# HP Universal SLA Manager

# Version 4.1

## Installation and Configuration Guide

**Edition: 1.0**

**for Linux and Microsoft Windows Operating Systems**

**August 2014**

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# Preface

This guide is designed to be used as an installation and configuration manual for the HP 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:

- **HP USLAM Administrator.**
- **Oracle Database Administrator**

## Abbreviations and Acronyms

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

| Abbreviation | Chapter 1Description |
|---|---|
| BO | SAP Business Objects |
| BODS | SAP Business Objects Data Services |
| BOE | SAP Business Objects Enterprise |
| 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 |
|---|---|
| HP Universal SLA Manager | V4.1 |
| Red Hat Linux 6.5 64-bit | 6.5 (*) |
| Oracle client for Linux 64-bit | 11g Release 2 (11.2.0.4) (*) |
| Oracle client for Windows 32-bit | 11g Release 2 (11.2.0.4) (*) |
| Enterprise DB Postgres Plus Advanced Server | 9.3 |
| Windows | Windows Server 2008 |
| Internet Explorer | 9.0 or upper |
| Firefox | 27.0 or upper |
| Google Chrome | 32.0 or upper |
| SAP Business Objects Enterprise | BO XI 3.1 SP5 (12.5.0.1190) |
| 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. 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. Exceptions in support will be documented.

## Associated Documents

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

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

## Reference Documents

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

| Document Title | URL |
|---|---|
| SAP BusinessObjects Enterprise™ XI 3.1 SP5 Installation Guide for Windows | http://help.sap.com/boe31sp5/ |
| SAP BusinessObjects Enterprise™ Administrator's Guide | http://help.sap.com/boe31sp5/ |
| SAP BusinessObjects Enterprise XI 3.1 SP5 for Windows – Supported Platforms | http://scn.sap.com/docs/DOC-20551 |
| SAP BusinessObjects Enterprise™ InfoView User's Guide | http://help.sap.com/boe31sp3 |
| SAP BO Building reports using Web Intelligence | http://help.sap.com/businessobject/product_guides/boexir3/en/xi3_web_intelligence_html_report_panel_en.pdf |
| 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>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>Ex of menus: Admin → Service Level Management → Repository. |
| *Italic* type | Important information and/or concepts.<br>Ex: The output is an *.XML* file. |

## Symbols used in this Guide

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

## Support

Please visit our HP Software Support Online Web site at: www.hp.com/go/hpsoftwaresupport for contact information, and details about HP 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 2 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.

## 2.1 Obtaining a USLAM License

A license key password is required to use HP 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 **Webware** 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 HP product number and order number.
- Your company or organization information.

The best way to obtain product licenses is through the web site:
**www.webware.hp.com**

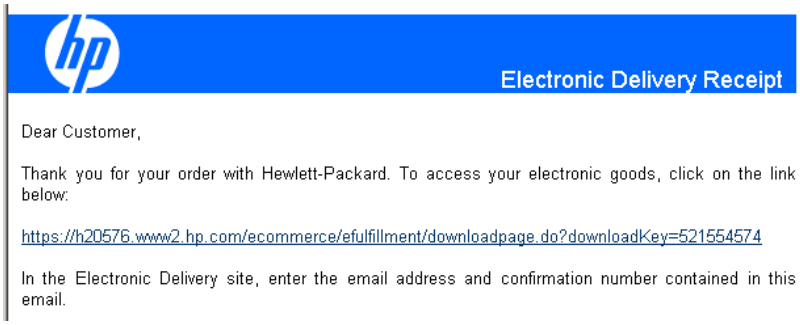
You can also contact the HP Password Center by using fax, email, or phone. This information is available on the Password Request Form and the License Entitlement Certificate. In order to obtain product licenses, you need the License Entitlement Certificate.

## 2.2 Using the web site

Requesting your license key(s)

**Step one**: Go to the Licensing Portal at www.webware.hp.com

- If you have ordered E-Delivery software products, the Electronic Delivery Receipt includes a direct link to the Licensing Portal with the Entitlement Order Number (EON) already pre-populated.



Electronic Delivery Receipt

Dear Customer,

Thank you for your order with Hewlett-Packard. To access your electronic goods, click on the link below:

https://h20576.www2.hp.com/ecommerce/efulfillment/downloadpage.do?downloadKey=521554574

In the Electronic Delivery site, enter the email address and confirmation number contained in this email.

- If not, access the HP Licensing for Software Portal using the following link www.hp.com/software/licensing.

**Step two**: Sign-In

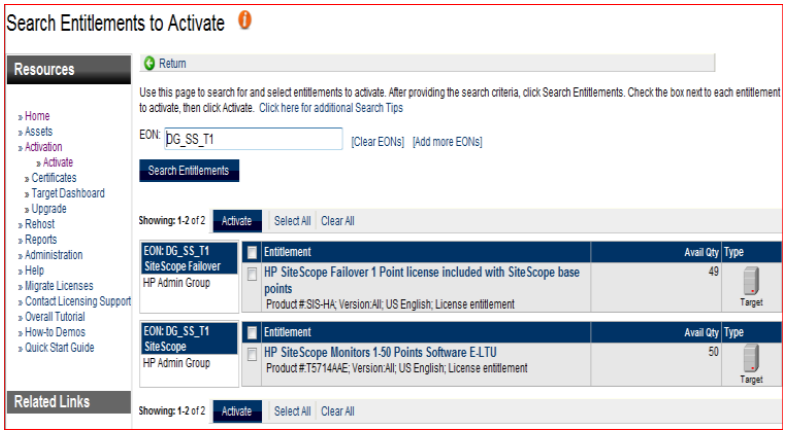
- Sign into the HP Licensing for Software Portal with HP Passport
- Enter the Entitlement Order Number (EON) in the field provided.

The EON is located on the Entitlement Certificate(s) you received with your order.

If ordered electronically, the Electronic Delivery Receipt includes a direct link to the Licensing Portal with the EON already pre-populated.

**Step three**: Product Selection

- Select the product(s) for which to activate licenses.
- You can do this selection by either product family or individual product.




**Step four**: Activation information

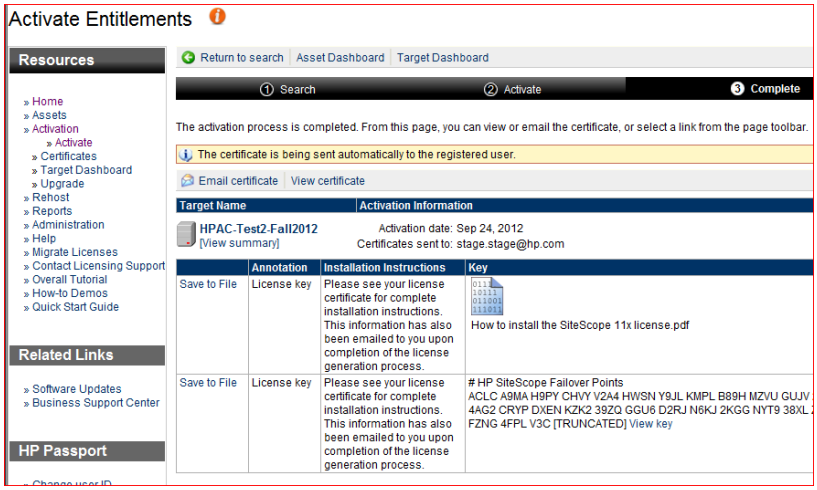
- Enter Target Name.
- Target Name is a customer-defined identifier, for either a real or virtual machine where licenses will be installed. A Target can be defined as the system, machine, host, server, cluster, or device on which an entitlement is activated. A license is linked to a specific Target Name.
- A Target is not a locking parameter; it is a way to organize licenses. There can be several licenses associated with one Target, each with its own unique locking parameter.
- Enter Quantity to activate and version.

**Step five**: Confirmation information

- Complete the “Email to” field for where email and license keys should be sent to.
- Enter any notes for this transaction.

**Step six**: Complete Screen

- The Activation process is complete. The license certificates and license keys are delivered to requestor.
- From this screen, you can email certificates or view certificates.




More in depth instructions of Licensing Portal functionality are provided in the “How-to Demos” available from the portal home page.

The license key received will be installed or updated following the process described in 4.1.8: Installing a USLAM License.

# Chapter 3 USLAM Introduction

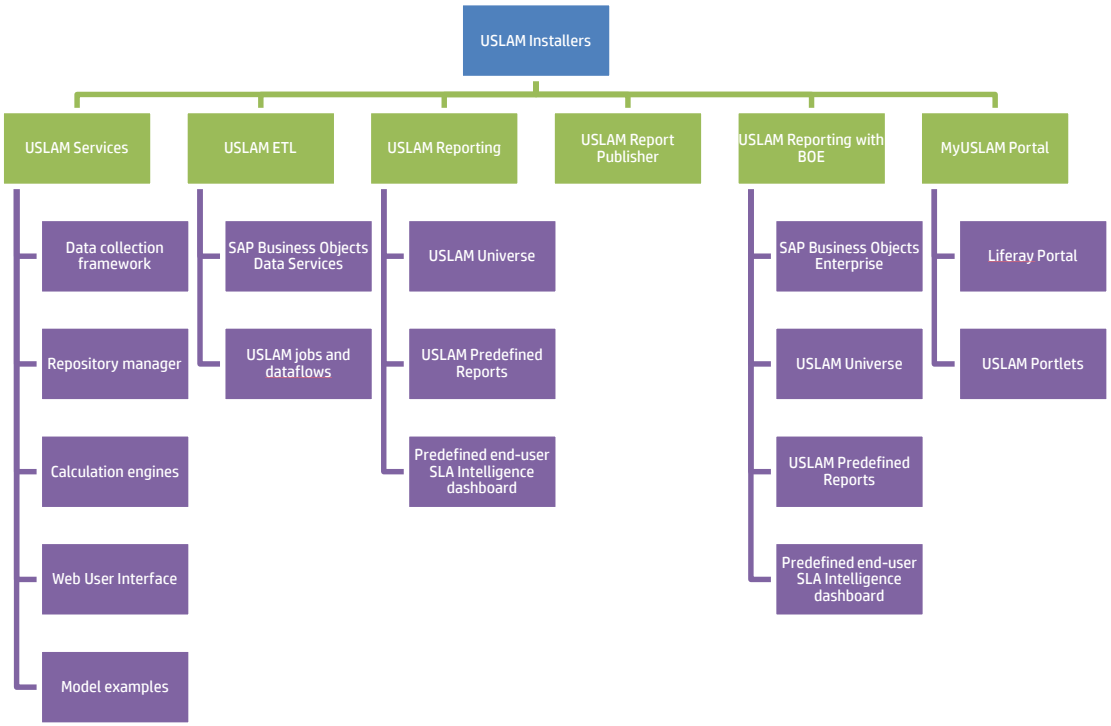
The USLAM installer is designed to aid the user in installing and configuring USLAM product with utmost ease and precision. The following section lists the various components of the USLAM solution, and explains how to install and configure these components, providing examples throughout the procedure.

## 3.1 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**




### 3.1.1 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 have to be installed on the same host. Calculation Engines and Collectors can be installed on different hosts.

#### 3.1.1.1 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.

#### 3.1.1.2 Calculation Engines

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

#### 3.1.1.3 Repository Manager

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

#### 3.1.1.4 Web User Interface

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

### 3.1.2 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.

### 3.1.3 USLAM Reporting

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

1. **HP USLAM Reporting Software**:
   the Business Object Enterprise XI solution
   Note: This package must not be installed if you already have a Business Object Enterprise server installed
2. **HP USLAM Universe and Standard Reports:**
   the USLAM Universe and USLAM standard reports, standard reporting dashboards relying on BOE XI
3. **HP USLAM Report Publisher:**
   an optional tool for the automation of report publications

### 3.1.4 MyUSLAM Portal

As an option, USLAM delivers a new end user community portal called 'MyUSLAM'.

This highly customizable portal embeds several USLAM portlets that can be used to build private or public business dashboards, extending business metrics visibility to business managers, end customers and partners.

Portlets bundled by MyUSLAM are:

1. SLA Status Snapshot
2. SLA Status
3. SLA Item Status
4. Clause Status

5. User Import

## 3.2 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 | HP_USLAM_Services-V4.1-MR.bin |
| USLAM ETL | Linux | HP_USLAM_ETL-V4.1-MR.bin |
| USLAM BOE | Windows | HP_USLAM_BOE-V4.1-MR.tar<br>(not needed if you have Business Objects Enterprise installed) |
| USLAM Reports | Windows | HP_USLAM_Reporting-V4.1-MR.biar |
| USLAM Report Publisher | Windows | HP_USLAM_Report_Publisher-V4.1-MR.exe |
| MyUSLAM portal | Linux | HP_USLAM_MyUSLAMPortal-V4.1-MR.bin |
| | Windows | HP_USLAM_MyUSLAMPortal-V4.1-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 **Error! Reference source not found.**)
2. USLAM ETL (see **Error! Reference source not found.**)
3. USLAM Reporting (see **Error! Reference source not found.**)
4. MyUSLAM Portal (optional) (see Chapter 8)

## 3.3 Code Signing

Below mentioned procedure* allows you to assess the integrity of the delivered Product before installing it, by verifying the signature of the software packages.

Pick the signature (.sig) file shipped along with the product and use following GPG command

```
gpg --verify <product.sig> <product>
```

Example: `gpg --verify VPNSVP-X51-3A.zip.sig VPNSVP-X51-3A.zip`

```
## Note: Look for the comments shown below in the command output
Good signature from "Hewlett-Packard Company (HP Code signing Service)"
```

Note: If you are not familiar with signature verification using GPG and intended to verify HP Product signature, follow the steps given below.

1. Check whether gnupg gpg is installed on the system. If not, install gnupg gpg

2. Configure GPG for accepting HP signature. The steps are the following:
    a. Log as root on your system
    b. Get the hpPublicKey from following location:

https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPLinuxCodeSigning and save it as hpPublicKey.pub

Note that the hpPublicKey file will be located in the root's home directory.

    c. Follow the instruction found at above URL in the "Verification using GPG" section.

*HP strongly recommends using signature verification on its products, but there is no obligation. Customers will have the choice of running this verification or not as per their IT Policies.

## 3.4 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 **HP USLAM Support Matrix** for hardware and software requirement.

# Chapter 4 Installing and Configuring USLAM Services

## 4.1 Installing USLAM Services

### 4.1.1 Installation Kit

The installation kit for the USLAM solution is provided as *.bin* file:
**HP_USLAM_Services-V4.1-MR.bin**

### 4.1.2 Installation Wizard

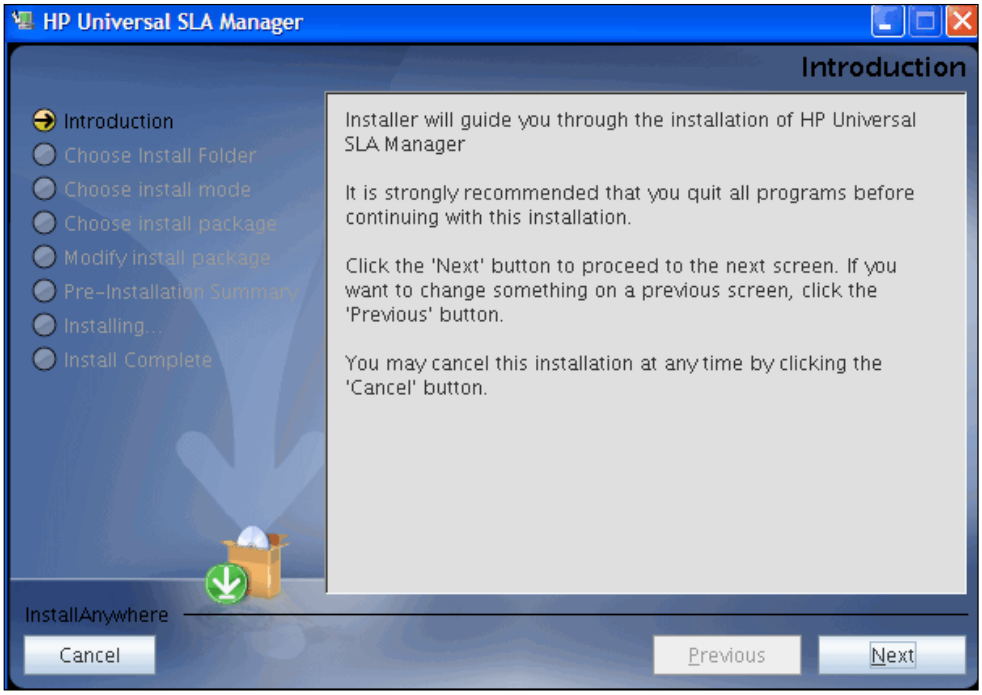
To install the USLAM solution, you will be required to run the USLAM Installation Wizard and perform the following steps:

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: ./HP_USLAM_Services.bin

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

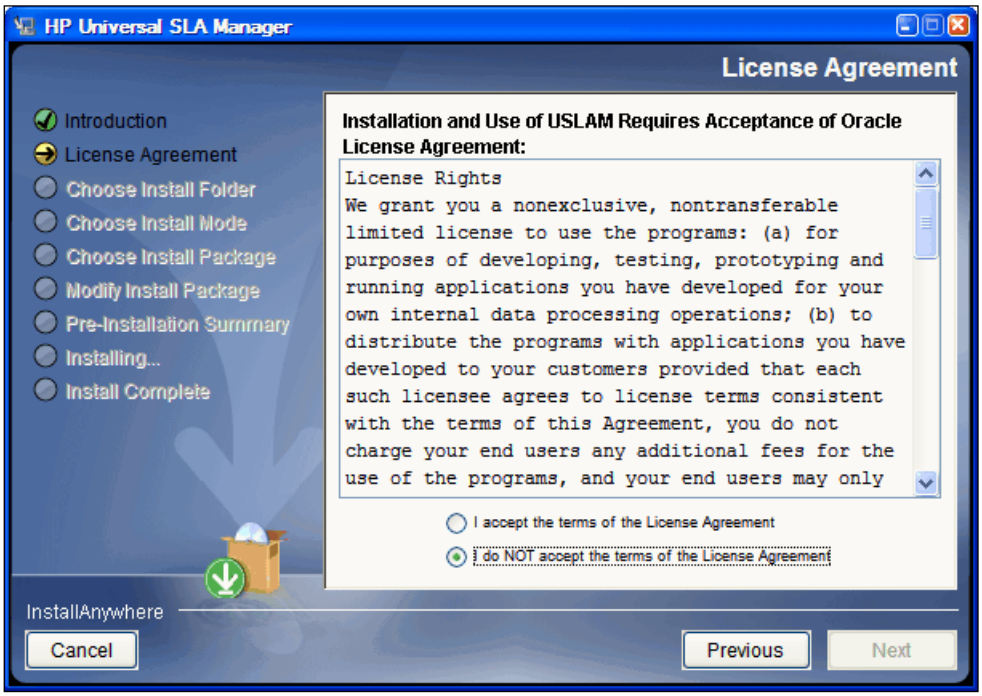
3. The installer displays a progress indicator and deploys the installation files on your Linux system
4. Once the installation files are deployed, the HP Universal SLA Manager installation wizard displays

**Figure 2: USLAM Services Installation - Introduction**



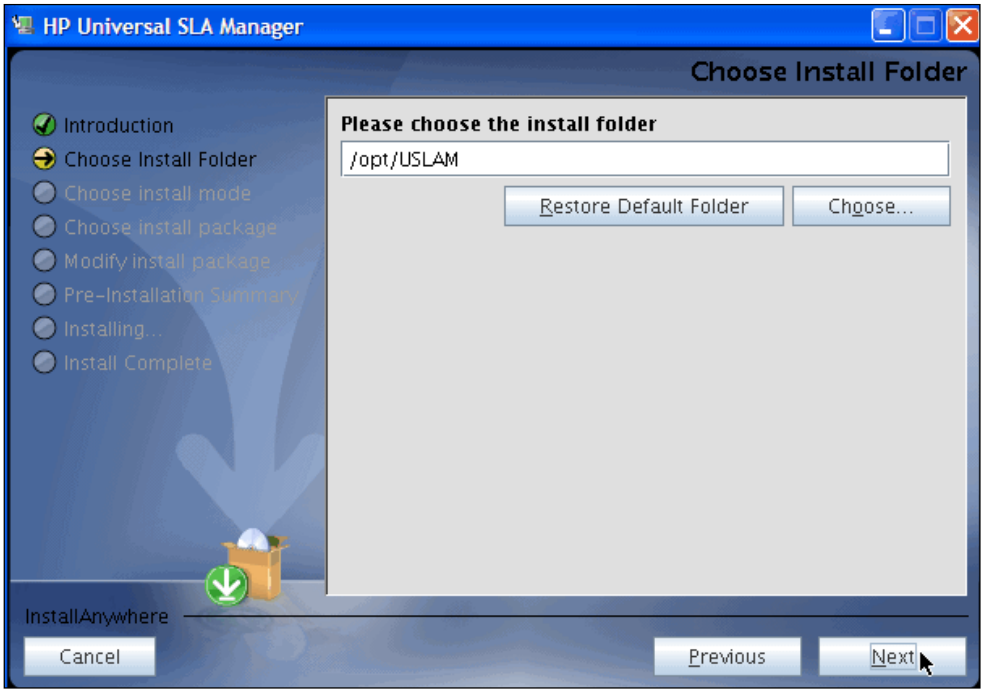

5. Make sure you follow the instructions displayed on this window and then click [Next]
6. The License Agreement window displays

**Figure 3: USLAM Services Installation – License Agreement**



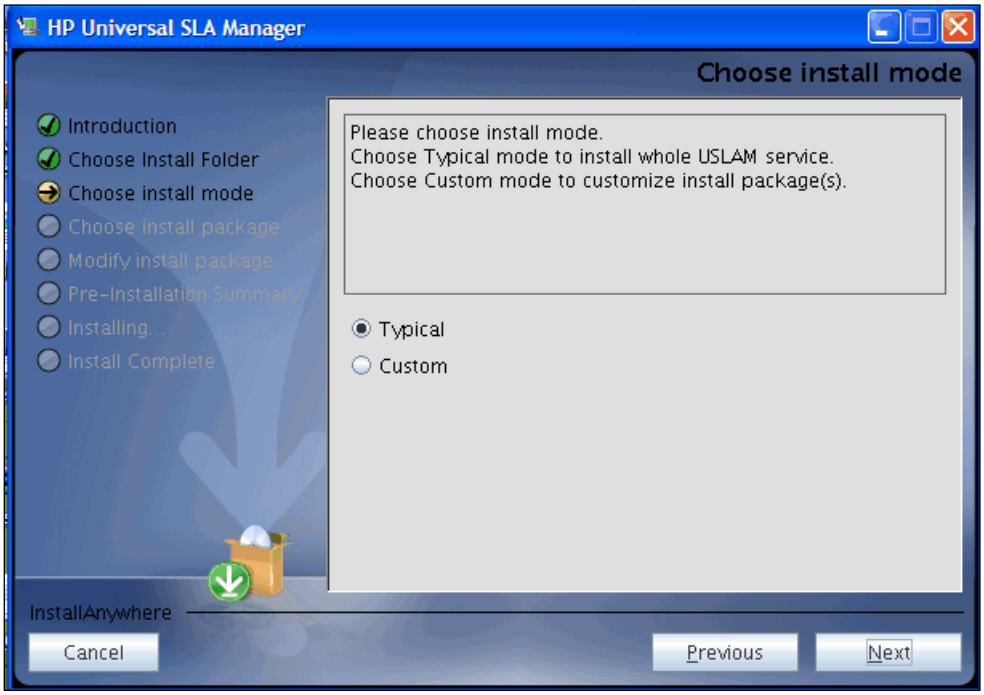

7. Select I accept the terms of the License Agreement and then click [Next].
8. The next screen asks you to choose an Installation Folder

**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

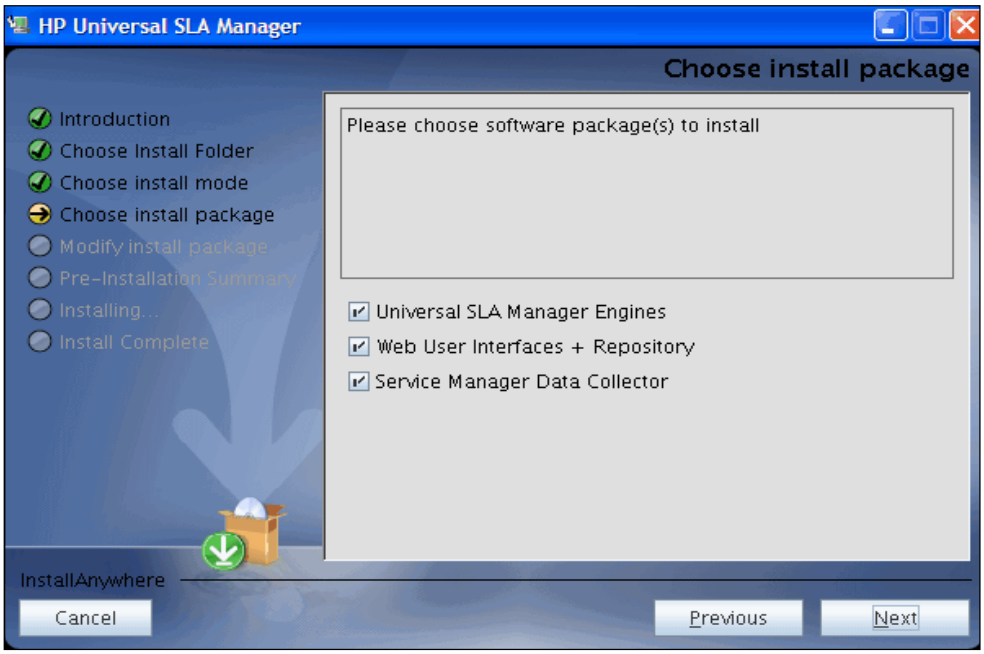
**Figure 5: USLAM Services Installation – Choose Install mode**




11. Select either **Typical** to install complete USLAM Services or **Custom** to choose the package(s) you want to install. If you select **Typical**, skip to step 14.

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**

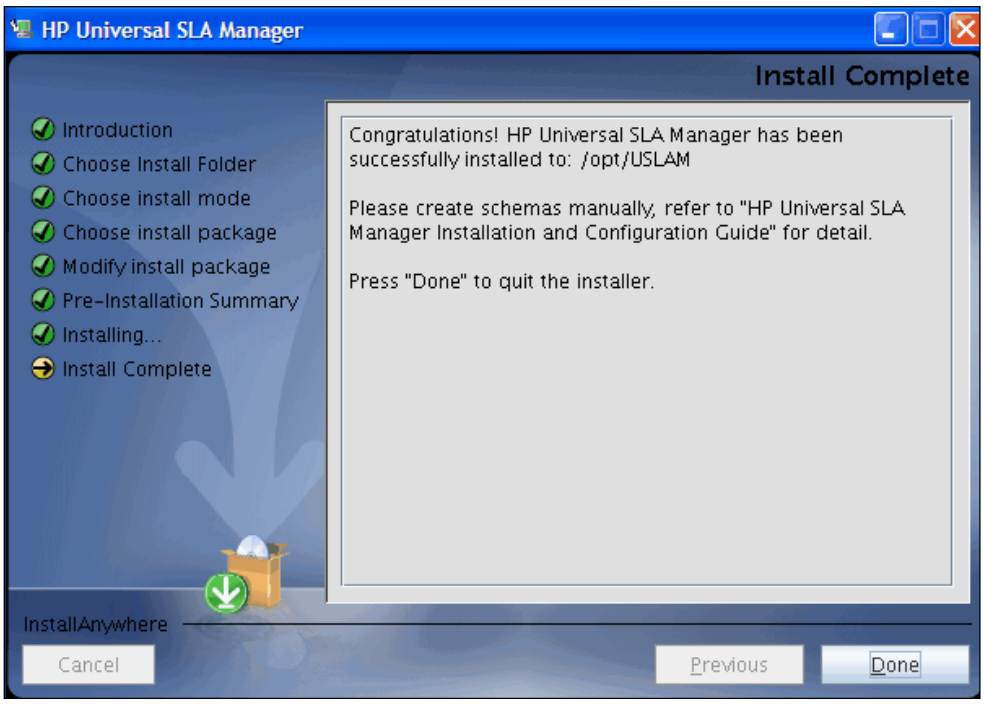
15. Review the summary information and then click [Install] to begin installation.

16. The installer displays a progress indicator

**Figure 8: USLAM Services Installation – installing USLAM**

17. Once the installation is complete, the 'Install Complete' window appears

**Figure 9: USLAM Services Installation – Installation Complete**




18. 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.

