IBM WebSphere Enterprise Service Bus V6
IBM WebSphere Process Server V6

System migration

@business on demand.

This presentation will cover migration of system artifacts from previous version 6.1 of WebSphere® Enterprise Service Bus and WebSphere Process Server to version 6.2.

Agenda

- Migration V6.1 – V6.2
  - ▸ Profiles
  - ▸ Configuration
  - ▸ Applications
  - ▸ Scripts

- Migration common to
  - ▸ WebSphere Enterprise Service Bus
  - ▸ WebSphere Process Server

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This migration of version 6.1 artifacts to version 6.2 includes the profiles, configuration, applications, and scripts. The slides in this module apply to both the WebSphere Enterprise Service Bus and the WebSphere Process Server.

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Profile migration

- Profiles from V6.1 or V6.1.2 to V61
  - WebSphere Enterprise Service Bus
  - WebSphere Process Server
  - WebSphere Process Server Client
- Configuration migration
- Enterprise application migration
  - Sample, System, Product, User
- Database migration
  - Cloudscape® or Derby to Derby
- Tools
  - WBIPreUpgrade script
  - WBIPostUpgrade script
  - Migration Wizard migration.bat on distributed platforms

System migration   3   © 2009 IBM Corporation

A runtime migration path between V6.1 and V6.2 is needed when upgrading to V6.2. This is not an in-place update but rather the V6.2 version of the product must be installed beside the V6.1 version of the product. A runtime migration must be performed in order to migrate the existing V6.1 profiles to V6.2 profiles. This migration involves migrating the configuration files (server, resource, cell configuration files), user applications, and "system" or "admin" applications. The sample applications are not migrated but are provided with the V6.2 installation. Database migration from Cloudscape or Derby to the new Derby version of the default database is also provided. A GUI is provided which uses the WBIPreUpgrade and WBIPostUpgrade command files. These scripts can also be used without the GUI which is started using the migration script.

Version to version migration process

- Create target profile
  - Same node name, cell name, host name
- Migration GUI
  - Choose <create new profile>
  - WebSphere Application Server profile migration not supported
- Migration command line
  - WBIPostUpgrade use -createTargetProfile
- Patches for Migration to V6.2
- Install iFixes first:
  - Update installer 7.0.0.1

Having the correct target profile for migration is an important task in the migration process. It is strongly recommend that you create new target profiles when migrating your profiles. You must create the migration target profile with the same node name, cell name, and augmentation levels as the version 6.0.2 or 6.1 WebSphere Process Server profile or WebSphere Application Server profile. if possible, the same host name. If you are migrating on an i5/OS® platform, the target profile name must match the profile name of the source profile being migrated.

There are built-in options provided by migration wizard or command line to facilitate creating the new target profiles.

When using migration GUI, regardless of what type of profiles you are migrating from, always choose '<create new profile>' option on the migration panel to create a new profile in version 6.2 for migration. This option will create a new profile with proper configuration for migration purposes.

The migration wizard does not support migrating WebSphere Application Server profiles. You must use the command line tools when migrating WebSphere Application Server profiles in full WebSphere Process Server installations or in WebSphere Process Server client installations.

When using migration command line, regardless of what type of profiles you are migrating from, you should use '-createTargetProfile' when invoking WBIPostUpgrade. Use the correct version update installer to apply all iFixes to the latest level of version 6.2.

Version to version migration GUI

- Detected versions

- Source profile selection

- Target profile selection

- Cell name mismatch
  - Create target profile

Detected versions of WebSphere Application Server

The following versions of WebSphere Application Server exist on your computer. Select a product from the list, or specify the product directory for a product that is not displayed in the list.

☑ Specify the installation location if your existing

Installation root directory of the previous version:

C:\IBM\WebSphere\ProcServer612

Source profile selection

You can migrate a source profile, also known as an instance in WebSphere Application Server Version 5.x, from the previous version to a new or existing profile in WebSphere Application Server Version 6.1. Select the profile or instance that you want to migrate.

Source profile:

ProcSrv01

ProcSrv01
Dmgr01

Target profile selection

You can migrate the selected source profile to an existing profile or create a new profile. Only valid profiles based on type are listed. Select the profile to which you want to migrate.

Target profile:

Dmgr01

☑ Back up the target profile before migrating the source.

You can use the **restoreConfig** command to restore the configuration as required.

Cell name mismatch

The cell name for the selected previous version is aimcp052Cell02; The cell name for the version 6.1 deployment manager is aimcp052Cell01. The cell names do not match.

To migrate to a version 6.1 deployment manager, change the cell name for version 6.1 deployment manager to match the values of the selected version.

