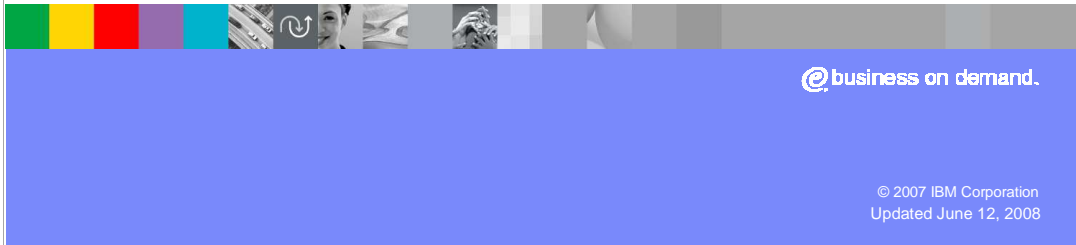IBM Software Group

IBM® WebSphere® Extended Deployment V6.1

Migration

@business on demand.

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This presentation will cover migration from WebSphere Extended Deployment V6.0.2 to V6.1.

This module references

WebSphere Extended Deployment Data Grid, which is now called WebSphere eXtreme Scale; and

WebSphere Extended Deployment Operations Optimization, which is now called WebSphere Virtual Enterprise.

Though the module uses the previous names, the technical material covered is still accurate.

Migration: First steps

- Install WebSphere Application Server V6.1.0.7 on:
  - ▶ deployment manager host
  - ▶ each host that contains a WebSphere Extended Deployment V6.0.2 node that you plan to migrate
- Steps:
  - ▶ Install WebSphere Application Server 6.1
  - ▶ Install fix pack 7 to bring the deployment manager host and other WebSphere Extended Deployment V6.0.2 node hosts to version 6.1.0.7
  - ▶ Apply all required interim fixes
  - ▶ Do not federate the nodes at this point

The migration process for WebSphere Extended Deployment begins with the installation of WebSphere Application Server V6.1.0.7 on the deployment manager host and on each host that contains a WebSphere Extended Deployment V6.0.2 node that you plan to migrate. First, install WebSphere Application Server V6.1, then install fix pack 7 to update your installation to V6.1.0.7. Ensure all required interim fixes have been applied.

Preparing the deployment manager

- Create a version 6.1.0.7 deployment manager profile

- Migrate the Extended Deployment V6.0.2 configuration to the new profile
  - ▶ Use WASPreUpgrade and WASPostUpgrade

- Install the WebSphere Extended Deployment Version 6.1 product packages on the host and augment each package you have installed to the deployment manager profile
  - ▶ You must first install the operations optimization package, then augment with the xd_augment template
  - ▶ Next install the compute grid and data grid packages, then augment with the wxdcg_augment and wxddg_augment templates

Multiple steps are required when migrating the deployment manager from WebSphere Extended DeploymentV6.0.2 to V6.1. First, use the profile creation tool installed with WebSphere Application Server V6.1 to create a deployment manager profile. The managedprofiles command can also be used to create a deployment manager profile. Once you have created this profile, use the WASPreUpgrade tool to export the configuration from your V6.0.2 environment, then run WASPostUpgrade to import that configuration into your newly created profile. Next, install WebSphere Extended Deployment V6.1 product packages on the deployment manager host, making sure to augment the deployment manager profile for each package you have installed. You must augment the operations optimization package before augmenting the compute grid or data grid packages.

If you are unfamiliar with WASPreUpgrade and WASPostUpgrade, refer to the WebSphere information center for instructions and syntax. Note that you must use the WASPreUpgrade and WASPostUpgrade tools located in the 'bin' directory of the version 6.1 profile that you just created, not the tools of the same name located in your older version 6.0.2 installation directory.

Run XDUpgrade

- Perform the WebSphere Extended Deployment V6.1 migration on the deployment manager by running the XDUpgrade utility
- The XDUpgrade utility imports deployment manager data from V6.0.2 to the V6.1 deployment manager profile
- XD_migration launches the migration wizard which will run XDUpgrade
- The command line tool is located in the bin directory of the deployment manager profile after WebSphere Extended Deployment installation
- XDUpgrade required parameters:

  -sourcewashome   <WAShome for source install>
  -sourceprofilepath   <source profile path>
  -sourceprofilename <source profile name>
  -targetprofilepath   <target profile path>
  -targetprofilename   <target profile name>

- Start the deployment manager

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Run the 'XDUpgrade' utility on the deployment manager to perform the WebSphere Extended Deployment V6.1 migration of the deployment manager. Run it from the command line, specifying the location of your version 6.0.2 Deployment Manager installation, and the name of your version 6.1 Deployment Manager profile. Or you can use the XD_migration command which launches the migration wizard which will in turn run XDUpgrade. Once the migration has completed, start the deployment manager. The deployment manager must be started to migrate the WebSphere Extended Deployment V6.0.2 nodes to V6.1.

