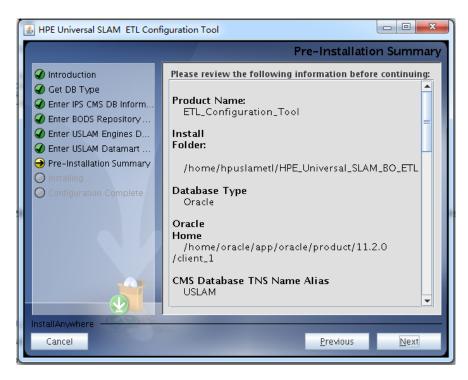
11. Enter the connection information for the USLAM Engines Database.

Note that the TNS alias must be configured (in tnsnames.ora) in order to access the USLAM Engines database.

HPE Universal SLAM ETL Con	figuration Tool
	Enter USLAM Datamart DB Information
 Introduction Get DB Type Enter IPS CMS DB Inform Enter BODS Repository 	Please enter Oracle database information for USLAM Datamart. TNS Name Alias (Specified in the \$ORACLE_HOME/network/admin/tnsnames.ora)
@ Enter USLAM Engines D	uslam
Enter USLAM Datamart Ore-Installation Summary	Username
	SLA_DATAMART
O Configuration Complete	Password
	•••••••
InstallAnywhere	
Cancel	Previous <u>N</u> ext

Figure 34: USLAM ETL Configuration Tool –USLAM Datamart Database

- 12. Enter the connection information for your USLAM Datamart Database
- 13. Click [Next] to proceed. The 'Summary' window is then displayed



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Figure 35: USLAM ETL Configuration Tool –Summary

- 14. Click [Install] to start the configuration.
- 15. (Depending on your system, this configuration processing can take up to 50 minutes)

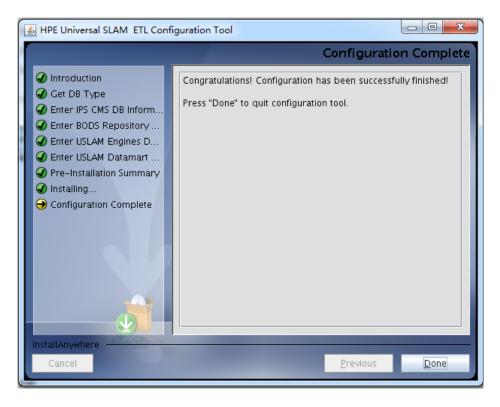


Figure 36: USLAM ETL Configuration Tool –Installation Complete

16. Click [Done] to exit the Installer.



4.1.4.5 Executing Datamart Scripts

You must now build the Datamart schema.

The following operations assume that you have Oracle installed with the partitioning feature enabled (which is the default for the Oracle Enterprise Edition). If it is not the case, please look at the information at the end of this section.

Please perform the following steps:

1. cd <USLAM_ETL_InstallDir>/USLAM_datamart_scripts

2. Log in to the sqlplus tool using the Datamart username and password:

sqlplus <Datamart user name>/<Datamart password>@<Datamart Tns String>

3. In sqlplus, run the following script in order to build the USLAM Datamart schema

```
SQLPLUS> @uslam_datamart_oracle.sql
SQLPLUS> exit
```

Your datamart schema is now created, and is ready to be populated by the ETL.

In case you do not have the partitioning feature with your Oracle installation, please perform the following steps:

1. cd <USLAM ETL InstallDir>/USLAM datamart scripts/.DDLwithoutPartitioning/



2. Log in to the *sqlplus* tool using the Datamart username and password:

sqlplus <Datamart user name>/<Datamart password>@<Datamart Tns String>

3. In *sqlplus*, run the following script in order to create the USLAM Datamart schema

SQLPLUS> @uslam_datamart.sql

SQLPLUS> exit

4.1.5 Configuration of USLAM ETL with Postgres Plus Advanced Server Database

The following section aims at presenting the configuration of USLAM ETL based on Enterprise DB Postgres Plus Advanced Server database.



USLAM ETL will require many connections to EDB PPAS DB. So, you must modify the PPAS configuration file *postgresql.conf* (in '*data*' folder of PPAS): there's a *max_connection* parameter, set it to 1000, then restart PPAS DB.

4.1.5.1 Create Datamart database User

(The user name taken <u>as example</u> in this document is: SLA_DATAMART)

Please contact your system DBA to create the user, performing the following steps:

- 1. Log in to the Enterprise DB Postgres Plus Advanced Server database server as dba
- 2. Create the datamart schema:

```
SQL> create user SLA DATAMART identified by SLA DATAMART;
```

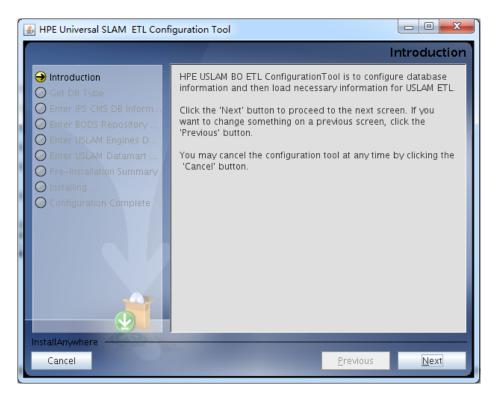
3. Grant privileges:

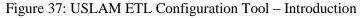
```
SQL> grant connect, resource to SLA_DATAMART;
SQL> grant unlimited tablespace to SLA_DATAMART;
```

4.1.5.2 Configuration Wizard

Make sure that you have an X-server running before performing this procedure. To start the configuration, perform the following steps:

- 1. Log as hpuslametl
- 2. Go to the directory <USLAM_ETL_Install_Dir>/bin
- 3. Use the command ./ETL_Configuration_Tool.bin to start up configuration tool
- 4. ETL Configuration Tool screen displays





5. Click [Next] to continue, the installation will check pre-requisites

HPE Universal SLAM ETL Configuration Tool	
	Please Wait
 Pre-Installation Summer Configuration_Tool Configuration Complete Pre-Installation Summer Pre	is being configured (e a moment
	vious <u>N</u> ext

Figure 38: USLAM ETL Configuration Tool - Check pre-requisites

6. If pre-requisites check are OK, choose database type ,select Enterprise DB - Postgres Plus Advanced Server Database

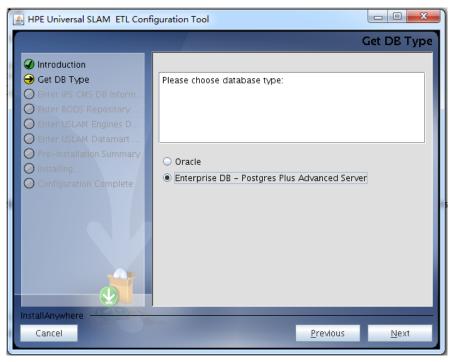


Figure 39: USLAM ETL Configuration Tool - Database type

7. Click [next] to enter the information for the creation of SQLAnywhere IPS Database

🛓 HPE Universal SLAM ETL Configuration Tool 📃 🗖 💌		
	Enter IPS CMS DB Information	
 ✓ Introduction ✓ Get DB Type → Enter IPS CMS DB Inform ✓ Enter BODS Repository 	A SQL Anywhere IPS internal database will be automatically created. Please choose a port on which the database will run (or keep the default one), and choose the database administrator password.	
Enter USLAM Engines D	Database Port	
 Enter USLAM Datamart Pre-Installation Summary 	2638	
Installing	"dba" Account Password:	
O Configuration Complete	•••••	
InstallAnywhere Cancel	<u>P</u> revious <u>N</u> ext	

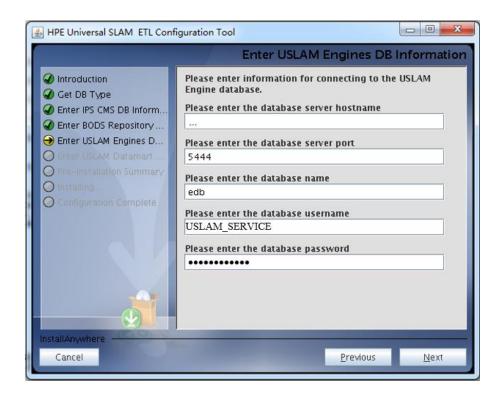
Figure 40: USLAM ETL Configuration Tool – IPS Database Information

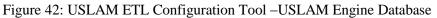
8. Click [next] to enter the information for creation of SQLAnywhere BODS Repository Database. It's using the same port than the IPS database

🛃 HPE Universal SLAM ETL (onfiguration Tool
	Enter BODS Repository DB Information
 Introduction Get DB Type Enter IPS CMS DB Inform 	A SQL Anywhere BODS Repository internal database will be automatically created. Please choose the name of the BODS Repository database, its username and its password.
 Enter BODS Repository . Enter USLAM Engines D. 	Database name
Enter USLAM Datamart .	bads rapp
O Pre-Installation Summar	/ Username
 Installing Configuration Complete 	bods_repo
	Password
	······
InstallAnywhere	Previous Next
Cancer	<u>Frewoods</u>

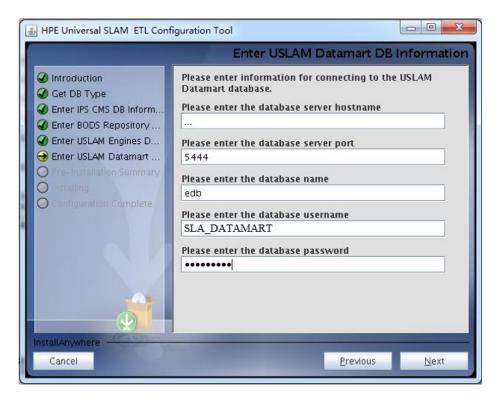
Figure 41: USLAM ETL Configuration Tool – BODS Repository Database

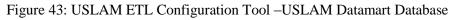
9. Click [next] to enter the connection information for the USLAM Engines Database.