Select **Cancel** to exit.

The profile migration will detect any previous versions of the server that is installed on the same system as the new V6.2 installation. Select the previous version and then the profile which needs to be migrated. The target for that migrated profile can be an existing profile or a new profile.

Version to version profile options

- Create new profile
- Profile creation parameters
- Backup directory
  - logs

Target profile selection

You can migrate the selected source profile to an existing profile or create a new profile. Only valid profiles based on type are listed. Select the profile to which you want to migrate.

Target profile:
<Create new profile>

☑ Back up the target profile before migrating the source.

You can use the **restoreConfig** command to restore the configuration as required.

Profile creation parameters

Enter a name for the new profile   Dmgr612

Node name: aimcp052CellManager02

Host name: aimcp052.austin.ibm.com

Cell name: aimcp052Cell02

Node name: The node name is for administration by the deployment manager. The name must be unique within the cell.

Host name: The host name is the domain name system (DNS) name (short or long) or the IP address of this computer.

Cell name: The cell name is a logical name for the group of nodes administered by this deployment manager.

Migration backup directory

Enter the directory in which to store a backup of the configuration from the previous version. The directory is created if it does not already exist. If the directory exists, it should be empty because the backup operation may overwrite existing backup files.

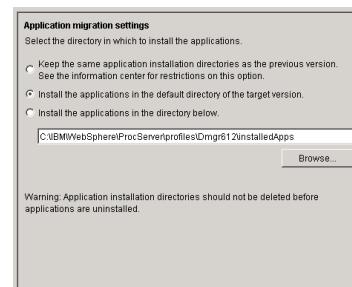The configuration of the previous version is not changed.
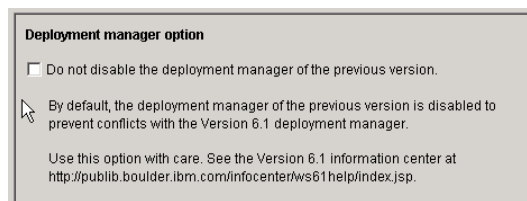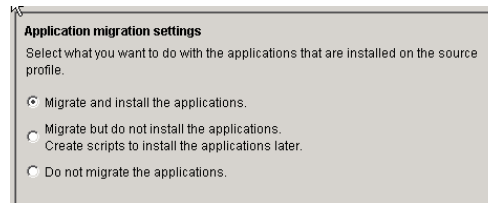
Backup directory:
C:\IBM\WebSphere\backup

Browse...

If create a new profile was selected then a profile name must be entered. A different host name can be specified to create this profile on a different system. It is always best to specify a backup directory if a rollback needs to occur.

Version to version application options

- Application settings
  - Default
    - Migrate and install
    - Target version dir
- Disable deployment manager

Application migration settings

Select what you want to do with the applications that are installed on the source profile.

- ⦿ Migrate and install the applications.
- ○ Migrate but do not install the applications.
  Create scripts to install the applications later.
- ○ Do not migrate the applications.

Deployment manager option

☐ Do not disable the deployment manager of the previous version.

⌖ By default, the deployment manager of the previous version is disabled to prevent conflicts with the Version 6.1 deployment manager.

Use this option with care. See the Version 6.1 information center at http://publib.boulder.ibm.com/infocenter/ws61help/index.jsp.

Application migration settings

Select the directory in which to install the applications.

- ○ Keep the same application installation directories as the previous version.
  See the information center for restrictions on this option.
- ⦿ Install the applications in the default directory of the target version.
- ○ Install the applications in the directory below.

C:\IBM\WebSphere\ProcServer\profiles\Dmgr612\installedApps

Browse...

Warning: Application installation directories should not be deleted before applications are uninstalled.

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There are several options for application migration which allow duplication of the current environment or putting the migrated applications into a new folder. The application migration settings allow the applications to be installed in the directory as specified. There is an option to keep the existing deployment manager enabled to allow access to other servers that have not been migrated.

Version to version final options

- Port values

- Script compatibility

- Summary

Port value assignment

By default, the port values are migrated from the source profile. However, you can choose to use the port values assigned during creation of the target profile or define a block of port values that start at a specified port number.

- ⦿ Use the port values assigned to the previous (source) installation.
- ○ Use the port values assigned to the target profile.
- ○ Define a block of port values starting at:

Migration summary

Verify the accuracy of the following summary information:

	Source	Target
Version	IBM WebSphere Application Server Network Deployment Version 6.1.0.17	IBM WebSphere Application Server Network Deployment Version 6.1.0.21
Profile	Dmgr01	Dmgr612
Directory	C:\IBM\WebSphere\ProcServer612	C:\IBM\WebSphere\ProcServer

The following migration options were selected:

Backup directory	C:\IBM\WebSphere\backup
Application migration choice	Migrate and install the applications.
Port selection	Default
Script compatibility	Yes

Additional migration options

☑ Migrate to support script compatibility.