The XDUpgrade required parameters are shown here.

-sourcewashome is the home directory for WebSphere Extended Deployment installation from which the configuration is to be migrated.

-sourceprofilepath is the fully qualified path to the profile from which the configuration is to be migrated.

-sourceprofilename is the name of the profile from which the configuration is to be migrated.

-targetprofilepath is the fully qualified path to the profile to which the configuration is to be migrated.

-targetprofilename is the name of the profile to which the configuration is to be migrated.

Preparing each node

- Ensure the node is stopped and the deployment manager is started

- Verify that WebSphere Application Server V6.1.0.7 is installed on each host that contains a WebSphere Extended Deployment Version 6.0.2 node that you plan to migrate

- Create a version 6.1.0.7 custom profile with the same node and cell name as each existing node and cell

- Migrate the existing Extended Deployment V6.0.2 node configurations to the new profiles
  - ▸ Use WASPreUpgrade and WASPostUpgrade

- Install the WebSphere Extended Deployment V6.1 packages on each node and augment the profile for each package

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After upgrading the deployment manager, you will need to upgrade each of your member nodes. Ensure the node you plan to migrate is stopped and the deployment manager is started. On each host, you will repeat the process that you just completed on the deployment manager, only you will create custom profiles, rather than deployment manager profiles. A custom profile creates a profile with a node agent, but no application servers.   Then use WASPreUpgrade and WASPostUpgrade to migrate the configuration from your old installation into the newly created profile. After migrating the configuration data, install WebSphere Extended Deployment V6.1 and augment each node's profile for each package.

Run XDUpgrade on each node

- Migrate each node to WebSphere Extended Deployment V6.1 by running the XDUpgrade utility
  - ▶ Migrate the on-demand router nodes first

- The XDUpgrade utility imports data from the Extended DeploymentV6.0.2 node into the Extended Deployment V6.1 node custom profile

- XD_migration starts the migration wizard which will run XDUpgrade

- The command line XDUpgrade tool is located in the bin directory of the target profile after the WebSphere Extended Deployment installation

- Repeat the same steps for each existing node you plan to migrate

Run the 'XDUpgrade' utility on each node to perform the WebSphere Extended Deployment V6.1 migration. Start by migrating the nodes that contain an on-demand router first. Run XDUpgrade from the command line, specifying the location of your version 6.0.2 deployment manager installation, and the name of your version 6.1 deployment manager profile. Or use the XD_migration command to launch the migration wizard, which will in turn run XDUpgrade. Once the migration has completed, repeat these same steps for each existing node you plan to migrate.

Mixed version support

- Extended Deployment V6.0.1, V6.0.2, and V5.1 do <u>not</u> support a mixed cell environment
  - ▸ Extended Deployment V6.0 migration strategy is a cell wide migration; all nodes must be migrated together.

- A WebSphere Extended Deployment V6.1 cell can contain:
  - ▸ WebSphere Extended Deployment V6.0.2 nodes
  - ▸ WebSphere Application Server V6.1, V6.0, V5.1

- A WebSphere Extended Deployment V6.1 cell can <u>not</u> contain
  - ▸ WebSphere Extended Deployment V6.0.1 nodes
  - ▸ WebSphere Extended Deployment V5.1 nodes

Support for mixed-version cells was introduced in WebSphere Application Server 6.0.

A cell managed by a WebSphere Extended Deployment 6.1 deployment manager can contain WebSphere Extended Deployment Version 6.0.2 nodes, WebSphere Application Server Version 6.1, 6.0 or 5.1 nodes, but importantly, <u>not</u> WebSphere Extended Deployment Version 6.0.1 nodes or 5.1 nodes.

Summary

- Migrating from WebSphere Extended Deployment V6.0.2 to WebSphere Extended Deployment V6.1 is similar to performing a WebSphere Application Server migration
  - ▸ The standard WebSphere Application Server migration process is followed by running *XDUpgrade* on the deployment manager host and on the host of each of the V6.0.2 nodes that you plan to migrate

In summary, to migrate from WebSphere Extended Deployment V6.0.2 to WebSphere Extended Deployment V6.1, you must first perform the standard WebSphere Application Server migration process on each of your nodes, followed by the installation of WebSphere Extended Deployment V6.1, then you will run 'XDUpgrade' on the deployment manager host and on the host of each V6.0.2 node that you plan to migrate.

Appendix 1

- Extended Deployment V5.1
  - ▶ Cannot migrate directly to Extended Deployment V6.1
  - ▶ Must perform a two step migration:
    - First migrate to Extended Deployment V6.0.2 following the migration steps from Extended Deployment V6.0 documents.
    - Then migrate to Extended Deployment V6.1 following the migration steps in this presentation

The migration process for WebSphere Extended Deployment V5.1 is two-fold. You much first perform the migration from WebSphere Extended Deployment V5.1 to V6.0.2, then migrate to WebSphere Extended Deployment V6.1 following the steps outlined in this presentation.

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