### 4.1.3 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 (user name is "USLAM_SERVICE" and password is "USLAM_SERVICE"):

```
SQL> create user USLAM_SERVICE identified by USLAM_SERVICE;
```

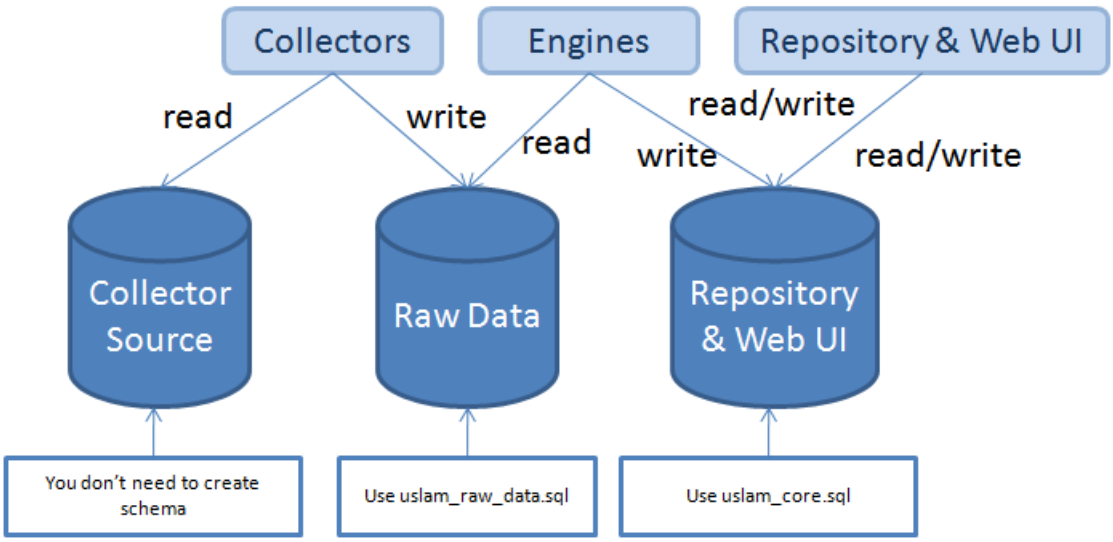
3. To grant proper privileges:

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

### 4.1.4 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 10: USLAM Services Database Schema**



#### 4.1.4.1 Creating USLAM Services Database Schemas in Oralce 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
```

#### 4.1.4.2 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
```

### 4.1.5 Configuring USLAM Services Database

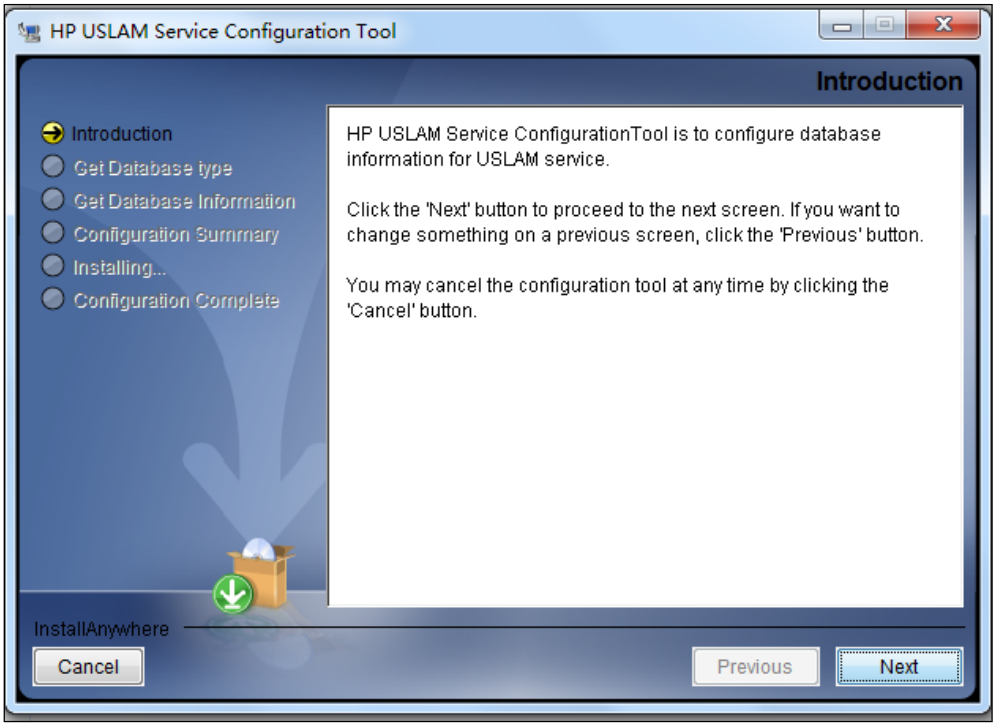
To run USLAM Services Configuration tool, you need to create a schema for USLAM Services (as described in 4.1.4 Creating USLAM Services Database Schemas ) and then run the tool, performing the following steps:

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

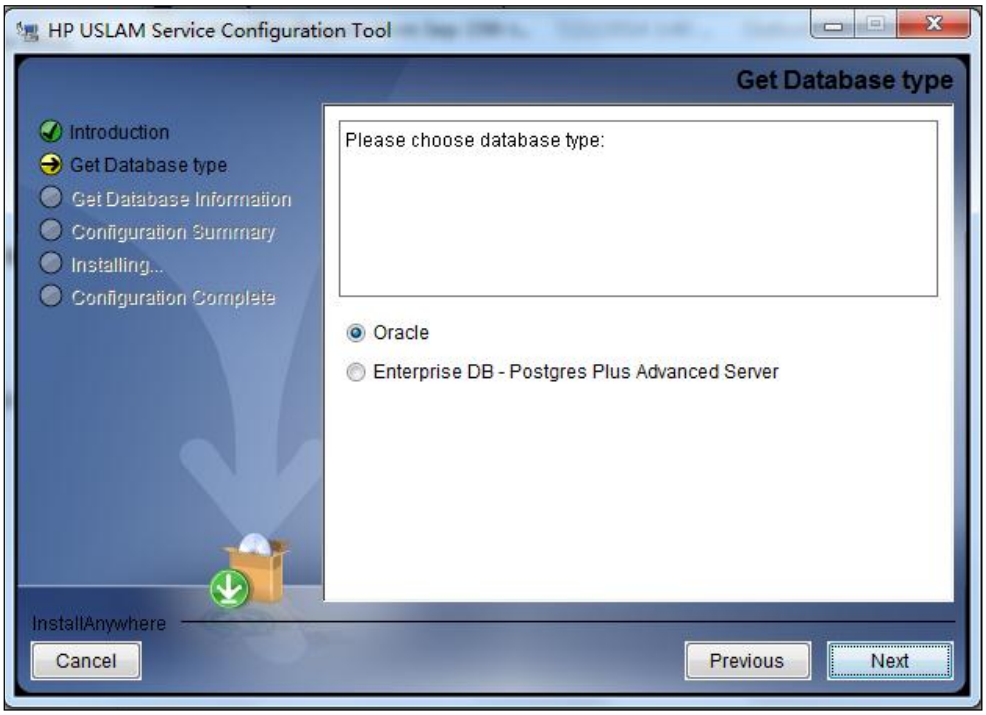
3. The installer displays a progress indicator and deploys the installation files on your Linux system
4. Once the installation files are deployed, the HP USLAM Services Configuration Tool wizard displays.

**Figure 11: USLAM Services Configuration Tool - Introduction**



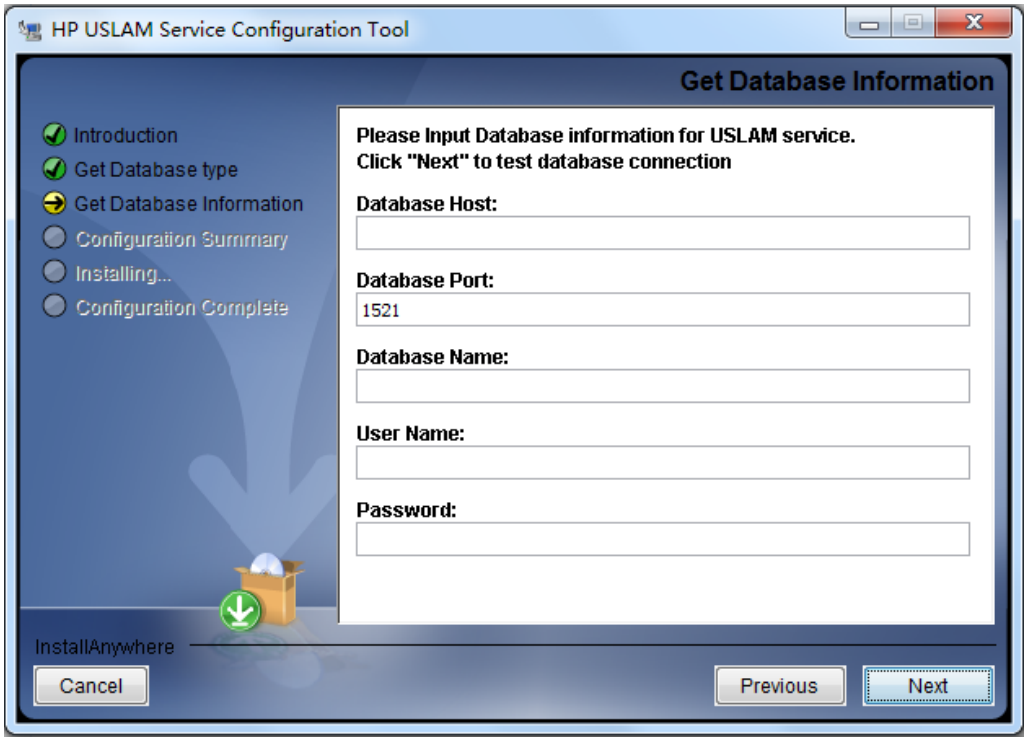

5. Click [Next]. The Get Database type window displays

**Figure 12: USLAM Services Configuration Tool – Database type**



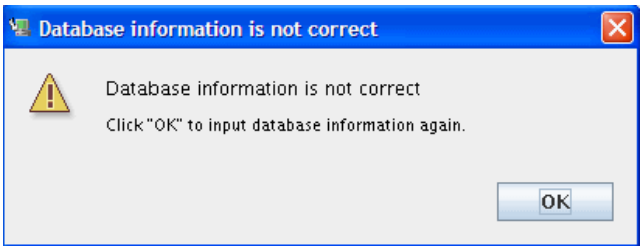

6. Select database type .Click [Next]. The Get Database Information window displays

**Figure 13: USLAM Services Configuration Tool – Database Information**



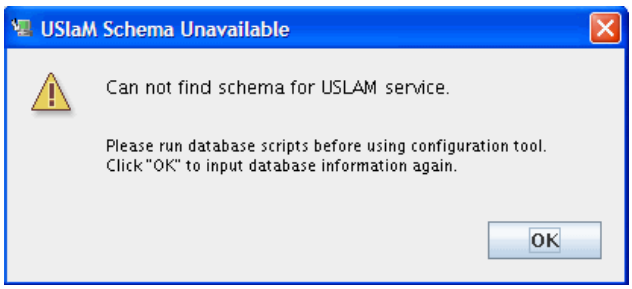

7. Enter the required information in the relevant text fields i.e. **Database Host**, **Database Port, Database Name, User Name** and **Password** (this is the DB user created in 4.1.3 "Creating USLAM Services Database User")
8. Click [Next]. The configuration tool will check the information you entered, 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 14: USLAM Services Configuration Tool – Incorrect Database Information**



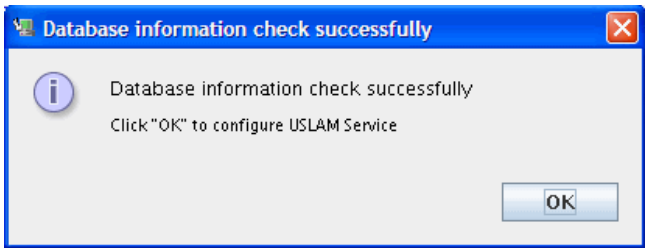

10. If USLAM schema cannot be found, the installer displays the following warning. Click [OK] to enter the information again

**Figure 15: USLAM Services Configuration Tool – Unavailable USLAM Schema**



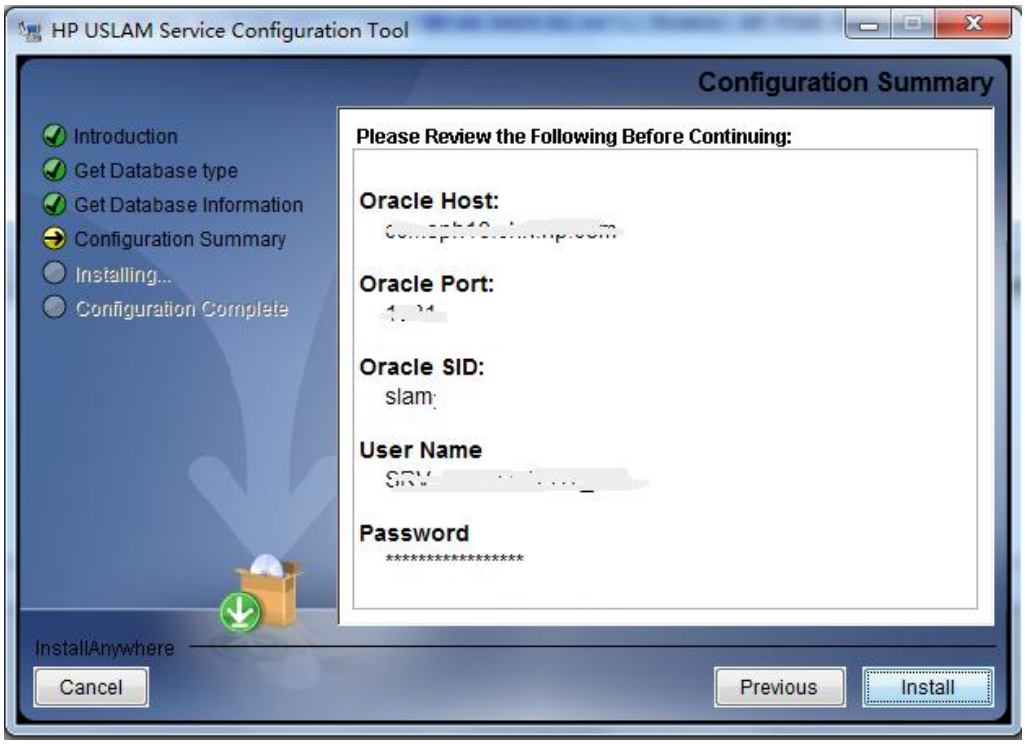

11. If the information check is successfully, the installer displays the following message.

**Figure 16: USLAM Services Configuration Tool – Successfully Check**




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

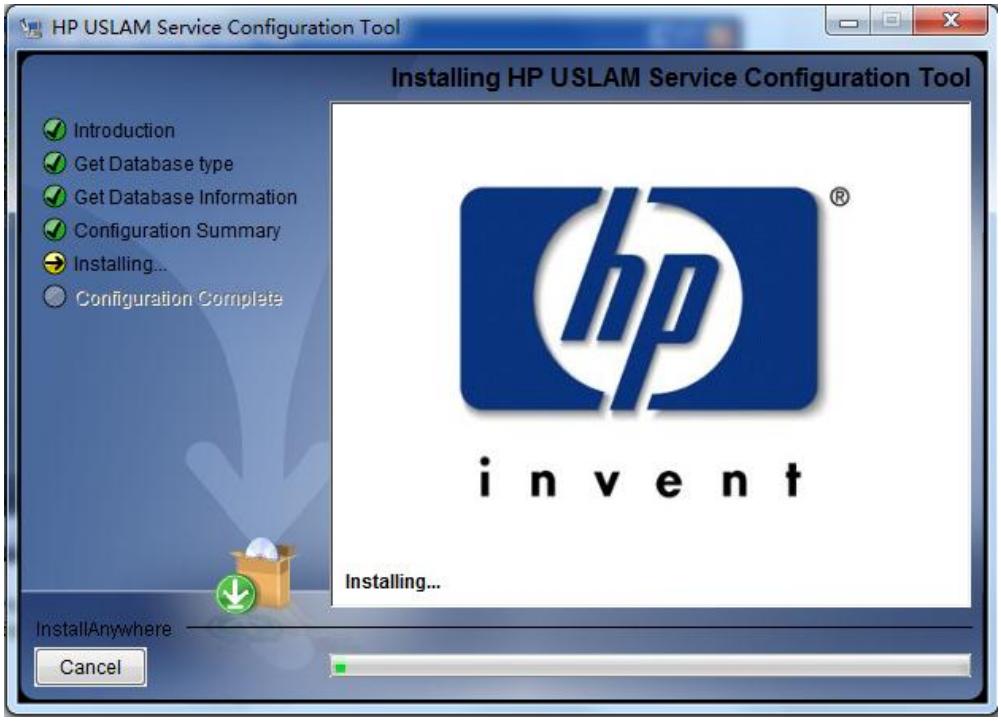
**Figure 17: USLAM Services Configuration Tool – Configuration Summary**




13. Review the Configuration information before beginning to configure USLAM Services. Click [Install] to begin the configuration.

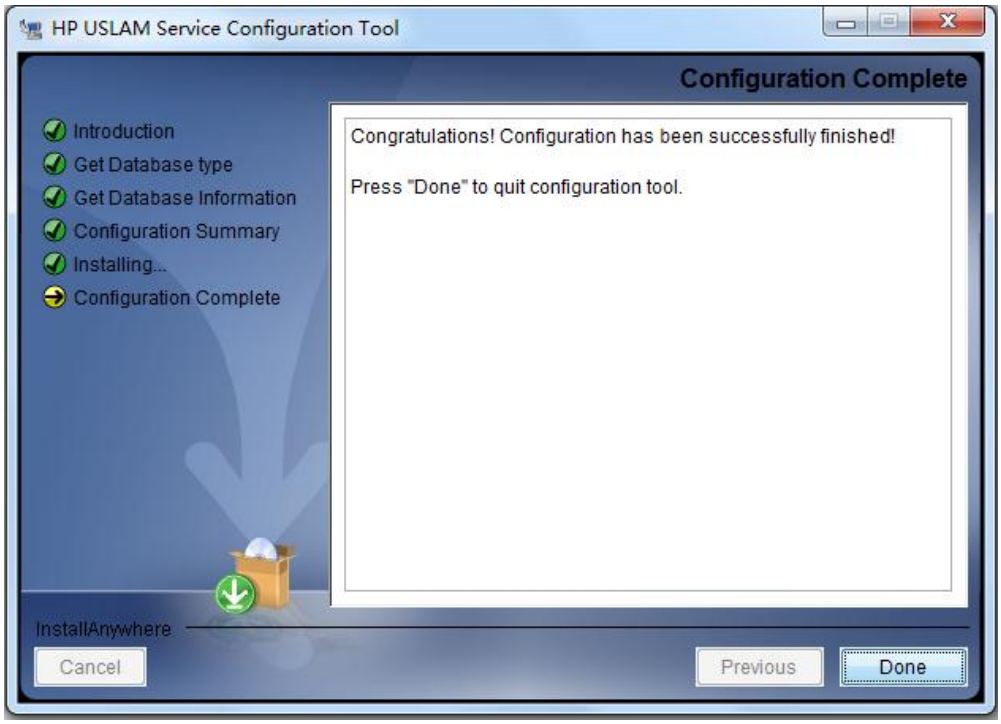
14. The configuration progress indicator displays

