Hewlett Packard
Enterprise

IT Business Analytics

Software Version: 10.10

Linux operating system

Installation Guide

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Plan the Installation

Before you begin your deployment of IT Business Analytics, you should:

- Understand the components of the application. For more information, see "Business Analytics Components" on page 8

- Decide which type of IT Business Analytics licensing you are implementing, and if necessary purchase the relevant license key file. For more information, see "Licensing" on page 9.

- Decide whether your deployment will be for Development, Test, or Proof-of-Concept (POC), or Production environments. For more information, see "Deployment Solutions" on page 11.

- Decide if you want to work with SAP Business Objects Enterprise.

- Ensure that your hardware and software meet the system requirements.

  The environments supported by IT Business Analytics are described in the Support Matrix document available from the Support Site (**https://softwaresupport.hpe.com/group/softwaresupport/** or from the Installation DVD).

- Ensure that you have reviewed the Installation checklists section. The section provides database naming and password limitations that could cause the installation to fail.

> **Limitation:** Do not use the following characters in any of the directory names specified during the ITBA installation procedures: % ^ & < > | ' ` , ; = ( ) ! \ [ ] "

The ITBA 10.10 installation bundle package includes the following:

- Documentation
- Open_Source_and_Third_Party
- ITBA-10.10-Redhat-X64-bin.tar.gz
- ITBA-10.10-Ubuntu-X64-bin.tar.gz
- ITBA-10.10-IDE.zip
- Vertica-7.1.2-4_amd64.zip
- Vertica-7.1.2-4-x86_64.RHEL5.zip
- BOE-4.1-SP3-Client_Windows.zip
- BOE-4.1-SP3-Server_Windows.zip

- BOE-4.1-SP3-Server upgrade_Windows.zip

- BOE-4.1-SP2-Dashboard_Win32.zip

- BOE-4.1-SP3-Client_Windows.zip

- BOE-4.1-SP3-Server_Linux.zip

- BOE-4.1-SP3-Server upgrade_Linux.zip

- BOE-4.1-SP2-Dashboard_Win32.zip

Business Analytics Components

Business Analytics includes the following components:

- **Business Analytics Application** - Provides the means to define IT goals and objectives, to measure performance, and provides actionable insights into performance improvement plans. It includes the Dashboard, Studio, Explorer, Admin, and Data Warehouse (DWH) modules.

  DWH is a repository for key business data that is cleansed, consolidated, and organized to support efficient queries, reports, and to populate a variety of business analytics. The contents of the Data Warehouse depend on the external HP applications that generate business data. For example, the data may originate from external applications such as Application Lifecycle Management or Project and Portfolio Management.

- **Optional - SAP BusinessObjects Enterprise** (BOE) - A solution that provides reporting, analysis and information delivery via web applications. This component is optional. SAP BusinessObjects Enterprise must be installed separately.

  You must install BOE if you plan to use:

  - The CSA-related pages in the Dashboard.

  - The Web Intelligence Report Viewer and Web Intelligence Static Report in the Dashboard. For details, see The Web Intelligence Report Viewer Component or The Web Intelligence Static Report Viewer Component in the *Business Analyst Guide*.

- **Common components** - foundations on which the IT Business Analytics deployment is built. Common components are automatically installed on servers when you install ITBA.

Other critical external components include:

- **Vertica** - An analytics database that handles big data from our source system and relevant information.

- **Source Application Servers** - Source data originates in external application repositories. Data Warehouse consolidates the data from one or more of these external application repositories, and makes it available for analysis by Business Analytics.

Licensing

The HP License Key Delivery Service web site (webware.hp.com) manages HP software licensing for the IT Business Analytics application. You can view or download the latest version of the ESD and Webware License Management Guide from this site. The guide describes the current process to obtain your entitlement certificate, which contains the HP order number that you need to generate your permanent license keys.

Follow the steps in the ESD and Webware License Management Guide to present your HP order number, select the products that need licenses, and provide other required information.

If you are a first time visitor to the web site, you will be asked to create an account with an email address and password. Most requests to generate permanent license keys require the following:

- IT Business Analytics product name and number shown on the product receipt or in the email sent by HP to acknowledge the order.

- The order number from the entitlement certificate.

- A target server name and IP address.

- Contact information, such as company name, your name, fax and phone numbers, and license ownership details.

If necessary, you can return to the HP License Key Delivery Service web site and retrieve the permanent or temporary license keys again by selecting Manage Licenses on the web site home page and logging into your account.

If you have an existing SAP BusinessObjects Enterprise installation, you can use that instance. If you purchase SAP BusinessObjects Enterprise with HP IT Business Analytics, the purchase includes the required licenses.

Other applications that generate or use data, require separate licenses.

Permanent License Keys

After you create your user account on the HP License Key Delivery Service web site (webware.hp.com), generate the entitlement certificate, and generate the license keys, the License Key Delivery Service sends permanent keys to you in an email text file attachment. You load permanent license key files during the installation configuration. When a permanent IT Business Analytics license covering the components you are installing is loaded, details of the license are recorded to the Management database and there is no further requirement for loading the license when installing each component.

Temporary License Keys

A temporary license for 60 days is automatically generated during the installation procedure.
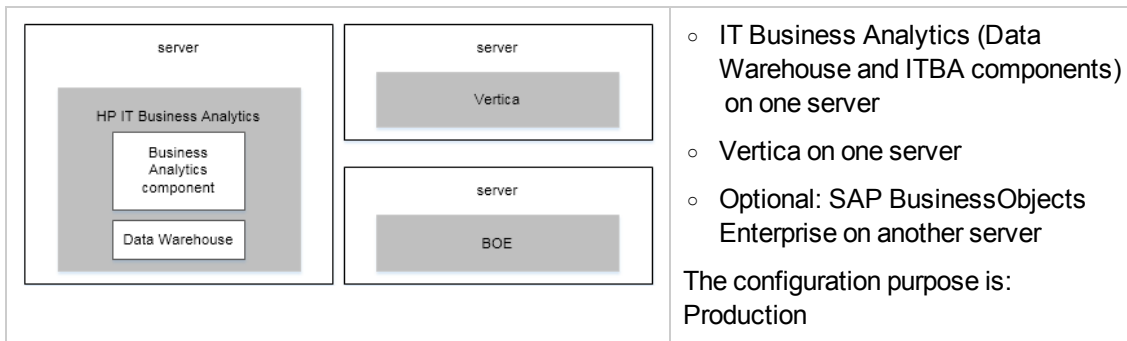
Deployment Solutions

IT Business Analytics is made up of various components, such as Data Warehouse and ITBA. SAP BusinessObjects Enterprise is optional.

Vertica must be installed before you install IT Business Analytics. In addition, the data sources must be installed on separate servers. The Target Scheme, Application Scheme, and Extension Scheme are all part of Vertica.
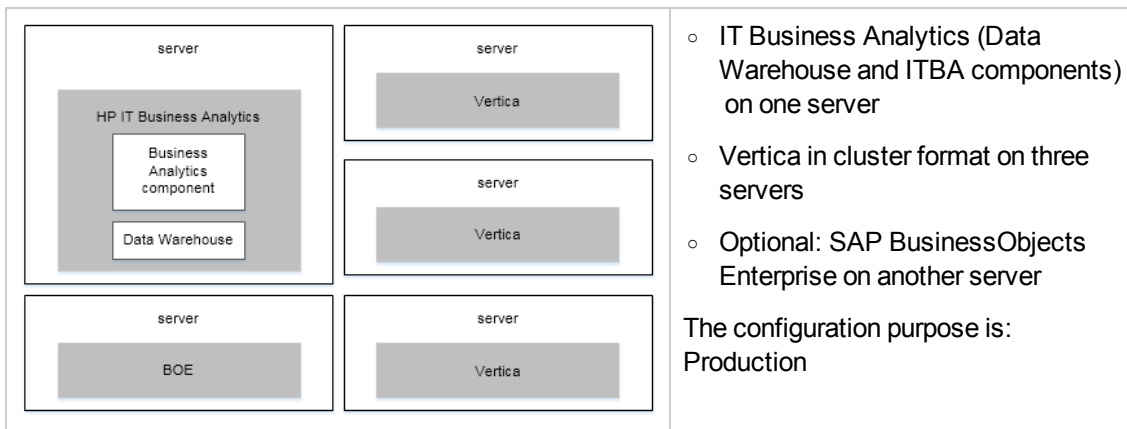
SAP BusinessObjects Enterprise is optional and can be installed at any time.

Depending on the purpose of your installation, you can use one of the deployment solutions described below:

- **2 servers.**

server HP IT Business Analytics Business Analytics component Data Warehouse server Vertica server BOE	○ IT Business Analytics (Data Warehouse and ITBA components) on one server ○ Vertica on one server ○ Optional: SAP BusinessObjects Enterprise on another server The configuration purpose is: Production

- **4 servers.**

server HP IT Business Analytics Business Analytics component Data Warehouse server Vertica server Vertica server BOE server Vertica	○ IT Business Analytics (Data Warehouse and ITBA components) on one server ○ Vertica in cluster format on three servers ○ Optional: SAP BusinessObjects Enterprise on another server The configuration purpose is: Production

Prerequisites

Before you start the installation check the following prerequisites.

Fully Qualified Domain Name (FQDN) settings

Set the FQDN on both the ITBA server and the Vertica server:

1. As root user, update the **/etc/hosts** file with the server FQDN.

2. Edit:

   - The **/etc/sysconfig/network** file and modify the **HOSTNAME=**<FQDN> for the Redhat or CentOS systems.

   - The **/etc/hostname** file and add the **SERVERNAME** for the Ubuntu system.

     Example: The FQDNs for ITBA server and Vertica server are:

     - hostname=itba.hpdemo.com

     - hostname=vertica.hpdemo.com

3. Reboot the server.

Licenses

During the Business Analytics configuration, you are required to enter the application license details.

About the Installation

Make sure you install the following components in the order below:

1. Vertica - For details, see "Install the Vertica Database" on page 14.

2. BOE (Optional) - Install BOE if you want to view BO reports. For details, see "Optional - Install BOE on a Linux Server" on page 16 or "Optional - Install BOE Client on Windows Server" on page 33. Then you must install the Vertica driver in the BOE server. For details, see"Optional - Install the Vertica Driver in the BOE Server and the BOE Client Server" on page 39.

3. ITBA - Select the relevant installation method:

   - Silent Installation - For details, see "Silent Installation" on page 43.

- Console Installation - For details, see "Console Installation" on page 50.

- GUI Installation - For details, see "GUI Installation " on page 70.

Install the Vertica Database

To install the Vertica database on the Vertica server, proceed as follows:

> **Note:** The following steps can be used to install Vertica on a single server. The steps are not recommended for a production environment. To install Vertica on multiple servers, or to tune cluster and performance, refer to HP_Vertica_7.1.x_Install_Guide.pdf at
> https://my.vertica.com/docs/7.1.x/PDF/HP_Vertica_7.1.x_Install_Guide.pdf or
> https://softwaresupport.hpe.com/km/KM00681120 (7.0)

1. Install all necessary service packs and packages for your operating system.

2. Install Vertica:

   a. Get the RPM installer from the ITBA binary delivery.

   b. Switch to the root user.

   c. Install RPM using the following commands:

      i. **rpm -ivh vertica-7.1.2-4.x86_64.RHEL5.rpm**

      ii. **/opt/vertica/sbin/install_vertica -s localhost -r vertica-7.1.2-4.x86_64.RHEL5.rpm -u <dba_user_name> -p <dba_user_password> -L <license file name> --failure-threshold FAIL –Y**.

   where <dba_user_name> is the user name of the DBA Administrator and <dba_user_password> is the password of the DBA Administrator, and <license file name> is the file name of the Vertica license.

   If the install_vertica command fails for one of the reasons shown below, access the

corresponding link to correct the issue, and then rerun the command after the configuration.

```
>> Validating node and cluster prerequisites...

Prerequisites not fully met during local (OS) configuration for
verify-127.0.0.1.xml:
    HINT (S0305): https://my.vertica.com/docs/7.1.x/HTML/index.htm#cshid=S0305
        TZ is unset for vertica. Consider updating .profile or .bashrc
    HINT (S0041): https://my.vertica.com/docs/7.1.x/HTML/index.htm#cshid=S0041
        Could not find the following tools normally provided by the mcelog
        package: mcelog
    HINT (S0040): https://my.vertica.com/docs/7.1.x/HTML/index.htm#cshid=S0040
        Could not find the following tools normally provided by the pstack or
        gstack package: pstack/gstack
    WARN (N0010): https://my.vertica.com/docs/7.1.x/HTML/index.htm#cshid=N0010
        Linux iptables (firewall) has some non-trivial rules in tables: filter
    FAIL (S0150): https://my.vertica.com/docs/7.1.x/HTML/index.htm#cshid=S0150
        These disks do not have 'deadline' or 'noop' IO scheduling: '/dev/sda1'
        ('sda') = 'cfq', '/dev/sda3' ('sda') = 'cfq'
    FAIL (S0020): https://my.vertica.com/docs/7.1.x/HTML/index.htm#cshid=S0020
        Readahead size of sda (/dev/sda1,/dev/sda3) is too low for typical
        systems: 256 < 2048
    FAIL (S0030): https://my.vertica.com/docs/7.1.x/HTML/index.htm#cshid=S0030
        ntp daemon process is not running: ['ntpd', 'ntp', 'chronyd']
    FAIL (S0081): https://my.vertica.com/docs/7.1.x/HTML/index.htm#cshid=S0081
        SELinux appears to be enabled and not in permissive mode.
    FAIL (S0310): https://my.vertica.com/docs/7.1.x/HTML/index.htm#cshid=S0310
        Transparent hugepages is set to 'always'. Must be 'never' or 'madvise'.

System prerequisites failed.  Threshold = FAIL
        Hint: Fix above failures or use --failure-threshold

Installation FAILED with errors.

****
AdminTools and your existing Vertica databases may be unavailable.
Investigate the above warnings/errors and re-run installation.
****
```

3. Switch to the DBA user you created in the previous step.

4. Create a database for ITBA using the following command:

   /opt/vertica/bin/admintools -t create_db -s localhost -d <database_name> -p <dba_user_password>

   where <database name> is the name of the Vertica database and <dba_user_password> is the password of the DBA Administrator.

Vertica is now installed.

Optional - Install BOE on a Linux Server

This section describes how to install BOE on a Linux Server.

If you want to work with BOE, install it on a separate server.

> **Note:** To get a license for BOE, contact HP Software Support Online web site at: https://softwaresupport.hpe.com.

1. **Prerequisites:**

   - Only 64-bit Operating systems are supported.

   - Make sure the installation target has adequate disk space ~20GB or more (It might require additional space for applying patches and Service Packs (SPs)).

   - Make sure you have enough space (~2GB) for the temporary file system.

   - Create a user account and a group under which the supported SAP BusinessObjects Enterprisesoftware will run. This account does not require root privileges.

   - Locale: Configure a supported UTF-8 locale by setting the LC_ALL and LANG environment variables.

     > **Example:**
     >
     > export LANG=en_US.utf8
     >
     > export LC_ALL=en_US.utf8

   - Unlimit settings must be set to unlimited by using the **unlimit** command or by editing **/etc/security/limits.conf** manually. Make sure the **max user processes** of the BOE user is 4096 at least.

   - **Read**, **write** and **execute** permissions must be set for the installation target destination directory.

2. **Prerequisites - Red Hat libraries:**

   Before installing on Red Hat Linux, you must ensure that all the required libraries are installed. Ensure you have root access, then use the Yum software installation tool to run the following commands:

   yum install libXext

   yum install libXext.i686

yum install compat-libstdc++-33.i686

yum install compat-libstdc++-296.i686

yum install compat-libstdc++-33

yum install libstdc++.i686

yum install libstdc++

yum install libX11.i686

yum install libXext-devel.i686

yum install libXext-devel

> **Tip:** If you get an error while running **yum install libstdc++.i686**, run **yum update libstdc++** first and then **run yum install libstdc++.i686** again

3. Check the prerequisites:

   To check if these libraries are installed use the following commands:

```
[boeuser@BI41RH6 ~]$ cat /etc/redhat-release
Red Hat Enterprise Linux Server release 6.4 (Santiago)
[boeuser@BI41RH6 ~]$ ulimit
unlimited
[boeuser@BI41RH6 ~]$ locale
LANG=en_US.utf8
LC_CTYPE="en_US.utf8"
LC_NUMERIC="en_US.utf8"
LC_TIME="en_US.utf8"
LC_COLLATE="en_US.utf8"
LC_MONETARY="en_US.utf8"
LC_MESSAGES="en_US.utf8"
LC_PAPER="en_US.utf8"
LC_NAME="en_US.utf8"
LC_ADDRESS="en_US.utf8"
LC_TELEPHONE="en_US.utf8"
LC_MEASUREMENT="en_US.utf8"
LC_IDENTIFICATION="en_US.utf8"
LC_ALL=en_US.utf8
[boeuser@BI41RH6 ~]$ rpm -qa compat-libstdc++*
compat-libstdc++-33-3.2.3-69.el6.i686
compat-libstdc++-33-3.2.3-69.el6.x86_64
compat-libstdc++-296-2.96-144.el6.i686
[boeuser@BI41RH6 ~]$ rpm -qa glibc
glibc-2.12-1.107.el6.x86_64
glibc-2.12-1.107.el6.i686
[boeuser@BI41RH6 ~]$ rpm -qa libstdc++
libstdc++-4.4.7-3.el6.i686
libstdc++-4.4.7-3.el6.x86_64
[boeuser@BI41RH6 ~]$ rpm -qa libX11
libX11-1.5.0-4.el6.i686
libX11-1.5.0-4.el6.x86_64
[boeuser@BI41RH6 ~]$
```

4. Unzip the BOE installation package:

a. Add the executive attribute for the bit folder.

 Example: chmod +x -R 51047840

b. Go to **<installation BOE folder>/DATA_UNITS/BusinessObjectsServer_lnx/**

c. Run the setup: **./setup.sh** to start the BOE installation console.