10. Click [Next] to enter the connection information for your USLAM Datamart Database





11. Click [Next] to proceed. The 'Summary' window is then displayed

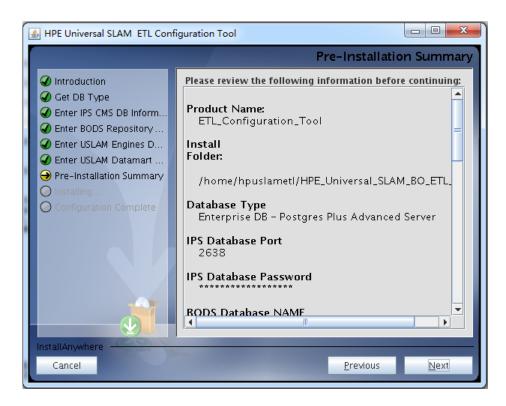


Figure 44: USLAM ETL Configuration Tool –Summary

12. Click [Install] to start the configuration.

(Depending on your system, this configuration processing can take up to 50 minutes)

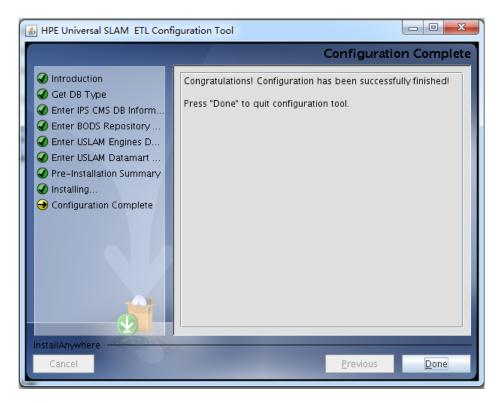


Figure 45: USLAM ETL Configuration Tool –Installation Complete

13. Click [Done] to exit the Installer.



The installation log file is <USLAM_ETL_INSTALL_DIR>/HPE_Universal_SLAM_BO_ETL_InstallLog.log and the configuration log file is <USLAM_ETL_INSTALL_DIR>/bin/ETLConfigurationTool.log

4.1.5.3 Database preparation

In order to make the USLAM ETL BODS server working with EDB Postgres Plus Advanced Server, you must perform a database superuser operation.

- 1. Go to <USLAM_ETL_Install_Dir>/USLAM_datamart_scripts/ directory
- 2. Log in to the Enterprise DB Postgres Plus Advanced Server database server as superuser
- 3. Run the following script:

```
SQL> @SetVersion.sql
SQL> exit
```

4.1.5.4 Executing Datamart Scripts

You must now build the Datamart schema.

Please perform the following steps:

\$ cd <USLAM_ETL_InstallDir>/USLAM_datamart_scripts

Log in to the *edbplus* tool using the Datamart username and password:

```
$ edbplus.sh <Datamart user name>/<Datamart password>@<Datamart
database name>
```

In edbplus, run the following script in order to build the USLAM Datamart schema

```
SQL> @uslam_datamart_edb.sql
SQL> exit
```

Your datamart schema is now created, and is ready to be populated by the ETL.

4.2 Executing ETL Jobs

4.2.1 Starting USLAM ETL servers

As hpuslametl user,

```
$ cd <USLAM ETL Install Dir>/bin/
```

```
$ ./uslam_etl_start.sh
```

4.2.2 Executing ETL jobs

Before any other ETL execution, it is mandatory to execute the two following ETL jobs:



- JB_Lkp_Reps_Dictionary
- JB_Dim_Time

They must be executed only once, just after installation (there is no need to execute them later)

In order to execute these two jobs, you need to:

1. Log to the BODS Management console

Open your web browser and enter the following URL to access the **Business Objects Data Services Administrator Console**.

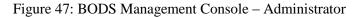
http:// <serv logon.do</serv 	er_address>:8	180/DataService	s/launch/
Lo	g On to the Data Services	Management Console	
	ter your user information and clic you are unsure of your account	ik Log On. information, contact your system adr	ninistrator.)
	User Name:	ETL_SRV Administrator Enterprise	
		Log On	

Figure 46: BODS Management Console Login

Enter the User name and Password (by default these are: *Administrator/IPSadmin*) and Log On

2. Click on the Administrator Icon





3. Click on Status <name of your BODS repos server>

• Then, click on the Batch Job Configuration tab.

DATA SERVICES	MANAGEMENT CONS	OLE		SAP Business
Administrator			Home About Rela	ase Notes Logout
	Batch			
Administrator	Repository: BO	OS41 REPOSITORY		
📸 Status		_		
Batch	Batch Job Status	Batch Job Configuration Repo	sitory Schedules	
Web Services				
SAP Connections	Project All Proje	cts 👻		
Server Groups	Batch Jobs			
Management	Project	Job	Action	Other information
10	USLAM_ETL_V4	JB_Ci_Versioning_Prepare	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM ETL V4	JB Dim Bif	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM ETL V4	JB Dim Calendar	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB Dim Collector	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM ETL V4	JB Dim Event Records	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB Dim Holiday	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM ETL V4	JB Dim Party	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Dim_Reference_Period	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM ETL V4	JB Dim Service	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM ETL V4	JB Dim Service Definition	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB Dim Service Offering	Execute, Add Schedule, Export Execution Command Execute, Add Schedule, Export Execution Command	Schedules
		JB Dim Sla Clause	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4			Schedules
	USLAM_ETL_V4 USLAM_ETL_V4	JB_Dim_Sla_Item JB Dim Sli Instance	Execute, Add Schedule, Export Execution Command Execute, Add Schedule, Export Execution Command	Schedules
		JB_Dim_Sil_instance JB_Dim_Ticket	Execute, Add Schedule, Export Execution Command Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4			
	USLAM_ETL_V4	JB_Dim_Time	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Bif	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Bif_Parameter	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Event_Prepare	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Event_Records	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Perf_Metric_Event	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Sla_Clause_Status	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Sla_Clause_Status_Adj_Hist	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Sla_Item_Status	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Sla_Sli_Event	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Sla_Status	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Snap_and_Adjustments	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_TICKET_NoImpact_Event	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Fct_Ticket_Event	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Lkp_Reps_Dictionary	Execute, Add Schedule, Export Execution Command	Schedules
	USLAM_ETL_V4	JB_Load_Configuration_Tables	Execute, Add Schedule, Export Execution Command	Schedules

Figure 48: BODS Management Console – Batch Job Execution

- 4. Then, for the job *JB_Lkp_Reps_Dictionary*, click on "Execute", and then click on the "Execute" button at the bottom of the page.
- 5. Do the same for the job *JB_Dim_Time*

You can monitor the status of these two jobs looking at the tab "*Batch Job Status*".

Once these two job executions are completed, USLAM ETL can be fully executed.

- a) Login to the server with user hpuslametl
- b) # cd <USLAM ETL Installation Folder>
- c) # cd bin
- d) #./HPE_USLAM_ETL_Jobs.sh

This ETL execution will populate the USLAM Datamart by loading and processing the current USLAM engine DB data.

6. You can monitor the execution status of the jobs using the BODS console

4.2.3 How to schedule ETL

In a production environment, the ETL must be run regularly in order to update the Datamart with the model/instance updates from USLAM Repository and calculation updates from USLAM engine.

So, we recommend scheduling USLAM ETL using Unix CRON utility:

- 1. Log in as hpuslametl user
- 2. Edit the crontab file: crontab –e

Add an new entry for the batch file HPE_USLAM_ETL_Jobs.sh 0 0,3,6,9,12,15,18,21 * * * cd /home/hpuslametl/bin/;./HPE_USLAM_ETL_Jobs.sh

In this example ETL jobs will be run each 3 hours starting at 00:00 AM

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4.3 Uninstall USLAM ETL

Perform the following steps in order to uninstall the USLAM ETL kit:

- 1. Disable any crontab entry (if exists) concerning executions of jobs
- 2. Stop all IPS/BODS servers: As *hpuslametl* user,

\$ cd <USLAM_ETL_Install_Dir>/bin/

- \$./uslam_etl_stop.sh
- 3. Run < USLAM ETL InstallDir>/Uninstall/Uninstall
- 4. The uninstall information displays

📓 Uninstall HPE_Universal_SLAM_BO_ETL	
Uninstall HPE Universal SLA Manager BO ETL	
Introduction	You are about to uninstall HPE Universal SLA Manager BO ETL.
Uninstalling Uninstall Complete	This will remove all the features installed by the HPE Universal SLA Manager BO ETL installer. This will not remove files and folders created after the installation.
InstallAnywhereCancel	<u>Previous</u>

Figure 49: USLAM ETL Uninstallation – Introduction

- 5. Click [Uninstall] to start the uninstallation
- 6. The uninstallation process begins

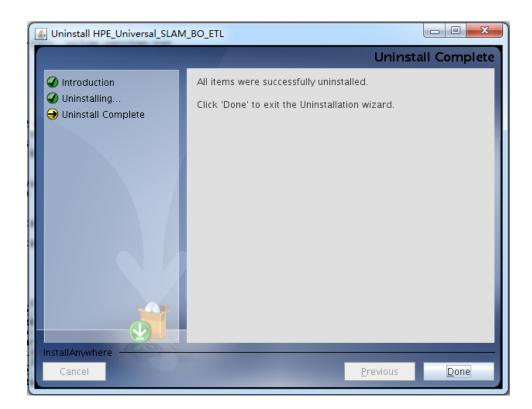


Figure 50: USLAM ETL Uninstallation - Uninstallation Complete

- 7. Click [Done] when the un-installation process is complete.
- 8. If a warning message says that some files are not removed, please remove them manually.
- 9. For example:

```
$ cd <USLAM_ETL_InstallDir>
$ rm -rf dataservices
$ rm -rf sap_bobj
```



For details about BO Data Services un-installation, please refer to Data Services Installation Guide for UNIX.

Chapter 5 Installing and Configuring USLAM Reporting

This chapter is designed as a guide to install and configure the HPE Universal SLAM Reporting solution.

5.1 Software kits

There are 3 kits related to USLAM Reporting.

- HPE USLAM Reporting Software: The SAP Business Object BI platform solution
- HPE USLAM Universe and Standard Reports The USLAM Universe and USLAM standard reports, standard reporting dashboards relying on SAP Business Object BI platform
- HPE USLAM Report Publisher An optional tool for the automation of report publications

5.1.1 USLAM reporting software

The installation kit of USLAM Reporting Software is provided as .tar file:

HPE_USLAM_ BOE.tar

It relies on the **SAP BusinessObjects Business Intelligence platform 4.1** platform that includes:

- BO Enterprise Client components:
 - Translation Management Tool
 - Universe Designer Tool
 - Web Intelligence Rich Client.

• BO Enterprise Server component:

- Central Management Server
- Event Server
- Input File Repository Server
- Output File Repository Server
- Report Application Server
- Job Servers
- Web Component Adapter
- Web Intelligence Report Server
- Data Access pack for Oracle
- Embedded tomcat.



In case you already have SAP BusinessObjects Business Intelligence platform 4.1 SP6 installed, you do not need to install this kit.

5.1.2 USLAM Universe and standard reports

The kit contains the **USLAM Universe** and the **USLAM standard reports**. They are imported and configured by USLAM Report Configuration Tool. See 5.2.4 Configuring reporting environment

5.1.3 USLAM Report Publisher

The installation kit of the USLAM Report Publisher is provided as an .exe file: **HPE_USLAM_Report_Publisher.exe**.

This is an optional tool for the USLAM reporting solution that could allow you to automate the publication of a report at the end of each SLA reference period.

5.2 USLAM reporting installation



The variable NLS_LANG must be defined on the Windows Server running SAP Business Object BI platform. This will allow to have the reports displaying the language specific characters correctly.

