# HPE Universal SLA Manager

## Installation and Configuration Guide

Release 4.3
Version: 1.0

Hewlett Packard Enterprise

# Legal Notices

Legal notice



Printed in the US

Trademarks

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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 un-installation 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 Server | 9.3 |
| 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 platform | 4.1 SP6 |
| 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 for Windows 4.2 SP 6 | http://help.sap.com/bobip41 |
| Business Intelligence Platform Administrator Guide 4.2 SP 6 | http://help.sap.com/bobip41 |
| 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 Intelligence 4.1 SP6 | http://help.sap.com/bowebi41 |
| SAP BusinessObjects Information platform services 4.1 Support Package 2 | https://help.sap.com/bods42/ |
| SAP BusinessObjects Data Services™ XI 4.2 SP2 Installation Guide for Unix | https://help.sap.com/bods42/ |
| SAP BusinessObjects Data Services™ 4.2 SP2 Management Console: Administrator Guide | https://help.sap.com/bods42/ |

# 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.<br><br>Ex: Click [Finish] to complete the Import wizard. |
| ( ) [round brackets] | Supplementary information Ex: Configuration Item (CI). |
| Bold type | Fields names, menus, window pane names<br><br>Ex of menus: Admin → Service Level Management → Repository. |
| Italic type | Important information and/or concepts.<br><br>Ex: The output is an .XML file. |

# Symbols used in this Guide

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

# Support

Please visit our HPE Software Support Online Web site at: https://softwaresupport.hpe.com/ 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)

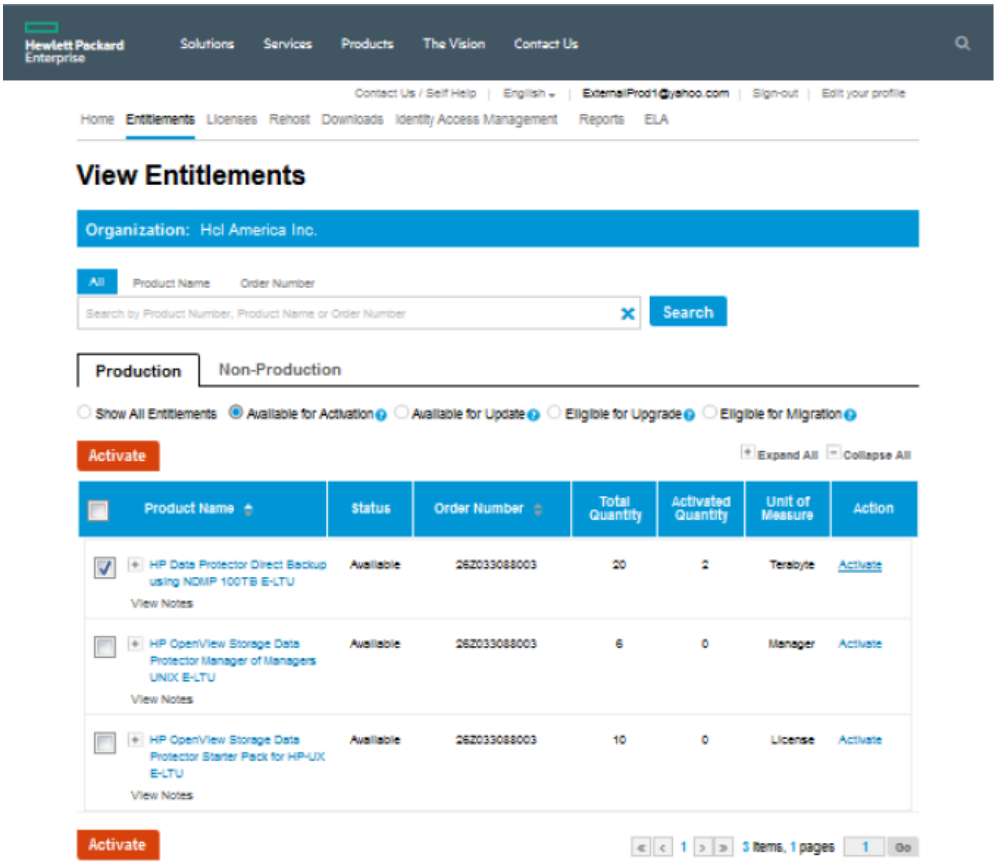
**Step One**: Sign-In

- 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

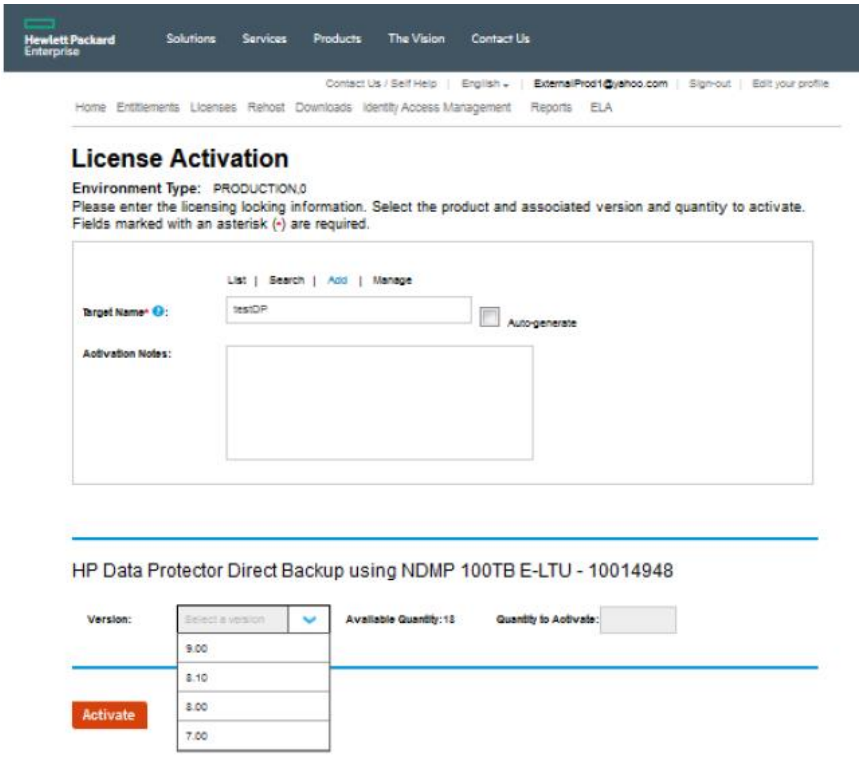
**Step two**: Manage Entitlements

- 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*



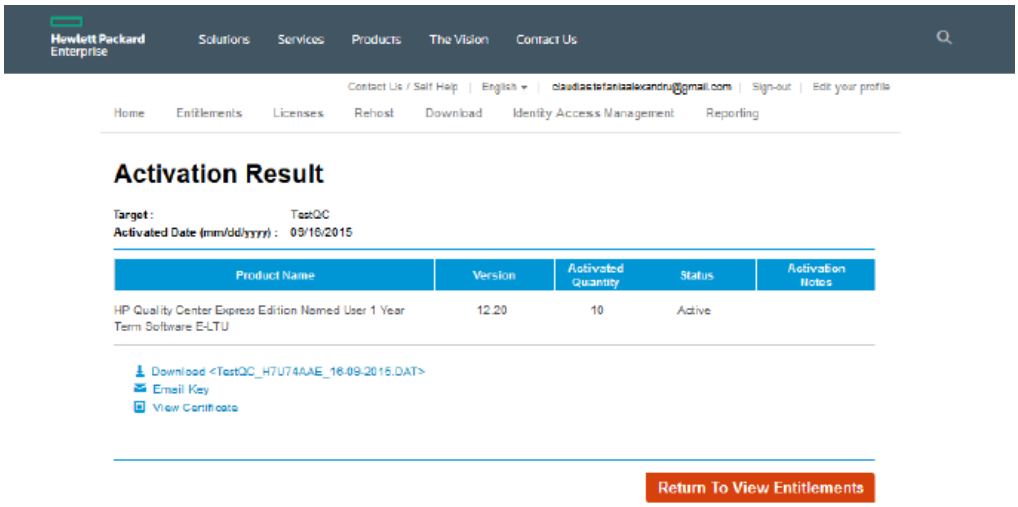

**Step three**: Activation information

- 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 auto-generate 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.




**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.




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:

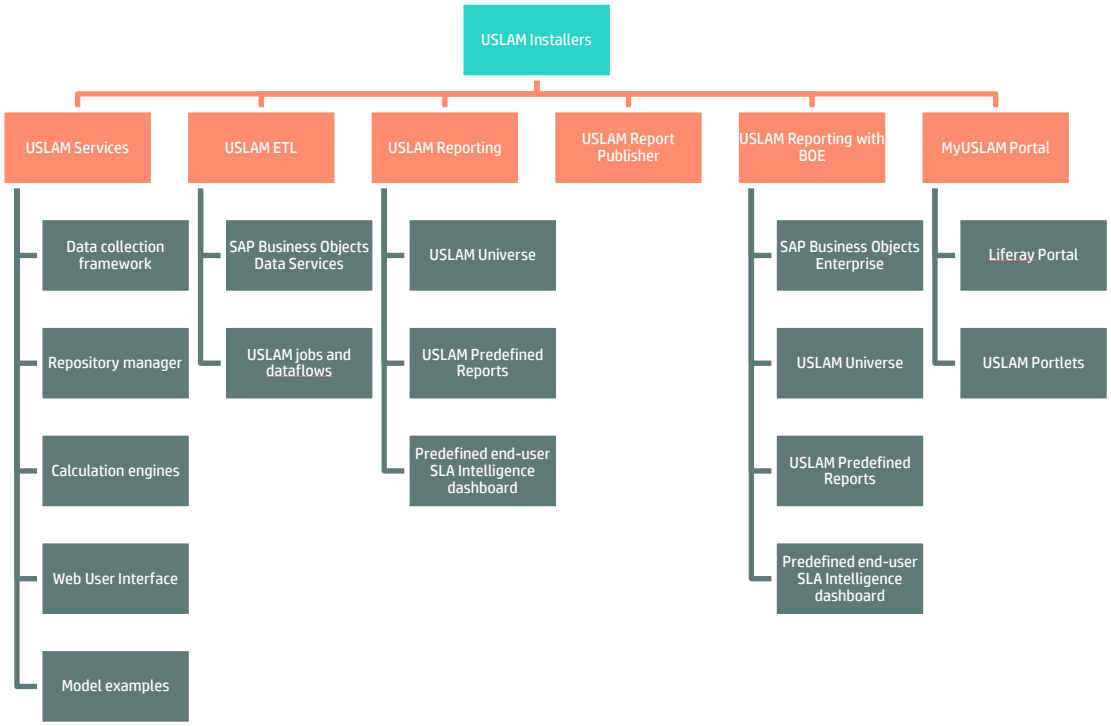



Figure 1: USLAM Software Kits

### 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

# 2.2 Installation Package

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<br>(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:

```
#>gpg --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) 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?productNumber=HPLinuxCodeSigning.

## 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

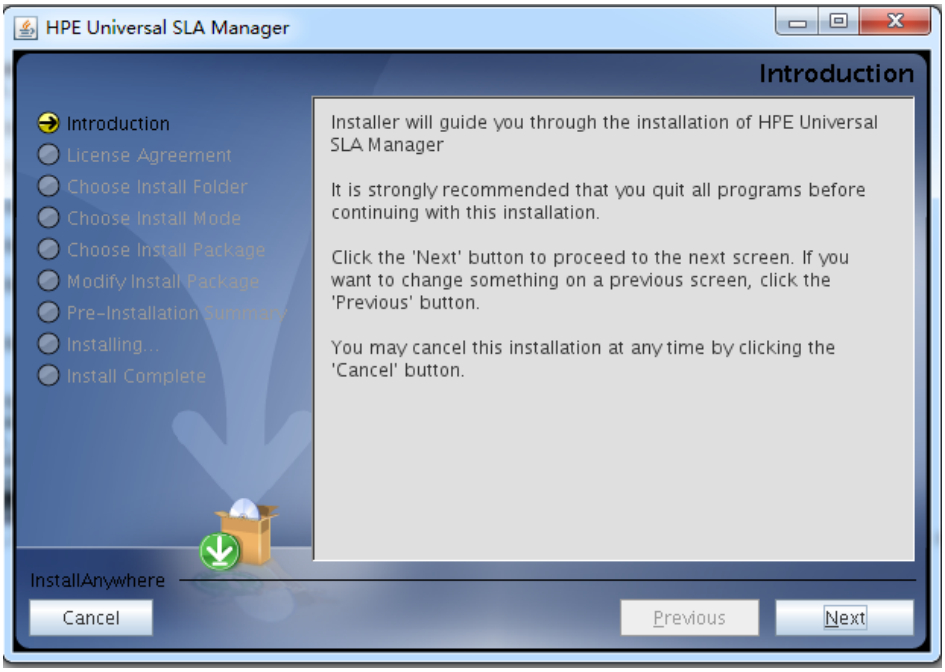



Figure 2: USLAM Services Installation - Introduction

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

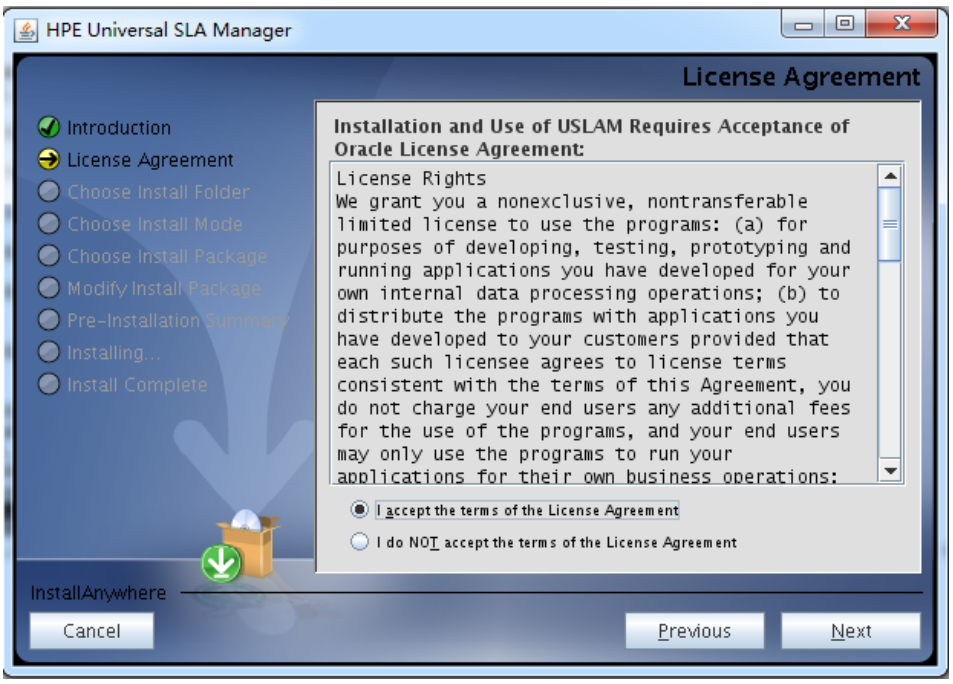



Figure 3: USLAM Services Installation – License Agreement

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

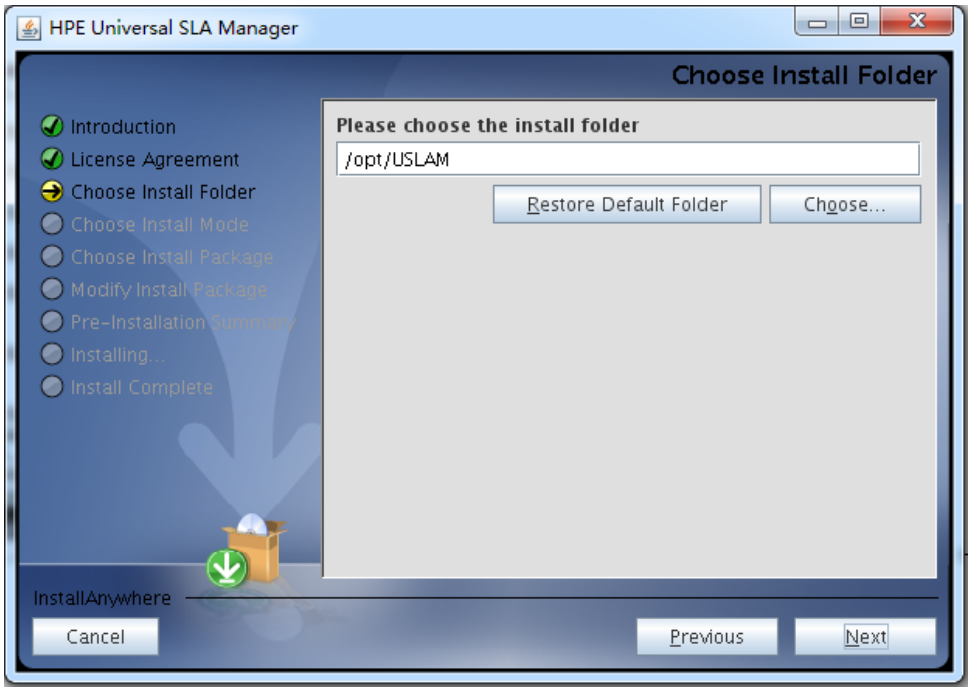



Figure 4: USLAM Services Installation – Choose Install Folder

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

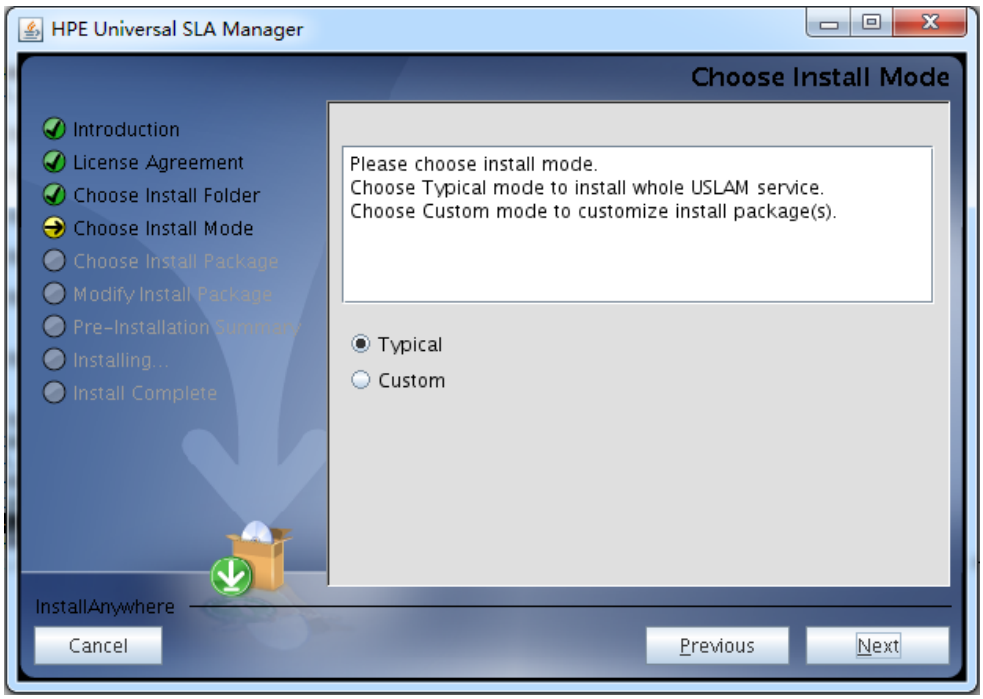



Figure 5: USLAM Services Installation – Choose Install mode

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

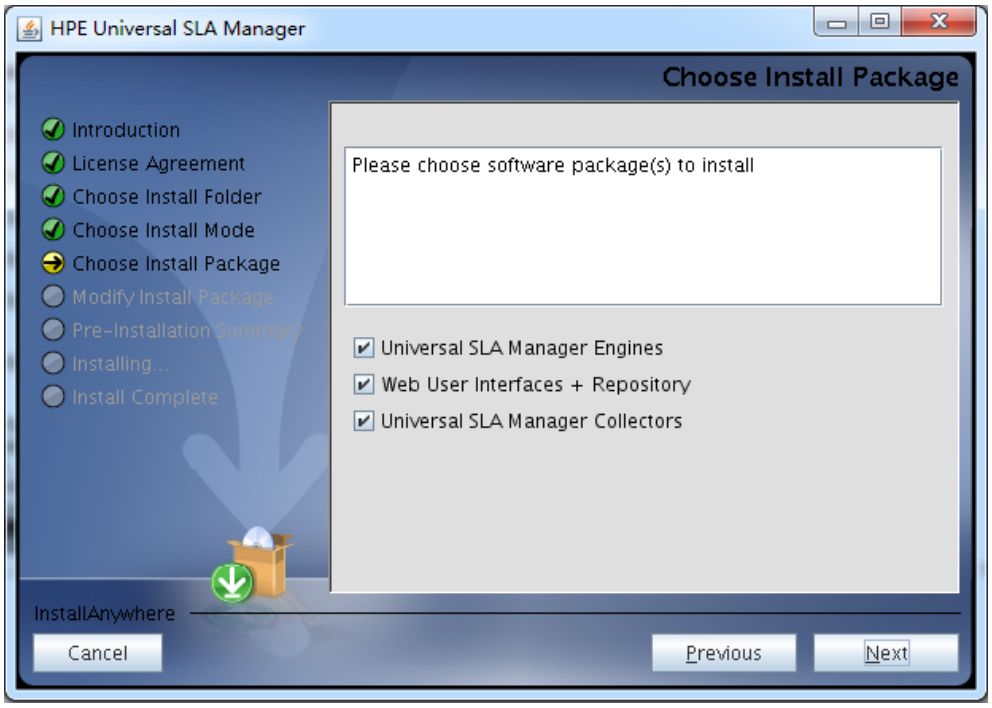



Figure 6: USLAM Services Installation – Choose Install Package

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

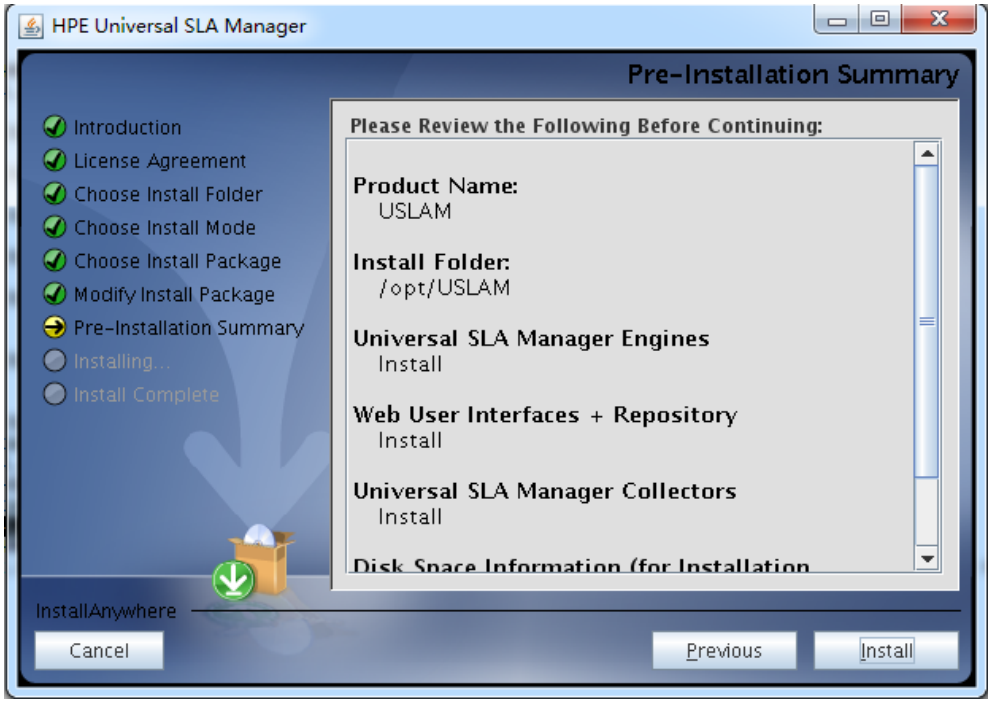


Figure 7: USLAM Services Installation – Pre-installation Summary

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

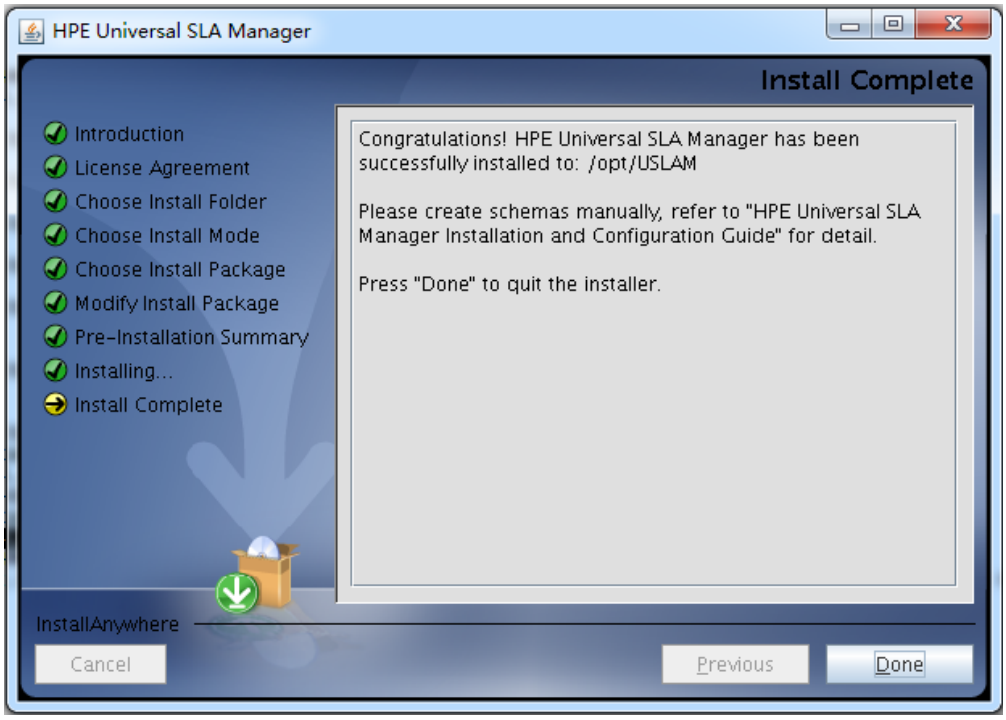



Figure 8: USLAM Services Installation – Installation Complete

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:

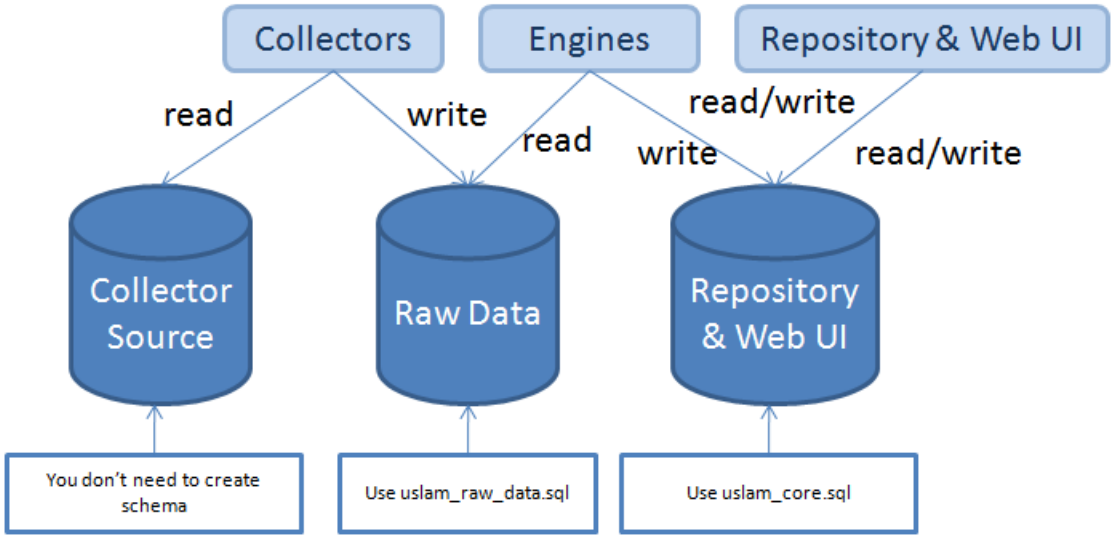



Figure 9: USLAM Services Database Schema

### 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:

1. 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:

1. 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>**
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_edb.sql* scripts.

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

@/<USLAM_INSTALL_DIR>/scripts/uslam_core_edb.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
```