For example:

```
[boeuser@BI41RH6 BusinessObjectsServer]$ ./setup.sh


Please wait while the installer loads..
```

5.

```
Check Prerequisites
Summary of any missing critical or optional prerequisites.


Succeeded: Information Steward and Data Services compatibility (Optional)
Succeeded: Information platform services cannot be installed (Critical)
Succeeded: Operating system patch level (Critical)
Succeeded: BI platform server 4.x cannot already be installed (Critical)
Succeeded: Disk space in /tmp (Critical)
Succeeded: Disk space in /var (Critical)
Succeeded: File Size Limit (ulimit -f) (Optional)
Succeeded: Maximum user processes (ulimit -u) (Optional)
Succeeded: Network settings (Critical)
Succeeded: 64-bit operating system (Critical)
Succeeded: Root user rights (Critical)


Press Tab to go to the next field, Ctrl+X to quit, or Enter to continue.
```

6. Click **Enter**.

```
SAP BusinessObjects BI platform 4.1 SP01 setup
Welcome to the installation wizard for SAP BusinessObjects BI platform 4.1 SP01.


WARNING: This program is protected by copyright law and international
treaties.


Unauthorized reproduction or distribution of this program, or any portion
of it, may result in severe civil and criminal penalties, and will be
prosecuted to the maximum extent possible under law.




Press [Ctrl-B] to go back, [Ctrl-X] to quit, or [Enter] to continue.
```

7. Click **Enter**.

```
SAP BusinessObjects BI platform 4.1 SP01 setup
Welcome to the installation wizard for SAP BusinessObjects BI platform 4.1 SP01.


WARNING: This program is protected by copyright law and international
treaties.


Unauthorized reproduction or distribution of this program, or any portion
of it, may result in severe civil and criminal penalties, and will be
prosecuted to the maximum extent possible under law.




Press [Ctrl-B] to go back, [Ctrl-X] to quit, or [Enter] to continue.
```

8. Click **Enter** to accept.

```
License Agreement
You must agree to the licensing conditions to proceed.


SOFTWARE LICENSE AGREEMENT





IMPORTANT-READ CAREFULLY: THIS IS A LEGAL AGREEMENT BETWEEN YOU AND SAP FOR
THE SAP SOFTWARE ACCOMPANYING THIS AGREEMENT, WHICH MAY INCLUDE COMPUTER
SOFTWARE, ASSOCIATED MEDIA, PRINTED MATERIALS AND ONLINE OR ELECTRONIC
DOCUMENTATION (âSOFTWAREâ
                          THE SOFTWARE, YOU MUST READ, ACKNOWLEDGE AND ACCEPT THE
 TERMS AND
CONDITIONS OF THE SOFTWARE LICENSE AGREEMENT THAT FOLLOWS (âAGREEMENTâ
Press <ENTER> to accept, <CTRL-X> to not accept
```

9. Enter the product key and click **Enter**.

```
Configure Product Registration
Enter the SAP BusinessObjects BI platform 4.1 product key.


Product Key:
[                                              ]









Press [Ctrl-B] to go back, [Ctrl-X] to quit, or [Enter] to continue.
```

10. Select the relevant language of the BOE application and click **Enter**.

```
Select Language Packages
Select all additional Language Packages that the users will interact with in the
 product.

[X]   English
[X]   Danish
[X]   Portuguese
[X]   Korean
[X]   Czech
[X]   Romanian
[X]   Swedish
[X]   French
[X]   Norwegian
[X]   Japanese
[X]   Turkish
[X]   Dutch

Press [Tab], [Up], or [Down] to highlight, [Space] or [X] to toggle state, [Ctrl
-B] to go back, [Ctrl-X] to quit, or [Enter] to continue.
```

11. Select **1 - Full** and click **Enter**.

```
Select Install Type
Select the type of installation.


1   -    Full
2   -    Custom / Expand
3   -    Web Tier










Press [Tab], [Up] or [Down] to select, [Ctrl-B] to go back, [Ctrl-X] to quit, or
 [Enter] to continue.
```

12. Select **1 - Configure and install a Sybase SQL Anywhere database** and click **Enter**.

```
Select Default or Existing Database
Select whether to configure and install Sybase SQL Anywhere or use an existing d
atabase to store data for the SAP BusinessObjects BI platform.

  1  -    Configure and install a Sybase SQL Anywhere database
  2  -    Configure an existing database




Press [Tab], [Up] or [Down] to select, [Ctrl-B] to go back, [Ctrl-X] to quit, or
 [Enter] to continue.
```

13. Select **1 - Install the default Tomcat Java Web Application Server and automatically deploy web applications** and click **Enter**.

```
Select Java Web Application Server
Select a Java Web Application Server solution.


  1  -    Install the default Tomcat Java Web Application Server and
           automatically deploy web applications
  2  -    Manually deploy web applications to a supported Java Web Application
           Server after the installation
  3  -    Install the Web Application Container Server and automatically deploy
           web applications




Press [Tab], [Up], or [Down] to select, [Ctrl-B] to go back, [Ctrl-X] to quit, o
r [Enter] to continue.
```

14. Select **1 - Configure and install Subversion** and click **Enter**.

```
Select Version Management
Select whether to install the default version control system or use an exising s
ystem for version management.

 1  -    Configure and install Subversion
 2  -    Do not configure a version control system at this time█




Press [Tab], [Up], or [Down] to select, [Ctrl-B] to go back, [Ctrl-X] to quit, o
r [Enter] to continue.
```

15. Configure the Server Intelligence Agent (SIA) by entering the relevant information and click **Enter**.

```
Configure Server Intelligence Agent (SIA)
Enter a name and port number for the SIA node.


Node Name:
[BI41RH6█                                    ]
SIA Port:
[6410  ]




Press Tab to go to the next field, Ctrl+B to go the previous field, Ctrl+X to qu
it, or Enter to continue.
```

16. Configure the Central Management Server (CMS) by entering the relevant information and click **Enter**.

```
Configure Central Management Server (CMS)
Enter a port number for the CMS.


CMS Port:
[6400  ]











Press [Ctrl-B] to go back, [Ctrl-X] to quit, or [Enter] to continue.
```

17. Configure the CMS Account by entering the relevant information and click **Enter**.

```
Configure CMS Account
Enter the administrator account password and cluster key for the CMS. The cluste
r key is used to connect multiple CMS servers together.

Administrator Account Password:
[********                                        ]
Confirm Password:
[********                                        ]
CMS Cluster Key:
[********                                        ]
Confirm Cluster Key:
[********                                        ]




Press Tab to go to the next field, Ctrl+B to go the previous field, Ctrl+X to qu
it, or Enter to continue.
```

18. Configure Sybase SQL Anywhere by entering the relevant information and click **Enter**.

```
Configure Sybase SQL Anywhere
Enter the server port and administrator password for the Sybase SQL Anywhere dat
abase.

Sybase SQL Anywhere Port:
[2638  ]
"dba" Account Password:
[********                                              ]
Confirm Password:
[********█                                             ]




Press Tab to go to the next field, Ctrl+B to go the previous field, Ctrl+X to qu
it, or Enter to continue.
```

19. Configure Tomcat by entering the relevant information and click **Enter**.

```
Configure Tomcat
Enter the port information for Tomcat.


Connection Port:
[8080█ ]
Shutdown Port:
[8005  ]
Redirect Port:
[8443  ]




Press Tab to go to the next field, Ctrl+B to go the previous field, Ctrl+X to qu
it, or Enter to continue.
```

20. Configure HTTP Listening Port by entering the relevant information and click **Enter**.

```
Configure HTTP Listening Port
Enter the HTTP listening port for connecting to WACS and RESTful Web Services.


HTTP Listening Port:
[6405  ]









Press [Ctrl-B] to go back, [Ctrl-X] to quit, or [Enter] to continue.
```

21. Configure Subversion by entering the relevant information and click **Enter**.

```
Configure Subversion
Enter the port and user name for the Subversion version control system.


Subversion Port:
[3690  ]
Repository User Account Password:
[********                                              ]
Confirm Password:
[********                                              ]




Press Tab to go to the next field, Ctrl+B to go the previous field, Ctrl+X to qu
it, or Enter to continue.
```

22. Select **1 - Do not configure connectivity to SMD Agent** and click **Enter**.

```
Select Connectivity for Solution Manager Diagnostics (SMD) Agent
Select connectivity to SMD Agent to provide server profiling and diagnostics.


1  -    Do not configure connectivity to SMD Agent
2  -    Configure connectivity to SMD Agent








Press [Tab], [Up] or [Down] to select, [Ctrl-B] to go back, [Ctrl-X] to quit, or
 [Enter] to continue.
```

23. Select **1 - Do not configure connectivity to Introscope Enterprise Manager** and click **Enter**.

```
Select Connectivity to Introscope Enterprise Manager
Select connectivity to Introscope Enterprise Manager to configure server profili
ng.

1  -    Do not configure connectivity to Introscope Enterprise Manager
2  -    Configure connectivity to Introscope Enterprise Manager







Press [Tab], [Up] or [Down] to select, [Ctrl-B] to go back, [Ctrl-X] to quit, or
 [Enter] to continue.
```

24. Click **Enter** to install.

```
Start Installation



Are you ready to have the SAP BusinessObjects BI platform 4.1 SP01
Installation Wizard begin the installation?█










Press [Ctrl-B] to go back, [Ctrl-X] to quit, or [Enter] to install.
```

```




Installation setup
Updating setup engine
     1% [                                                      ]█
```

```
Caching Deployment Units
crystalreports.dataaccess.driver.dataset-4.0-fi-32,14.1.0.896
     10% [*****                                              ]
```

```
Deploying web applications

    97% [*************************************************   ]
```

```
Uncaching Deployment Units

    100% [**********************************************]█
```

```
SAP BusinessObjects BI platform 4.1 SP01 has been successfully installed.

█




Press [Ctrl-B] to go back, or [Enter] to exit this installation.
```

25.

26. **Launch BOE:**

> **Note:** To have your servers start automatically when the host machine is started or stopped,
> run the following script as the root user:
> **<installation BOE folder>/sap_bobj/init/setupinit.sh**

Enter: **http://BI41RH6:8080/BOE/CMC**

Account: Administrator

Password: ********

http://BI41RH6:8080/BOE/BI

Download the shared secret

You must first download the shared secret that will be used during the ITBA installation.

1. Log on to the BO Central Management Console (CMC).

2. Click **Authentication > Enterprise**, check the **Trusted Authentication is enabled** option, and click **Update**.
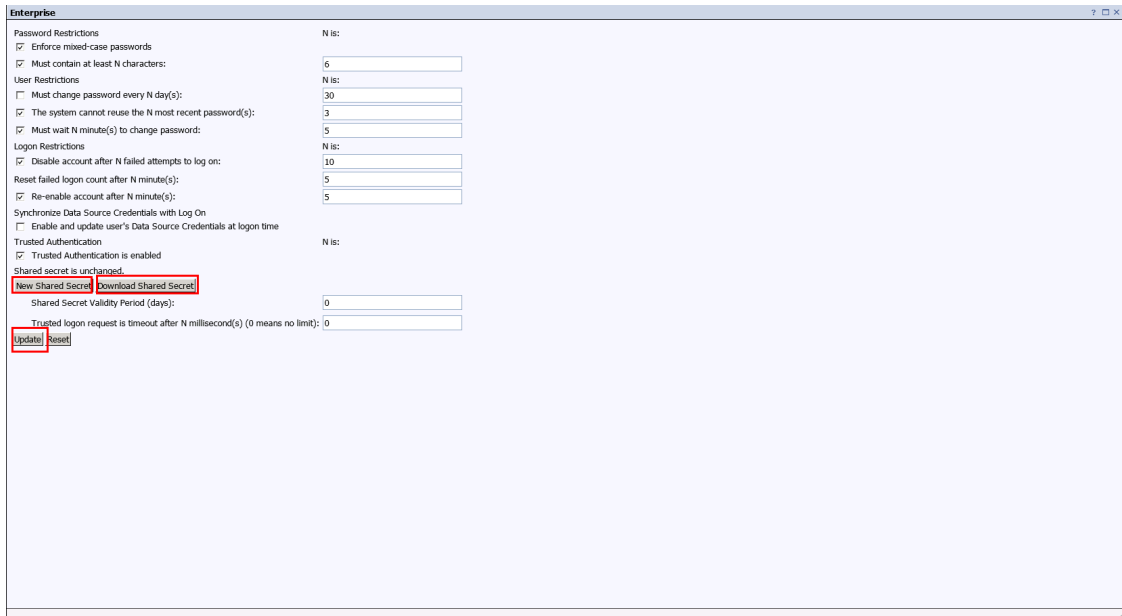
3. Click **Download Shared Secret** to download secret file.

Optional – Install BOE Client on Windows Server

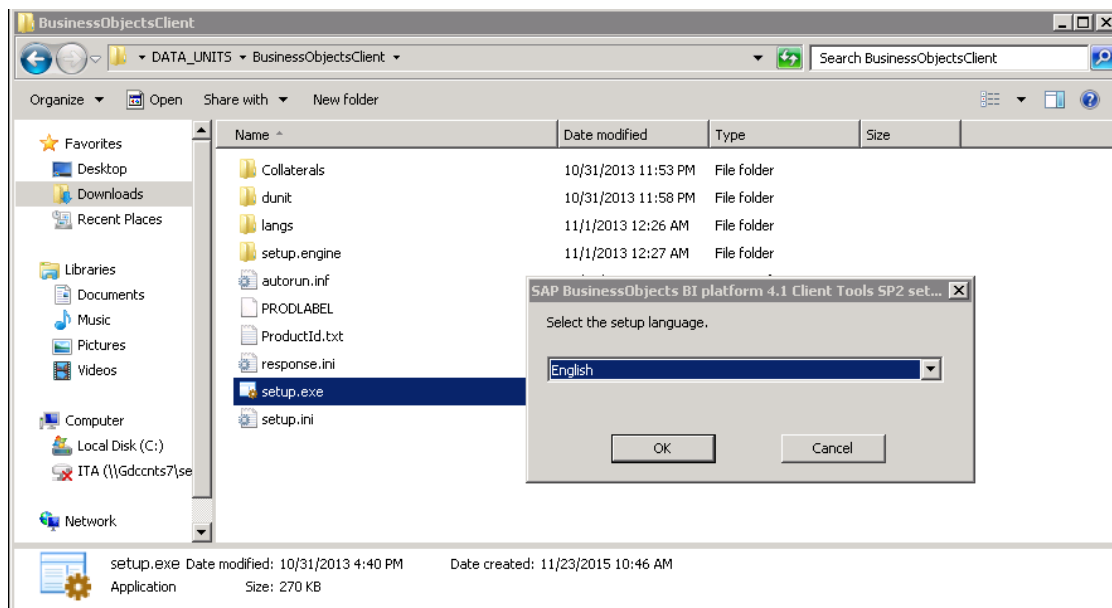This section describes how to install BOE Client on a Windows environment.

Install the BOE Client on Windows

1. Download the supported SAP BusinessObjects Enterprise Client Installation.

2. Unzip the SAP BusinessObjects Enterprise Client package.
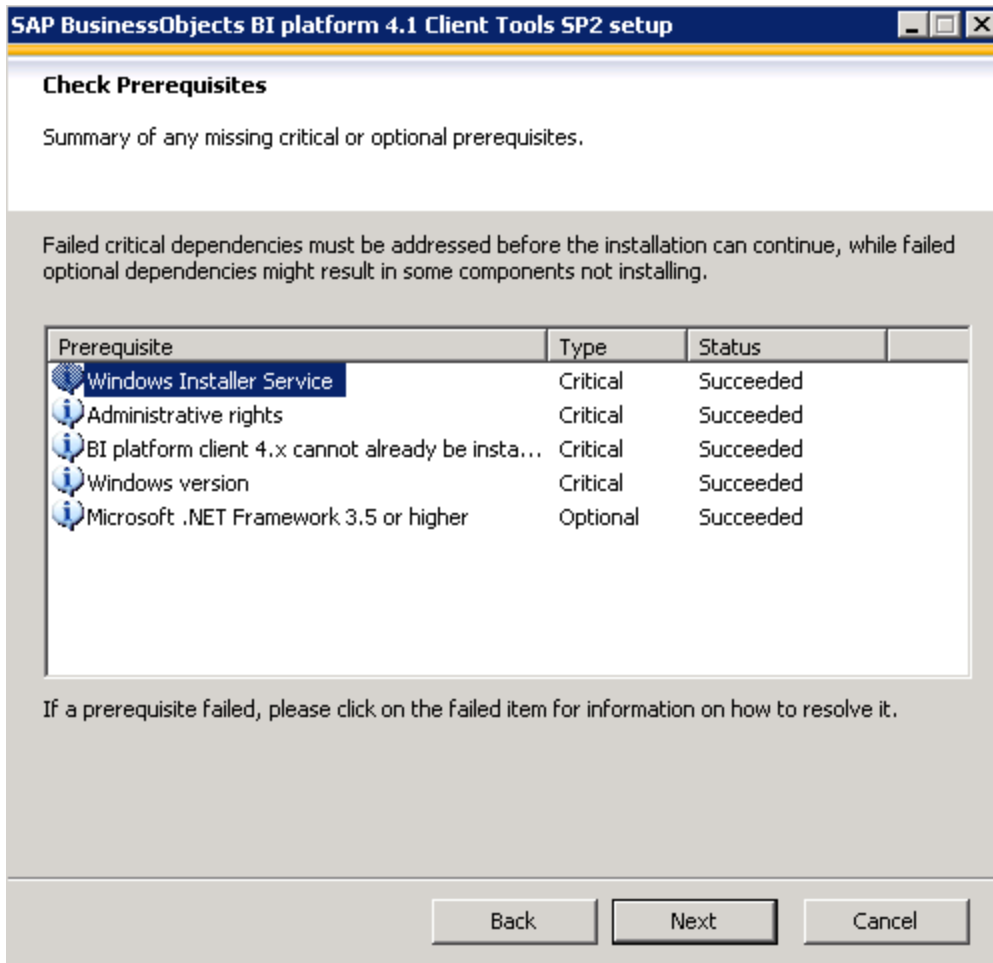
3. Go to the following folder:

   <BOE-Client_folder>\bip_4.1sp3_client\SBOP_BI_PLAT_4.1_SP3_CLNT_WIN_32_64B_\DATA_UNITS\BusinessObjectsClient
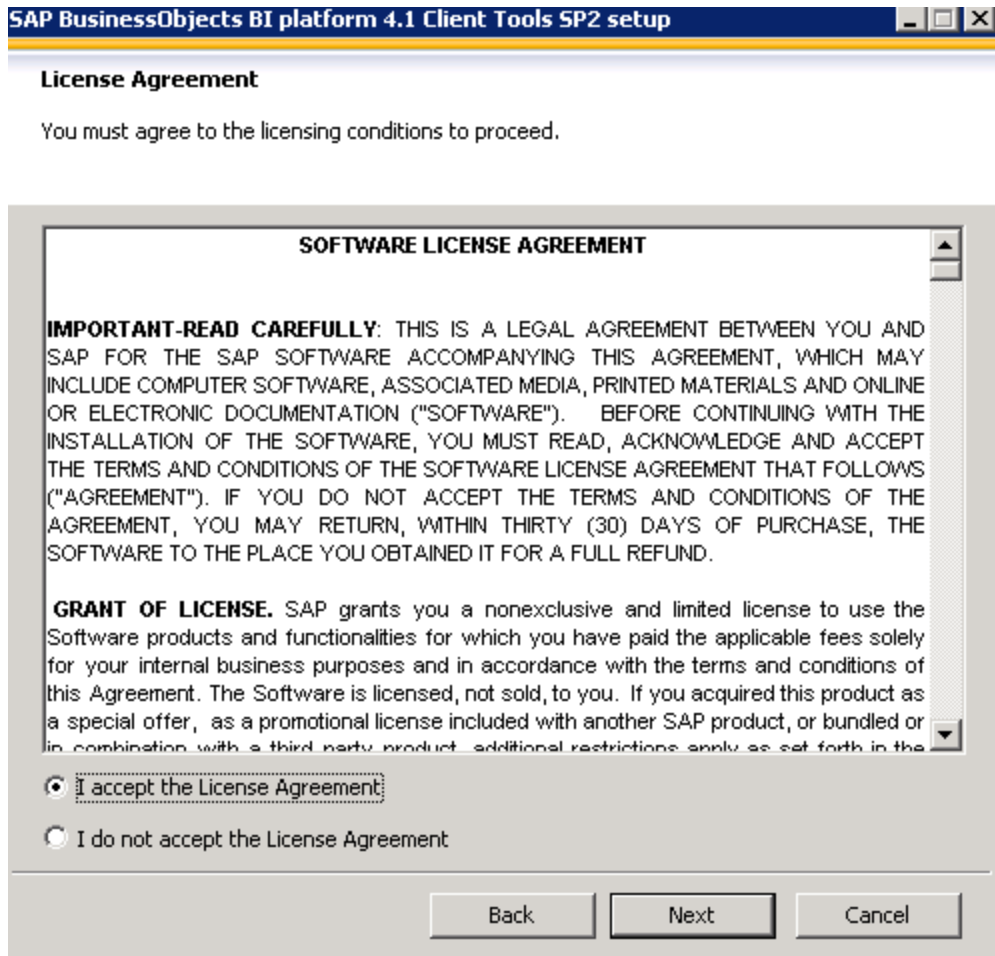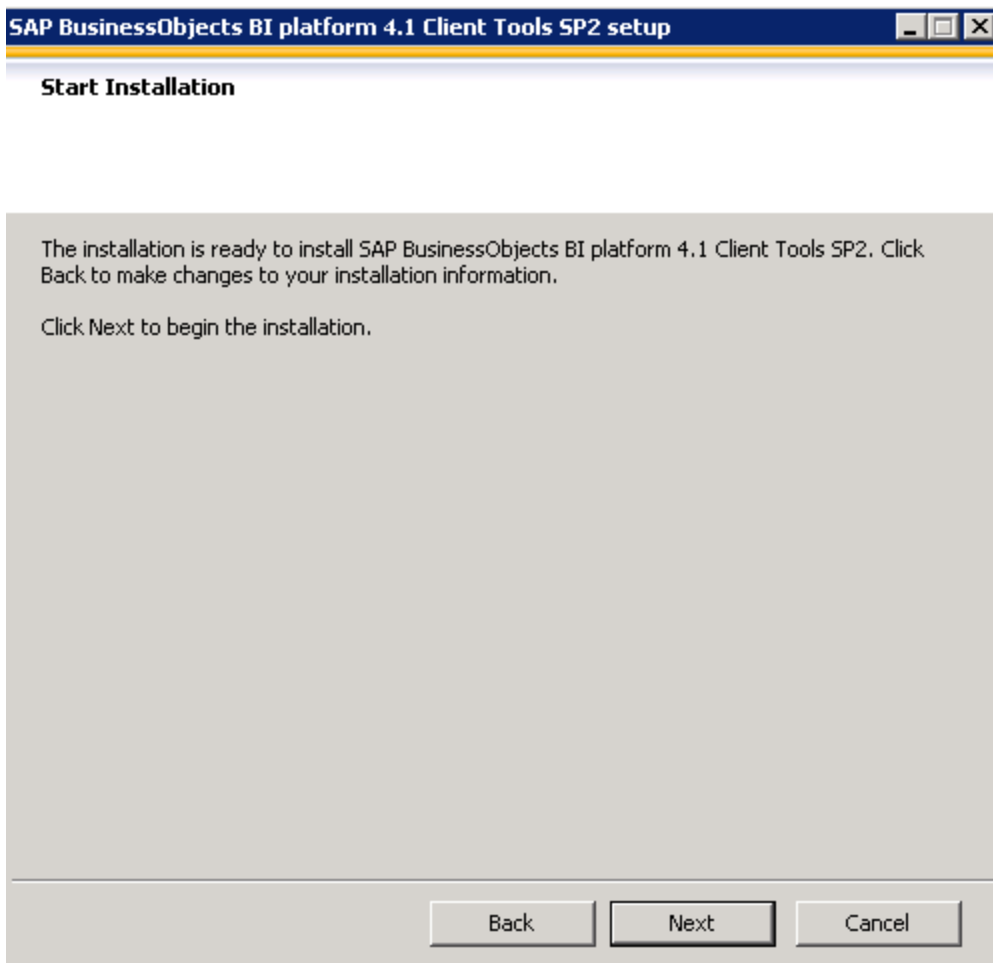
4. Click **setup.exe**.