Once the system variable is defined, the Apache Tomcat server and the BOE Server Intelligence Agent must be restarted (using the SAP Business Object BI platform Central Configuration Manager).

Example: NLS_LANG=AMERICAN_AMERICA.UTF8

USLAM supports Oracle database and Enterprise DB Postgres Plus Advanced Server database.

So, depending on the database server you are relying on, here are the different possibilities of deployment for the USLAM Reporting solution.

In the following,

- USLAM Datamart DB designates the USLAM database that stores the SLA historical data (this database was created during the USLAM ETL installation step)

- BOE CMS DB stands for

Business Objects Enterprise Central Management Server Database This a small database dedicated to BOE internal processing.

This database can be installed automatically during the BOE installation or you can prepare your own one before the installation, and the installer will set it up.

	Oracle	EDB PPAS
USLAM Datamart DB	Oracle DB	EDB PPAS DB
BOE CMS DB	SQL Anywhere embedded DB	SQL Anywhere embedded DB
	or Oracle DB	

5.2.1 Preparation for an installation relying on Oracle

Oracle client

You must install on your windows server, as *Administrator*, the 64 bits version of Oracle client 11g Release 2 (11.2.0.4) or Oracle 12c

TNS Name alias for USLAM Datamart Oracle database

You must define the Oracle Client TNS name alias of USLAM Datamart database.

Edit the Oracle client *tnsnames.ora* configuration file:

C:> notepad %ORACLE_HOME%/network/admin/tnsnames.ora

For example.

```
SLAMDM = (DESCRIPTION = (ADDRESS = (PROTOCOL = TCP) (HOST = myhost.mydomain.com)(PORT
= 1521)) (CONNECT_DATA = (SID = SLAMDM)))
```

Modify it according to your hostname and service name for Datamart database.

Creating CMS Database User (optional)

If you do not want have a MySQL CMS database automatically installed by the SAP Business Object BI platform installer, you can prepare an Oracle CMS DB.



In case you already installed SAP Business Object BI platform, you already have a CMS schema created, and thus you can skip this step.

Please note the CMS information; it will be used later during the configuration steps.

Please contact your Oracle database administrator in order to create the CMS schema:

- 1. Log in to the oracle database server as sysdba
- 2. Create the CMS user:

SQL> create user <CMS username> identified by <CMS password>;

3. Then, grant proper privileges:

SQL> grant connect, resource to <USLAM CMS username>;

5.2.2 Preparation for an installation relying on EBD PPAS

EDB ODBC driver

You must install, as Administrator, on your windows server, the 9.3 EDB ODBC driver 32 bits.

ODBC DSN entry for USLAM Datamart PPAS database

You must configure a ODBC DSN entry for the USLAM Datamart database.

This can be done through the 'setup datasources ODBC' tool (32 bits version).

For example:

C:\Windows\SysWOW64\odbcad32.exe

Then, select the System DSN tab and 'Add' a Data Source for EnterpriseDB9.3 driver, that you can then configure:

EnterpriseDB O	DBC Driver			×
Data Source	EnterpriseDB	Description		
Database	edb	SSL Mode	disable	7
Server	i lugt n	Port	5444	
User Name	sla_datamart	Password	•••••	
C Options				Test
Datasource	Global	Manage DSN	Save	Cancel

Figure 51: Add a datasource for EnterpriseDB ODBC Driver

CMS Database

There is nothing to prepare for the CMS database because the installer will automatically install and setup a SQLAnywhere CMS database.

5.2.3 Installation of USLAM Reporting software with SAP BI platform.



In case you already have to SAP BusinessObjects Business Intelligence platform 4.1 SP6 installed, You can go directly to the next section to install the kit without SAP BI platform.

The installation wizard will install to SAP BusinessObjects Business Intelligence platform **4.1 SP6** platform.

5.2.3.1 Prerequisites



Make sure that all these statements are valid in your environment before starting this installation:

1. User privileges:

The OS user installing the software needs to have complete LOCAL ADMINISTRATIVE rights.

As a part of administrator's group the user must also have the following security settings enabled:

- a. Act as a part of the Operating System.
- b. Allow log on locally.
- c. Logon as a service

It has been observed that setting the above incorrectly causes issues with certain server executions post-installation.

It is also necessary that the user installing the product must have full control over the following locations:

- a. Installation media.
- b. Installation location.
- c. "temp" locations

d. Any other directory levels that may be involved (custom Filestore location, etc.).

2. Data Execution Prevention (DEP):

Microsoft Windows has an in-built setting which is used to set rules on how the system executes certain programs, features, etc. While installing BusinessObjects, we usually set this option to allow minimum

- a. Start -> Right-click on My Computer -> Properties.
- b. Click on the "Advanced system settings" link.
- c. Select "Settings" under "Performance" category.
- d. Click on the Data Execution Prevention tab and select the first option: "Turn on DEP for essential Windows programs and services only".

3. User Account Control (UAC):

On Windows Server 2012 R2, follow the following steps (procedure might differ slightly depending on the system version):

- a. Click to open User Account Control Settings.
- b. To turn off UAC, move the slider to the "Never notify" position and then click OK.

If you are prompted for an administrator password or confirmation, type the password or provide confirmation.

You will need to restart your computer for UAC to be turned off.

4. Antivirus/Firewall:

Antivirus tools have been known to hamper with BO product installations. Writing or updating of certain files can be blocked by an AV tool. Certain subprocess within the installation also do not get executed as a result.

Using an Administrative user, temporarily DISABLE the Antivirus scanner/process.

If this is not possible due to security purposes, you can set the following in the list of exclusions from AV's list of files/directories to poke into.

- a. Installation media and its directory.
- b. Installation directory root.
- c. Temporary (TEMP) folders.

5.2.3.2 Installation Steps

Now, follow these steps in order to start the installation:

- 1. Untar the HPE USLAM Reporting software kit HPE_USLAM_ BOE.tar
- 2. Execute: Windows\Disk1\InstData\VM\HPE_USLAM_BOE.exe
- 3. The Introduction dialog displays

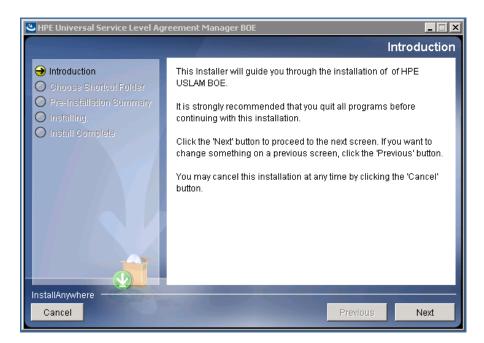


Figure 52: USLAM Reporting Installation - Introduction

4. Click [Next] to continue.

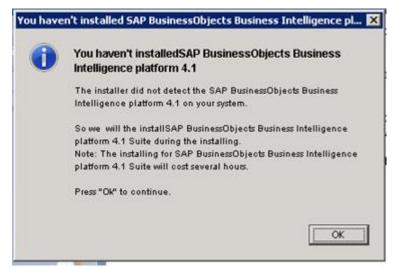


Figure 53: USLAM Reporting Installation - Warning

5. The "Choose Shortcut Folder" window displays. Select your desired settings and then click [Next] to proceed



Figure 54: USLAM Reporting Installation - Shortcut Folder

6. The Pre-Installation Summary window displays

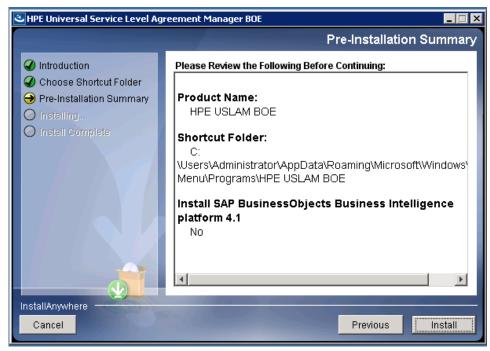


Figure 55: USLAM Reporting Installation – Pre-Installation Summary

- 7. Click [Install]. If the system didn't install SAP BusinessObjects BI Platform, installer will invoke SAP BusinessObjects Business Intelligence platform installation.
- 8. Select I accept the License Agreement and then click [Next]. The User Information dialog displays

Check Prerequisites			
5ummary of any missing critical or optional prerequisi	tes.		
Failed critical dependencies must be addressed befor	e the installa	tion can continue wh	ile failed
optional dependencies might result in some compone			nie ranea
Prerequisite	Туре	Status	-
Information platform services or SAP Crystal	Critical	Succeeded	
SAP Crystal Reports Server cannot be installed	Critical	Succeeded	
😲 Windows Installer Service	Critical	Succeeded	
Administrative rights	Critical	Succeeded	
BI platform server 4.x cannot already be inst	Critical	Succeeded	
Wicrosoft .NET Framework 3.5 or higher	Optional	Succeeded	
🗘 Suppressed reboot	Critical	Succeeded	
Windows version	Critical	Succeeded	
4-bit operating system	Critical	Succeeded	
If a prerequisite failed, please click on the failed item	for informati	ion on how to resolve	it.

Figure 56: SAP BusinessObjects BI platform - Prerequisites check for installation

9. If Prerequisites check is OK, click [Next] to continue installation

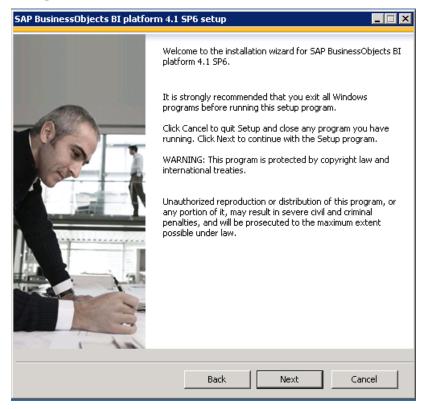


Figure 57: SAP BusinessObjects BI platform - Welcome

BusinessObjects BI platform 4.1 SP6 setup
icense Agreement
ou must agree to the licensing conditions to proceed.
SOFTWARE LICENSE AGREEMENT
IMPORTANT-READ CAREFULLY: THIS IS A LEGAL AGREEMENT BETWEEN YOU AND SAP FOR THE SAP SOFTWARE ACCOMPANYING THIS AGREEMENT, WHICH MAY NCLUDE COMPUTER SOFTWARE, ASSOCIATED MEDIA, PRINTED MATERIALS AND ONLINE OR ELECTRONIC DOCUMENTATION ("SOFTWARE"). BEFORE CONTINUING WITH THE NSTALLATION OF THE SOFTWARE, YOU MUST READ, ACKNOWLEDGE AND ACCEPT THE TERMS AND CONDITIONS OF THE SOFTWARE LICENSE AGREEMENT THAT FOLLOWS ("AGREEMENT"). IF YOU DO NOT ACCEPT THE TERMS AND CONDITIONS OF THE AGREEMENT, YOU MAY RETURN, WITHIN THIRTY (30) DAYS OF PURCHASE, THE SOFTWARE TO THE PLACE YOU OBTAINED IT FOR A FULL REFUND.
GRANT OF LICENSE. SAP grants you a nonexclusive and limited license to use the Software products and functionalities for which you have paid the applicable fees solely for your internal business purposes and in accordance with the terms and conditions of his Agreement. The Software is licensed, not sold, to you. If you acquired this product as a special offer, as a promotional license included with another SAP product, or bundled or a combination with a third next product additional restrictions and us set forth in the
I accept the License Agreement
I do not accept the License Agreement
Back Next Cancel

