REMOVE-Upgrading from WSO2 Business Process Server

This page walks you through the process of upgrading to WSO2 Enterprise Integrator (WSO2 EI) 6.4.0 from WSO2 Business Process Server (WSO2 BPS) 3.6.0.

ⓘ **Before you begin**, note the following:

- If you are upgrading from a version older than WSO2 BPS 3.6.0, you should first upgrade to WSO2 BPS 3.6.0 and then upgrade to WSO2 EI 6.4.0.
- For information on what is new in this release and why you should upgrade, see About this Release.
- For more information on ports, see Default ports of WSO2 Products. The default ports in WSO2 EI are listed under **Enterprise Integrator**.
- The distribution folder structure has changed from WSO2 BPS 3.6.0 to WSO2 EI 6.4.0.

Business Process Server 3.6.0	Enterprise Integrator 6.4.0
`<BPS_HOME>/repository/conf`	`<EI_HOME>/wso2/business-process/conf`
`<BPS_HOME>/repository/conf/axis2`	`<EI_HOME>/wso2/business-process/conf/axis2`
`<BPS_HOME>/repository/conf/datasources`	`<EI_HOME>/wso2/business-process/conf/datasources`
`<BPS_HOME>/repository/components/dropins`	`<EI_HOME>/dropins`
`<BPS_HOME>/repository/components/extensions`	`<EI_HOME>/extensions`
`<BPS_HOME>/repository/components/lib`	`<EI_HOME>/lib`
`<BPS_HOME>/repository/component/patches`	`<EI_HOME>/patches`

See the following topics for instructions:

- Upgrading the databases
- Migrating the configurations
- Migrating artifacts
- Starting the server

Upgrading the databases

In WSO2 EI 6.4.0, you can use the same Carbon database and BPEL/BPMN databases that you used for WSO2 BPS 3.6.0. However, you need to apply **Security Advisory (WSO2-2017-0345)** before connecting the databases to WSO2 EI 6.4.0.

Due to **Security Advisory (WSO2-2017-0345)**, WSO2 EI 6.4.0 uses OAEP for data encryption in addition to the RSA algorithm (which is used in WSO2 BPS 3.6.0.). This applies only to internally-encrypted data in the BPS server. Therefore, the internally-encrypted data in your current databases (such as datasource configurations, user store configurations, keystore registry entries, service security policies, event publisher configurations, event receiver configurations, and event sink configurations) should be re-encrypted using OAEP.

To re-encrypt all internally-encrypted data using OAEP:

1. Get the latest WUM updates (later than the update level released on 18/04/2018) for your WSO2 BPS 3.6.0. This will give you a new WSO2 BPS distribution with the latest updates.
2. Connect the WUM-updated WSO2 BPS distribution to your existing databases (which are used for registry data, and user management data):

   a. Open the `master-datasources.xml` file (stored in the `<WUM_UPDATED_BPS_3.6.0_HOME>/repository/conf/datasources/` directory) and update the parameters given below.

   > ✓ By default, registry and user management data are stored in one database and is configured in the `master-datasources.xml` file. If you have separate databases for registry and user management data, you may have separate datasource configurations.

Element	Description
url	The URL of the database.
username and **password**	The name and password of the database user.
driverClassName	The class name of the database driver.

   b. Open the `registry.xml` file (stored in the `<WUM_UPDATED_BPS_3.6.0_HOME>/repository/conf/` directory) and specify the datasource name.

   ```
   <dbConfig name="wso2registry">
       <dataSource>jdbc/MY_DATASOURCE_NAME</dataSource>
   </dbConfig>
   ```

   c. If a JDBC user store is used in your BPS server, open the `user-mgt.xml` file (stored in the `<WUM_UPDATED_BPS_3.6.0_HOME>/repository/conf/` directory), and update the following database connection parameters under the `<UserStoreManager class="org.wso2.carbon.user.core.jdbc.JDBCUserStoreManager">` section.

Element	Description
url	The URL of the database.
username and **password**	The name and password of the database user.
driverClassName	The class name of the database driver.

   Further, update the system administrator configurations and the datasource name in the `user-mgt.xml` file.

   d. Encrypt the plain text passwords that you added to the configuration files (`master-datasources.xml`, `user-mgt.xml`, etc.).