# 3.1.5 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.

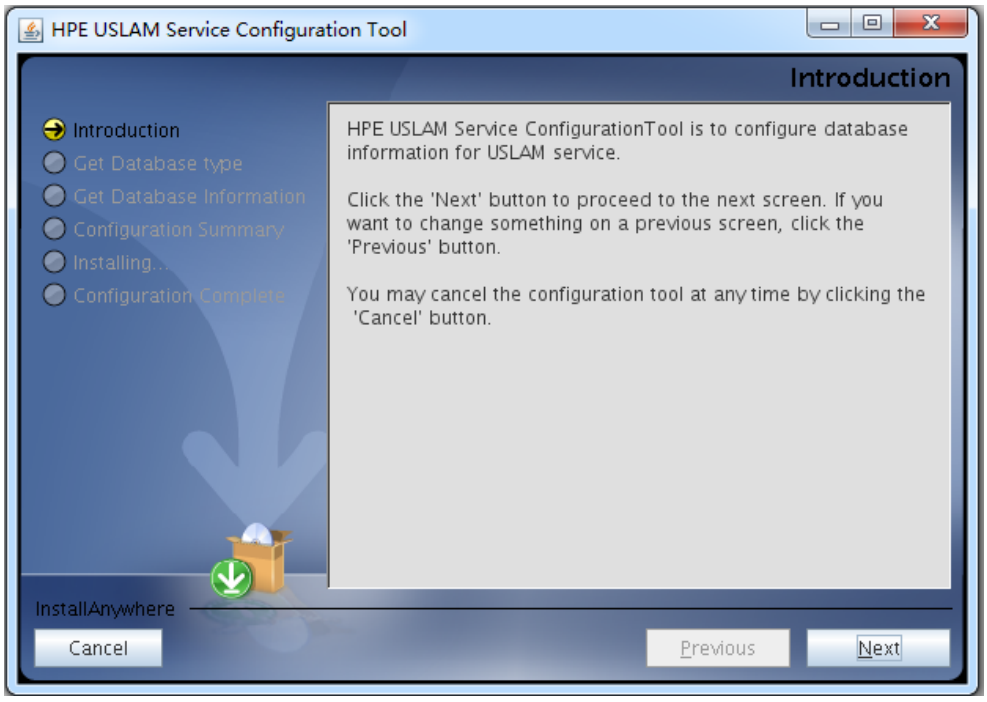



Figure 10: USLAM Services Configuration Tool - Introduction

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

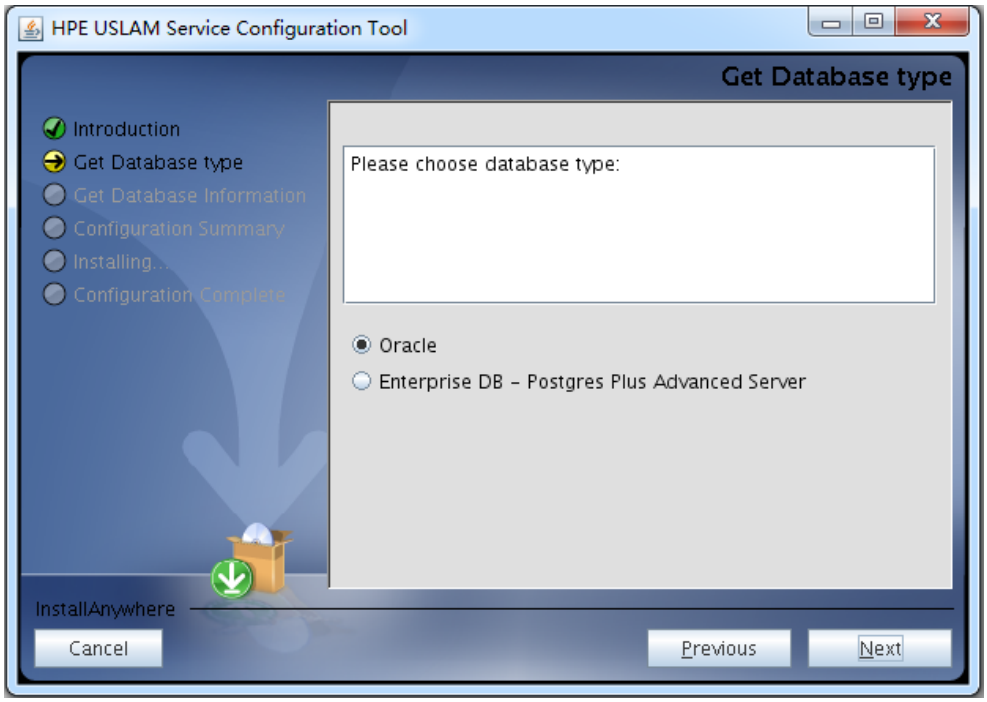



Figure 11: USLAM Services Configuration Tool - Introduction

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

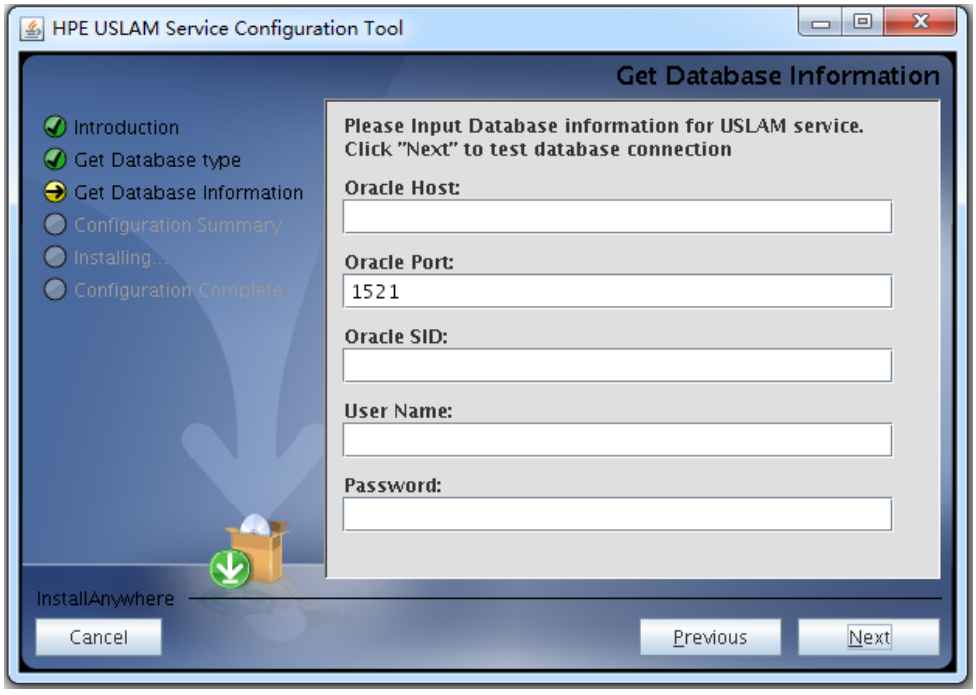



Figure 12: USLAM Services Configuration Tool – Database Information

7. 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

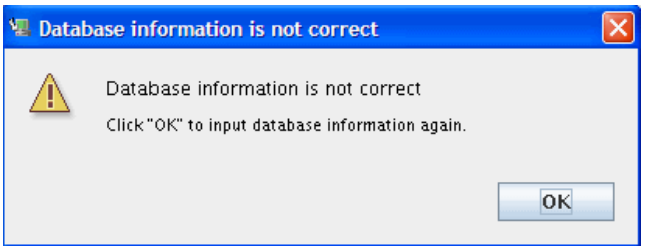



Figure 13: USLAM Services Configuration Tool – Incorrect Database Information

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

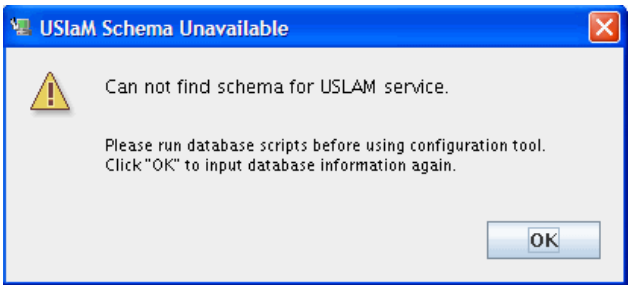



Figure 14: USLAM Services Configuration Tool – Unavailable USLAM Schema

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

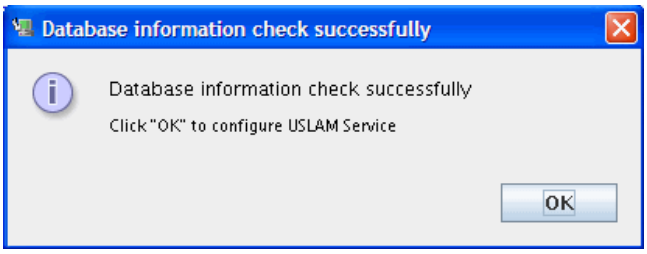



Figure 15: USLAM Services Configuration Tool – Successfully Check

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

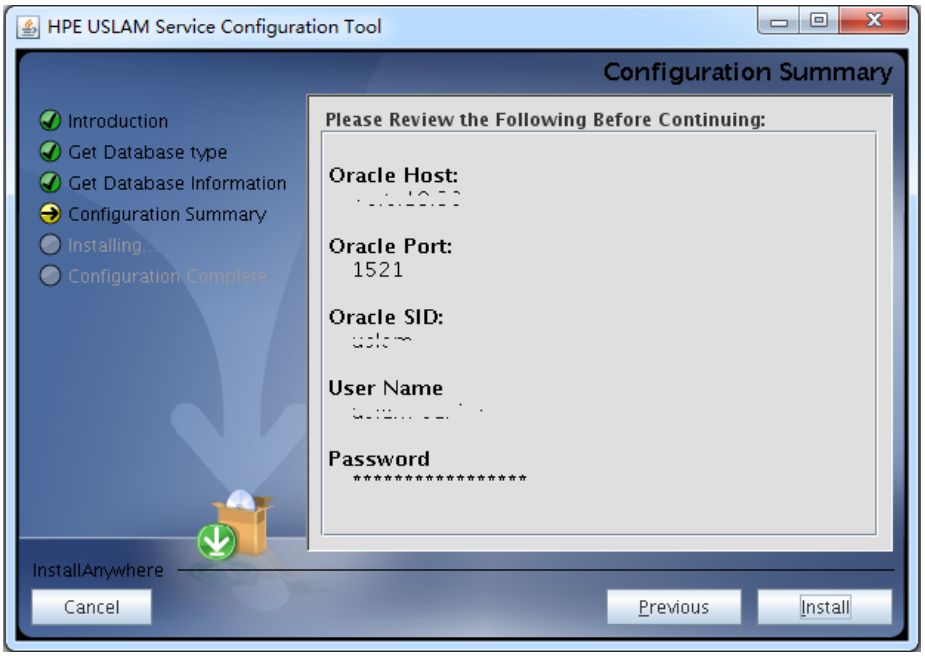



Figure 16: USLAM Services Configuration Tool – Configuration Summary

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.

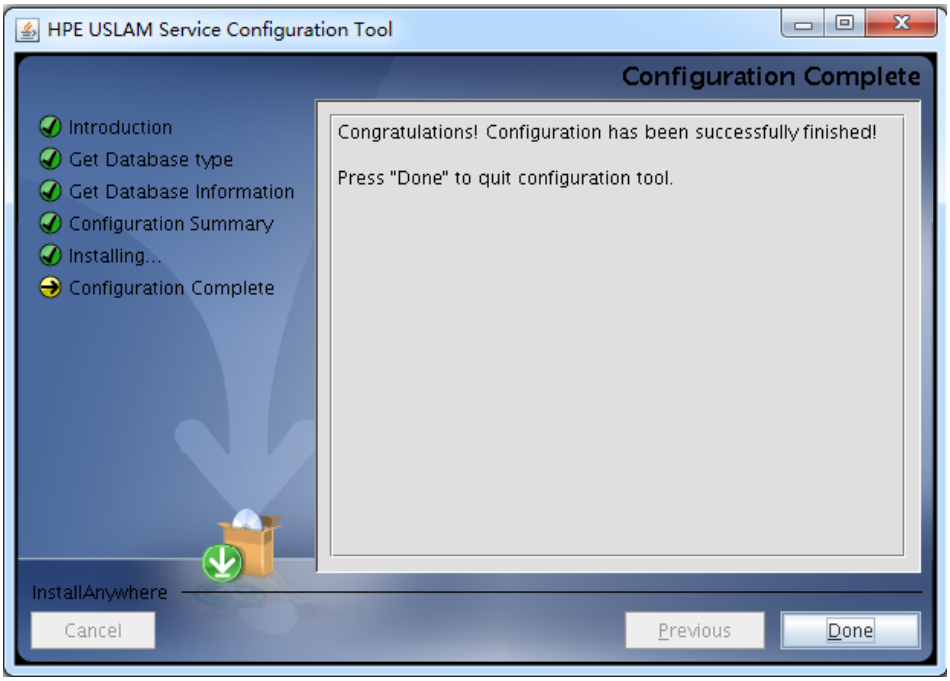



Figure 17: USLAM Services Configuration Tool – Configuration Complete

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/uslam-ds.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

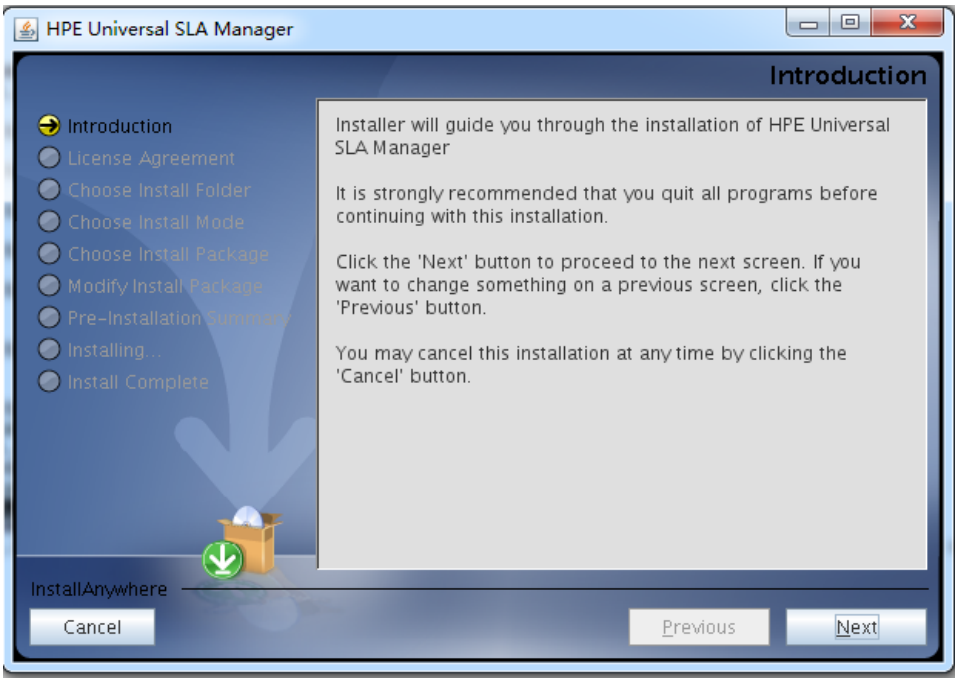



Figure 18: USLAM Services Installation - Introduction

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

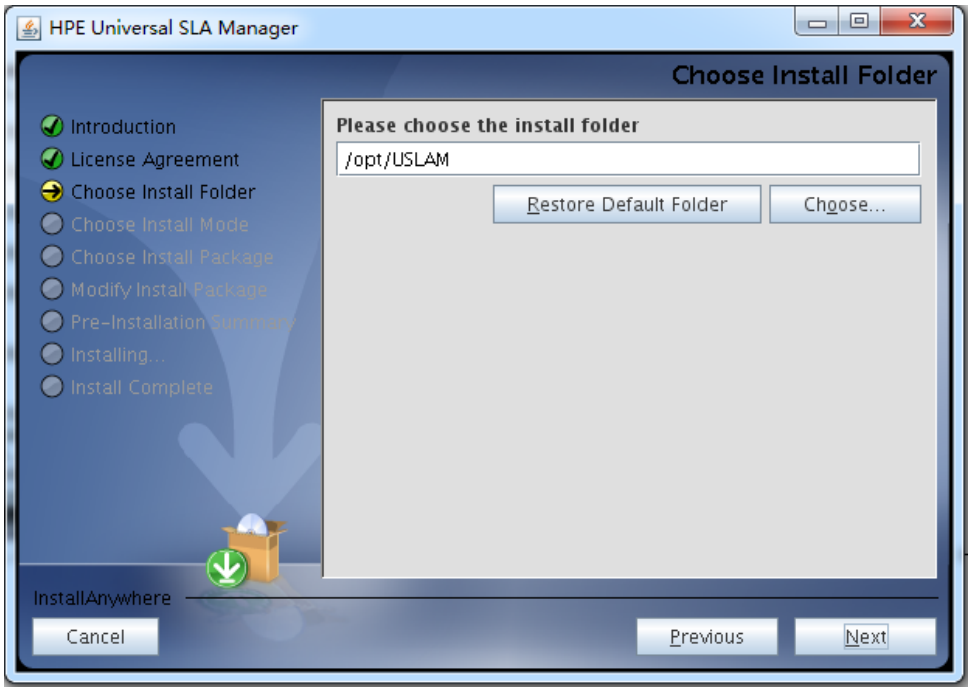



Figure 19: USLAM Services Installation – Choose Install Folder

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

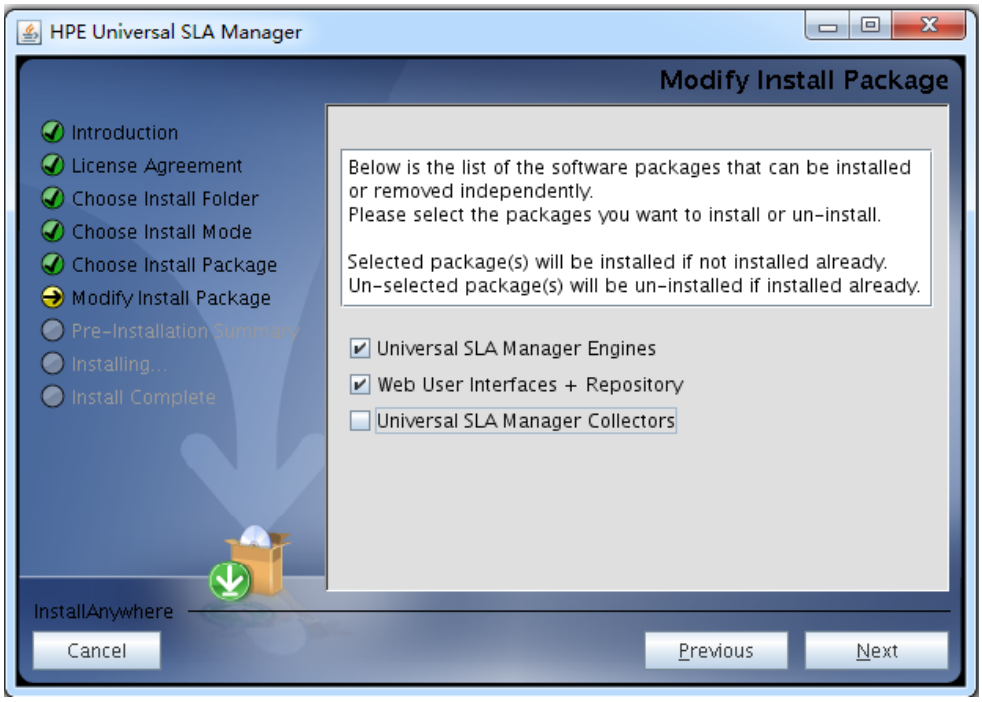



Figure 20: USLAM Services Installation – Choose Install Package

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

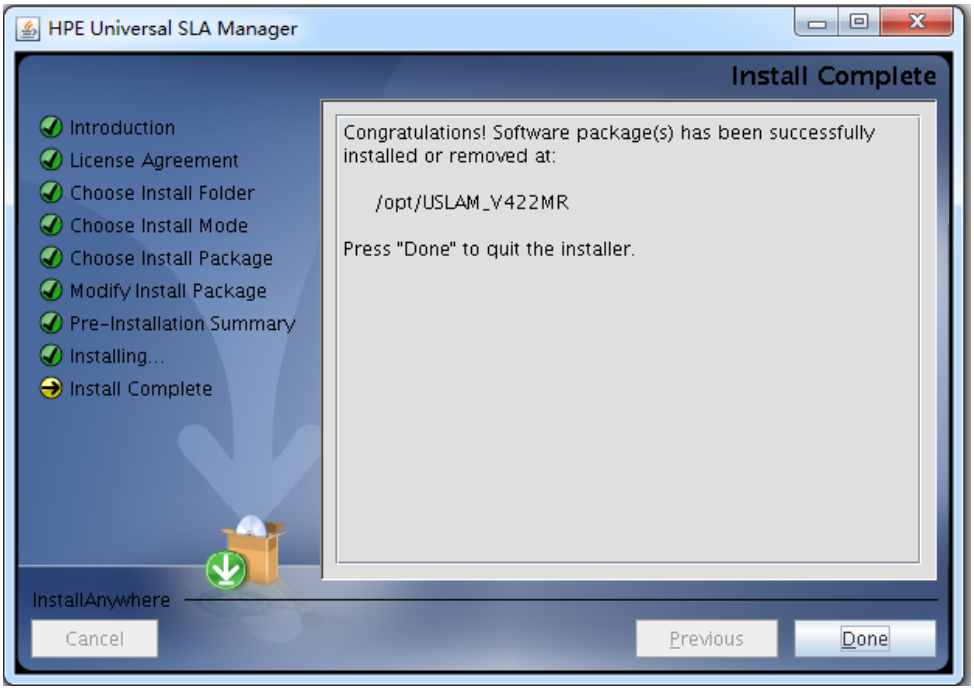



Figure 22: USLAM Services Installation – Installation Complete

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

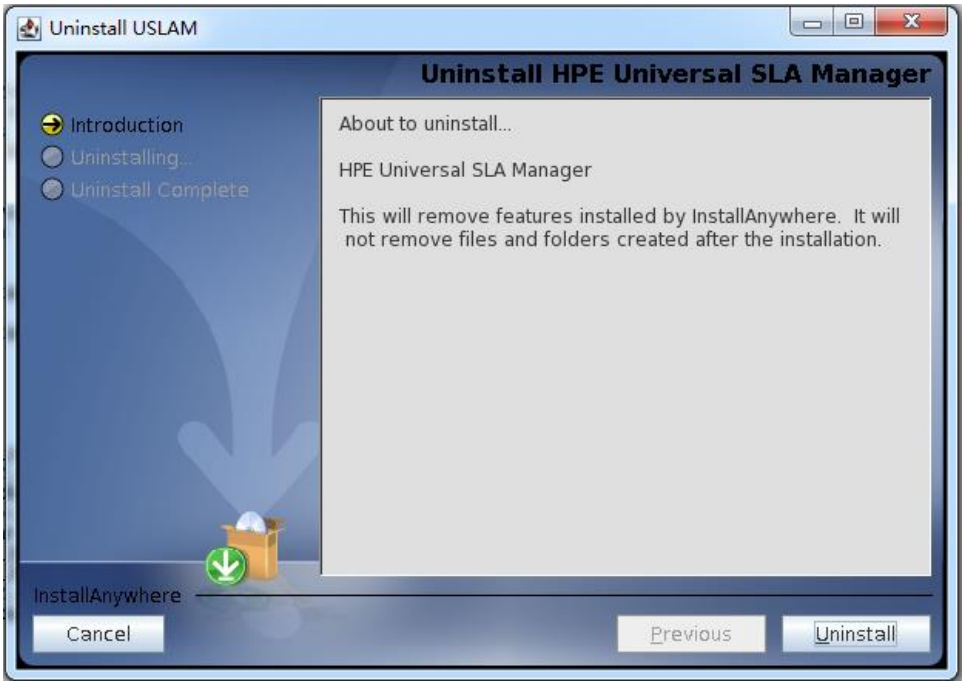



Figure 23: USLAM Services Uninstallation – Introduction

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

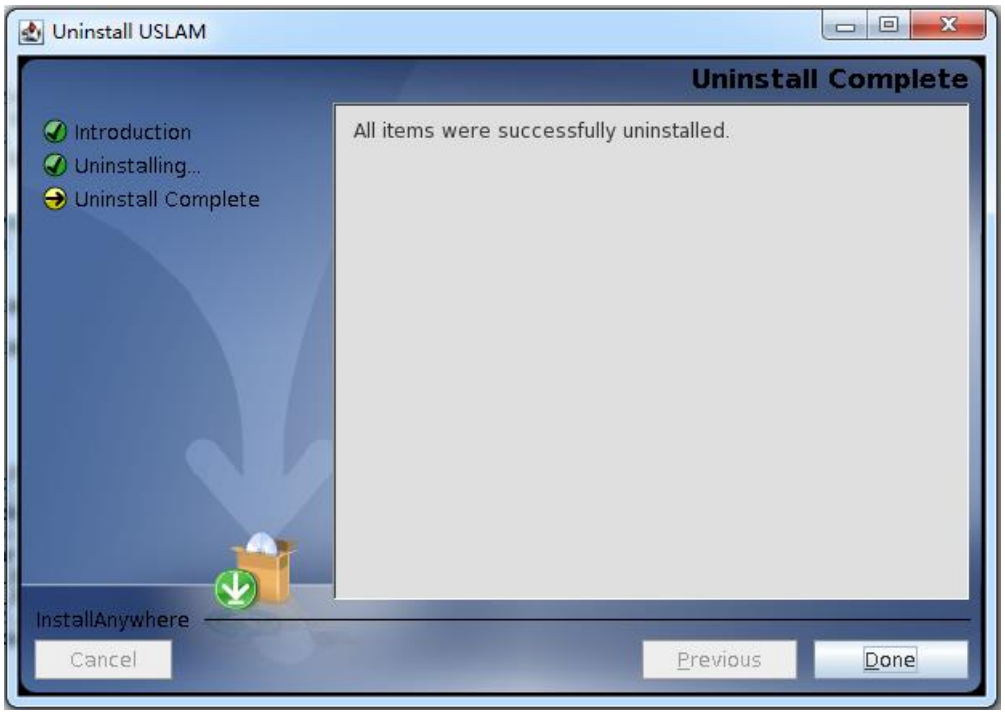



Figure 24: USLAM Services Uninstallation – Uninstallation Complete

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 -q --whatprovides "/lib/libc.so.6" |
| libstdc++.so.5 | 32bit | rpm -q --whatprovides "/usr/lib/libstdc++.so.5" |
| libstdc++.so.6 | 64bit | rpm -q --whatprovides "/usr/lib64/libstdc++.so.6" |
| libXext-devel.i686<br><br>libXext-devel.x86_64 | 32bit and 64bit<br><br>1.1-3 or higher | rpm -q --whatprovides libXext-devel |

(*) 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:

1. 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.
3. 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

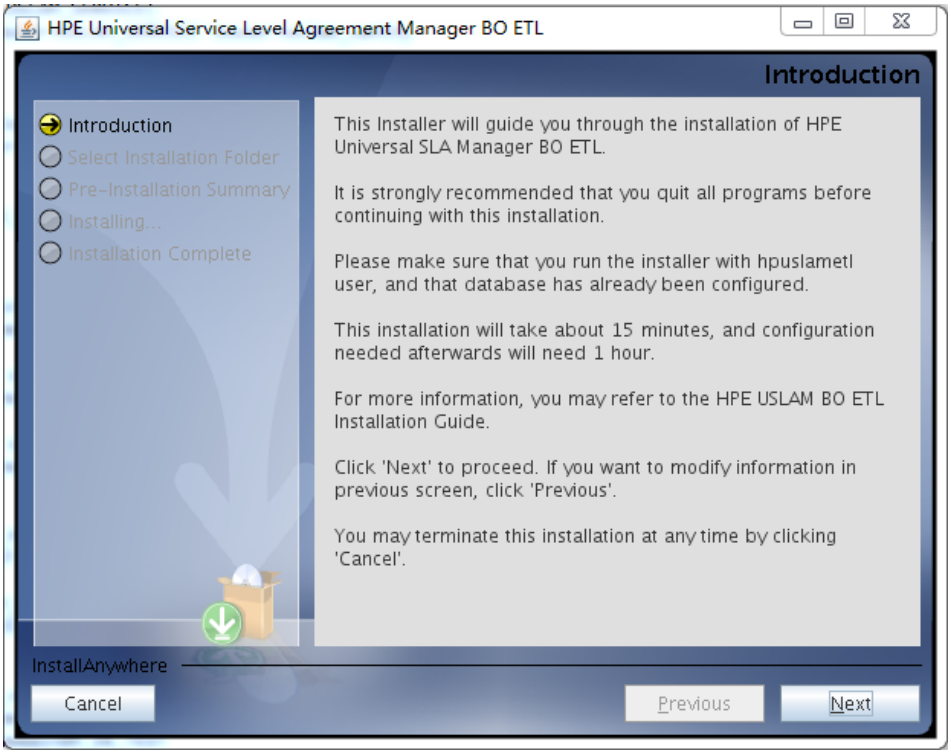



Figure 25: USLAM ETL Installation - Introduction

3. Click [Next] to continue
4. The Choose Install Folder window displays. Enter the location for your HPE USLAM ETL installation

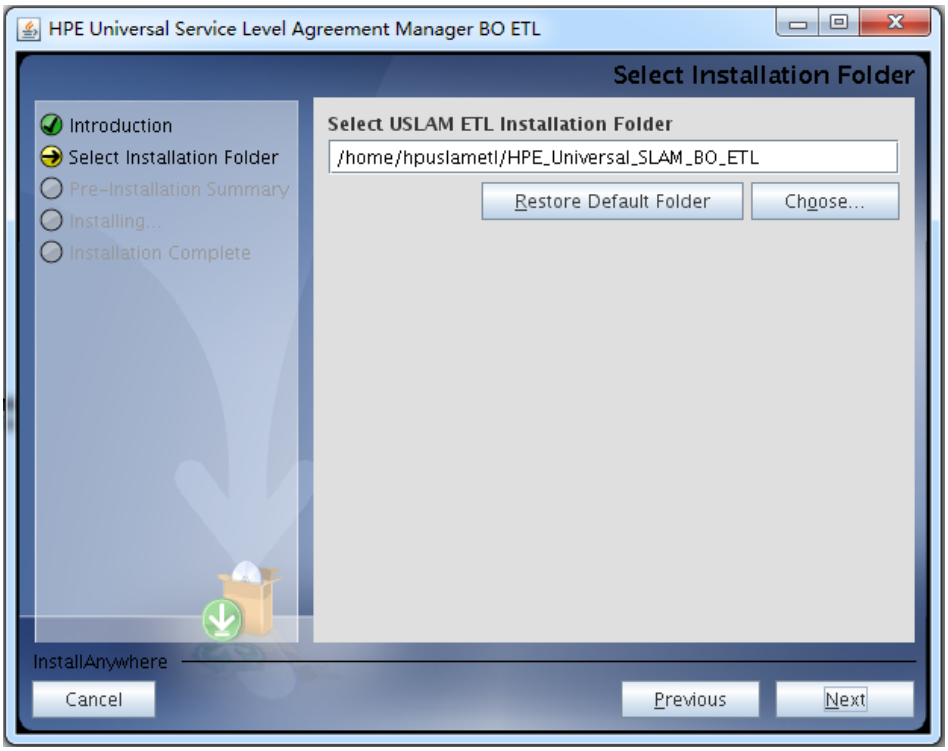



Figure 26: USLAM ETL Installation – Installation Folder

5. 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.