Figure 58: SAP BusinessObjects BI platform - License Agreement

10. Select I accept the License Agreement and then click [Next]. Product key will auto fill in default

SAP BusinessObjects BI platform 4.1 SP6 setup	
Configure Product Registration	
Enter the SAP BusinessObjects BI platform 4.1 product key.	
Product Key Information	
Product Key: DC00T-K4YNF3M-710WP04-GA200WC-7D	
,	
Back Next	Cancel

Figure 59: SAP BusinessObjects BI platform - Product key

11. Select Lanuguage

SAP BusinessObjects BI platform 4.1 SP6 setup	
Select Language Packages	
Select all additional Language Packages that the users will interact with in the product.	
Arabic	_
Czech	
Danish	
✓ English	
Finnish	
French	
German	
Hebrew	
🗌 Italian	
Japanese	
Korean	
	-
All Languages	
Back Next Ca	incel

Figure 60: SAP BusinessObjects BI platform - Select Lanuguage

12. The Install Type dialog displays once you complete the initial set up of the BusinessObjects Enterprise installation

When you install BusinessObjects BI platform, you can choose one of the following installation types. Consider which of these types best suit your intended deployment:

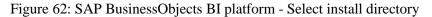
- **Full**: Installs all components on one machine. Select this installation type to quickly set up a complete deployment, with all server and client components on a single machine
- **Custom or Expand**: Installs the components that you select on the machine. Select this installation type to specify which components to install when performing a distributed deployment, or when adding servers to an existing deployment
- Web Tier: Installs only the used by a web application server to run web applications. Select this installation type to set up Java or .NET web application components when performing a distributed deployment.

SAP BusinessObjects BI platfo	rm 4.1 SP6 setup 📃 🔲 🗙
Select Install Type	
Select the type of installation.	
© Full	Install a complete SAP BusinessObjects BI platform system
C Custom / Expand	Choose the application features you want to install, or add servers to an existing SAP BusinessObjects BI platform system
C Web Tier	Install only the Web Tier features
	Back Next Cancel

Figure 61: SAP BusinessObjects BI platform - Select install type

- 13. Select the following settings in the "Install Type" dialog:
 - Select **Full** and install directory, then select:
 - **Configure and install a Sybase SQL Anywhere databae**, if you did not prepare a CMS database (in chapter 5.2.1)
 - **Configure an existing database**, if you already prepared a CMS database (in chapter 5.2.1)

SAP BusinessObjects BI platform 4.1 SP6 setup	
Configure Destination Folder	
Enter the full destination path where the product will be installed.	
Destination Folder Information C:\Program Files (x86)\SAP BusinessObjects\	Browse
Back Next	Cancel



SAP BusinessObjects BI platform 4.1 SP6 setup
Select Default or Existing Database
Select whether to configure and install Sybase SQL Anywhere or use an existing database to store data for the SAP BusinessObjects BI platform.
C Configure and install a Sybase SQL Anywhere database
Configure an existing database
Back Next Cancel

Figure 63: SAP BusinessObjects BI platform - Select install CMS database

14. Use this dialog to enter connection and authentication details for the CMS internal database.

The example shows connection information for Oracle database.

Select the following settings in this dialog:

- Select Oracle from the CMS database Type
- Select **No Auditing Database** from the **Auditing database Type**. If you do not want to specify an auditing database (this is an optional feature)

SAP BusinessObjects BI platform 4.1 SP6 setup	_ 🗆 🗙
Select Existing CMS Database Type	
Select the database type to use for the CMS repository.	
CMS Database Type	
C MysqL	
C IBM DB2	
Oracle	
C MaxDB	
C SAP Sybase Adaptive Server Enterprise	
C Microsoft SQL Server using ODBC	
C SAP Sybase SQL Anywhere using ODBC	
Park Unit	Cancel
Back Next	Cancel

Figure 64: SAP BusinessObjects BI platform - Select install CMS database type

SAP BusinessObjects BI platform 4.1 SP6 setup	<u> </u>
Select Existing Auditing Database Type	
Select the database to use for the Auditing database. Select "No auditing database" to configure auditing at a later time.	
Auditing Database Type	
C MySQL	
C IBM DB2	
C Oracle	
C MaxDB	
C SAP Sybase Adaptive Server Enterprise	
C Microsoft SQL Server using ODBC	
C SAP Sybase SQL Anywhere using ODBC	
No auditing database	
Back Next Cance	<u>ا</u>

Figure 65: SAP BusinessObjects BI platform - Select install auditing database type

15. Click [Next] to proceed. The "Select Web Application Server" dialog displays.

SAP BusinessObjects BI platform 4.1 SP6 setup
Select Java Web Application Server
Select a Java Web Application Server solution.
Install the default Tomcat Java Web Application Server and automatically deploy web applications
C Manually deploy web applications to a supported Java Web Application Server after the installation
C Install the Web Application Container Server and automatically deploy web applications
Back Next Cancel

Figure 66: SAP BusinessObjects BI platform - Select Java Web Application Server

- 16. Select "Install the default Java Web Application Server and automatically deploy web applications" This will automatically install and configure Tomcat
- 17. Click [Next] to proceed. Choose options as below dialog

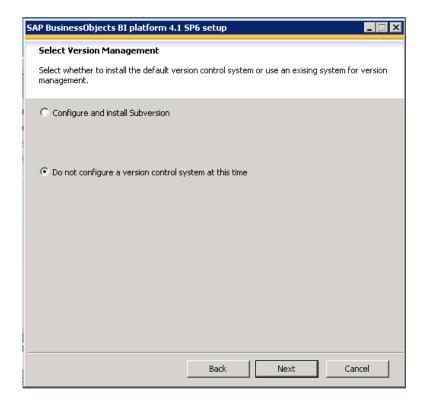


Figure 67: SAP BusinessObjects BI platform - Select Version Managemnet

18. Accept the default values or specify new port numbers for **Service Intelligence Agent (SIA) and CMS**

SAP BusinessObjects BI platform 4.1 SP6 se	tup 🗖 🗖 🗙
Configure Server Intelligence Agent (SIA)
Enter a name and port number for the SIA node	
SIA Information	
Node Name:	BO41TEST
SIA Port:	6410
F	ack Next Cancel

Figure 68: SAP BusinessObjects BI platform - SIA Information

Configure Central Management Server (CMS)	
Enter a port number for the CMS.	
CMS Information	
CMS Port: 6400	
Back Next Canc	el

Figure 69: SAP BusinessObjects BI platform – CMS Information

19. Input password of CMS and Cluster key

SAP BusinessObjects BI platform 4.1 SP6 s	etup 🗖 🗖
Configure CMS Account	
Enter the administrator account password and to connect multiple CMS servers together.	cluster key for the CM5. The cluster key is used
Administrator Account Information	
Password:	*****
Confirm Password:	*****
Cluster Key Information	
CMS Cluster Key:	****
Confirm Cluster Key:	****
	Back Next Cancel

Figure 70: SAP BusinessObjects BI platform - Input account password

20. Provide all the required information for the database in the fields provided in the CMS Database pane(note: 'Server:' field value must be set to the CMS database TNS alias from tnsnames.ora)

SAP BusinessObjects BI platform 4.1 SP6 se	etup 📃 🗷
Configure CMS Repository Database - O	acle
Enter information about the existing database	to use for the CMS repository
CMS Database Connection Information	
Oracle TNSNAME	
User Name	
Password	
Password	
	Reset existing database
	Back Next Cancel

Figure 71: SAP BusinessObjects BI platform - CMS database Information

21. Accept the default values or specify new port numbers for **Connection port**, **Shutdown port**, and **Redirect port**

SAP BusinessObjects BI platform 4.1 SP6 s	setup 💶 🗖 🗙
Configure Tomcat	
Enter the port information for Tomcat.	
Tomcat Information	
Connection Port:	8080
Shutdown Port:	8005
Redirect Port:	8443
	Back Next Cancel

SAP BusinessObjects BI platform 4.1 SP6 setup	
Configure HTTP Listening Port	
Enter the HTTP listening port for connecting to WACS and RESTful Web Services.	
Listening Port Information	
HTTP Listening Port: 6405	
Back Next Ca	ncel

Figure 72: SAP BusinessObjects BI platform – Tomcat Information

Figure 73: SAP BusinessObjects BI platform – Listening Port Information

22. Click [Next] to proceed. Choose options as below dialog

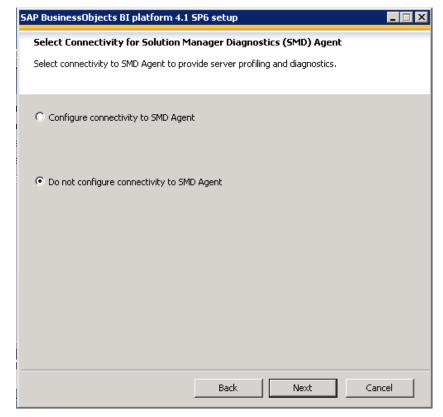


Figure 74: SAP BusinessObjects BI platform - SMD agent

SAP BusinessObjects BI platform 4.1 SP6 setup	
Select Connectivity to Introscope Enterprise Manager	
Select connectivity to Introscope Enterprise Manager to configure server profiling.	
C Configure connectivity to Introscope Enterprise Manager	
O not configure connectivity to Introscope Enterprise Manager	
Back Next Ca	incel

Figure 75: SAP BusinessObjects BI platform – Introscope Enterprise Manager

23. Click Next to start installation

SAP BusinessObjects BI platform 4.1 SP6 setup
Start Installation
The installation is ready to install SAP BusinessObjects BI platform 4.1 SP6. Click Back to make changes to your installation information. Click Next to begin the installation.
Back Next Cancel