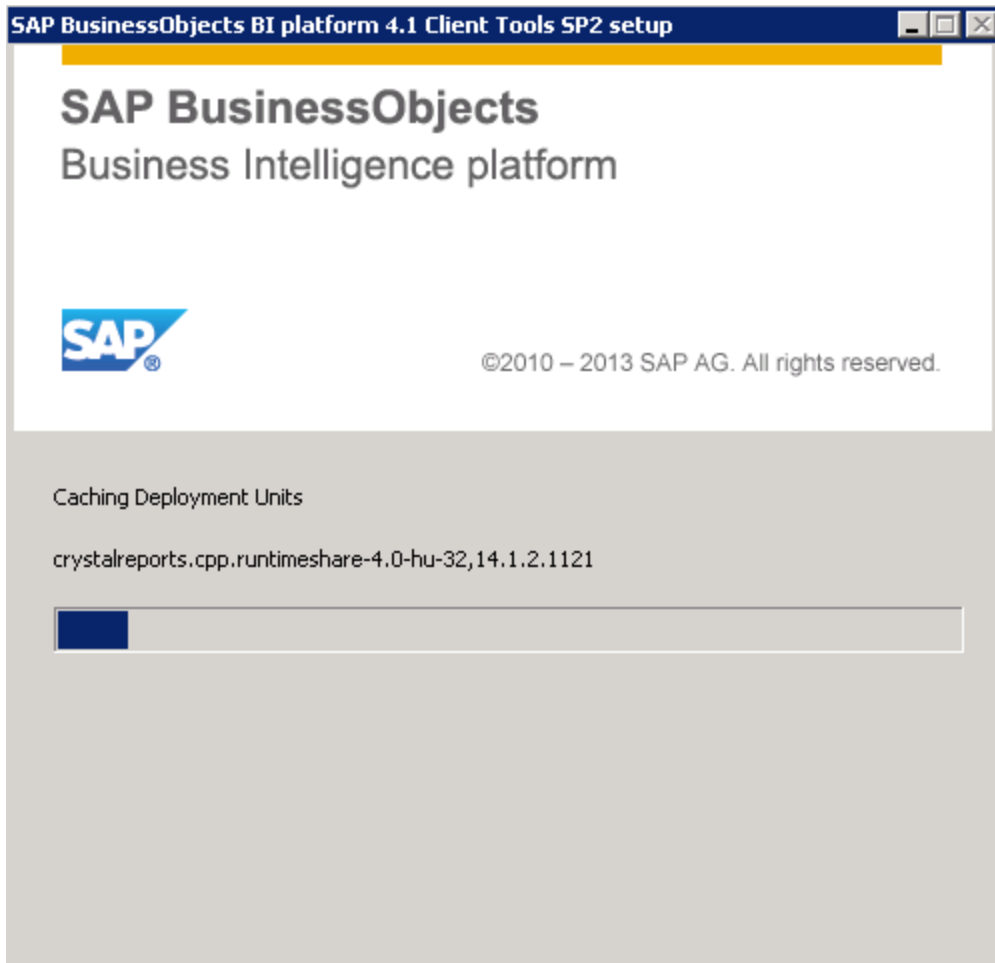   For example:

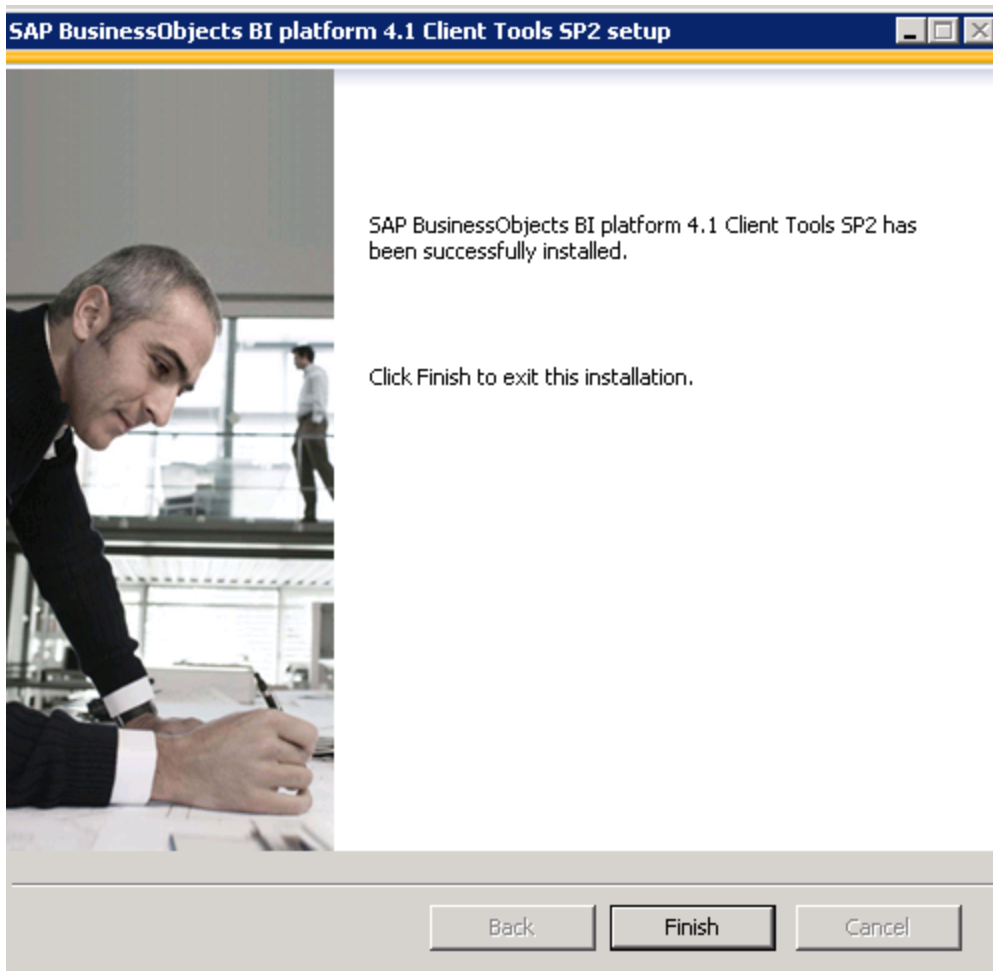5. Click **Next**.

6. Accept the license agreement.

7. Click **Next** to start the installation.

8. Wait for the installation to complete.

The installation completes. Click **Finish**.

BOE Client is now installed.

Optional – Install the Vertica Driver in the BOE Server and the BOE Client Server

If you work with BOE, you must install the Vertica Driver in the BOE Server (Windows/Linux) and in the BOE Client Server.

Install the Vertica Driver in the BOE Server

1. Get the Vertica JDBC driver from ITBA in the following directory:

   $HPBA_HOME/glassfish/glassfish/domains/BTOA/lib/vertica-jdbc-7.1.1-0.jar

2. Copy the driver to the following location in the BOE server:

   BOE on a Windows Server:
   [BO_INSTALLATION_DIRECTORY]\SAP BusinessObjects Enterprise XI 4.0\dataAccess\connectionServer\jdbc

   BOE on a Linux Server:
   [BO_INSTALLATION_DIRECTORY]/sap_bobj/enterprise_xi40/dataAccess/connectionServer/jdbc/

3. Open the following file:

   BOE on a Window Server:
   [BO_INSTALLATION_DIRECTORY]\SAP BusinessObjects Enterprise XI 4.0\dataAccess\connectionServer\jdbc\vertica.sbo

   BOE on a Linux Server:
   [BO_INSTALLATION_DIRECTORY]/sap_bobj/enterprise_xi40/dataAccess/connectionServer/jdbc/ vertica.sbo

4. Update the driver locations in vertica.sbo as below:

   Example on a Windows Server:

```
<Defaults>
    <Class JARFile="dbd_vertica">com.sap.connectivity.cs.java.drivers.jdbc.vertica.VerticaDriver</Class>
    <JDBCDriver>
        <ClassPath>
            <Path>C:\\Program Files (x86)\\SAP BusinessObjects\\SAP BusinessObjects Enterprise XI 4.0\\dataAccess\\connectionServer\\jdbc\\vertica-jdbc-7.1.1-0.jar</Path>
        </ClassPath>
        <Parameter Name="JDBC Wrapper">com.sap.connectivity.cs.java.drivers.jdbc.wrapper.JDBCWrapper</Parameter>
    </JDBCDriver>
```

```
<DataBases>
    <DataBase Active="Yes" Name="HP Vertica 6.1">
        <JDBCDriver>
            <ClassPath>
                <Path>C:\\Program Files (x86)\\SAP BusinessObjects\\SAP BusinessObjects Enterprise XI 4.0\\dataAccess\\connectionServer\\jdbc\\vertica-jdbc-7.1.1-0.jar</Path>
            </ClassPath>
            <Parameter Name="JDBC Class">com.vertica.jdbc.Driver</Parameter>
            <Parameter Name="URL Format">jdbc:vertica://$DATASOURCE$/$DATABASE$</Parameter>
        </JDBCDriver>
```

Example on a Linux Server:

```
<?xml version="1.0" encoding="UTF-8"?><DriverConfiguration xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocati
    <Defaults>
        <Class JARFile="dbd_vertica">com.sap.connectivity.cs.java.drivers.jdbc.vertica.VerticaDriver</Class>
        <JDBCDriver>
            <ClassPath>
                <Path>/home/boe/BOE/sap_bobj/enterprise_xi40/dataAccess/connectionServer/jdbc/vertica-jdbc-7.1.1-0.jar</Path>
            </ClassPath>
            <Parameter Name="JDBC Wrapper">com.sap.connectivity.cs.java.drivers.jdbc.wrapper.JDBCWrapper</Parameter>
        </JDBCDriver>

            <ClassPath>
                <Path>/home/boe/BOE/sap_bobj/enterprise_xi40/dataAccess/connectionServer/jdbc/vertica-jdbc-7.1.1-0.jar</Path>
            </ClassPath>
            <Parameter Name="JDBC Class">com.vertica.jdbc.Driver</Parameter>
            <Parameter Name="URL Format">jdbc:vertica://$DATASOURCE$/$DATABASE$</Parameter>
        </JDBCDriver>
        <Parameter Name="Driver Capabilities">Query</Parameter>
        <Parameter Name="Extensions">vertica,jdbc</Parameter>
    </DataBase>
```
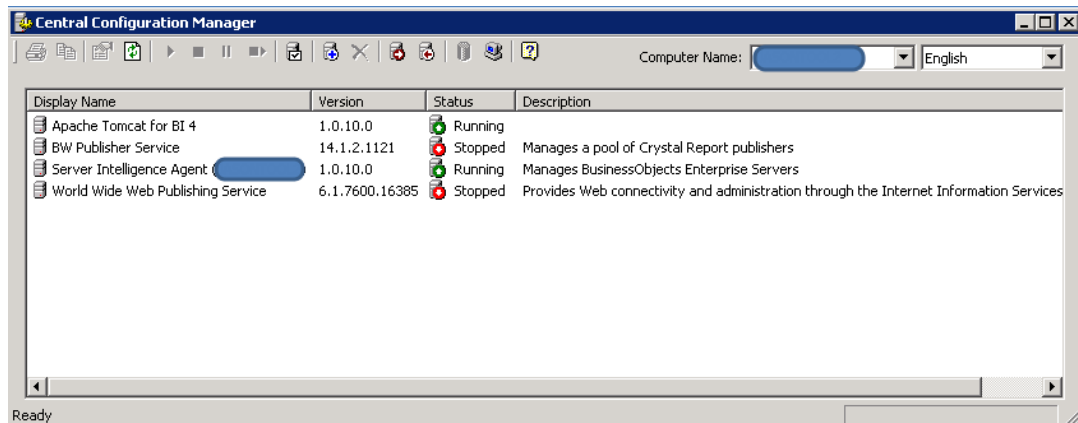
5. Restart Tomcat and SIA in the Central Configuration Manager:

   ○ BOE on a Windows server:

   ○ For Linux Server, Execute the scripts listed below:

   cd [BO_INSTALLATION_DIRECTORY]/sap_bobj

   ./stopservers

   ./tomcatshutdown.sh

   ./startservers

   ./tomcatstartup.sh

6. The procedure is complete.

Install the Vertica Driver in the BOE Client Server

1. Get the Vertica JDBC driver from ITBA server in the following directory:

   $HPBA_HOME/glassfish/glassfish/domains/BTOA/lib/vertica-jdbc-7.1.1-0.jar

2. Copy the driver to the following location in the BOE client server:

   [BO_INSTALLATION_DIRECTORY]\SAP BusinessObjects Enterprise XI 4.0\dataAccess\connectionServer\jdbc

3. Open the following file:

   [BO_INSTALLATION_DIRECTORY]\SAP BusinessObjects Enterprise XI 4.0\dataAccess\connectionServer\jdbc\vertica.sbo

4. Update the driver locations in vertica.sbo as below:

   Example on a Windows Server:

```
<Defaults>
    <Class JARFile="dbd_vertica">com.sap.connectivity.cs.java.drivers.jdbc.vertica.VerticaDriver</Class>
    <JDBCDriver>
        <ClassPath>
            <Path>C:\\Program Files (x86)\\SAP BusinessObjects\\SAP BusinessObjects Enterprise XI 4.0\\dataAccess\\connectionServer\\jdbc\\vertica-jdbc-7.1.1-0.jar</Path>
        </ClassPath>
        <Parameter Name="JDBC Wrapper">com.sap.connectivity.cs.java.drivers.jdbc.wrapper.JDBCWrapper</Parameter>
    </JDBCDriver>


<DataBases>
    <DataBase Active="Yes" Name="HP Vertica 6.1">
        <JDBCDriver>
            <ClassPath>
                <Path>C:\\Program Files (x86)\\SAP BusinessObjects\\SAP BusinessObjects Enterprise XI 4.0\\dataAccess\\connectionServer\\jdbc\\vertica-jdbc-7.1.1-0.jar</Path>
            </ClassPath>
            <Parameter Name="JDBC Class">com.vertica.jdbc.Driver</Parameter>
            <Parameter Name="URL Format">jdbc:vertica://$DATASOURCE$/$DATABASE$</Parameter>
        </JDBCDriver>
```

Install the DBeaver Tool

To manage the Vertica database, download and then install the DBeaver client tool from the following location: http://dbeaver.jkiss.org.

Silent Installation

You can install ITBA using a silent installation (see below), a console installation, or a GUI installation.

Install ITBA using a silent installation

Important: Save the values of the parameters in this page. The Glassfish Administrator password is also used to log on to the ITBA Maintenance tool. The Application authentication password is also used as your ITBA logon credentials.

To install ITBA using the silent installation, proceed as follows:

1. Create a user or use an existing user. Make sure you are not using the root user to perform the installation.

2. Log on to the Linux server where you want to install ITBA.

3. Download the **ITBA-10.10.XXX.tar.gz** file from the Support Site (https://softwaresupport.hpe.com/group/softwaresupport/home?lang=en-US) and save it in your Linux target directory. Make sure the installation target directory has adequate disk space. For details, see *Support Matrix*.

   Make sure that the path to the target directory does not include blank spaces, brackets (or), or single quotes (').

4. Run the **tar -zxvf ITBA-10.10.XXX.tar.gz** command to unzip the **ITBA-10.10.XXX.tar.gz** file.

5. Go to the Linux user path directory where you unzipped the installation file, and run **./install.sh -a** or **sh install.sh -a** to generate the answer file.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<config>
    <section name="PreCheck" description="This section is responsible for
filling in the pre-condition values">
        <field id="install.PRODUCT_AGREEMENT" description="Use 'Yes' to accept
the product announcement. Otherwise, use 'No'. 'No' aborts the installation">
            <name>ProductAgreement</name>
            <value>Yes</value>
        </field>
        <field id="install.LICENSE_IS_EVALUATION" description="The product
license type. Use 'true' when you don't have a valid license and you want to
get an evaluation license. Use 'false' to load your Power Named User License or
to use a temporary license">
```

```
                <name>productTypeFlag</name>
                <value>true</value>
        </field>
        <field id="install.LICENSE_POWERUSER_FILE_PATH" description="The path
to the license file of the power user for the installation. It only take effect
only if LICENSE_IS_EVALUATION is 'false'">
                <name>LicenseFilePathOfPowerUser</name>
                <value></value>
        </field>
        <field id="install.LICENSE_VIEWER_FILE_PATH" description="The path to
the viewer license file. Note that your Power User license must be valid. It
only take effect only if LICENSE_IS_EVALUATION is 'false'">
                <name>LicenseFilePathOfViewer</name>
                <value></value>
        </field>
    </section>
    <section name="DWH" description="This section is responsible for filling in
the property values for DWH">
        <field id="bo.cms.import.xs.license" description="To import the XS
license to SAP BOE use 'true'. Otherwise, use 'false'">
                <name>importBALicenseToSAPBOE</name>
                <value>false</value>
        </field>
        <field id="bo.engine.is.installed" description="If BOE is installed,
input 'true'. Otherwise, input 'false'. Note: only BOE version BOE4.0SP6 or
later is currently supported">
                <name>boe install status</name>
                <value>false</value>
        </field>
        <field id="bo.engine.logon.auth.type" description="Indicates the BOE
logon auth type:
[secEnterprise,secLDAP,secWinAD,secSAPR3,secPSE1,secOraApps,secpsenterprise,sec
Siebel7]">
                <name>boe logon auth type</name>
                <value>secEnterprise</value>
        </field>
        <field id="bo.cms.host.name" description="The name of the BOE server on
which the that you want to connect with is installed">
                <name>boe HostName</name>
                <value></value>
        </field>
        <field id="bo.cms.host.port" description="The port number of the CMS
listener">
                <name>boe port</name>
                <value></value>
        </field>
```

```
        <field id="bo.cms.sso.shared.secret" description="The path to the file
that contains BOE shared secret">
            <name>boe shared secret</name>
            <value></value>
        </field>
        <field id="bo.cms.admin.userName" description="The user name for the
SAP BusinessObjects Enterprise administrator">
            <name>boe username</name>
            <value></value>
        </field>
        <field id="bo.cms.admin.user.pw" description="The password of the BOE
admin user">
            <name>boe password</name>
            <value></value>
        </field>
        <field id="bo.cms.opendoc.port" description="The BOE Tomcat port used
to display the BOE reports in Scorecard (usually 8080)">
            <name>Tomcat port</name>
            <value></value>
        </field>
        <field id="install.dwh.HOST_NAME" description="The DWH server host
name">
            <name>HostName</name>
            <value>HostName</value>
        </field>
        <field id="install.dwh.PORT" description="The DWH server port number">
            <name>Port</name>
            <value>5433</value>
        </field>
        <field id="install.dwh.DATABASE_NAME" description="The name of the
Vertica database instance that is used as the data warehouse">
            <name>VerticalDatabaseName</name>
            <value>xsvertica</value>
        </field>
        <field id="install.dwh.LOGIN_NAME" description="The DWH logon name
which should have schema creation permissions">
            <name>LoginName</name>
            <value>vertica</value>
        </field>
        <field id="install.dwh.PASSWORD" description="The DWH password name">
            <name>Password</name>
            <value></value>
        </field>
        <field id="install.dwh.SOURCE_STAGING_SCHEMA_NAME" description="The
source staging schema name of the DWH">
            <name>SourceStagingSchemaName</name>
```

```
                <value>dws</value>
        </field>
        <field id="install.dwh.TARGET_STAGING_SCHEMA_NAME" description="The
target staging schema name of the DWH">
                <name>TargetStagingSchemaName</name>
                <value>dwst</value>
        </field>
        <field id="install.dwh.TARGET_SCHEMA_NAME" description="The target
schema name of the DWH">
                <name>TargetSchemaName</name>
                <value>dwt</value>
        </field>
        <field id="install.dwh.RESULT_SCHEMA_NAME" description="The result
schema name of the historical result">
                <name>ResultSchemaName</name>
                <value>dbo</value>
        </field>
        <field id="install.dwh.EXTENSION_SCHEMA_NAME" description="The
extension schema name of the imported external xls,xlxs,and csv tables">
                <name>ExtensionSchemaName</name>
                <value>ext</value>
        </field>
        <field id="install.dwh.APPLICATION_SCHEMA_NAME" description="The
application schema name of the DWH">
                <name>ApplicationSchemaName</name>
                <value>BA</value>
        </field>
        <field id="install.dwh.TIMEZONE" description="The timezone value. Use
the international standard TimeZone name">
                <name>AppTimeZone</name>
                <value>Asia/Shanghai</value>
        </field>
        <field id="install.dwh.CURRENCY" description="The default currency for
DWH. Use the standard of ISO 4217">
                <name>currency</name>
                <value>USD</value>
        </field>
        <field id="install.dwh.period_dim.FIRST_YEAR" description="The first
year for the initial period dimension loading">
                <name>FirstYear</name>
                <value>2005</value>
        </field>
        <field id="install.dwh.period_dim.LAST_YEAR" description="The last year
for the initial period dimension loading">
                <name>LastYear</name>
                <value>2025</value>
```