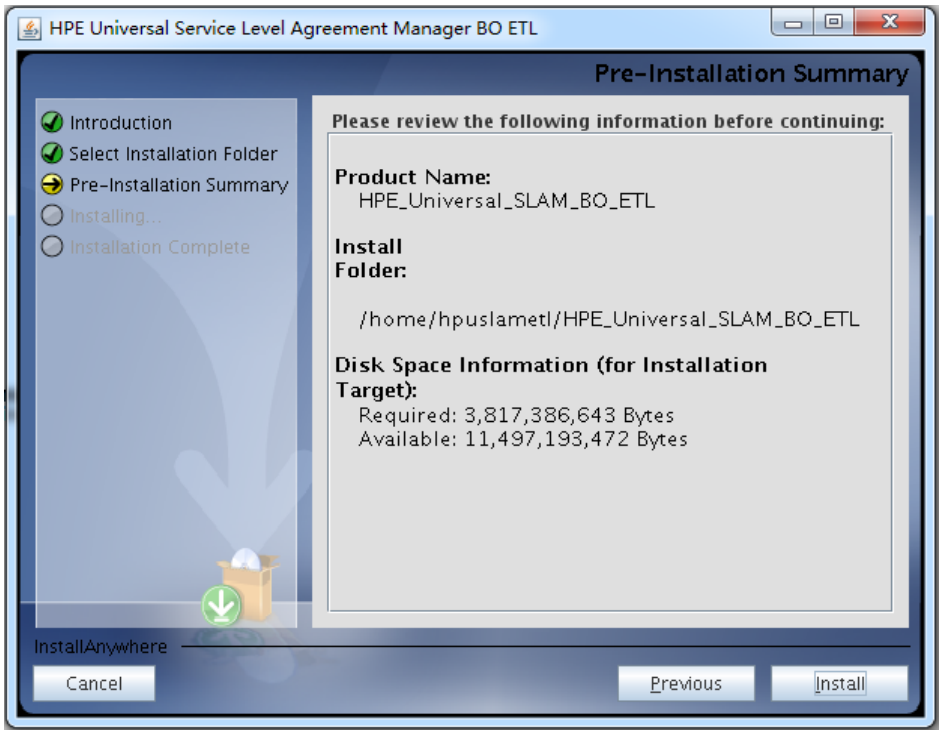



Figure 27: USLAM ETL Installation – Summary

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 as example 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

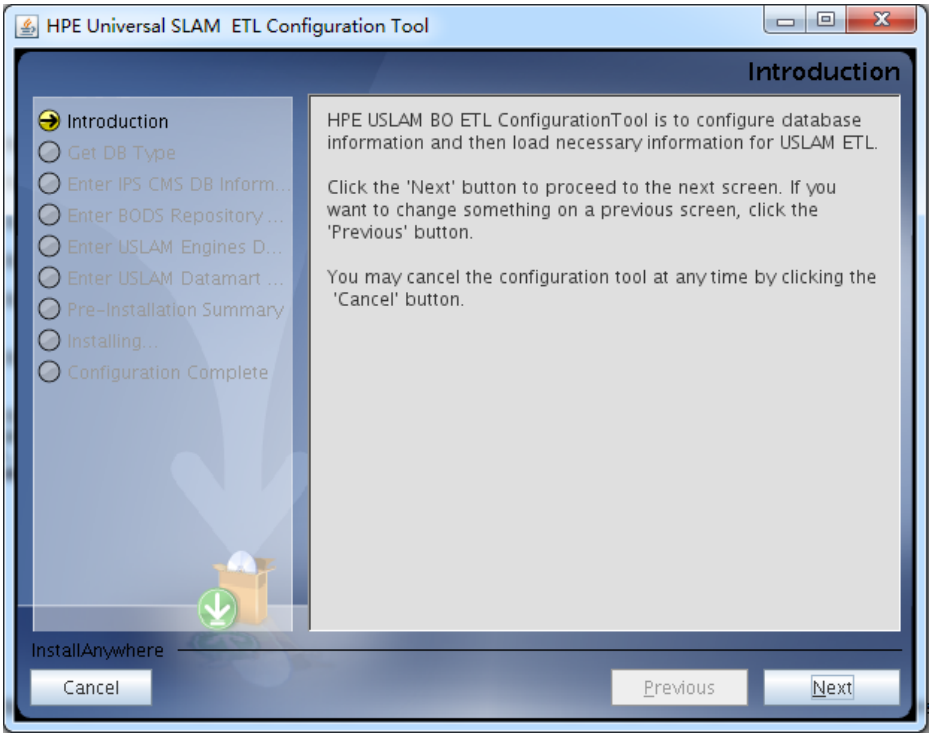



Figure 28: USLAM ETL Configuration Tool – Introduction

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

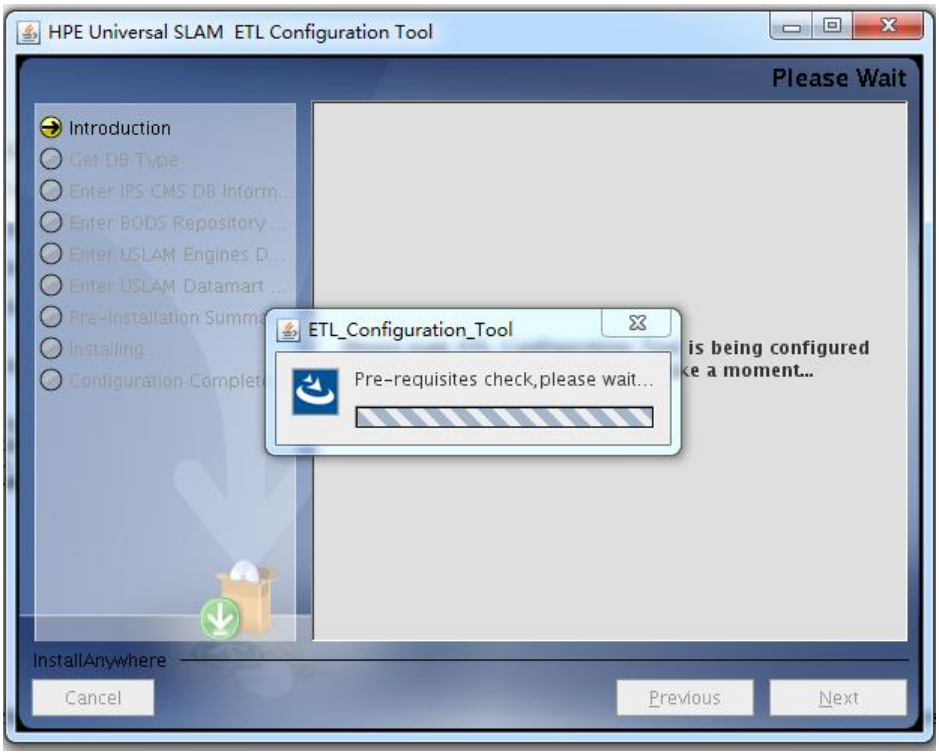



Figure 29: USLAM ETL Configuration Tool – Check pre-requisites

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

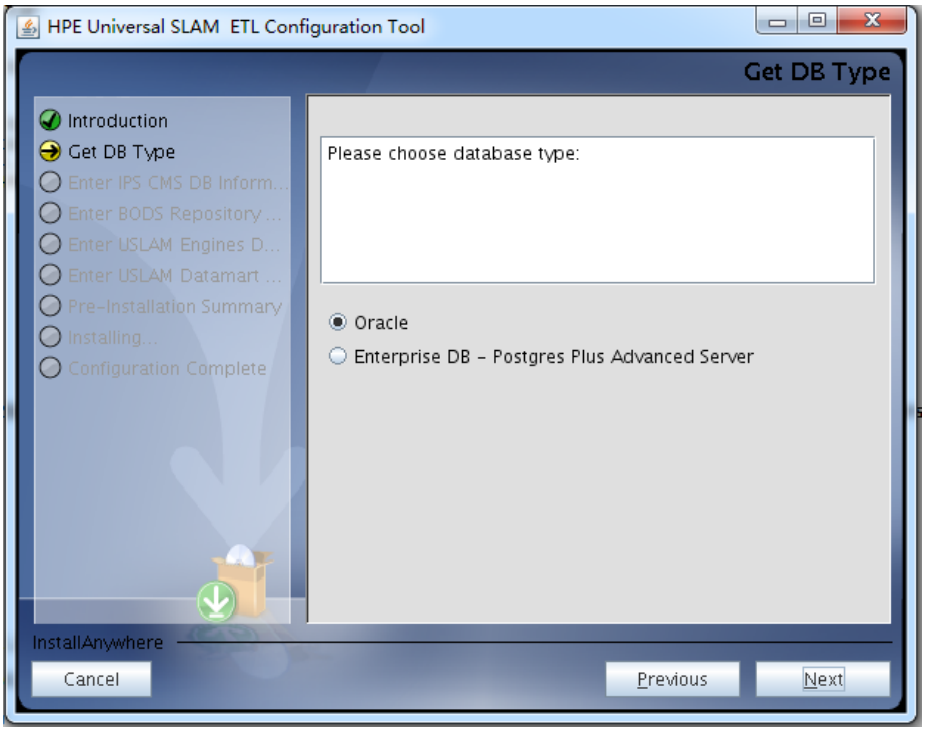



Figure 30: USLAM ETL Configuration Tool –Database Type

7. Click [next].

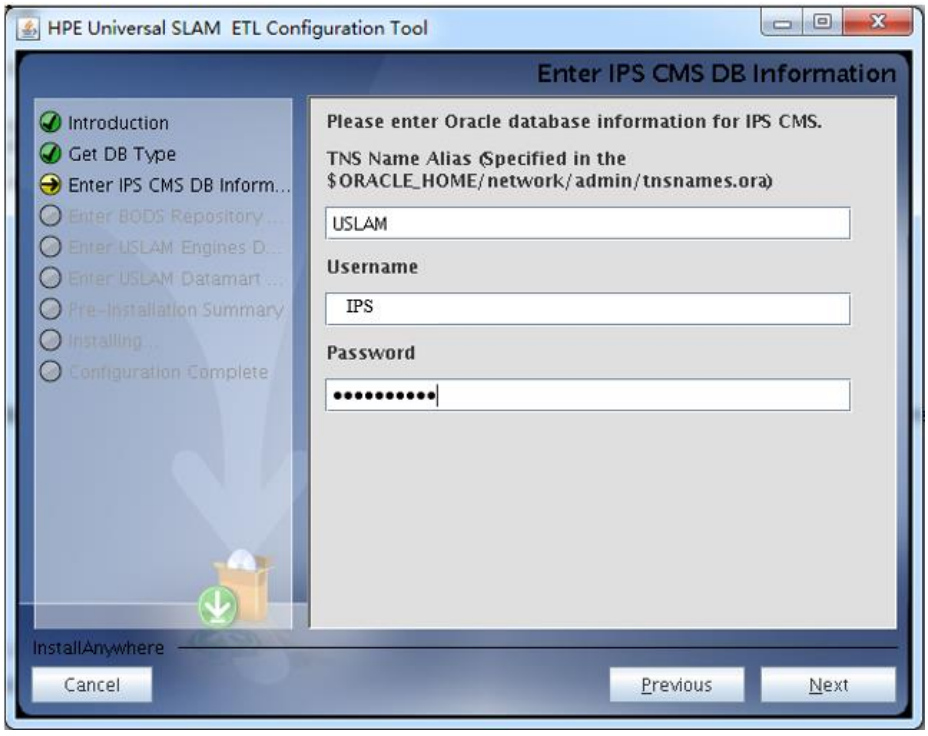



Figure 31: USLAM ETL Configuration Tool – IPS Database Information

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

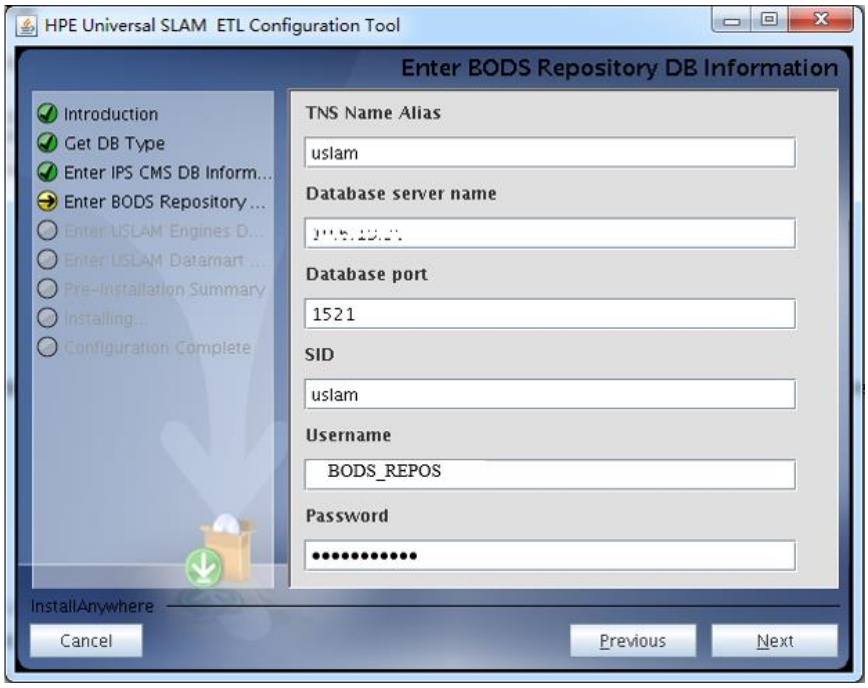



Figure 32: USLAM ETL Configuration Tool – BODS Repository Database

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)

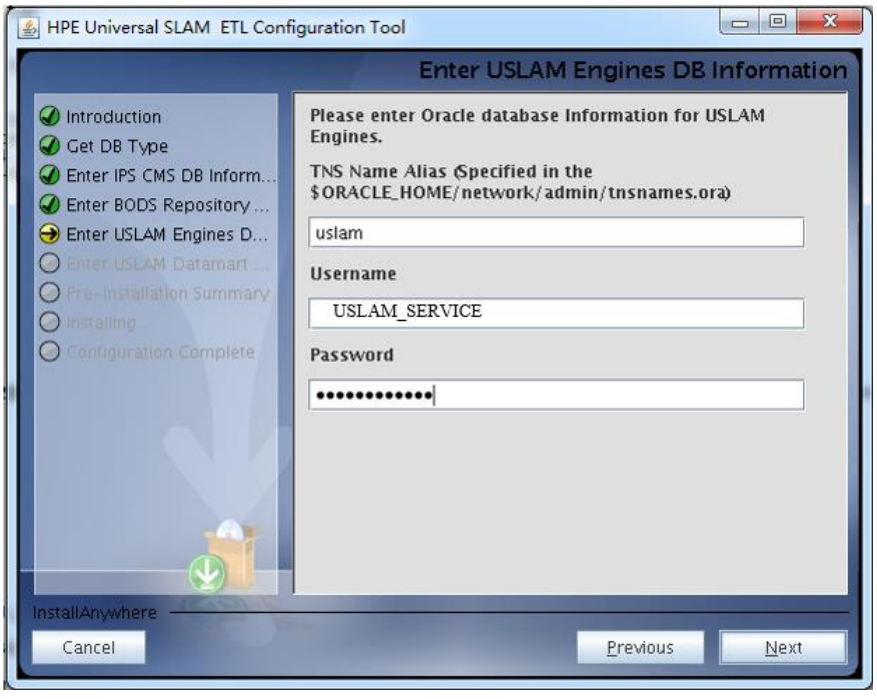



Figure 33: USLAM ETL Configuration Tool –USLAM Engine Database

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.

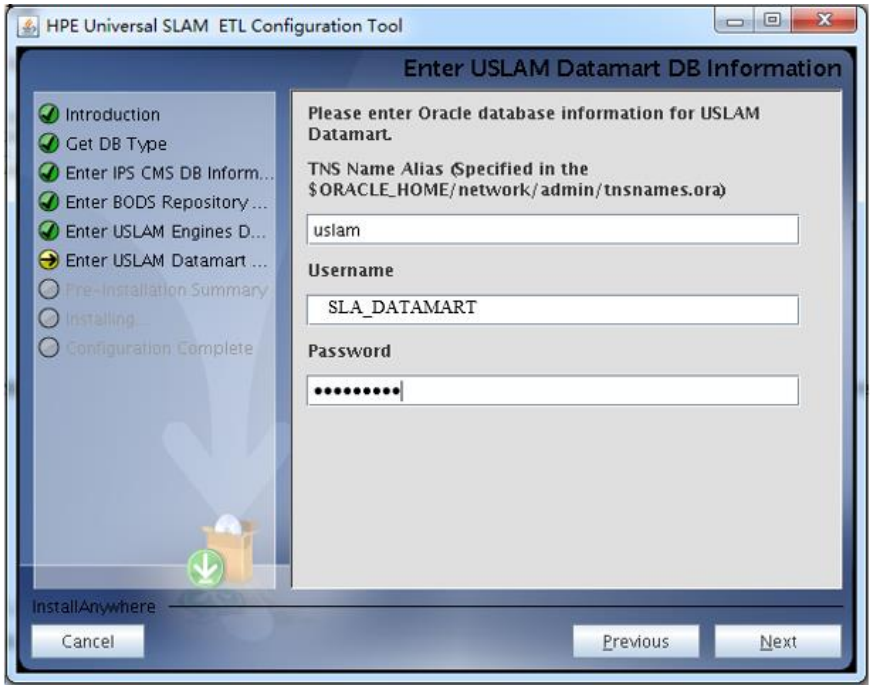



Figure 34: USLAM ETL Configuration Tool –USLAM Datamart Database

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

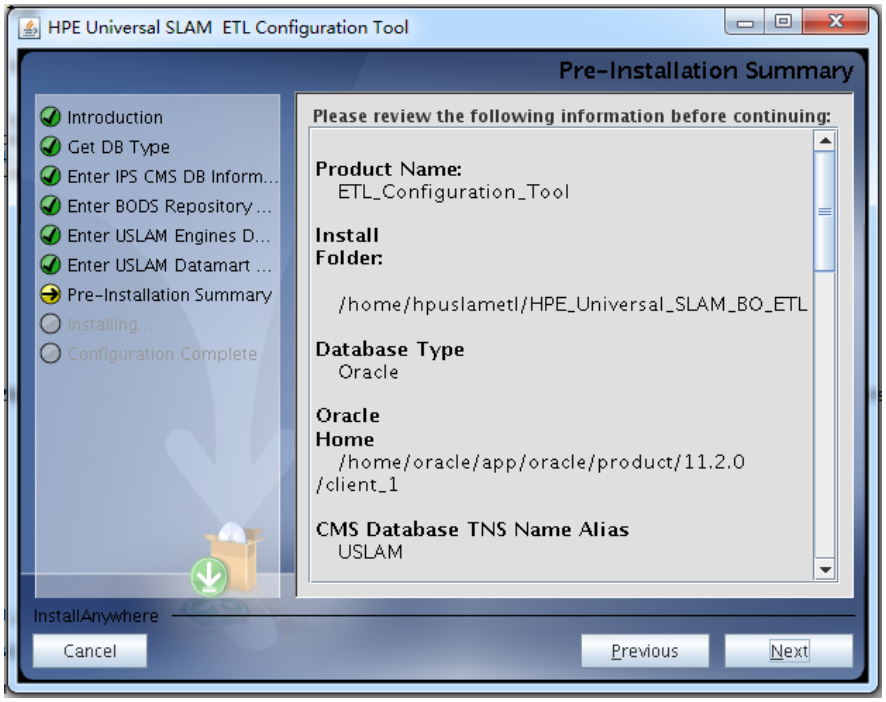


Figure 35: USLAM ETL Configuration Tool –Summary

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

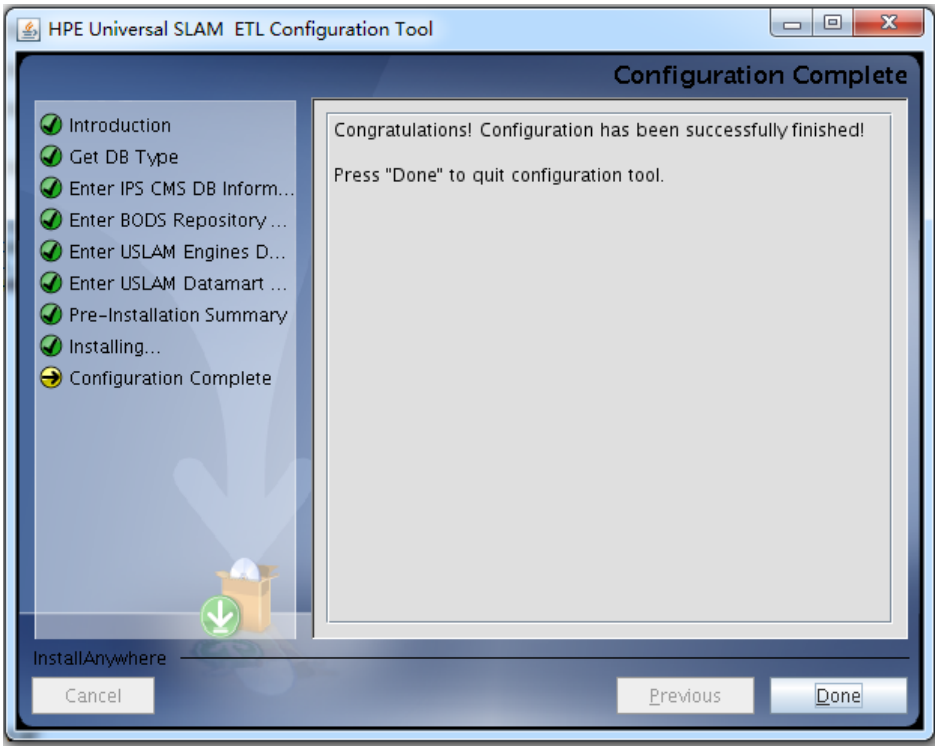



Figure 36: USLAM ETL Configuration Tool –Installation Complete

16. Click [Done] to exit the Installer.

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`

## 4.1.4.5 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 as example 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