Figure 76: SAP BusinessObjects BI platform - Start Installation

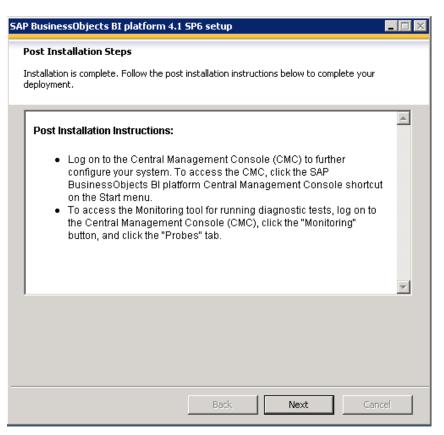


Figure 77: SAP BusinessObjects BI platform - Post Installation

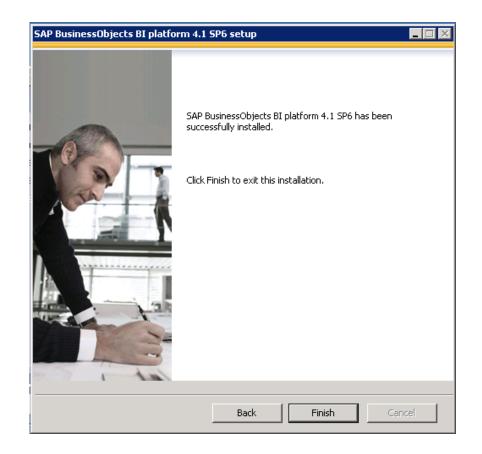


Figure 78: SAP BusinessObjects BI platform - Installation finish

24. After SAP BusinessObjects Business Intelligence platform installation finish, it will return USLAM BOE installation UI and install BO Report Configuration Tool

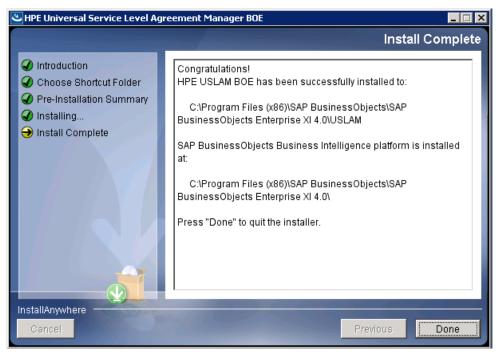


Figure 79: USLAM Reporting Installation – Installation finish

5.2.4 Installation of USLAM Reporting software without SAP BI platform.

The installation wizard will install USLAM Report Configuration Tool.

- 1. Execute the HPE USLAM Reporting software kit HPE_USLAM_BOE_WithoutBI-V4.3-MR.exe
- 2. The Introduction dialog displays

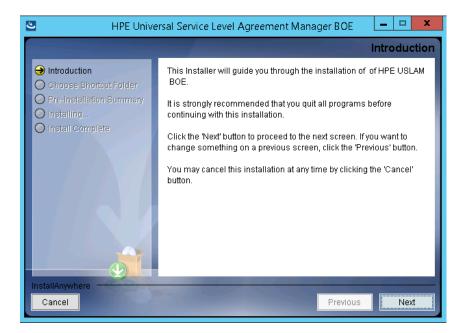


Figure 80: USLAM Reporting Installation - Introduction

3. Click [Next] to continue.

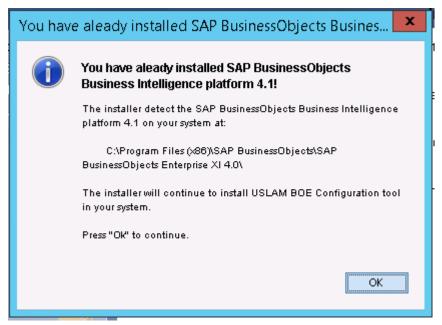


Figure 81: USLAM Reporting Installation - Information

4. The "Choose Shortcut Folder" window displays. Select your desired settings and then click [Next] to proceed

🐸 HPE Unive	ersal Service Level Agreement Manager BOE 🛛 💶 🗙
	Choose Shortcut Folder
Introduction	Where would you like to create product icons?
Choose Shortcut Folder	In a new Program Group: HPE USLAM BOE
 Pre-Installation Summary Installing 	○ In an existing Program Group: HPE USLAM BOE 🗸
O Install Complete	◯ In the Start Menu
	○ On the Desktop
	◯ In the Quick Launch Bar
	O Other: Choose
	O Don't create icons
	Create Icons for All Users
InstallAnywhere	
Cancel	Previous Next

Figure 82: USLAM Reporting Installation - Shortcut Folder

5. The Pre-Installation Summary window displays

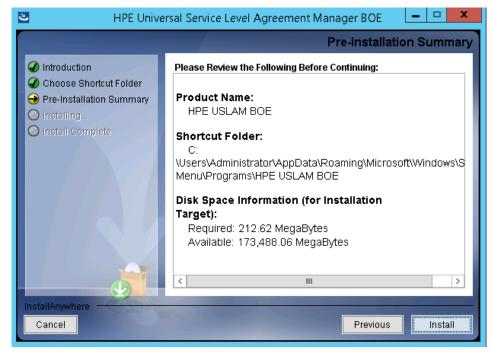


Figure 83: USLAM Reporting Installation – Pre-Installation Summary

6. Click [Install] to start installation.

5.2.5 Configuring reporting environment

The USLAM Reporting Configuration Tool will install USLAM universe and USLAM standard reports to SAP BusinessObjects BI platform and Configure the Universe Connection with USLAM Datamart database:

5.2.5.1 Configuring reporting with Oracle Database

- Launch the Import Wizard Tool using the Windows Menu Start → All Programs → HPE USLAM BOE → USLAM Report Configuration Tool
- 2. The 'Introduction' dialog displays

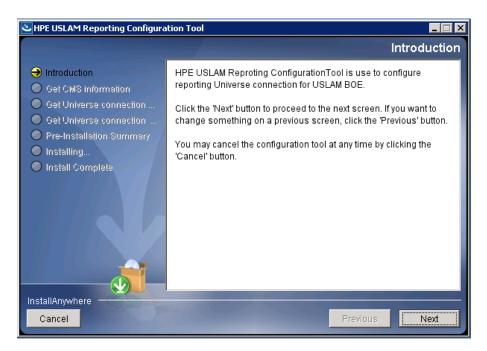


Figure 84: USLAM Reporting Configuration Tool - Introduction

- 3. Input information of CMS like <CMS HOST:CMS PORT>
- 4. Click [Next]. The configuration tool will check the information you entered, and display warning message if the check fails.

HPE USLAM Reporting Configura	ation Tool 📃 🖂 🗙
	Get CMS information
 ✓ Introduction → Get CMS information 	Please input administrator information for CMS. Click "Next" to test CMS connection
Get Universe connection Get Universe connection Pre-Installation Summary	CMS Hostname:
 Installing Install Complete 	CMS Port: 6400
	Username: administrator
	Password:
InstallAnywhere	
Cancel	Previous

Figure 85: USLAM Reporting Configuration Tool – CMS information

5. Choose the datamart database type

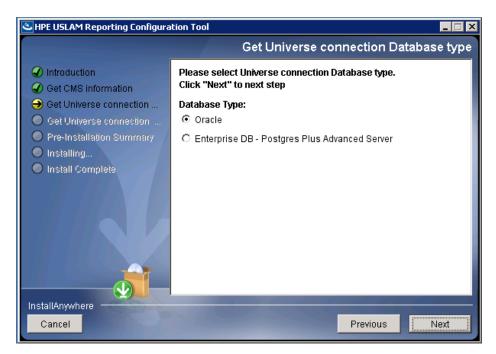
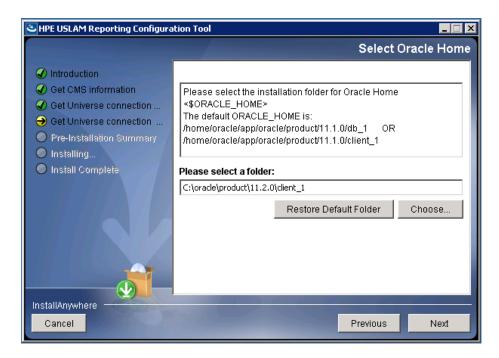
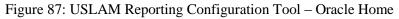


Figure 86: USLAM Reporting Configuration Tool – Database Type

6. Input information of Oracle Home if database type is Oracle.





- 7. Input USLAM datamart database information,
- 8. Click [Next]. The configuration tool will check the information you entered, and display warning message if the check fails.

🕙 HPE USLAM Reporting Configuration Tool	
	Get Universe connection information
 Introduction Get CMS information Get Universe connection Get Universe connection Pre-Installation Summary Installing Install Complete 	Please enter Oracle database information for USLAM Datamart. Click "Next" to test Database connection TNS Name: uslam Username: SLA_DATAMART Password: **********
Cancel	Previous Next

Figure 88: USLAM Reporting Configuration Tool – Datamart Database

9. The Pre-Installation Summary window displays



Figure 89: USLAM Reporting Configuration Tool – Pre-Installation Summary

10. Click [Install] to start the configuration.

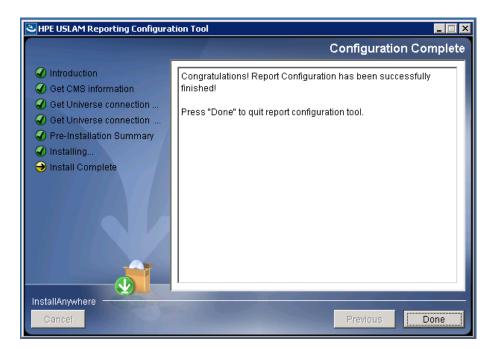


Figure 90: USLAM Reporting Configuration Tool –Installation finish

5.2.5.2 Configuring reporting with Enterprise DB Postgres Plus Advanced Server Database

- Launch the Import Wizard Tool using the Windows Menu Start → All Programs → HPE USLAM BOE → USLAM Report Configuration Tool
- 2. The 'Introduction' dialog displays

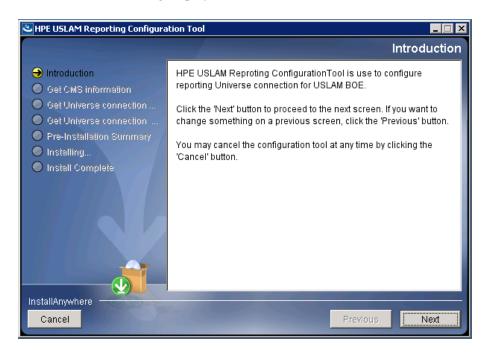


Figure 91: USLAM Reporting Configuration Tool - Introduction

- 3. Input information of CMS like <CMS HOST:CMS PORT>
- 4. Click [Next]. The configuration tool will check the information you entered, and display warning message if the check fails.