3. Be sure that the `carbon.properties` file is included in the `<WUM_UPDATED_BPS_3.6.0_HOME>/repository/conf/` directory with the following parameter:

   ```
   org.wso2.CipherTransformation=RSA/ECB/OAEPwithSHA1andMGF1Padding
   ```

4. Start the WUM-updated WSO2 BPS server. This will re-encrypt the data in the databases.

Migrating the configurations

> ⚠ Do not copy **configuration files** directly between servers. Instead, update the files manually.

To migrate all the required folders, files, libraries, etc. from WSO2 BPS 3.6.0 to the BPS profile of WSO2 EI 6.4.0:

1. Copy the database connector JAR files stored in the `<BPS_HOME>/repository/components/lib` directory of WSO2 BPS 3.6.0 to WSO2 EI 6.4.0. For example, the JAR for the Oracle database (`ojdbc7.jar`) can be copied.
2. Copy the keystores and truststores used in WSO2 BPS 3.6.0, from the `<BPS_HOME>/repository/resources/security` directory to the `<EI_HOME>/wso2/business-process/repository/resources/security` directory in WSO2 EI 6.4.0.
3. If you have secondary user stores created for WSO2 BPS 3.6.0, you need to copy the 'userstore' folder in the `<BPS_HOME>/repository/deployment/server/` directory to the `<EI_HOME>/wso2/business-process/repository/deployment/server/` directory in WSO2 EI 6.4.0.

To migrate the configurations from WSO2 BPS 3.6.0 to the BPS profile of WSO2 EI 6.4.0:

1. Update the configuration files with information of the migrated keystores and truststores. See Configuring Keystores in WSO2 products for more information.
2. Go to the `<EI_HOME>/wso2/business-process/conf/datasources` directory and update the Carbon datasource configuration in the `master-datasources.xml` file with the details of the Carbon database.
3. Go to the `<EI_HOME>/wso2/business-process/conf` directory and update the datasource references in the `user-mgt.xml` and `registry.xml` files to match the updated configurations in the `master-datasources.xml` file.
4. Go to the `<EI_HOME>/wso2/business-process/conf/datasources` directory and update the `activiti-datasources.xml` file with details of the datasource connection to the BPMN database.
5. Go to the `<EI_HOME>/wso2/business-process/conf/datasources` directory and update the `bps-datasources.xml` file with details of the datasource connection to the BPEL database.
6. Open the `<EI_HOME>/wso2/business-process/conf/humantask.xml` file and change `GenerateDdl` to `false`. You can see the deployed humantask packages with the version in the console. A migration success message is printed once the migration completes successfully.

   ```
   <GenerateDdl>false</GenerateDdl>
   ```

7. Check for any further configurations that were done for WSO2 BPS 3.6.0 based on your solution and update the following configurations in WSO2 EI 6.4.0 accordingly:

   a. `humantask.xml`
   b. `axis2.xml`
   c. `bps.xml`
   d. `Activiti.xml`
   e. `Tenant-mgt.xml`
   f. `b4p-coordination-config.xml`
   g. `process-cleanup.properties`
   h. Check the configurations related to external user stores, caching, mounting, transports etc.

Migrating artifacts

Follow the steps given below:

1. Copy the BPEL .zip packages in the `<BPS_HOME>/repository/deployment/server/bpel` directory to `<EI_HOME>/wso2/business-process/repository/deployment/server/bpel` directory.
2. Copy the BPMN .bar packages in the `<BPS_HOME>/repository/deployment/server/bpmn` directory to `<EI_HOME>/wso2/business-process/repository/deployment/server/bpmn` directory.

3. Copy the humantask .zip packages in the `<BPS_HOME>/repository/deployment/server/humantasks` directory to `<EI_HOME>/wso2/business-process/repository/deployment/server/humantasks` directory.
4. If you have custom artifacts created in the `<BPS_HOME>/repository/deployment/server/` directory of WSO2 BPS 3.6.0, copy them to the `<EI_HOME>/wso2/business-process/repository/deployment/server/` in WSO2 EI 6.4.0.
5. If you have used multitenancy, copy the tenant directory packages from `<BPS_HOME>/repository/tenants` to the `<EI_HOME>/wso2/business-process/repository/tenants` directory.

Starting the server

Once you have completed the migration, you can start the Business Process profile of WSO2 EI. For details see Running the Product.

> The Management Console, BPMN Explorer and Human Task Explorer URLs for the Business Process profile in WSO2 EI 6.4.0 are as follows:
>
> - Management Console : `https://<ip>/<port>:9445/carbon/`
> - BPMN Explorer : `https://<ip>/<port>:9445/bpmn-explorer`
> - HumanTask Explorer : `https://<ip>/<port>:9445/humantask-explorer`