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IBM WebSphere Partner Gateway V6.1 Advanced and Enterprise Editions

Migrating from WebSphere Business Integration Connect V4.2 and WebSphere Partner Gateway V6.0 to WebSphere Partner Gateway V6.1

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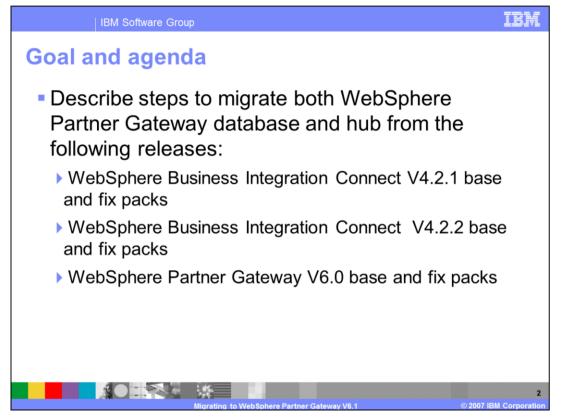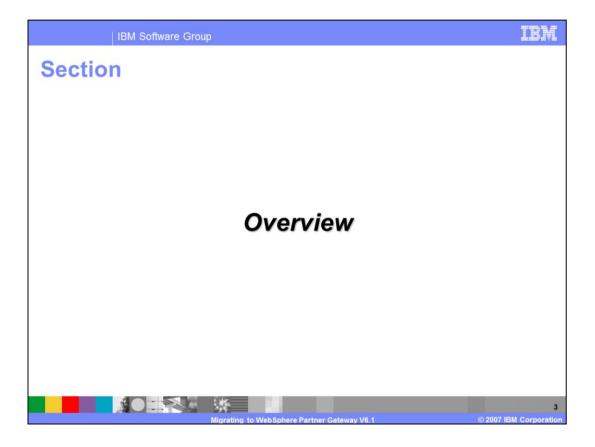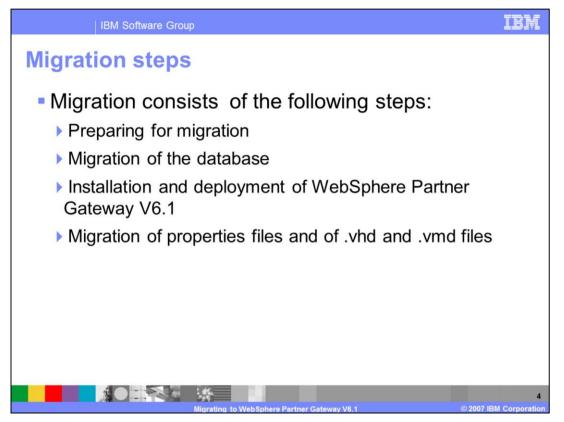This presentation provides an overview of the release migration from prior release of WebSphere® Business Integration Connect V4.2 and WebSphere Partner Gateway V6.0 to WebSphere Partner Gateway V6.1.
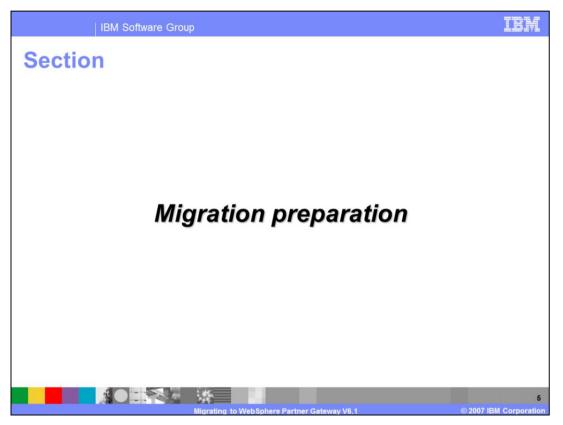
This presentation will cover the release migration of WebSphere Business Integration Connect V4.2.1 and V4.2.2, and WebSphere Partner Gateway V6.0 base and fix packs to WebSphere Partner Gateway V6.1. It describes the migration of the database and the hub from the prior release to the new WebSphere Partner Gateway V6.1.
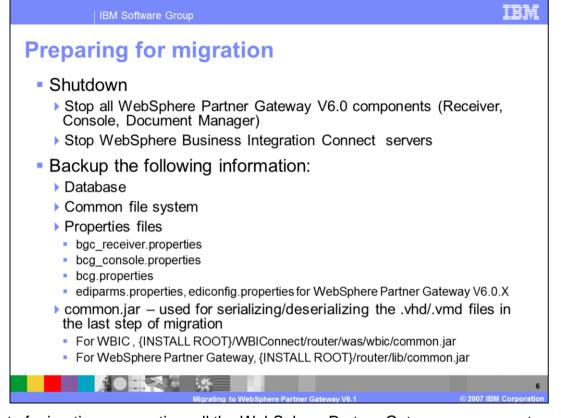
The general migration steps are preparing for migration, migrating the database, installing and deployment of WebSphere Partner Gateway V6.1 and lastly migrating the properties files. This includes the WebSphere Partner Gateway V6.0 specific vmd and vhd files to V6.1. The vmd files contains meta data about the document and the vhd files contain header information about the transport.
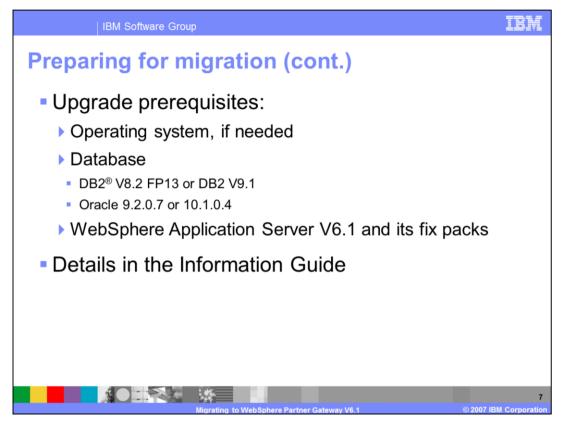
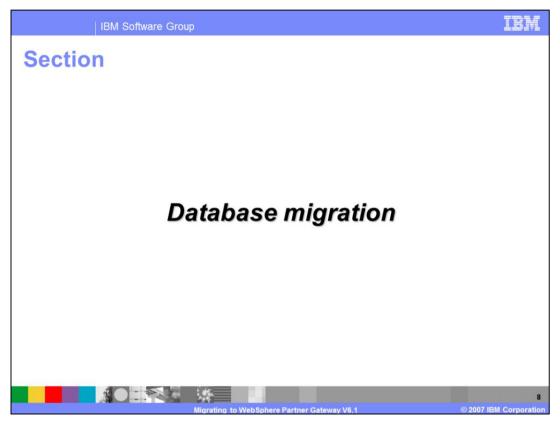Each of these sections are described in more details in subsequent sections of this presentation.