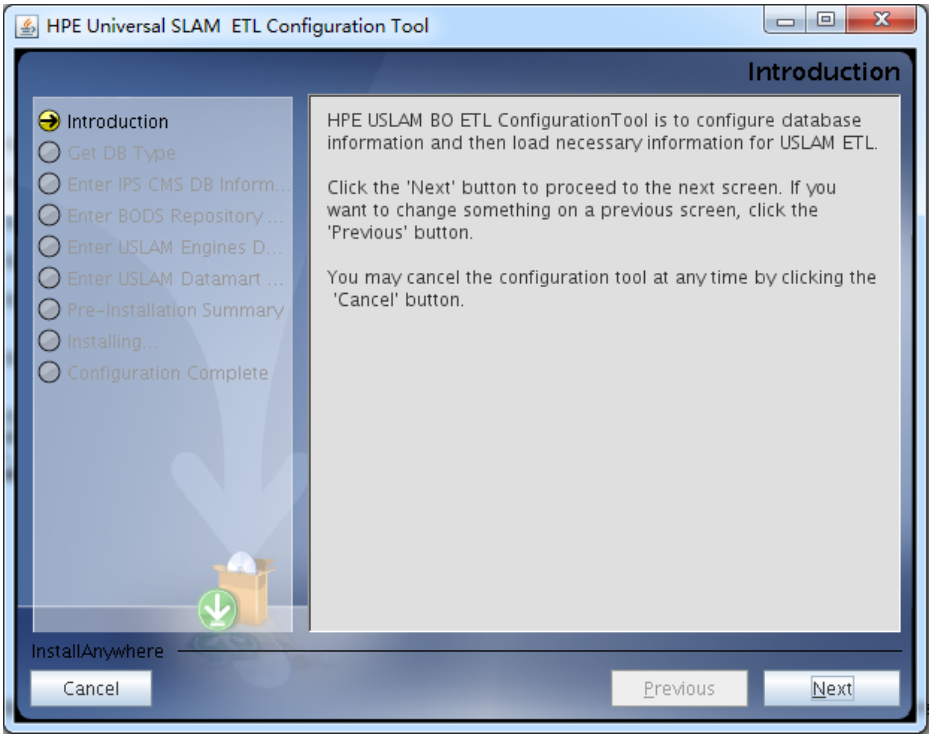



Figure 37: USLAM ETL Configuration Tool – Introduction

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

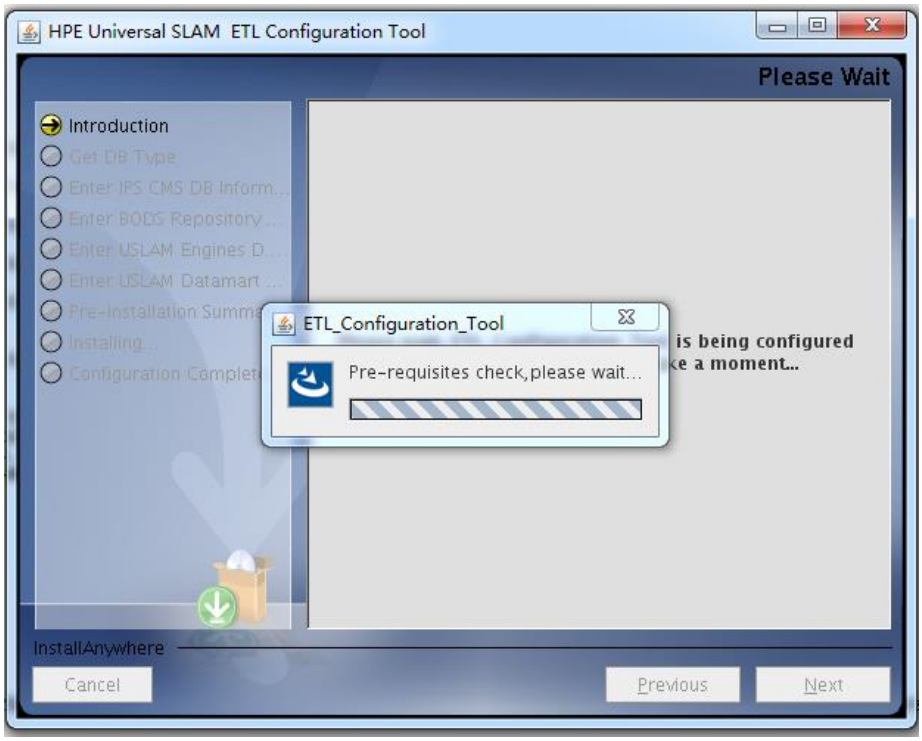



Figure 38: USLAM ETL Configuration Tool – Check pre-requisites

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

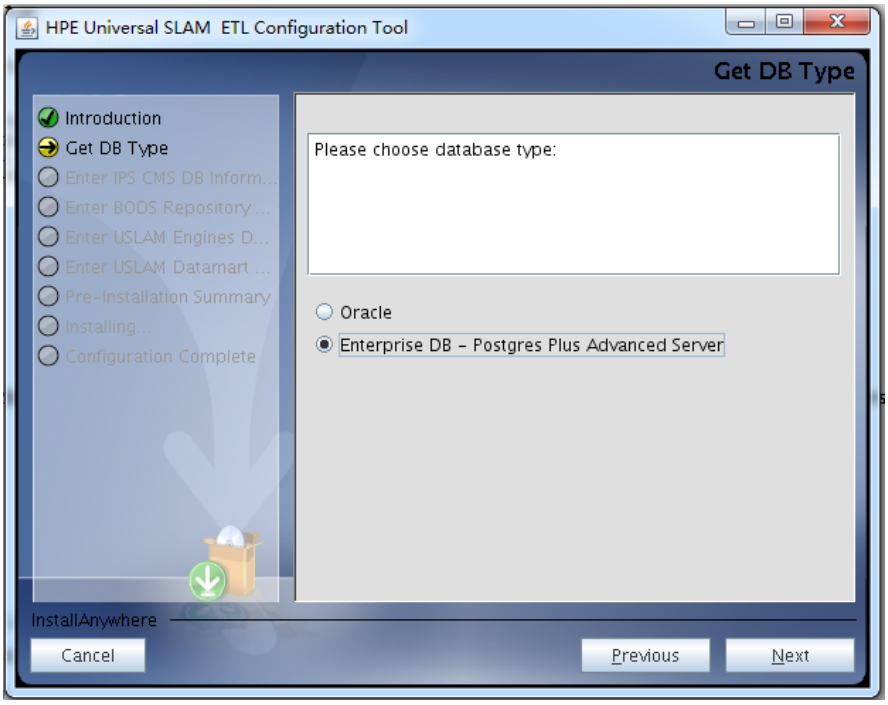



Figure 39: USLAM ETL Configuration Tool – Database type

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

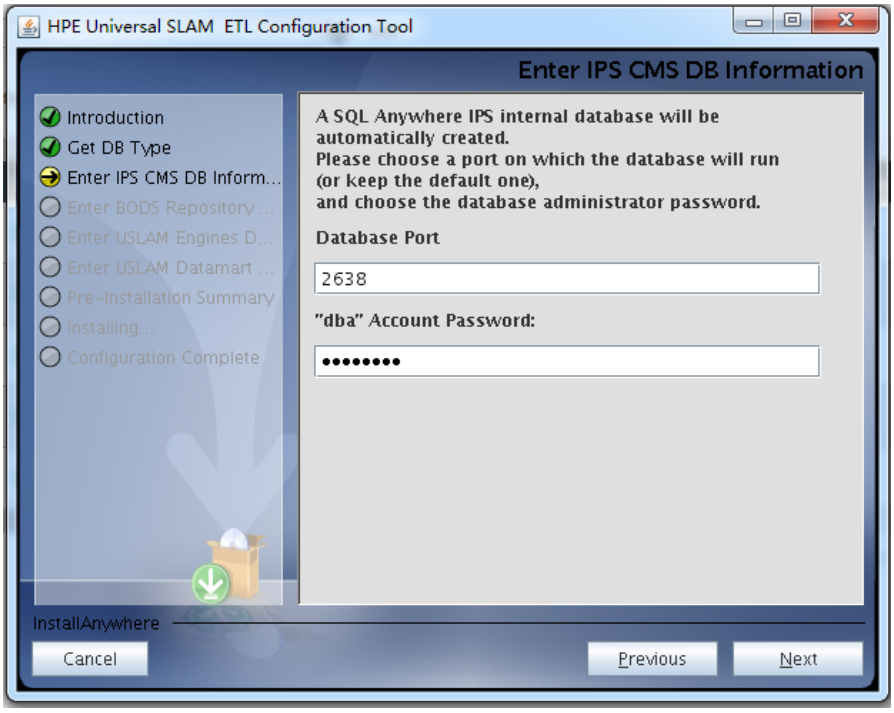



Figure 40: USLAM ETL Configuration Tool – IPS Database Information

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

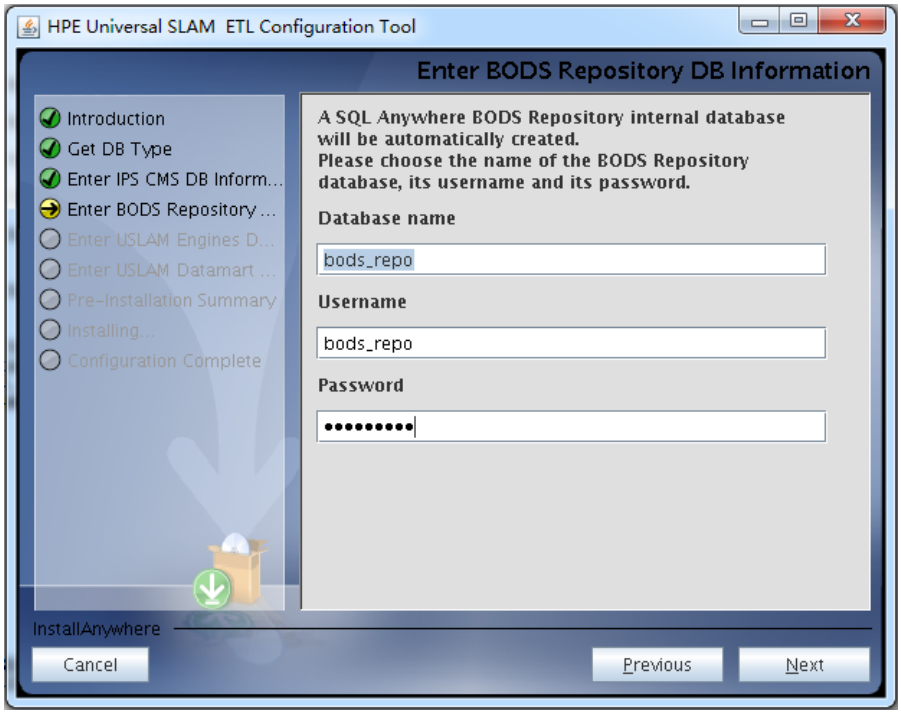



Figure 41: USLAM ETL Configuration Tool – BODS Repository Database

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

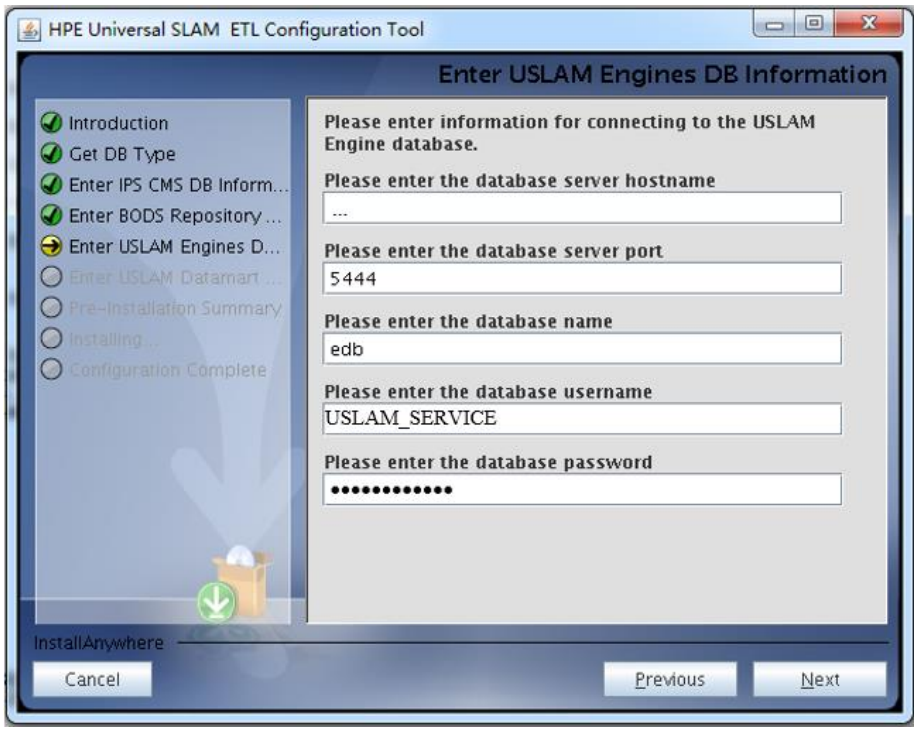



Figure 42: USLAM ETL Configuration Tool –USLAM Engine Database

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

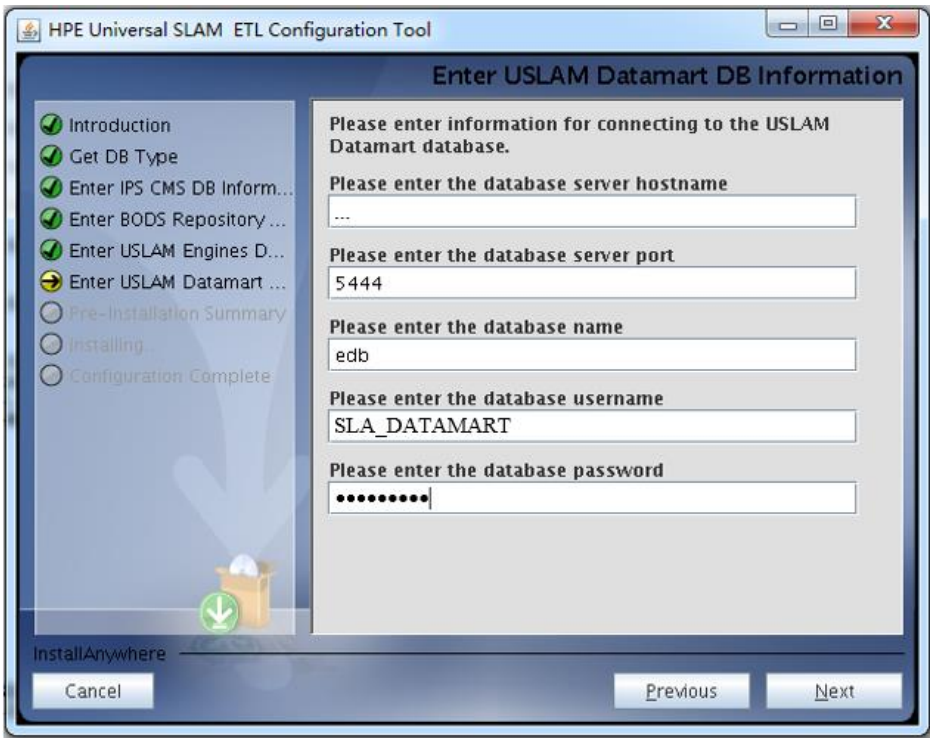



Figure 43: USLAM ETL Configuration Tool –USLAM Datamart Database

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

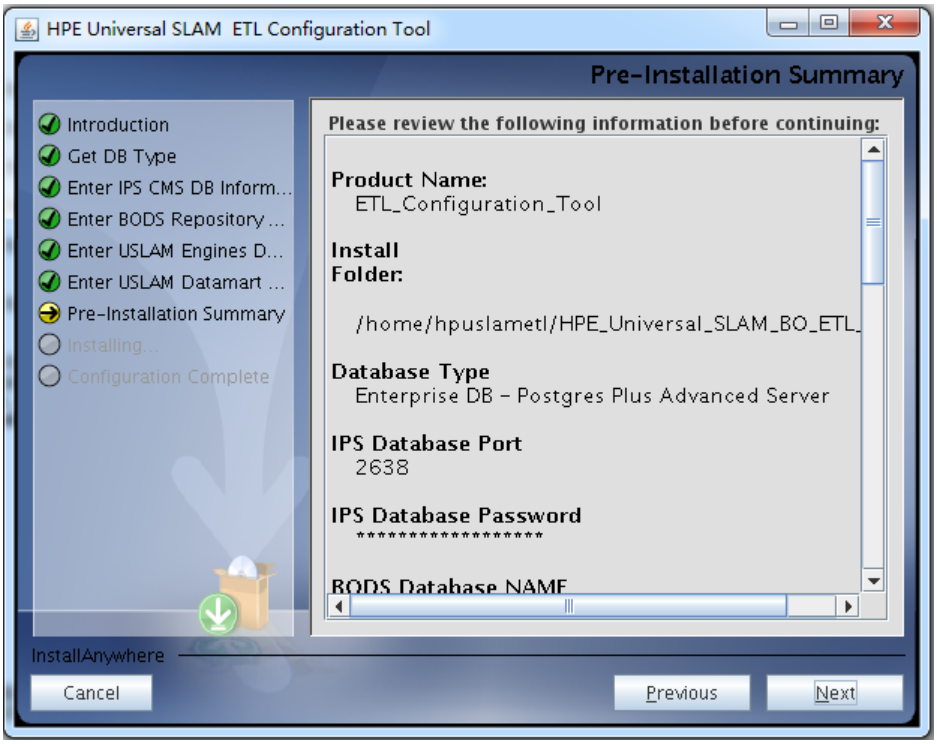



Figure 44: USLAM ETL Configuration Tool –Summary

12. Click [Install] to start the configuration.

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

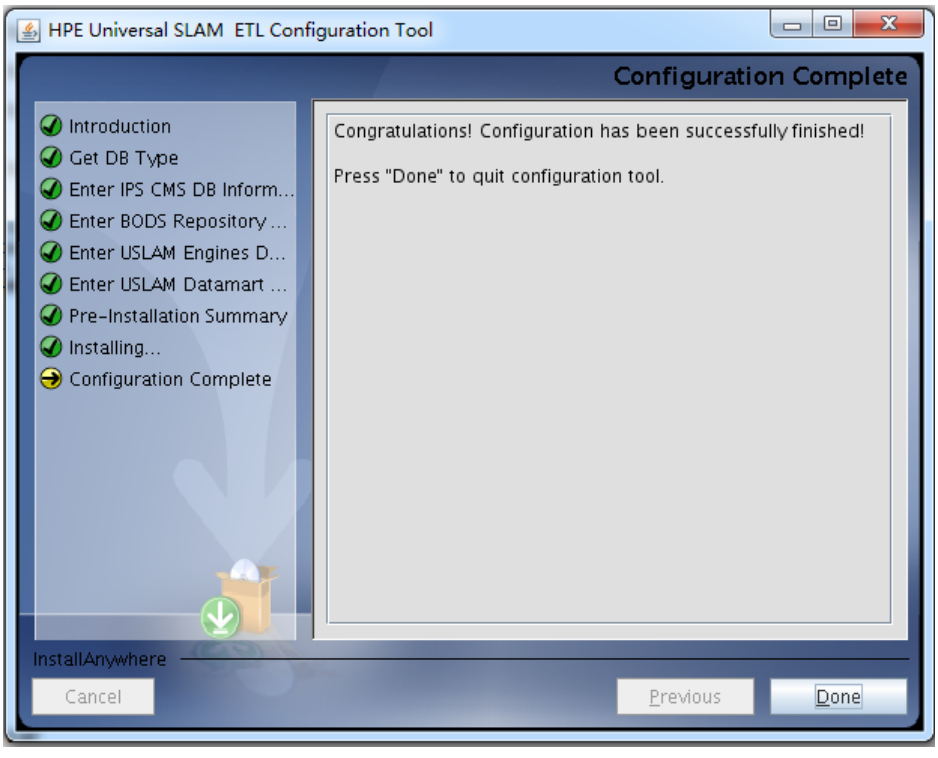



Figure 45: USLAM ETL Configuration Tool –Installation Complete

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://<server_address>:8180/DataServices/launch/
   logon.do
   ```

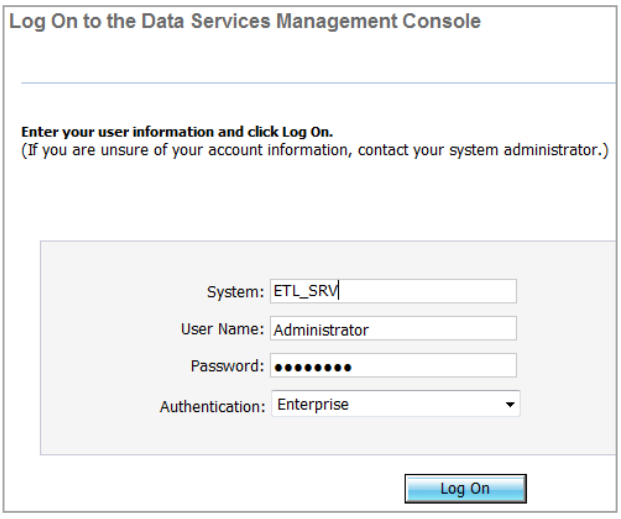



Figure 46: BODS Management Console Login

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

2. Click on the Administrator Icon


Figure 47: BODS Management Console – Administrator

3. Click on Status <name of your BODS repos server>
    - **Then, click on the Batch Job Configuration tab.**

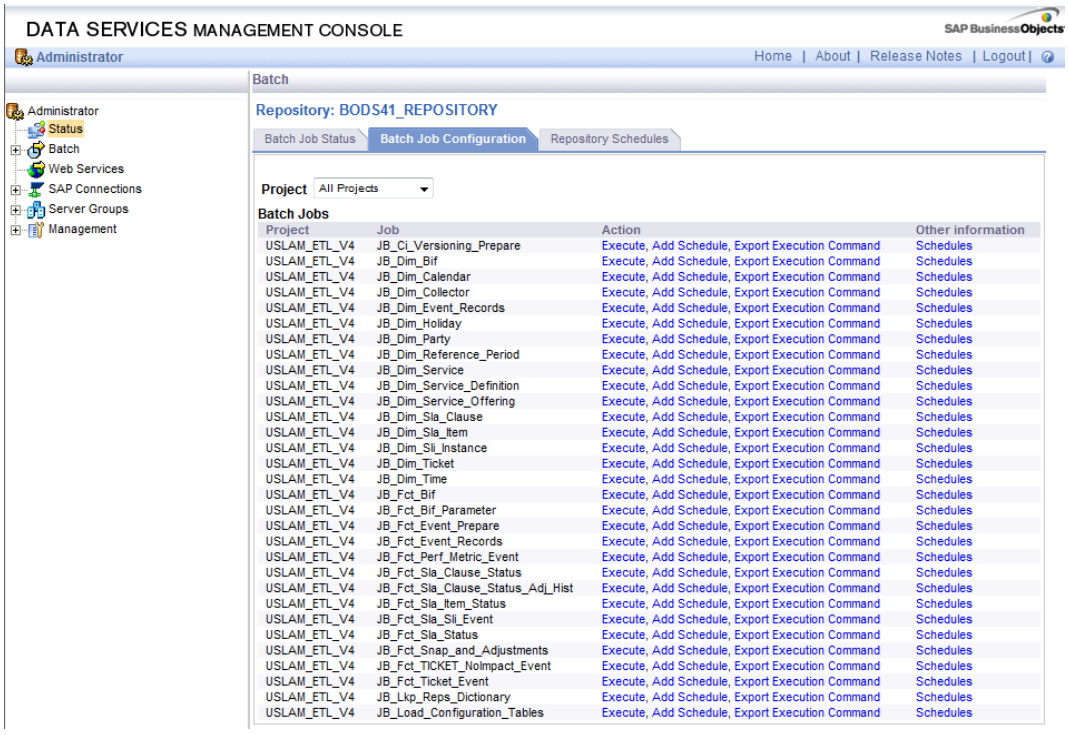



Figure 48: BODS Management Console – Batch Job Execution

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

# 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

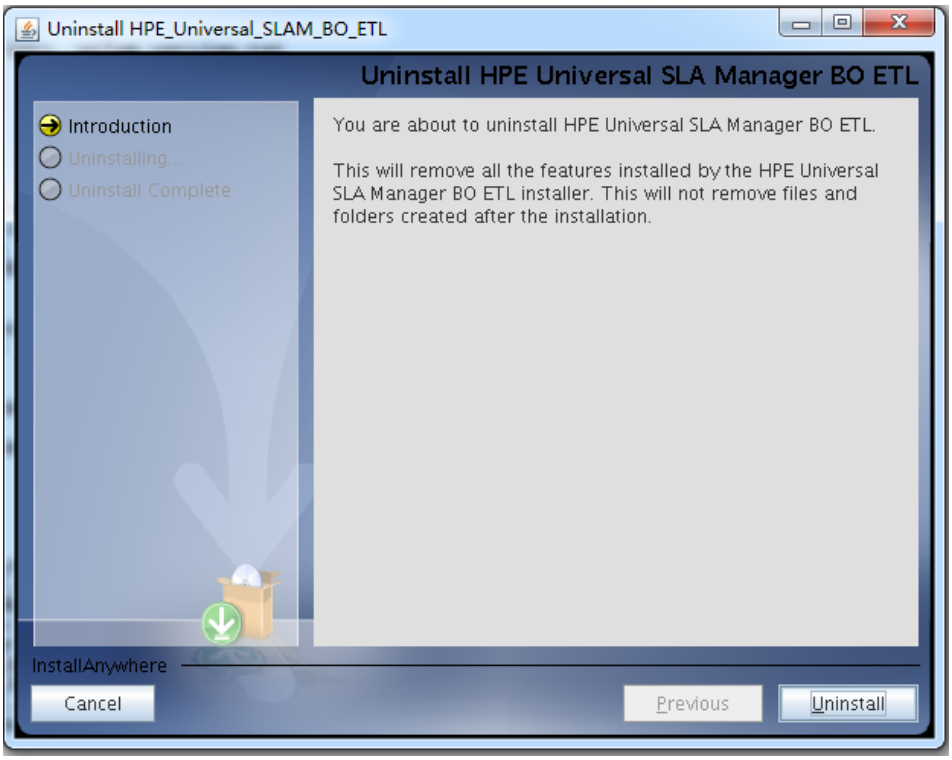



Figure 49: USLAM ETL Uninstallation – Introduction

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

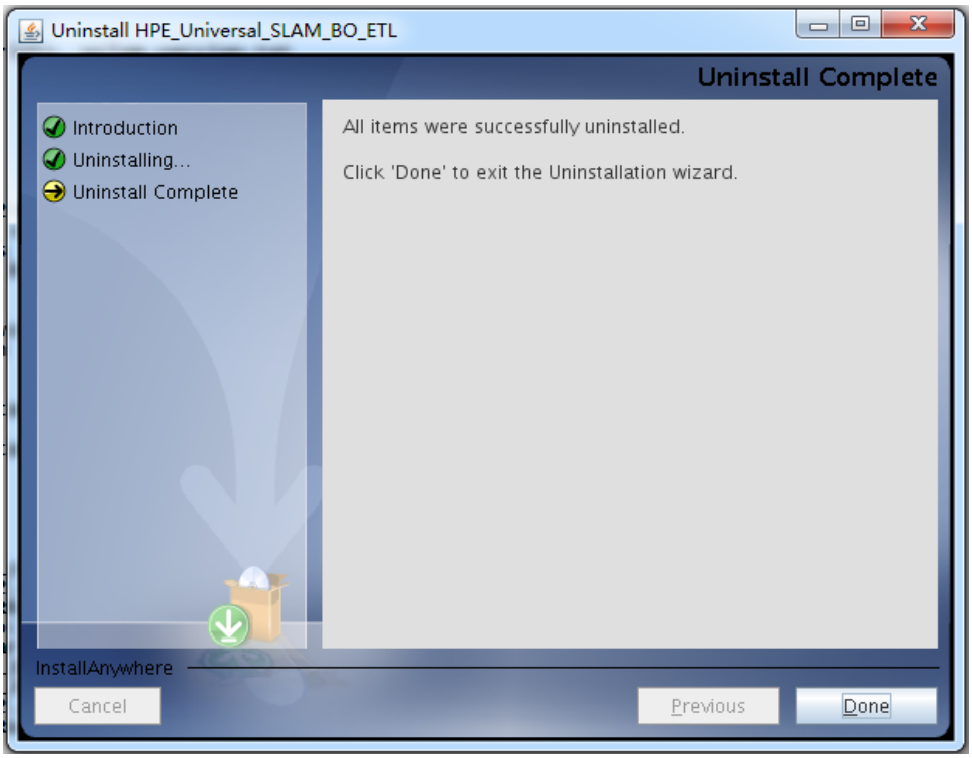



Figure 50: USLAM ETL Uninstallation – Uninstallation Complete

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
**B**usiness **O**bjects **E**nterprise **C**entral **M**anagement **S**erver **D**ata**b**ase
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<br><br>or Oracle DB | SQL Anywhere embedded 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 **prope**r 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:

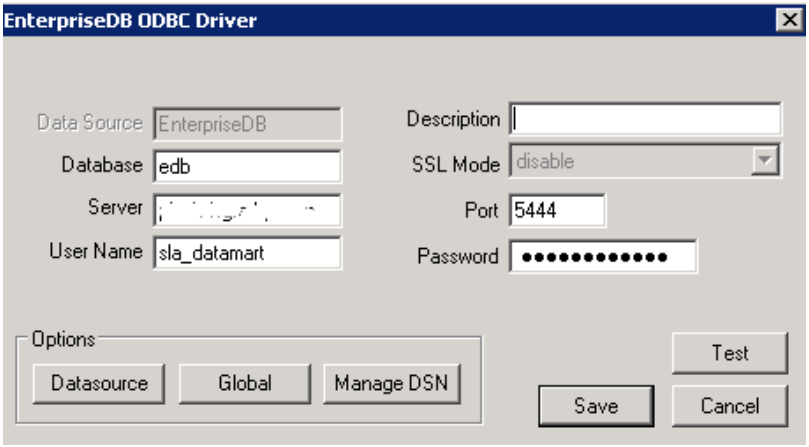



Figure 51: Add a datasource for EnterpriseDB ODBC Driver

### 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 sub-process 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

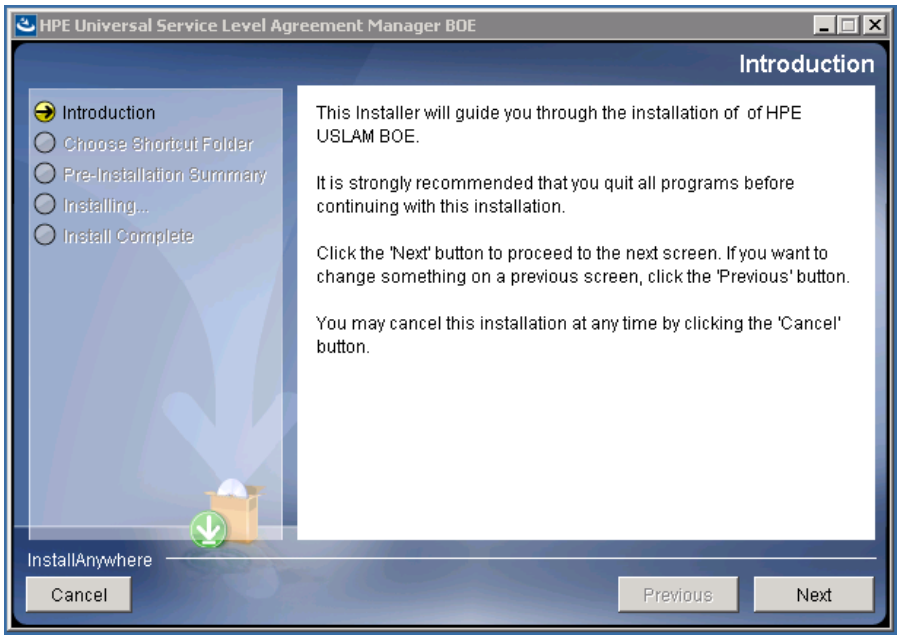



Figure 52: USLAM Reporting Installation - Introduction

4. Click [Next] to continue.