```
        </field>
        <field id="install.dwh.period_dim.FIRST_DAY_OF_WEEK" description="The
first day of week.[Sunday,Monday,Tuesday,Wednesday,Thursday,Friday,Saturday]">
            <name>FirstDayOfWeek</name>
            <value>Monday</value>
        </field>
        <field id="install.dwh.period_dim.FISCAL_YEAR_START_MONTH"
description="The fiscal month offset for the initial period dimension loading.
Use the 1-12 format">
            <name>FiscalYearStartMonth</name>
            <value>1</value>
        </field>
    </section>
    <section name="Application" description="This section is responsible for
filling in the property values for the application">
        <field id="install.app.webserver.HTTP_PORT" description="The http port
number for the web server">
            <name>HttpPort</name>
            <value>2024</value>
        </field>
        <field id="install.app.webserver.HTTPS_PORT" description="The https
port number for the web server">
            <name>HttpsPort</name>
            <value>8443</value>
        </field>
        <field id="install.app.xs.USER_NAME" description="The user name for the
administrator. Use this user to log on to IT Business Analytics for the first
time">
            <name>UserName</name>
            <value>administrator</value>
        </field>
        <field id="install.app.xs.PASSWORD" description="This password that is
used only to log on to BA">
            <name>Password</name>
            <value>Admin111</value>
        </field>
        <field id="install.app.glassfish.PASSWORD" description="The password to
log on to the Glassfish admin console">
            <name>Password</name>
            <value>Admin111</value>
        </field>
        <field id="USAGE_TRACKING_SETTINGS" description="Use Usage Hub to track
license usage or not">
            <name>UsageTrackingSettings</name>
            <value>true</value>
        </field>
```

```
        <field id="USAGE_HUB_URL" description="Usage Hub Host/IP">
            <name>Usage_Hub_Host</name>
            <value>16.155.197.49</value>
        </field>
    </section>
</config>
```

Enter the relevant values in the answer file.

> **Note: First day of the week**
>
> In Data Warehouse, the first day of the week is set during the installation, and the Period tool is using it as an input to build PERIOD_DIM days, weeks, months, and more, as well as relevant hierarchies.
>
> After the administrator has installed Data Warehouse, the administrator selects the designated first-day-of-week. If a data source has a different first-day-of-week definition, the administrator should be aware that for weekly periodicity, the linkage to the period key uses the Data Warehouse week definition and not the data source week definition.

For details about currency, see "Currency" on page 113.

For details about the time zone, see "Time Zones" on page 116.

6. Run **./install.sh -s** or **sh install.sh -s**.

> **Tip:** Make sure to install the Supervisor. For details, see "Install the Supervisor After the Installation" on page 96

In Case of Failure of Silent Installation or Other Errors

If the silent installation fails or some unexpected error happens, such as reboot, power off and others, make sure to delete the **<ITBA Target Directory>/ba-answer.xml** file.

Console Installation

Prerequisites

1. Create a user or use an existing user.

   > **Note:** Make sure you are not using the root user to perform the installation.

2. Log on to the Linux server where you want to install ITBA.

3. Download the **ITBA-10.10.XXX.tar.gz** file from the Support Site
   (https://softwaresupport.hpe.com/group/softwaresupport/home?lang=en-US) and save it to your
   Linux target directory.

   > **Note:** Make sure the installation target directory has adequate disk space. For details, see
   > *Support Matrix*.

   > **Note:** Make sure that the path to the target directory does not include blank spaces, brackets
   > (or), or single quotes (').

4. Run the **tar -zxvf ITBA-10.10.XXX.tar.gz** command to unzip the **ITBA-10.10.XXX.tar.gz** file.

> **Note:** Panels that show **<H>elp** can provide online help for the fields displayed in the panel. Enter
> **h** to display the information.

Introduction

> **Tip:** After you enter an answer or select a number as stated below in the console installation sections, you must click **Enter** to execute the answer or the option.

1. When the unzipping is complete, go to the **<ITBA Target directory>** and run the **./install.sh -c** or **sh install.sh -c** command to start the console installation. The following panel is displayed.

```
Introduction
============

~~Introduction of the install ITBA~~
HPE IT Business Analytics (BA) automatically gathers data from your IT systems
 to build KPIs and Metrics, and provides organizations with broad and deep insights into
 everything IT does.
 Welcome to the installation of HPE IT Business Analytics 10.10.

Enter the option number or one of the following directives
#########   <N>ext
------------------------------------------------------------
>>>█
```

2. Enter **n**.

License Agreement

1. The License Agreement panel is displayed.

```
License Agreement
=================

1. Input [h] to read the end user license agreement and decide to agree with the license or not.    [_]

Enter the option number or one of the following directives
<P>revious   <N>ext      <H>elp
---------------------------------------------------------
>>>█
```

2. Enter **h** to read the user license agreement.

```
License Agreement
=================

1. Input [h] to read the end user license agreement and decide to agree with the license or not.    [_]

Enter the option number or one of the following directives
<P>revious   <N>ext      <H>elp
---------------------------------------------------------

HPE End User License Agreement - Enterprise Version

1.  Applicability. This end user license agreement (the "Agreement") governs the
    use of accompanying software, unless it is subject to a separate agreement
    between you and Hewlett Packard Enterprise Company and its susidiaries
    ("HPE"). By downloading, copying, or using the software you agree to this
    Agreement. HPE provides translations of this Agreement in certain languages
    other than English, which may be found at:
    http://www.hpe.com/software/SWLicensing.

2.  Terms. This Agreement includes supporting material accompanying the
    software or referenced by HPE, which may be software license information,
    additional license authorizations, software specifications, published
    warranties, supplier terms, open source software licenses and similar
    content ("Supporting Material"). Additional license authorizations are at:
    http://www.hpe.com/software/SWLicensing.

3.  Authorization. If you agree to this Agreement on behalf of another person or
    entity, you warrant you have authority to do so.

4.  Consumer Rights. If you obtained software as a consumer, nothing in this
    agreement affects your statutory rights.

5.  Electronic Delivery. HPE may elect to deliver software and related software
    product or license information by electronic transmission or download.

6.  License Grant. If you abide by this Agreement, HPE grants you a non-exclusive
    non-transferable license to use one copy of the version or release of the
    accompanying software for your internal purposes only, and is subject to any
    specific software licensing information that is in the software product or its
    Supporting Material.
```

3. Then:

   ○ Enter **1** and answer **y** to accept the agreement. Then enter **n** to go to the next panel: "Enter the
   Vertica Database Server Details" on page 54.

- ○ Enter **1** and answer **n** to refuse the agreement. You are not allowed to continue the ITBA installation. Click **Ctrl+C** to exit the installation process.

Enter the Vertica Database Server Details

1. The Enter DB Details panel is displayed, where you can enter the Vertica Database server details.

```
Enter DB Details
================

1. Host Name:        [1          ]
2. Port:             [5433]
3. Database Name:    [xsvertica]
4. Login Name:       [vertica]
5. Password:         [******]

Enter the option number or one of the following directives
<P>revious    <N>ext         <H>elp
-------------------------------------------------------------
>>>n
```

2. Enter the relevant field number, answer the request with the relevant value.

   Proceed through all the fields, and then enter **n**.

Host Name	The IP address of the server hosting the Vertica database.
	To configure Vertica load balancing, see the section "Connection Load Balancing" in the Vertica Administrator's guide at https://my.vertica.com/docs/7.1.x/PDF/HP_Vertica_7.1.x_ AdministratorsGuide.pdf.
Port	The port of the server listener. Change this value to connect to a non-default database instance on the server.
	For more information about ports, see the Support Matrix document available from the Support Site (**https://softwaresupport.hp.com/group/softwaresupport/home**) .
Database Name	The name of the Vertica database instance that is used as the data warehouse.
	Make a note of the Vertica database name as you may need it when installing other components.
	For details, see Database Naming Conventions.
Login Name	The name of the user used to log on to the Vertica database.
Password	The password of user used to log on to the Vertica database.

Enter the Database Scheme Names

1. The Enter DB Details panel is displayed, where you can enter the Vertica Database server details.

   By default, the fields already include the default names. You can enter your own values or keep the defaults.

```
Enter the Vertica Database Schema names:
=========================================

1. Source Staging Schema name:      [dws]
2. Target Staging Schema name:      [dwst]
3. Target Schema name:              [dwt]
4. Application Schema name:         [BA]
5. Result Schema name:              [dbo]
6. Extension Schema name:           [ext]

Enter the option number or one of the following directives
<P>revious    <N>ext          <H>elp
-----------------------------------------------------------------
>>>▮
```

2. Enter the relevant field number and answer the request with the relevant value.

   Proceed through all the fields, and then enter **n**.

Source Staging Scheme name	The name of the source staging scheme. Default: **dws**
Target Staging Scheme name	The name of the target staging scheme. Default: **dwst**
Target Scheme name	The name of the target scheme. Default: **dwt**
Application Scheme name	The name of the application scheme. Default: **BA**
Result Scheme name	The name of the result scheme. Default: **dbo**
Extension Scheme name	The name of the extension scheme. Default: **ext**

Load Your License

1. The Choose License panel is displayed, where you can load a Power Named User License, a temporary license, or an evaluation license.

```
Choose License
==============

1. Choose your license type:    [true]

Enter the option number or one of the following directives
<P>revious    <N>ext        <H>elp
-----------------------------------------------------------
>>>n█
```

2. Then:

   ○ To get an evaluation license, select **1**, enter **true**, and then enter **n**. You get to the

   An evaluation license is valid for 60 days. The remaining valid period of the license is displayed.

   ○ To get a Power Named User License or a temporary license, select **1**, enter **false**, and enter **n**.

   The Load a Power Named User License or temporary license panel opens.

```
Load a Power Named User License or temporary license
====================================================

1. Load a Power Named User License or temporary license:    [/home/admin/install/getfile/permanent.txt]

Enter the option number or one of the following directives
<P>revious    <N>ext        <H>elp
-----------------------------------------------------------
>>>n█
```

   i. Then, enter **1**, enter the Power Named User License or temporary license absolute path, and then enter **n**.

   A Power Named User License has no expiry date and is loaded once during the installation.

   A Temporary license has an expiry date. On expiration, a new license must be loaded.

   ii. Optionally, if you want to have a Viewer license:

```
Get a viewer license:
=====================

1. Load a Viewer License:    []

Enter the option number or one of the following directives
<P>revious    <N>ext        <H>elp
-----------------------------------------------------------
>>>n
```

- To input the license path, enter **1**, enter the Viewer license absolute path, and then enter **n**.

- If you do not want to use a Viewer License, enter **1**, click **Enter**, and then enter **n**.

Enter the SAP BOE Server Settings

1. The Integrate BOE panel is displayed.

```
Integrate BOE
=============

1. Choose to integrate BOE or not:     [true]

Enter the option number or one of the following directives
<P>revious    <N>ext         <H>elp
----------------------------------------------------------
>>>n
```

   ○ Select **1**, enter **false**, and enter **n** if you do not need to connect to BOE at this time. You get to "Enter the Application\DWH Configuration Details " on page 61.

   ○ Select **1**, enter **true**, and **n** if you want to integrate with an existing BOE server.

   Enter the relevant field number and answer the request with the relevant value.

   Proceed through all the fields, and then enter **n**.

```
BOE settings
=============

1. BOE Server name:               [_____]
2. CMS Port:                      [_____]
3. Administrator user name:       [_____]
4. Administrator password:        [_____]
5. SSO Shared Secret File path:   [_____]
6. Authentication scheme:         [secEnterprise]
7. Tomcat Port:                   [_____]
8. import License To Boe          [_____]

Enter the option number or one of the following directives
<P>revious    <N>ext         <H>elp
----------------------------------------------------------
>>>
```

Connect to an existing SAP BusinessObjects Enterprise server	Select to connect to an existing SAP BusinessObjects Enterprise server. **Note:** Only specific SAP BOE versions are supported. For details, see the Support Matrix. The Support Matrix is available from the Support Site (

	https://softwaresupport.hp.com/group/softwaresupport/home).
BOE Server name	The name of the server on which is located the SAP BusinessObjects Enterprise that you want to connect with Business Analytics is installed.
CMS Port	The port number of the CMS listener (usually 6400). For more information about ports, see the Support Matrix document available from the Support Site (**https://softwaresupport.hp.com/group/softwaresupport/home**).
Administrator User Name	The user name for the SAP BusinessObjects Enterprise administrator. Use this user to log on to SAP BusinessObjects Enterprise.
Administration Password	The SAP BusinessObjects Enterprise Administrator password. This password is used only to log on to SAP BusinessObjects Enterprise. This password is used only to log on to SAP Business Object Enterprise.
SSO Shared Secret	The path to the file that includes the SSO shared secret password. The shared secret password is used to authenticate communications with the SAP BusinessObjects BI platform or later server. If trusted authentication is configured, the shared secret entered is validated against the SAP BusinessObjects server. If trusted authentication is not configured, the entered shared secret is configured on the SAP BusinessObjects BI platform server.
Authentication scheme	**secEnterprise.** The default authentication method for the SAP BusinessObjects BI platform. It is automatically enabled when you first install the system, and it cannot be disabled. When you add and manage users and groups, the platform maintains the user and group information within its database. If you prefer to create distinct accounts and groups for use with the BI platform, or if you have not already set up a hierarchy of users and groups in a third-party directory server, you have to do it manually.
Tomcat port	The BOE Tomcat port used to display the BOE reports in Scorecard (usually 8080). For more information about ports, see the Support Matrix document. The Support Matrix is available from the Support Site (**https://softwaresupport.hp.com/group/softwaresupport/home**).
Import BA license to	Select to import the license to SAP BOE used by ITBA.

SAP BOE

Enter the Application\DWH Configuration Details

1. The Application\DWH Configuration Details panel is displayed.

```
Application\DWH Configuration Details
====================================

1. Period Dimension [First Year]:                      [2005]
2. Period Dimension [Last Year]:                       [2025]
3. Period Dimension [First fiscal month of the year:]: [1]
4. Period Dimension [First day of week]:               [MONDAY]
5. Data related configuration [Time Zone]:             [Asia/Shanghai]
6. Web Server configuration [HTTP Port]:               [20084]
7. Web Server configuration [HTTPS Port]:              [8443]
8. Currency [Default Currency]:                        [USD]

Enter the option number or one of the following directives
<P>revious    <N>ext        <H>elp
-----------------------------------------------------------
>>>n
```

2. Enter the relevant field number and answer the request with the relevant value.

   Proceed through all the fields, and then enter **n**.

Period Dimension	**First Year.** The first year in the period dimension is the first year used when automatically populating Data Warehouse tables with yearly, quarterly, monthly, weekly and daily records. Only 1900-2099 is supported.
	Change the First Year value by clicking the up or down arrows.
	Last Year. The last year in the period dimension is the last year used when automatically populating Data Warehouse tables with yearly, quarterly, monthly, weekly and daily records. Only 1900-2099 is supported.
	Change the Last Year value by clicking the up or down arrows.
	Note: The Last Year must not be earlier than the current year.
	For more information, see Settings - Data Warehousein the *Administrator Guide*.
	First fiscal month of the year. The first fiscal month of the year in your organization.
	First day of the week. The day of the week you want to set as the first day. Select: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday. The field is not case-sensitive.

	Note: First day of the week In Data Warehouse, the first day of the week is set during the installation, and the Period tool is using it as an input to build PERIOD_DIM days, weeks, months, and more, as well as relevant hierarchies. After the administrator has installed Data Warehouse, the administrator selects the designated first-day-of-week. If a data source has a different first-day-of-week definition, the administrator should be aware that for weekly periodicity, the linkage to the period key uses the Data Warehouse week definition and not the data source week definition.
Data related configuration:	**Time Zone.** The Data Warehouse time zone used when consolidating the data extracted from the data sources. For details about the time zones, see "Time Zones" on page 116.
Web Server configuration:	○ The port of the HTTP listener. Select a Linux port number between 1024 and 65534. **Note:** If you want to use the default HTTP port in the Business Analytics installation, you must ensure that the port is not in use by another process. ○ The port of the HTTPS listener. Select a Linux port number between 1024 and 65534 (usually 8443) For more information about ports, see the Support Matrix document available from the Support Site (**https://softwaresupport.hp.com/group/softwaresupport/home**) or from the Installation DVD).
Currency:	**Default Currency.** The currency to use as default. Tip: If you are using the Project and Portfolio Management or the Asset Manager applications as data sources, make sure that you select the currency corresponding to the currency defined in these applications. The supported currencies follow ISO 4217 (http://www.iso.org/iso/home/standards/currency_codes.htm). Default: USD - US Dollar For details, see "Currency" on page 113.

Enter the Application\DWH Configuration Authentication Details Page

1. The Application\DWH Configuration Authentication Details panel is displayed.

```
Application\DWH Configuration Authentication
========================================

1. Set Glassfish Administrator Password:        [******]
2. Confirm Glassfish Administrator Password:    [******]
3. Set ITBA Logon User name:                    [administrator]
4. Set ITBA Logon Password:                     [******]
5. Confirm ITBA Logon Password:                 [******]

Enter the option number or one of the following directives
<P>revious    <N>ext         <H>elp
-------------------------------------------------------------
>>>n
```

2. Enter the relevant field number and answer the request with the relevant value.

   Proceed through all the fields, and then enter **n**.

Set Glassfish Administrator Password:	The user password for glassfish. **Note:** ○ The password must be at least 8 characters in length, and must contain a combination of three of the following categories: upper case English characters (A-Z), lower case English characters (a-z), numbers (0-9), and non-alphanumeric characters (for example: ! $ # % and more). ○ The password is case-sensitive. ○ You can change the glassfish password using the Maintenance Tool. **Important:** Save the values of the parameters in this page. The Glassfish Administrator password is also used to log on to the ITBA Maintenance tool. The Application authentication password is also used as your ITBA logon credentials. For details, see Maintenance Tool in the *Administrator Guide*. Re-enter the password for the administrator.
Set ITBA Logon User Name:	The user name for the BA administrator. Use this user to log on to Business Analytics. The password for the BA administrator.

Set ITBA Logon Password:	**Note:**
	○ The password must be at least 8 characters in length, and must contain a combination of three of the following categories: upper case English characters (A-Z), lower case English characters (a-z), numbers (0-9), and non-alphanumeric characters (for example: ! $ # % and more).
	○ The password is case-sensitive.
	Re-enter the administrator password.

Usage Hub Page

1. The Usage Hub choose panel is displayed.

```
Usage Hub choose
================

1. Choose to use usage hub to track license usage or not:    [true]

Enter the option number or one of the following directives
<P>revious    <N>ext        <H>elp
-------------------------------------------------------------
>>>n█
```

2. Then:

   ○ Enter **1**, enter **false**, and **n** if you do not want to track the license usage.

   ○ Enter **1**, enter **true**, and **n** if you want to track the license usage.

```
Usage Hub Settings
==================

1. Usage hub host:    [16.192.87.91]

Enter the option number or one of the following directives
<P>revious    <N>ext        <H>elp
-------------------------------------------------------------
>>>n█
```

   Enter **1**, enter the IT number of the Usage hub host, and enter **n**.

Install Summary Page

1. The Install Summary panel is displayed and shows a summary of the selected configuration.

```
Install Summary
===============

Target Scheme name=dwt
license file path=/home/admin/install/getfile/permanent.txt
Last Year=2025
First fiscal month or the year=1
Database Name=xsvertica
Import XS license to SAP BOE=
BOE server name=
Result Scheme name=dbo
Application Scheme name=BA
Login Name=vertica
Host Name=localhost
Application Administrator User name=administrator
Authentication scheme=
Get an evaluation license=false
First Year=2005
Tomcat port=
Target Staging Scheme name=dws
Time Zone=Asia/Shanghai
Port=5433
Administrator user name=
Load a Power Named User License or temporary license=true
Default Currency=USD
HTTPS Port=8443
Connect to an existing SAP BusinessObjects Enterprise server=false
Extension Scheme name=ext
Source Staging Scheme name=dwst
CMS Port=
HTTP port=20084



Enter the option number or one of the following directives
<P>revious    <N>ext        <H>elp
-------------------------------------------------------------
>>>n
```

2. Enter:

   ○ **n** to start the installation.

   ○ **p** to correct the configuration.

   > **Note:** The passwords that you entered in the installation pages are encrypted and are not displayed in the Install Summary page.

Installation is Running

1. The Install in Progress panel is displayed and indicates that the installation is running:

```
Install in Progress
===================

executing step _step_finalizeInstallation... ] (100%)

Enter the option number or one of the following directives
##########   <F>inish
-----------------------------------------------------------
>>>█
```

Install Complete

1. The Install in Progress panel is displayed and shows that the installation was successful.

