



## Migration Guide





## Migration Guide



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## Migrating product configurations for z/OS

Use this information to migrate to WebSphere® Extended Deployment for z/OS® Version 6.1.1, which includes WebSphere Virtual Enterprise for z/OS and WebSphere Extended Deployment Compute Grid for z/OS.

- Migrate WebSphere Virtual Enterprise for z/OS and WebSphere Extended Deployment Compute Grid for z/OS from Version 6.1.0.5 to Version 6.1.1 while maintaining the same version of WebSphere Application Server Network Deployment. This migration scenario is known as an *upgrade*.
- Migrate from Version 6.1.0.5 of Virtual Enterprise and Compute Grid and Version 6.1.0.x of WebSphere Application Server Network Deployment to a Virtual Enterprise and Compute Grid Version 6.1.1 and Network Deployment Version 7.0.x cell. In this scenario, you update the version for both WebSphere Extended Deployment and WebSphere Application Server Network Deployment.
- Migrate the parallel job manager for Compute Grid from Version 6.1.0.5 to Version 6.1.1.

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### Migrating products from Version 6.1.0.5 to Version 6.1.1

You can migrate WebSphere Virtual Enterprise for z/OS and WebSphere Extended Deployment Compute Grid for z/OS from Version 6.1.0.5 to Version 6.1.1.

#### Before you begin

- Ensure that WebSphere Virtual Enterprise for z/OS Version 6.1.0.5 or WebSphere Extended Deployment Compute Grid for z/OS Version 6.1.0.5, or both, is installed and running in your current cell. See the Program Directory on the Library page for more information.
- Update WebSphere Application Server Network Deployment for z/OS to the latest maintenance level available. Depending on which product version you are running, your system must meet one of the following minimum requirements:
  - WebSphere Application Server Network Deployment for z/OS Version 6.1.0.27 or later
  - WebSphere Application Server Network Deployment for z/OS Version 7.0.0.5 or later

See the Latest fix packs for WebSphere Application Server for more information.

- Start all servers on all nodes to incorporate the changes for the WebSphere Application Server Network Deployment upgrade.

#### About this task

The process of migrating Virtual Enterprise and Compute Grid from Version 6.1.0.5 to Version 6.1.1 while maintaining the same version of WebSphere Application Server Network Deployment is known as an *upgrade*.

1. Mount the new product HFS for Version 6.1.1 in the /usr/lpp/zWebSphereXD/V6R1M1 directory.
2. Optional: Unaugment WebSphere eXtreme Scale Version 6.1.0.x from your current cell if the product already exists in your environment.
  - a. Run the manageprofiles command from the WAS\_install\_root/DeploymentManager/bin directory:

```
./manageprofiles.sh -unaugment -profileName default -templatePath
WAS_install_root/DeploymentManager/profileTemplates/wxddg_augment -ignoreStack
```

See the manageprofiles command topic Version 6.1.1 Information Center for more information.

- b. Start the deployment manager.
- c. Synchronize each node. Run the syncNode command from the *WAS\_install\_root/AppServer/bin* directory:

```
./syncNode.sh dmgrSystem dmgrPport -conntype soap -username user_name -password user_password
```

- d. Stop the deployment manager.

3. Optional: Remove the eXtreme Scale links and directories from your current cell if the product already exists in your environment.

- a. Run the removeOG610 command from the *WAS\_install\_root/DeploymentManager/bin* directory:

```
./removeOG610.sh /usr/lpp/zWebSphereXD/V6R1M1 /WAS_install_root/DeploymentManager
user_name user_password
```

- b. Start the deployment manager.

- c. Run the removeOG610 command from the *WAS\_install\_root/AppServer/bin* directory for each application server node:

```
./removeOG610.sh /usr/lpp/zWebSphereXD/V6R1M1 /WAS_install_root/AppServer
user_name user_password
```

- d. Stop the deployment manager.

4. Link Virtual Enterprise and Compute Grid and upgrade the products to Version 6.1.1.

- a. Run the upgradeVECG611 command from the *WAS\_install\_root/DeploymentManager/bin* directory:

```
./upgradeVECG611.sh /usr/lpp/zWebSphereXD/V6R1M1 /WAS_install_root/DeploymentManager
user_name user_password
```

- b. Start the deployment manager.

- c. Run the upgradeVECG611 command from the *WAS\_install\_root/AppServer/bin* directory for each application server node:

```
./upgradeVECG611.sh /usr/lpp/zWebSphereXD/V6R1M1 /WAS_install_root/AppServer
user_name user_password
```

- d. Stop the deployment manager.

5. Optional: Enable JAVA2 security access to your new Version 6.1.1 file system if you have JAVA2 security set or you plan to set security later.

- a. Edit the server.policy file. You can use the policytool in the *WAS\_HOME/java/jre/bin* directory to edit the policy file, or you can manually edit the policy file. If you choose to manually edit the file, set permissions for the deployment manager and all of the application server nodes.