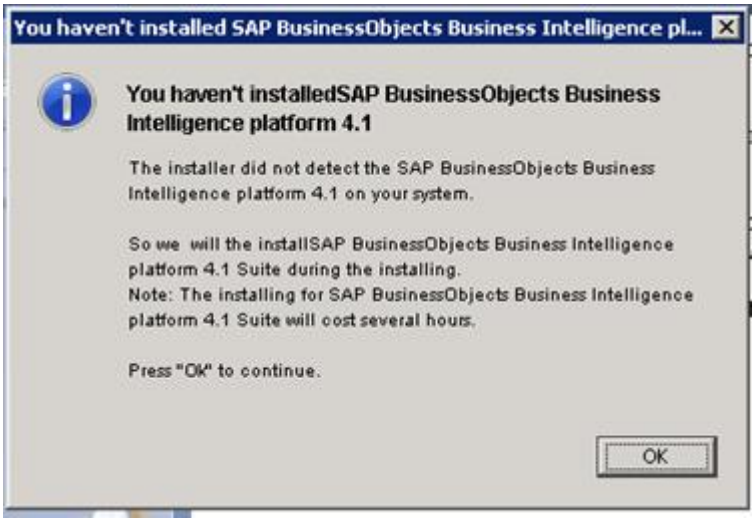



Figure 53: USLAM Reporting Installation – Warning

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

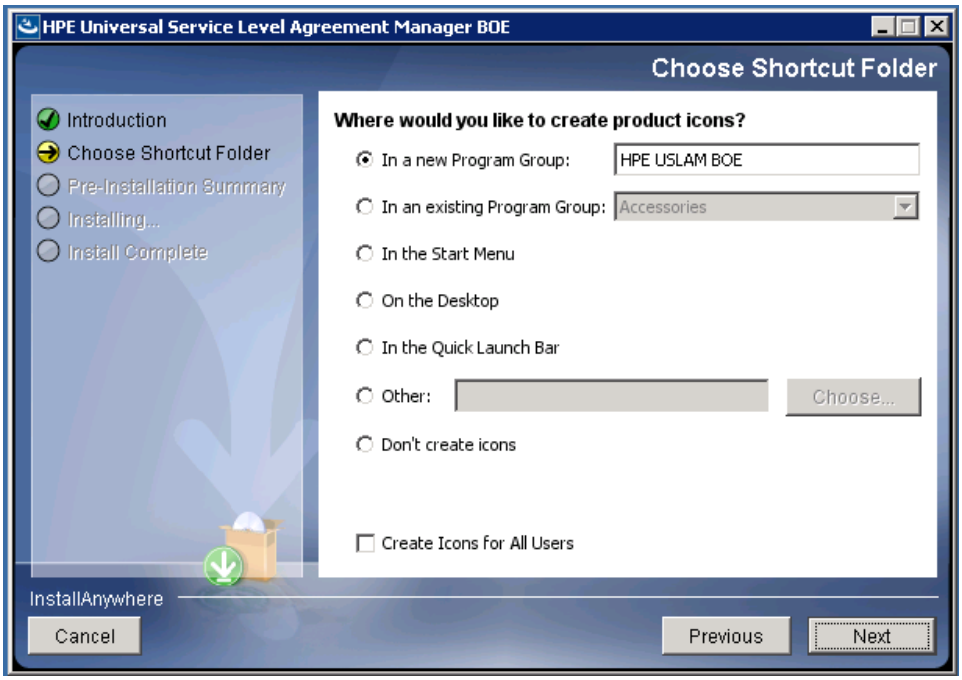



Figure 54: USLAM Reporting Installation – Shortcut Folder

6. The Pre-Installation Summary window displays

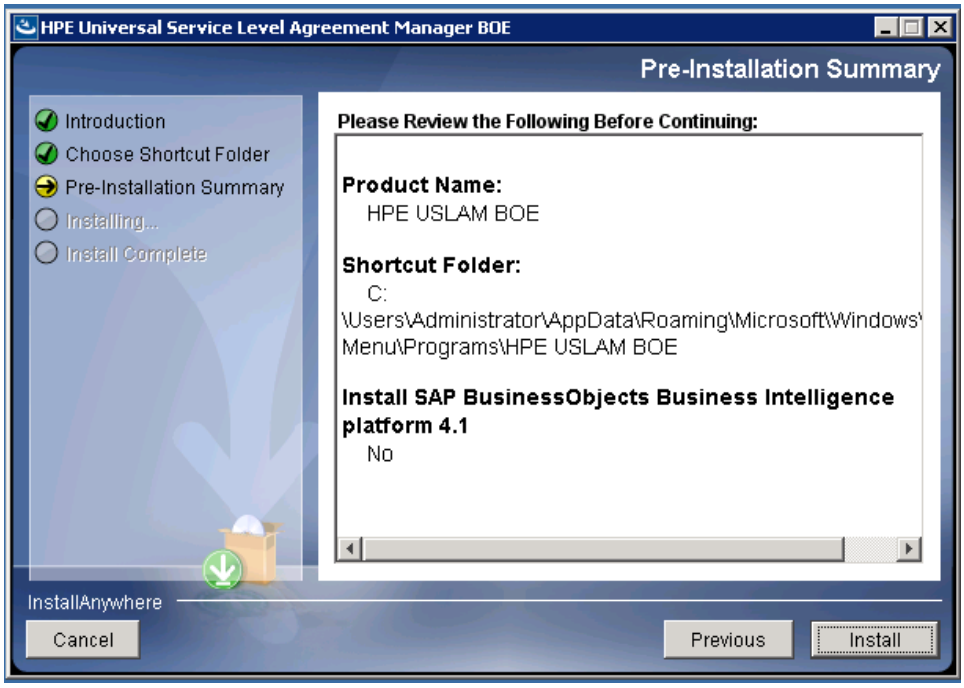



Figure 55: USLAM Reporting Installation – Pre-Installation Summary

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

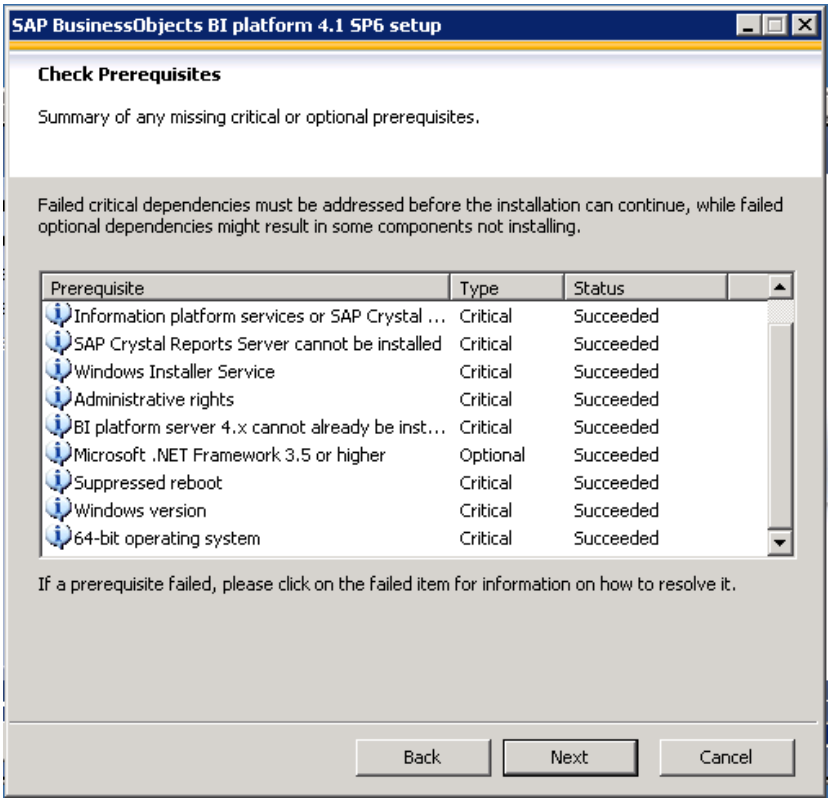



Figure 56: SAP BusinessObjects BI platform - Prerequisites check for installation

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

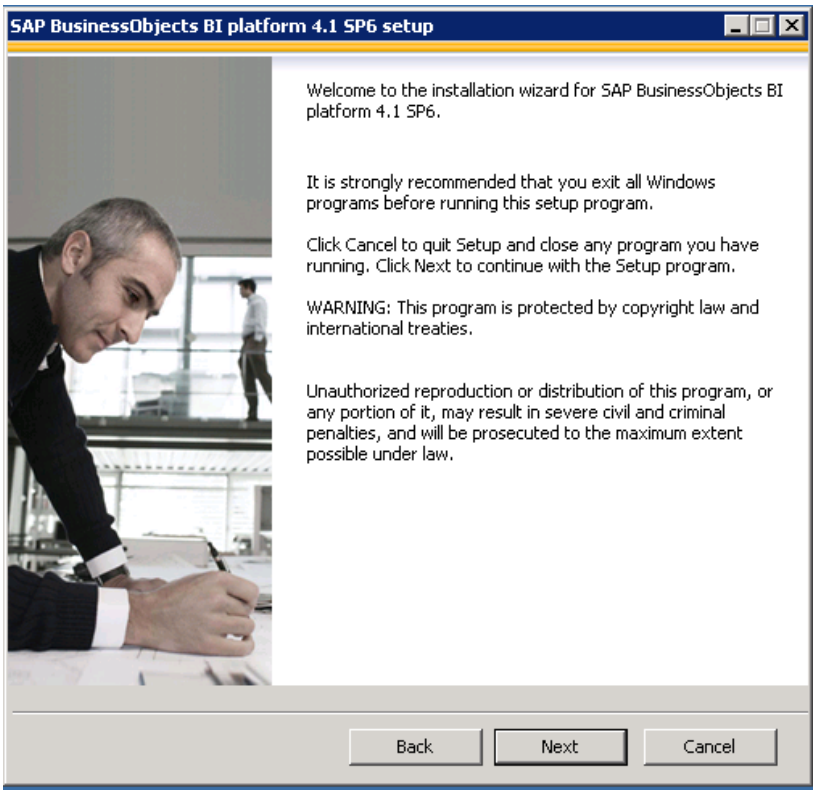



Figure 57: SAP BusinessObjects BI platform - Welcome

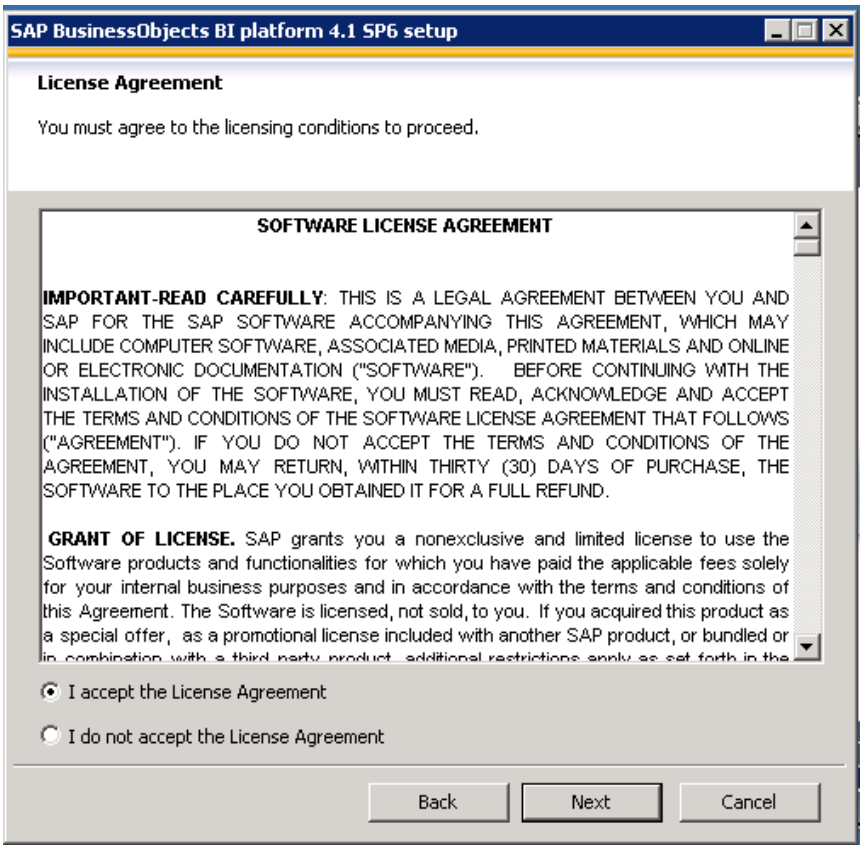



Figure 58: SAP BusinessObjects BI platform - License Agreement

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

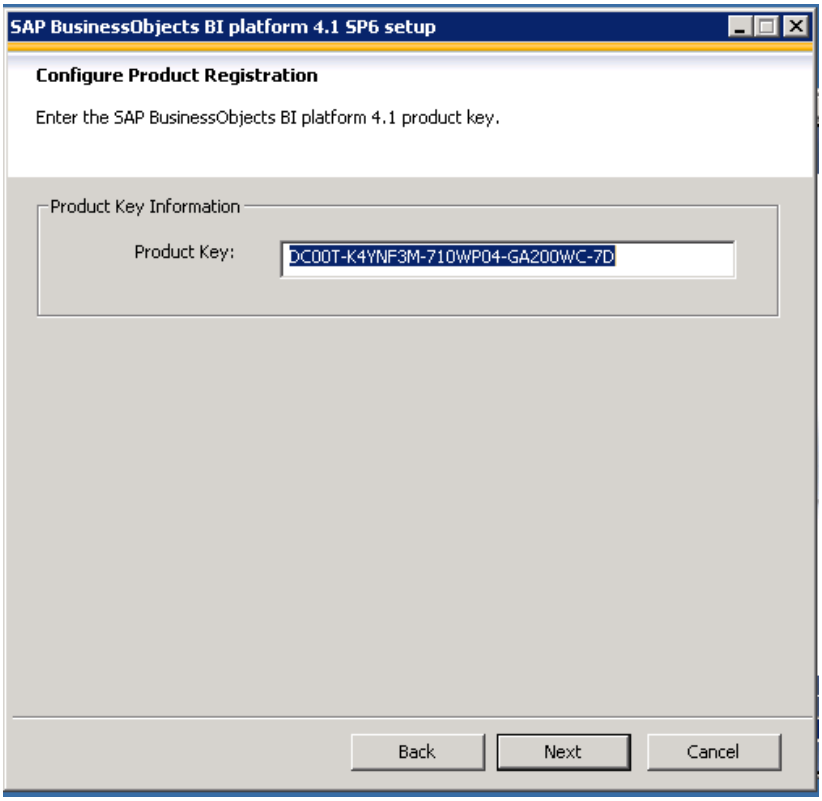


Figure 59: SAP BusinessObjects BI platform - Product key

11. Select Lanuguage

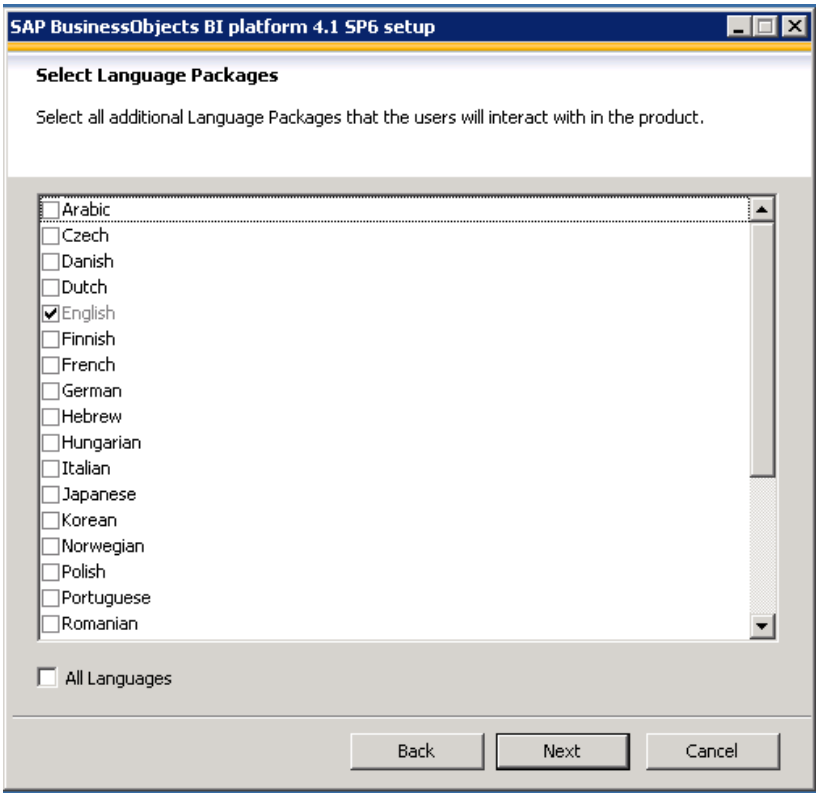



Figure 60: SAP BusinessObjects BI platform - Select Lanuguage

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.

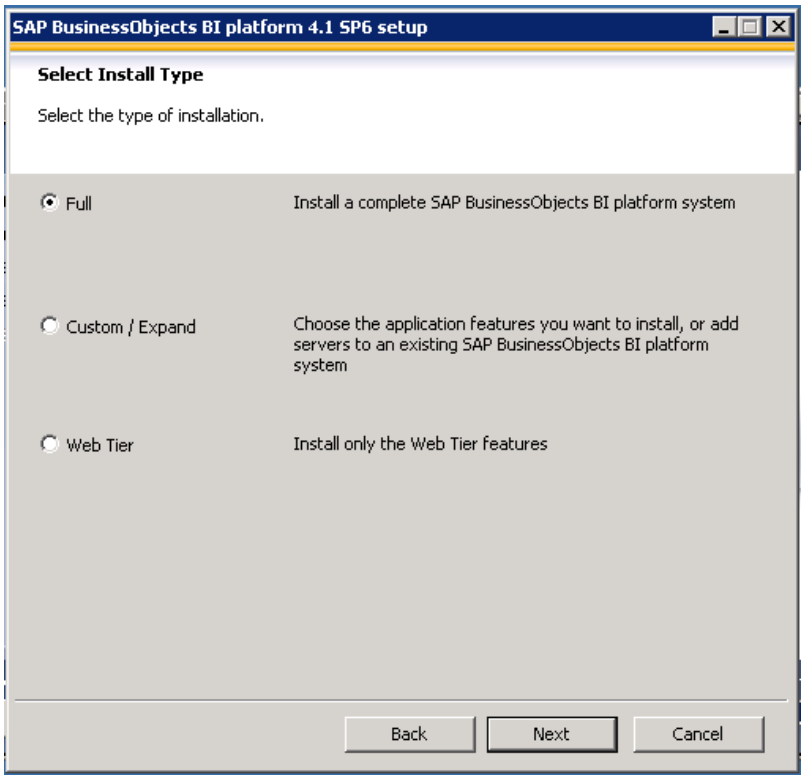



Figure 61: SAP BusinessObjects BI platform - Select install type

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)

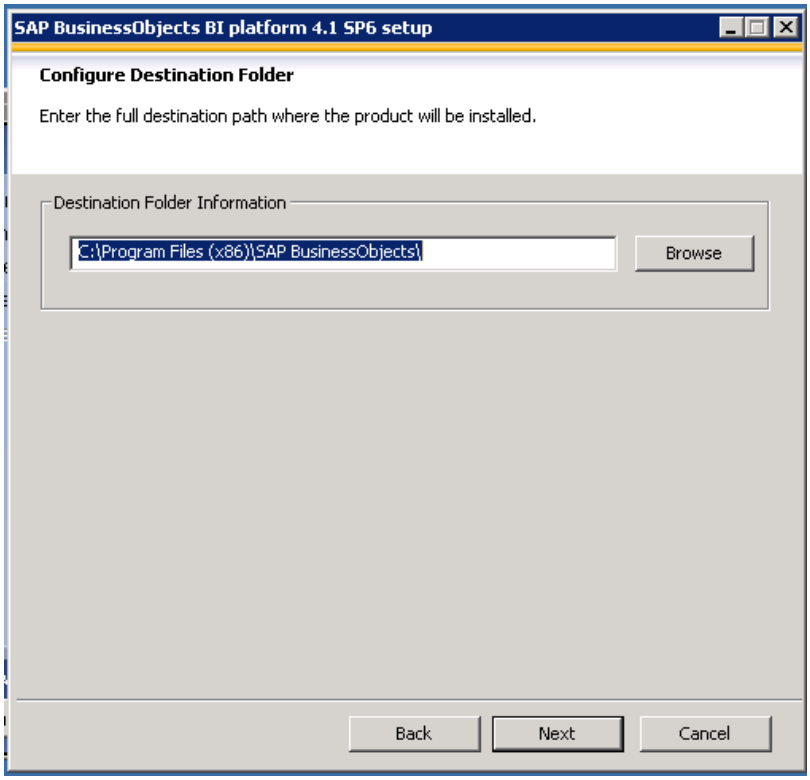



Figure 62: SAP BusinessObjects BI platform - Select install directory

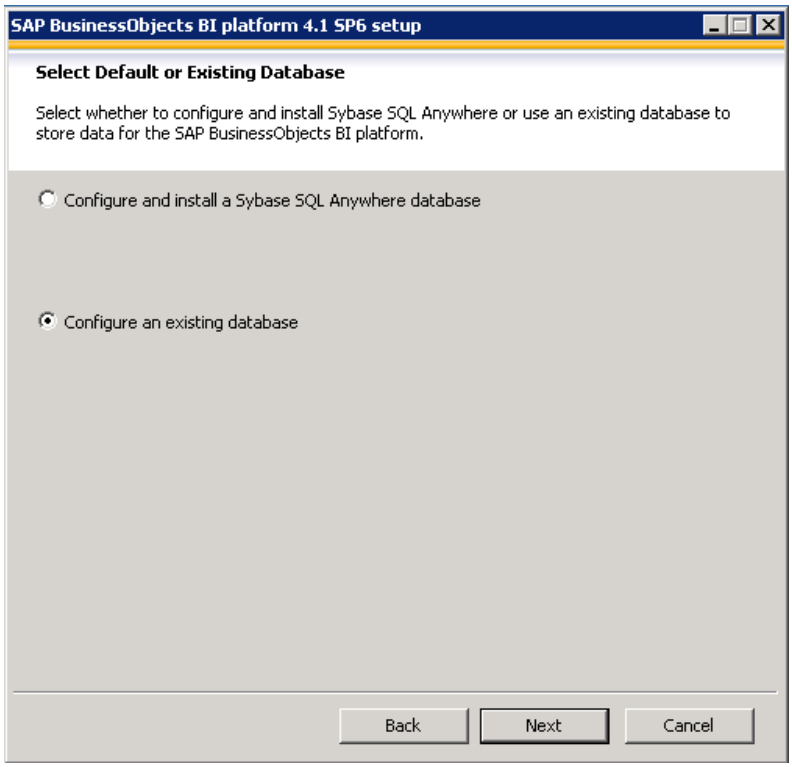



Figure 63: SAP BusinessObjects BI platform - Select install CMS database

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)

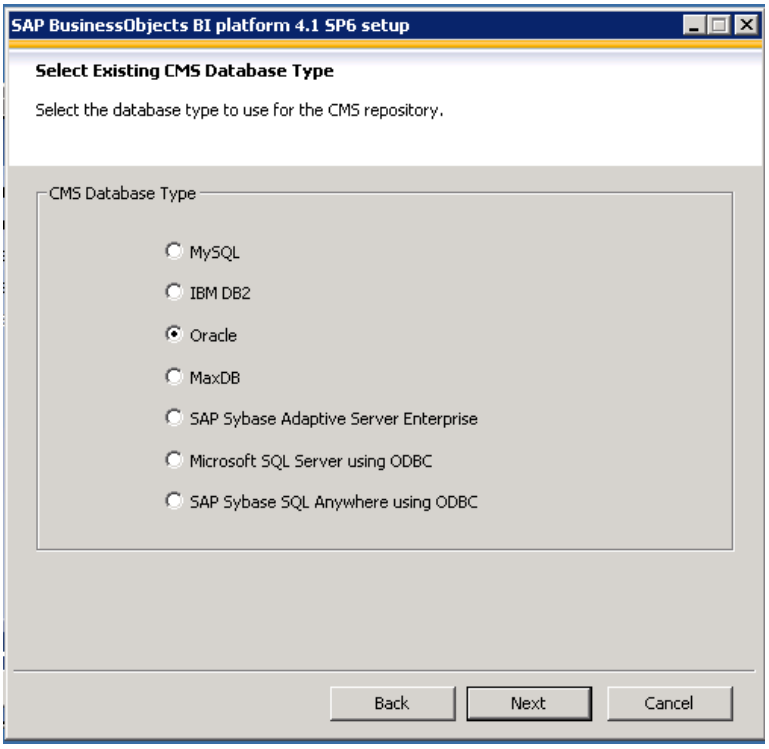



Figure 64: SAP BusinessObjects BI platform - Select install CMS database type

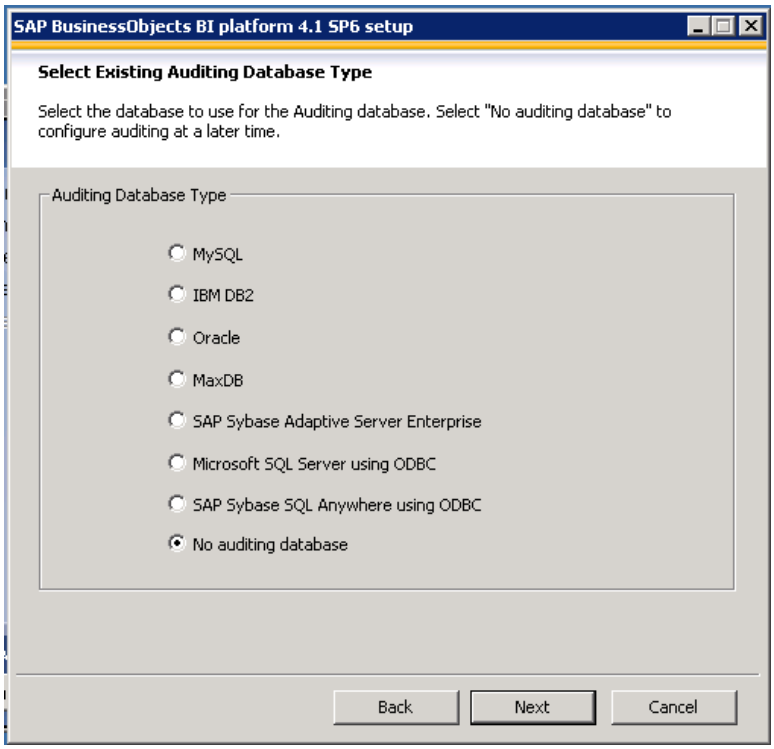


Figure 65: SAP BusinessObjects BI platform - Select install auditing database type

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

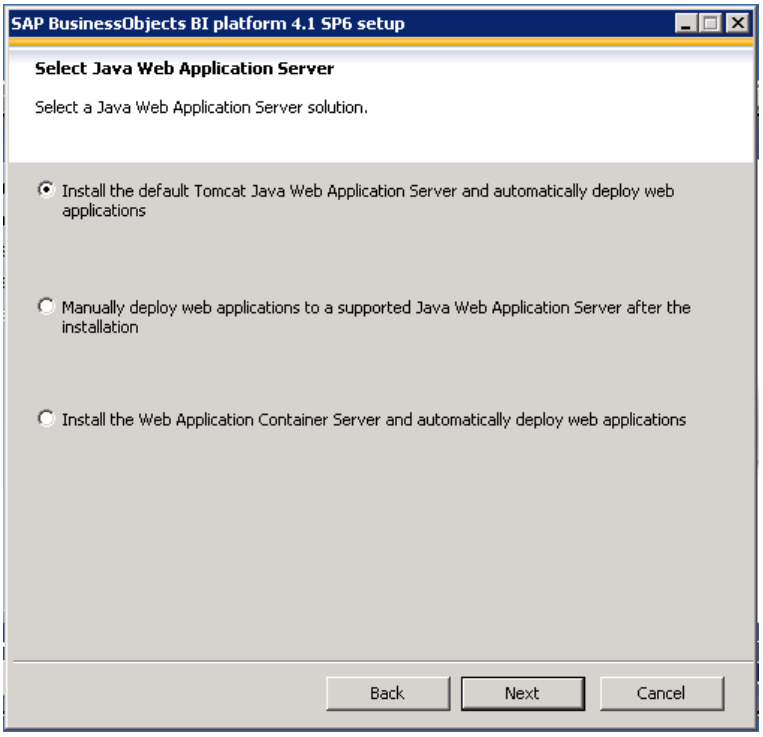



Figure 66: SAP BusinessObjects BI platform - Select Java Web Application Server

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

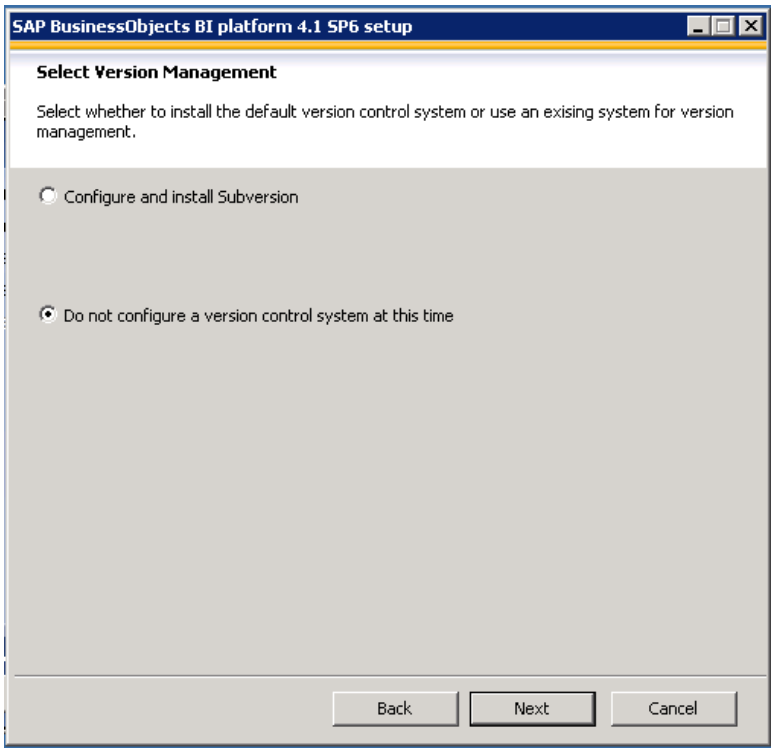



Figure 67: SAP BusinessObjects BI platform - Select Version Managemnet

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

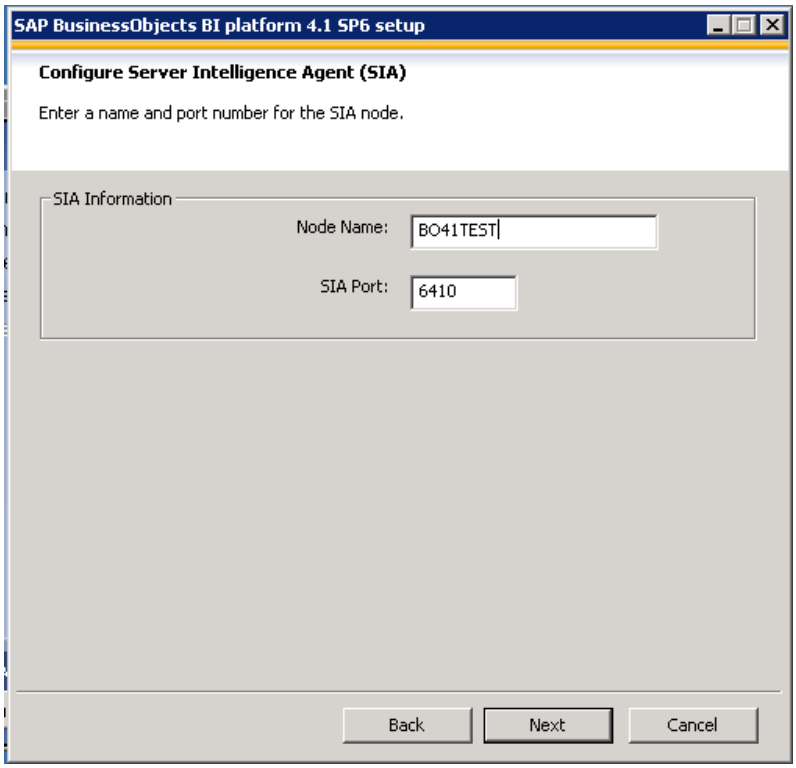



Figure 68: SAP BusinessObjects BI platform – SIA Information

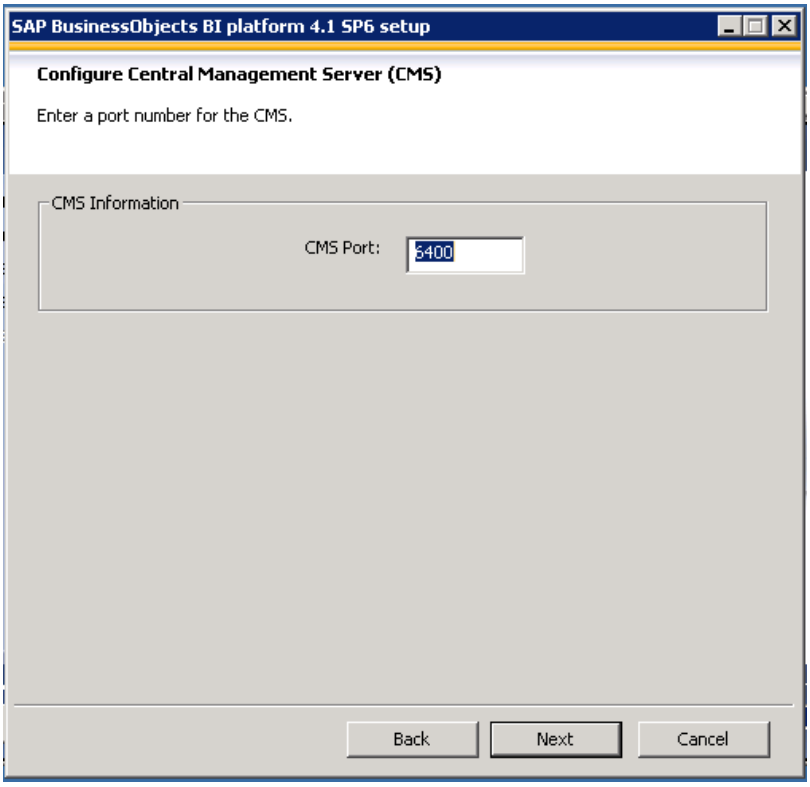



Figure 69: SAP BusinessObjects BI platform – CMS Information

19. Input password of CMS and Cluster key

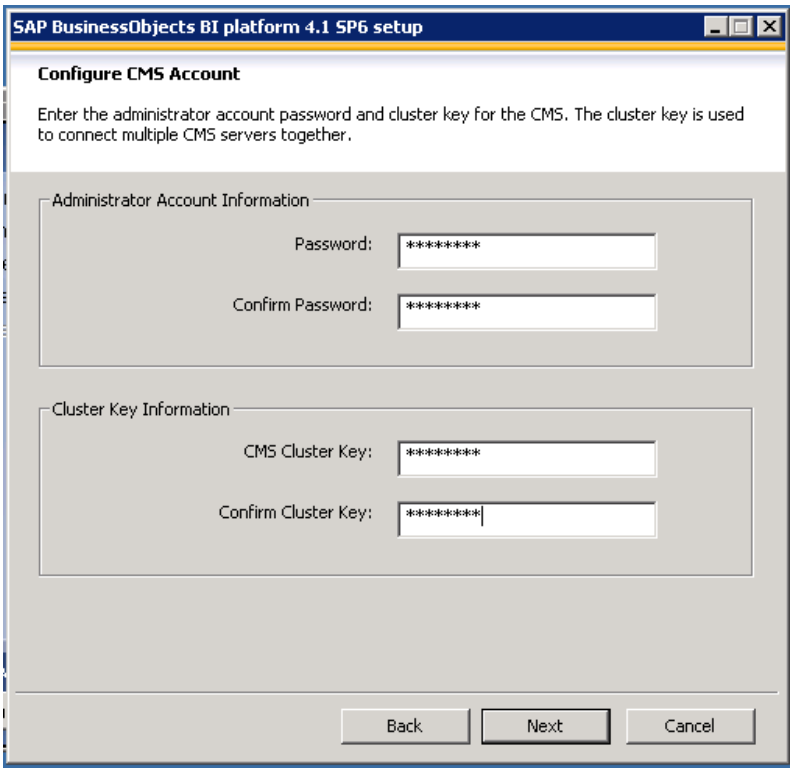



Figure 70: SAP BusinessObjects BI platform – Input account password

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)

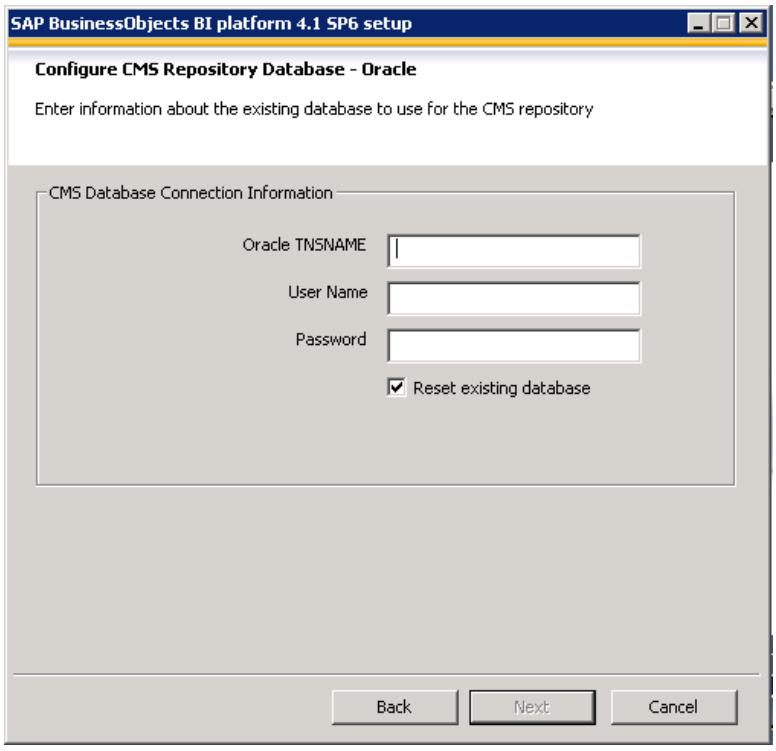



Figure 71: SAP BusinessObjects BI platform – CMS database Information

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

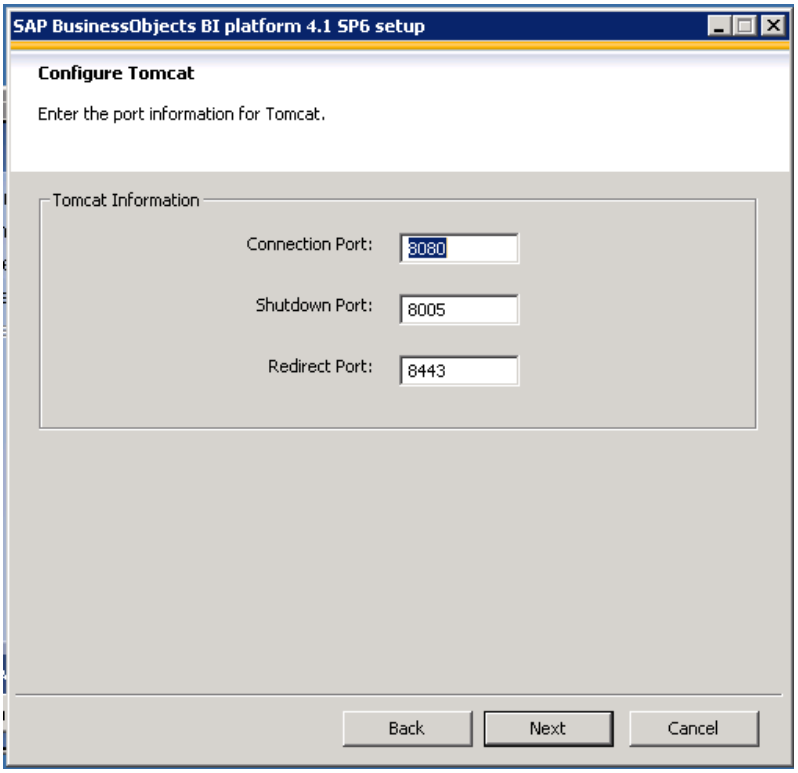


Figure 72: SAP BusinessObjects BI platform – Tomcat Information

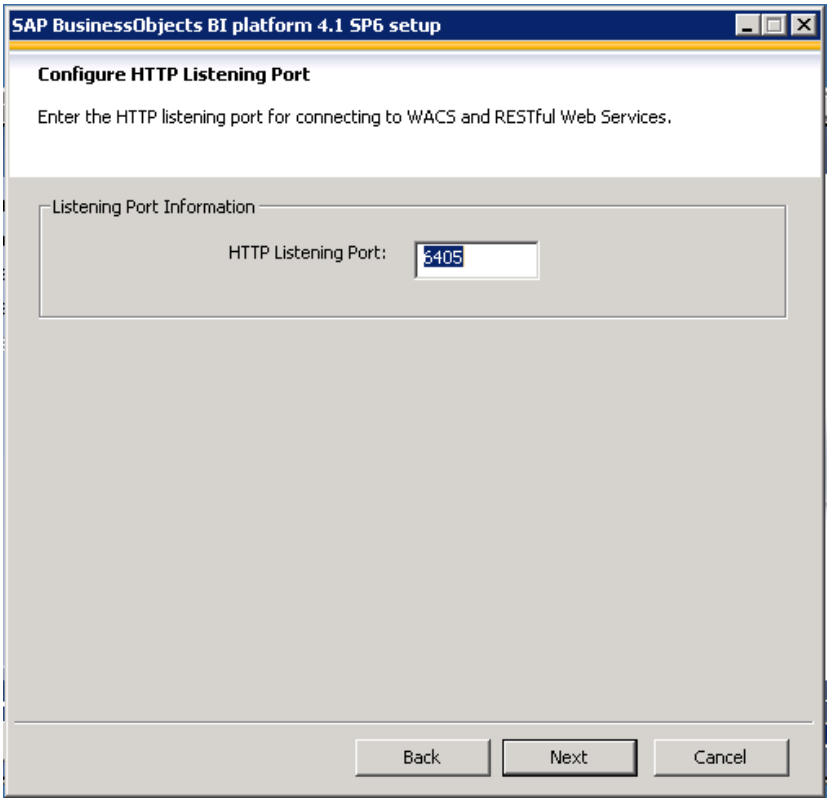