```
Install in Progress
===================

executing step _step_finalizeInstallation... ] (100%)

Enter the option number or one of the following directives
##########   <F>inish
----------------------------------------------------------
>>>f
~~You have finished ITBA installation Successfully~~
[admin@zhouyab HPBA-10.10.00-SNAPSHOT-282-master-redhat-x64]$ █
```

2. Enter **f** to complete the installation.

3.
> **Tip:** Make sure to install the Supervisor. For details, see "Install the Supervisor After the Installation" on page 96.

GUI Installation

Introduction

1. Create a user or use an existing user.

    Note: Make sure you are not using the root user to perform the installation.

2. Log on to the Linux server where you want to install ITBA.

3. Download the **ITBA-10.10.XXX.tar.gz** file from the Support Site (https://softwaresupport.hpe.com/group/softwaresupport/home?lang=en-US) and save it in your Linux target directory.

    Note: Make sure the installation target directory has adequate disk space. For details, see *Support Matrix*.

    Note: Make sure that the path to the target directory does not include blank spaces, brackets (or), or single quotes (').

4. Run the **tar -zxvf ITBA-10.10.XXX.tar.gz** command to unzip the **ITBA-10.10.XXX.tar.gz** file.

5. Go to the Linux user path directory where you unzipped the installation file, and run **./install.sh -g** or **sh install.sh -g**.

    The installation wizard opens.

6. Click **Next**.
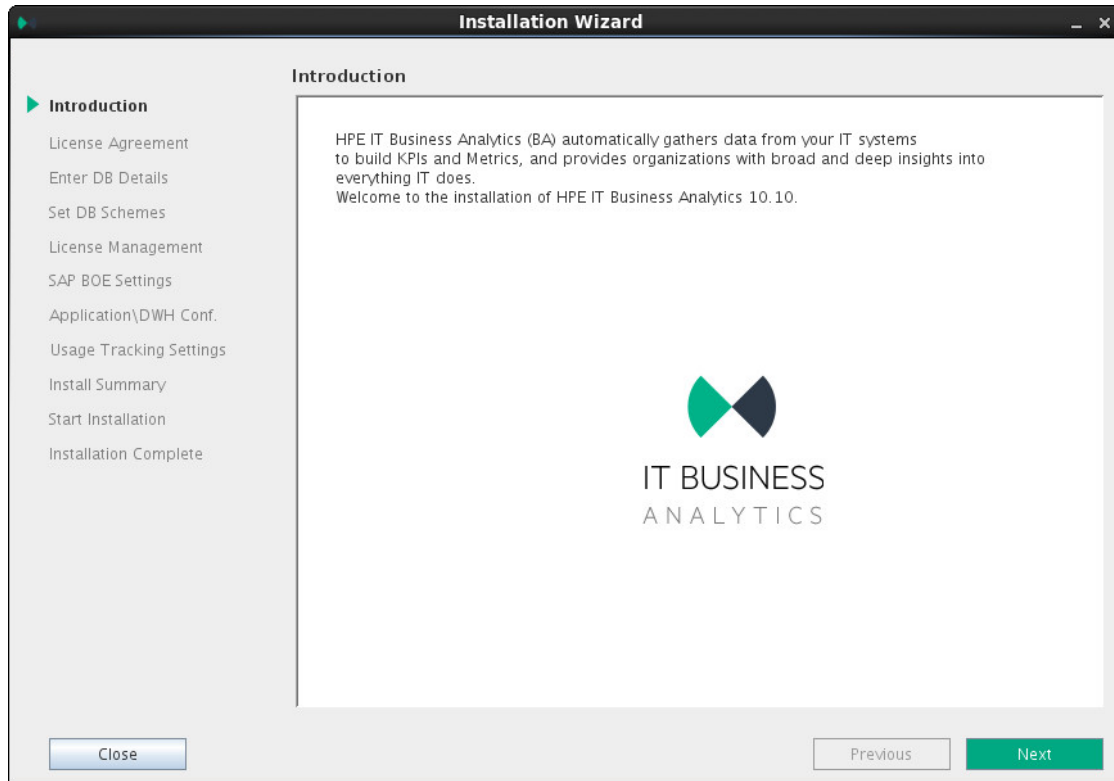
7. In the License Agreement page, click **Agree**.
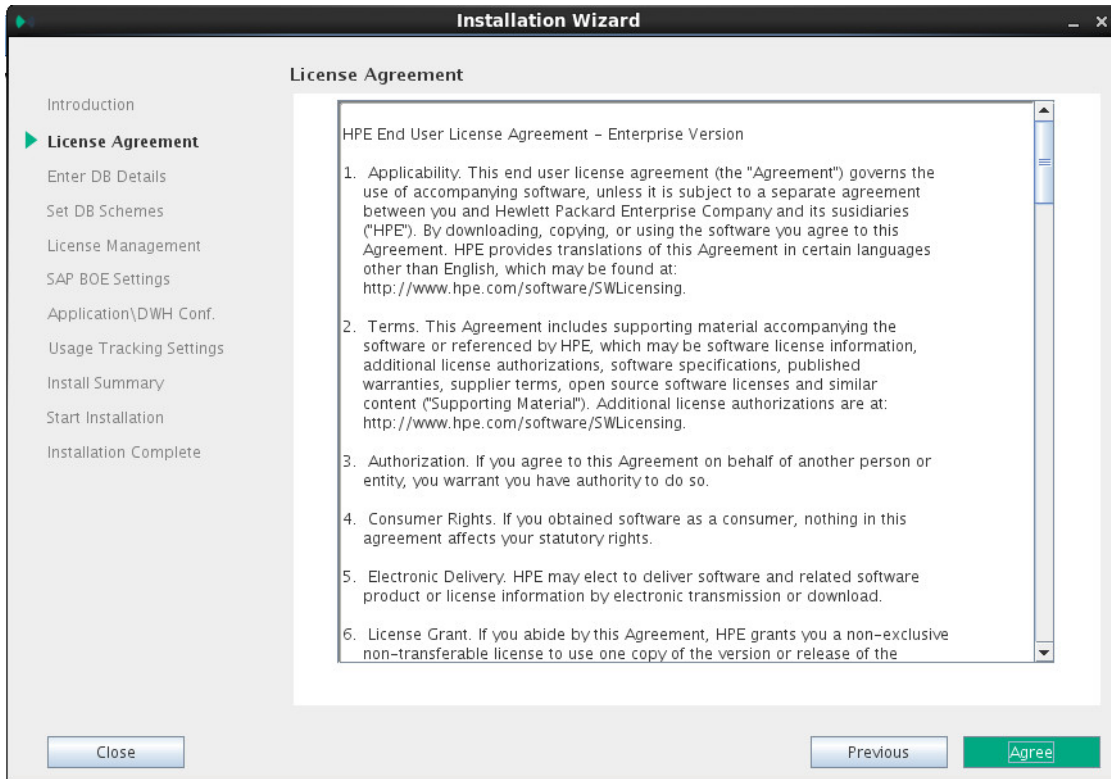
Enter the Vertica Database Server Details

In the page:

1. Enter the Vertica database details.

Host Name	The fully qualified domain name (FQDN) or IP address of the server hosting the Vertica database.
	To configure Vertica load balancing, see the section "Connection Load Balancing" in the Vertica Administrator's guide at https://my.vertica.com/docs/7.1.x/PDF/HP_Vertica_7.1.x_AdministratorsGuide.pdf.
Port	The port of the server listener. Change this value to connect to a non-default database instance on the server.
	For more information about ports, see the Support Matrix document available from the Support Site (https://softwaresupport.hp.com/group/softwaresupport/home) .
Database Name	The name of the Vertica database instance that is used as the data warehouse.
	Make a note of the Vertica database name as you may need it when installing

	other components.
	For details, see Database Naming Conventions.
Login Name	The name of the user used to log on to the Vertica database.
Password	The password of user used to log on to the Vertica database.

2. Click **Run Check**.

    The system verifies that the server answers all needed requirements.

    If the check passes with no errors, the **Next** button is enabled.

3. Click **Next**.

Enter the Database Scheme Names

By default, the fields in the page already include the default names.

1. Enter your own values or keep the defaults:

Source Staging Scheme name	The name of the source staging scheme.
	Default: **dws**
Target Staging Scheme name	The name of the target staging scheme.
	Default: **dwst**
Target Scheme name	The name of the target scheme.
	Default: **dwt**
Application Scheme name	The name of the application scheme.
	Default: **BA**
Result Scheme name	The name of the result scheme.
	Default: **dbo**
Extension Scheme name	The name of the extension scheme.

Default: **ext**

After entering the DB schemes, the **Next** button is enabled.

2. Click **Next**.

Load Your License

In the page:

1. Load the permanent/temporary license or use the evaluation license:

    ○ For an evaluation License:
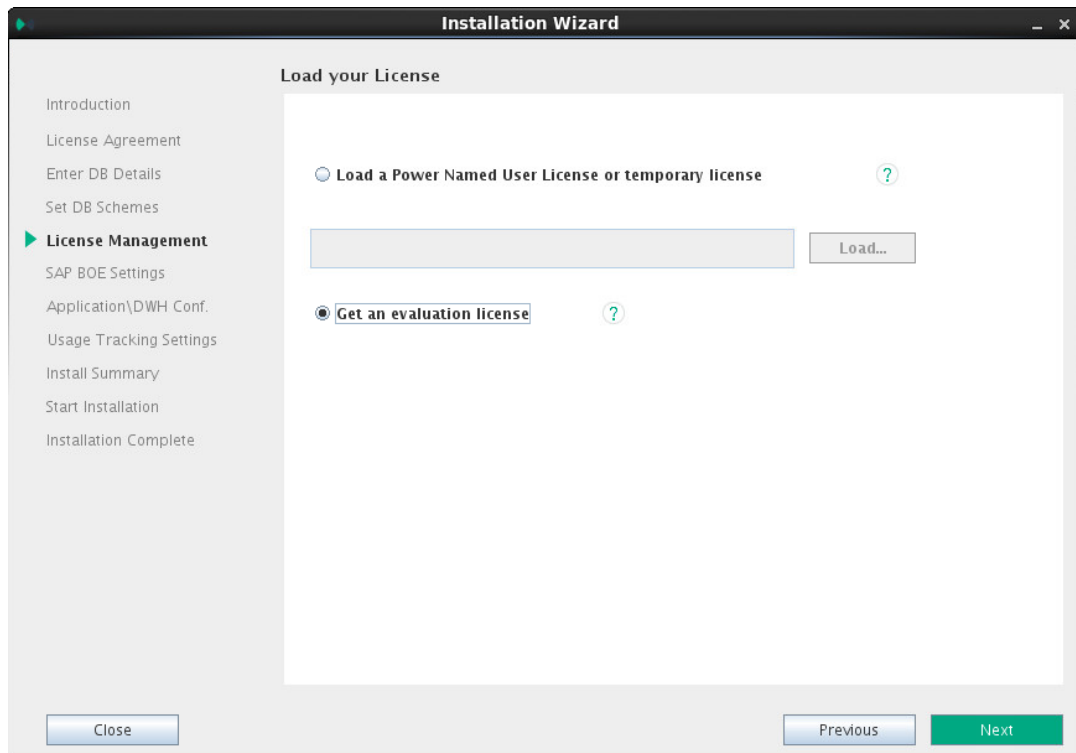
○ For a permanent or a Viewer license:
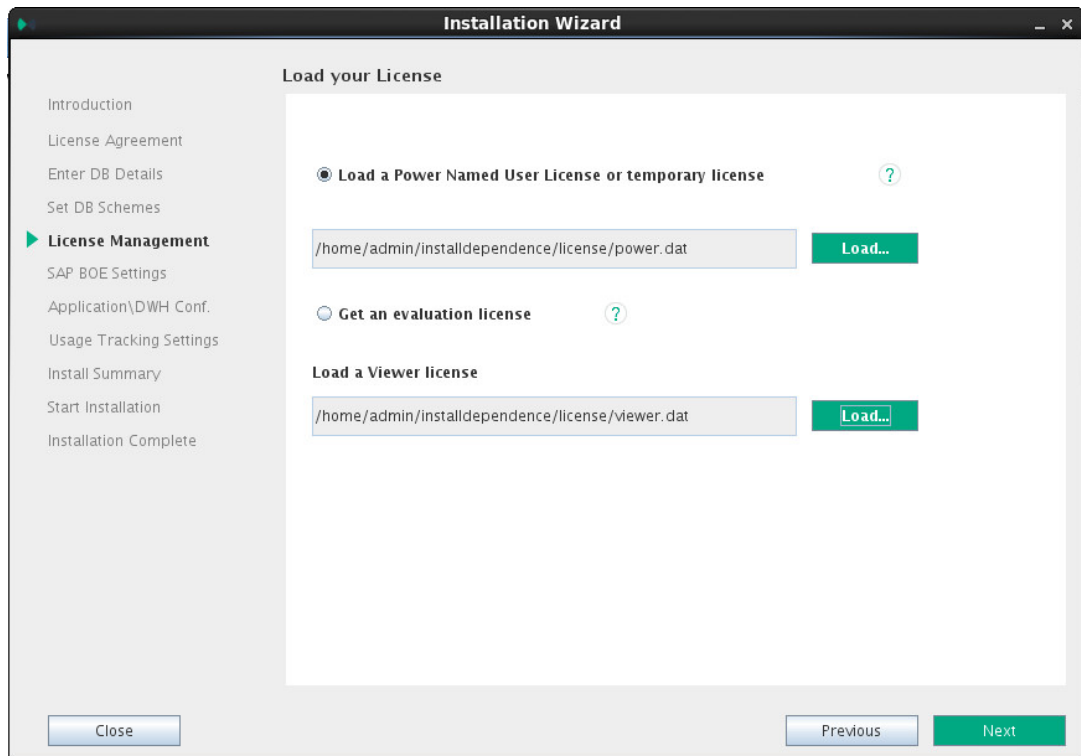
Load a Power Named User license or temporary license	Select to load one of the following license types: ○ **Power Named User License.** Has no expiry date and is loaded once during the installation. ○ **Temporary.** Has an expiry date. On expiration, a new license must be loaded. To load a license, click **Load**, Navigate to the license file provided by your supplier, and then click **Load License**.
Get an evaluation license	Select to load a one-off 60-day evaluation license. The remaining valid period of the license is displayed. For details, see Update Licenses in the *Administrator Guide*.

After selecting the relevant license, the **Next** button is enabled.
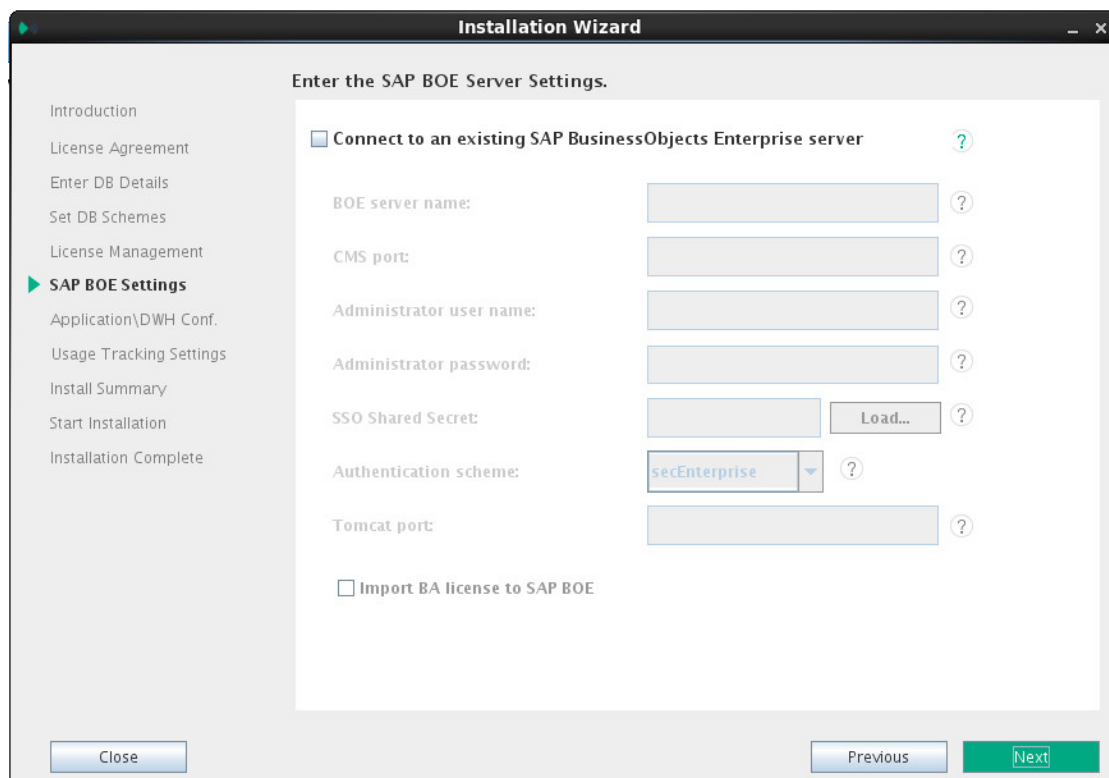
2. Click **Next**.

Enter the SAP BOE Server Settings

In the page:

1. Click **Next** if you do not need to connect to BOE at this time.

    When you do not select the option:

2. Select **Connect to an existing BOE server**, if you want to integrate with an existing BOE server.

   Once you select this option, the rest of the fields become enabled. Enter the BOE server details (if needed):

Connect to an existing SAP BusinessObjects Enterprise server	Select to connect to an existing SAP BusinessObjects Enterprise server.
	Note: Only specific SAP BOE versions are supported. For details, see the Support Matrix.
	The Support Matrix is available from the Support Site (**https://softwaresupport.hp.com/group/softwaresupport/home**).
BOE Server name	The name of the server on which is located the SAP BusinessObjects Enterprise that you want to connect with Business Analytics is installed.
CMS Port	The port number of the CMS listener (usually 6400).
	For more information about ports, see the Support Matrix document available from the Support Site (**https://softwaresupport.hp.com/group/softwaresupport/home**).
Administrator User	The user name for the SAP BusinessObjects Enterprise

Name	administrator.
	Use this user to log on to SAP BusinessObjects Enterprise.
Administration Password	The SAP BusinessObjects Enterprise Administrator password. This password is used only to log on to SAP BusinessObjects Enterprise.
	This password is used only to log on to SAP Business Object Enterprise.
SSO Shared Secret	The path to the file that includes the SSO shared secret password. The shared secret password is used to authenticate communications with the SAP BusinessObjects BI platform or later server. If trusted authentication is configured, the shared secret entered is validated against the SAP BusinessObjects server. If trusted authentication is not configured, the entered shared secret is configured on the SAP BusinessObjects BI platform server.
Authentication scheme	**secEnterprise.** The default authentication method for the SAP BusinessObjects BI platform. It is automatically enabled when you first install the system, and it cannot be disabled. When you add and manage users and groups, the platform maintains the user and group information within its database.
	If you prefer to create distinct accounts and groups for use with the BI platform, or if you have not already set up a hierarchy of users and groups in a third-party directory server, you have to do it manually.
Tomcat port	The BOE Tomcat port used to display the BOE reports in Scorecard (usually 8080). For more information about ports, see the Support Matrix document.