Section

Migration preparation

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The next section describes the first step of the migration, namely preparing for migration.

Preparing for migration

- Shutdown
  - ▶ Stop all WebSphere Partner Gateway V6.0 components (Receiver, Console, Document Manager)
  - ▶ Stop WebSphere Business Integration Connect servers
- Backup the following information:
  - ▶ Database
  - ▶ Common file system
  - ▶ Properties files
    - bgc_receiver.properties
    - bcg_console.properties
    - bcg.properties
    - ediparms.properties, ediconfig.properties for WebSphere Partner Gateway V6.0.X
  - ▶ common.jar – used for serializing/deserializing the .vhd/.vmd files in the last step of migration
    - For WBIC , {INSTALL ROOT}/WBIConnect/router/was/wbic/common.jar
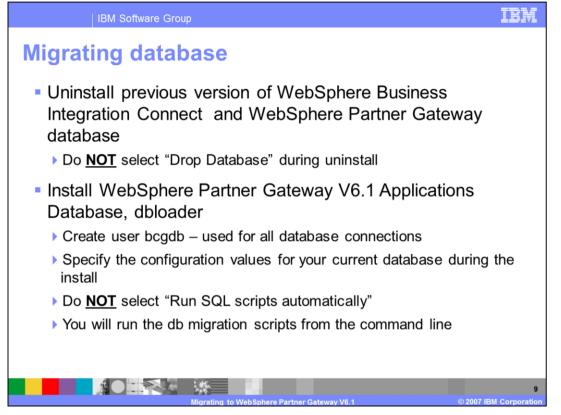   - For WebSphere Partner Gateway, {INSTALL ROOT}/router/lib/common.jar

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As part of migration preparation, all the WebSphere Partner Gateway components need to be shut down. Then you need to back-up several data. This includes the database, the common file system, the properties files, the common.jar file. The common.jar file is needed in the last step to move the .vhd and .vmd file information from the common file system to the V6.1 database.

Preparing for migration (cont.)

- Upgrade prerequisites:
  - Operating system, if needed
  - Database
    - DB2® V8.2 FP13 or DB2 V9.1
    - Oracle 9.2.0.7 or 10.1.0.4
  - WebSphere Application Server V6.1 and its fix packs
- Details in the Information Guide

The next step of migration preparation is to ensure to upgrade any pre-requisite software like the OS and the database, where applicable. The Information Center provides more details on the exact levels of the prerequisite software.
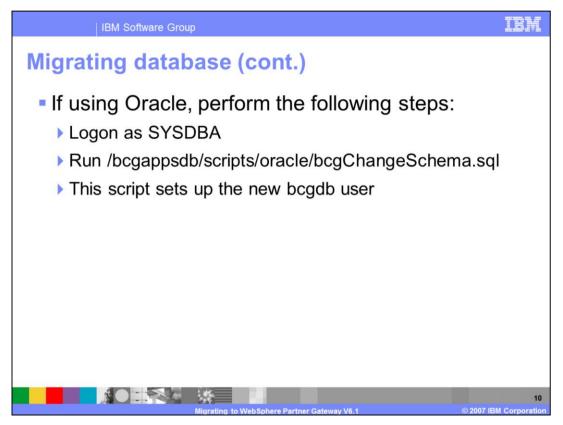
The next step of migration is the database migration.