🕙 HPE USLAM Reporting Configura	ation Tool 📃 🗆 🗙
	Get CMS information
Introduction Get CMS information Get Universe connection	Please input administrator information for CMS. Click "Next" to test CMS connection CMS Hostname:
Get Universe connection Pre-Installation Summary	CMS Port:
 Installing Install Complete 	6400 Username:
	administrator Password:
InstallAnywhere Cancel	Previous Next

Figure 92: USLAM Reporting Configuration Tool – CMS information

5. Choose the datamart database type

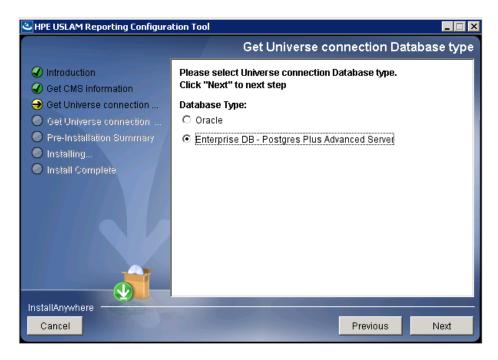


Figure 93: USLAM Reporting Configuration Tool – Database Type

- 6. Input USLAM datamart database information,
- 7. Click [Next]. The configuration tool will check the information you entered, and display warning message if the check fails.

SHPE USLAM Reporting Configuration Tool		
	Get Universe connection information	
 Introduction Get CMS information Get Universe connection Get Universe connection Pre-Installation Summary Installing Install Complete 	Please enter ODBC information for the USLAM Datamart database. Click "Next" to test Database connection ODBC Datasource Name: uslam_dm Username: SLA_DATAMART Password: *********	
Cancel	Previous	

Figure 94: USLAM Reporting Configuration Tool - Datamart Database

8. The Pre-Installation Summary window displays



Figure 95: USLAM Reporting Configuration Tool – Pre-Installation Summary

9. Click [Install] to start the configuration.

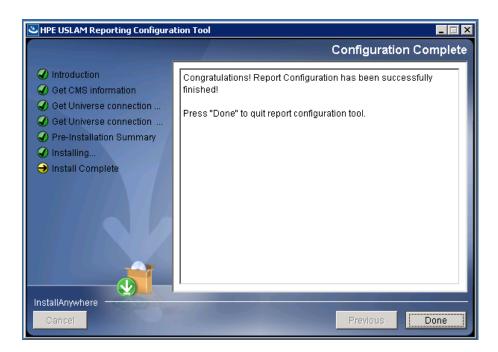


Figure 96: USLAM Reporting Configuration Tool –Installation finish

Your USLAM universe is now plugged to your USLAM Datamart, and USLAM reports are available from the **SAP BusinessObjects BI Platform Java BI Launch Pad** web page, please refer to the *HPE USLAM User Guide* in order to start using **USLAM Reporting.**

5.2.6 Installing USLAM Report Publisher

USLAM Report Publisher is an optional tool for the USLAM reporting solution that could allow you to automate the publication of a report at the end of each SLA reference period.

In order to start the installation, perform the following steps on the USLAM Reporting server:

- 1. Execute: HPE_USLAM_Report_Publisher.exe
- 2. The Installation wizard begins and the Introduction window displays



Figure 97: HPE USLAM Report Publisher - Introduction

3. Click [Next] to continue

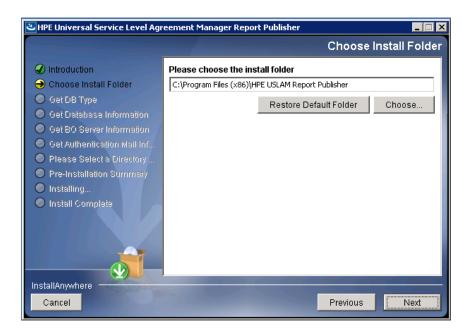


Figure 98: HPE USLAM Report Publisher - Install Folder

4. Select the installation folder and then click [Next] to continue

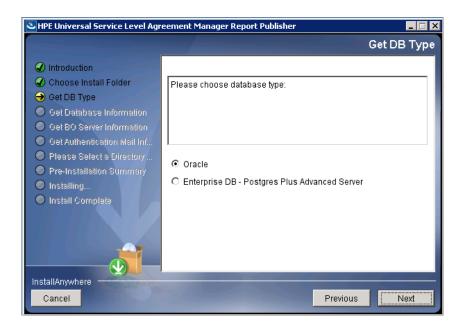


Figure 99: HPE USLAM Report Publisher – Install Folder

5. Select the database type and then click [Next] to continue

🕙 HPE Universal Service Level Agreement Manager Report Publisher 📃 🔲 🗙		
	Get Database Information	
 Introduction Choose Install Folder 	Please enter connection information to the USLAM Datamart DB	
🕢 Get DB Type	Oracle Host:	
→ Get Database Information		
Get BO Server Information	Oracle Port:	
Get Authentication Mail Inf	1521	
 Please Select a Directory Pre-Installation Summary 	Oracle SID:	
 Installing 	uslam	
Install Complete	User Name:	
	SLA_DATAMART	
	Password:	

InstallAnywhere		
Cancel	Previous Next	

Figure 100: HPE USLAM Report Publisher – Database Information

- 6. This screenshot shows connection information for Oracle database; you will have the same kind of information requested for Enterprise DB PPAS.
- 7. Enter the **USLAM Datamart** database information and then click [Next] to continue

HPE Universal Service Level Agr	eement Manager Report Publisher
	Get BO Server Information
 Introduction Choose Install Folder Get DB Type Get Database Information Get BO Server Information Get Authentication Mail Inf Please Select a Directory Pre-Installation Summary Installing Install Complete 	Please Input Business Object Server Information. BO Server Name: BO Port: 6400 BO Username: administrator BO Password: *********
Cancel	Previous

Figure 101: HPE USLAM Report Publisher - BO Server Information

8. Enter the BO server information. Click [Next] to continue

🛎 HPE Universal Service Level Agreement Manager Report Publisher 💶 🛛		
	Get Authentication Mail Information	
 Introduction Choose Install Folder Get DB Type Get Database Information Get BO Server Information Get Authentication Mail Inf Please Select a Directory Pre-Installation Summary Installing Install Complete 	Please Input Authentication Mail Information. System Admin Mail Address: Authentication Mail Password: Authentication Mail Server (SMTP):	
InstallAnywhere Cancel	Previous Next	

Figure 102: HPE USLAM Report Publisher - Authentication Mail Information

- 9. Enter the mail server information.
- 10. If the SMTP server you want to use does not require any authentication, please just put a fake "authentication mail address" and you will skip this step.
- 11. Click [Next] to continue

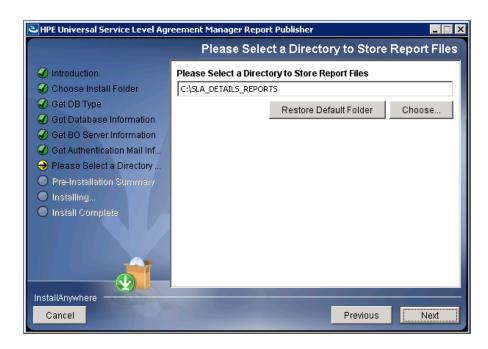


Figure 103: HPE USLAM Report Publisher - Report Files Directory

12. Choose a folder where the USLAM Report Publisher will generate the report files and then click [Next] to continue

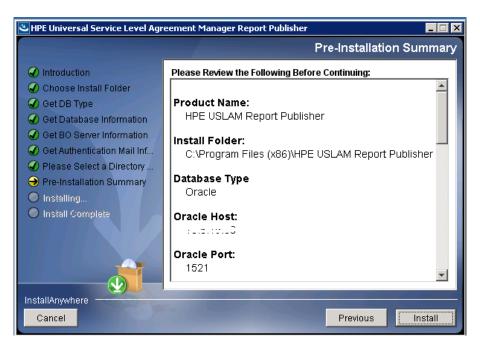


Figure 104: HPE USLAM Report Publisher - Pre-Installation Summary

13. Click [Install] to install the HPE USLAM Report Publisher.

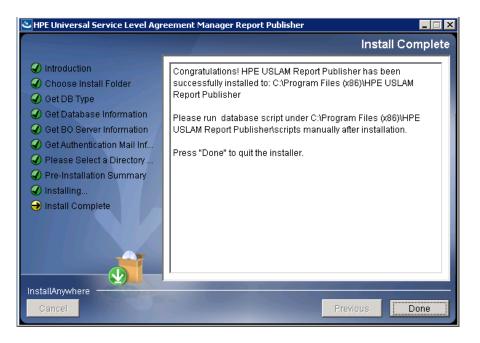


Figure 105: HPE USLAM Report Publisher - Installation Complete

14. Click [Done] to exit the setup.

Do not forget to run the script on USLAM Datamart database, by following these steps:

- 15. Go to <USLAM_Report_Publisher_InstallDir>\scripts
- 16. Connect on the datamart database:
- 17. Then, run the following script to create the tables and data required by the USLAM Report Publisher.

```
SQL> @BI_AutomaticReportPublisher_init.sql
SQL> exit
```

Concerning the configuration and the usage of the USLAM Reports Publisher, please refer to the *HPE USLAM Administration Guide*.

5.3 Uninstalling USLAM Reporting

5.3.1 Uninstalling USLAM Report Publisher

If you have installed the optional tool **USLAM Report Publisher** and you want to uninstall it, please follow the below steps:

1. Locate the folder where the USLAM Report Publisher is installed (the default directory is:

C:\Program Files (x86)\HPE_Universal_SLAM_Reporting\Uninstall)

2. Launch the Uninstall\Uninstall.exe application. The Introduction dialog displays as the setup wizard is initiated

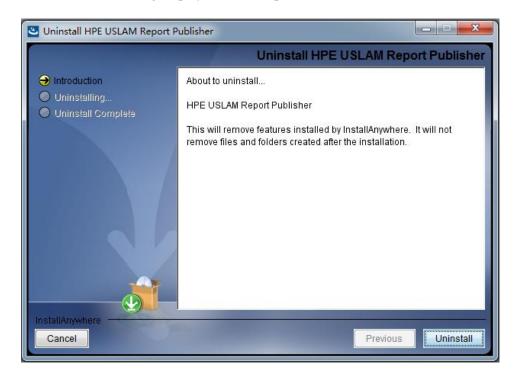


Figure 106: Uninstalling USLAM Report Publisher - Introduction

- 3. Click [Uninstall] to proceed
- 4. Once the uninstallation of the components is finished, the following message displays

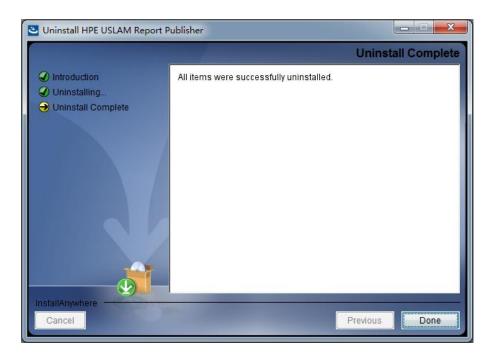


Figure 107: Uninstalling USLAM Report Publisher - Uninstall Complete

- 5. Some folders may be listed as not removed.
- 6. Click [Done] to exit the installer.