Figure 73: SAP BusinessObjects BI platform – Listening Port Information

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

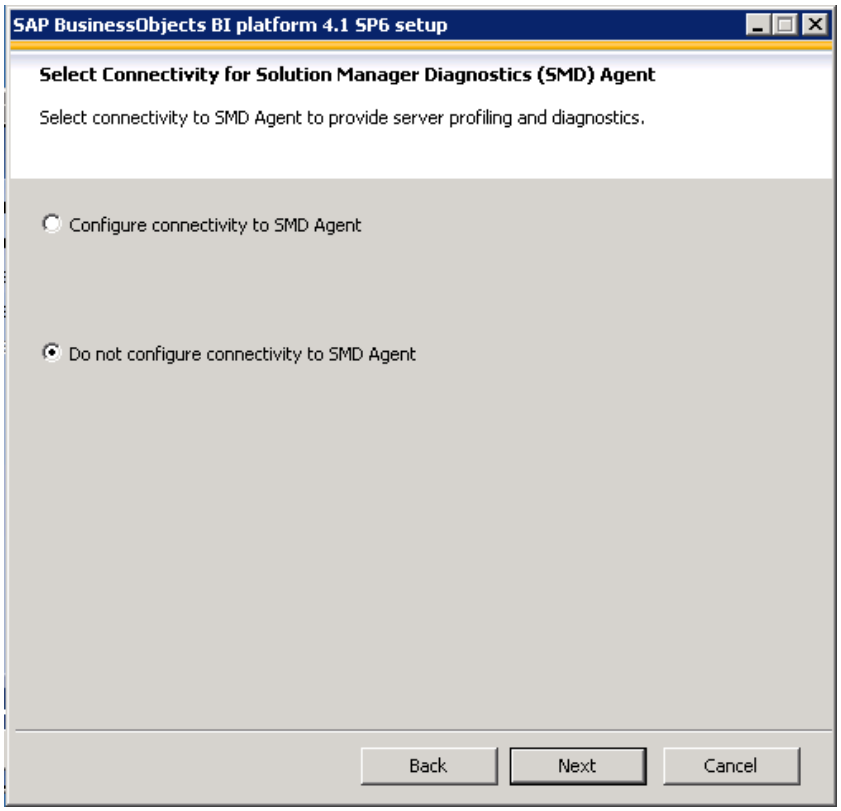



Figure 74: SAP BusinessObjects BI platform – SMD agent

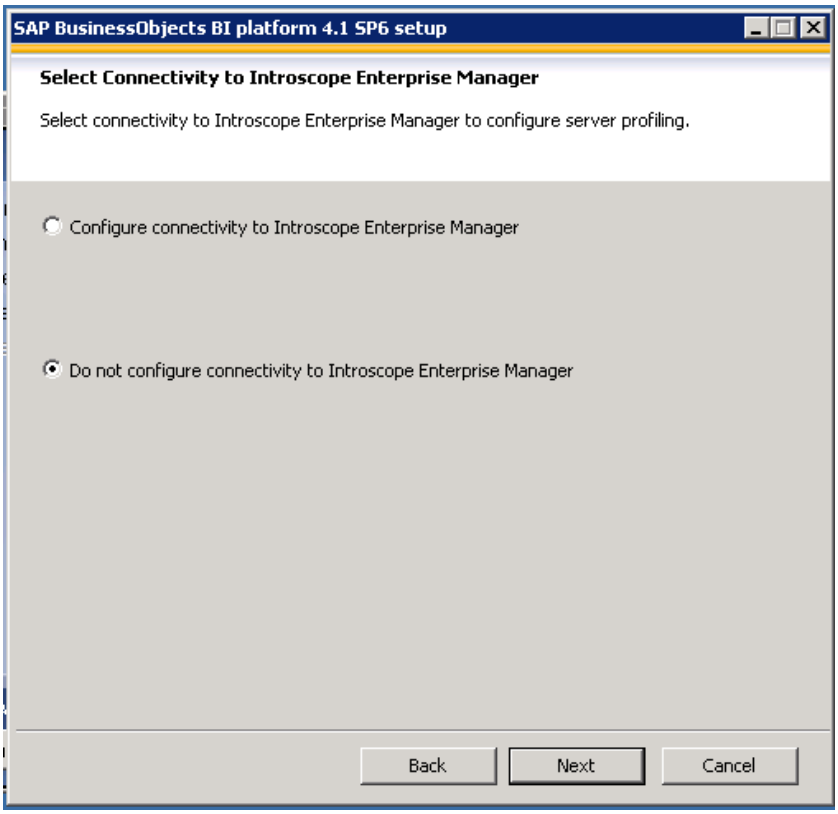



Figure 75: SAP BusinessObjects BI platform – Introscope Enterprise Manager

23. Click Next to start installation

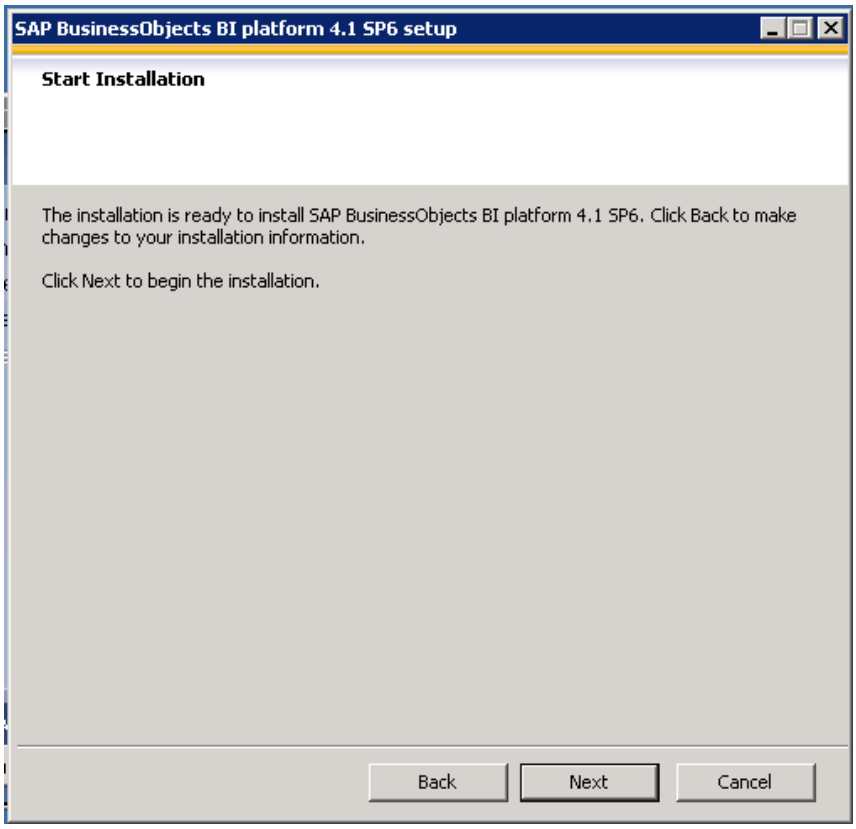



Figure 76: SAP BusinessObjects BI platform – Start Installation

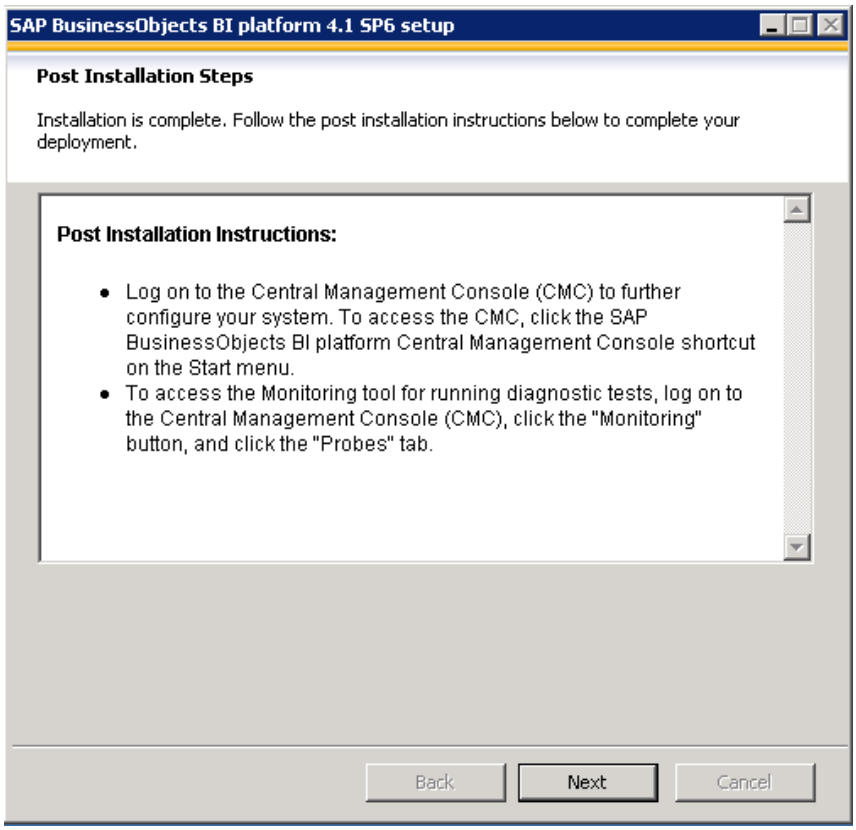



Figure 77: SAP BusinessObjects BI platform – Post Installation

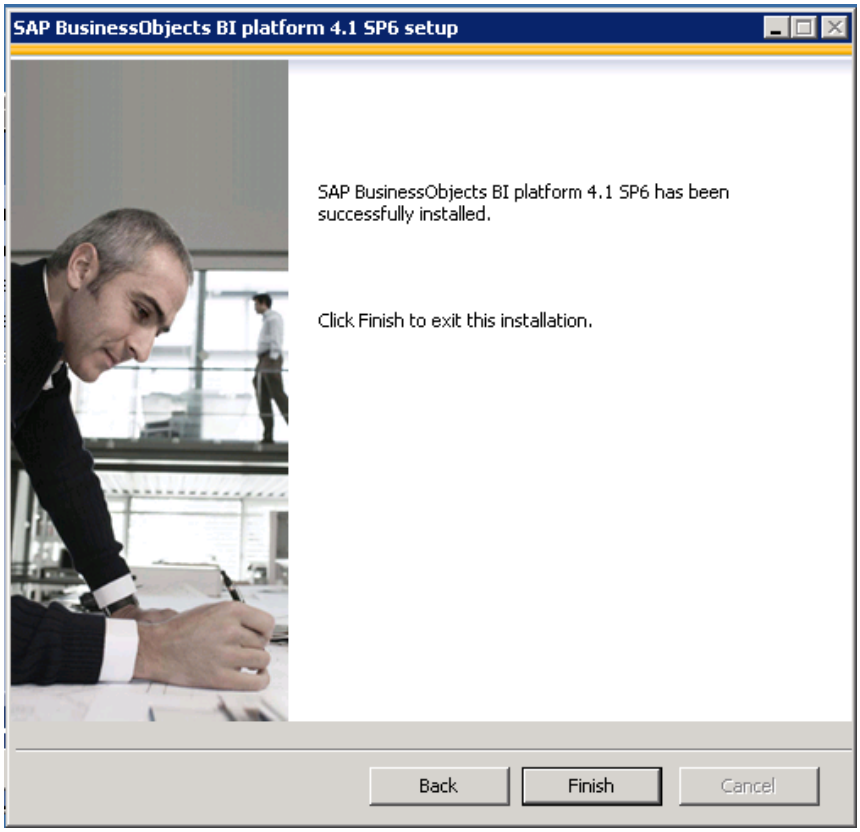


Figure 78: SAP BusinessObjects BI platform – Installation finish

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

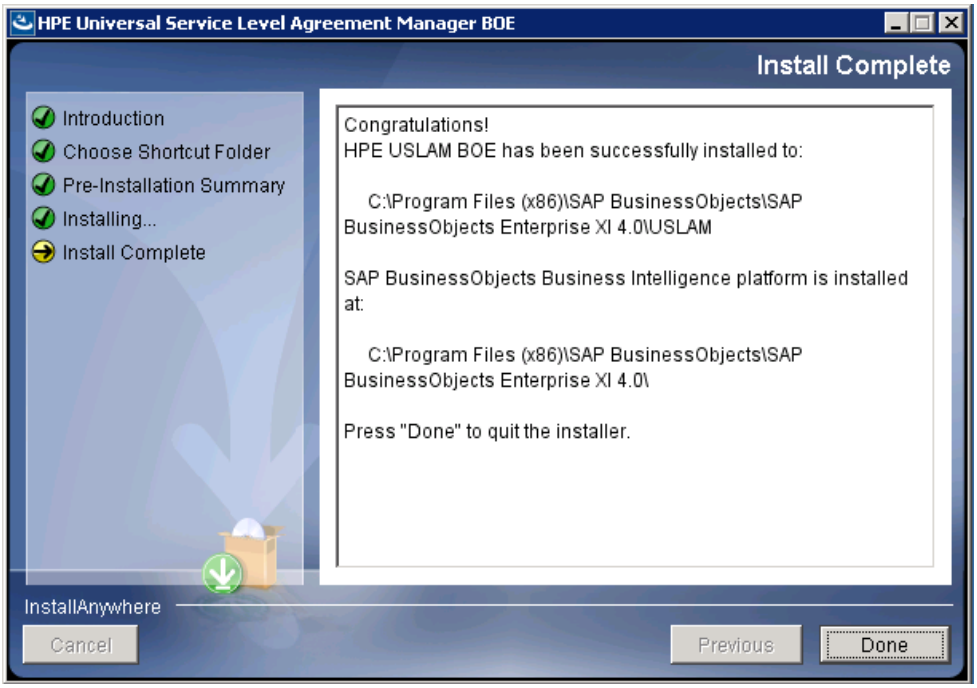



Figure 79: USLAM Reporting Installation – Installation finish

## 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

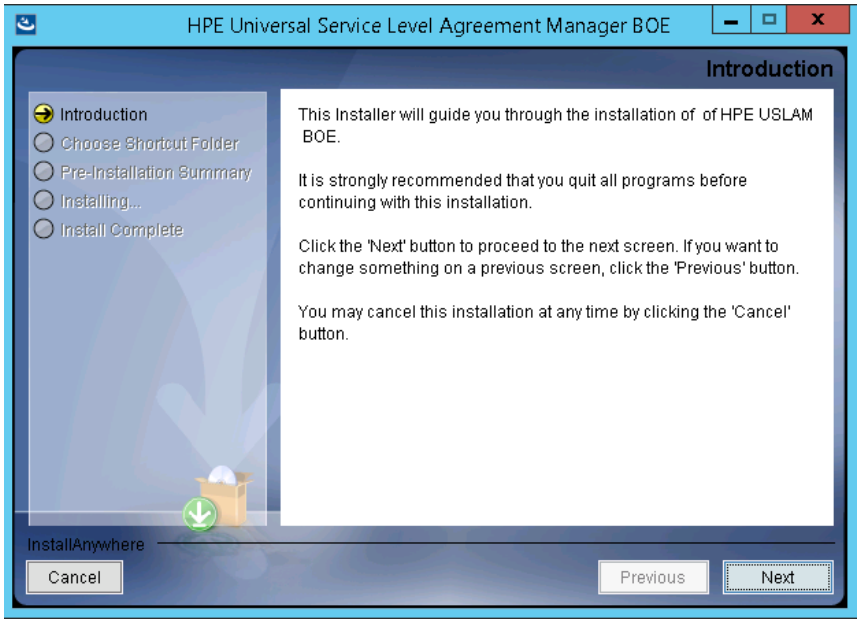



Figure 80: USLAM Reporting Installation - Introduction

3. Click [Next] to continue.

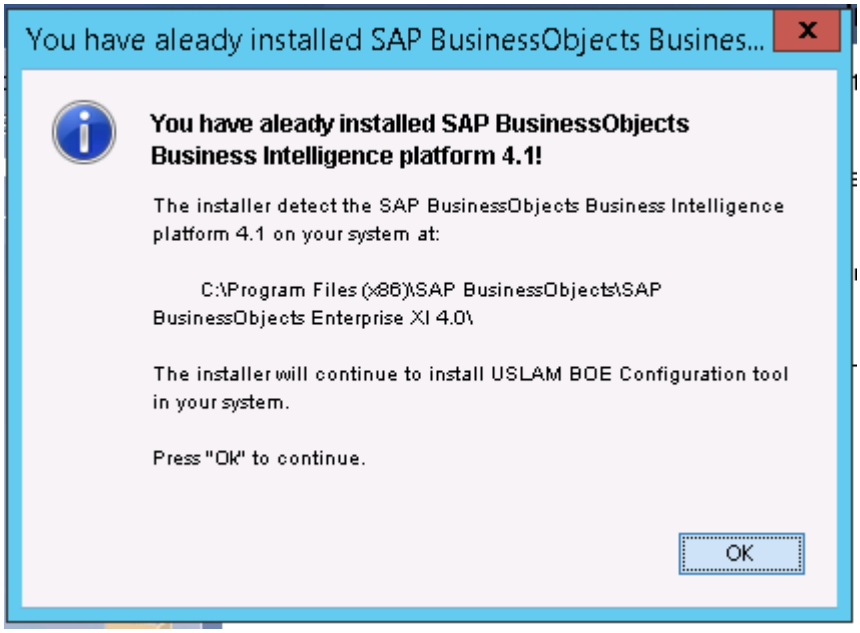



Figure 81: USLAM Reporting Installation – Information

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

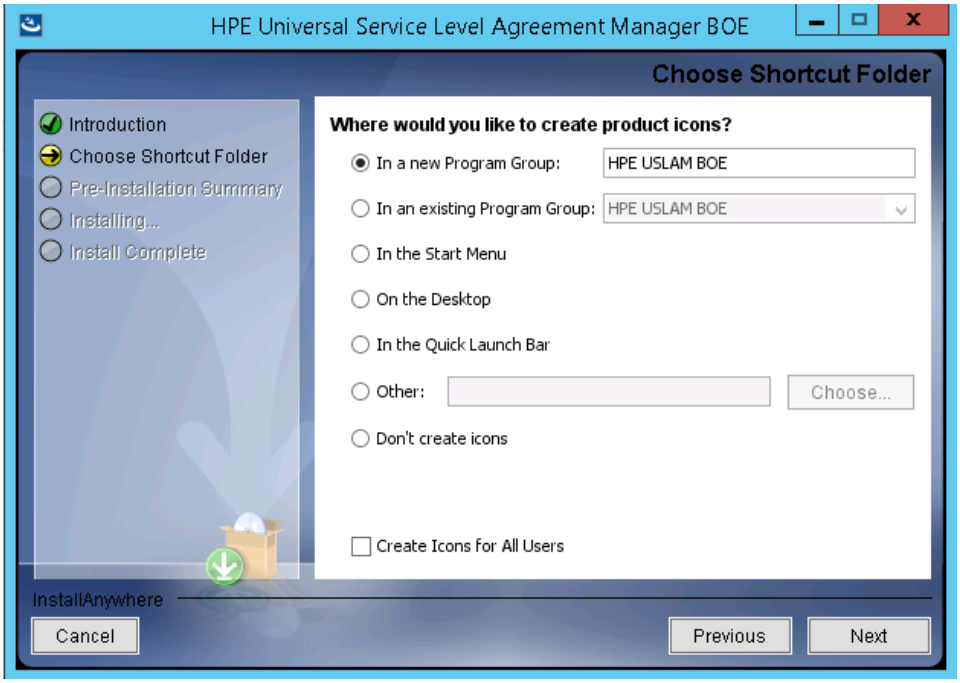



Figure 82: USLAM Reporting Installation – Shortcut Folder

5. The Pre-Installation Summary window displays

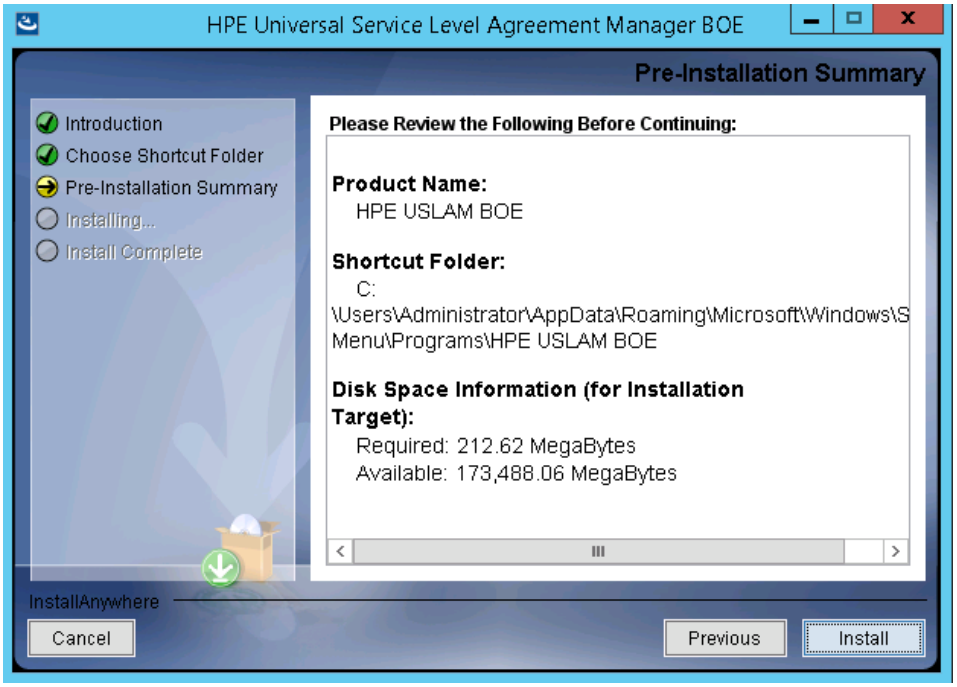



Figure 83: USLAM Reporting Installation – Pre-Installation Summary

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

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

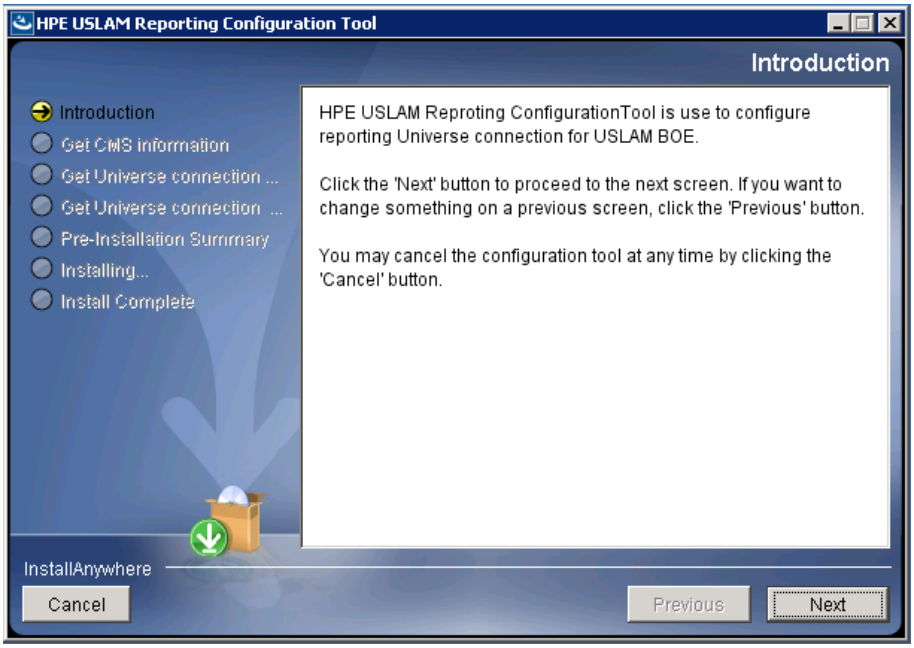



Figure 84: USLAM Reporting Configuration Tool – Introduction

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.

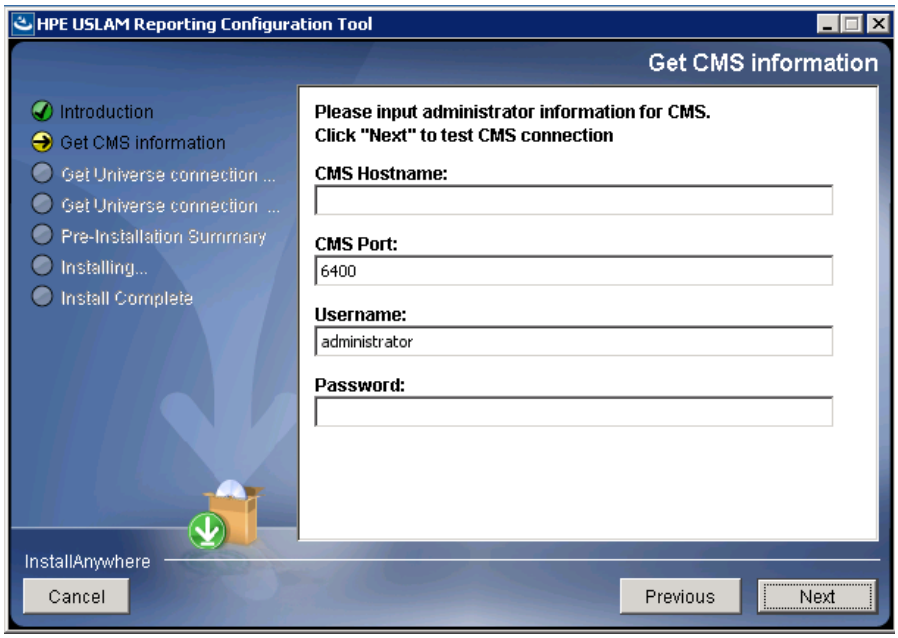



Figure 85: USLAM Reporting Configuration Tool – CMS information

5. Choose the datamart database type

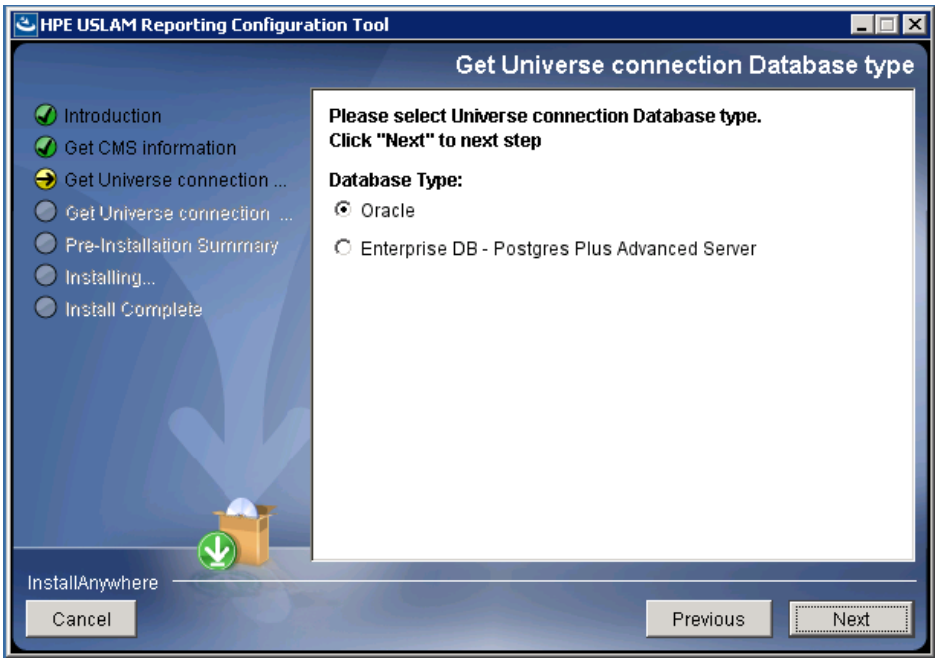



Figure 86: USLAM Reporting Configuration Tool – Database Type

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

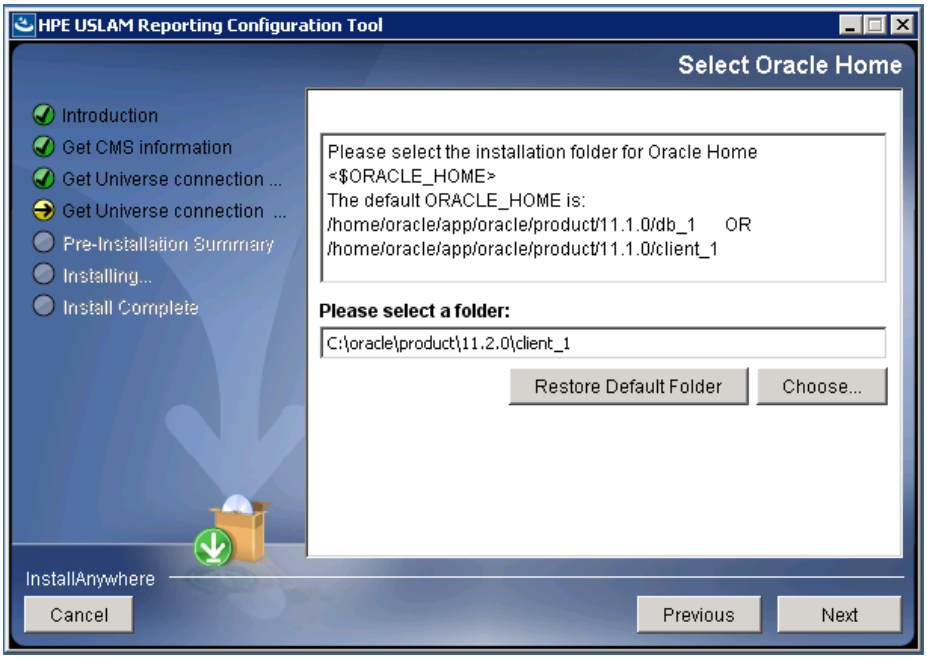



Figure 87: USLAM Reporting Configuration Tool – Oracle Home

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.

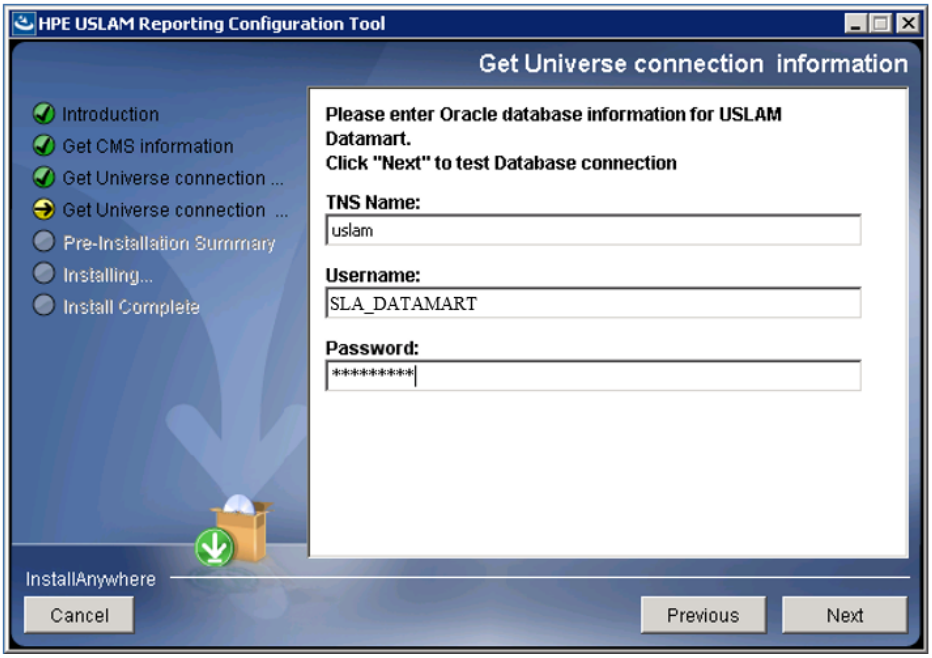



Figure 88: USLAM Reporting Configuration Tool – Datamart Database

9. The Pre-Installation Summary window displays

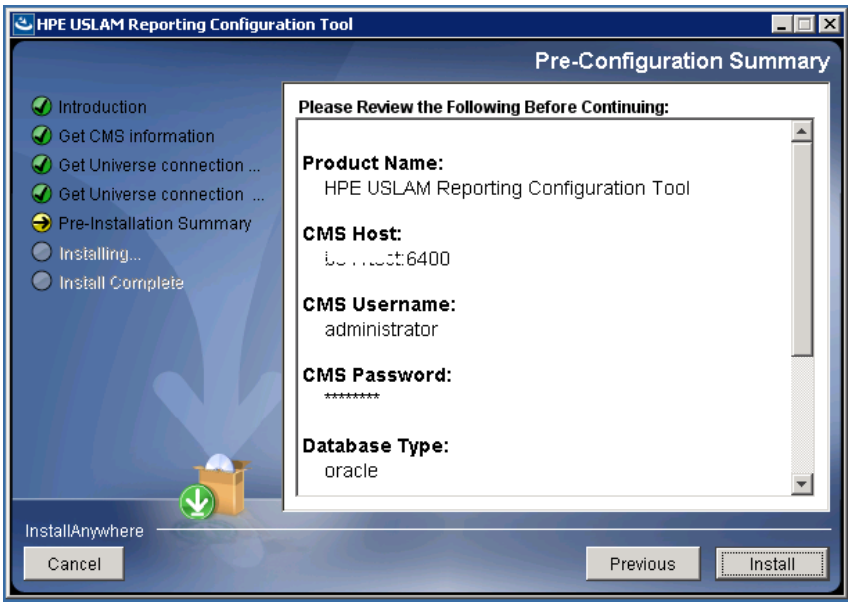



Figure 89: USLAM Reporting Configuration Tool – Pre-Installation Summary

10. Click [Install] to start the configuration.

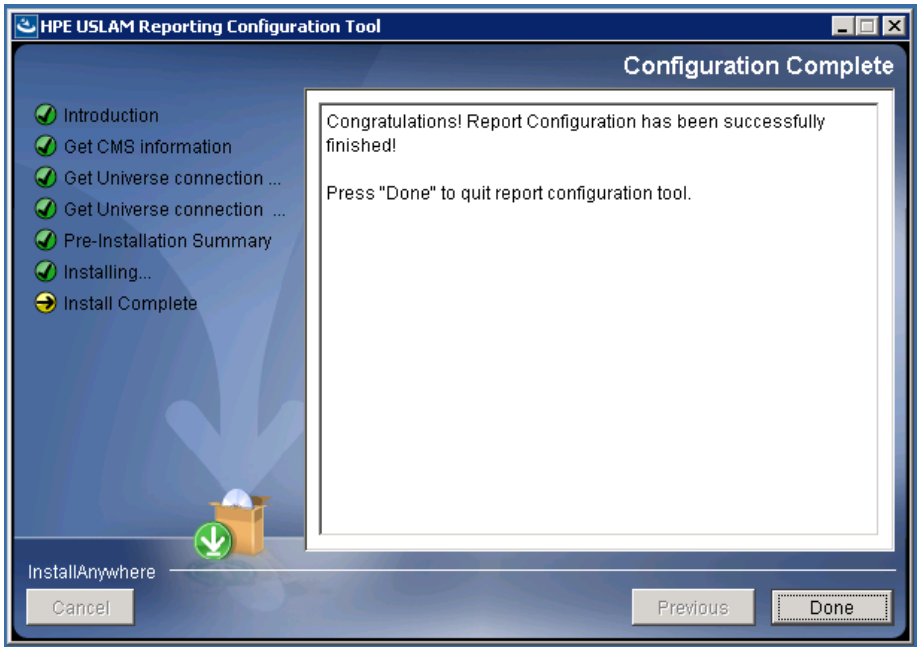



Figure 90: USLAM Reporting Configuration Tool –Installation finish

### 5.2.5.2 Configuring reporting with Enterprise DB Postgres Plus Advanced Server Database

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

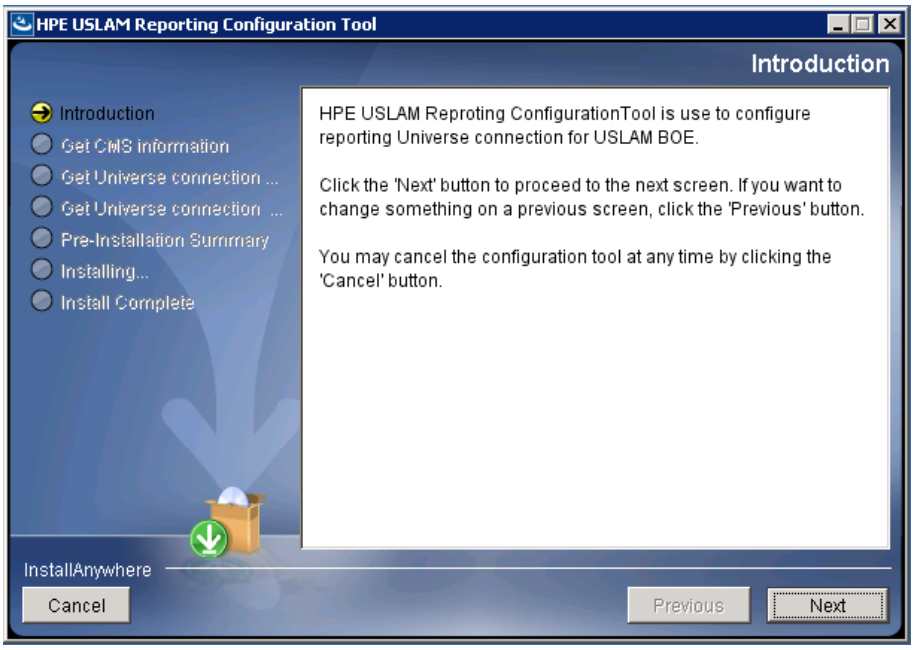



Figure 91: USLAM Reporting Configuration Tool – Introduction

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.

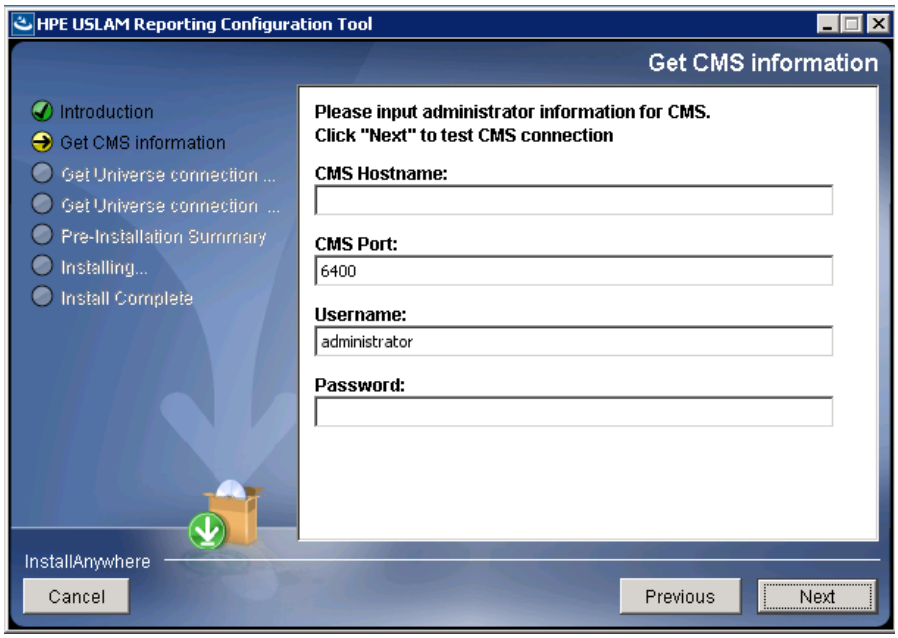



Figure 92: USLAM Reporting Configuration Tool – CMS information

5. Choose the datamart database type