**Figure 18: USLAM Services Configuration Tool – Installing**




15. Once the configuration is complete, the Configuration Complete window displays.

**Figure 19: USLAM Services Configuration Tool – Configuration Complete**




16. Click [Done] to finish the configuration.

### 4.1.6 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=DEDIC
        ATED)(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.OracleExcepti
        onSorter</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>
```

### 4.1.7 Configuring USLAM Services properties

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

### 4.1.8 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.

### 4.1.9 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 enter **`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 the USLAM database.
   - Launch the USLAM Web UI (see 7.1 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 case you have an expired license.

## 4.2 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. Enter `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.

## 4.3 Modifying USLAM Services Installation

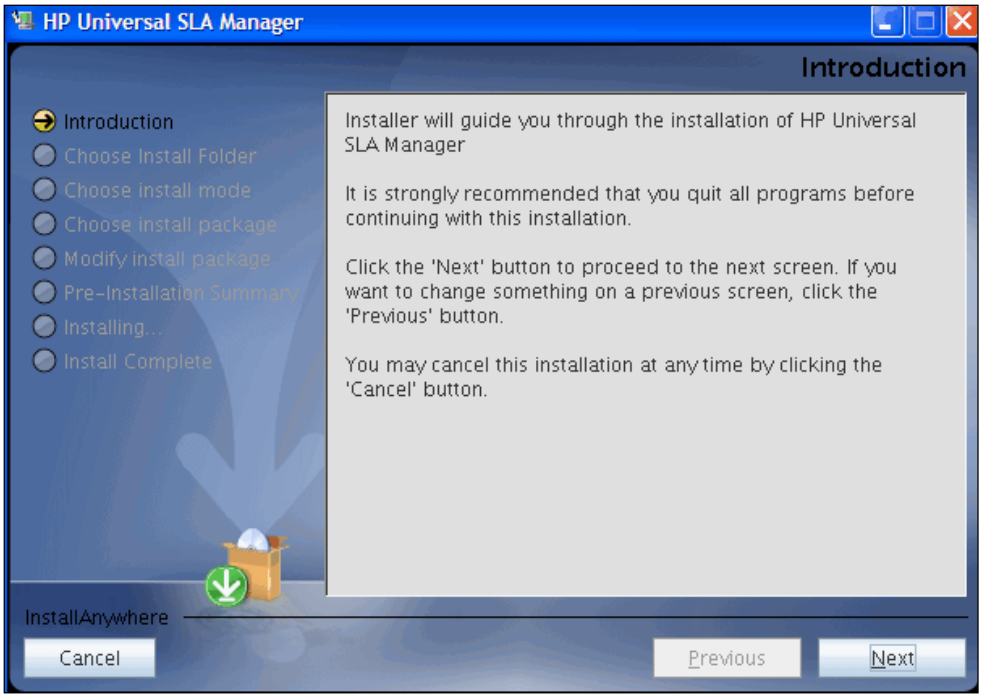
To modify an existing installation (i.e. either install a new module or remove a previously installed module) of the software package(s), you will be required to run the USLAM Installation Wizard performing the following steps:

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

(see 4.2 Stopping USLAM Services)

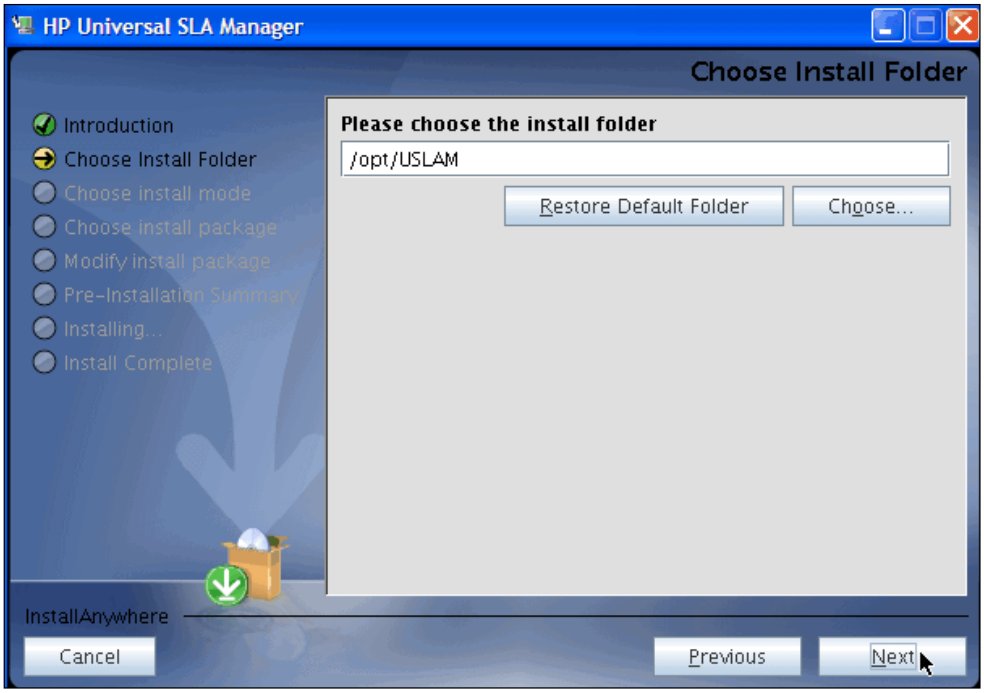
1. Locate and browse to the USLAM installation kit and then run the installation wizard by running command line `./HP_USLAM_Services.bin`
2. The installer displays a progress indicator and deploys the installation files on your Linux system
3. Once the installation files are deployed, the HP Universal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

**Figure 20: USLAM Services Installation - Introduction**



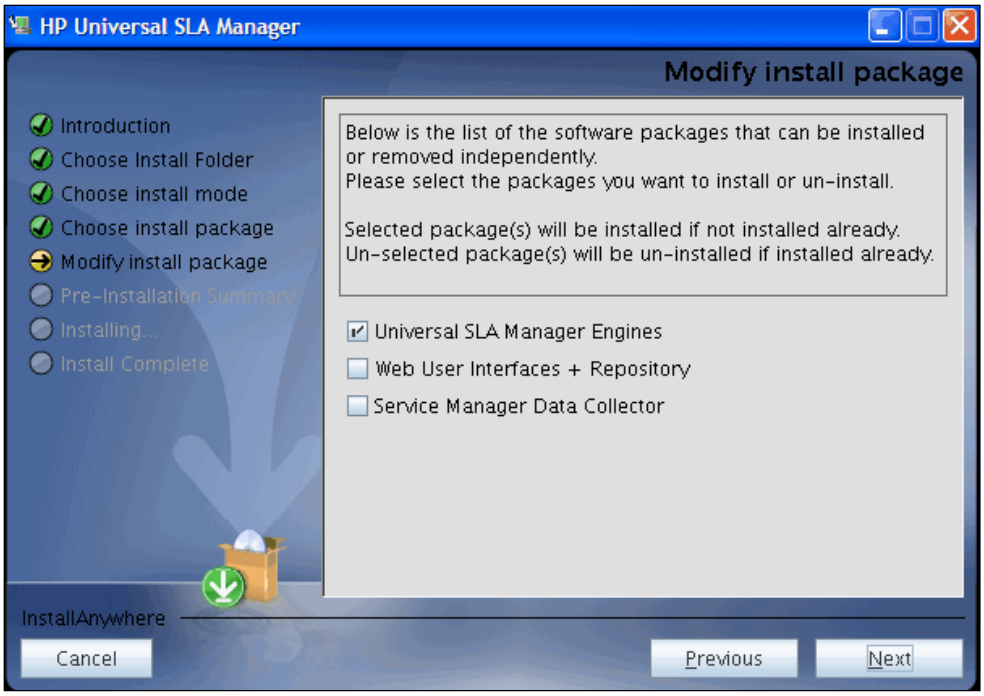

4. Make sure you follow the instructions displayed on this window and then click [Next]
5. Click [Next]. The Choose Install Folder window displays

**Figure 21: USLAM Services Installation – Choose Install Folder**



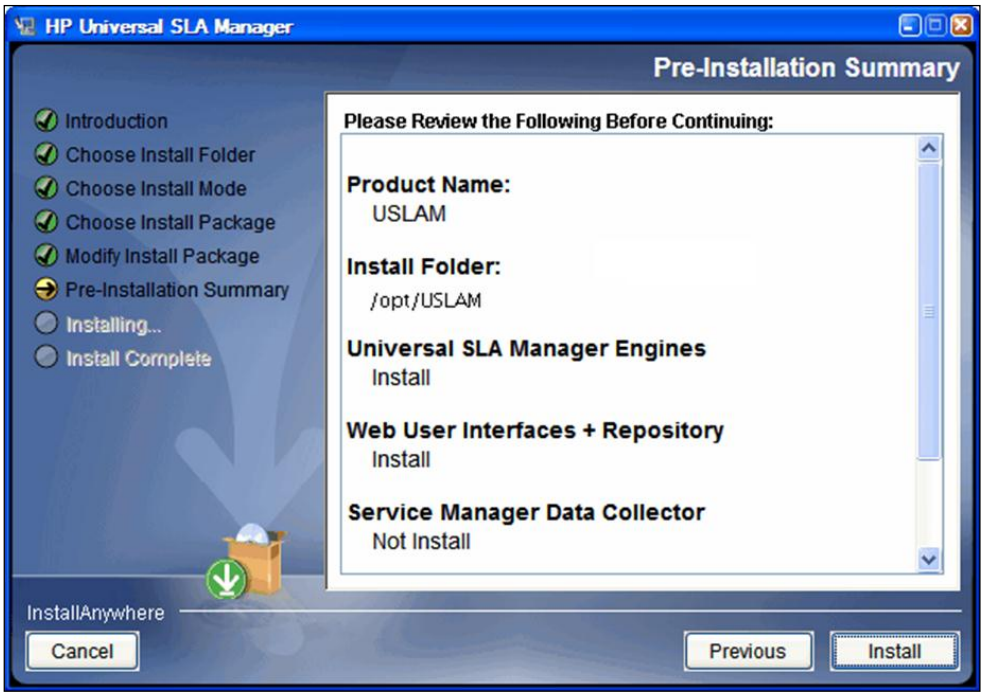

6. Choose the folder that USLAM has been installed in. If the folder chosen is not USLAM installed folder, installer will run with the new install mode
7. Click [Next]. The Modify Install Package window displays. The software package(s) which has been installed will be shown in the previously selected 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 22: USLAM Services Installation – Choose Install Package**



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

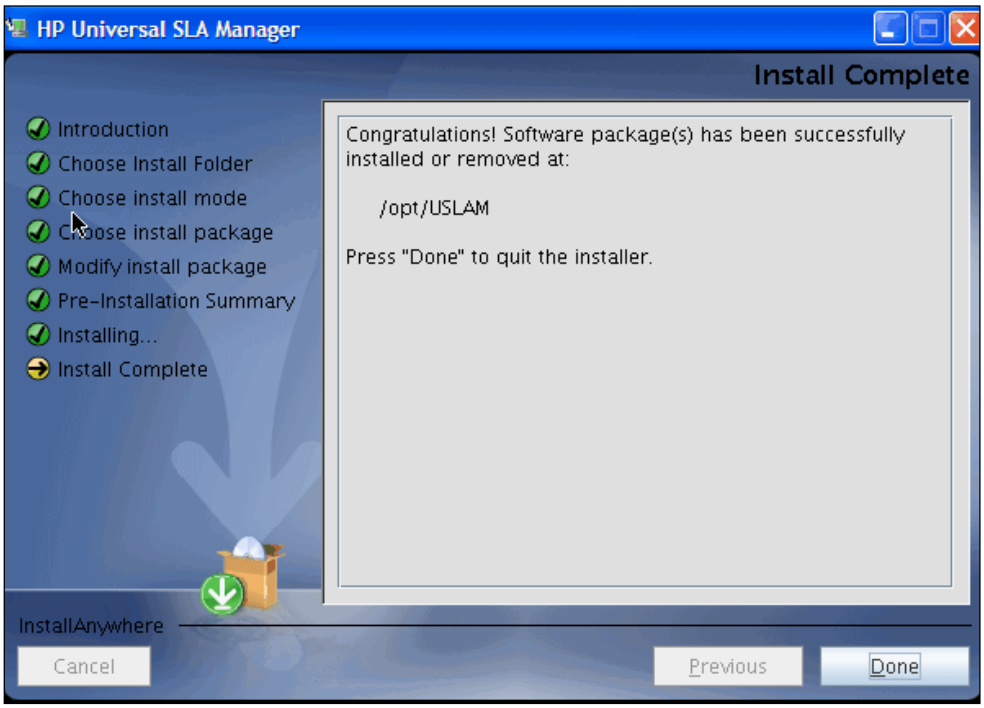
**Figure 23: USLAM Services Installation – Pre-installation Summary**




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 24: USLAM Services Installation – Installation Complete**



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

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

## 4.4 Uninstalling USLAM Services

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

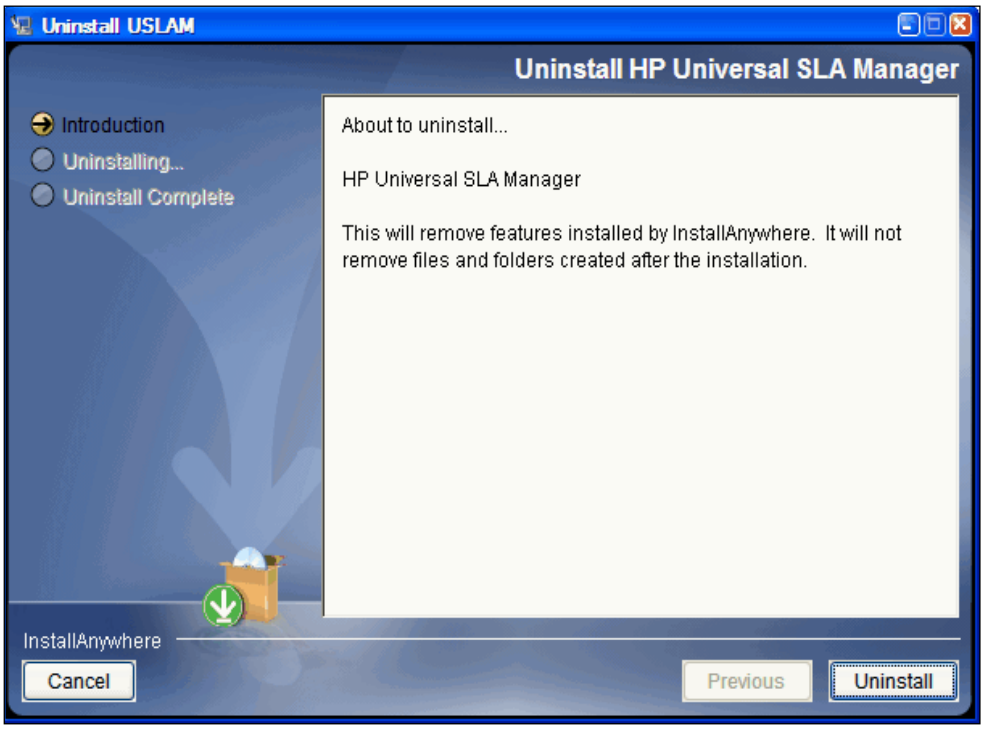
Make sure you stop completely the USLAM Services before uninstalling (see 4.2 Stopping USLAM Services)

1. Go to `<INSTALL_DIR>/Uninstall` and run command `./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

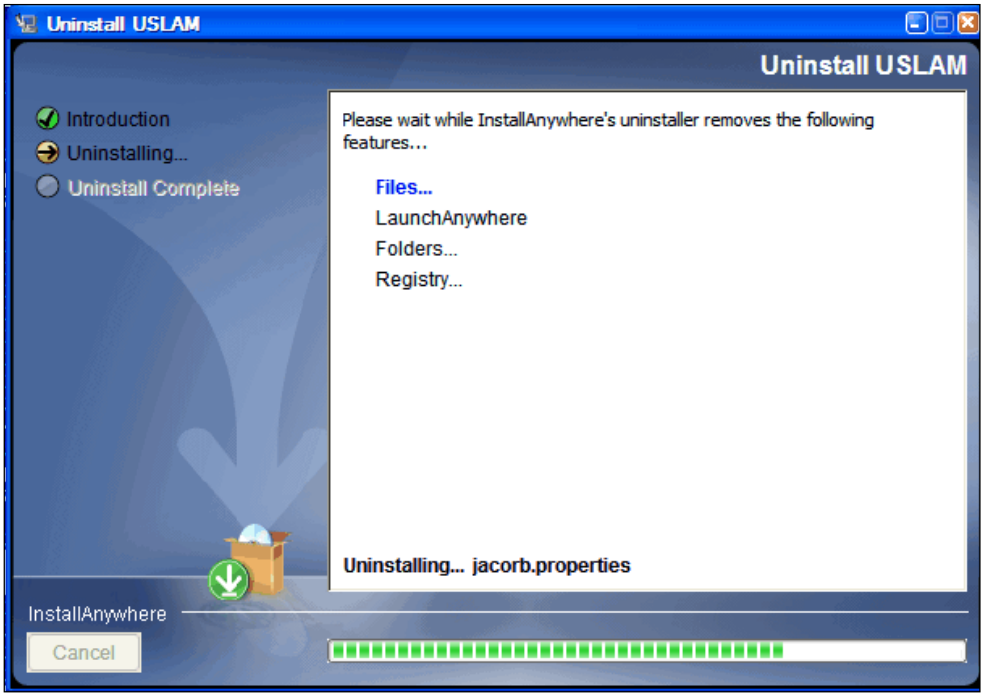
2. Once the progress indicator completes, the Uninstall HP Universal SLA Manager wizard displays

**Figure 25: USLAM Services Uninstallation – Introduction**



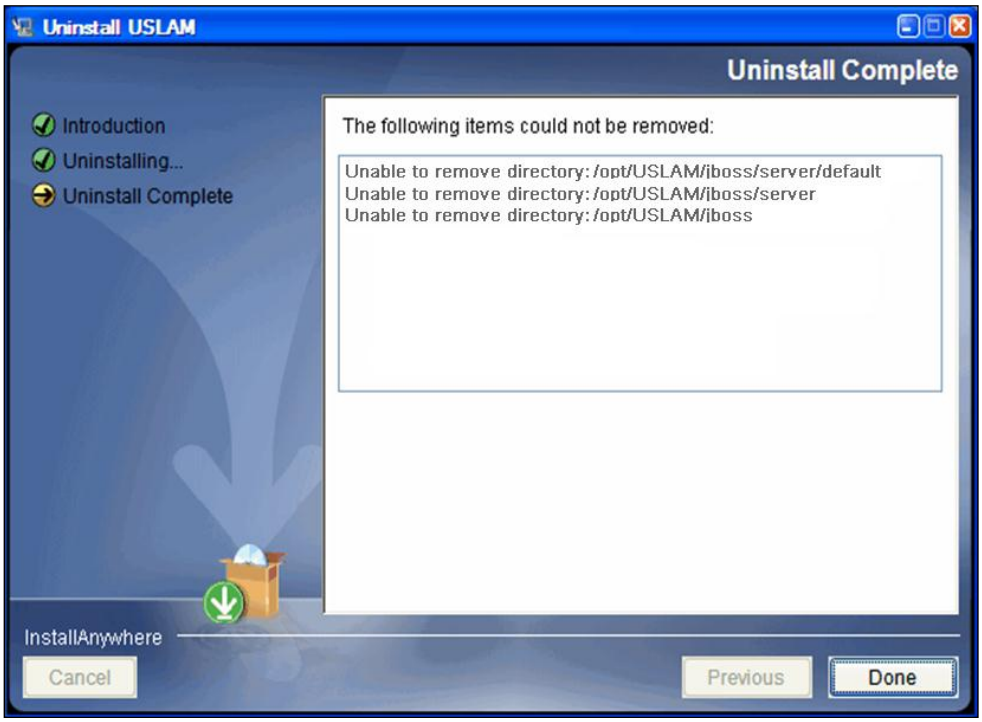

3. Review the Uninstall summary and then click [Uninstall]
4. The un-installation progress indicator displays

**Figure 26: USLAM Services Uninstallation – Uninstalling**




5. You can manually remove the files that could not be removed by the uninstaller

**Figure 27: USLAM Services Uninstallation – Uninstallation Complete**




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

# Chapter 5 Installing and Configuring USLAM ETL

This chapter is designed as a guide to install and configure the HP 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.

## 5.1 Installing USLAM ETL

### 5.1.1 Installation kit

The installation kit of USLAM ETL is: **HP_USLAM_ETL-4.1.0.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
- The Linux library `libstdc++.so.6` is installed in `/usr/lib/`.
  You can check this by running the command:
  `locate libstdc++.so.6`
  If not installed, please install it with the following command:
  `yum install libstdc++.so.6`
- The other libs that must be installed are :
  `compat-libstdc++-33`
  `glibc`
- 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 |

### 5.1.2 Creating Groups and Users

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

- **a HP USLAM ETL group (for example: hpuslametl)**
- **a HP 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**

### 5.1.3 Installation Wizard

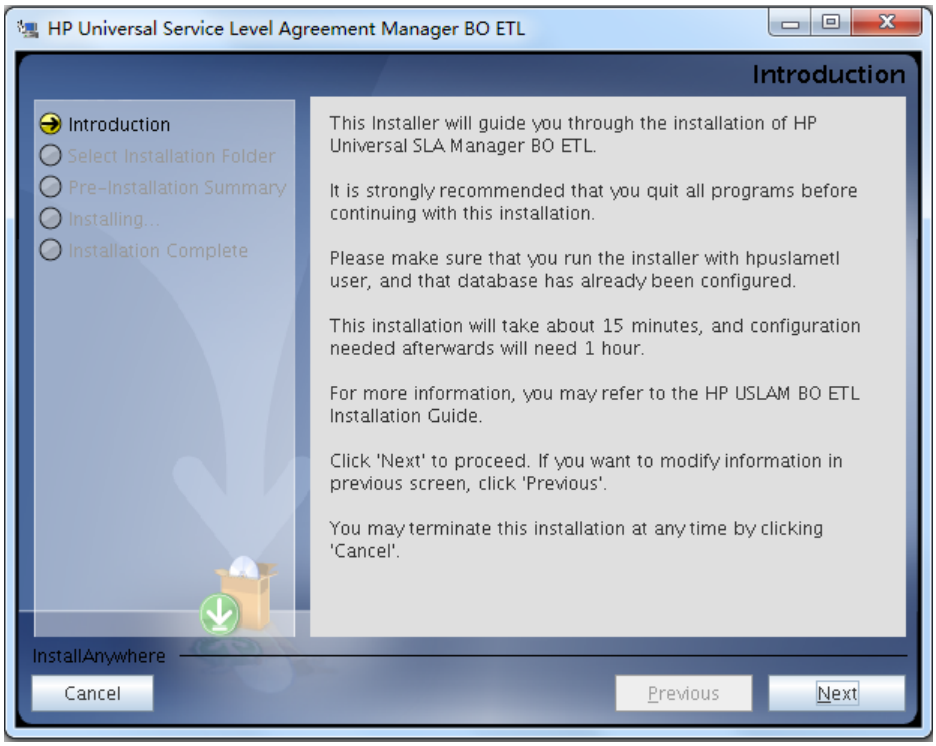
Make sure that you have a X-server running before performing this procedure. To start the installation, perform the following steps:

1. Log as **hpuslametl**

2. Use the command **./HP_USLAM_ETL-4.1.0.bin** to start up the installation.

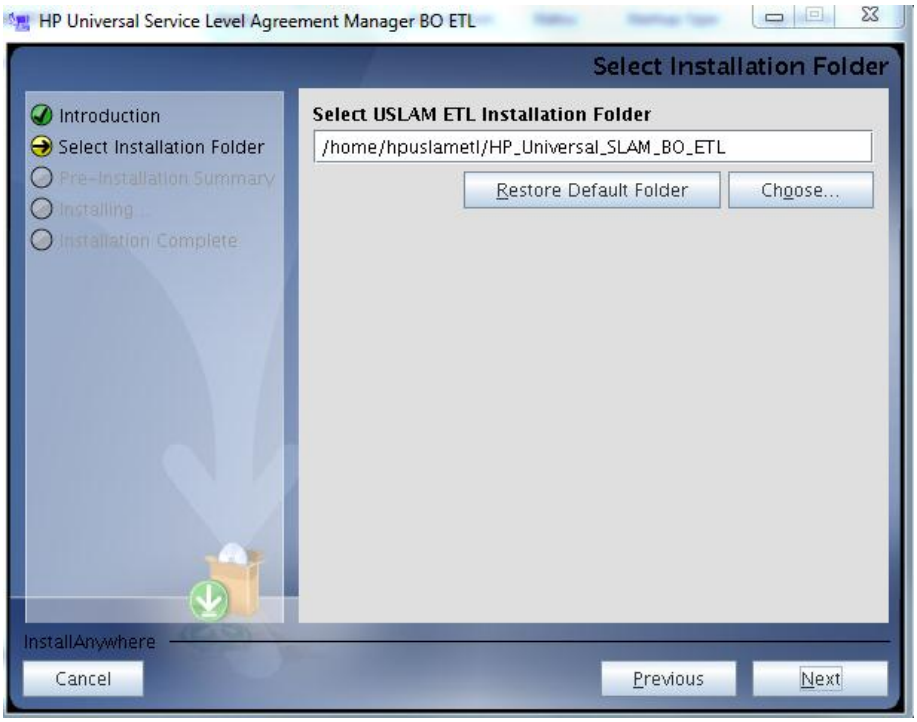
   The **Introduction** dialog displays

   **Figure 28: USLAM ETL Installation - Introduction**



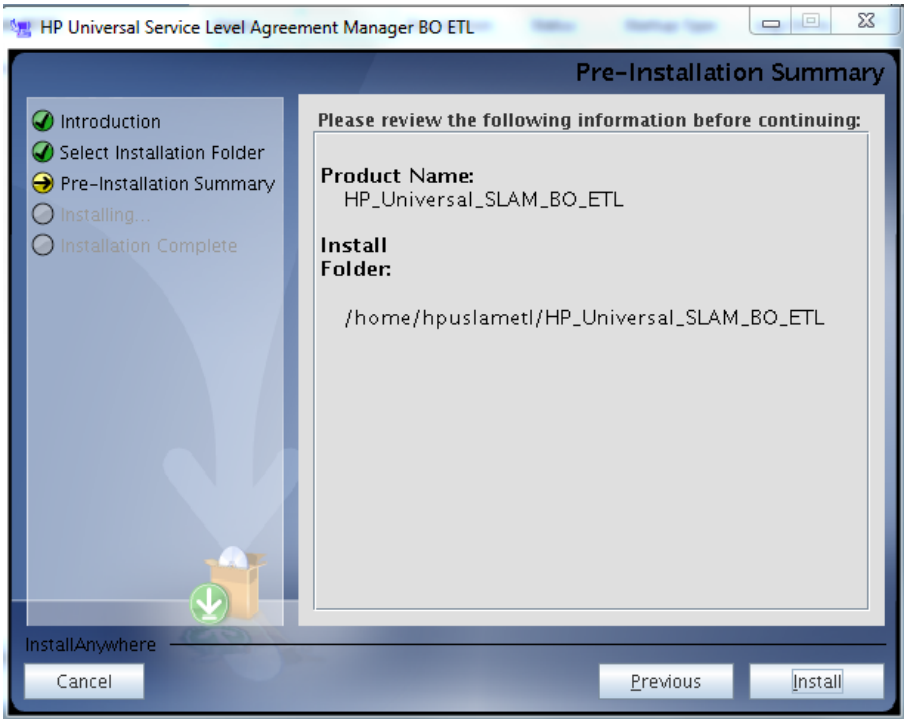

3. Click [Next] to continue
4. The Choose Install Folder window displays. Enter the location for your HP USLAM ETL installation

**Figure 29: USLAM ETL Installation – Installation Folder**




5. Specify the location where USLAM ETL must be installed. The default location is `<hpuslametl_home_directory>/HP_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 30: USLAM ETL Installation – Summary**




8. Click [Install] to complete

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

### 5.1.4 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/**

#### 5.1.4.1 Define TNS Name Alias for USLAM ETL internal databases

Before the installation, it is required to create two USLAM ETL internal databases:
**IPS DB** and **BODS Repository DB**.

First, you must define the Oracle TNS Name aliases for those two databases.

As *oracle* user,

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

The following is a sample output displayed by running this command:

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

Modify it according to your hostname, service name for those two databases.

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).

### 5.1.4.2 Create USLAM ETL internal database users

Before the installation, you must create two new database users for the USLAM **IPS** database and the USLAM **BODS Repository** Database (small databases used by ETL BODS)
(the user names taken as example in this document are: *IPS* and *BODS_REPOS*)

Please contact your Oracle database administrator to create the user, 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;
```

### 5.1.4.3 Create Datamart database User

(the user name taken as example in this document is: *SLA_DATAMART*)

NOTE: It is strongly recommended that your Datamart user is created on a separate Oracle instance (other than USLAM Services Database). This database will contain all the USLAM historical data.

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;
```

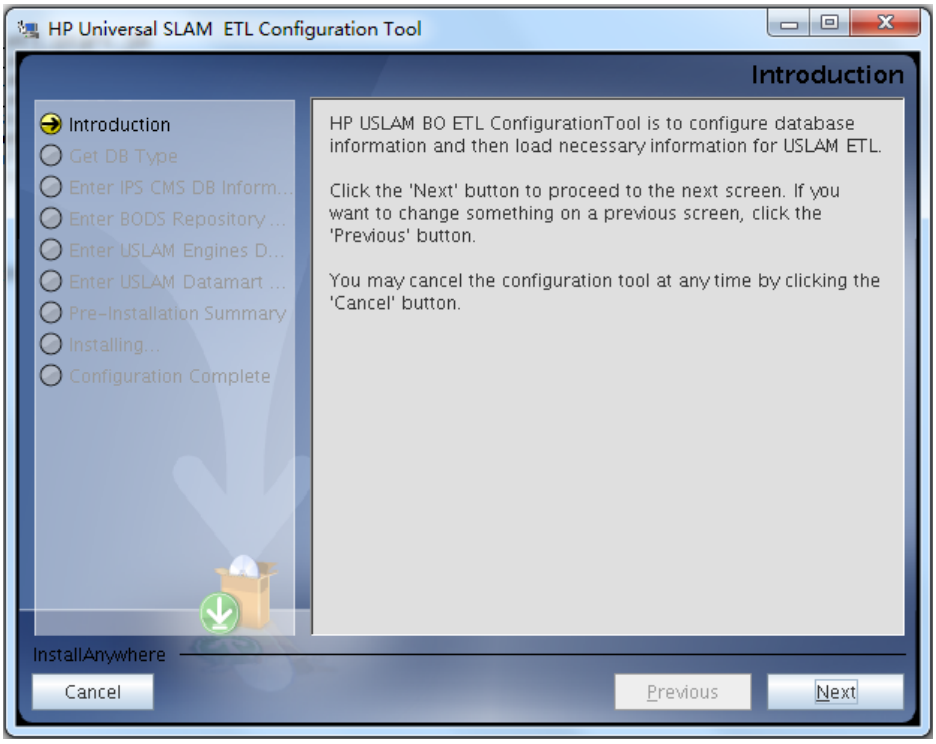
### 5.1.4.4 Configuration Wizard

Make sure that you have a 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

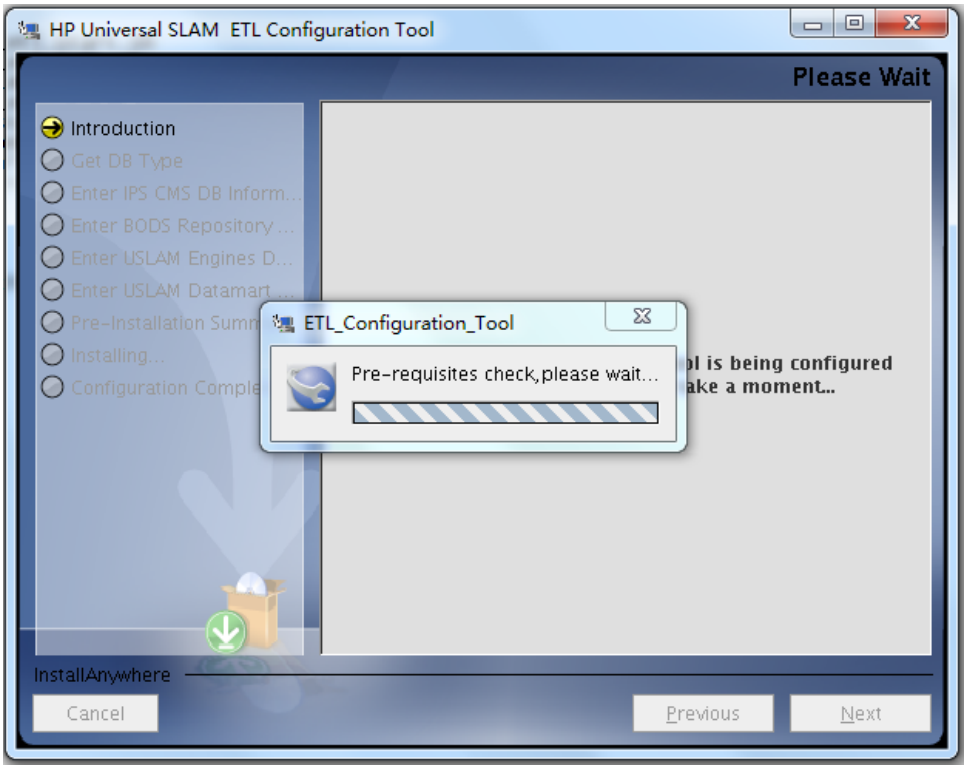
4. The ETL Configuration tool screen displays

**Figure 31: USLAM ETL Configuration Tool – Introduction**



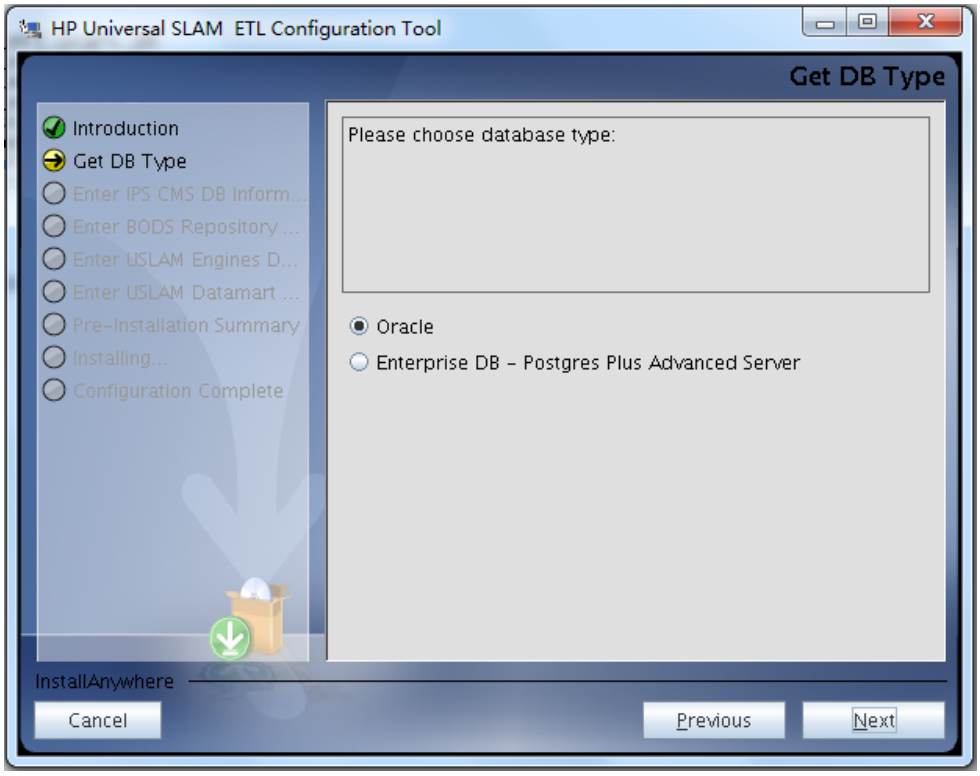

5. Click [Next] to continue, the installation will check the pre-requisites

**Figure 32: USLAM ETL Configuration Tool – Check pre-requisites**



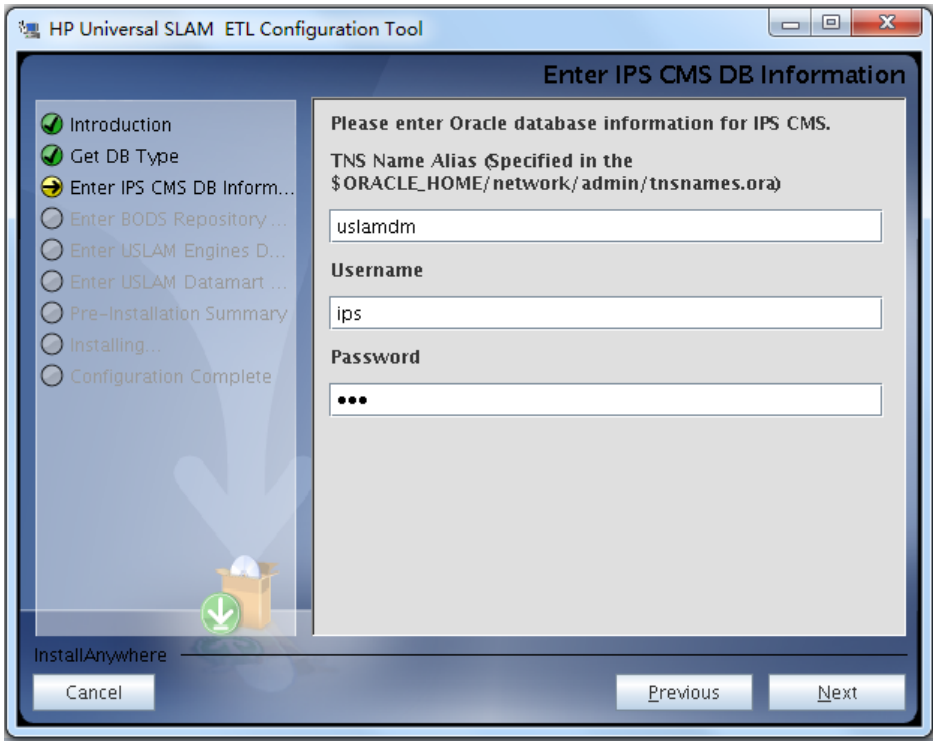
6. If pre-requisites check are OK, choose database type ,select Oracle

**Figure 33: USLAM ETL Configuration Tool –Database Type**




7. Click [next].

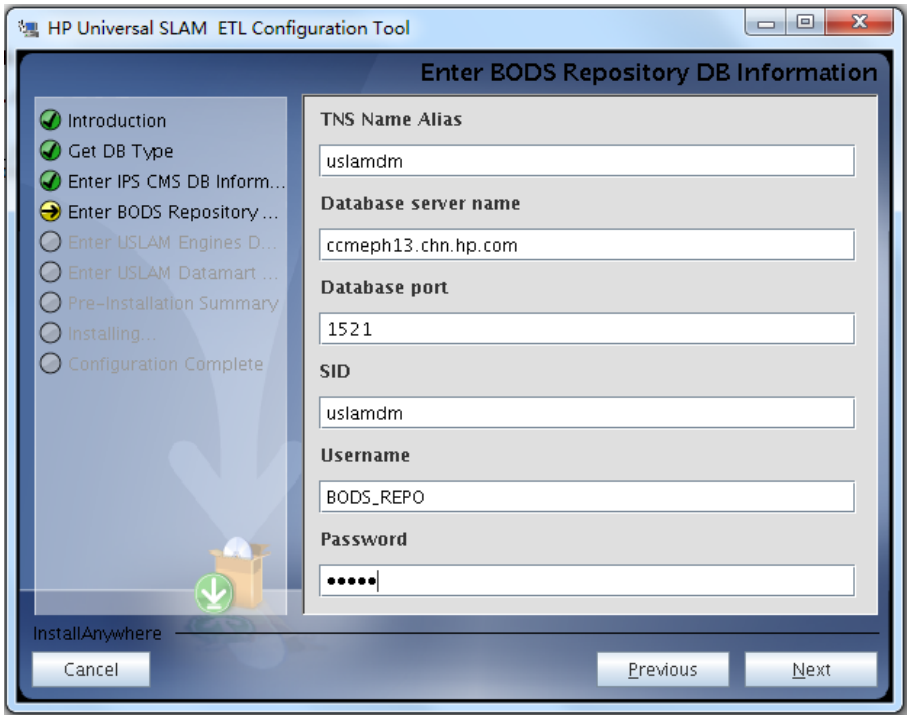
**Figure 34: USLAM ETL Configuration Tool – IPS Database Information**




8. Enter the connection information for the IPS Database

9. Click [next].

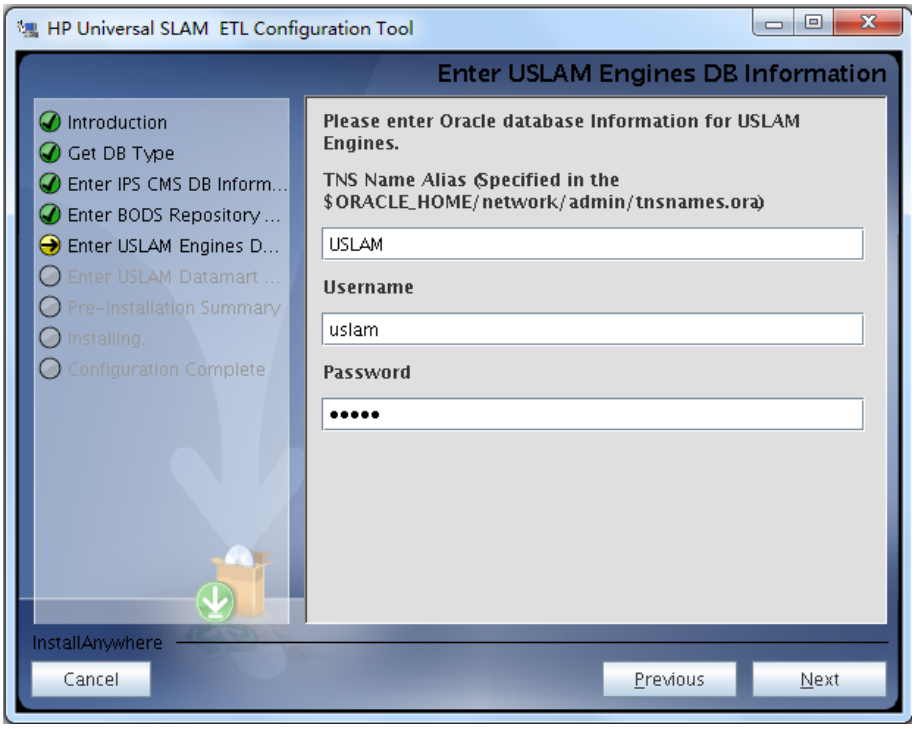
**Figure 35: USLAM ETL Configuration Tool – BODS Repository Database Information**




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)

11. Once done, click [next].

**Figure 36: USLAM ETL Configuration Tool –USLAM Engine Database Information**

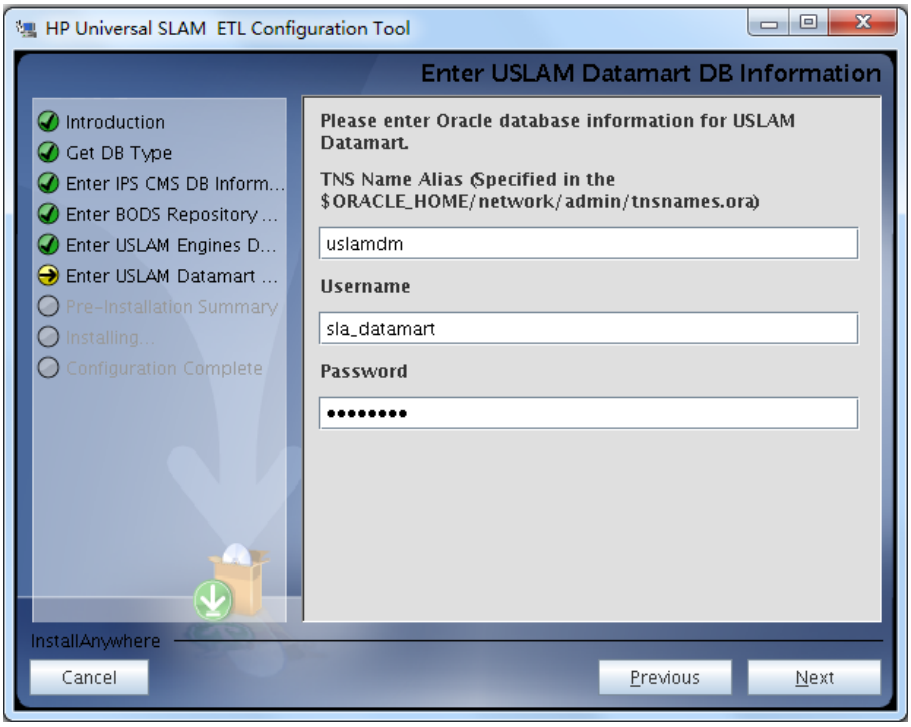



12. Enter the connection information for the USLAM Engines Database.

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

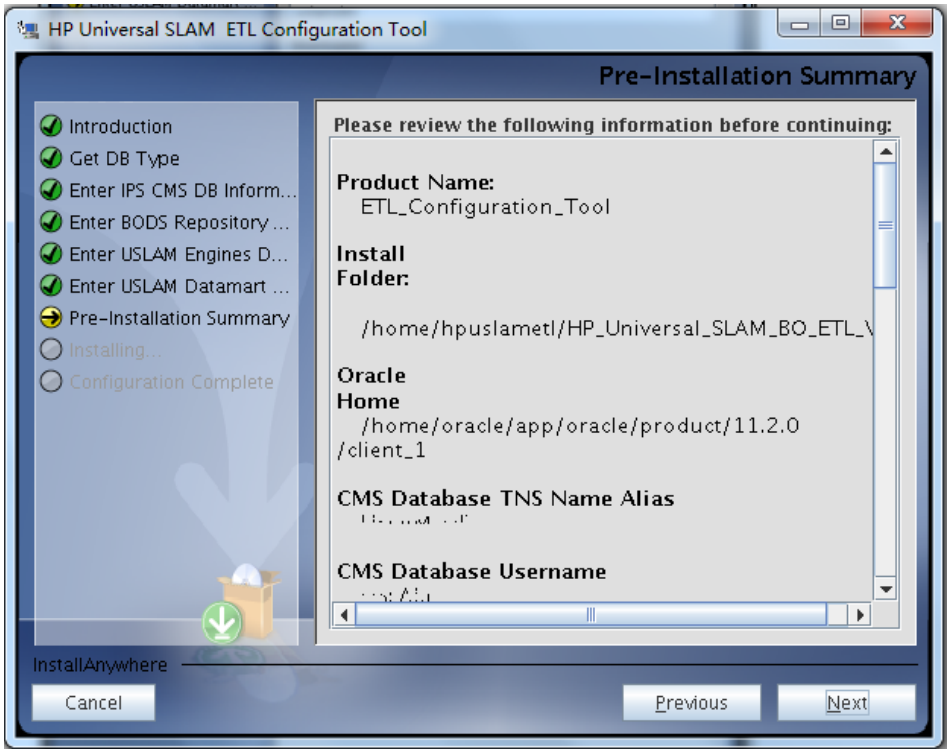
13. Click [next].

**Figure 37: USLAM ETL Configuration Tool –USLAM Datamart Database Information**



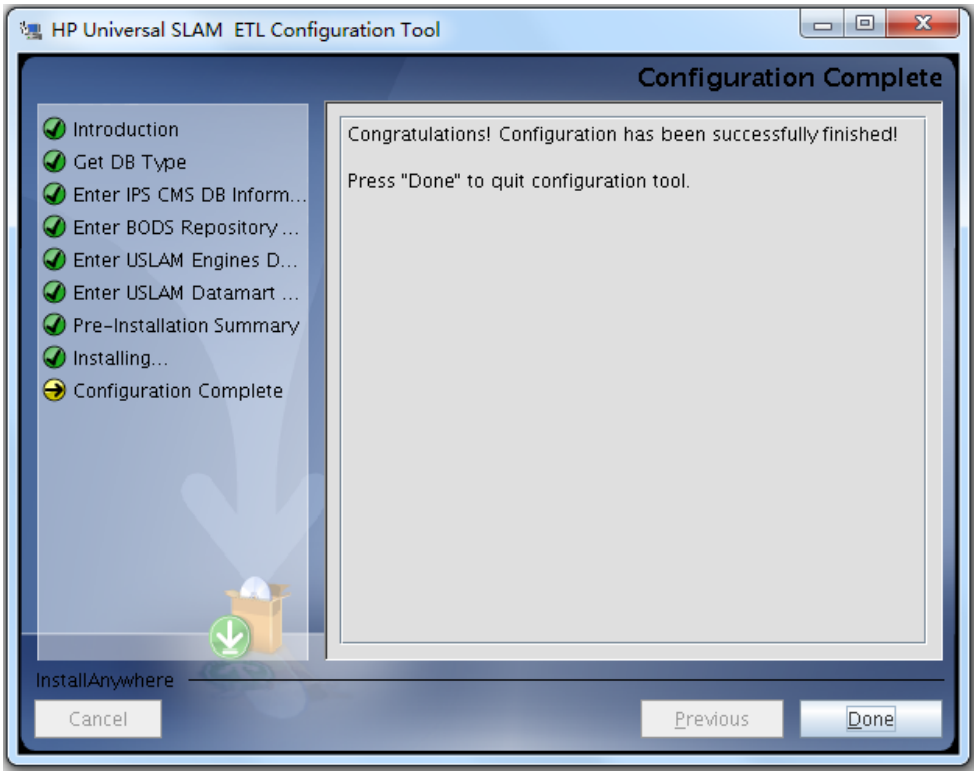
14. Enter the connection information for your USLAM Datamart Database
15. Click [Next] to proceed. The 'Summary' window is then displayed

**Figure 38: USLAM ETL Configuration Tool –Summary**




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

**Figure 39: USLAM ETL Configuration Tool –Installation Complete**




17. Click [Done] to exit the Installer.

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

### 5.1.4.5 Starting USLAM ETL servers

As *hpuslametl* user,