In some cases, the uninstallation of SAP Business Object BI platform server leaves some traces of the previous installation in the Windows registry that could prevent a succesful reinstallation of the software.

Please read the note at <u>http://solveissue.com/note?id=1691555</u> for detailed steps to complete the uninstallation.

5.3.2 Uninstalling USLAM Report Configuration Tool

- 1. Go to Start \rightarrow Settings \rightarrow Control Panel \rightarrow Add or Remove Programs
- 2. Select HPE USLAM BOE
- 3. Select [Uninstall]. Launch the Uninstall.exe application. The Introduction dialog displays as the setup wizard is initiated

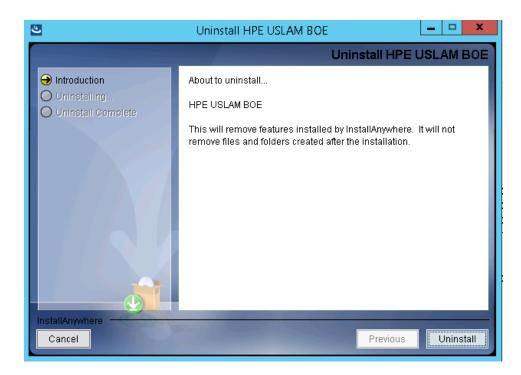


Figure 108: Uninstalling USLAM BOE - Introduction

- 4. Click [Uninstall] to proceed
- 5. Once the uninstallation of the components is finished, the following message displays

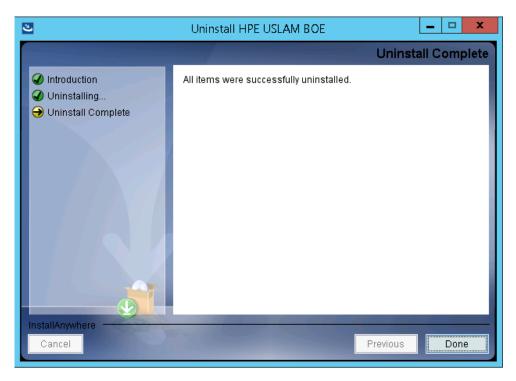


Figure 109: Uninstalling USLAM BOE - Uninstall Complete

6. Some folders may be listed as not removed.

5.3.3 Uninstalling USLAM Universe and Standard Reports

Because the USLAM Universe and USLAM standard reports have only been loaded to the SAP BusinessObjects BI platform 4.1 server, there is nothing specific in order to uninstall them.

If you want to uninstall the USLAM Reporting software please go to the next section.

5.3.4 Uninstalling USLAM Reporting software



For details about BO Enterprise un-installation, please refer to BusinessObjects BI platform 4.1 Installation Guide for Windows.

It is recommended that you back up reports, documents and system information before uninstalling **SAP BusinessObjects BI platform**. For more information on backing up your system see **Managing and Configuring Servers** in the SAP BusinessObjects BI platform *Administrator's Guide*.

To uninstall BusinessObjects Enterprise from your system, you will be required to perform the following steps:

- Go to Windows Menu Start → Programs → SAP Business Intelligence → SAP BusinessObjects BI platform 4 → Central Configuration Manager. The CCM console displays
- 2. Right-click to highlight all listed servers and select [Stop]. For more information on stopping servers see **Managing and Configuring Servers** in the *BusinessObjects Enterprise Administrator's Guide*
- 3. Go to Start \rightarrow Settings \rightarrow Control Panel \rightarrow Add or Remove Programs
- 4. Select SAP BusinessObjects BI platform 4.1 SP6
- 5. Click [Remove]. The Add or Remove Programs dialog prompts to confirm if you want to remove *BusinessObjects BI platform*
- 6. Click [Yes]. Please wait while the files are removed and your system is reconfigured. You will be prompted once the configuration process is complete
- 7. Click [Finish].



The installer removes only the files that it originally installed. Folders or files created after the installation, for example logs or report files, are not uninstalled by the un-installation process.

Chapter 6 Starting the USLAM Web User Interface

6.1 Logging in to the USLAM UI

The USLAM graphical user interface can be accessed using a web browser. You will need appropriate access credentials depending on your user role.

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

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

2. The Universal SLA Manager window displays.

ج) الله: ال	× ☆ ☆ ♡
	^
Universal SLA Manager 4.3	
admin	
Password	
r assinoi u	
Sign in	
Sign in as different user	
Hewlett Packard	
Enterprise	
	~

Figure 110: USLAM Web User interface Login

3. Enter your user access credentials in the relevant text fields and then click [Sign in] to log in to the USLAM UI. A built-in administrator user name is "admin" and its default password is "admin".

USLAM Web UI provides two user authentication modes **Built-in**, **LDAP** or **trust-login**. Please refer to chapter "*Configuring USLAM UI User Authentication*" from *HPE USLAM Administration Guide*.

Chapter 7 Installing and Configuring MyUSLAM Portal

MyUSLAM Portal is an optional package which offers a new end user community portal powered by Liferay Portal 6.1.1. 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.

7.1 Installing MyUSLAM Portal

7.1.1 Installation Kit

The installation kit for the MyUSLAM Portal is provided as *.bin* file on Linux systems or as *.exe* file on Windows systems:

HPE_USLAM_MyUSLAMPortal.bin for Linux only

HPE_USLAM_MyUSLAMPortal.exe for Windows only

7.1.2 Installation Wizard

To install the MyUSLAM Portal solution, you will be required to run the MyUSLAM Portal Installation Wizard and perform the following steps:

- 1. Log on to the Linux or Windows server with appropriate write access for the installation directory.
- 2. Locate and browse the USLAM installation kit and then run the installation wizard by running command line: ./HPE_USLAM_MyUSLAMPortal.bin on Linux or HPE_USLAM_MyUSLAMPortal.exe on Windows



On Linux, please make sure that the HPE_USLAM_MyUSLAMPortal.bin file has 'execute' permission and that a X-Window service is installed on the Linux system

- 3. The installer displays a progress indicator and deploys the installation files on your Linux or Windows system
- 4. Once the installation files are deployed, the installation wizard displays

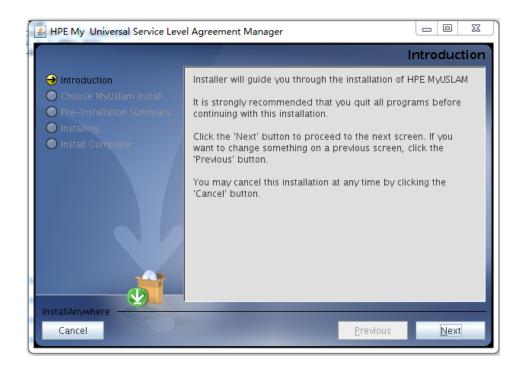


Figure 111: MyUSLAM Portal Installation - Introduction

- 5. Make sure you follow the instructions displayed on this window and then click [Next]
- 6. The License Agreement window displays



Figure 112: MyUSLAM Portal Installation - License Agreement

- 7. Select I accept the terms of the License Agreement and then click [Next].
- 8. The next screen asks you to choose an Installation Folder

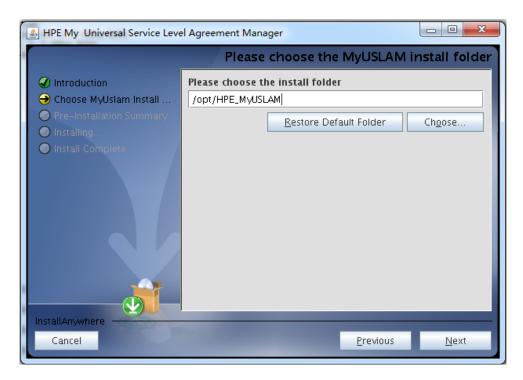


Figure 113: MyUSLAM Portal Installation - Choose Install Folder

- 9. Browse and select the location on your system where you would like to install MyUSLAM Portal. Click [Choose...] to browse or click [Restore Default Folder] to auto-enter the default installation path
- 10. Click [Next]. The Pre-Installation Summary window displays

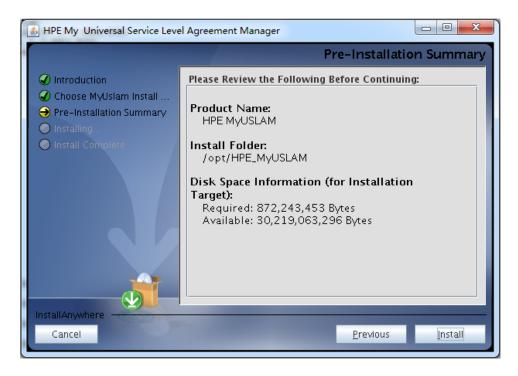


Figure 114: MyUSLAM Portal Installation – Pre-installation Summary

11. Review the summary information and then click [Install] to begin installation.

- HPE My Universal Service Level Agreement Manager
 Install Complete
 Introduction
 Choose MyUslam Install ...
 Pre-Installation Summary
 Installing...
 Install Complete
 Congratulations! HPE MyUSLAM has been successfully installed to: /opt/HPE_MyUSLAM
 Please create schemas manually, refer to "MyUslam installation guide" for detail.
 Press "Done" to quit the installer.
- 12. Once the installation is complete, the 'Install Complete' window appears



Previous

Done

13. Click [Done] to complete the installation and follow instructions in next chapters to configure MyUSLAM Portal



Cancel

The install log is located at <INSTALL_DIR>/MyUSLAM_install.log.

7.1.3 Creating MyUSLAM Portal Database User

Before the installation, you must create a new user (lportal) for MyUslam in Database

Please contact your system DBA to create the user performing the following steps:

- 1. Log in to the database server as dba
- 2. To create a user use the following command:

SQL> create user lportal identified by lportal;

3. To grant proper privileges:

```
SQL> grant create session,create procedure,create
sequence,create table,create trigger,create view to lportal;
SQL> grant unlimited tablespace to lportal;
```

7.1.4 Creating MyUSLAM Portal Database Schemas

You need to create database schema for MyUslam manually before performing any other configuration.

7.1.4.1 Oracle database

- You will require *sqlplus* to execute the scripts mentioned in the following steps.
- The database script is available in the following path
- o <MYUSLAM_INSTALL_DIR >/script/portal-minimal-oracle.sql
- To create the schema, it's required to perform the following steps:
 - 1. Log in to the Oracle with sqlplus tool using the myuslam username and password, by entering:

sqlplus <myuslam user name>/<myuslam password>@<myuslam database name>

2. To create the MyUSLAM schema, you have to execute the portal-minimaloracle.sql script.

@/<MYUSLAM_INSTALL_DIR>/script/portal-minimal-oracle.sql

7.1.4.2 EnterpriseDB Postgres Plus Advanced Server database

- You will require *edbplus* to execute the scripts mentioned in the following steps.
- The database script is available in the following path
 <MYUSLAM_INSTALL_DIR >/script/ portal-minimal-postgre.sql
- To create the schema, it's required to perform the following steps:
 - Log in to the EnterpriseDB with edbplus tool using the myuslam username and password, by entering: edbplus.sh <myuslam user name>/<myuslam password>@<myuslam database name>
 - 2. To create the MyUSLAM schema, you have to execute the portal-minimal-edb script.