To set permissions for the deployment manager, add the following two lines to the server.policy file in the */WAS\_install\_root/DeploymentManager/profiles/default/properties* directory:

```
grant codeBase "file:/usr/lpp/zWebSphereXD/V6R1M1/lib/-" { permission java.security.AllPermission; };
grant codeBase "file:/usr/lpp/zWebSphereXD/V6R1M1/-" { permission java.security.AllPermission; };
```

To set permissions for each application server node, add the following two lines to the server.policy file in the */WAS\_install\_root/AppServer/profiles/default/properties* directory:

```
grant codeBase "file:/usr/lpp/zWebSphereXD/V6R1M1/lib/-" { permission java.security.AllPermission; };
grant codeBase "file:/usr/lpp/zWebSphereXD/V6R1M1/-" { permission java.security.AllPermission; };
```

6. Start your new Version 6.1.1 cell.

## What to do next

If your environment contains Compute Grid, migrate the parallel job manager.

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## Migrating to a Version 6.1.1 and Version 7.0.x cell

You can migrate your existing product configurations to a WebSphere Extended Deployment for z/OS Version 6.1.1 and WebSphere Application Server Network Deployment for z/OS Version 7.0.x cell.

### Before you begin

Update WebSphere Application Server Network Deployment for z/OS Version 6.1.0.x to the latest maintenance level available. See the Latest fix packs for WebSphere Application Server for more information.

1. Prepare to migrate your existing cell.
  - a. Install WebSphere Application Server Network Deployment for z/OS Version 7.0.x. Use the same cell name and node names that you used for the cell name and node names of your existing Network Deployment Version 6.1.0.x configuration. See *Installing your application serving environment* for more information.
  - b. Install WebSphere Extended Deployment for z/OS Version 6.1.1. Use the same cell name and node names that you used for the cell name and node names of your existing Version 6.1.0.5 configuration. See the *Program Directory* on the *Library* page for more information.
  - c. Augment the deployment manager and application server node profiles for Version 6.1.1. See the *z/OS customization* section in the *Version 6.1.1 Information Center* for more information.
2. Migrate the deployment manager. See “*Migrating the deployment manager for z/OS*” for more information.
3. Migrate each node one at a time. See “*Migrating an application server node for z/OS*” on page 4 for more information.
4. Optional: Migrate the Compute Grid parallel job manager. See “*Migrating the WebSphere Extended Deployment Compute Grid parallel job manager*” on page 6 for more information.

## Migrating the deployment manager for z/OS

You can migrate the deployment manager from your current WebSphere Application Server Network Deployment Version 6.1.0.x and WebSphere Extended Deployment Version 6.1.0.5 cell to a new WebSphere Application Server Network Deployment Version 7.0.x and WebSphere Extended Deployment Version 6.1.1 cell.

### Before you begin

Create your Version 6.1.1 and Version 7.0.x cell.

1. Create and mount a new configuration file system as the target of the migration.
2. Mount the product HFS for WebSphere Application Server Network Deployment Version 7.0.x at `/usr/lpp/zWebSphere/V7R0`.
3. Use the z/OS Migration Management Tool or `zmmt` command to generate and run the Job Control Language (JCL) jobs for Version 7.0.x. See the *Migrating product configurations with migration tools* topic in the *WebSphere Application Server Network Deployment Information Center* for more information.

4. Use the WebSphere Customization Tools to generate the Version 6.1.1 augmentation job for the deployment manager. Use the directory name you used in step 1 as the mount point of the configuration file system. See the z/OS customization section in the Version 6.1.1 Information Center for more information.
5. Use the WebSphere Customization Tools to upload and run the augmentation job. See the z/OS customization section in the Version 6.1.1 Information Center for more information.
6. Run the XDUpgrade command to copy the existing configuration to the new Version 6.1.1 cell as shown in the following example:

```
XDUpgrade.sh -userID user_name -password user_password
-sourceWasHome install_root/DeploymentManager
-sourceProfilePath install_root/DeploymentManager/profiles/default
-targetProfilePath configuration_root/DeploymentManager/profiles/default
```

**Note:** You must run the XDUpgrade command from the *configuration\_root/DeploymentManager/bin* directory.

After you run the XDUpgrade command, review the XDUpgrade.log and XDUpgrade.trace files in the *configuration\_root/DeploymentManager/logs* directory.

7. Start the new deployment manager.

## What to do next

Migrate each application server node one at a time.

## Migrating an application server node for z/OS

You can migrate an application server node from your current WebSphere Application Server Network Deployment Version 6.1.0.x and WebSphere Extended Deployment Version 6.1.0.5 cell to a new WebSphere Application Server Network Deployment Version 7.0.x and WebSphere Extended Deployment Version 6.1.1 cell.

### Before you begin

Migrate the deployment manager.