```
$ cd <USLAM_ETL_Install_Dir>/bin/
$ ./uslam_etl_start.sh
```

Once you have started USLAM ETL servers, you must execute the Datamart scripts on the Oracle database (see next section).

### 5.1.4.6 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>**

1. 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
```

## 5.1.5 Configuration of USLAM ETL with Enterprise DB 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.

### 5.1.5.1 Create Datamart database User

(the user name taken as example in this document is: *sla_datamart*)

NOTE: It is strongly recommended that your Datamart user is created on a separate Enterprise DB instance (other than USLAM Services Database).

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:

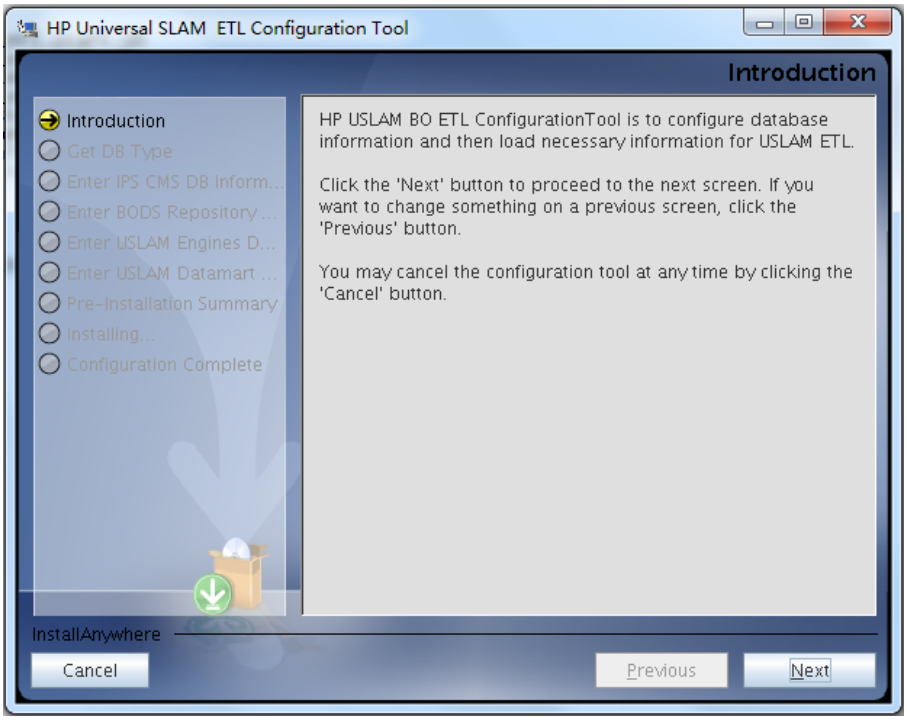
```
SQL> grant connect, resource to sla_datamart;
SQL> grant unlimited tablespace to sla_datamart;
```

### 5.1.5.2 Configuration Wizard

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

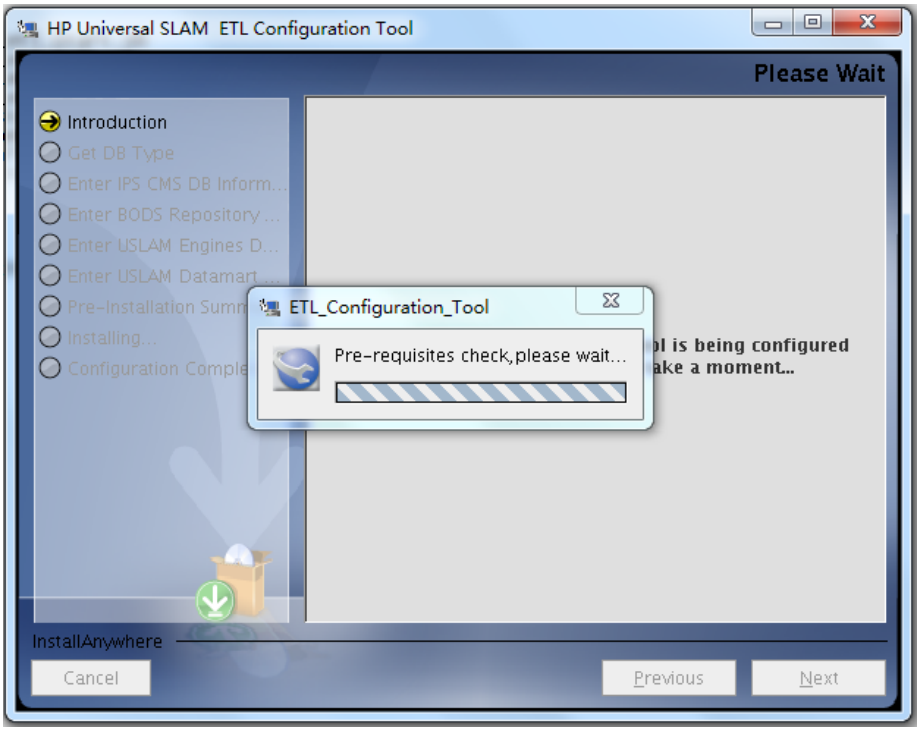
1. Log as **hpuslametl**
2. Go to the directory `<USLAM_ETL_Install_Dir>/bin`
3. Use the command **`./ETL_Configuration_Tool.bin`** to start up configuration tool
4. ETL Configuration Tool screen displays

**Figure 40: USLAM ETL Configuration Tool – Introduction**



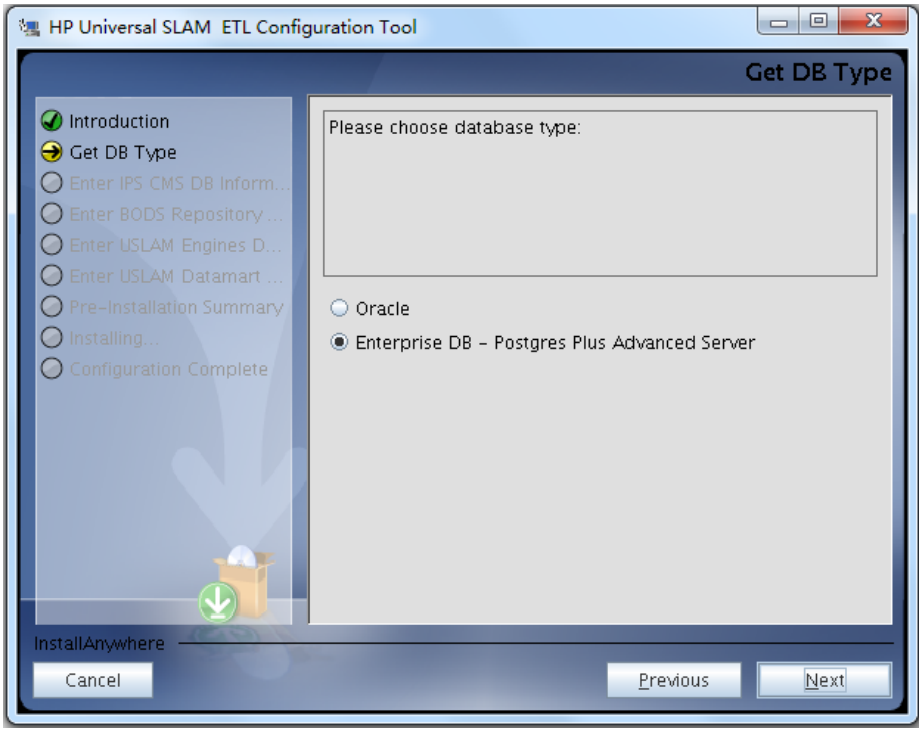

5. Click [Next] to continue, the installation will check pre-requisites

**Figure 41: USLAM ETL Configuration Tool – Check pre-requisites**



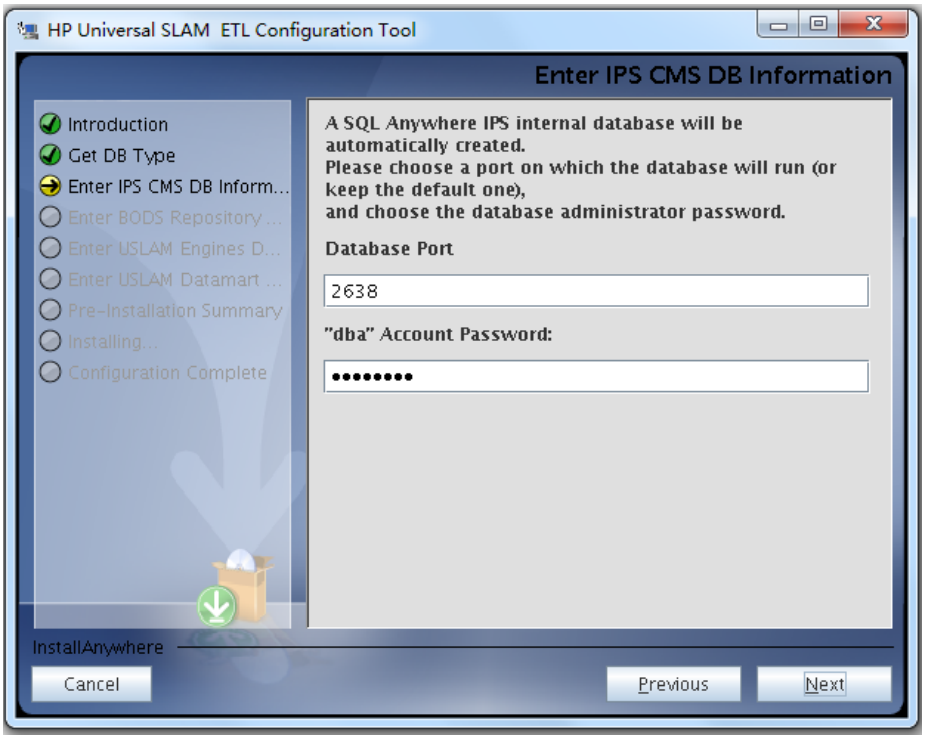

6. If pre-requisites check are OK, choose database type ,select Enterprise DB - Postgres Plus Advanced Server Database

**Figure 42: USLAM ETL Configuration Tool – Database type**



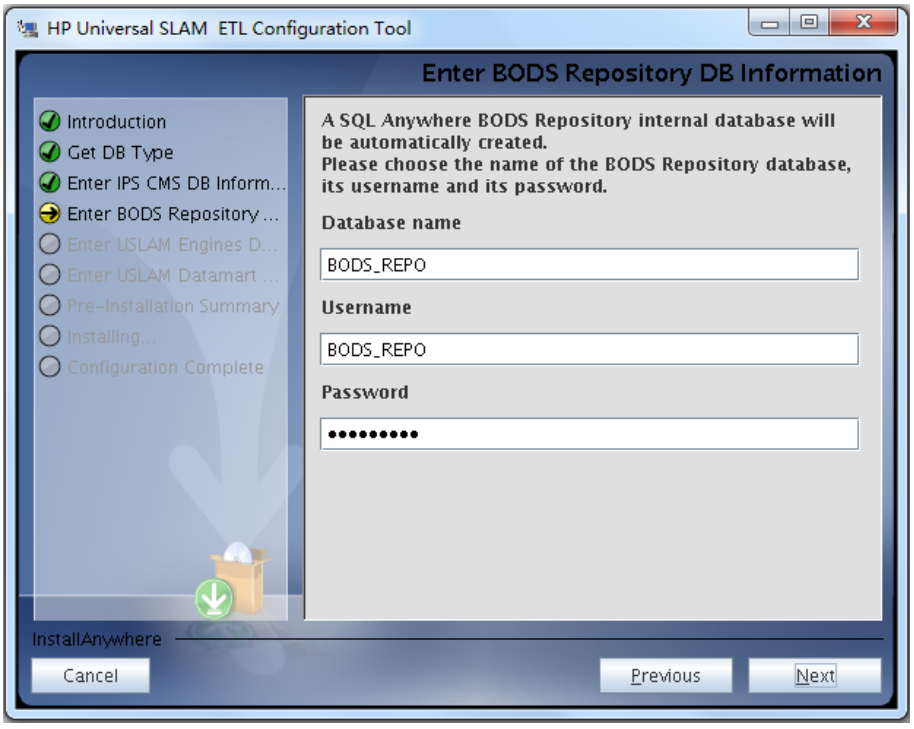

7. Click [next].

**Figure 43: USLAM ETL Configuration Tool – IPS Database Information**



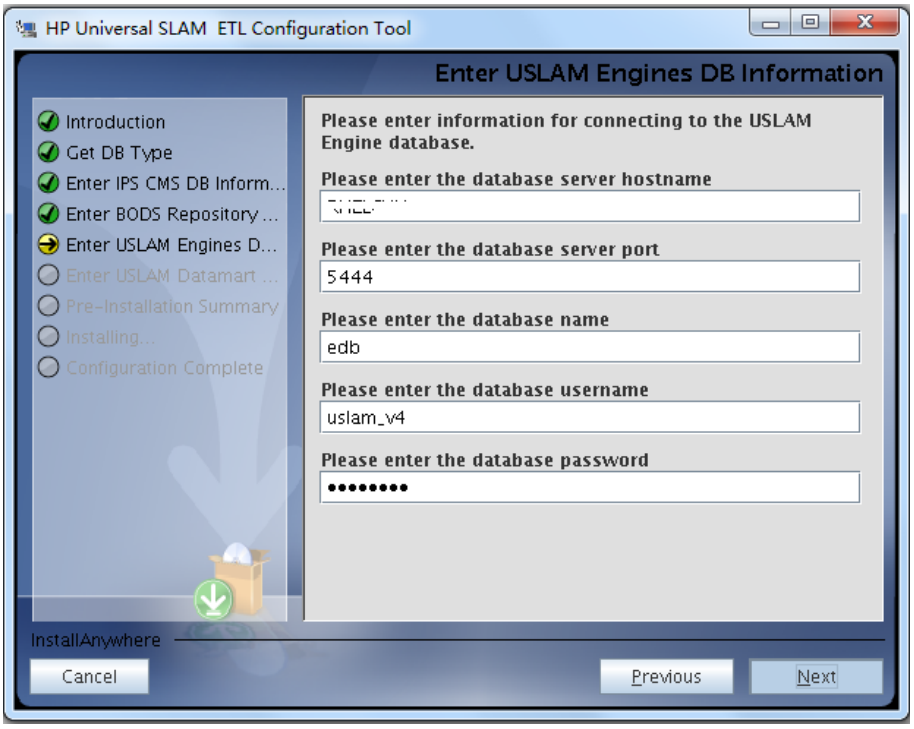

8. Enter the information for the creation of SQLAnywhere IPS Database
9. Click [next].

**Figure 44: USLAM ETL Configuration Tool – BODS Repository Database Information**



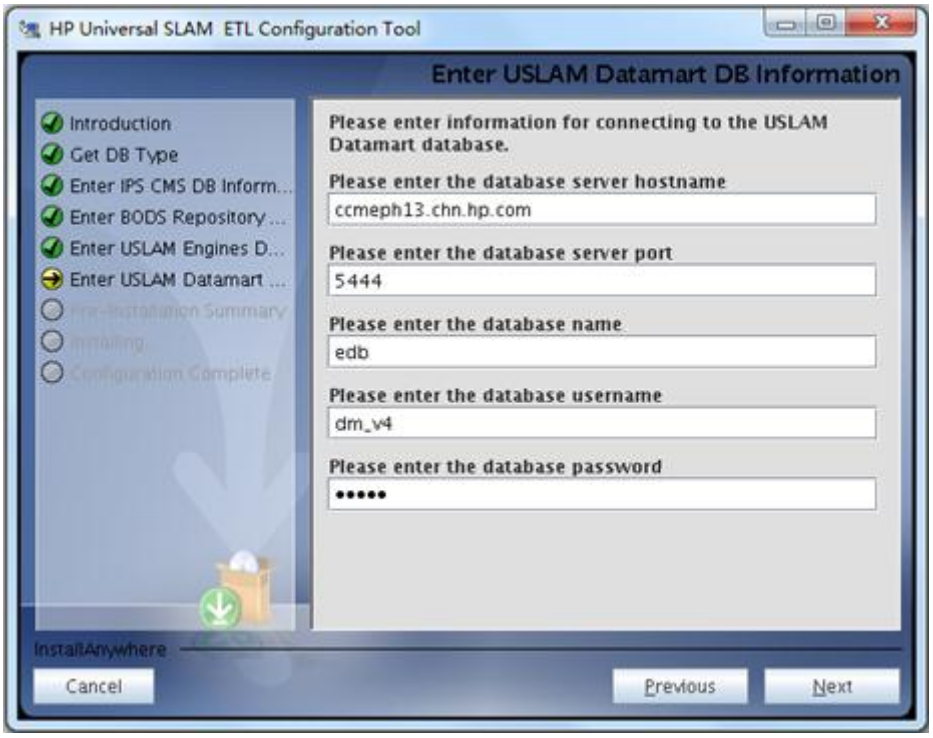
10. Enter the information for creation of SQLAnywhere BODS Repository Database. It's using the same port than the IPS database.
11. Once done, click [next].

**Figure 45: USLAM ETL Configuration Tool –USLAM Engine Database Information**



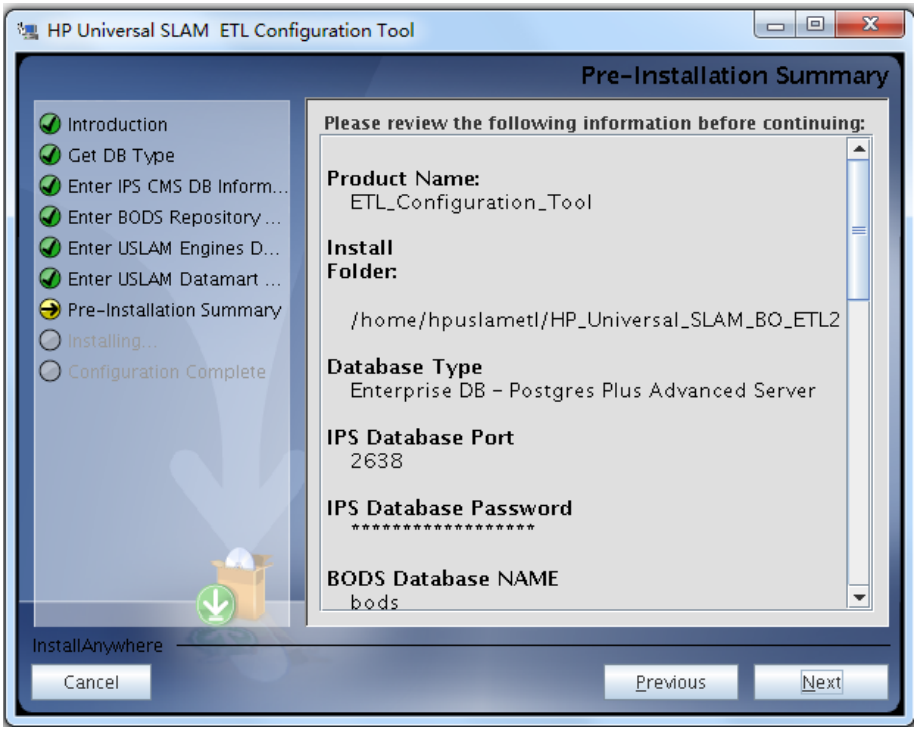

12. Enter the connection information for the USLAM Engines Database.
13. Click [next].

**Figure 46: USLAM ETL Configuration Tool –USLAM Datamart Database Information**




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

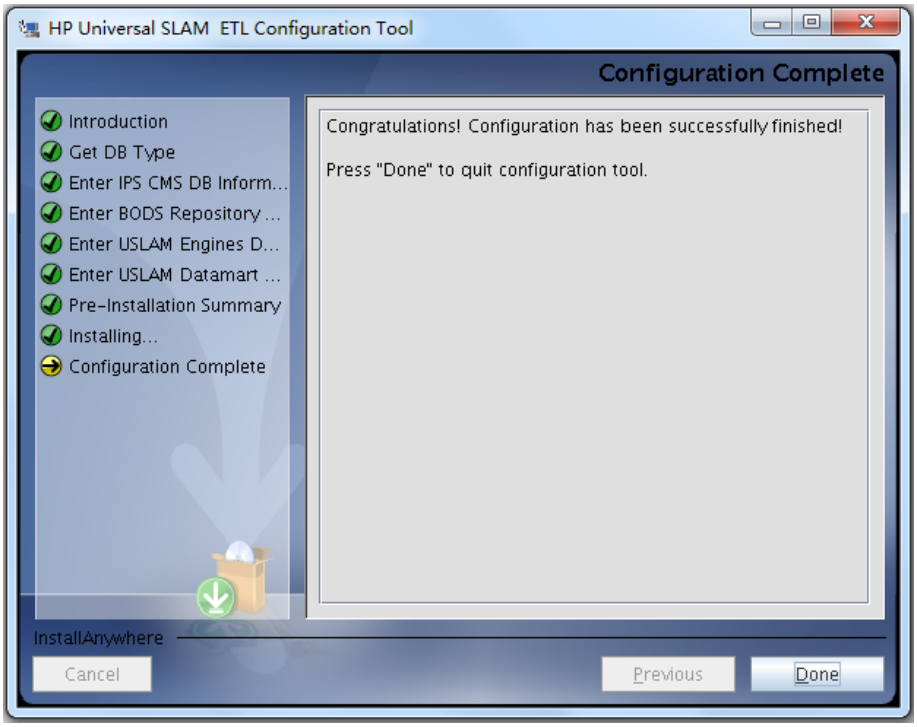
**Figure 47: USLAM ETL Configuration Tool –Summary**




16. Click [Install] to start the configuration.

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

**Figure 48: USLAM ETL Configuration Tool –Installation Complete**




17. Click [Done] to exit the Installer.

The installation log file is
`<USLAM ETL INSTALL DIR>/HP Universal SLAM BO ETL InstallLog.log`
and the configuration log file is
`<USLAM_ETL_INSTALL_DIR>/bin/ETLConfigurationTool.log`

### 5.1.5.3 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
```

### 5.1.5.4 Starting USLAM ETL servers

As *hpuslametl* user,

```
$ cd <USLAM_ETL_Install_Dir>/bin/
$ ./uslam_etl_start.sh
```

Once you have started USLAM ETL servers, you must execute the Datamart scripts in the Enterprise DB Database (see next section).

#### 5.1.5.5 Executing Datamart Scripts

You must now build the Datamart schema

Please perform the following steps:

1. `cd <USLAM_ETL_InstallDir>/USLAM_datamart_scripts`
2. Log in to the *edbplus* tool using the Datamart username and password:

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

3. 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.

### 5.1.6 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)

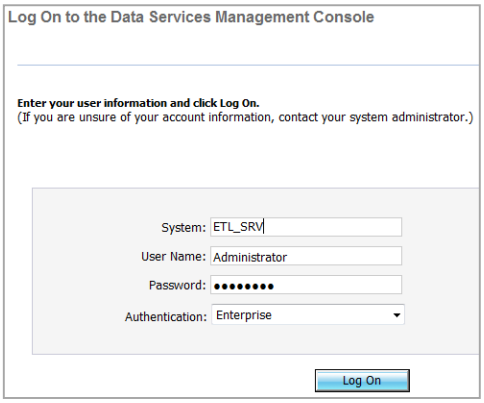
In order to execute these two jobs, you need to:

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
```

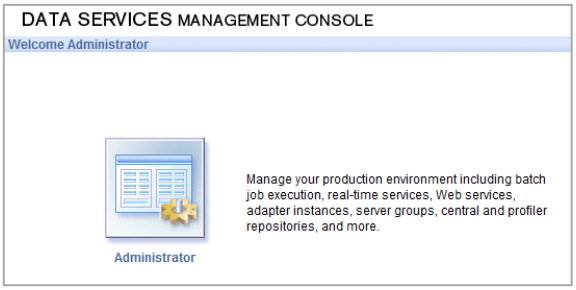
**Figure 49: BODS Management Console Login**




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

2. Click on the Administrator Icon

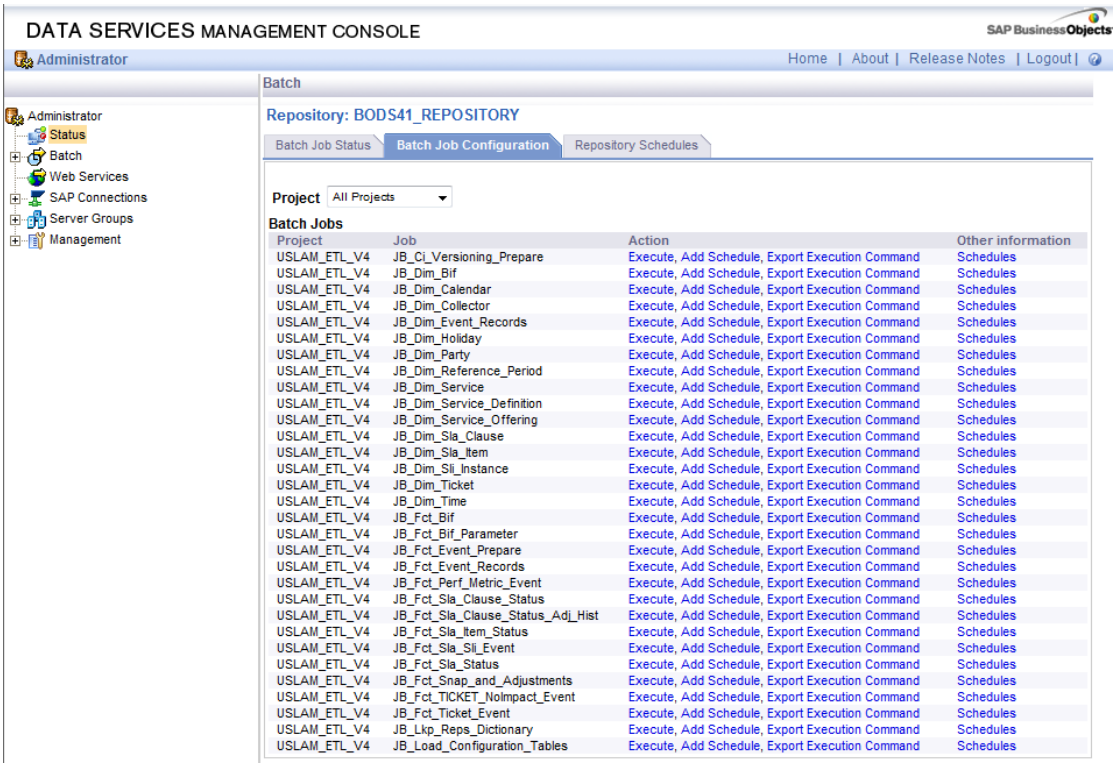
**Figure 50: BODS Management Console – Administrator**




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

Then, click on the Batch Job Configuration tab.