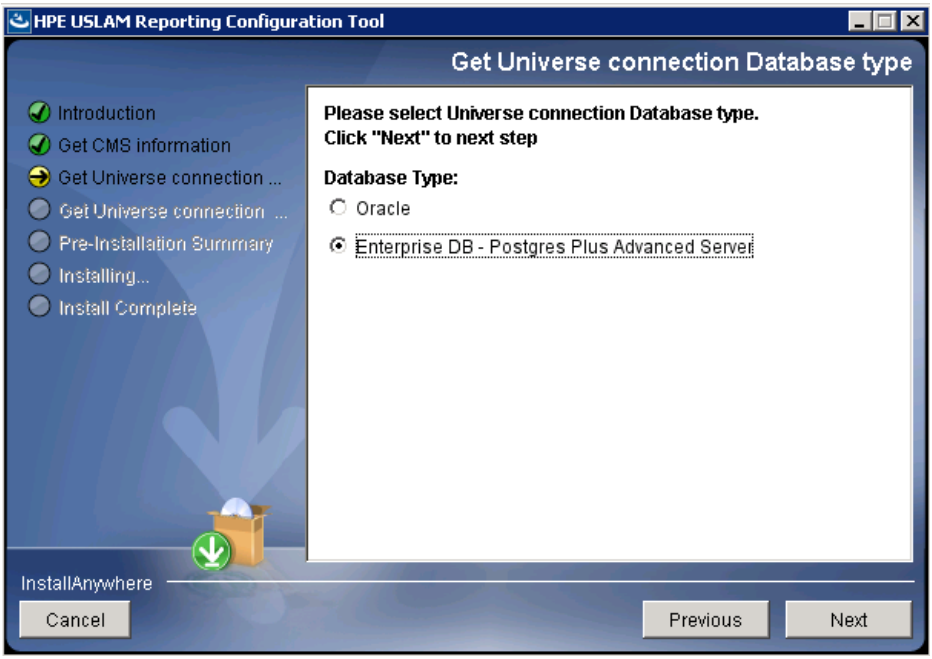



Figure 93: USLAM Reporting Configuration Tool – Database Type

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.

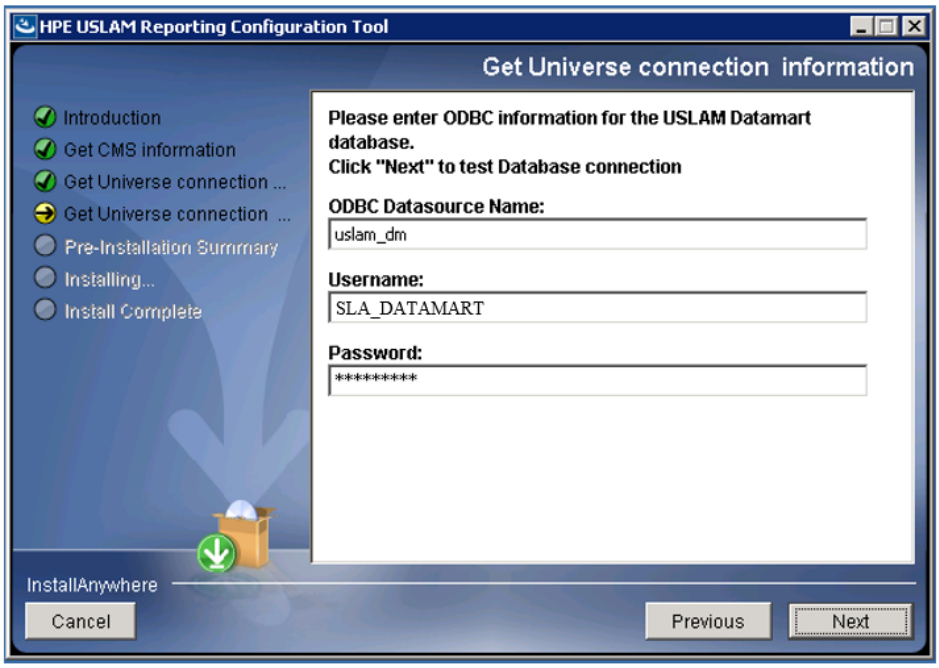



Figure 94: USLAM Reporting Configuration Tool – Datamart Database

8. The Pre-Installation Summary window displays

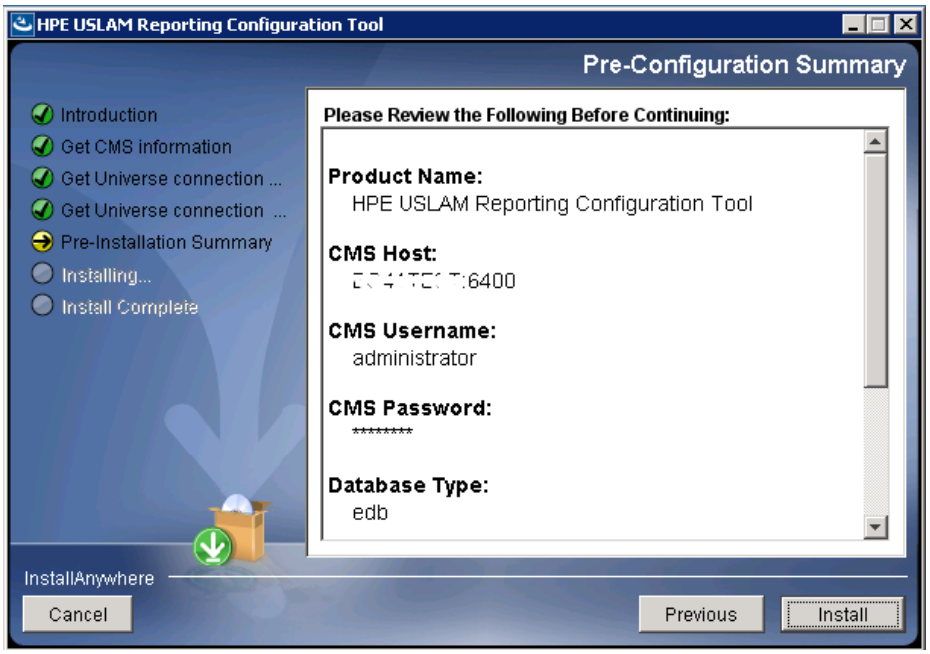



Figure 95: USLAM Reporting Configuration Tool – Pre-Installation Summary

9. Click [Install] to start the configuration.

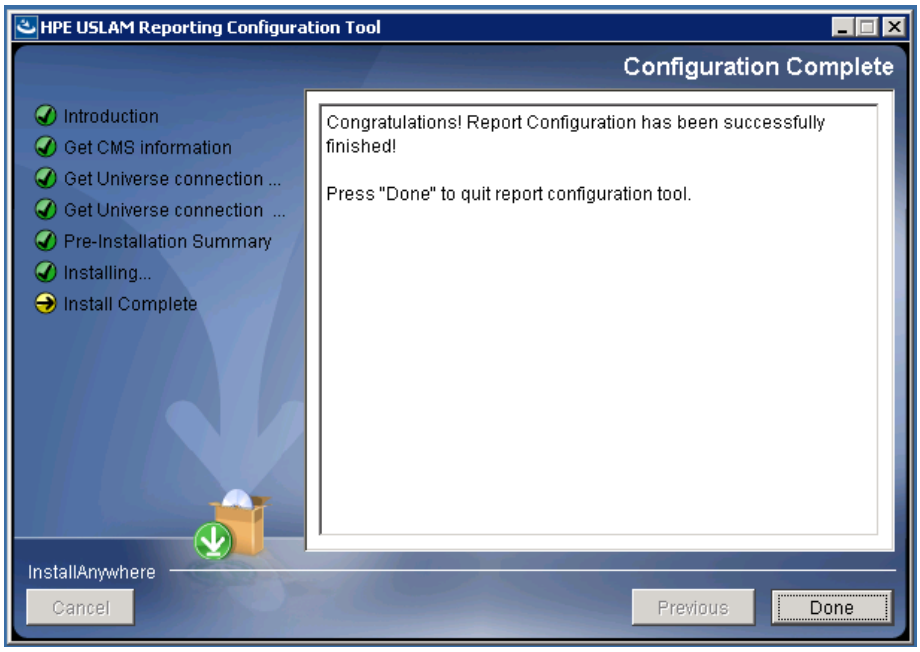



Figure 96: USLAM Reporting Configuration Tool –Installation finish

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

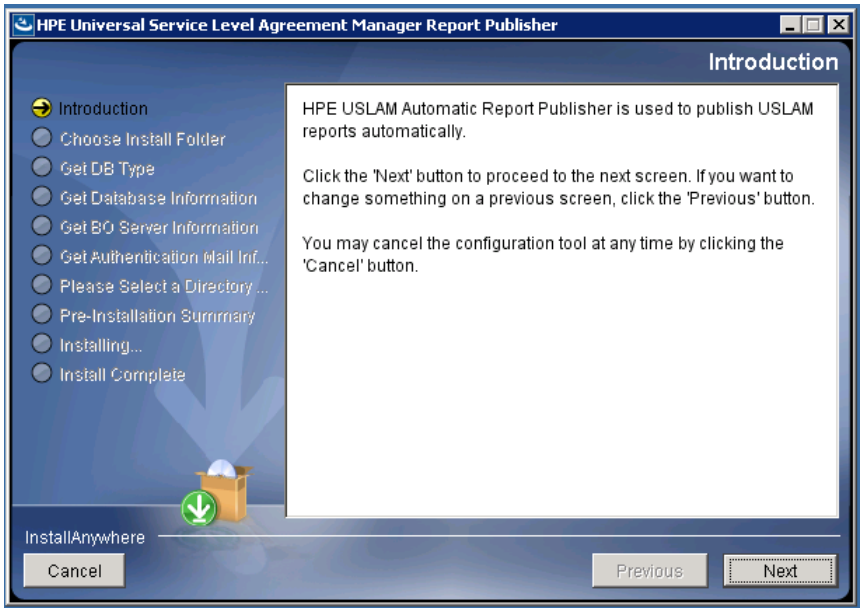



Figure 97: HPE USLAM Report Publisher – Introduction

3. Click [Next] to continue

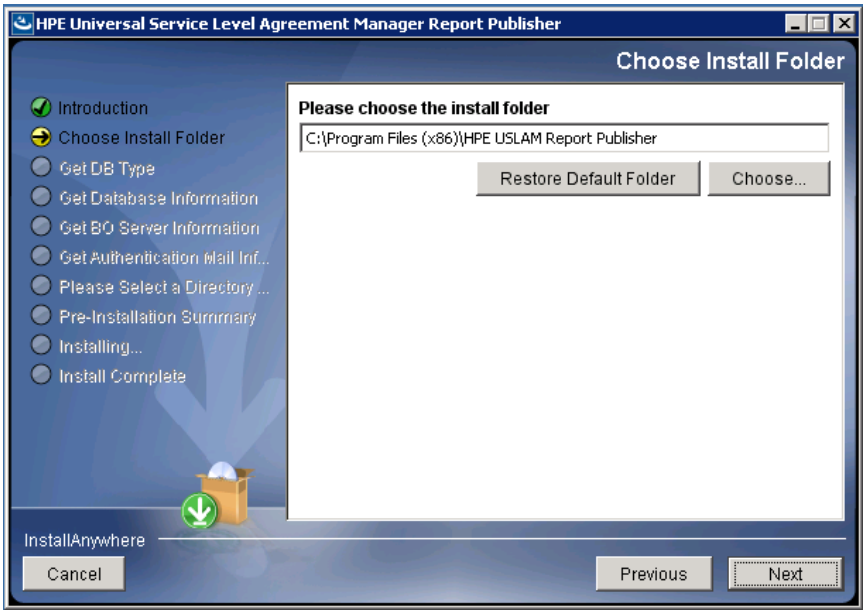



Figure 98: HPE USLAM Report Publisher – Install Folder

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

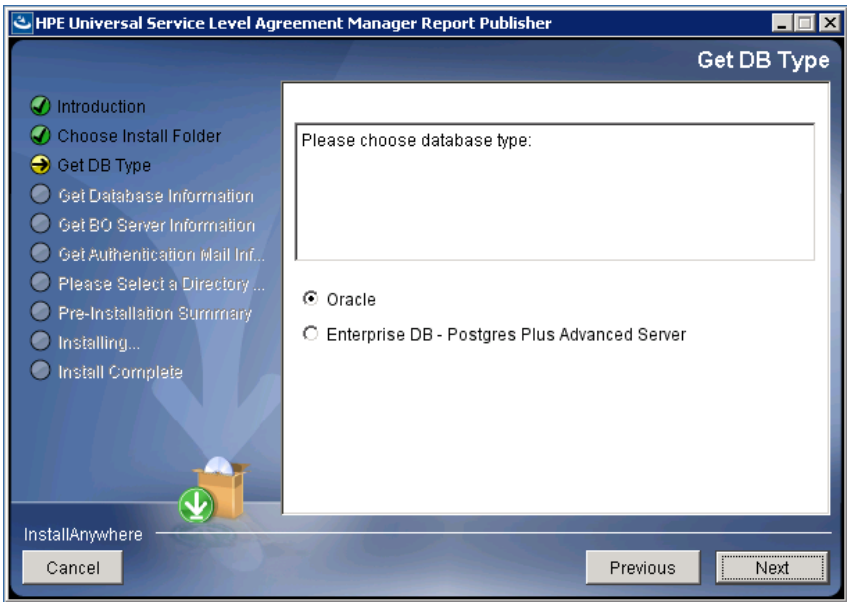



Figure 99: HPE USLAM Report Publisher – Install Folder

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

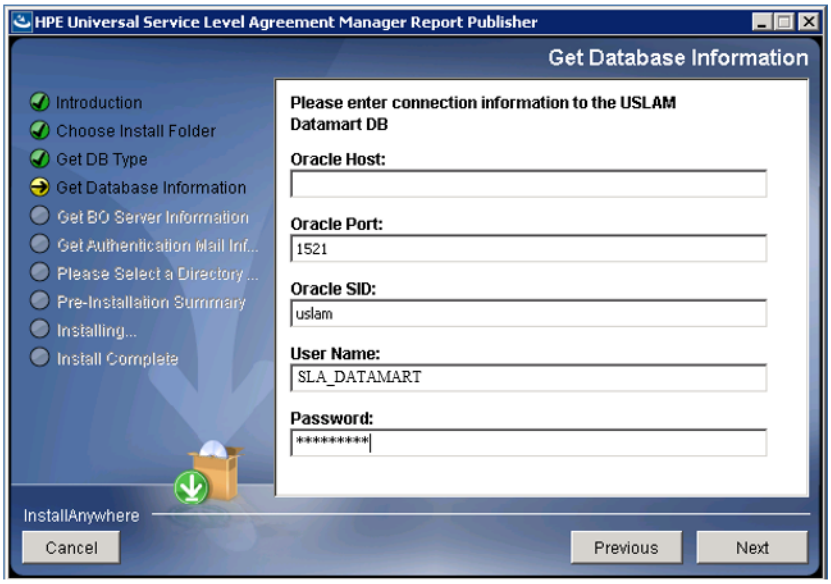



Figure 100: HPE USLAM Report Publisher – Database Information

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

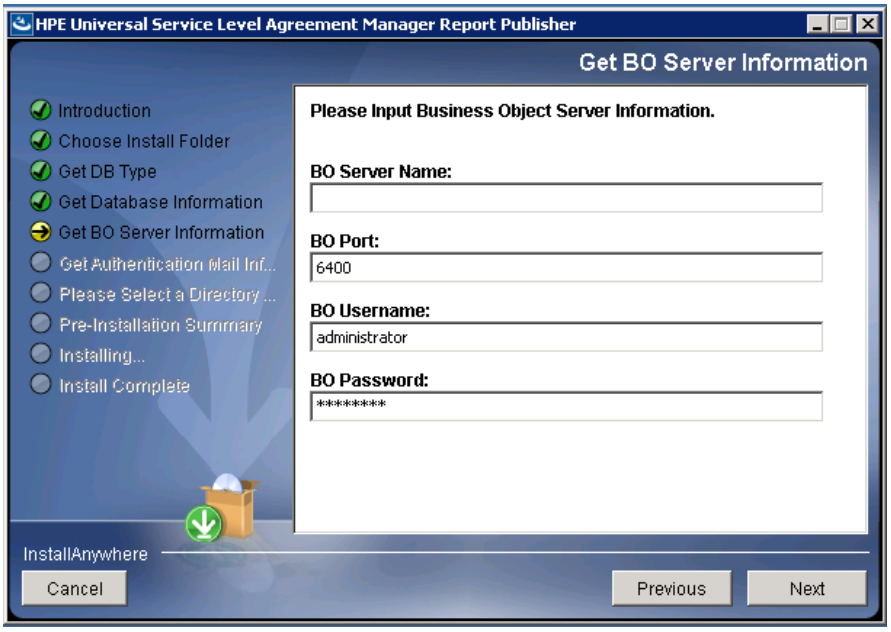



Figure 101: HPE USLAM Report Publisher – BO Server Information

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

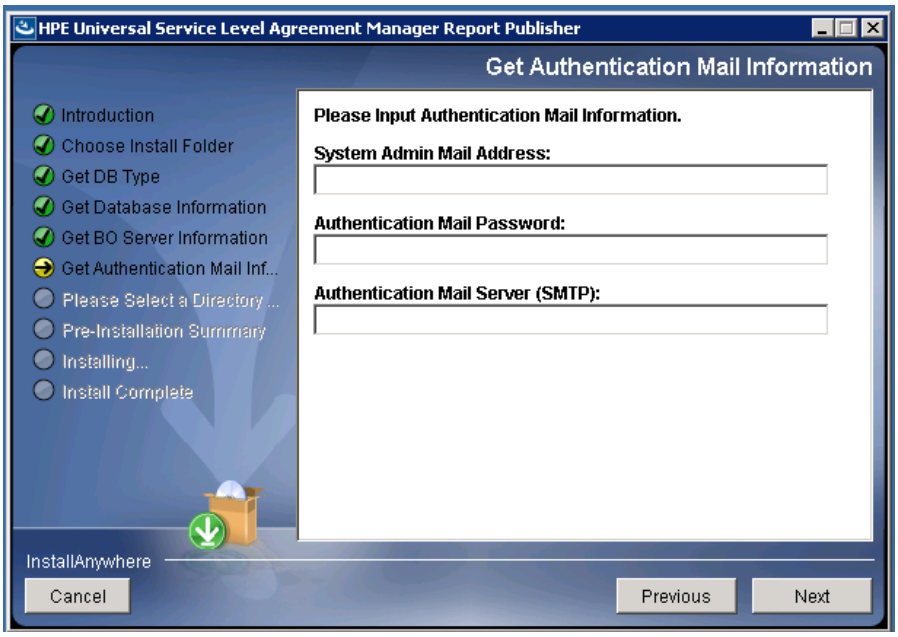



Figure 102: HPE USLAM Report Publisher – Authentication Mail Information

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

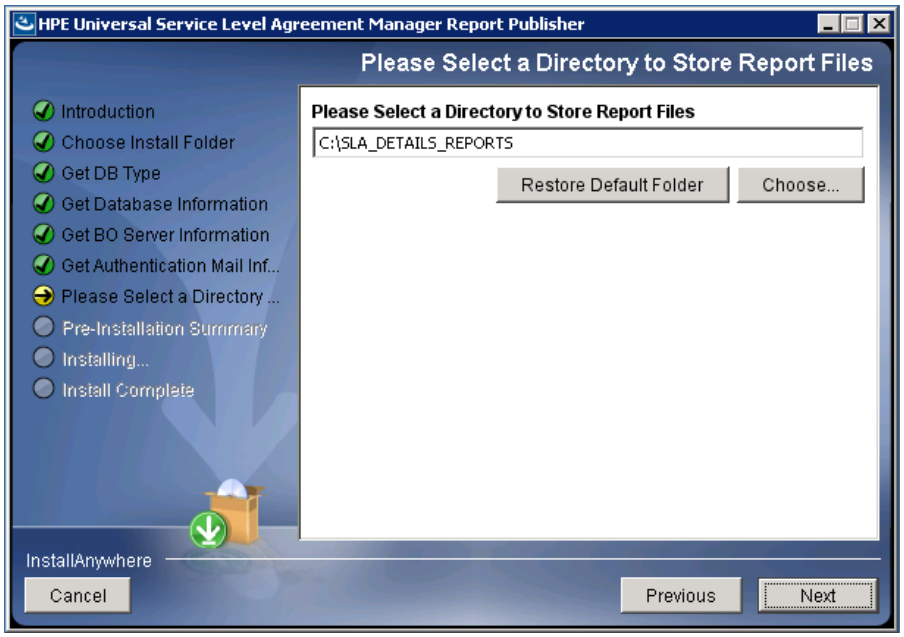



Figure 103: HPE USLAM Report Publisher – Report Files Directory

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

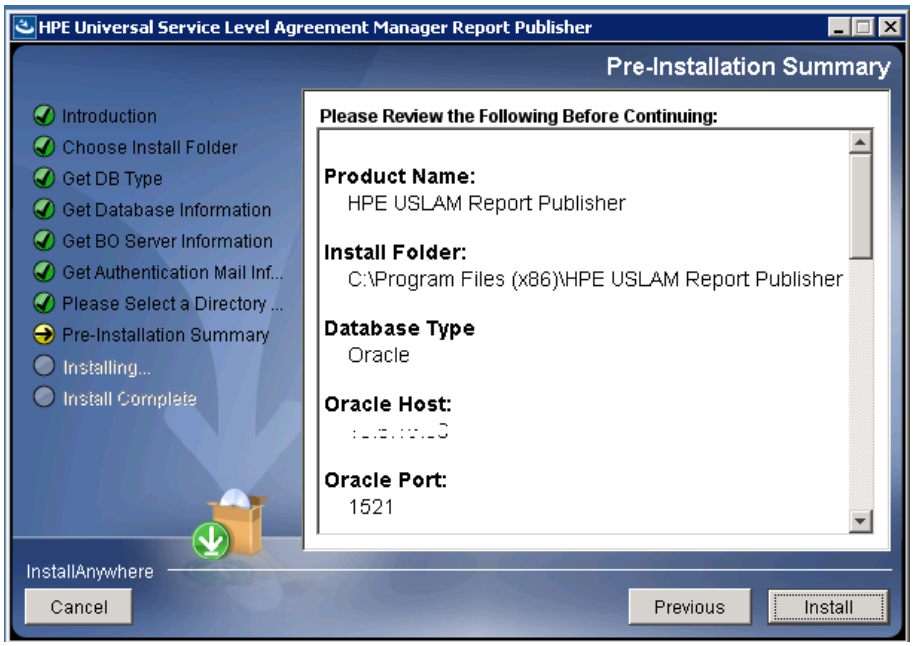



Figure 104: HPE USLAM Report Publisher – Pre-Installation Summary

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

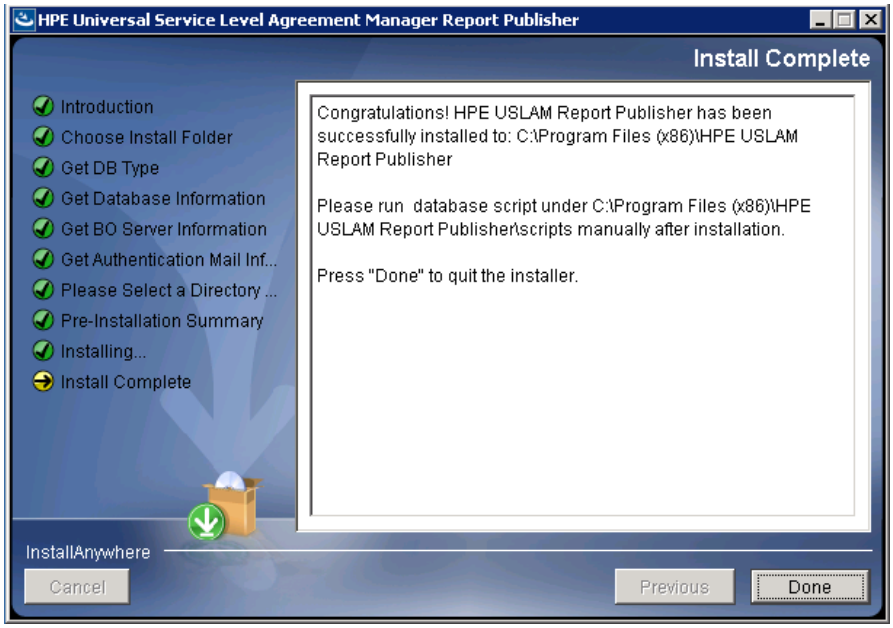



Figure 105: HPE USLAM Report Publisher – Installation Complete

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

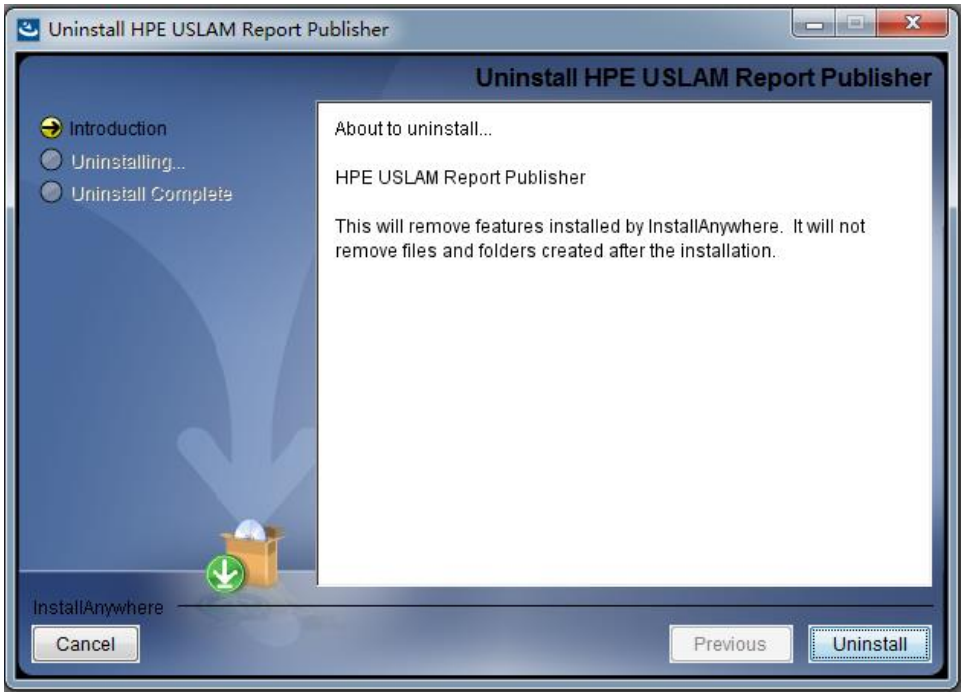



Figure 106: Uninstalling USLAM Report Publisher – Introduction

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

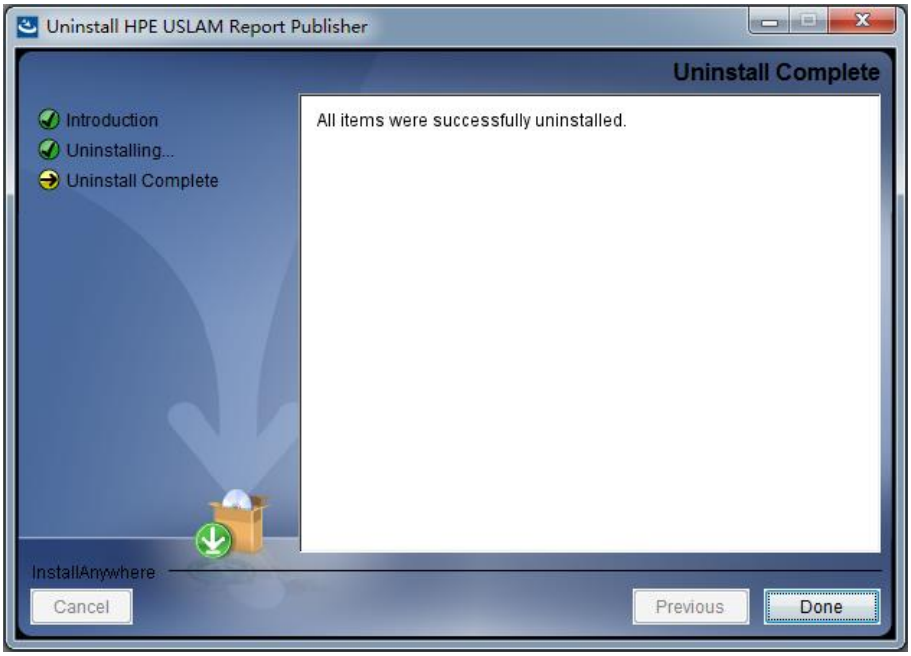



Figure 107: Uninstalling USLAM Report Publisher – Uninstall Complete

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 http://solveissue.com/note?id=1691555 for detailed steps to complete the uninstallation.

## 5.3.2 Uninstalling USLAM Report Configuration Tool

1. Go to *Start* → *Settings* → *Control Panel* → *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

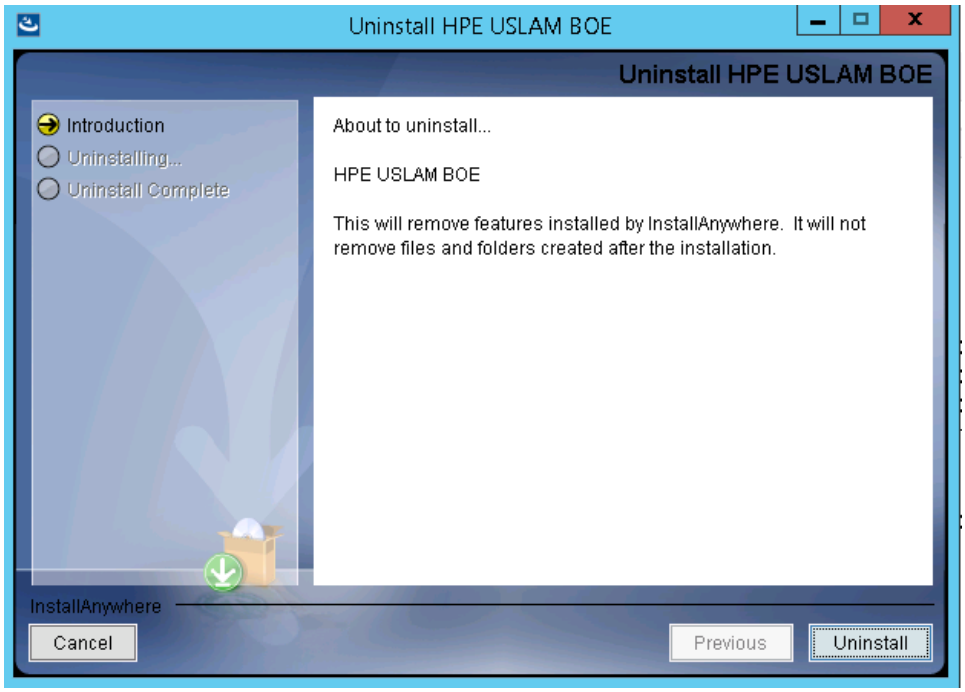



Figure 108: Uninstalling USLAM BOE – Introduction

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

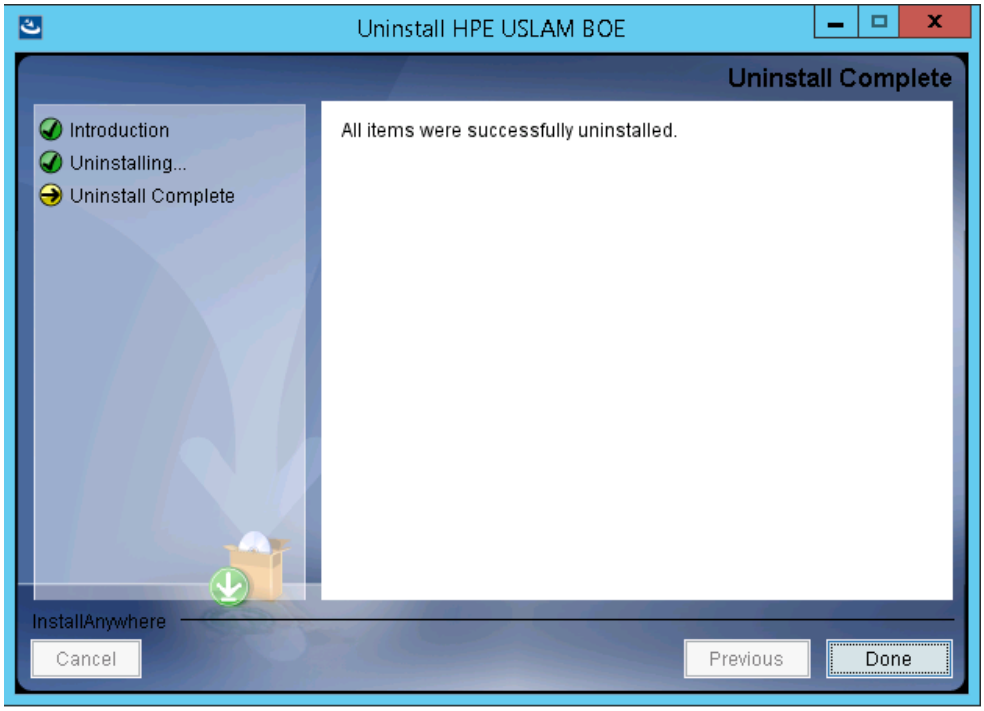



Figure 109: Uninstalling USLAM BOE – Uninstall Complete

6. Some folders may be listed as not removed.

7. Click [Done] to exit the installer.