Use this option to help ensure your existing administration scripts work in Version 6.1. Object types from previous versions are migrated into the new configuration. Administration script changes may still be necessary after the migration process is complete.

The port assignments allow the use of the previous assignments. This can cause a conflict if servers have been previously created for this system. If migrating to an existing profile then use the assigned values or specify a starting point for a block in a range that is not used. The scripts that were created for V6.1 can be migrated to be compatible to V6.2. A summary screen is presented before accepting these settings and clicking next to begin the migration.

Version to version responses

- Profile creation
- Status
- Logs in backup

INSTCONFSUCCESS: Success: Profile Dmgr612 now exists. Please consult C:\IBM\WebSphere\ProcServer\profiles\Dmgr612\logs\AboutThisProfile.txt for more information about this profile.
Result of profile Dmgr612 creation: Profile creation successful

- MIGR0104E: You must specify the currently installed WebSphere Application Server directory name.
  ‣ WebSphere Application Server profile not migrated

Migration status

Migration failed.

For more information, see the following log files:

C:\IBM\WebSphere\backup\logs\WASPreMigrationSummary.log
C:\IBM\WebSphere\backup\logs\WASPostMigrationSummary.log

- Information center 6.2
  ‣ https://9.30.204.59/wps620/help/index.jsp?topic=/com.ibm.websphere.wps.620.doc/doc/cmig_vtv_intro.html

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Once the migration is completed, you should see an install success response. If there are any problems during the migration, there are status logs for the migration and logs in the backup folder. The WebSphere Application server must be migrated first, otherwise you will receive a migration failed response. Refer to the information center before migrating to version 6.2 to get the latest updates.

Version to version command line

- Creating WebSphere Process Server profiles
  - ▶ SA and DMGR:
    - manageprofiles -create -profileName <profname> -templatePath <example: <WAS-HOME>/profileTemplates/(default)(dmgr).wbiserver> -nodeName <nodename> -cellName <cellname> -hostName <hostname> -winserviceCheck false -defaultPorts -createDefaultProfileForMigration true -dbDelayConfig true -omitAction defaultAppDeployAndConfig -profilePath <example: /QIBM/UserData/<WAS-HOME>/profiles/<profname>
  - ▶ Custom nodes:
    - manageprofiles -create -profileName <profname> -templatePath <example: <WAS-HOME>/profileTemplates/managed.wbiserver> -nodeName <nodename> -cellName <cellname> -hostName <hostname> -defaultPorts -createDefaultProfileForMigration true -dbDelayConfig true
- Creating WebSphere Application Server profiles
  - ▶ SA and DMGR:
    - manageprofiles -create -profileName <name> -templatePath %WAS_HOME%\profileTemplates/default -profilePath %WAS_HOME%\profiles\<name> -cellName <name> -winserviceCheck false -defaultPorts -hostName <host> -omitAction defaultAppDeployAndConfig -nodeName <name> -enableAdminSecurity false
  - ▶ Custom nodes:
    - manageprofiles -create -profileName <name> -templatePath %WAS_HOME%\profileTemplates/managed -profilePath %WAS_HOME%\profiles\<name> -cellName <name> -hostName <host> -nodeName <name> -federateLater true
- Depending on the type of profile that you are creating the you should use these for -templatePath:
  - - WebSphere Process Server stand-alone: <WAS-HOME>/profileTemplates/default.wbiserver
  - - WebSphere Process Server DMGR: <WAS-HOME>/profileTemplates/dmgr.wbiserver
  - - WebSphere Process Server custom: <WAS-HOME>/profileTemplates/managed.wbiserver
  - - WebSphere Application Server stand-alone: <WAS-HOME>/profileTemplates/default
  - - WebSphere Application Server custom: <WAS-HOME>/profileTemplates/managed

Migration can also be run through the script files provided. Here are some examples of the required input parameters.

Section

Summary

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This section summarizes the topics discussed in this presentation.

Summary

- Discussed Migration to version 6.2

- Migration V6.1 – V6.2
  - Profiles
  - Configuration
  - Applications
  - Scripts

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This module covered the migration of WebSphere Process Server to version 6.2. The focus was on migration from 6.1 to 6.2 for profiles, configuration, applications, and scripts. If you are migrating from an earlier version, then refer to the migration process for that version before migrating from 6.1. Always refer to the latest documentation on migration before starting this process.

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System migration

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