**Figure 51: 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) #./HP_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

### 5.1.7 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 `HP_USLAM_ETL_Jobs.sh`

```
0 0,3,6,9,12,15,18,21 * * * cd /home/hpuslametl/bin/;./HP_USLAM_ETL_Jobs.sh
```

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

## 5.2 Uninstall USLAM ETL

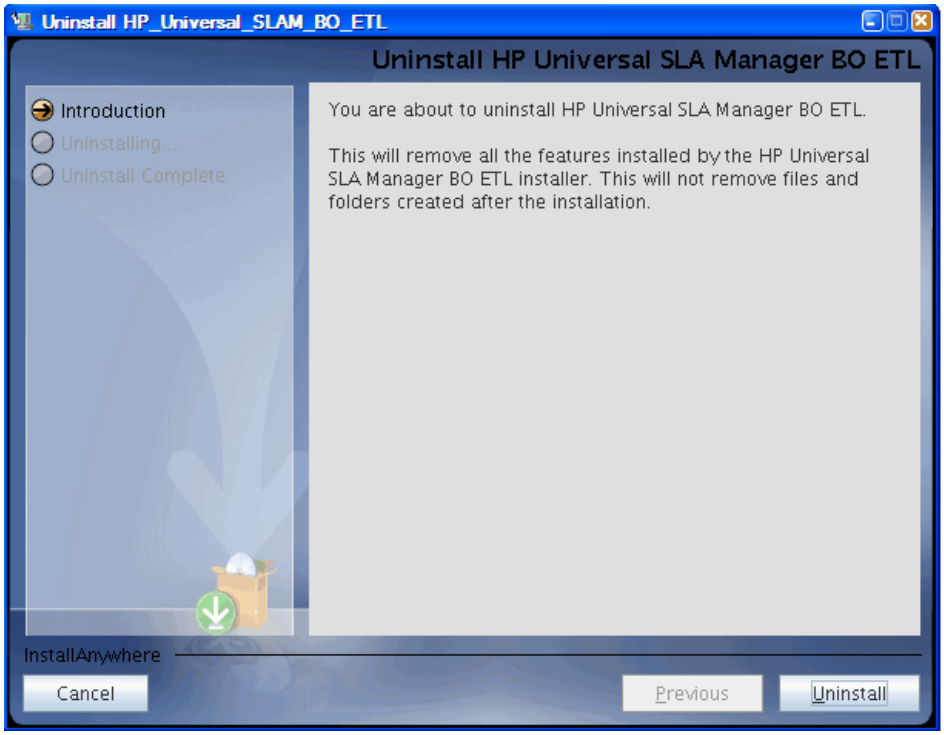
Perform the following steps in order to uninstall the USLAM ETL kit:

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>/dataservices/bin/
$ ./actaservices stop
$ cd <USLAM_ETL_Install_Dir>/sap_bobj/
$ ./tomcatshutdown.sh
$ ./stopservers
```

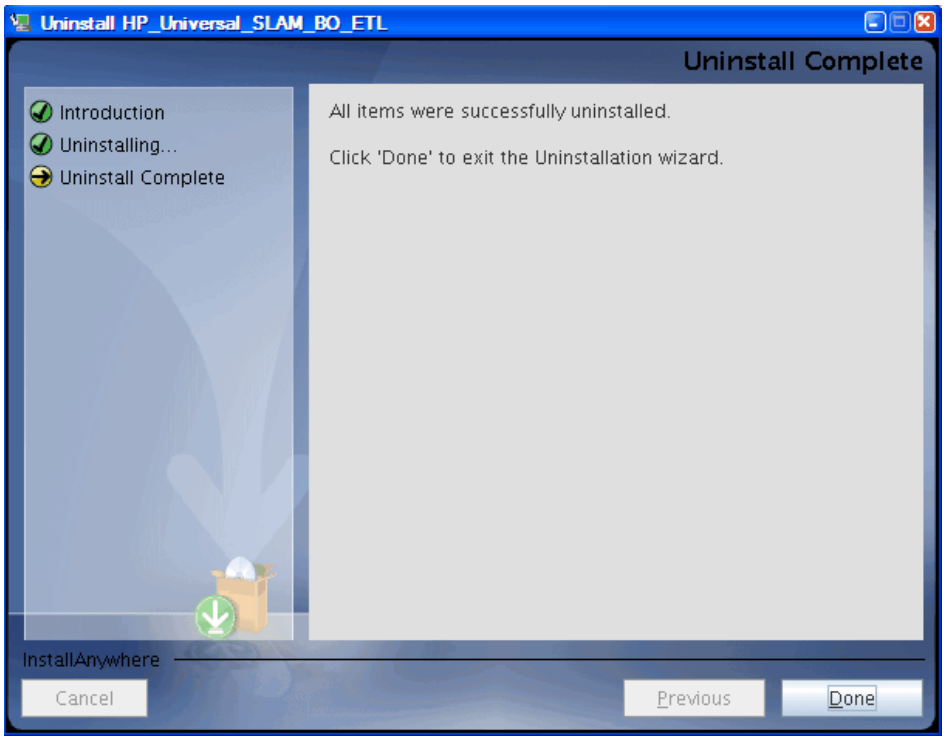
3. Go to the `<USLAM ETL InstallDir>/Uninstall` directory and run `./Uninstall`
4. The uninstall information displays

**Figure 52: USLAM ETL Uninstallation – Introduction**




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

**Figure 53: 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 6 Installing and Configuring USLAM Reporting

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

## 6.1 Software kits

There are 3 kits related to USLAM Reporting.

- **HP USLAM Reporting Software**
  The Business Object Enterprise XI solution
- **HP USLAM Universe and Standard Reports**
  The USLAM Universe and USLAM standard reports, standard reporting dashboards relying on BOE XI
- **HP USLAM Report Publisher**
  An optional tool for the automation of report publications

### 6.1.1 USLAM reporting software

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

HP_USLAM_ BOE-4.1.0.tar

It relies on the **Business Object Enterprise XI 3.1** platform that includes:

- **BO Enterprise Client components:**
  - The Import Wizard
  - Universe Designer
  - Data Access pack for Oracle.
- **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 Business Objects Enterprise XI 3.1 installed, you do not need to install this kit.

### 6.1.2 USLAM Universe and standard reports

Provided as a Business Objects archive file '**HP_USLAM_Reporting-4.1.0.biar'**, this kit contains the **USLAM Universe** and the **USLAM standard reports**.

### 6.1.3 USLAM Report Publisher

The installation kit of the USLAM Report Publisher is provided as a **.**exe file: **HP_USLAM_Report_Publisher-4.1.0.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.

## 6.2 USLAM reporting installation

The variable *NLS_LANG* must be defined on the Windows Server running BOE. 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 BOEXI *Central Configuration Manager*).

Example: NLS_LANG=AMERICAN_AMERICA.UTF8

USLAM supports now 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 | MySQL BOE embedded DB or Oracle DB | MySQL BOE embedded DB |

## 6.2.1 Preparation for an installation relying on Oracle

### Oracle client

You must install on your windows server, as *Administrator*, the 32 bits version of Oracle client 11g Release 2 (11.2.0.4) (even if your Oracle server is 64-bits).

### 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

If you do not want have a MySQL CMS database automatically installed by the BOE XI installer, you can prepare an Oracle CMS DB.

In case you already installed BOE platform, you already have a CMS schema created, and thus you can skip this step.

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

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

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

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

3. Then, grant proper privileges:

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

## 6.2.2 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.

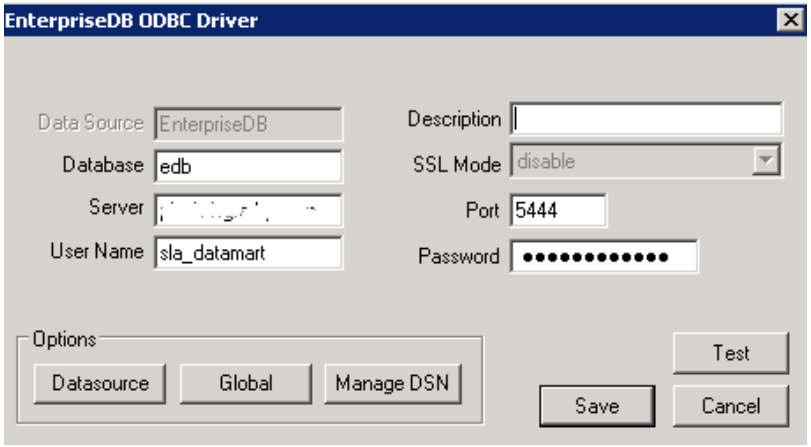
This can be done through the 'setup datasources ODBC' tool (32 bits version).

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 54: 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 MySQL CMS database.

## 6.2.3 Installation of USLAM Reporting software

In case you already have Business Objects Enterprise XI 3.1 installed, you do not need to install this kit. You can go directly to the next section.

The installation wizard will install **Business Object Enterprise XI 3.1** platform.

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

1. If you target a "Windows server 2008 R2" system, please install as a prerequisite the "Microsoft visual C++ **2005** Redistribuable" patch (downloadable from http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=14431).

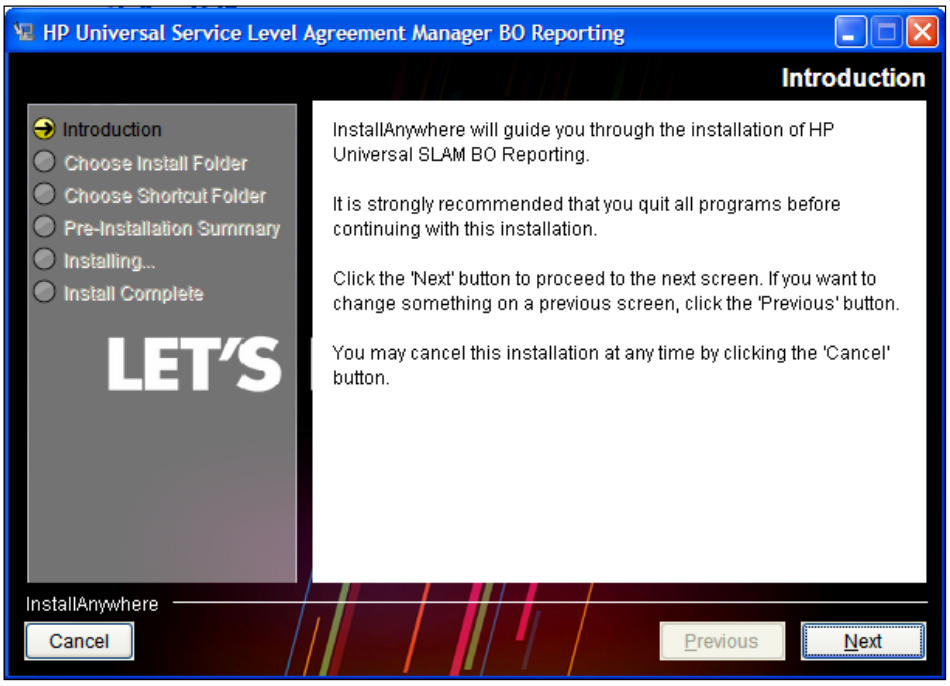
**Do not** install “Microsoft visual C++ **2008** Redistribuable” windows patch.

2. You have administrator rights on the Windows system.

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

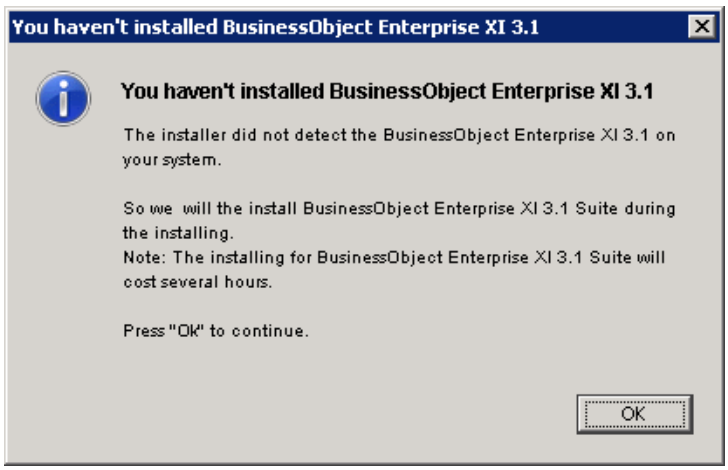
1. Untar the HP USLAM Reporting software kit
   **HP_USLAM_ BOE-4.1.0.tar**
2. Execute: `Disk1\InstData\VM\HP_USLAM_BOE.exe`
3. The **Introduction** dialog displays

**Figure 55: USLAM Reporting Installation - Introduction**



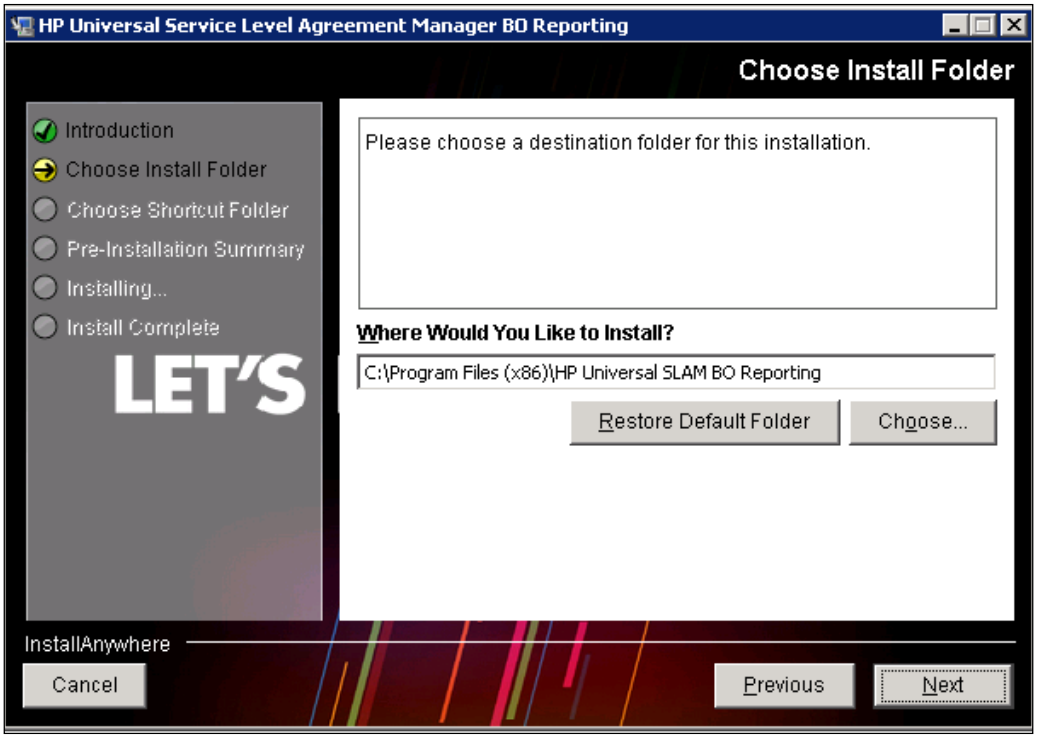

4. Click [Next] to continue.

**Figure 56: USLAM Reporting Installation – Warning**



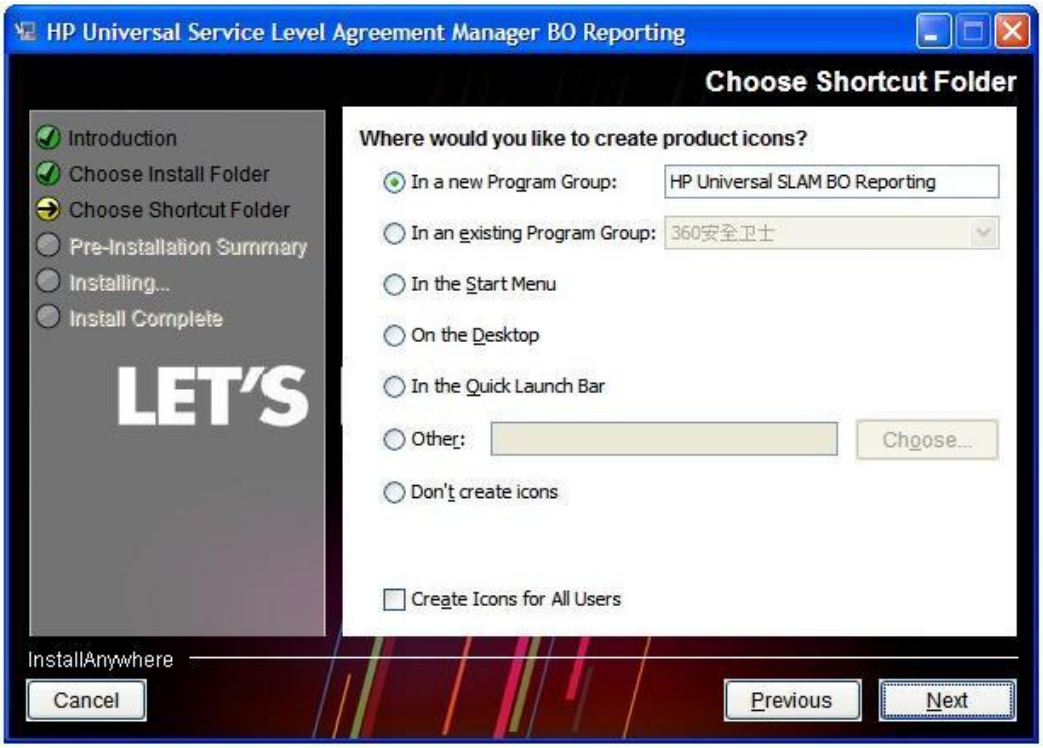

5. Click [OK] to proceed
6. The “Choose Install Folder” window displays. Enter the destination path for your USLAM Reporting installation.

**Figure 57: USLAM Reporting Installation – Install Folder**



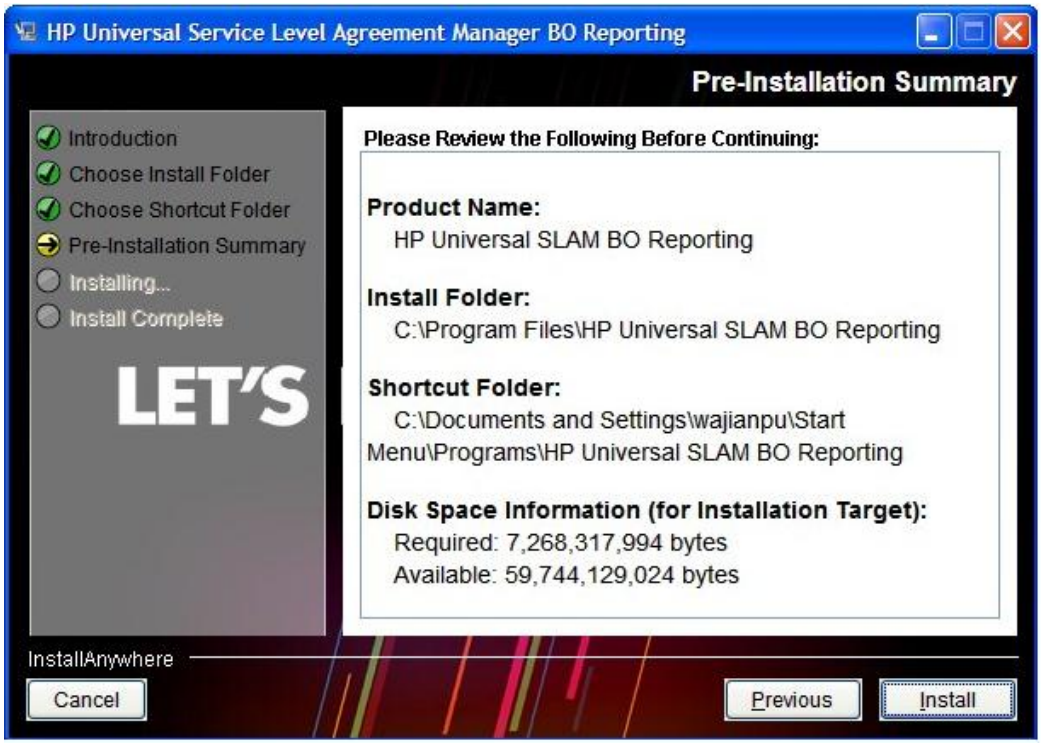

7. Click [Next] to continue
8. The "Choose Shortcut Folder" window displays. Select your desired settings and then click [Next] to proceed

**Figure 58: USLAM Reporting Installation – Shortcut Folder**



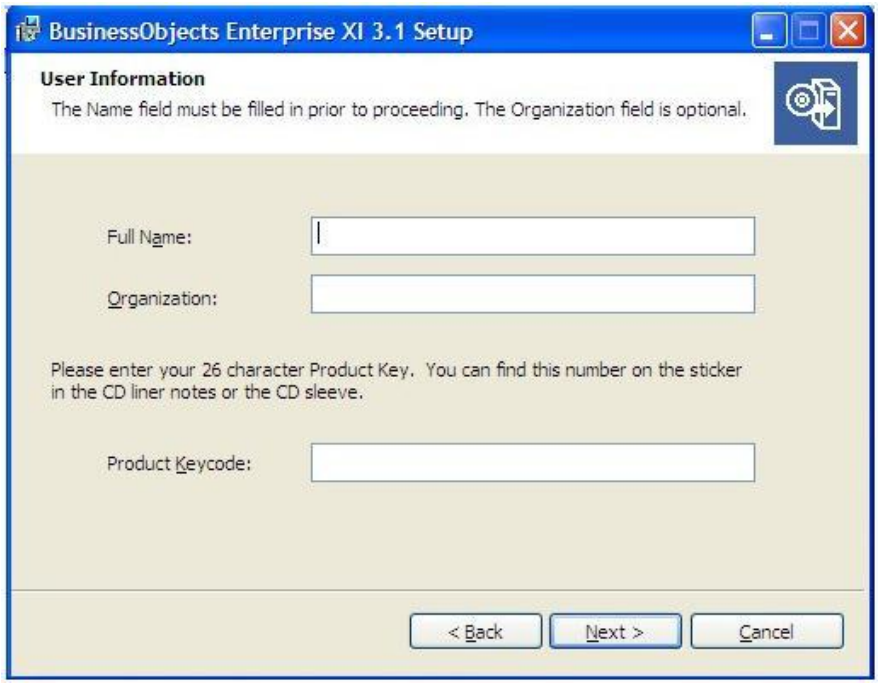

9. The Pre-Installation Summary window displays

**Figure 59: USLAM Reporting Installation – Pre-Installation Summary**




10. Click [Install] to proceed with the installation.
11. Select I accept the License Agreement and then click [Next]. The User Information dialog displays

**Figure 60: BO Enterprise XI - Setup User Information**

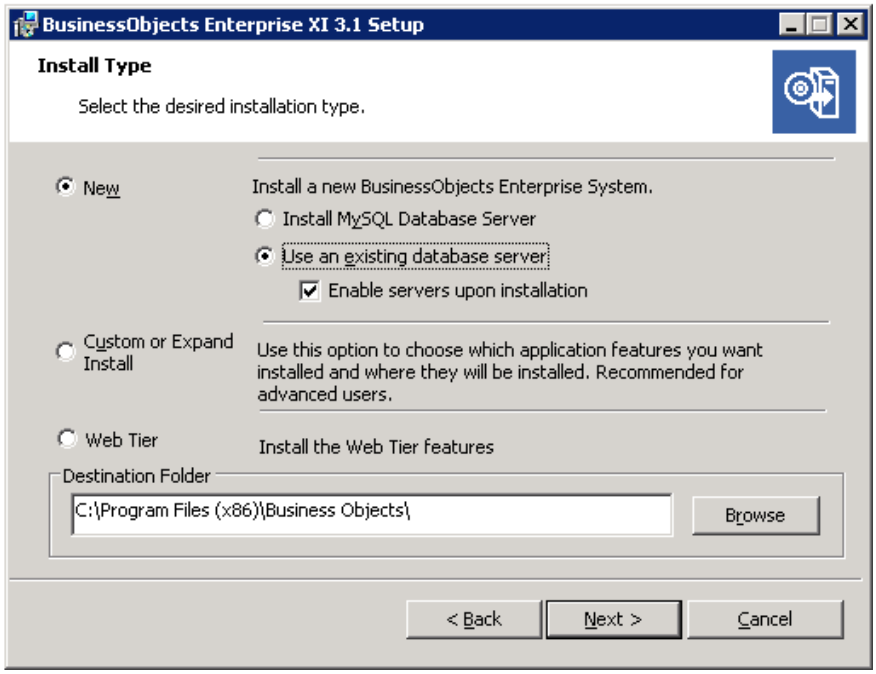



12. Enter the relevant user information and then click [Next] to proceed
13. The Install Type dialog displays once you complete the initial set up of the BusinessObjects Enterprise installation

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

- **New:** 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: BO Enterprise XI - Installation Type**

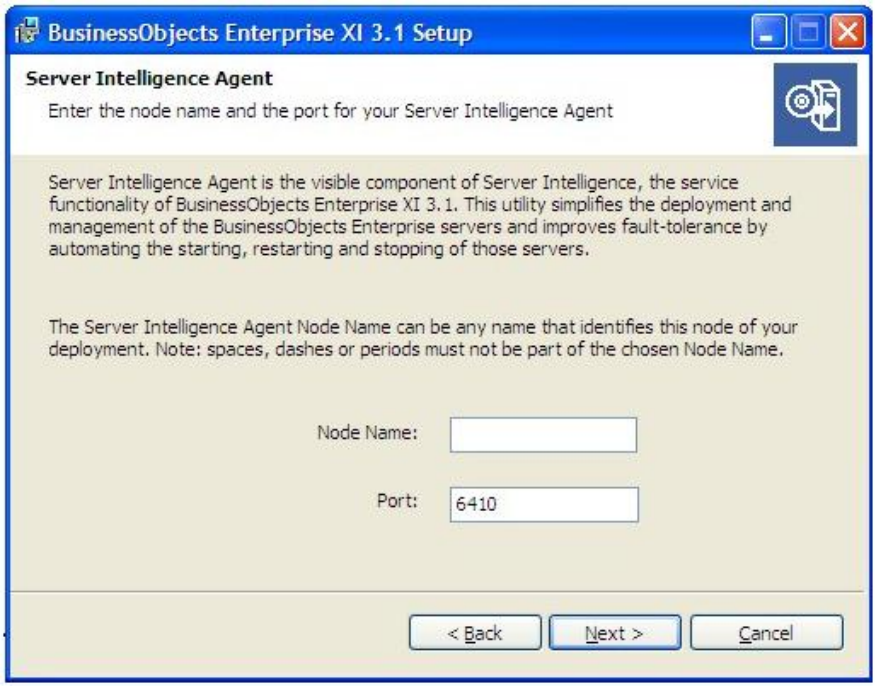



14. Select the following settings in the "Install Type" dialog:
    - Select **New** and then select:
        - **Install MySQL Database Server**, if you did not prepare a CMS database (in chapter 6.2.1)
        - **Use an existing database server,** if you already prepared a CMS database (in chapter 6.2.1)
    - Select the **Enable servers upon installation** checkbox if you want to launch BusinessObjects Enterprise when the installation procedure ends
    - Do not change the default destination folder for the Business Objects Enterprise installation, in the **Destination Folder** text field.
15. Click [Next] to proceed. The "Server Components Configuration" dialog displays

**Figure 62: BO Enterprise XI – Server Components Configuration**

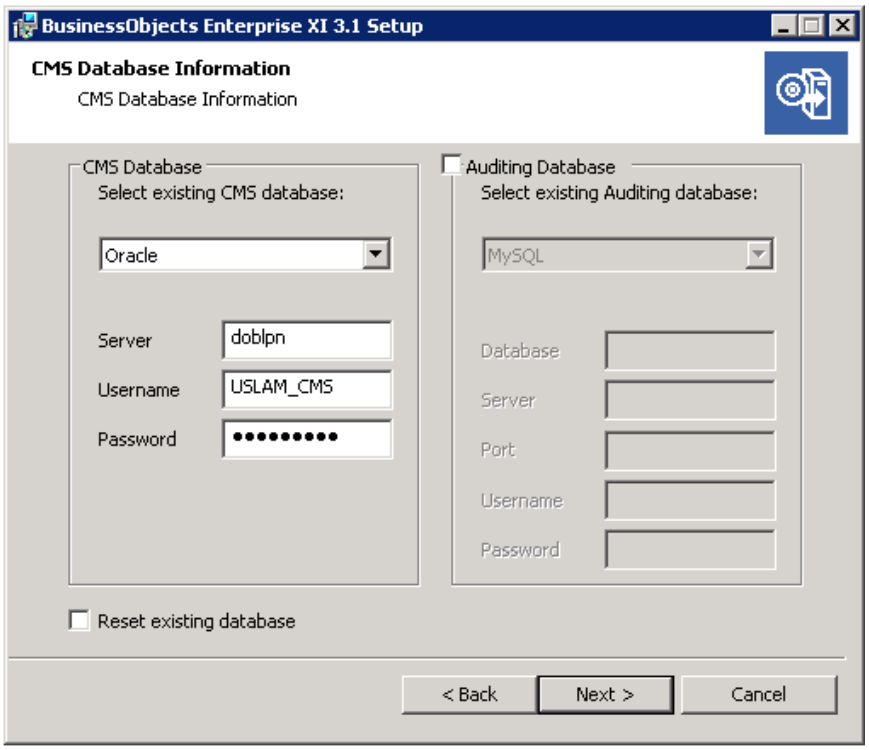
16. The "Server Components Configuration" window is used to enter the port number and an administrator password for the new Central Management Server (CMS). The CMS manages BusinessObjects Enterprise servers and manages the system and audit database. Select the following settings in this dialog:
    - Specify a port number in the **CMS port** text field. The default CMS port number is **6400**. The CMS will communicate with other BusinessObjects Enterprise servers through the specified port
    - Specify a password for the CMS administrator account in the **Password** text field and then re-enter the password in the **Confirm password** text field. You can choose to skip this step by selecting the **Configure the BusinessObjects Enterprise Administrator password at a later time** check box.
17. Click [Next] to proceed. The "Server Intelligence Agent" dialog displays

**Figure 63: BO Enterprise XI - Service Intelligence Agent**




18. A Server Intelligence Agent (SIA) node is automatically created during installation of BusinessObjects Enterprise. The Server Intelligence Agent dialog is used to provide a name and designate a port address for the SIA. Select the following settings in this dialog:
    - Provide a unique name to identify the SIA node in the **Node Name** text field. Do not use spaces or non-alphanumeric characters in a SIA node name
    - Specify a port number for the SIA in the **Port** text field (default is 6410). This port will be used by the SIA to communicate with the Central Management Server (CMS).
19. Click [Next] to proceed. Once the SIA information is entered, the port number will be validated before you can proceed to configure the CMS database for your installation. A warning message displays if the port you specified is not available
20. The “CMS Database Information” dialog displays

**Figure 64: BO Enterprise XI - CMS Database Information**




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

    The example shows connection information for Oracle database.

    Select the following settings in this dialog:

    – Select **Oracle** from the **Select existing CMS database** drop-down list in the CMS Database pane. Depending on your database server selection, corresponding input fields are displayed in the CMS Database pane

    – 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)

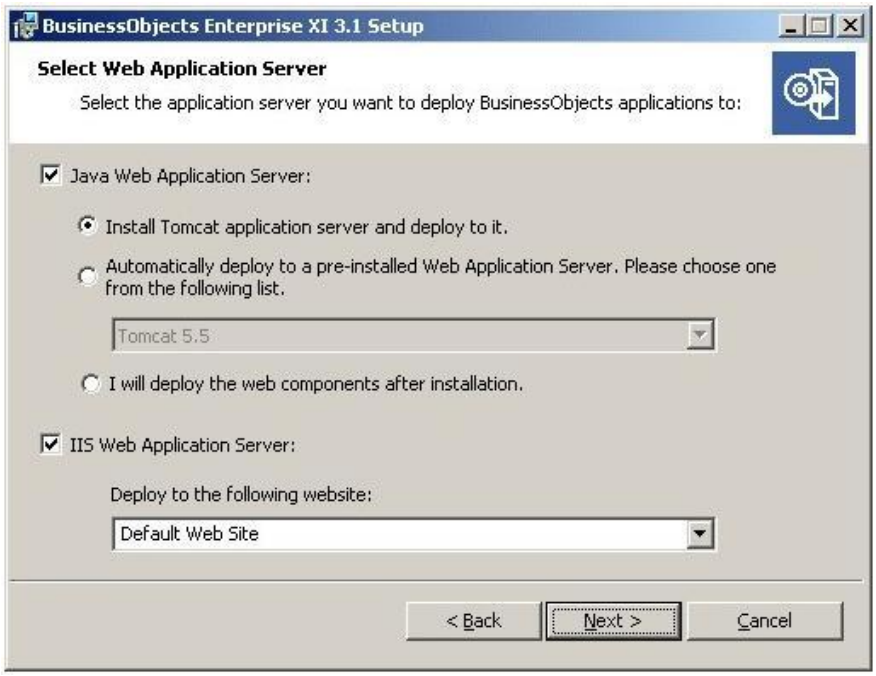
    – Select the **Auditing Database** check-box to set up an existing auditing database. The input fields in the **Auditing Database** pane are activated. If you do not want to specify an auditing database (this is an optional feature) for your new installation, skip to step 20. If you do not install an auditing database, you can use the "Add/Remove Programs" applet in the Windows Control Panel to add an auditing database later. Adding an auditing database from the "Add/Remove Programs" applet requires you to configure the auditing database using the Central Configuration Manager (CCM)

    – Select a database type from the **Select existing Auditing database** drop-down list in the **Auditing Database** pane. Depending on your database server selection, corresponding input fields are displayed

    – Provide all the required information for the database in the fields provided in the Auditing Database pane.

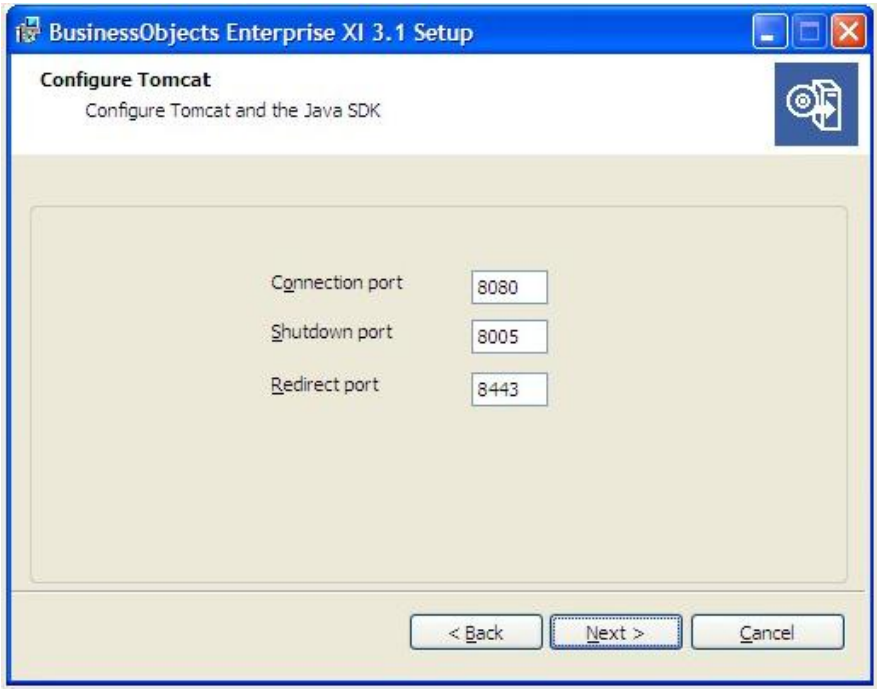
22. Select the Reset existing database check box if you want to delete all current tables and entries in existing database CMS and auditing databases, otherwise clear the checkbox
23. Click [Next] to proceed. The “Select Web Application Server” dialog displays. This dialog only displays if a connection is established with the database configuration you provided

**Figure 65: BO Enterprise XI - Web Application Server**




24. Select “Java Web Application Server” and choose the option “Install Tomcat application server and deploy to it”. This will automatically install and configure Tomcat
25. Click [Next] to proceed. The “Configure Tomcat” dialog displays

**Figure 66: BO Enterprise XI - Tomcat Configuration**




26. Accept the default values or specify new port numbers for **Connection port**, **Shutdown port**, and **Redirect port**
27. Click [Next] to continue with the installation procedure. Ignore any *Windows Script Host* pop-up messages that may appear during the installation
28. To continue to installation, please refer to the steps described in 6.2.5 Installing USLAM Report.

## 6.2.4 Installing USLAM universe and USLAM standard reports

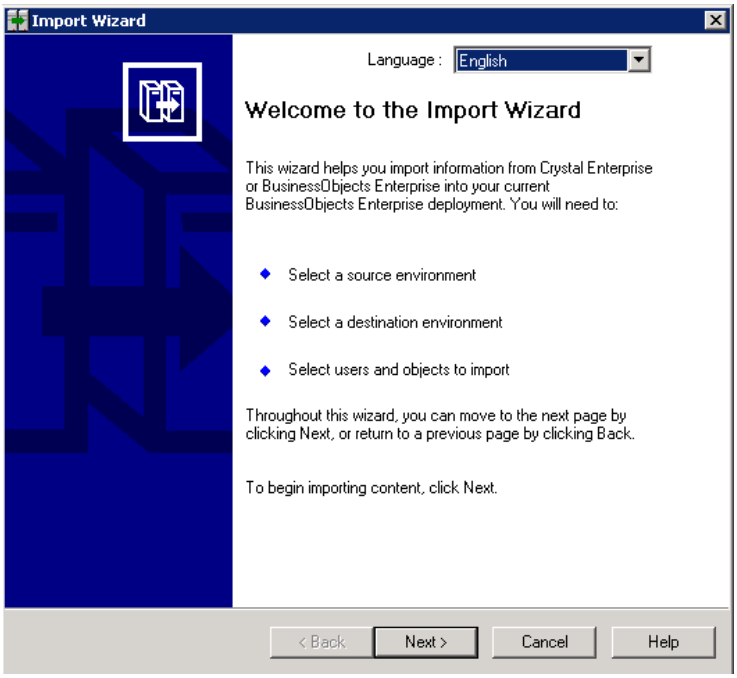
### 6.2.4.1 Import the BusinessObjects XI archive resource file (BIAR)

After the installation of the USLAM Reporting software, you need to import the USLAM BO XI Archive Resource file **HP_USLAM_Reporting-4.1.0.biar** to the BO system.

This archive file contains the USLAM Universe, USLAM Web Intelligence standard reports and USLAM dashboard examples.

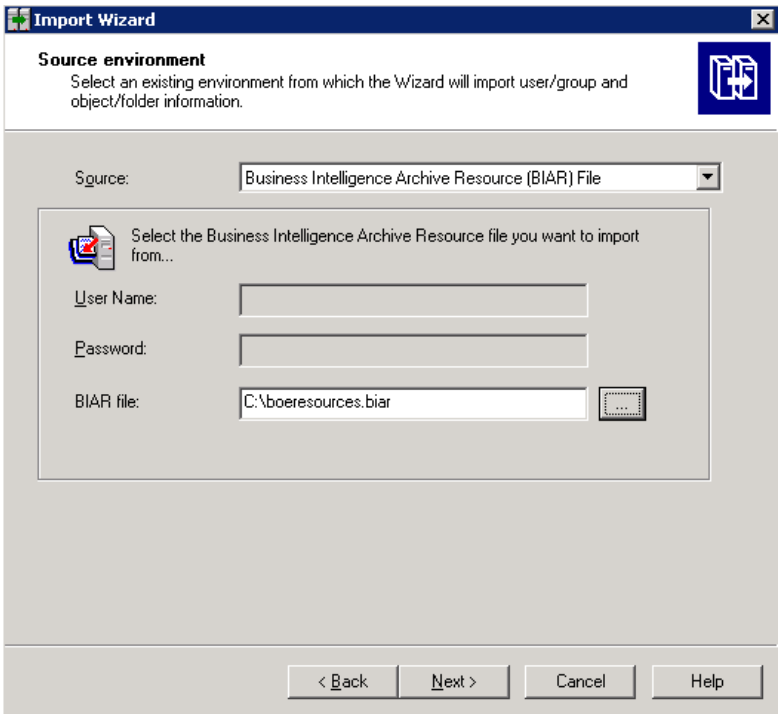
1. Launch the Import Wizard Tool using the Windows Menu
   `Start` → `All Programs` → `Business Objects XI 3.1` → `Business Objects Enterprise` → **`Import Wizard`**
2. The '*Welcome*' dialog displays

**Figure 67: BO Import Wizard – Welcome**



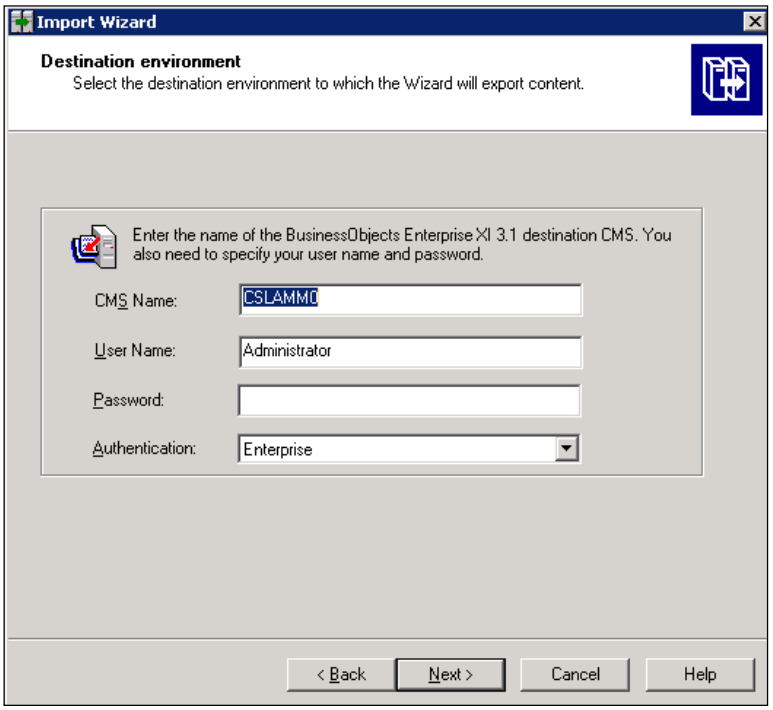

3. Select the desired language and then click [Next] to proceed
4. The Source environment dialog displays
5. Select "*Business Intelligence Archive Resource (BIAR) file*" within the Source drop-down list

**Figure 68: BO Import Wizard – Source Environment**



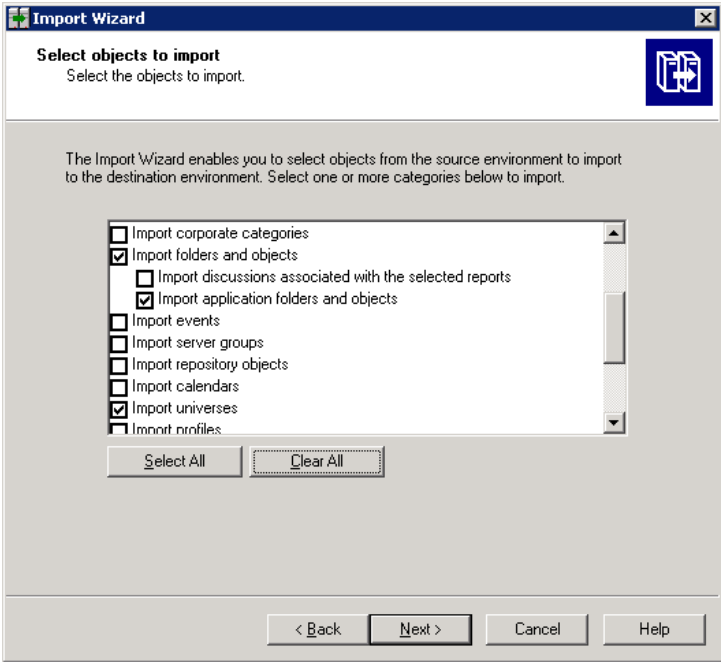

6. In the "Biar file" text field, select the location of the BIAR file, and then click [Next]