	The Support Matrix is available from the Support Site (**https://softwaresupport.hp.com/group/softwaresupport/home**).
Import BA license to SAP BOE	Select to import the ITBA license to SAP BOE.

3. After entering the BOE server details (if needed), the **Next** button is enabled.

4. Click **Next**.

Enter the Application\DWH Configuration Details

In the page:

1. Enter the relevant application and DWH configuration details:

Period Dimension	First Year. The first year in the period dimension is the first year used when automatically populating Data Warehouse tables with yearly, quarterly, monthly, weekly and daily records.
	Change the First Year value by clicking the up or down arrows.
	Last Year. The last year in the period dimension is the last year used when automatically populating Data Warehouse tables with yearly, quarterly, monthly, weekly and daily records.
	Change the Last Year value by clicking the up or down arrows.
	Note: The Last Year must not be lower than the current year.
	For more information, see Settings - Data Warehousein the *Administrator Guide*.

	First fiscal month of the year. The first fiscal month of the year in your organization. **First day of the week.** The day of the week you want to set as the first day. **Note: First day of the week** In Data Warehouse, the first day of the week is set during the installation, and the Period tool is using it as an input to build PERIOD_DIM days, weeks, months, and more, as well as relevant hierarchies. After the administrator has installed Data Warehouse, the administrator selects the designated first-day-of-week. If a data source has a different first-day-of-week definition, the administrator should be aware that for weekly periodicity, the linkage to the period key uses the Data Warehouse week definition and not the data source week definition.
Data related configuration:	**Time Zone.** The Data Warehouse time zone used when consolidating the data extracted from the data sources.
Web Server configuration:	○ The port of the HTTP listener. Select a Linux port number between 1024 and 65534. **Note:** If you want to use the default HTTP port in the Business Analytics installation, you must ensure that the port is not in use by another process. ○ The port of the HTTPS listener. Select a Linux port number between 1024 and 65534 (usually 8443) For more information about ports, see the Support Matrix document available from the Support Site (**https://softwaresupport.hp.com/group/softwaresupport/home**) or from the Installation DVD).
Currency:	**Default Currency.** The currency to use as default. **Tip:** If you are using the Project and Portfolio Management or the Asset Manager applications as data sources, make sure that you select the currency corresponding to the currency defined in these applications. The supported currencies follow ISO 4217 (http://www.iso.org/iso/home/standards/currency_codes.htm). Default: USD - US Dollar

After entering the details, the **Next** button is enabled.

2. Click **Next**.

Enter the Application\DWH Configuration Authentication Details Page

1. Enter the relevant application configuration authentication details:

Glassfish authentication parameters:	The user password for glassfish.
	Note:
	○ The password must be at least 8 characters in length, and must contain a combination of three of the following categories: upper case English characters (A-Z), lower case English characters (a-z), numbers (0-9), and non-alphanumeric characters (for example: ! $ # % and more).
	○ The password is case-sensitive.
	○ You can change the glassfish password using the Maintenance Tool.
	Important: Save the values of the parameters in this page. The Glassfish Administrator password is also used to log on to the ITBA Maintenance tool. The Application authentication password is also used as your ITBA logon credentials.

	For details, see Maintenance Tool in the *Administrator Guide*. Re-enter the password for the administrator.
Application authentication parameters:	The user name for the BA administrator. Use this user to log on to Business Analytics. The password for the BA administrator. **Note:** ○ The password must be at least 8 characters in length, and must contain a combination of three of the following categories: upper case English characters (A-Z), lower case English characters (a-z), numbers (0-9), and non-alphanumeric characters (for example: ! $ # % and more). ○ The password is case-sensitive. Re-enter the administrator password.

After entering the details, the **Next** button is enabled.

2. Click **Next**.

Enter the Usage Hub Settings

In the page, you can select one of the following actions:

- Click **Next** directly.
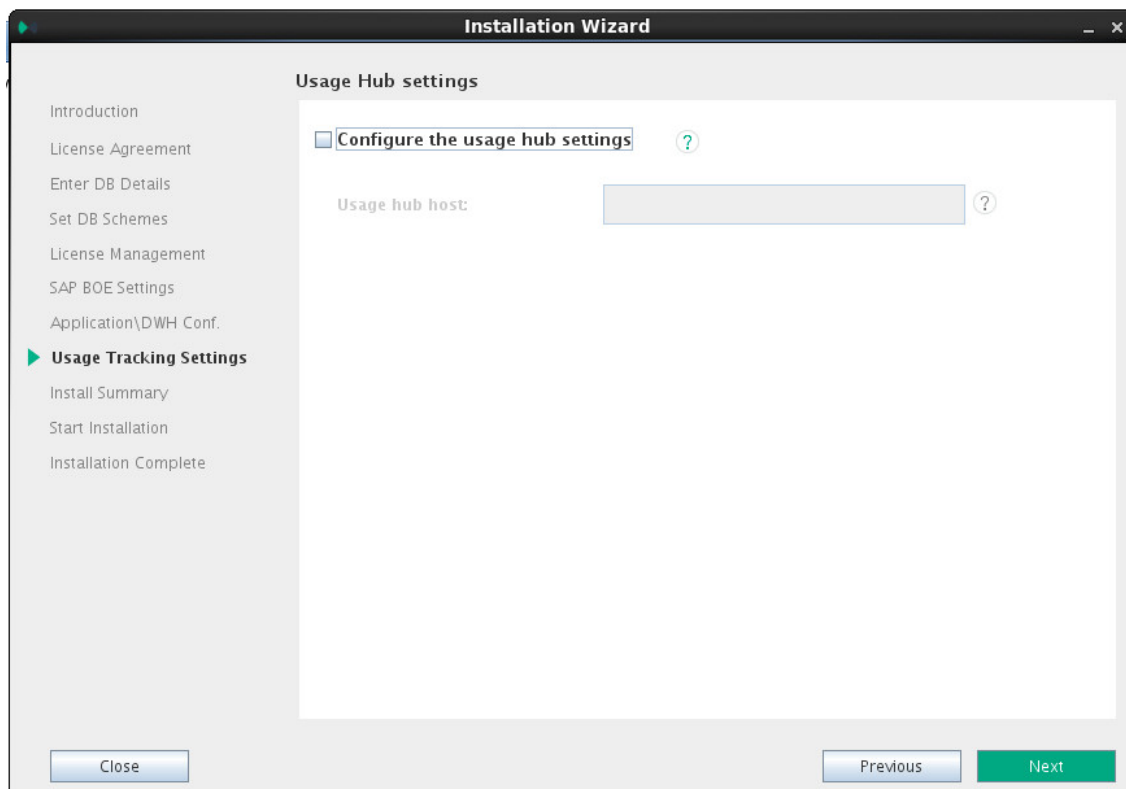
- Select **Configure the Usage Hub settings**, enter the relevant values, and then click **Next**.
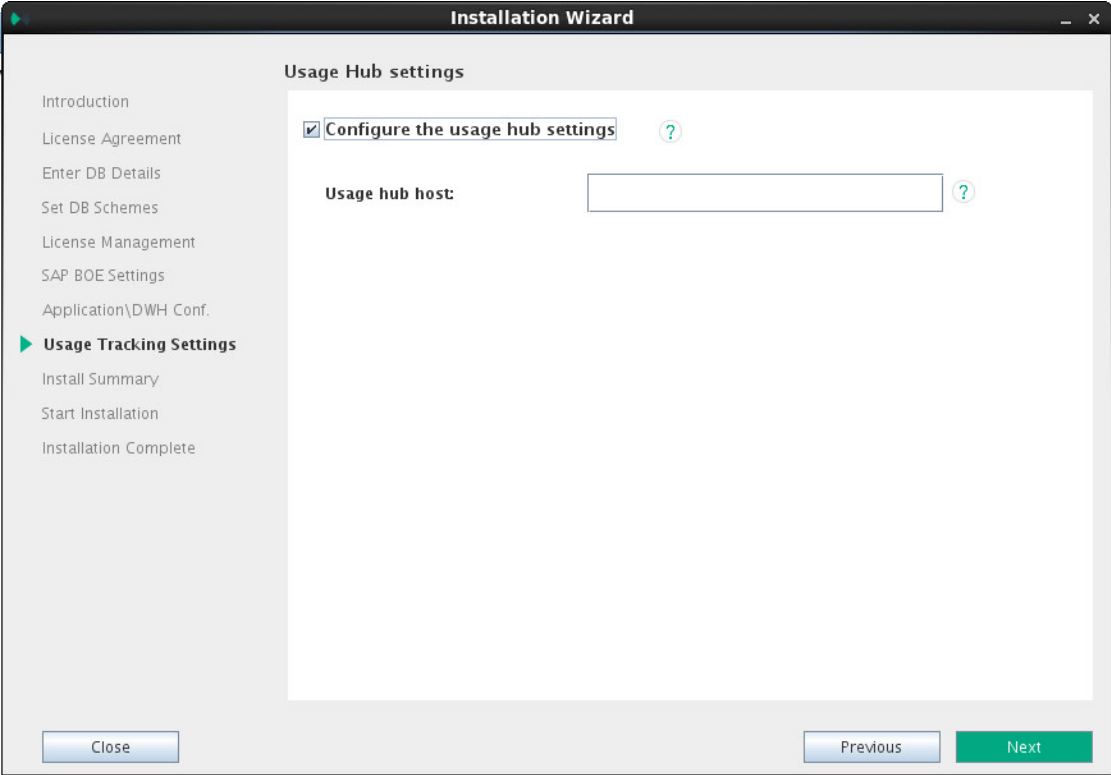
Configure the Usage Hub Settings	Select the option to allow you to configure the Usage Hub settings during the installation.
Usage Hub Host	The hostname or IP number of the server on which the Usage Hub is installed.

Install Summary Page

In the page, a summary of the selected configuration is displayed. Click **Next** to start the installation. Click **Back** to correct the configuration.

The passwords that you entered in the installation pages are encrypted and are not displayed in the Install Summary.

Installation is Running

The page that indicates that the installation is running is as follows:
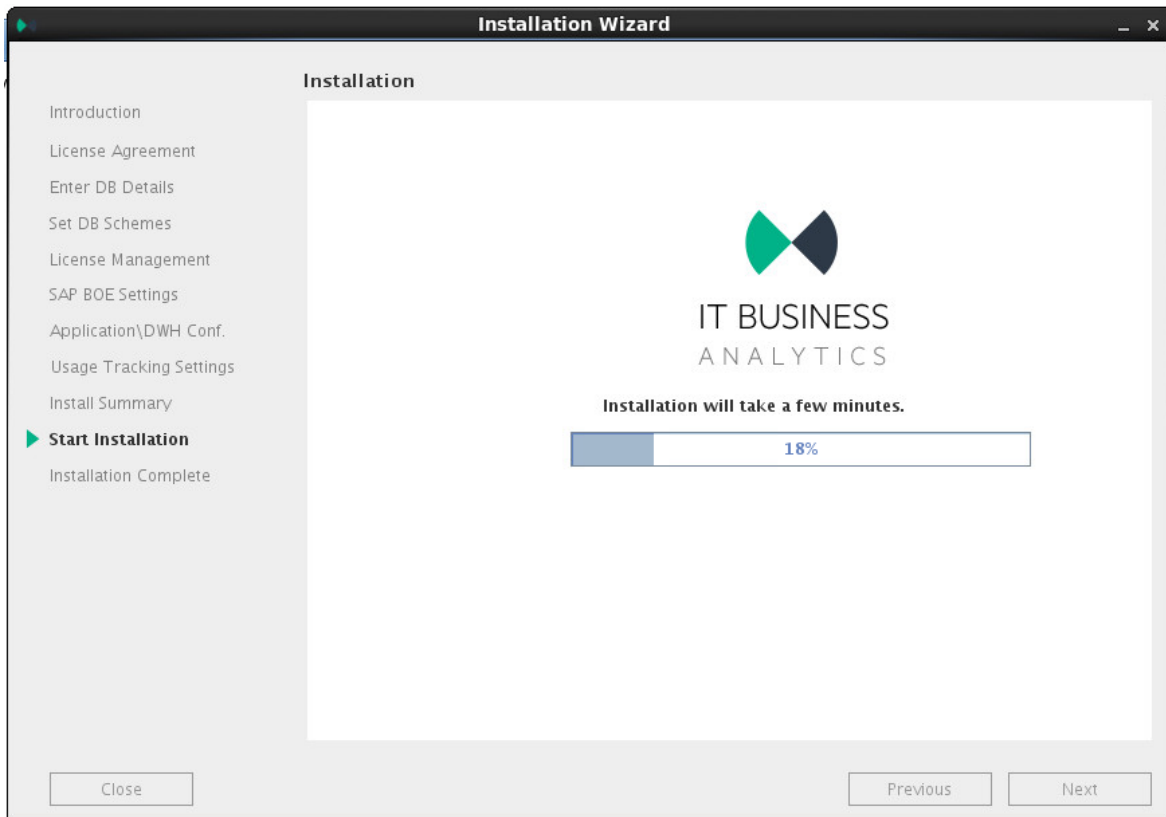
Install Complete

The installation is complete when the following page is displayed.

You can now launch the ITBA application by following the steps listed on the page.
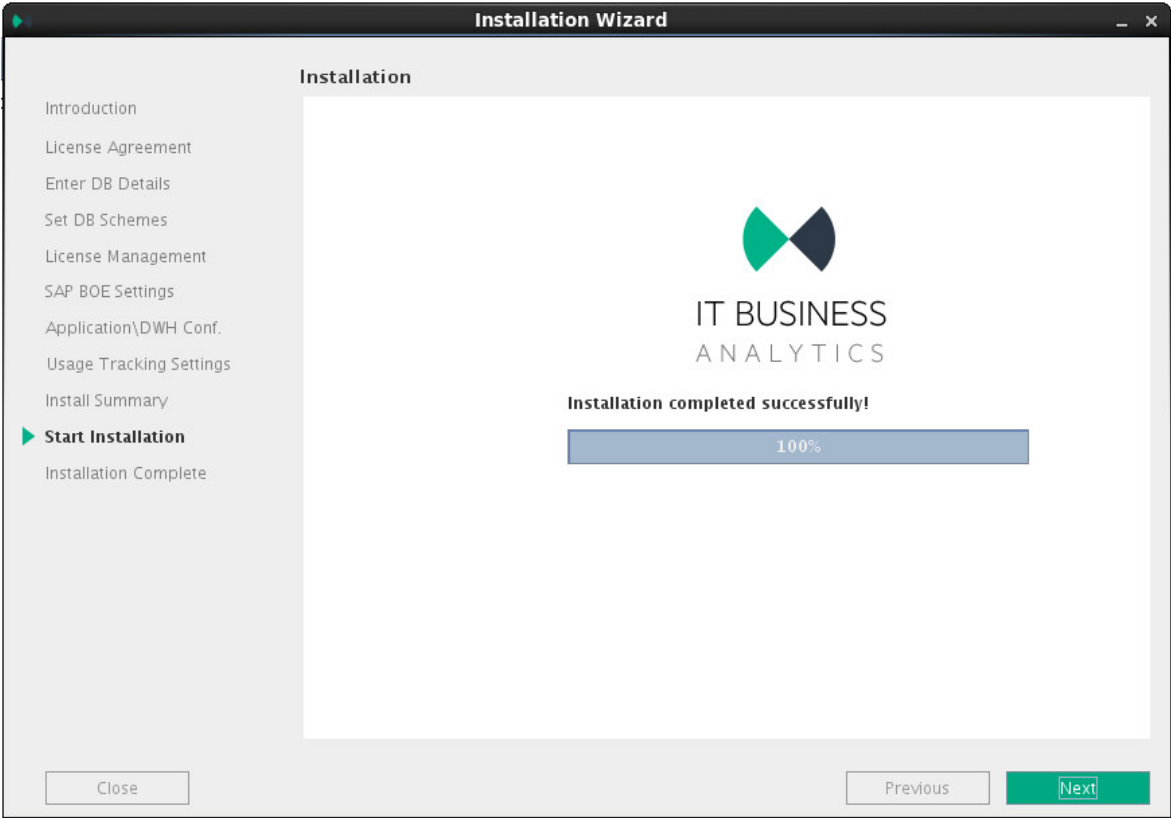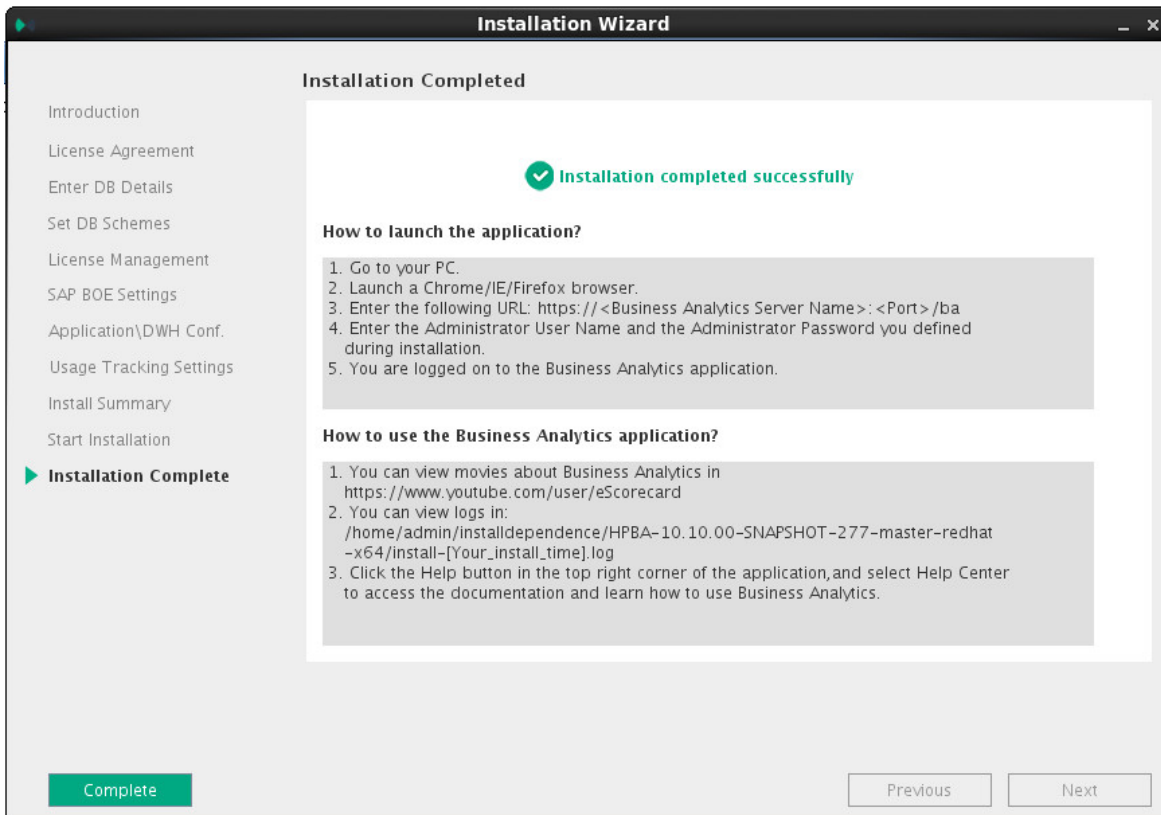
Click **Complete** to complete the installation.

Tip: Make sure to install the Supervisor. For details, see "Install the Supervisor After the Installation" on the next page

Install the Supervisor After the Installation

The IT Business Analytics Supervisor monitors whether the ITBA server processes are up and running.

Note that you must perform this procedure when you have installed ITBA silently using one of the following:

- **<ITBA_Target_directory>/install.sh –s** (for a silent installation)

- **<ITBA_Target_directory>/install.sh –c** (for a console installation)

- **<ITBA_Target_directory>/install.sh –g** (for a GUI installation).

Contact HP Software Support Online web site (**https://softwaresupport.hpe.com)** if the monitor cannot start the Supervisor process.

Tasks

Tasks

This section includes:

Enable the Supervisor for the ITBA System

As a root user, you must enable the Supervisor for the ITBA system by running the following steps after the installation is completed.

1. **Enable the Supervisor for the ITBA system:**

   a. Open a Linux console (bash) and input command **su root**.

   b. Run **$HPBA_HOME/supervisor/configure/install_supervisor_conf.sh**. It automatically starts ITBA.

2. **Check ITBA running status:**

a. Run **su hpba**

b. Run **$HPBA_HOME/supervisor/bin/hpba-status.sh**