## 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:

1. 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* → *Settings* → *Control Panel* → *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.

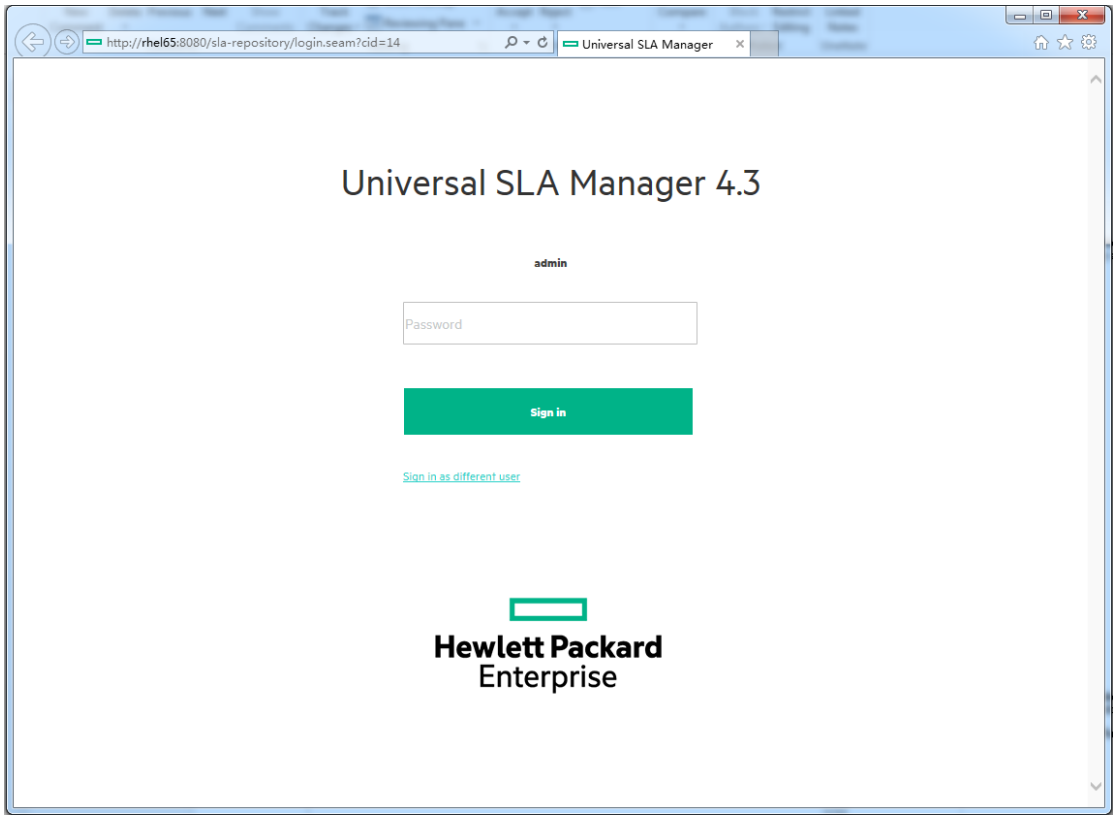



Figure 110: USLAM Web User interface Login

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

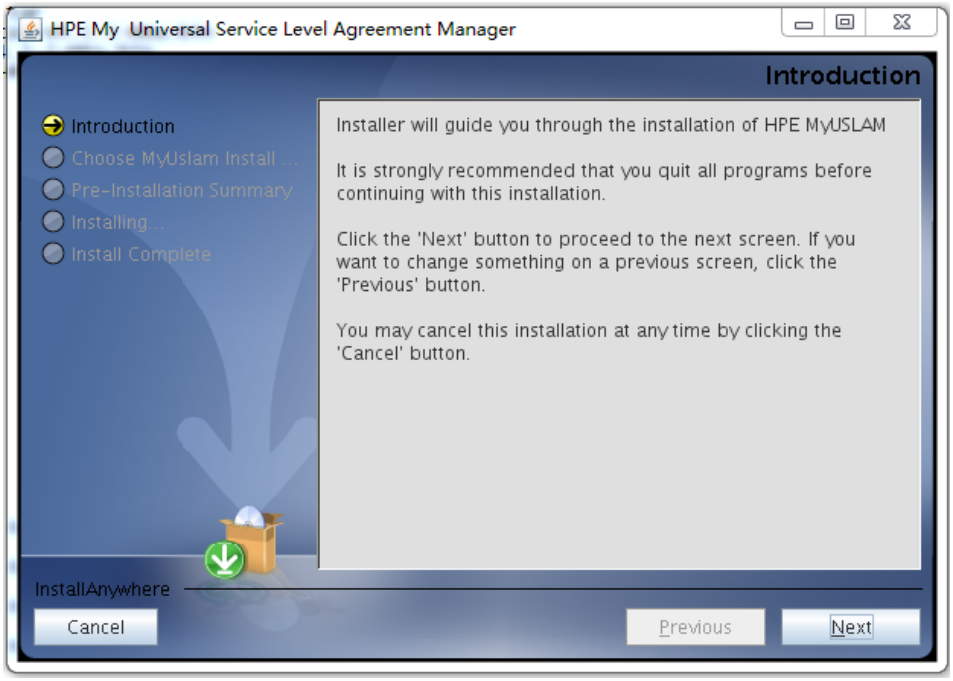



Figure 111: MyUSLAM Portal Installation - Introduction

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

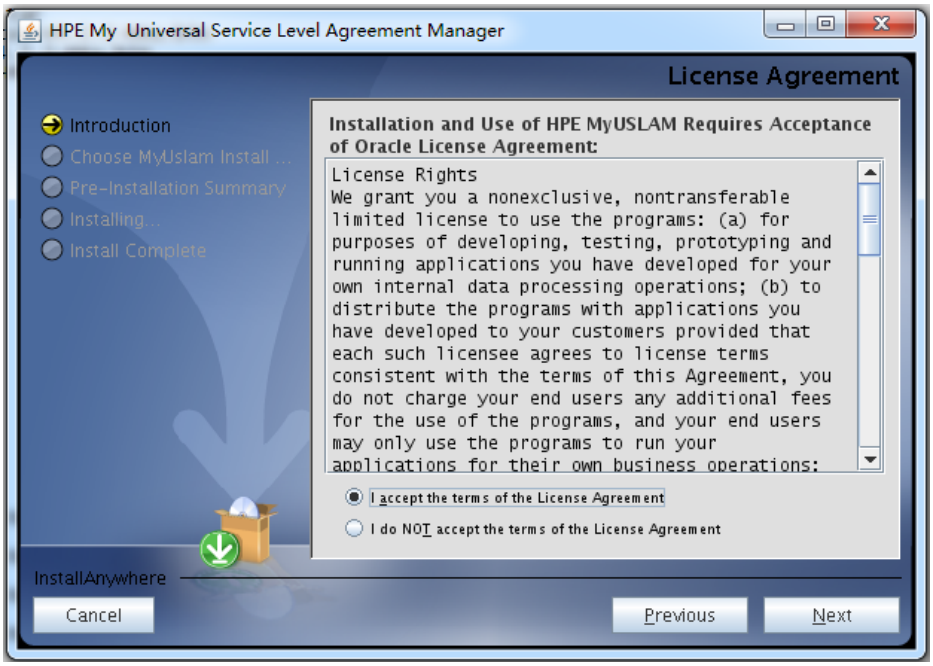



Figure 112: MyUSLAM Portal Installation – License Agreement

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

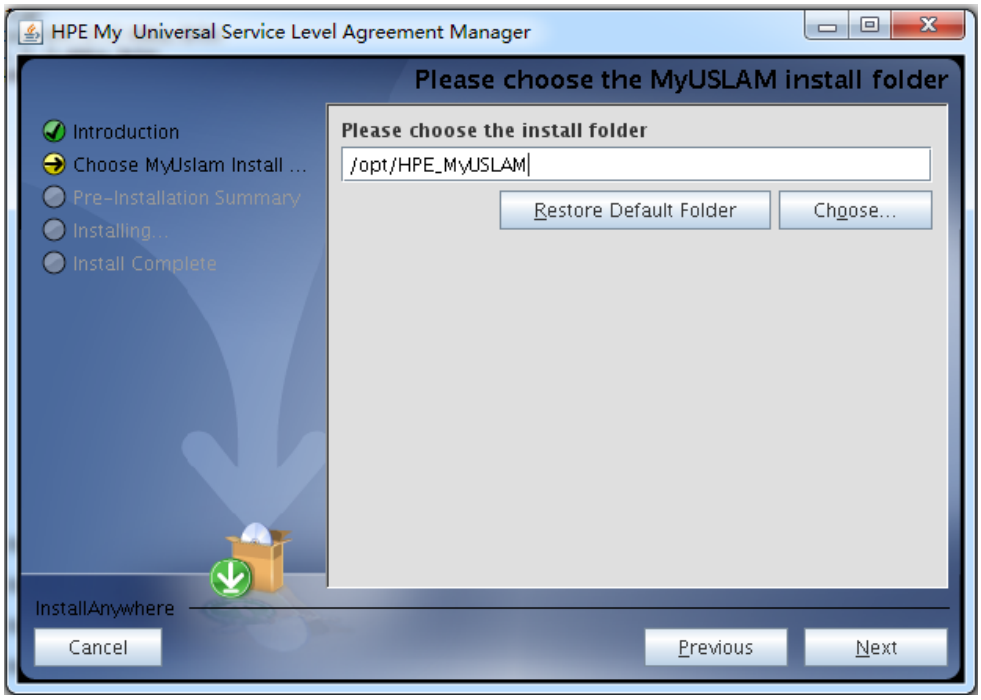



Figure 113: MyUSLAM Portal Installation – Choose Install Folder

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

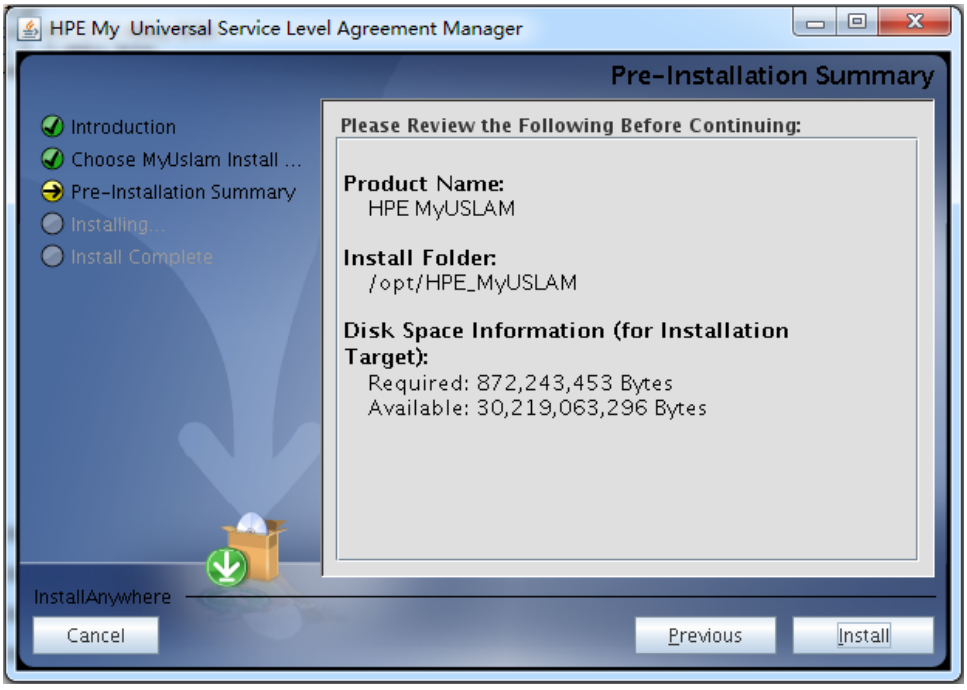



Figure 114: MyUSLAM Portal Installation – Pre-installation Summary

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

12. Once the installation is complete, the ‘Install Complete’ window appears

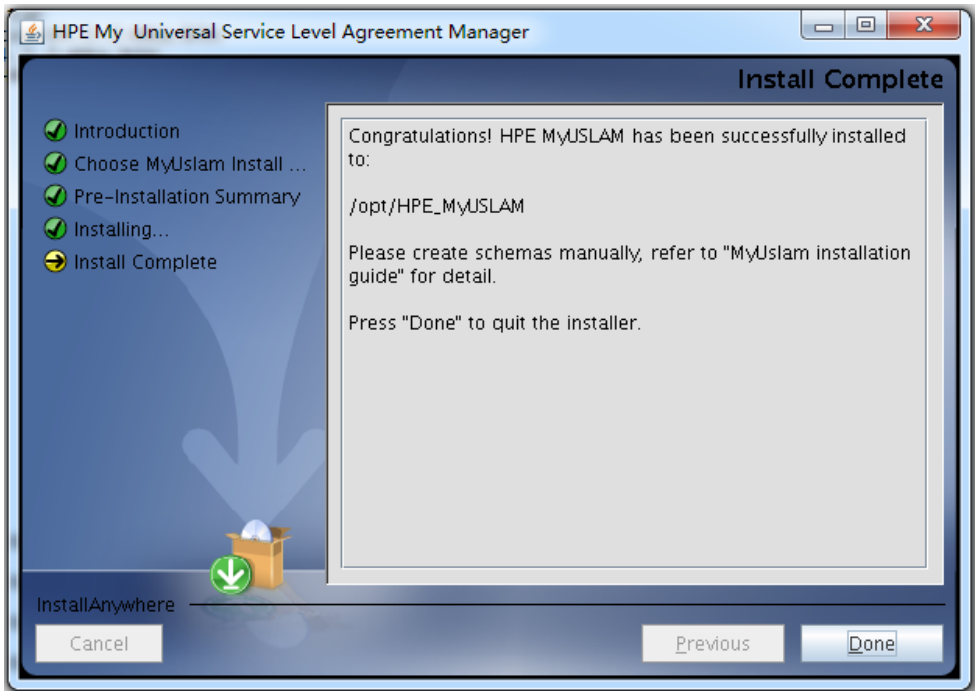



Figure 115: MyUSLAM Portal Installation – Installation Complete

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

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**
- **<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-minimal-oracle.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:**

1. 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.

2. 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.

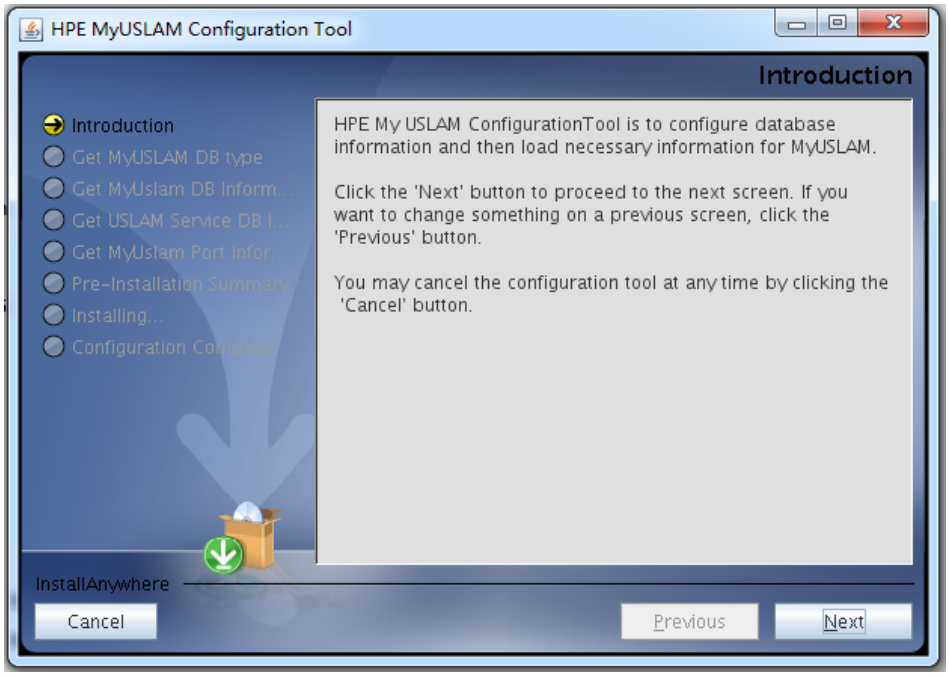



Figure 116: MyUSLAM Portal Configuration Tool - Introduction

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

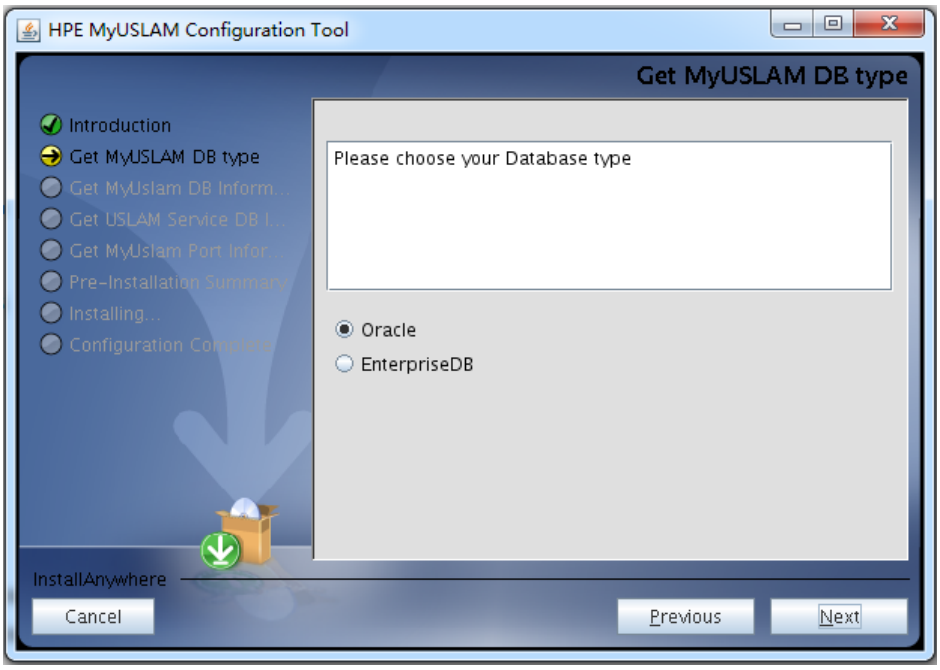



Figure 117: MyUSLAM Portal Configuration Tool – Database Information

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

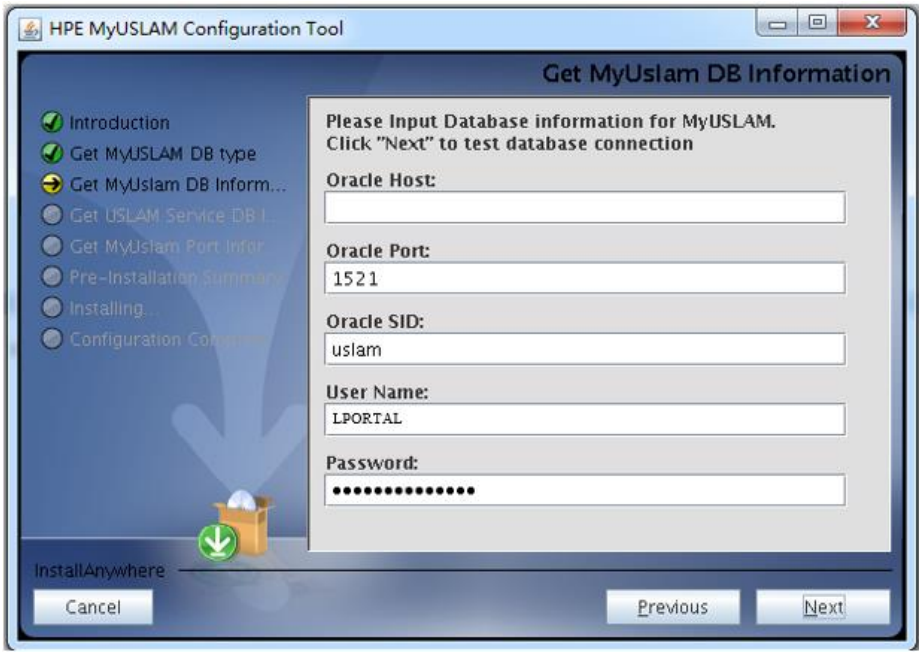



Figure 118: MyUSLAM Portal Configuration Tool – Database Information

7. 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

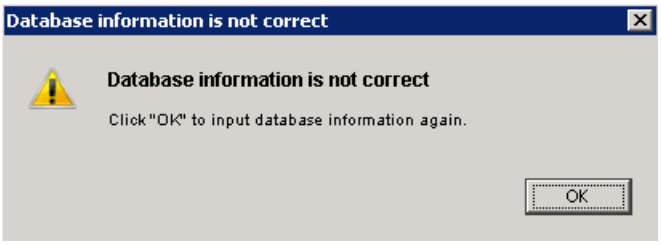



Figure 119: MyUSLAM Portal Configuration Tool – Incorrect Database Information

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

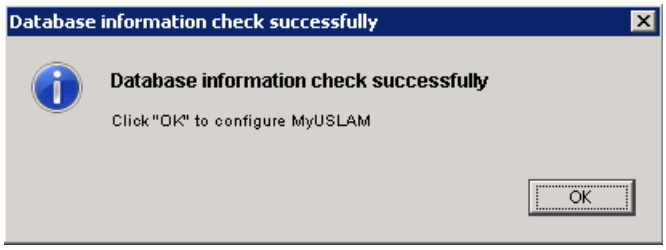



Figure 120: MyUSLAM Portal Configuration Tool – Successfully Check

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

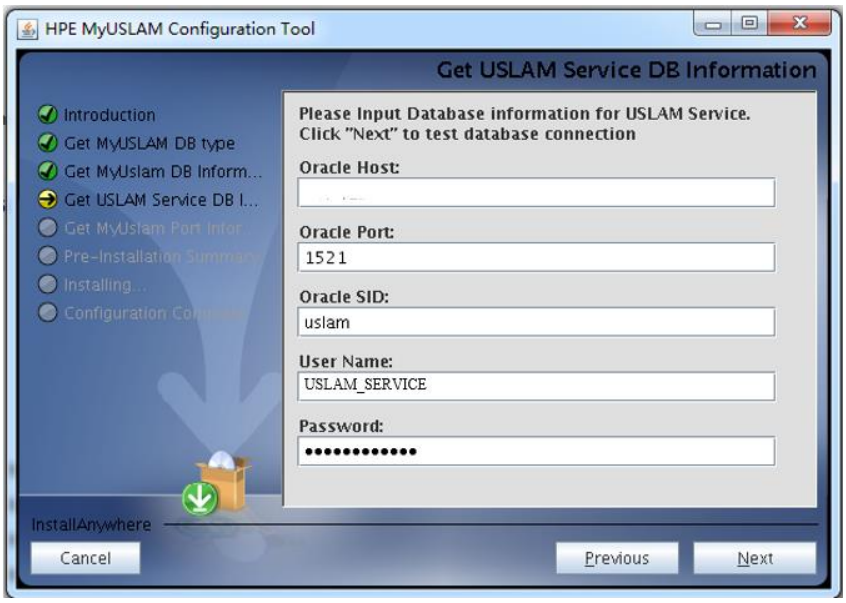



Figure 121: MyUSLAM Portal Configuration Tool – Get USLAM Service DB

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.: http://<MyUSLAMServer>:<MyUSLAMPort>)

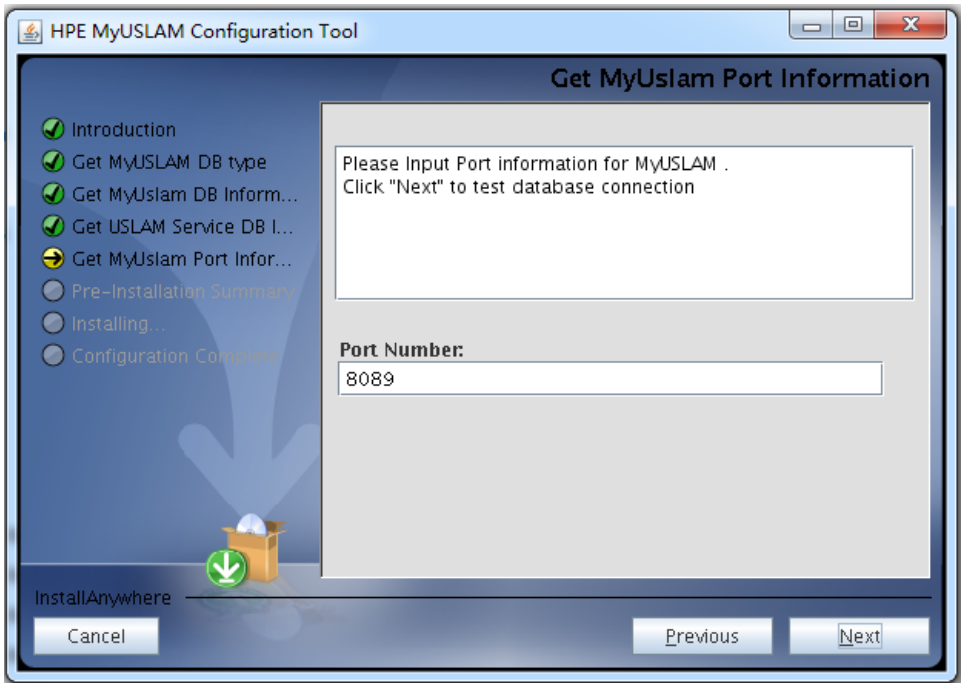



Figure 122: MyUSLAM Portal Configuration Tool – Get MyUSLAM Port Number

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

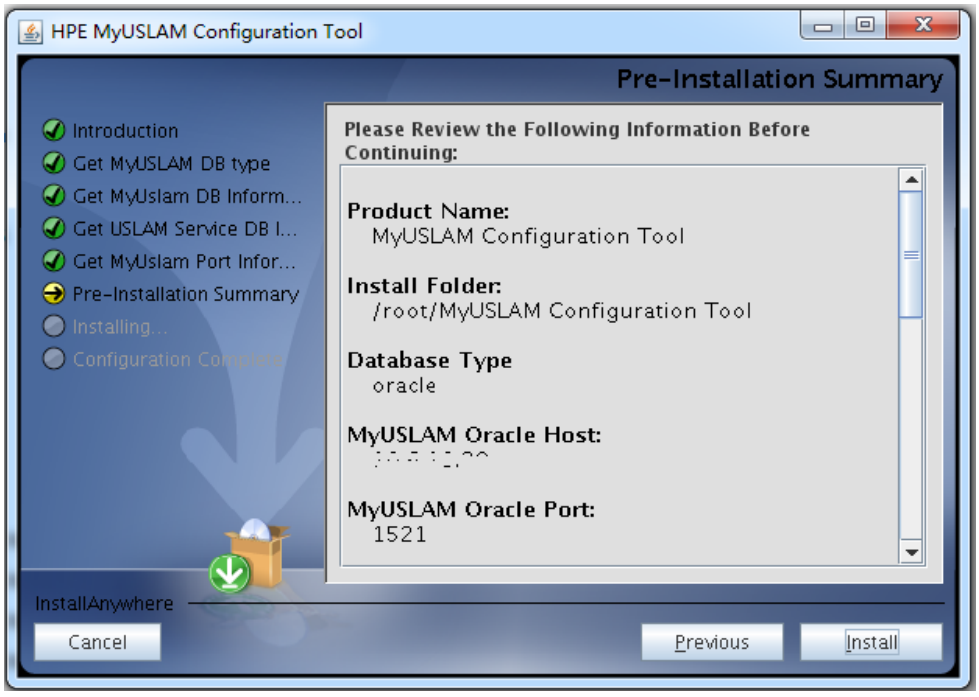



Figure 123: MyUSLAM Portal Configuration Tool – Configuration Summary

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.

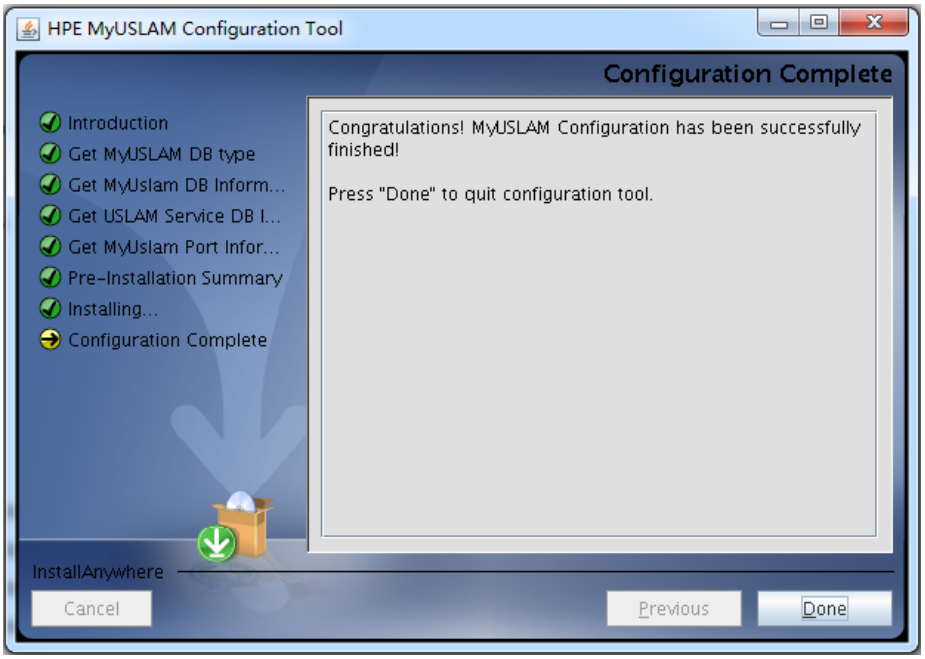



Figure 124: MyUSLAM Portal Configuration Tool – Configuration Complete

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 "My*USLAM 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.