7. The '*Destination environment*' dialog displays

**Figure 69: BO Import Wizard – Destination Environnent**



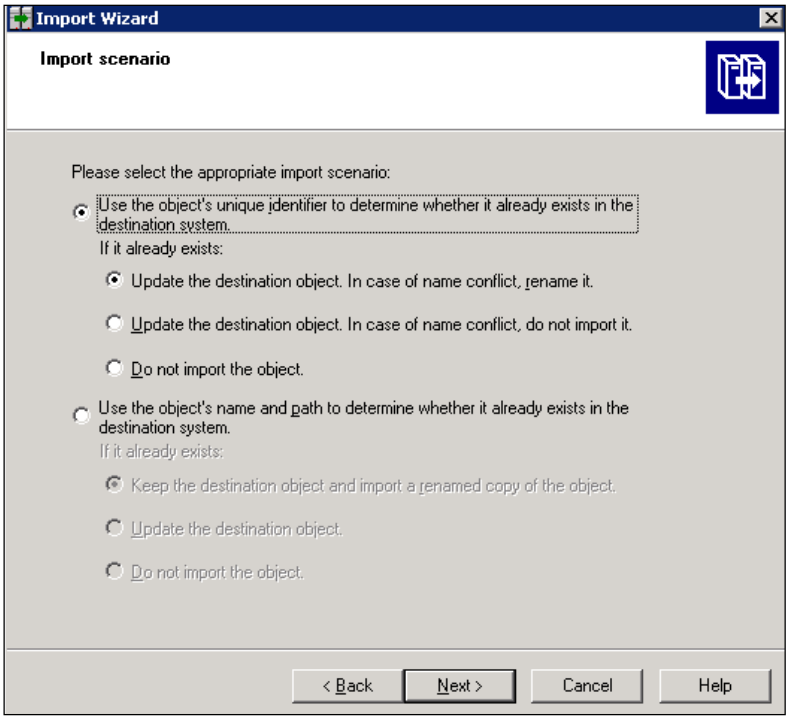

8. Enter the **CMS Name**, **User Name** and **Password** for target BOE platform, then click the [Next]
9. The '*Select objects*' to import dialog displays

**Figure 70: BO Import Wizard – Objects to Import**



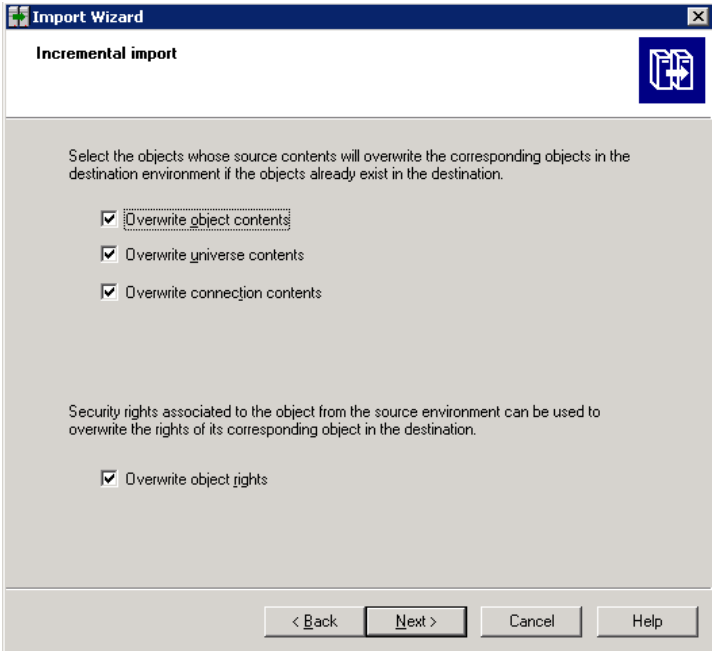

10. Click the "**Clear All**" button then select "**Import application folders and objects**" and "**Import universes**".
11. Click [Next]
12. The '*Import scenario*' dialog displays

**Figure 71: BO Import Wizard – Import Scenario**



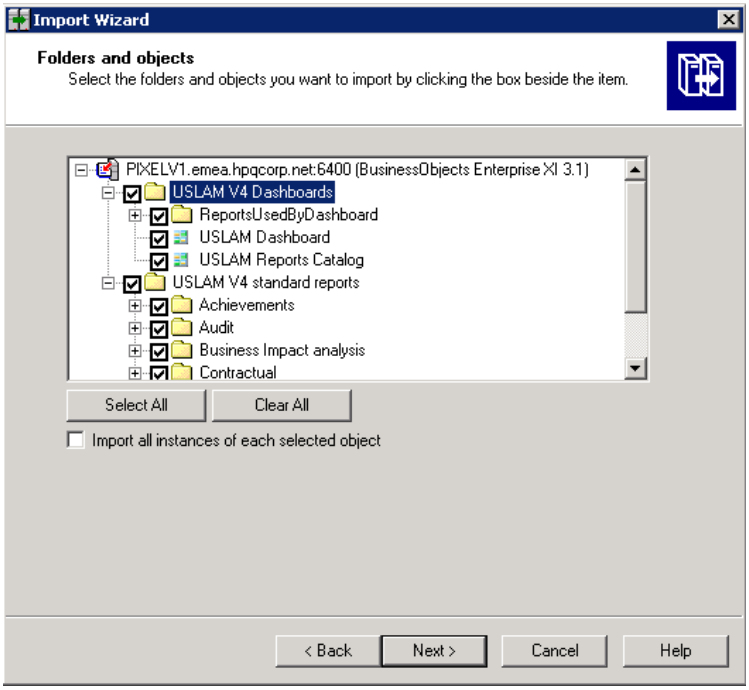

13. Keep the default options for import, and then click [Next]
14. The Incremental import dialog displays

**Figure 72: BO Import Wizard – Incremental Import**



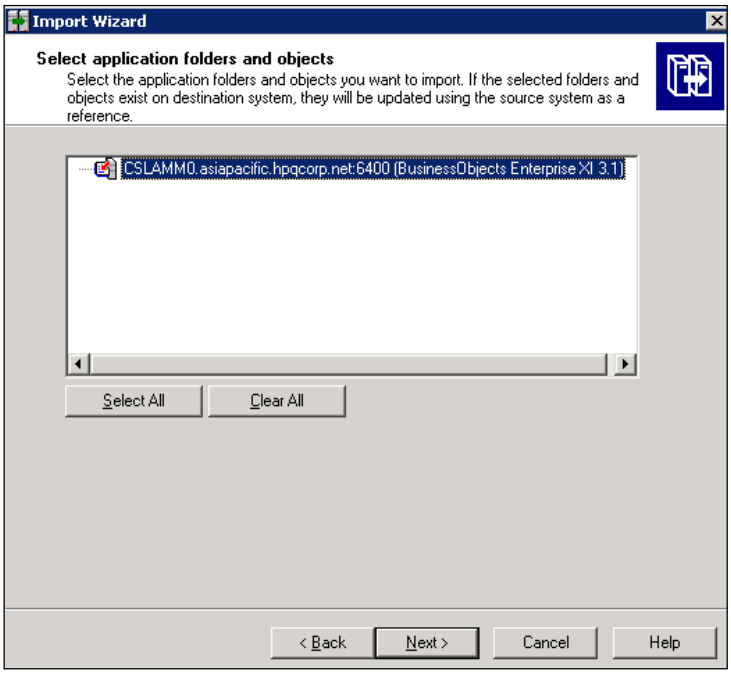

15. Keep the default options for incremental import, and then click [Next]
16. On the next dialog box '*A note on importing object right'* , click [Next]
17. The '*Folders and objects'* dialog displays

**Figure 73: BO Import Wizard – Folders and Objects**



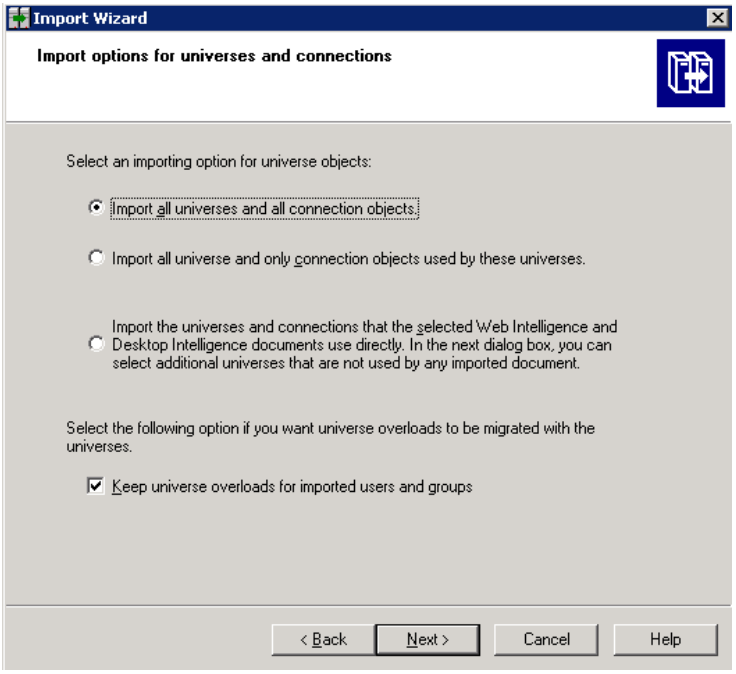

18. Click [Select All], expand the top folders to ensure that the sub folders and reports are selected and then click [Next]
19. The '*Select application folders and objects*' dialog displays

**Figure 74: BO Import Wizard – Applications**



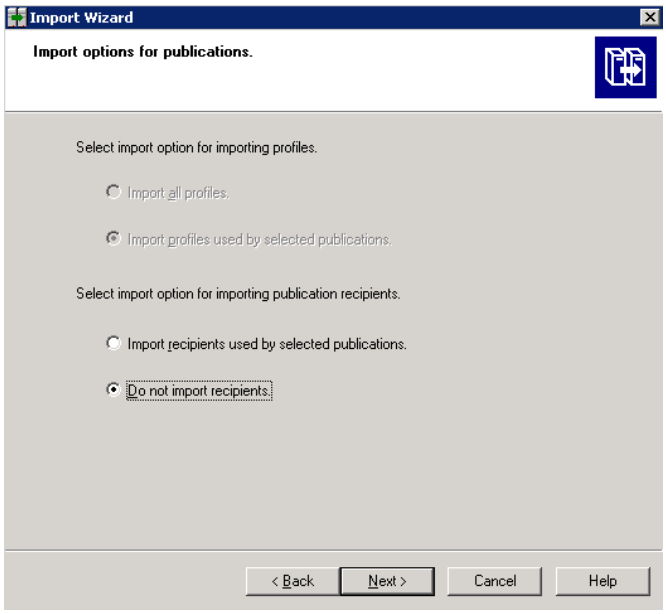

20. Keep the defaults and click [Next]
21. The '*Import options for universe and connections*' dialog displays

**Figure 75: BO Import Wizard – Import Universes**



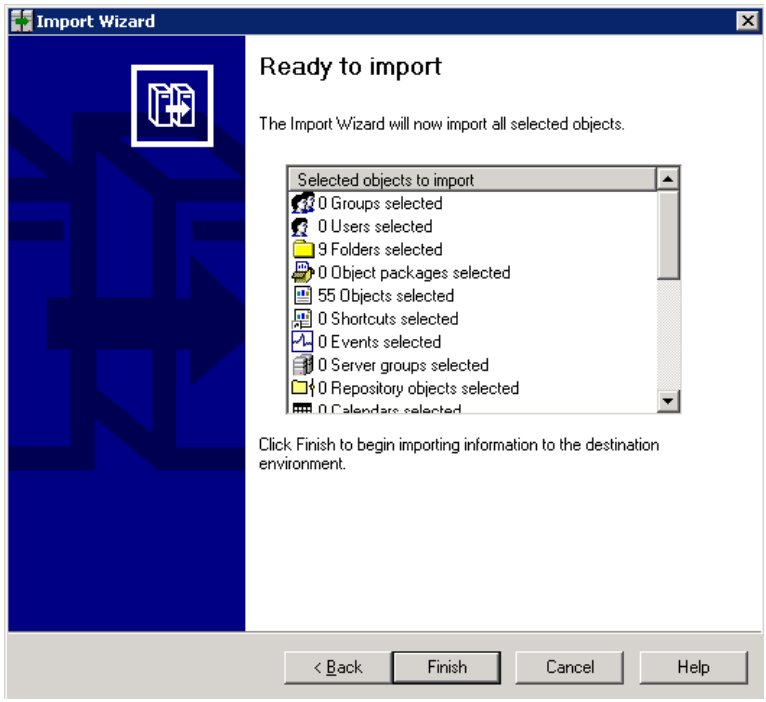

22. Keep the default options and click [Next]
23. The '*Import options for publications*' dialog displays

**Figure 76: BO Import Wizard – publication**




24. Keep the default options and click [Next] to proceed
25. A dialog box '*A note on importing reports*' displays, Click [Next]
26. The **Import Wizard** now lists all the selected objects to be imported

**Figure 77: BO Import Wizard – Ready to Import**




27. Click [Finish] to complete the Import procedure.
28. Finally, click the [Done] button.

USLAM Universe and USLAM standard reports have been imported onto the BOE XI server.

### 6.2.4.2 Configuring the Universe Connection

After having imported the USLAM reporting archive file, the connection of the universe must be defined in order to point to your USLAM Datamart schema (created previously at ETL installation time)

So, please follow these steps:

1. Browse the Windows *Start menu*

→ *BusinessObjects XI 3.1* → *BusinessObjects Enterprise* → ***Designer***

This opens the BOE XI **Universe Designer**

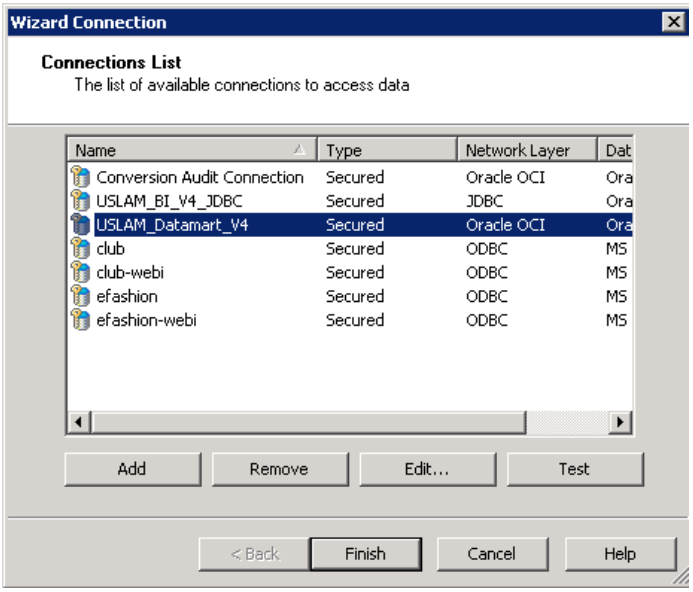
2. In the logon window, enter/select

- the '***system***' : the BOECMS server, generally this is the hostname (short name)
- the '***user name***' and '***password***' : identifies the Administrator of the BOECMS server (if USLAM Reporting software was installed from the kit, this is *Administrator*/*BOadmin*)
- the '***authentication***' : this must be *Enterprise*, then click [OK]

➔ **<u>If you are using a USLAM Datamart relying on Oracle</u>**:

- Click *Tools* → *Connections*, select the connection ***USLAM_Datamart_V4***, and click [Edit]

**Figure 78: BOE Wizard Connection – Connection List**




- *Edit* **USLAM_Datamart_V4** connection and fill:

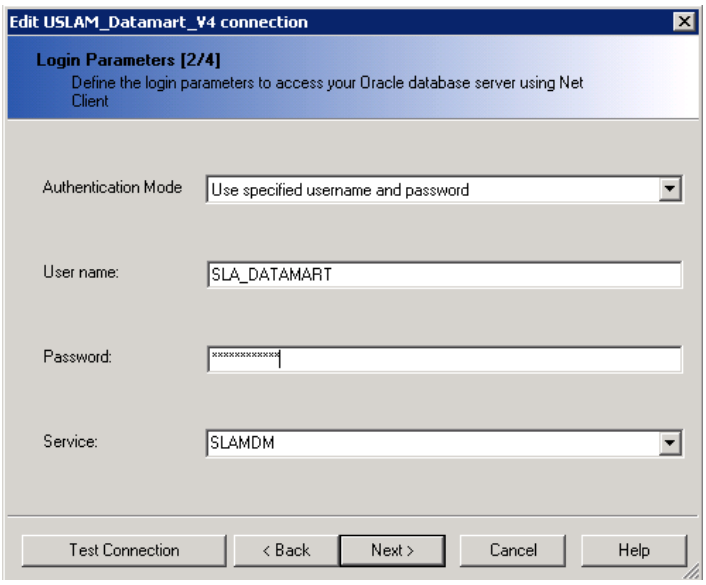
  **Authentication mode**: set to "*Use specified username and password*"

  **User name**: enter the USLAM Datamart username

  **Password**: enter the USLAM Datamart password

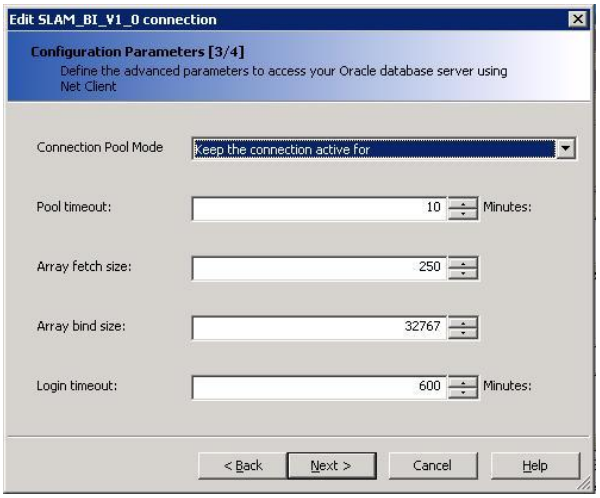
  **Service**: enter the TNS name alias of the USLAM Datamart

**Figure 79: BOE Wizard Connection–Login Parameters (for Oracle)**



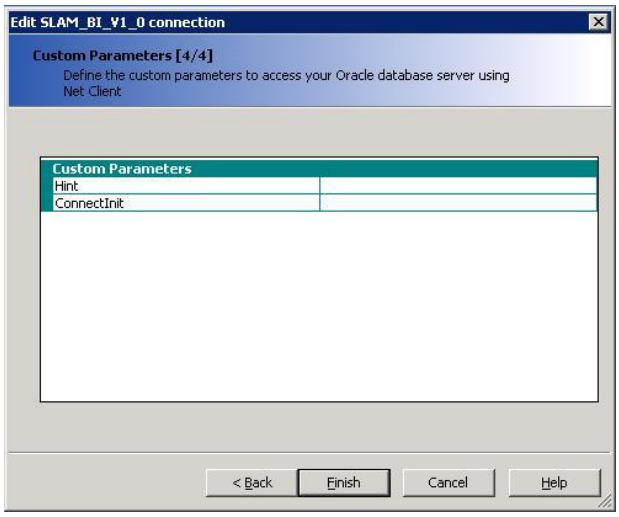

- Click on *Test Connection* to test if the connection to the Datamart works and click *Next*

**Figure 80: BOE Wizard Connection – Configuration Parameters**




- Keep the default values and click *Next*.

**Figure 81: BOE Wizard Connection – Custom Parameters**




- Click [Finish]
- In the '***Wizard Connection***' window, click [Finish] to complete connection configuration of the universe.
- Close the Designer, the Universe Connection is now configured.

➔ **<u>If you are using a USLAM Datamart relying on EDB PPAS</u>**, you will need to create a new connection to the Datamart. Please follow the instructions below:

- Click on *File*, then *Import*, and select the *USLAM_Universe_v4*, then *OK*. Click again on *OK*
- Click on *File*, then *Parameters*
- Click on *New* (new connection wizard), then *Next*
- Choose those values:

  **Connection Type**: Secured

  **Connection Name** : USLAM_Datamart_V4_PPAS

  Select in the Data Access Driver **tree**:
  PostgreSQL / PostgreSQL 8 / ODBC Drivers
- Click *Next* and fill the Login Parameters:

  **Authentication mode**: set to "*Use specified username and password*"

  **User name**: enter the USLAM Datamart username

  **Password**: enter the USLAM Datamart password

  **Data source name**: enter the
  ODBC DSN entry of the USLAM Datamart
- Click on *Test Connection* to test if the connection to the Datamart works and click *Next*.
- Click *Next* again
- Click on *Finish*

- Click on *OK*
- Click on *File*, then *Save*
- Click on *File*, then *Export*
- Close the Designer, the Universe Connection is now configured.

Your USLAM universe is now plugged to your USLAM Datamart, and USLAM reports are available from the BO Infoview web page, please refer to the ***HP USLAM User Guide*** in order to start using **USLAM Reporting.**

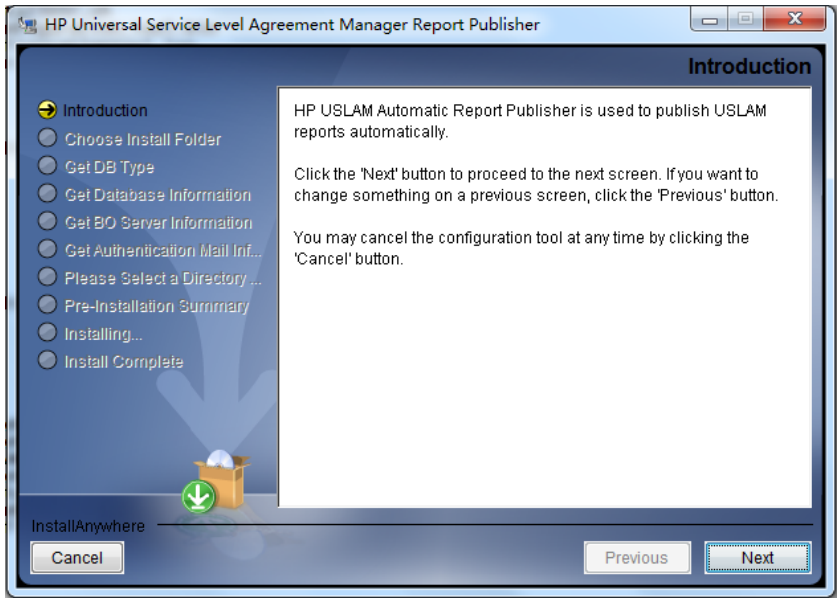
## 6.2.5 Installing USLAM Report Publisher

**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:

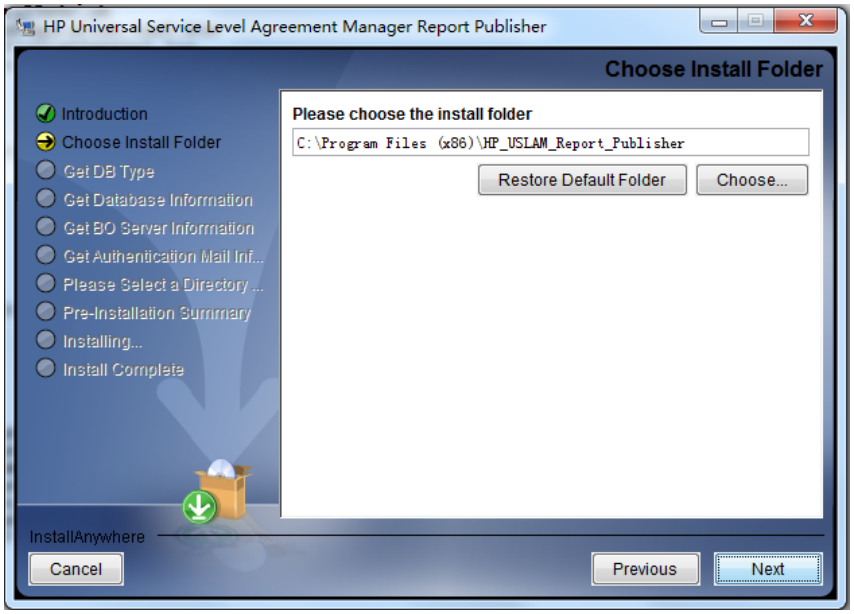
1. Execute: `HP_USLAM_Report_Publisher-4.1.0.exe`
2. The Installation wizard begins and the Introduction window displays

**Figure 82: HP USLAM Report Publisher – Introduction**



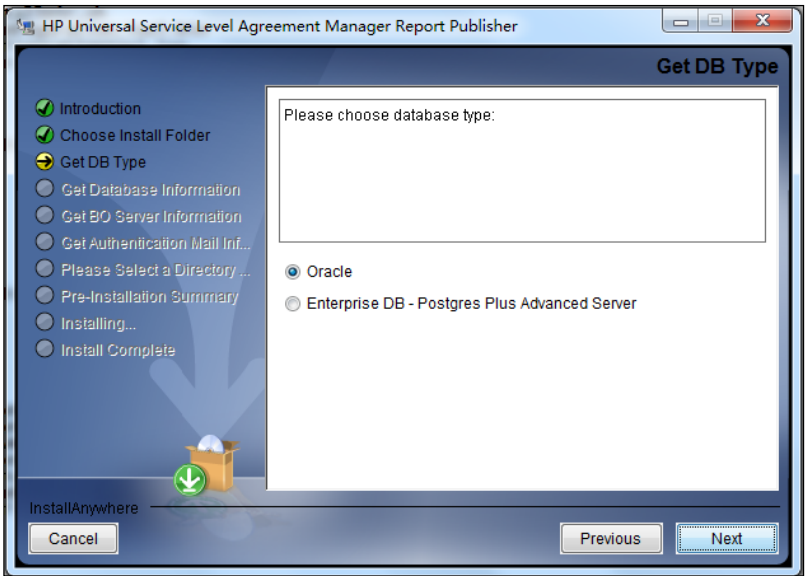

3. Click [Next] to continue

**Figure 83: HP USLAM Report Publisher – Install Folder**



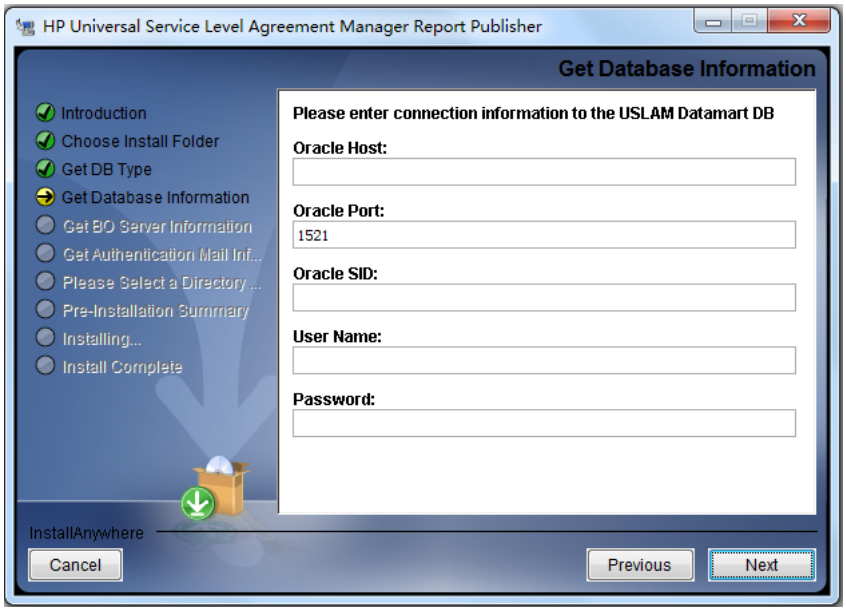

4. Select the database type and then click [Next] to continue

**Figure 84: HP USLAM Report Publisher – Install Folder**




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

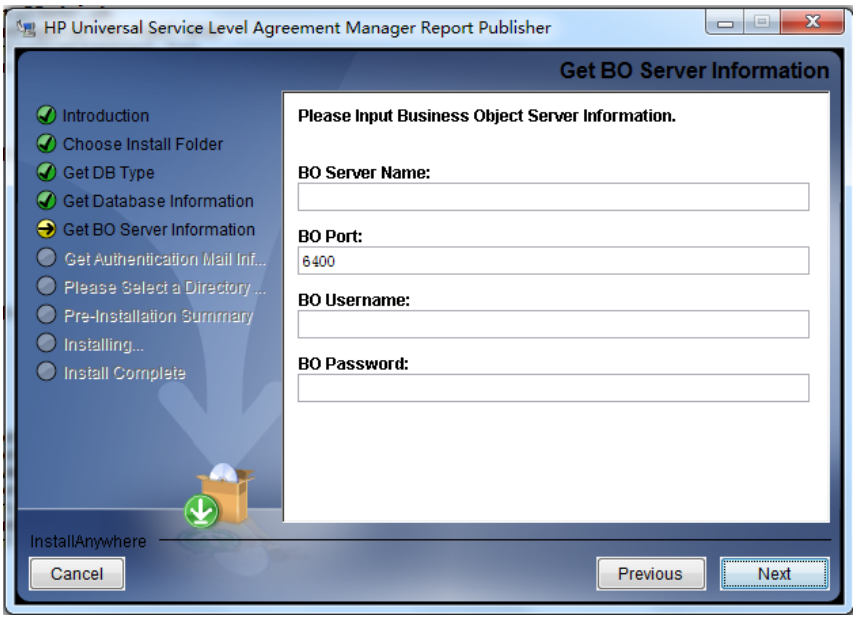
**Figure 85: HP USLAM Report Publisher – Database Information**




6. This screenshot shows connection information for Oracle database; you will have the same kind of information requested for Enterprise DB PPAS.

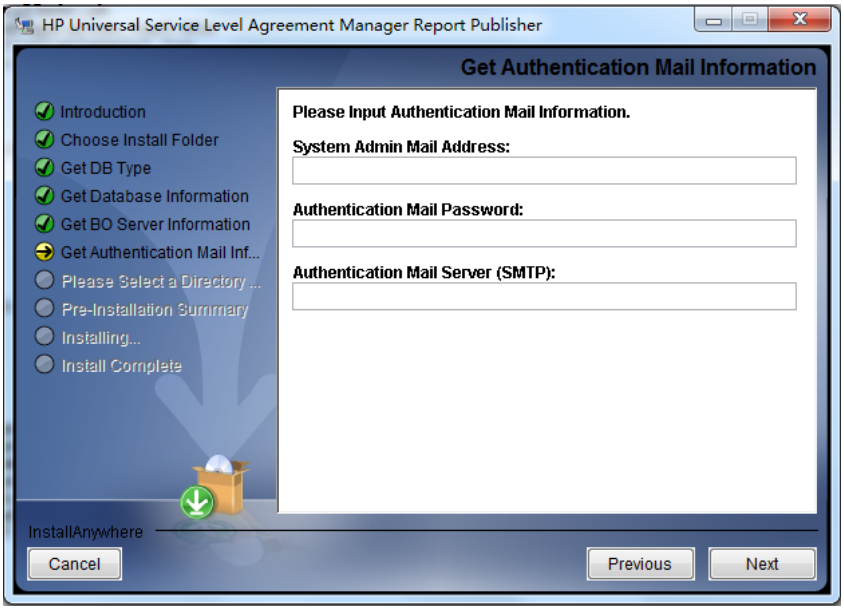
   Enter the **USLAM Datamart** database information and then click [Next] to continue

**Figure 86: HP USLAM Report Publisher – BO Server Information**




7. Enter the BOE XI server information.
8. Click [Next] to continue

**Figure 87: HP USLAM Report Publisher – Authentication Mail Information**

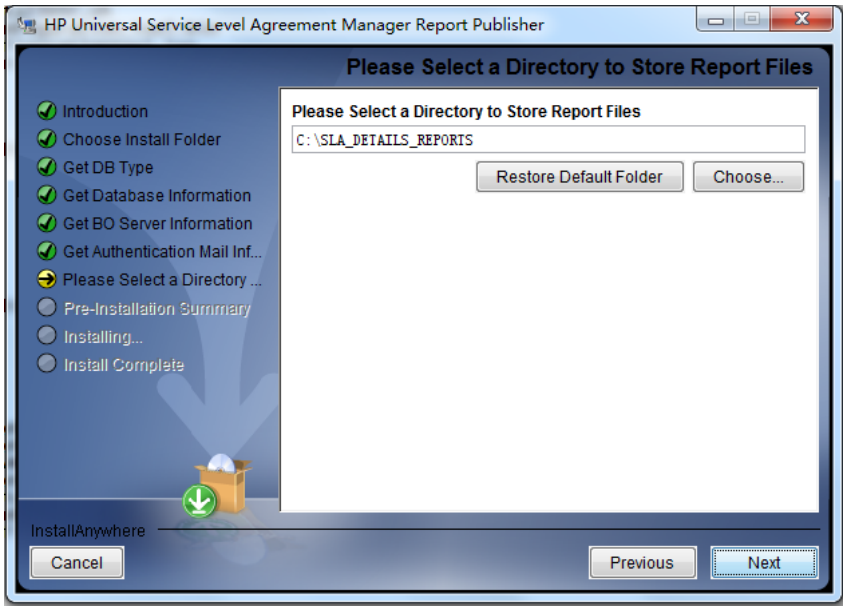



9. Enter the mail server information.

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.

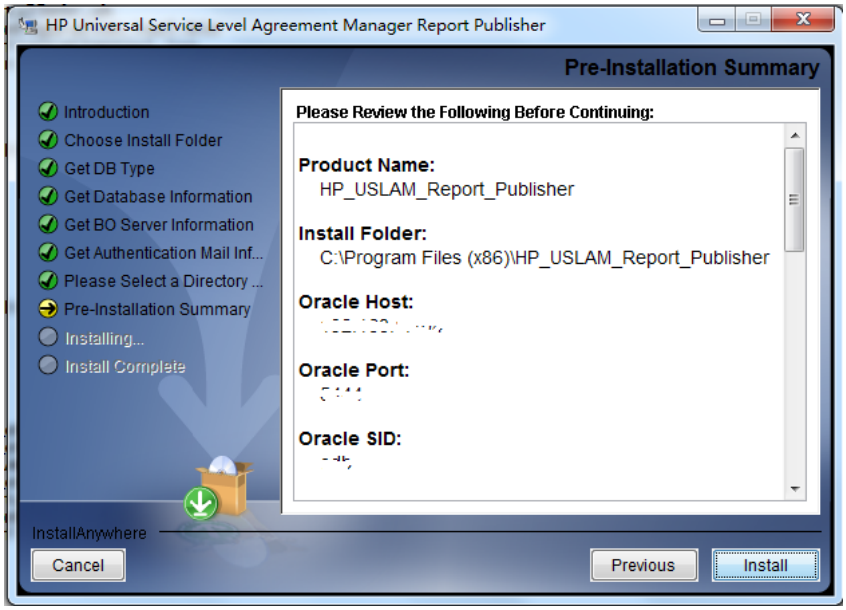
Click [Next] to continue

**Figure 88: HP USLAM Report Publisher – Report Files Directory**



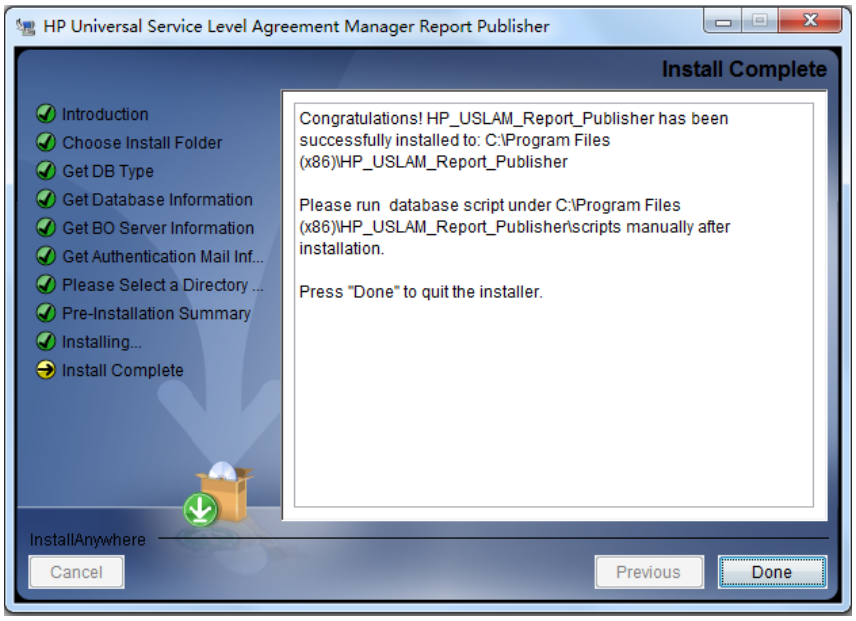

10. Choose a folder where the USLAM Report Publisher will generate the report files and then click [Next] to continue

**Figure 89: HP USLAM Report Publisher – Pre-Installation Summary**




11. Click [Install] to install the **HP USLAM Report Publisher**.

**Figure 90: HP USLAM Report Publisher – Installation Complete**




12. Click [Done] to exit the setup.

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

1. Go to `<USLAM_Report_Publisher_InstallDir>\scripts`
2. Connect on the datamart database:
3. 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 ***HP USLAM Administration Guide.***

# 6.3 Uninstalling USLAM Reporting

## 6.3.1 Uninstalling USLAM Report Publisher

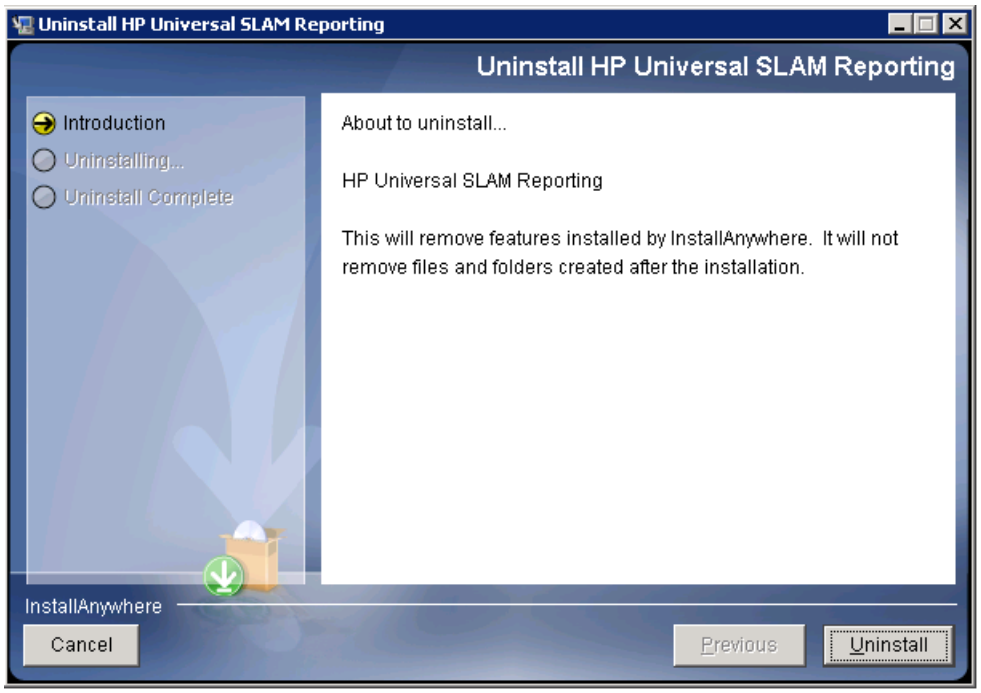
If you have installed the optional tool **USLAM Report Publisher** and you want to uninstall it, please follow the below steps:

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

   `C:\Program Files (x86)\HP_Universal_SLAM_Reporting\Uninstall`)

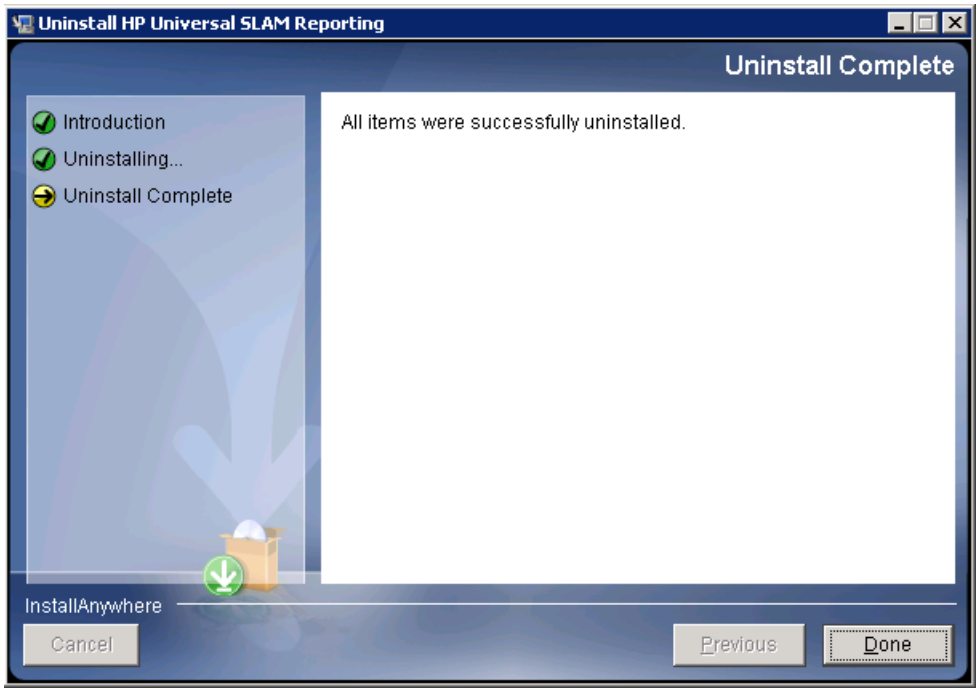
2. Launch the *Uninstall\Uninstall.exe* application.
   The Introduction dialog displays as the setup wizard is initiated

   **Figure 91: Uninstalling USLAM Report Publisher – Introduction**




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

**Figure 92: Uninstalling USLAM Report Publisher – Uninstall Complete**




5. Some folders may be listed as not removed.

Click [Done] to exit the installer.

## 6.3.2 Uninstalling USLAM universe and standard reports

Because the USLAM Universe and USLAM standard reports have only been loaded to the BOE XI 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.

## 6.3.3 Uninstalling USLAM Reporting software

For details about BO Enterprise un-installation, please refer to BO guide xi3-1_bip_install_win_en.pdf, Installation Guide for Windows.

It is recommended that you back up reports, documents and system information before uninstalling **BusinessObjects Enterprise**. For more information on backing up your system see **Managing and Configuring Servers** in the *BusinessObjects Enterprise 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* → *BusinessObjects XI 3.1* → *BusinessObjectsEnterprise* → *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 *BusinessObjects Enterprise XI 3.1*
5. Click [Remove]. The Add or Remove Programs dialog prompts to confirm if you want to remove *BusinessObjects Enterprise*
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 7 Starting the USLAM Web User Interface

## 7.1 Logging in to the USLAM UI

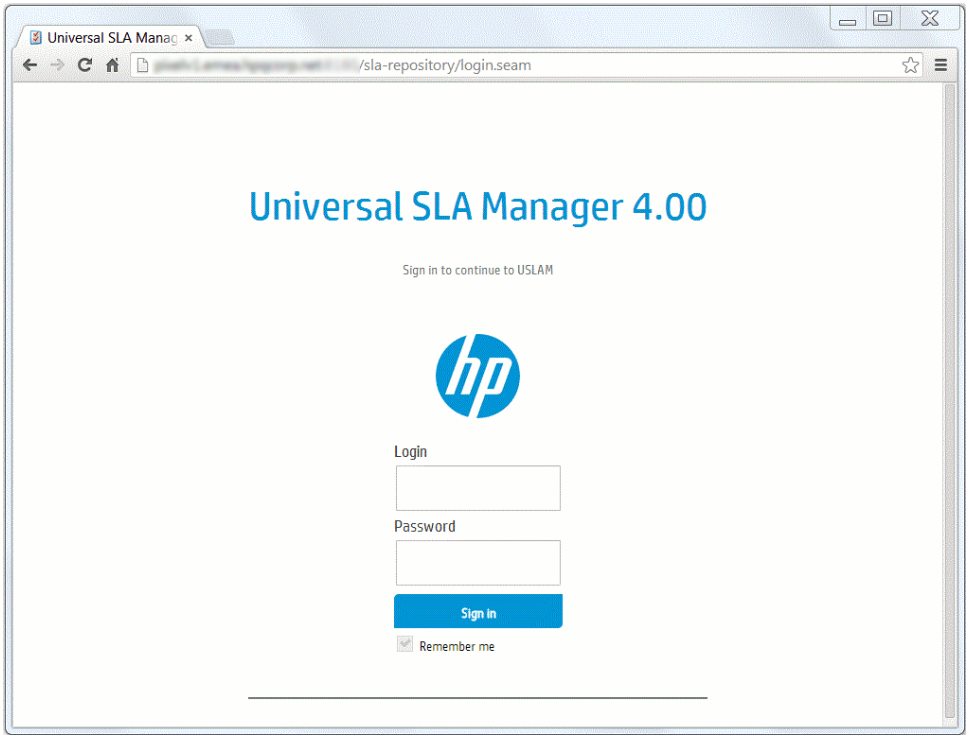
The USLAM graphical user interface can be accessed using a web browser. You will need appropriate access credentials depending on your user role.

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 93: 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** or **LDAP**. Please refer to chapter “*Configuring USLAM UI User Authentication*” from *HP USLAM Administration Guide*.

# Chapter 8 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.

## 8.1 Installing MyUSLAM Portal

### 8.1.1 Installation Kit

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

**HP_USLAM_MyUSLAMPortal.bin** for Linux only

**HP_USLAM_MyUSLAMPortal.exe** for Windows only

### 8.1.2 Installation Wizard

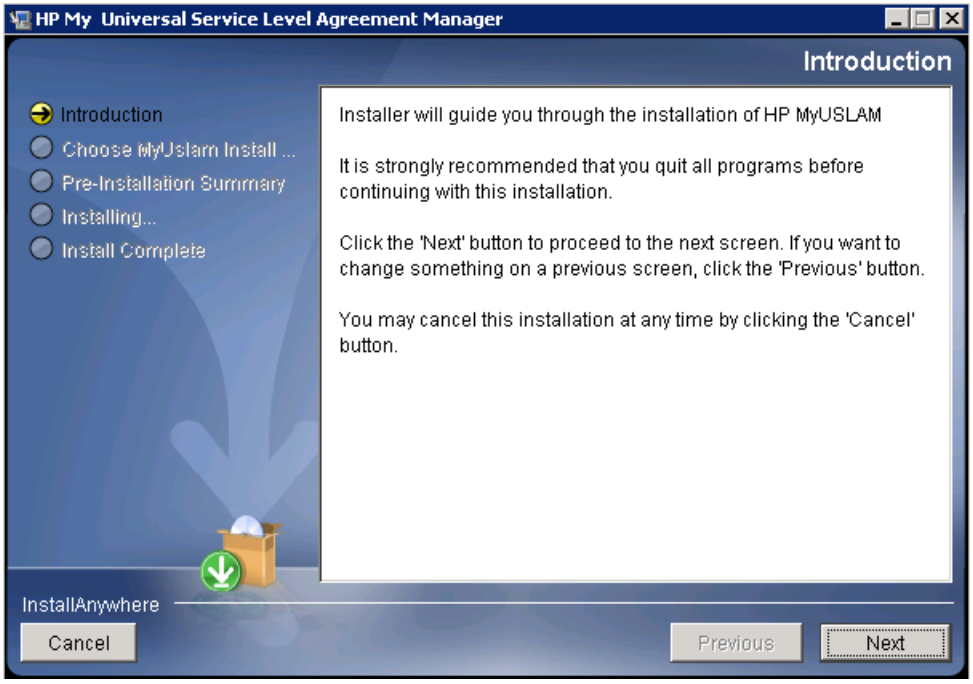
To install the MyUSLAM Portal solution, you will be required to run the MyUSLAM Portal Installation Wizard and perform the following steps:

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:
   ./HP_USLAM_MyUSLAMPortal.bin on Linux or
   HP_USLAM_MyUSLAMPortal.exe on Windows

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

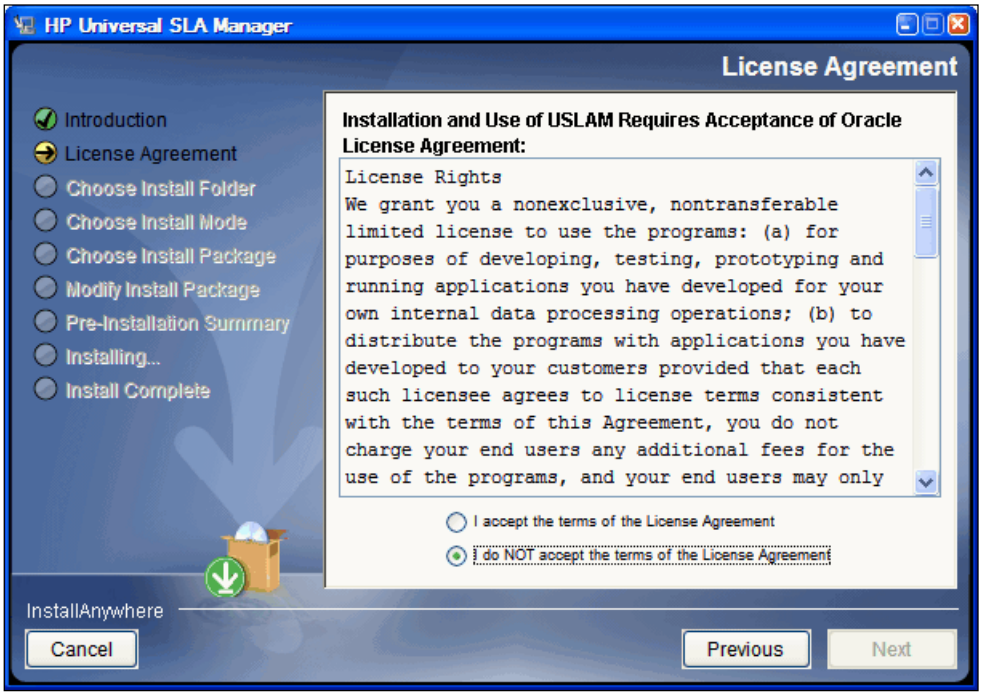
3. The installer displays a progress indicator and deploys the installation files on your Linux or Windows system
4. Once the installation files are deployed, the installation wizard displays

**Figure 94: MyUSLAM Portal  Installation - Introduction**



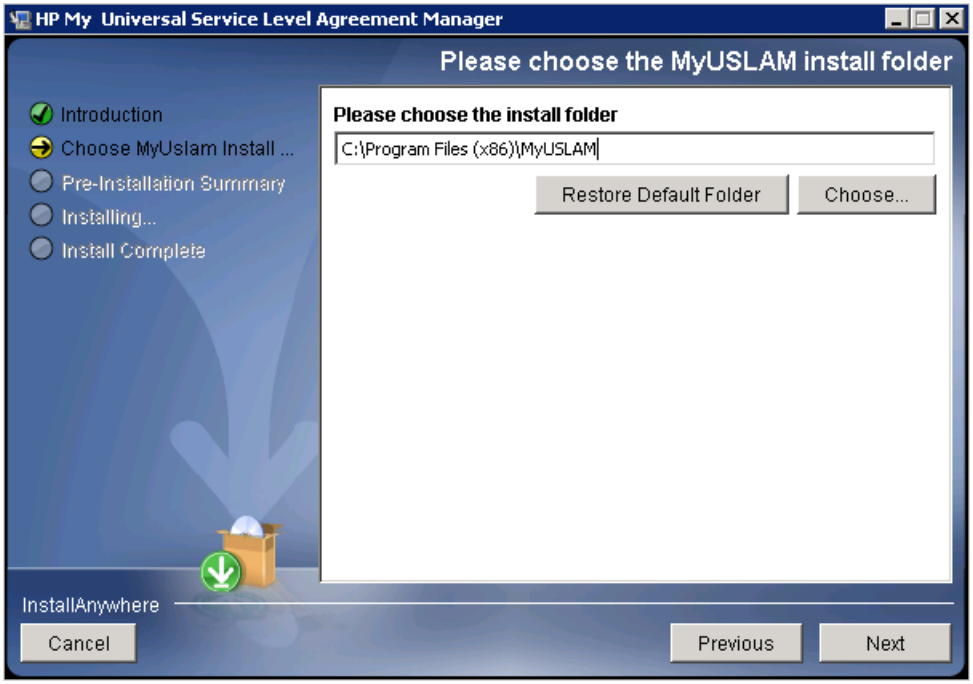

5. Make sure you follow the instructions displayed on this window and then click [Next]
6. The License Agreement window displays

**Figure 95: MyUSLAM Portal Installation – License Agreement**



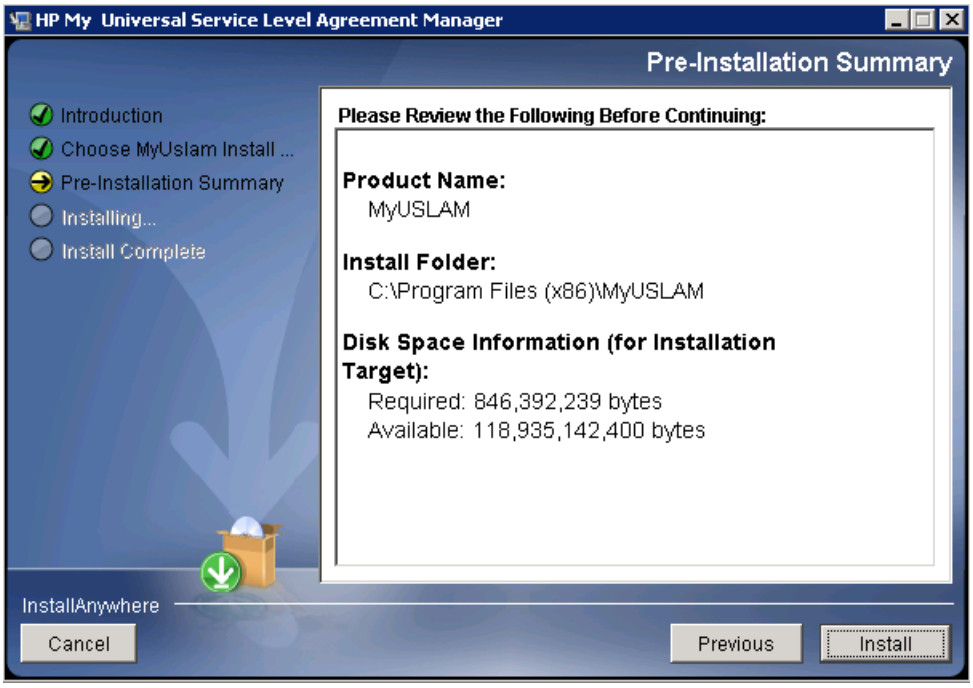

7. Select I accept the terms of the License Agreement and then click [Next].
8. The next screen asks you to choose an Installation Folder

**Figure 96: 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 97: MyUSLAM Portal Installation – Pre-installation Summary**

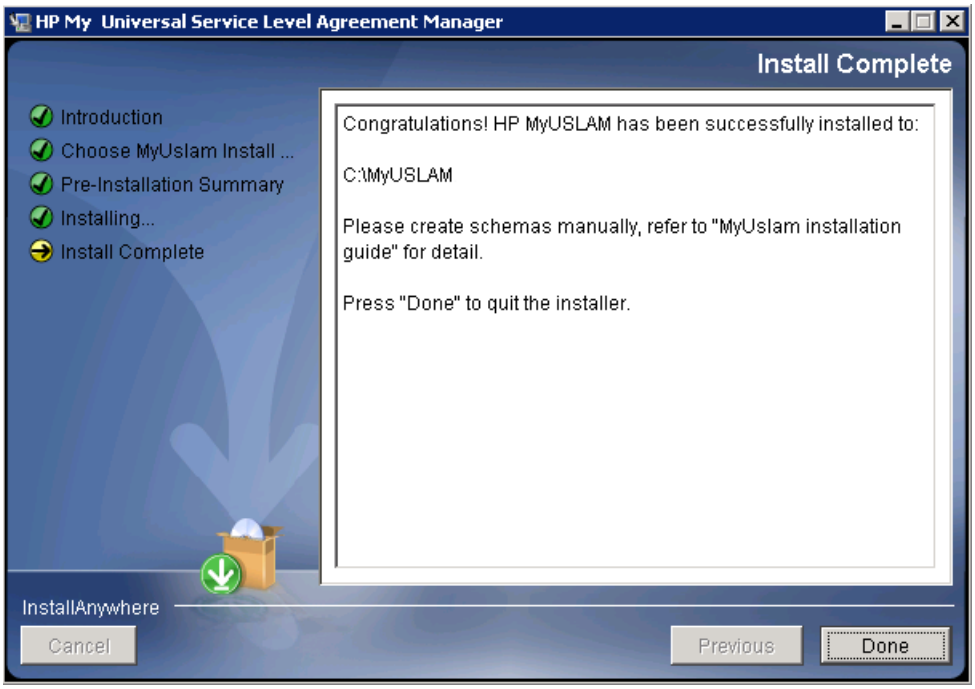



11. Review the summary information and then click [Install] to begin installation.
12. The installer displays a progress indicator

**Figure 98: MyUSLAM Portal Installation – installing USLAM**

13. Once the installation is complete, the 'Install Complete' window appears

**Figure 99: MyUSLAM Portal Installation – Installation Complete**




14. 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.

### 8.1.3 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;
```