```
Postgres is starting ....Postgres started
Apache-Httpd is starting ...Apache-Httpd started
MQBroker is starting ........MQBroker started
Vertica connection checking ... Passed
Glassfish is starting ...........................................................................................................................................Glassfish started

Stauts: ITBA is running.
```

Start/Stop ITBA

1. Run **$HPBA_HOME/supervisor/bin/hpba-start.sh**

2. Run **$HPBA_HOME/supervisor/bin/hpba-stop.sh**

```
[admin@zhouyab bin]$ ll
total 20
-rwxr-xr-x 1 admin admin  758 Jan  7 12:01 check-vertica-connection.sh
-rwxr-xr-x 1 admin admin  311 Jan  7 12:01 hpba-restart.sh
-rwxr-xr-x 1 admin admin 1429 Jan  7 12:01 hpba-start.sh
-rwxr-xr-x 1 admin admin 1461 Jan  7 12:01 hpba-status.sh
-rwxr-xr-x 1 admin admin 1633 Jan  7 12:01 hpba-stop.sh
```

Log file

If necessary, check the log file for ITBA start/stop process in the
$HPBA_HOME/supervisor/log/ directory.

Configure the Linux Port

> **Note:** When you redirect your ports, you lose the extra protection from the low ports; any user on your machine can bind to port 8080.

If you want to redirect port 80 to port 8080, proceed as follows:

Run as root:

 # iptables -t nat -A PREROUTING -p tcp --dport 80 -j REDIRECT --to-port 8080

How to Use Your Own Certificate?

Every time you log on, a warning about non-trusted certificate is issued with a certificate error. You can use your own certificate. To upload your own certificate to ITBA, perform the steps below on the ITBA server.

> **Note:**
>
> - The Certificate and the Key should be in PEM format.
>
> - By default, a self-signed certificate was used during the installation of ITBA. However, it is not recommended to use self-signed certificates in production environments as they may negate the benefits of end-to-end security by decreasing the ability of a user to detect a man-in-the-middle (MITM) attack.

1. **Replace the server certificate and the server private key in the web server.**

   a. Obtain the server certificate and the server private key in PEM format. The procedure below refers to them as **server.cer.pem** and **server.key.pem** respectively.

   b. Copy the **server.cer.pem** and **server.key.pem** to **$HPBA_HOME/conf/keys**.

   c. Update the web server configuration to use those files.

   d. Edit **$HPBA_HOME/webserver/conf/extra/httpd-ssl.conf**.

   e. In **httpd-ssl.conf**, replace **btoa.host.hp.com.key.pem** with **server.key.pem**. Replace **btoa.host.hp.com.cert.pem** with **server.cer.pem**.

   f. Save changes.

2. **Configure the Java truststore to trust the CA that issued your server certificate.**

   a. Obtain the CA certificate in PEM format. The procedure below refers to it as **ca.cer.pem**.

   b. Copy the **ca.cer.pem** to **$HPBA_HOME/conf/keys**.

   c. Import **ca.cer.pem** into the Java truststore.

   d. Use the CMD to access **$HPBA_HOME/jdk/jre/bin**.

   e. Execute k**eytool -import -trustcacerts -alias ca.cer.pem -keystore ../lib/security/cacerts -file $HPBA_HOME/conf/keys/ca.cer.pem**.

   f. Enter the keystore password when prompted (default password is **changeit**).

   g. When prompted whether to trust the certificate, write **y**.

3. Restart the ITBA application using the command **$HPBA_HOME/supervisor/bin/hpba-restart.sh**.

How to Upload .BIAR Files

Some Webi reports are supported in ITBA. You can view these reports in the relevant ITBA Dashboard pages. They are provided in the CSA CAP and the CSA_Demo CAP.

You can view these reports through the Dashboard pages that are linked to the BOE server.

WEBI Report	CAP	.BIAR File
Resource Usage and Utilization for Consumer Resource Usage and Utilization for Resource Supplier Manager Amazon EC2 Instance Usage and Utilization Billing Statement for Cloud Services Billing Statement for Consumer Organization Admin Showback Detail For Cloud Services Showback Detail for Consumer Showback for Consumer	CSA CAP	Cloud_Billing.biar
Showback for Consumer Demo Showback Detail for Consumer Demo Resource Usage and Utilization for Resource Supplier Manager Demo Resource Usage and Utilization for Consumer Demo Showback Detail for Cloud Services Demo Amazon EC2 Instance Usage and Utilization Demo Billing Statement for Cloud Services Demo	CSA_Demo CAP	Cloud_Billing_Demo.biar

Only the CSA CAP reports are imported into the BOE server automatically if you have configured the BOE connection while installing ITBA.

If you did not configure the BOE connection while installing ITBA, or if you want to view BO reports in the ITBA application, perform the configuration as in "Optional - Install BOE Client on Windows Server" on page 33 or "Optional - Install BOE on a Linux Server" on page 16, then configure the Vertica Driver as shown in "Optional - Install the Vertica Driver in the BOE Server and the BOE Client Server" on page 39and then run the below steps.

To import the **Cloud_Billing.biar** or the **Cloud_Billing_Demo.biar**:

1. Copy the .biar files from the ITBA server:

   $HPBA_HOME /ContentPacks/CSA/INBUILT/BI/BOE/Cloud_Billing.biar

   $HPBA_HOME /ContentPacks/DEMO_CONTENT/INBUILT/BI/BOE/Cloud_Billing_ Demo.biar

2. Log on to the SAP BusinessObjects Central Management Console (CMC) at: **http://<BOE_ Server_IP>:8080/BOE/CMC**.
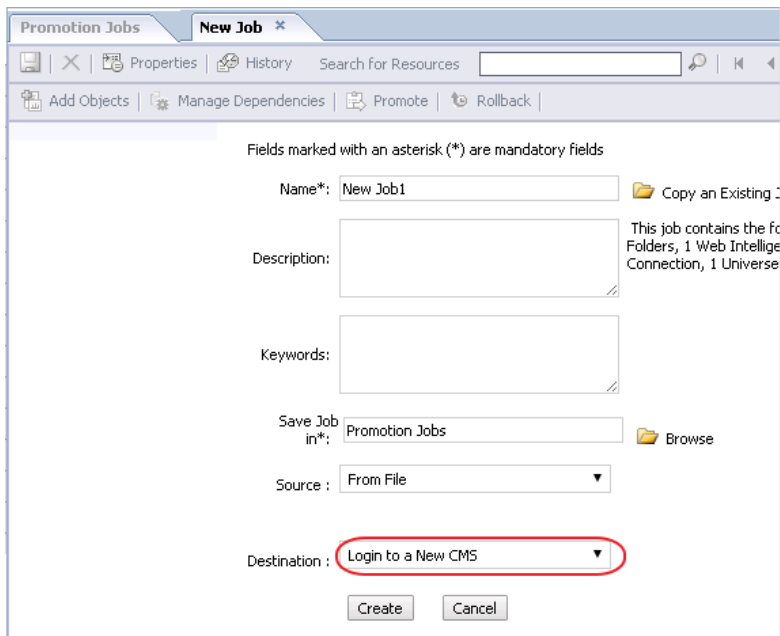
3. Click **Promotion Management**.
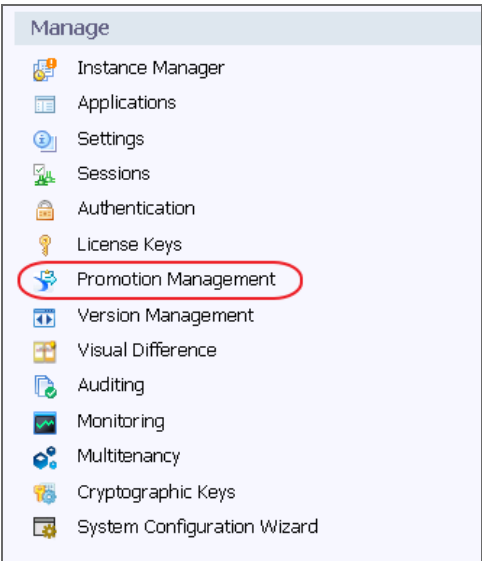
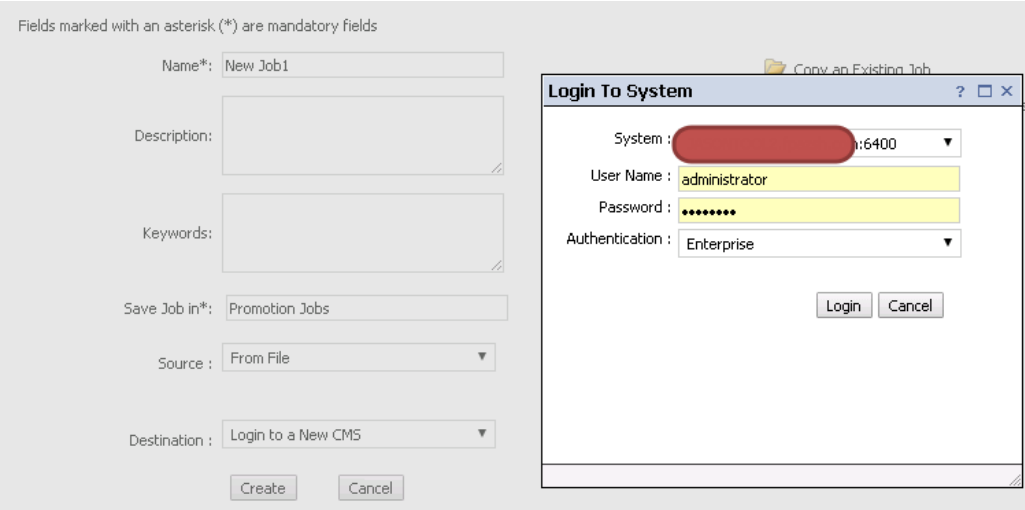4. Click **Promotion Jobs > Import > Import file**.
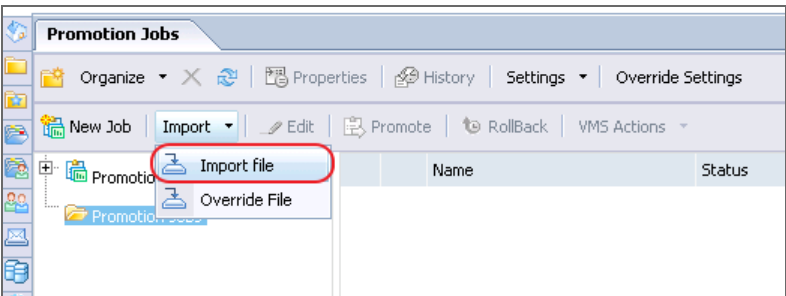
5. Click **Choose File** and select the relevant .biar file.
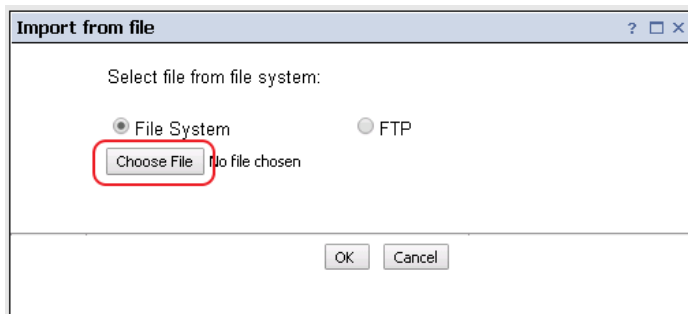
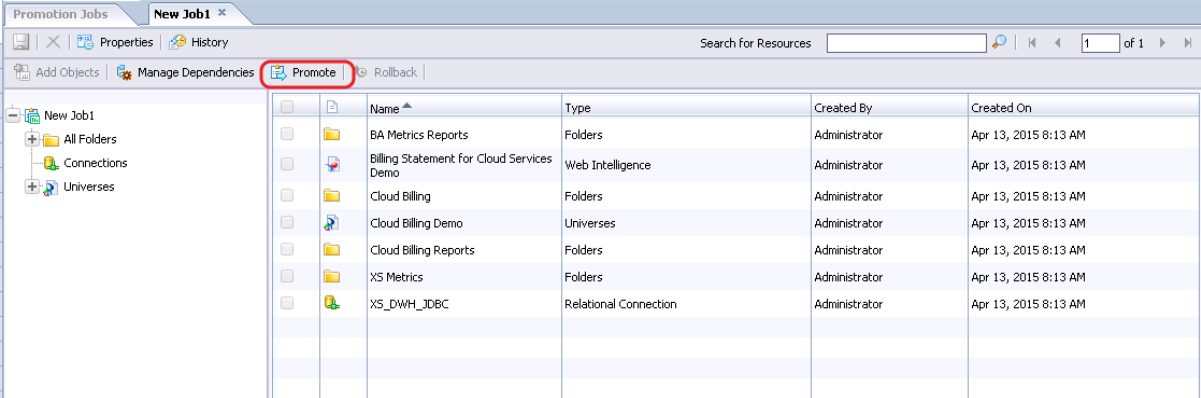6. In the **Destination** field, select **Login to a New CMS**.

7. Enter the BOE server IP number or server name, user name, and password, and then click **Login**.
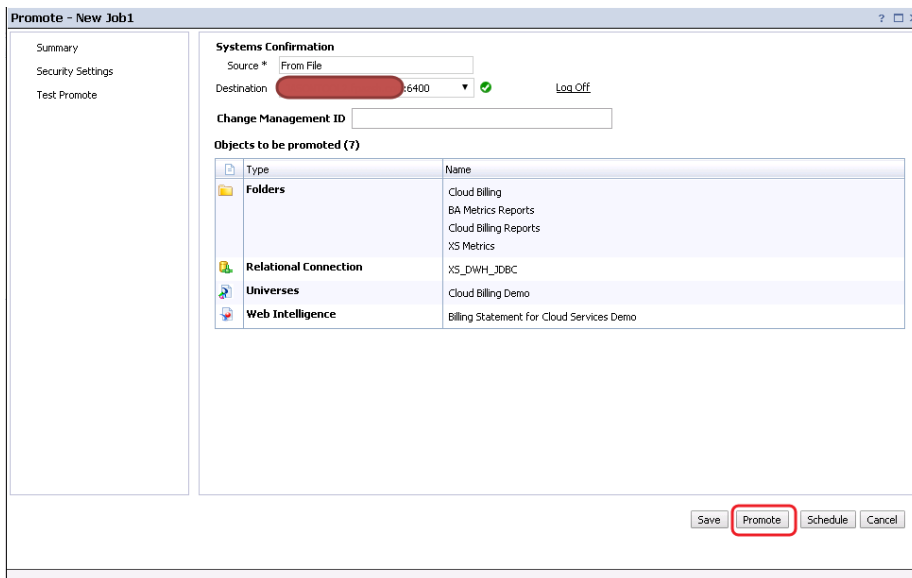

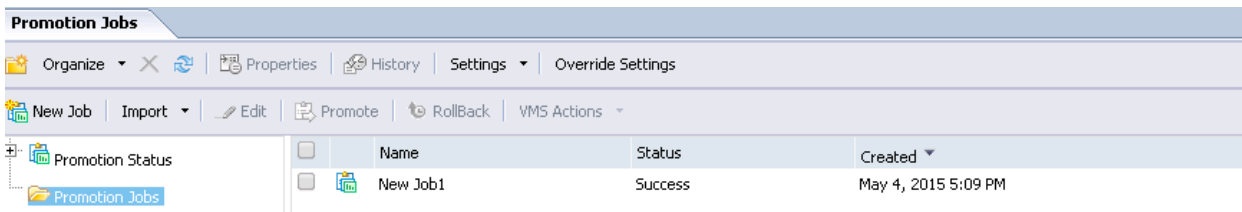8. Click **Create** to create promotion job.
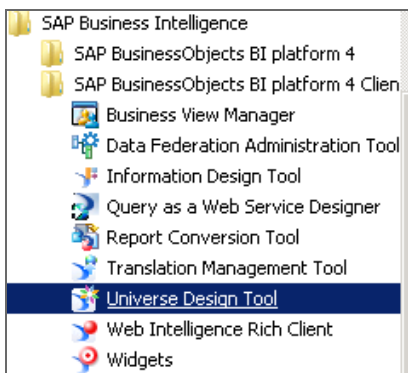
9. Click **Promote**.

10. Click **Promote**.
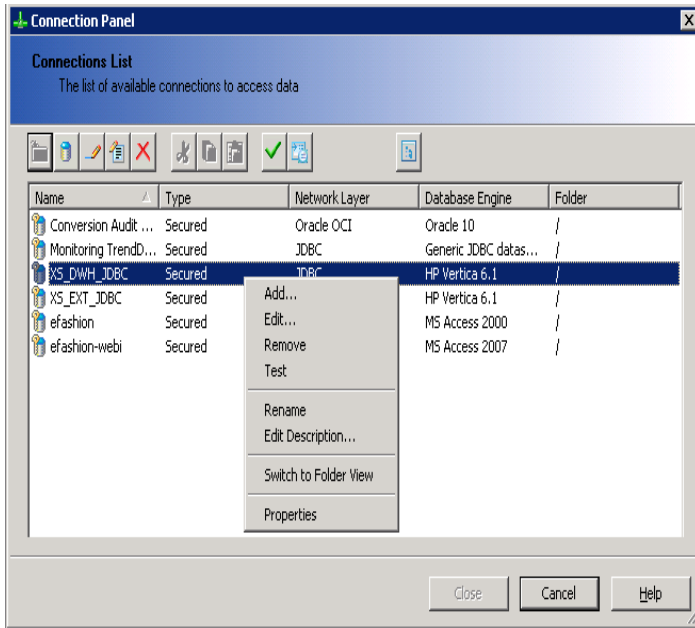

The .biar file is uploaded successfully.

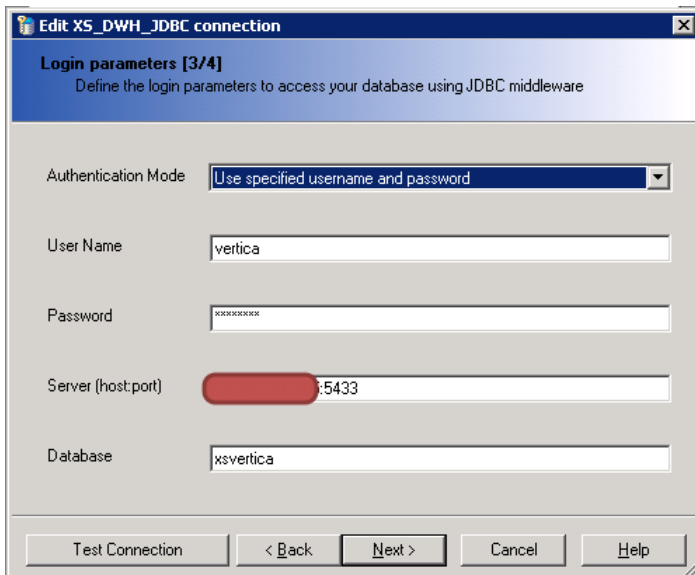11. Log on to the **Universe Design Tool** from the BOE Client.

12. Click **Tools > Connections…**. Edit the relevant connection.

    If you are uploading the CSA CAP, edit **XS_DWH_JDBC**.

    If you are uploading the CSA_Demo CAP, edit **XS_EXT_JDBC**.

13. Enter the relevant connection message of the Vertica server and click **Next**.

14. Click **Next > Finish > Close**.
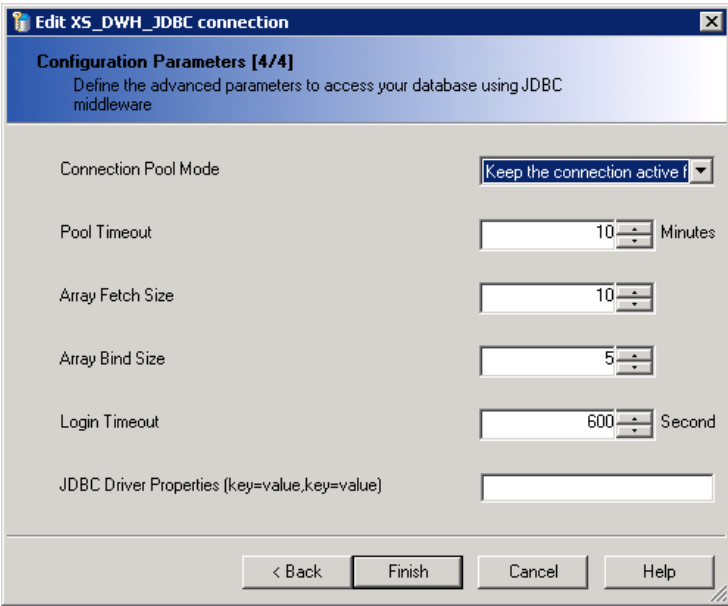
The import of the .biar files is complete.

15. By default, the application schema name is **BA**, the extension schema name is **ext**, and the database name is **xsvertica**. If the customer server settings are different, change the as shown below.

   a. Click **File > Import…**, and select the **Cloud Billing** universe folder.
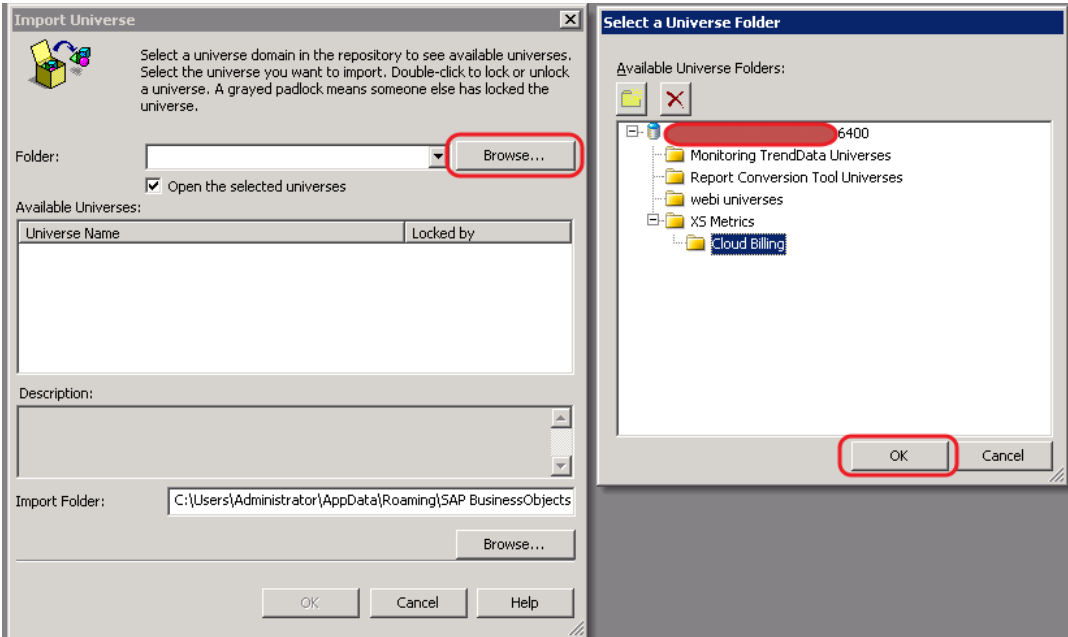
b. Select **Cloud Billing** and click **OK**.
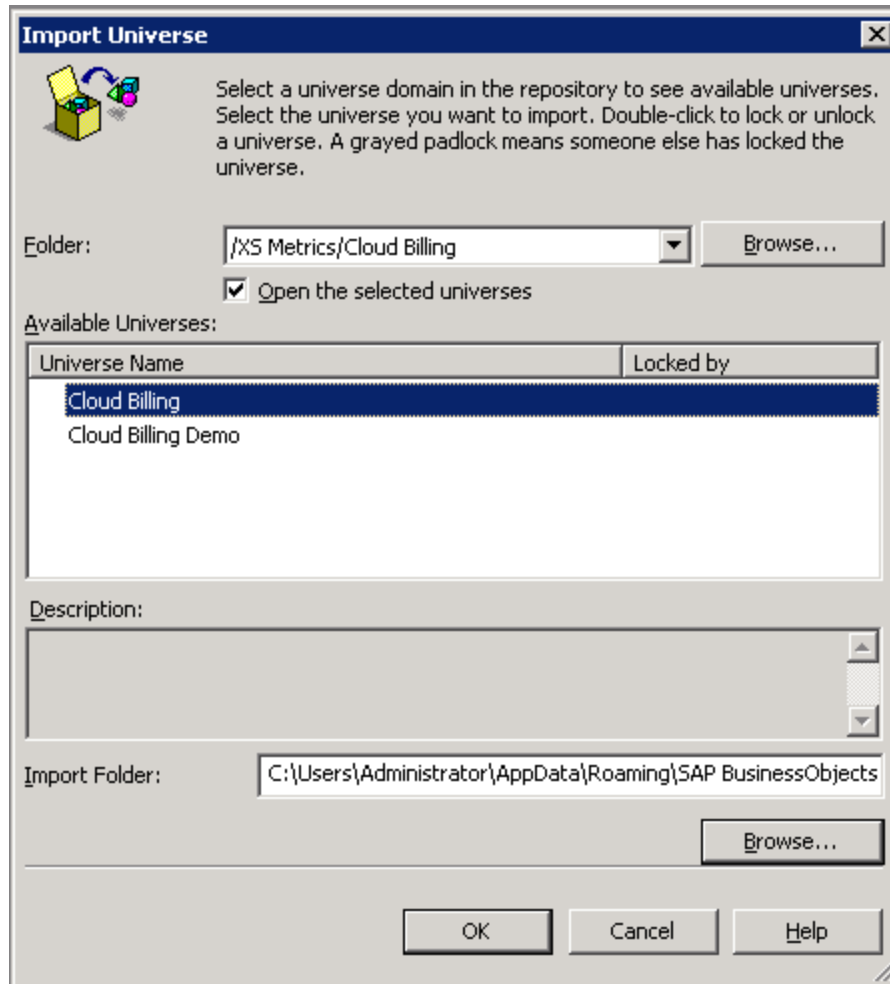
c. Right-click the relevant table, and select **Rename Table**.
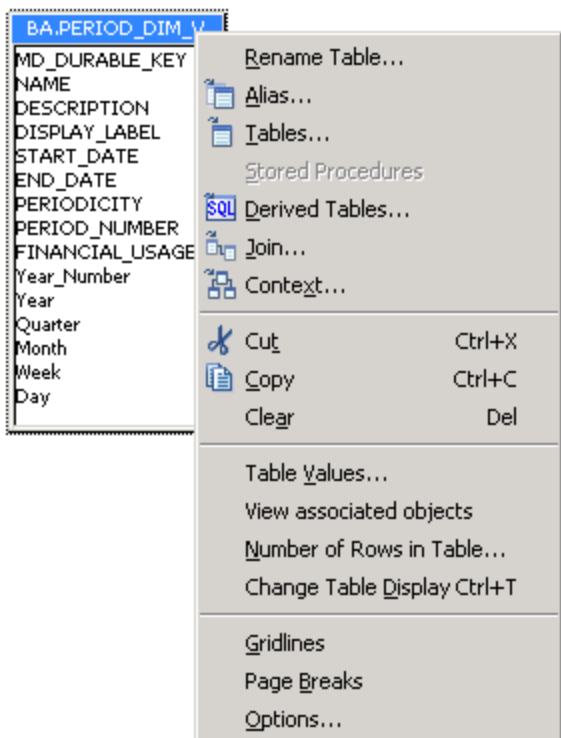
d. In the **Owner** field enter the correct application schema name and in the **Qualifier** field enter the correct database name.
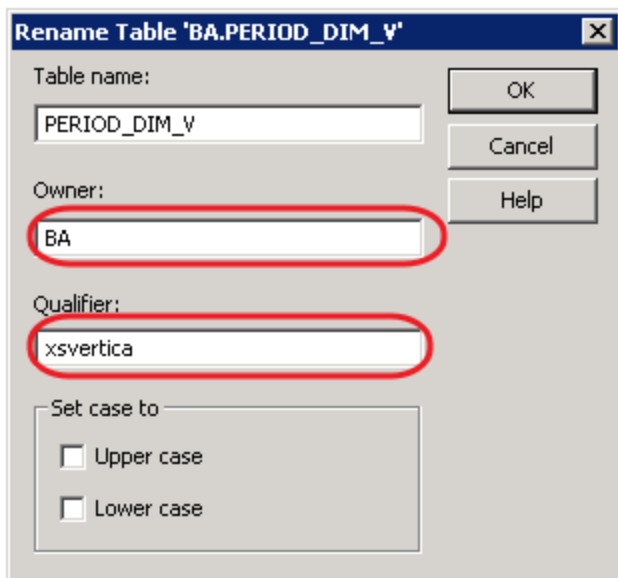
e. After modifying all the relevant tables as shown above, click **File > Export…**.

      f. Click **OK** to upload the changes to BOE the server.

16. Proceed in the same way for the Cloud Billing Demo universe folder.

Installation Logs

Installation logs and ITBA environment information help you quickly understand what went wrong with the installation process. The installation logs are archived by the installation process in many different paths of the installation directory. For example, **$HPBA_ HOME/glassfish/glassfish/domains/BTOA/logs/**, or **$HPBA_HOME/webserver/httpd/logs/**. The ITBA environment information (for example, ITBA version, database name) is collected in the **BAInfo.xls** file.

To concentrate all the installation logs and ITBA environment information into one location, use the Log Toolkit. For details, see Log Toolkit in the *Administrator Guide*.

Uninstall ITBA

To uninstall ITBA, use the root user, go to **$HPBA_HOME**, and run the following command:

 ./uninstall.sh