1. Create and mount a new configuration file system as the target of the migration.
2. Mount the product HFS for WebSphere Application Server Network Deployment Version 7.0.x at */usr/lpp/zWebSphere/V7R0*.
3. Use the z/OS Migration Management Tool or *zmmt* command to generate and run the Job Control Language (JCL) jobs for Version 7.0.x. See the Migrating product configurations with migration tools topic in the WebSphere Application Server Network Deployment Information Center for more information.
4. Use the WebSphere Customization Tools to generate the Version 6.1.1 augmentation job for each node. Use the directory name you used in step 1 as the mount point of the configuration file system. See the z/OS customization section in the Version 6.1.1 Information Center for more information.
5. Use the WebSphere Customization Tools to upload and run the augmentation job for each node. See the z/OS customization section in the Version 6.1.1 Information Center for more information.
6. Start the deployment manager if it is not already started.
7. Run the XDUpgrade command to copy the existing configuration to the new Version 6.1.1 cell as shown in the following example:

```
XDUUpgrade.sh -userID user_name -password user_password
-sourceWasHome install_root/AppServer
-sourceProfilePath install_root/AppServer/profiles/default
-targetProfilePath configuration_root/AppServer/profiles/default
```

**Note:** You must run the XDUUpgrade command from the *configuration\_root*/AppServer/bin directory.

After you run the XDUUpgrade command, review the XDUUpgrade.log and XDUUpgrade.trace files in the *configuration\_root*/AppServer/logs directory.

8. Start each node.

## What to do next

If your environment contains Compute Grid, migrate the parallel job manager.

## XDUUpgrade command

Use the XDUUpgrade command to copy product configuration data from an existing WebSphere Extended Deployment Version 6.1.0.5 cell to a new WebSphere Extended Deployment Version 6.1.1 cell.

### Location

Run the command from the *target\_profile\_root*/bin directory.

### Parameters

#### **-userID**

Specifies the administrative user name for authentication if security is enabled on the workstation.

#### **-password**

Specifies the administrative password for authentication if security is enabled on the workstation.

#### **-sourceWasHome**

Specifies the *install\_root* directory of the existing WebSphere Application Server Network Deployment and WebSphere Extended Deployment installations from which the configuration is migrated.

#### **-sourceProfilePath**

Specifies the fully qualified path of the existing profile from which the configuration is migrated.

#### **-targetProfilePath**

Specifies the fully qualified path to the target profile.

## Usage

The following example migrates the configuration of the deployment manager to the new cell:

```
XDUUpgrade.sh -userID user_name -password user_password
-sourceWasHome install_root/DeploymentManager
-sourceProfilePath install_root/DeploymentManager/profiles/default
-targetProfilePath target_profile_path/DeploymentManager/profiles/default
```

The following example migrates the configuration of an application server to the new cell:

```
XDUUpgrade.sh -userID user_name -password user_password
-sourceWasHome install_root/AppServer
-sourceProfilePath install_root/AppServer/profiles/default
-targetProfilePath target_profile_path/AppServer/profiles/default
```

After you run the XDUUpgrade command, review the XDUUpgrade.log and XDUUpgrade.trace files in the *target\_profile\_root*/logs directory.

---

## Migrating the WebSphere Extended Deployment Compute Grid parallel job manager

You can migrate the parallel job manager from WebSphere Extended Deployment Compute Grid Version 6.1.0.5 to WebSphere Extended Deployment Compute Grid Version 6.1.1.

### Before you begin

Before you can migrate the parallel job manager from Version 6.1.0.5 to Version 6.1.1, ensure that you meet the following prerequisites:

1. The steps for the upgrade scenario or the standard migration scenario have been completed.
2. The Compute Grid Version 6.1.0.5 parallel job manager application is installed and configured.
1. Update the parallel job manager DB2<sup>®</sup> tables by using MIGPJM as the SPUFI input. The SPUFI input you need is in the */usr/lpp/zWebSphereXD/V6R1M1/longRunning/MIGPJM* directory.

**Note:** Updates for other databases, for example Derby, are not currently available.

2. Uninstall the Version 6.1.0.5 parallel job manager. Run the *parallelJobManager.py* script from the *WAS\_install\_root/DeploymentManager/bin* directory. For example, to remove a parallel job manager application, run the following command:

```
./wsadmin.sh -lang jython -f parallelJobManager.py -remove
-cluster clustername_of_endpoint -user user_id
-password user_password
```

See the *parallelJobManager.py* script topic in the Version 6.1.1 Information Center for additional script information.

3. Install a Version 6.1.1 parallel job manager application. Run the *parallelJobManager.py* script from the *WAS\_install\_root/DeploymentManager/bin* directory. For example, to install a schema named PJSHEMA, run the following command:

```
./wsadmin.sh -lang jython -f parallelJobManager.py -install
-cluster clustername_of_endpoint -backend db2_back_end
-schema PJSHEMA -user user_id -password user_password
```

See the *parallelJobManager.py* script topic in the Version 6.1.1 Information Center for additional script information.

4. Verify in the parallel job manager datasource for DB2 that the *currentSQLID* custom property is set to the schema name you chose for the parallel job manager tables.
5. Restart the servers on the clusters where you installed the parallel job manager.



## **Results**

The parallel job manager is upgraded to Version 6.1.1.

## **What to do next**

You can submit verification jobs.



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