### 8.1.4 Creating MyUSLAM Portal Database Schemas

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

#### 8.1.4.1 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
```

#### 8.1.4.2 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
```

### 8.1.5 Configuring MyUSLAM Portal Database

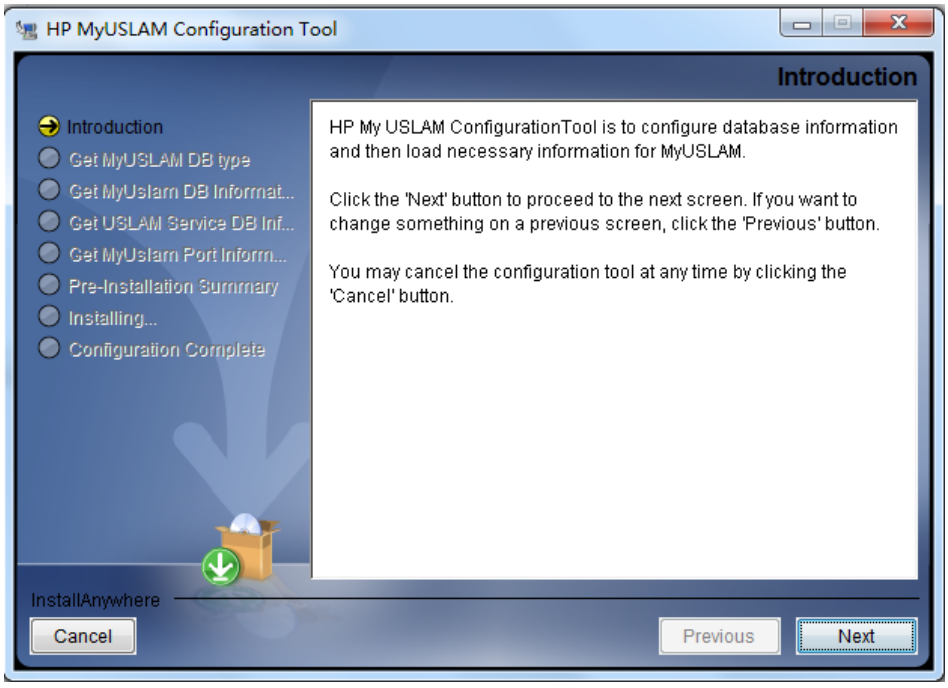
To run MyUSLAM Portal Configuration tool, you need to create a schema for MyUSLAM Portal (as described in 8.1.4 Creating MyUSLAM Portal Database Schemas ) and then run the tool, performing the following steps:

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

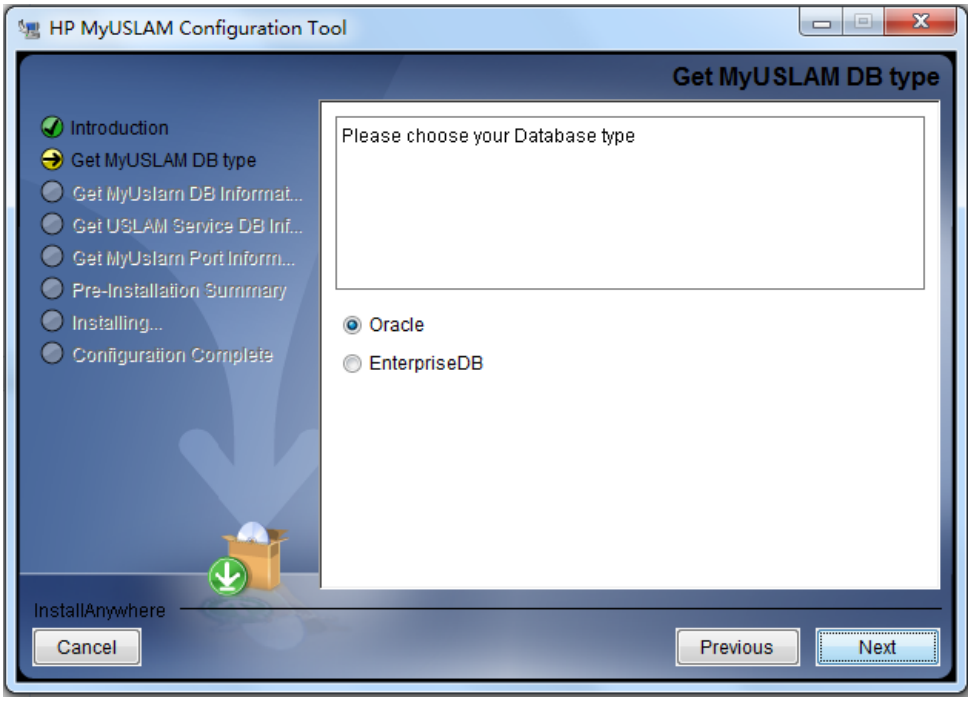
3. The installer displays a progress indicator and deploys the installation files on your Linux or Windows system
4. Once the installation files are deployed, the HP MyUSLAM Portal Configuration Tool wizard displays.

**Figure 100: MyUSLAM Portal Configuration Tool - Introduction**



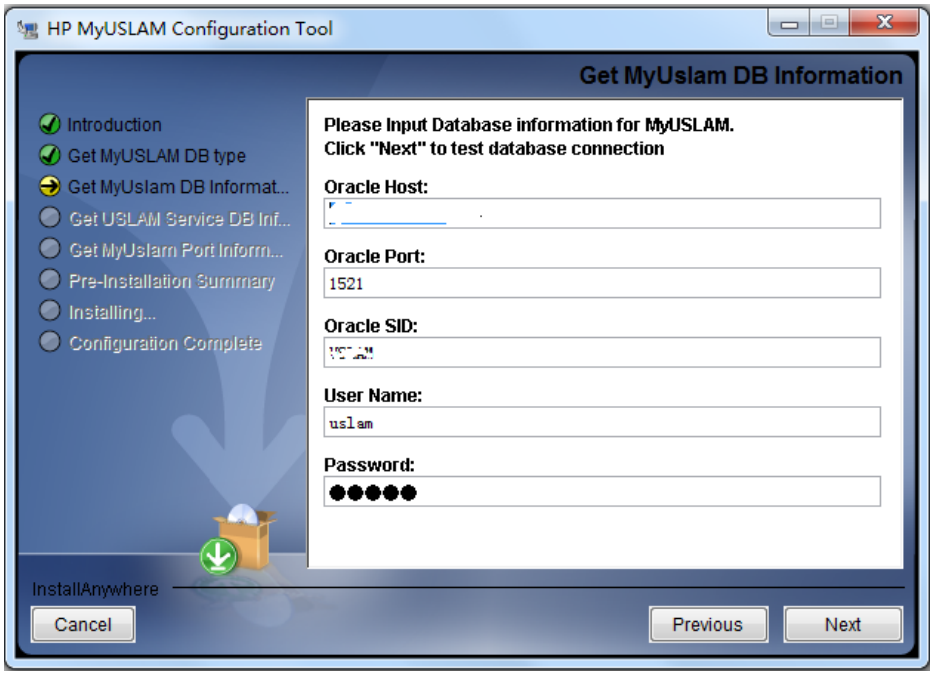

5. Click [Next]. The Get Database type window displays

**Figure 101: MyUSLAM Portal Configuration Tool – Database Information**




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

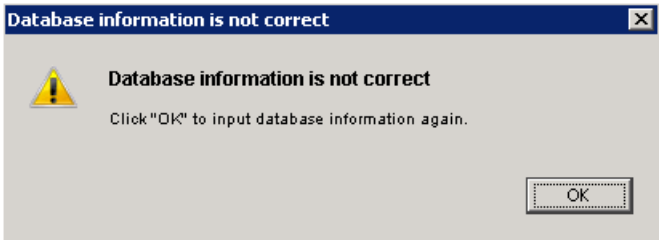
**Figure 102: MyUSLAM Portal Configuration Tool – Database Information**




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 8.1.3 "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.

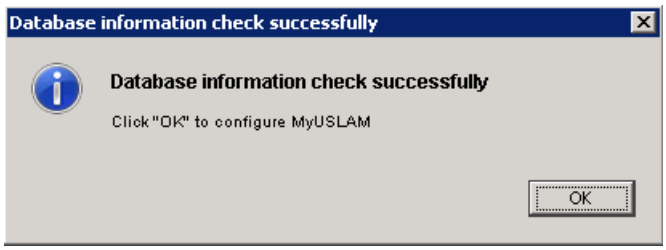
9. If the information is not correct, the installer displays the following warning. Click [OK] to enter again

**Figure 103: MyUSLAM Portal Configuration Tool – Incorrect Database Information**



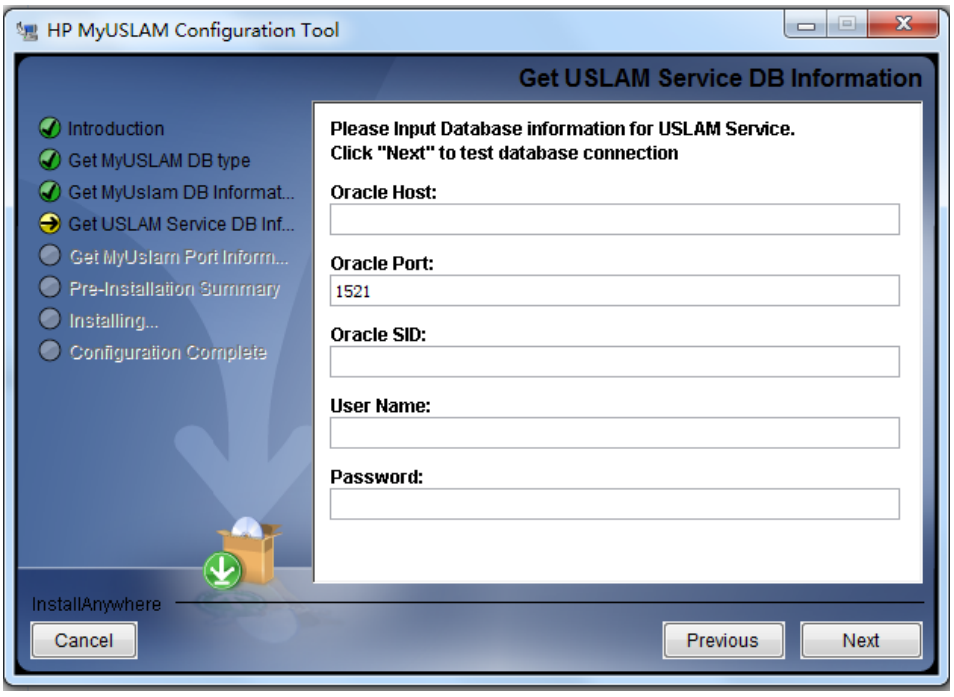

10. If the information check is successfully, the installer displays the following message.

**Figure 104: MyUSLAM Portal Configuration Tool – Successfully Check**




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

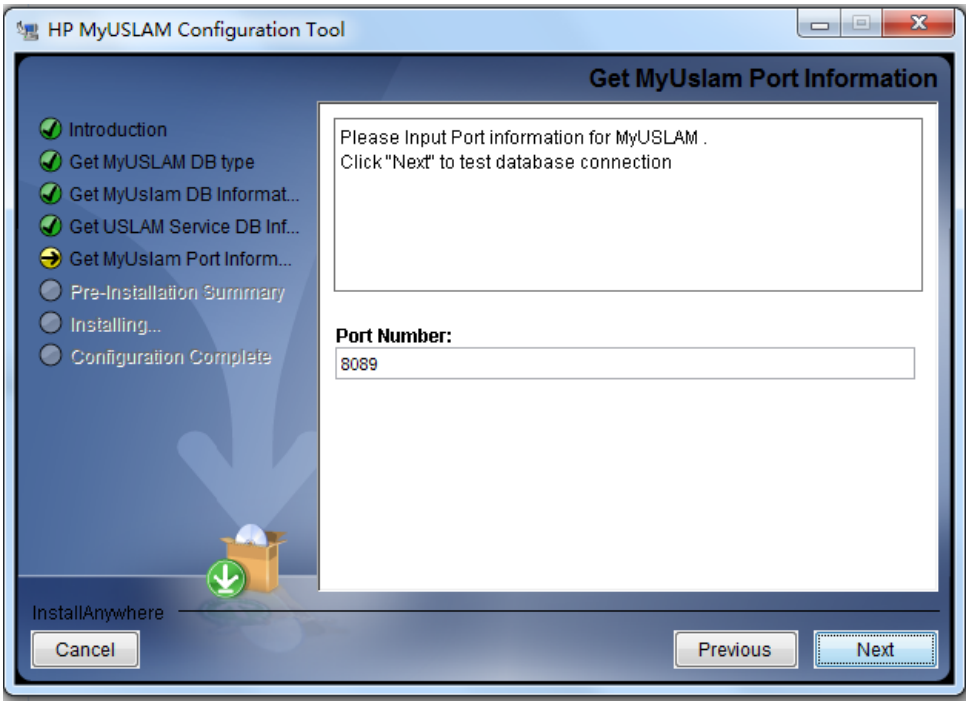
**Figure 105: MyUSLAM Portal Configuration Tool – Get USLAM Service DB Information**




12. Click [next]
13. Enter the HTTP port used by MyUslam Portal (default value is 8089)

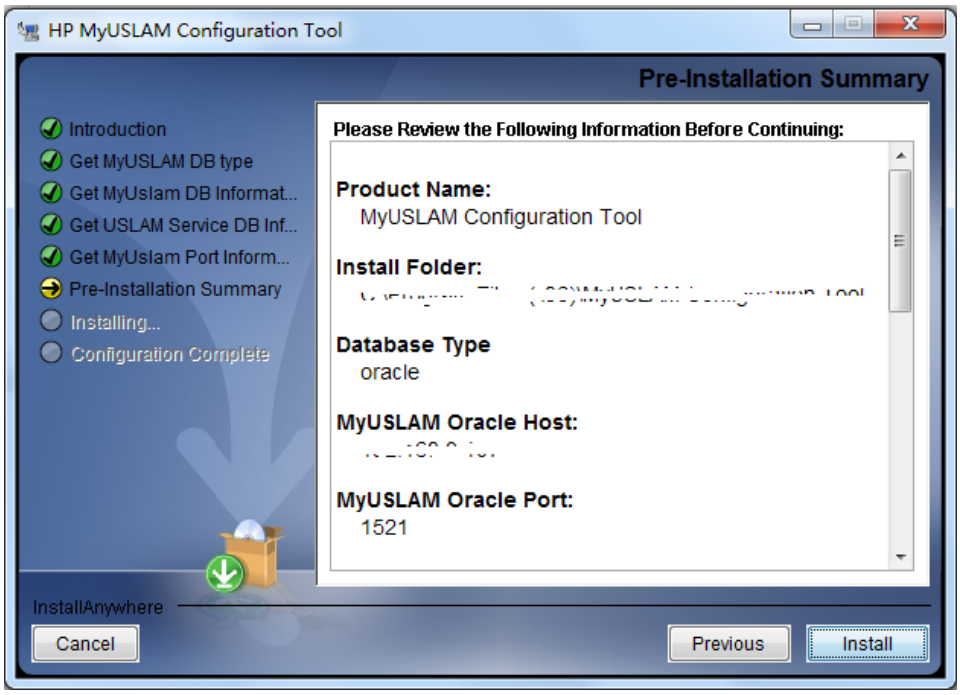
This is the port number that you'll have to specify in your Web browser to access MyUSLAM Portal (e.g.: http://<MyUSLAMServer>:<MyUSLAMPort>)

**Figure 106: MyUSLAM Portal Configuration Tool – Get MyUSLAM Port Number**




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

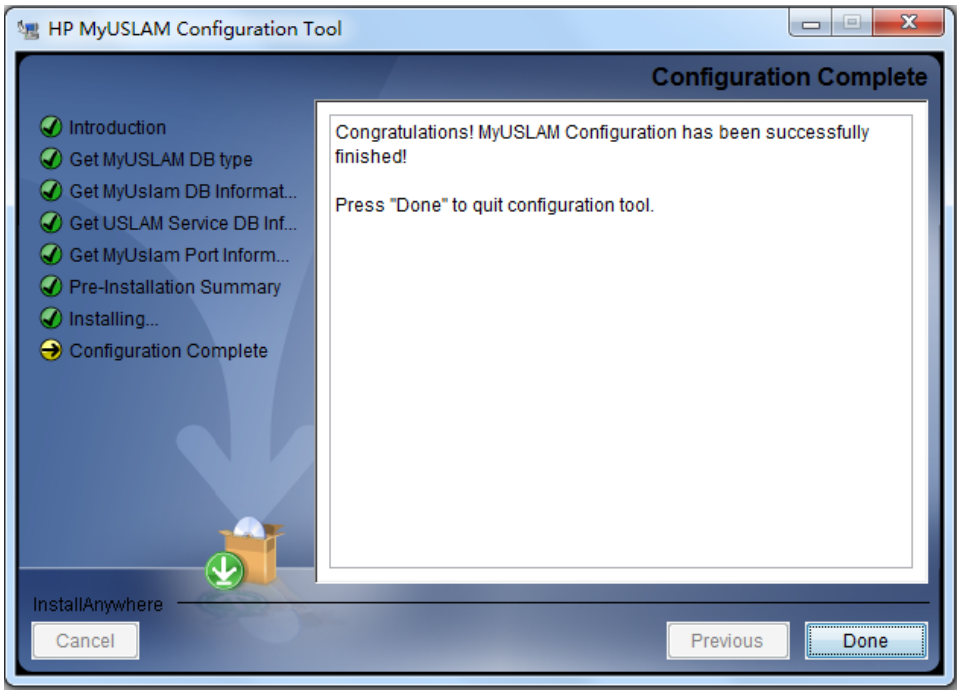
**Figure 107: MyUSLAM Portal Configuration Tool – Configuration Summary**




15. Review the Configuration information before beginning to configure MyUSLAM Portal. Click [Install] to begin the configuration.

16. Once the configuration is complete, the Configuration Complete window displays.

**Figure 108: MyUSLAM Portal Configuration Tool – Configuration Complete**




17. Click [Done] to finish the configuration.

## 8.1.6 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=DEDIC
        ATED)(SERVICE_NAME=<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.OracleExcepti
        onSorter</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>
```

### 8.1.7 Configuring MyUSLAM Portal properties

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

### 8.1.8 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.

### 8.1.9 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.

- 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.

## 8.2 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. Enter `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.