@/<MYUSLAM_INSTALL_DIR>/script/portal-minimal-edb.sql

7.1.5 Configuring MyUSLAM Portal Database

To run MyUSLAM Portal Configuration tool, you need to create a schema for MyUSLAM Portal (as described in 7.1.4 Creating MyUSLAM Portal Database Schemas) and then run the tool, performing the following steps:

1. Log on to the Linux or Windows server with appropriate write access for the installation directory.

 Locate and browse <*INSTALL_DIR*>/bin and then run the configuration tool for MyUSLAM Portal by running the command line: ./myuslam_configuration.bin on Linux or myuslam_configuration.exe on Windows



On Linux, please make sure that the myuslam_configuration.bin file has 'execute' permission and that a X-Window service is installed on the Linux system

- 3. The installer displays a progress indicator and deploys the installation files on your Linux or Windows system
- 4. Once the installation files are deployed, the HPE MyUSLAM Portal Configuration Tool wizard displays.

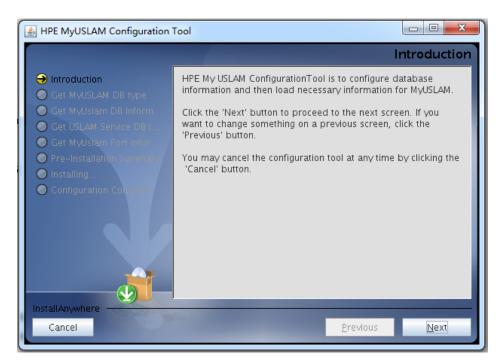


Figure 116: MyUSLAM Portal Configuration Tool - Introduction

5. Click [Next]. The Get Database type window displays

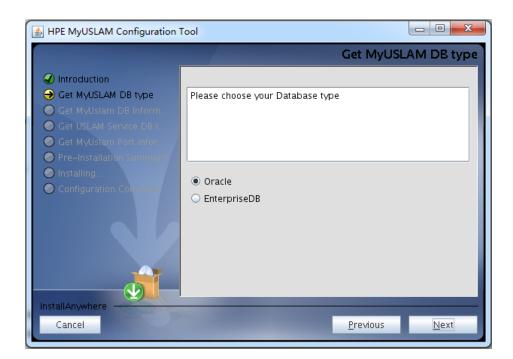


Figure 117: MyUSLAM Portal Configuration Tool – Database Information

6. Select database type, Click [Next]. The Get Database Information window displays

🗿 HPE MyUSLAM Configuration Tool	
	Get MyUslam DB Information
 Introduction Get MyUSLAM DB type Get MyUSlam DB Inform Get USLAM Service DB I Get MyUslam Port Infor Pre-Installation Summory Installing. Configuration Cohurt 	Please Input Database information for MyUSLAM. Click "Next" to test database connection Oracle Host:
	Oracle Port: 1521
	Oracle SID: uslam
	User Name:
	Password:
InstallAnywhere Cancel	Previous Next

Figure 118: MyUSLAM Portal Configuration Tool - Database Information

 Enter the required information in the relevant text fields i.e. Database Host, Database Port, Database Name, User Name and Password (this is the DB user created in 7.1.3 "Creating MyUSLAM Portal Database User")

- 8. Click [Next]. The configuration tool will check the information you entered, and display warning message if the check fails.
- 9. If the information is not correct, the installer displays the following warning. Click [OK] to enter again

Database	information is not correct	×
Â	Database information is not correct Click"OK" to input database information again.	
		OK

Figure 119: MyUSLAM Portal Configuration Tool – Incorrect Database Information

10. If the information check is successfully, the installer displays the following message.



Figure 120: MyUSLAM Portal Configuration Tool – Successfully Check

11. Enter the connection information for the USLAM Engines Database.

HPE MyUSLAM Configuration Tool	
	Get USLAM Service DB Information
 Introduction Get MyUSLAM DB type Get MyUslam DB Inform 	Please Input Database information for USLAM Service. Click "Next" to test database connection Oracle Host:
Get USLAM Service DB I	(A. Kee)
Get MyUslam Port Infor.	Oracle Port:
 Pre-Installation Summar Installing Configuration Column 	1521
	Oracle SID:
	uslam
	User Name:
	USLAM_SERVICE
	Password:
	••••••
InstallAnywhere	
Cancel	Previous <u>N</u> ext

Figure 121: MyUSLAM Portal Configuration Tool - Get USLAM Service DB

12. Enter the HTTP port used by MyUslam Portal (default value is 8089)

This is the port number that you'll have to specify in your Web browser to access MyUSLAM Portal (e.g.: <u>http://<MyUSLAMServer>:<MyUSLAMPort></u>)

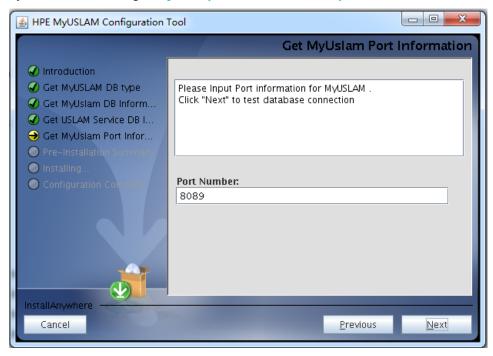


Figure 122: MyUSLAM Portal Configuration Tool – Get MyUSLAM Port Number

13. Click [OK]. The Configuration Summary window displays.

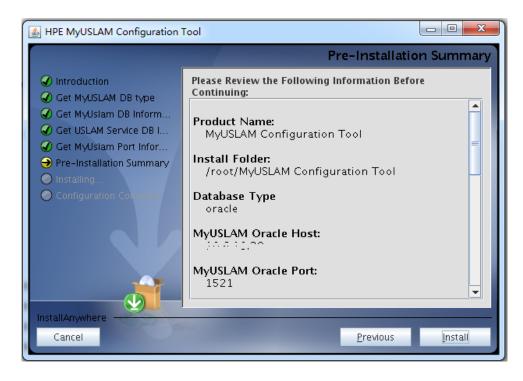


Figure 123: MyUSLAM Portal Configuration Tool - Configuration Summary

- 14. Review the Configuration information before beginning to configure MyUSLAM Portal. Click [Install] to begin the configuration.
- 15. Once the configuration is complete, the Configuration Complete window displays.

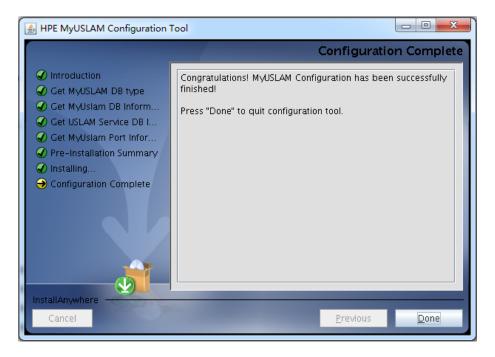


Figure 124: MyUSLAM Portal Configuration Tool - Configuration Complete

16. Click [Done] to finish the configuration.

7.1.6 Specific Settings for Oracle Database Connection (Oracle RAC, ...)

The JBOSS data source files generated by the USLAM installer work only for a simple DB server host configuration. In case specific Oracle connection requirement is needed, such as connecting to an Oracle RAC database configuration,

<MYUSLAM_INSTALL_DIR>\jboss\standalone\configuration\standalone.xml needs to be manually patched before MyUSLAM Portal start.

If the entry for your database connection in your \${ORACLE_HOME}/NETWORK/ADMIN/tnsnames.ora file is:

```
USLAM_prod=(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=<myDbHost>)(
PORT = 1530)) (CONNECT_DATA = (SERVER = DEDICATED)
(SERVICE_NAME=<myDbServiceName>)))
```

Then the content of the file:

<MYUSLAM_INSTALL_DIR>\jboss\standalone\configuration\standalone.xml should be manually patched as follows (where myuslam_user, myuslam_password will be set with the correct values):

```
<datasources>
 <local-tx-datasource>
    <jndi-name>uslamDatasource</jndi-name>
   <connection-
url>jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=<
myDbHost>) (PORT=1530)) (CONNECT DATA=(SERVER=DEDICATED) (SERVICE NA
ME=<myDbServiceName>)))</connection-url>
    <driver-class>oracle.jdbc.OracleDriver</driver-class>
    <user-name>myuslam user</user-name>
    <password>myuslam password</password>
   <min-pool-size>3</min-pool-size>
    <max-pool-size>32</max-pool-size>
    <check-valid-connection-sql>select 1 from dual</check-valid-
connection-sql>
    <exception-sorter-class-
name>org.jboss.resource.adapter.jdbc.vendor.OracleExceptionSorter
</exception-sorter-class-name>
    <valid-connection-checker-class-name>...</valid-connection-
checker-class-name>
    <metadata>
       <type-mapping>Oracle10g</type-mapping>
    </metadata>
  </local-tx-datasource>
</datasources>
```

7.1.7 Configuring MyUSLAM Portal properties

Please check the "MyUSLAM Portal Configuration" chapter from the HPE USLAM Administration Guide where you can find the mandatory MyUSLAM portal parameters.

7.1.8 Installing a MyUSLAM Portlets License

MyUSLAM Portlets deployed in MyUSLAM Portal need a valid license file.

Please refer to chapter 1 of this Guide in order to request a valid MyUSLAM Portlets license.

7.1.9 Starting MyUSLAM Portal

Once you have installed and configured MyUSLAM Portal you can start it by performing the following steps:

- 1. After the installation and configuration of MyUSLAM Portal, go to <INSTALL_DIR>/bin and enter *myuslam_start.sh* on Linux or *myuslam_start.bat* on Windows to start MyUSLAM portal
- 2. It can take few minutes to be completely started.
- 3. Going forward from this point, you can connect to the MyUSLAM Portal using your favorite browser at http://<MyUSLAMServer>:<MyUSLAMPort>

At this stage, the MyUSLAM Portal and MyUSLAM Portlets are installed and configured.

7.2 Stopping MyUSLAM Portal

To stop MyUSLAM Portal you will be required to perform the following steps:

- 1. Browse to the directory where MyUSLAM Portal is installed, and browse to: <*INSTALL_DIR*>/bin
- 2. Type *myuslam_stop.sh* on Linux or *myuslam_stop.bat* on windows with the correct parameters to stop MyUSLAM Portal
- 3. You can check if the *jboss* has stopped by executing the following command:

ps -ef | grep jboss

4. If there are no active processes for jboss, it implies MyUSLAM Portal is not running.