```
 File  Edit  View  Search  Terminal  Help
[root@zhouyab configure]# cd ../../
[root@zhouyab HPBA-10.10.00-SNAPSHOT-320-master-redhat-x64]# ls
apps            bin  ContentPacks  DataWarehouse  fips            glassfish  install-20160203174333.log  install.sh  pgsql       Tools        upgrade
ba-answer.xml~  conf  dat          docs           Generated_For_Deployment  hpba_logs  installation        jdk         supervisor  uninstall.sh  webserver
[root@zhouyab HPBA-10.10.00-SNAPSHOT-320-master-redhat-x64]# clear
[root@zhouyab HPBA-10.10.00-SNAPSHOT-320-master-redhat-x64]# ./uninstall.sh
Are you sure to uninstall ITBA? (Y/N): y
Start to uninstall ITBA...
HPBA_HOME Directory is /home/admin/installdependence/HPBA-10.10.00-SNAPSHOT-320-master-redhat-x64

Stopping ITBA ........................................

Postgres is stopping ....Postgres stopped
Apache-Httpd is stopping ...Apache-Httpd stopped
MQBroker is stopping ...MQBroker stopped
Glassfish is stopping .......................................................Glassfish stopped

Status: ITBA stopped.

HPBA disabled for the System.
Successfully uninstall BA,Please restart your computer!
[root@zhouyab HPBA-10.10.00-SNAPSHOT-320-master-redhat-x64]#
```

Currency

The currency should be as follows:

> **Note:** The field is case insensitive.

Value	Currency
USD	US Dollar
AED	U.A.E. dirham
ANG	Netherlands Antillian guilder
ARS	Argentine peso
AUD	Australian Dollar
BSD	Bahamian dollar
BHD	Bahraini dinar
BDT	Bangladesh taka,
BGN	Bulgarian Lev
BWP	Botswanan pula
BRL	Brazilian real
BND	Brunei dollar
CAD	Canadian Dollar
CHF	Swiss Franc
CLP	Chilean peso
CNY	Chinese yuan renminbi
COP	Colombian peso
CZK	Czech koruna,
DKK	Danish krone
EGP	Egyptian pound
EUR	Euro
FJD	Fiji dollar

GBP	British Pound
GHS	Ghana cedi,
GTQ	Guatemala quetzal
HKD	Hong Kong Dollar
HNL	Honduras lempira
HUF	Hungarian forint
HRK	Croatian kuna,
IDR	Indonesian rupiah
ILS	Israeli shekel
IRR	Iranian rial
IQD	Iraqi dinar
INR	Indian Rupee,
ISK	Iceland krona
JMD	Jamaican dollar
JPY	Japanese Yen
KRW	South Korean won
KZT	Kazakhstan tenge,
KWD	Kuwaiti dinar
LKR	Sri Lankan rupee
LVL	Latvian lats
LTL	Lithuanian litas
LYD	Libyan dinar,
MAD	Moroccan dirham
MMK	Myanmar kyat
MUR	Mauritius rupee
MXN	Mexican peso
MYR	Malaysian ringgit,
NOK	Norwegian krone

NPR	Nepalese rupee
NZD	New Zealand Dollar
OMR	Omani rial
PKR	Pakistan rupee,
PAB	Panamanian balboa
PEN	Peruvian sol nuevo
PHP	Philippine peso
PLN	Polish zloty
QAR	Qatari riyal,
RON	Romanian new leu
RSD	Serbian dinar
RUB	Russian Ruble
SAR	Saudi riyal
SEK	Swedish Krona,
SGD	Singapore Dollar
THB	Thai Baht
TND	Tunisian dinar
TRY	Turkish lira
TTD	Trinidad and Tobago dollar
TWD	Taiwan new dollar
VEF	Venezuelan bolivar fuerte
VND	Vietnamese dong
XAF	CFA franc BEAC,
XDR	Special Drawing Right
XPF	CFP franc
ZAR	South African Rand

Time Zones

The time zones are as follows:

> **Note:** The field is case-insensitive.

ACT

AET

Africa/Abidjan

Africa/Accra

Africa/Addis_Ababa

Africa/Algiers

Africa/Asmera

Africa/Bamako

Africa/Bangui

Africa/Banjul

Africa/Bissau

Africa/Blantyre

Africa/Brazzaville

Africa/Bujumbura

Africa/Cairo

Africa/Casablanca

Africa/Ceuta

Africa/Conakry

Africa/Dakar

Africa/Dar_es_Salaam

Africa/Djibouti

Africa/Douala

Africa/El_Aaiun

Africa/Freetown

Africa/Gaborone

Africa/Harare

Africa/Johannesburg

Africa/Kampala

Africa/Khartoum

Africa/Kigali

Africa/Kinshasa

Africa/Lagos

Africa/Libreville

Africa/Lome

Africa/Luanda

Africa/Lubumbashi

Africa/Lusaka

Africa/Malabo

Africa/Maputo

Africa/Maseru

Africa/Mbabane

Africa/Mogadishu

Africa/Monrovia

Africa/Nairobi

Africa/Ndjamena

Africa/Niamey

Africa/Nouakchott

Africa/Ouagadougou

Africa/Porto-Novo

Africa/Sao_Tome

Africa/Timbuktu

Africa/Tripoli

Africa/Tunis

Africa/Windhoek

AGT

America/Adak

America/Anchorage

America/Anguilla

America/Antigua

America/Araguaina

America/Aruba

America/Asuncion

America/Atka

America/Barbados

America/Belem

America/Belize

America/Boa_Vista

America/Bogota

America/Boise

America/Buenos_Aires

America/Cambridge_Bay

America/Cancun

America/Caracas

America/Catamarca

America/Cayenne

America/Cayman

America/Chicago

America/Chihuahua

America/Cordoba

America/Costa_Rica

America/Cuiaba

America/Curacao

America/Danmarkshavn

America/Dawson

America/Dawson_Creek

America/Denver

America/Detroit

America/Dominica

America/Edmonton

America/Eirunepe

America/El_Salvador

America/Ensenada

America/Fort_Wayne

America/Fortaleza

America/Glace_Bay

America/Godthab

America/Goose_Bay

America/Grand_Turk

America/Grenada

America/Guadeloupe

America/Guatemala

America/Guayaquil

America/Guyana

America/Halifax

America/Havana

America/Hermosillo

America/Indiana/Indianapolis

America/Indiana/Knox

America/Indiana/Marengo

America/Indiana/Vevay

America/Indianapolis

America/Inuvik

America/Iqaluit

America/Jamaica

America/Jujuy

America/Juneau

America/Kentucky/Louisville

America/Kentucky/Monticello

America/Knox_IN

America/La_Paz

America/Lima

America/Los_Angeles

America/Louisville

America/Maceio

America/Managua

America/Manaus

America/Martinique

America/Mazatlan

America/Mendoza

America/Menominee

America/Merida

America/Mexico_City

America/Miquelon

America/Monterrey

America/Montevideo

America/Montreal

America/Montserrat

America/Nassau

America/New_York

America/Nipigon

America/Nome

America/Noronha

America/North_Dakota/Center

America/Panama

America/Pangnirtung

America/Paramaribo

America/Phoenix

America/Port-au-Prince

America/Port_of_Spain

America/Porto_Acre

America/Porto_Velho

America/Puerto_Rico

America/Rainy_River

America/Rankin_Inlet

America/Recife

America/Regina

America/Rio_Branco

America/Rosario

America/Santiago

America/Santo_Domingo

America/Sao_Paulo

America/Scoresbysund

America/Shiprock

America/St_Johns

America/St_Kitts

America/St_Lucia

America/St_Thomas

America/St_Vincent

America/Swift_Current

America/Tegucigalpa

America/Thule

America/Thunder_Bay

America/Tijuana

America/Tortola

America/Vancouver

America/Virgin

America/Whitehorse

America/Winnipeg

America/Yakutat

America/Yellowknife

Antarctica/Casey

Antarctica/Davis

Antarctica/DumontDUrville

Antarctica/Mawson

Antarctica/McMurdo

Antarctica/Palmer

Antarctica/Rothera

Antarctica/South_Pole

Antarctica/Syowa

Antarctica/Vostok

Arctic/Longyearbyen

ART

Asia/Aden

Asia/Almaty

Asia/Amman

Asia/Anadyr

Asia/Aqtau

Asia/Aqtobe

Asia/Ashgabat

Asia/Ashkhabad

Asia/Baghdad

Asia/Bahrain

Asia/Baku

Asia/Bangkok

Asia/Beirut

Asia/Bishkek

Asia/Brunei

Asia/Calcutta

Asia/Choibalsan

Asia/Chongqing

Asia/Chungking

Asia/Colombo

Asia/Dacca

Asia/Damascus

Asia/Dhaka

Asia/Dili

Asia/Dubai

Asia/Dushanbe

Asia/Gaza

Asia/Harbin

Asia/Hong_Kong

Asia/Hovd

Asia/Irkutsk

Asia/Istanbul

Asia/Jakarta

Asia/Jayapura

Asia/Jerusalem

Asia/Kabul

Asia/Kamchatka

Asia/Karachi

Asia/Kashgar

Asia/Katmandu

Asia/Krasnoyarsk

Asia/Kuala_Lumpur

Asia/Kuching

Asia/Kuwait

Asia/Macao

Asia/Macau

Asia/Magadan

Asia/Makassar

Asia/Manila

Asia/Muscat

Asia/Nicosia

Asia/Novosibirsk

Asia/Omsk

Asia/Oral

Asia/Phnom_Penh

Asia/Pontianak

Asia/Pyongyang

Asia/Qatar

Asia/Qyzylorda

Asia/Rangoon

Asia/Riyadh

Asia/Riyadh87

Asia/Riyadh88

Asia/Riyadh89

Asia/Saigon

Asia/Sakhalin

Asia/Samarkand

Asia/Seoul

Asia/Shanghai

Asia/Singapore

Asia/Taipei

Asia/Tashkent

Asia/Tbilisi

Asia/Tehran

Asia/Tel_Aviv

Asia/Thimbu

Asia/Thimphu

Asia/Tokyo

Asia/Ujung_Pandang

Asia/Ulaanbaatar

Asia/Ulan_Bator

Asia/Urumqi

Asia/Vientiane

Asia/Vladivostok

Asia/Yakutsk

Asia/Yekaterinburg

Asia/Yerevan

AST

Atlantic/Azores

Atlantic/Bermuda

Atlantic/Canary

Atlantic/Cape_Verde

Atlantic/Faeroe

Atlantic/Jan_Mayen

Atla ATLANTIC_MADEIRA(ntic/Madeira

Atlantic/Reykjavik

Atlantic/South_Georgia

Atlantic/St_Helena

Atlantic/Stanley

Australia/ACT

Australia/Adelaide

Australia/Brisbane

Australia/Broken_Hill

Australia/Canberra

Australia/Darwin

Australia/Hobart

Australia/LHI

Australia/Lindeman

Australia/Lord_Howe

Australia/Melbourne

Australia/North

Australia/NSW

Australia/Perth

Australia/Queensland

Australia/South

Australia/Sydney

Australia/Tasmania

Australia/Victoria

Australia/West

Australia/Yancowinna

BET

Brazil/Acre

Brazil/DeNoronha

Brazil/East

Brazil/West

BST

Canada/Atlantic

Canada/Central

Canada/East-Saskatchewan

Canada/Eastern

Canada/Mountain

Canada/Newfoundland

Canada/Pacific

Canada/Saskatchewan

Canada/Yukon

CAT

CET

Chile/Continental

Chile/EasterIsland

CNT

CST

CST6CDT

CTT

Cuba

EAT

ECT

EET

Egypt

Eire

EST

EST5EDT

Etc/GMT

Etc/GMT+0

Etc/GMT+1

Etc/GMT+10

Etc/GMT+11

Etc/GMT+12

Etc/GMT+2

Etc/GMT+3

Etc/GMT+4

Etc/GMT+5

Etc/GMT+6

Etc/GMT+7

Etc/GMT+8

Etc/GMT+9

Etc/GMT-0

Etc/GMT-1

Etc/GMT-10

Etc/GMT-11

Etc/GMT-12

Etc/GMT-13

Etc/GMT-14

Etc/GMT-2

Etc/GMT-3

Etc/GMT-4

Etc/GMT-5

Etc/GMT-6

Etc/GMT-7

Etc/GMT-8

Etc/GMT-9

Etc/GMT0

Etc/Greenwich

Etc/UCT

Etc/Universal

Etc/UTC

Etc/Zulu

Europe/Amsterdam

Europe/Andorra

Europe/Athens

Europe/Belfast

Europe/Belgrade

Europe/Berlin

Europe/Bratislava

Europe/Brussels

Europe/Bucharest

Europe/Budapest

Europe/Chisinau

Europe/Copenhagen

Europe/Dublin

Europe/Gibraltar

Europe/Helsinki

Europe/Istanbul

Europe/Kaliningrad

Europe/Kiev

Europe/Lisbon

Europe/Ljubljana

Europe/London

Europe/Luxembourg

Europe/Madrid

Europe/Malta

Europe/Minsk

Europe/Monaco

Europe/Moscow

Europe/Nicosia

Europe/Oslo

Europe/Paris

Europe/Prague

Europe/Riga

Europe/Rome

Europe/Samara

Europe/San_Marino

Europe/Sarajevo

Europe/Simferopol

Europe/Skopje

Europe/Sofia

Europe/Stockholm

Europe/Tallinn

Europe/Tirane

Europe/Tiraspol

Europe/Uzhgorod

Europe/Vaduz

Europe/Vatican

Europe/Vienna

Europe/Vilnius

Europe/Warsaw

Europe/Zagreb

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Europe/Zurich

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GMT

GMT0

Greenwich

Hongkong

HST

Iceland

IET

Indian/Antananarivo

Indian/Chagos

Indian/Christmas

Indian/Cocos

Indian/Comoro

Indian/Kerguelen

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Pacific/Enderbury

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Pacific/Fiji

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Pacific/Galapagos

Pacific/Gambier

Pacific/Guadalcanal

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Pacific/Nauru

Pacific/Niue

Pacific/Norfolk

Pacific/Noumea

Pacific/Pago_Pago

Pacific/Palau

Pacific/Pitcairn

Pacific/Ponape

Pacific/Port_Moresby

Pacific/Rarotonga

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Pacific/Samoa

Pacific/Tahiti

Pacific/Tarawa

Pacific/Tongatapu

Pacific/Truk

Pacific/Wake

Pacific/Wallis

Pacific/Yap

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PNT

Poland

Portugal

PRC

PRT

PST

PST8PDT

ROK

Singapore

SST

SystemV/AST4

SystemV/AST4ADT

SystemV/CST6

SystemV/CST6CDT

SystemV/EST5

SystemV/EST5EDT

SystemV/HST10

SystemV/MST7

SystemV/MST7MDT

SystemV/PST8

SystemV/PST8PDT

SystemV/YST9

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