Migrating database

- Uninstall previous version of WebSphere Business Integration Connect and WebSphere Partner Gateway database
  - ▸ Do **NOT** select "Drop Database" during uninstall
- Install WebSphere Partner Gateway V6.1 Applications Database, dbloader
  - ▸ Create user bcgdb – used for all database connections
  - ▸ Specify the configuration values for your current database during the install
  - ▸ Do **NOT** select "Run SQL scripts automatically"
  - ▸ You will run the db migration scripts from the command line

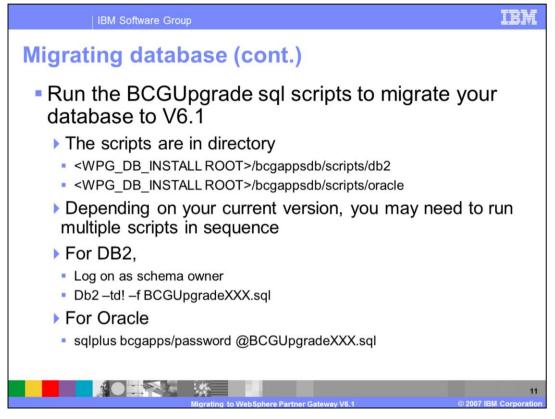Migrating to WebSphere Partner Gateway V6.1   © 2007 IBM Corporation

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The first step in migrating the database is to uninstall the prior release database. However, do not drop the database. Since the database migration utility will read the old database to populate WebSphere Partner Gateway V6.1 database.

Next, install the WebSphere Partner Gateway V6.1 database, dbloader, through silent install or through the launch pad. Turn OFF the option to run SQL scripts automatically. Since the database will be populated from prior release, the migration scripts will populate the database later. The migration script will be manually run from the command line.

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Migrating database (cont.)

- If using Oracle, perform the following steps:
  - Logon as SYSDBA
  - Run /bcgappsdb/scripts/oracle/bcgChangeSchema.sql
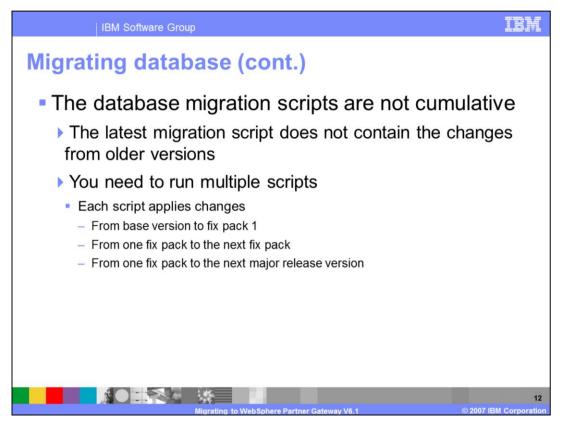 - This script sets up the new bcgdb user

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If you are using Oracle, there are some specific steps needed to setup the new bcgdb user and change the schema name to that user. The steps are shown on this page.

Oracle does not use the OS to handle its database user ID. This is different than DB2, where the OS user, bcgdb, is used for the DB2 user ID.

Migrating database (cont.)

- Run the BCGUpgrade sql scripts to migrate your database to V6.1
  - The scripts are in directory
    - <WPG_DB_INSTALL ROOT>/bcgappsdb/scripts/db2
    - <WPG_DB_INSTALL ROOT>/bcgappsdb/scripts/oracle
  - Depending on your current version, you may need to run multiple scripts in sequence
  - For DB2,
    - Log on as schema owner
    - Db2 –td! –f BCGUpgradeXXX.sql
  - For Oracle
    - sqlplus bcgapps/password @BCGUpgradeXXX.sql

Migrating to WebSphere Partner Gateway V6.1

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Once the WebSphere Partner Gateway V6.1 database is installed without running the SQL scripts, the next step is to move or populate the database from the prior release database. This is done by running series of BCGUpgrade sql scripts to migrate to database to V6.1. The location of the scripts for DB2 and Oracle are as specified on the page. Depending on the current version of the product and how much back level the product is, you may need to run multiple scripts in sequence to move to V6.1 database.

The commands to run the scripts for DB2 and Oracle are given here.

Migrating database (cont.)

- The database migration scripts are not cumulative
  - ▶ The latest migration script does not contain the changes from older versions
  - ▶ You need to run multiple scripts
    - Each script applies changes
      - From base version to fix pack 1
      - From one fix pack to the next fix pack
      - From one fix pack to the next major release version

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The reason to run multiple upgrade scripts is that the database migration is not cumulative. So, if you are migrating from older versions, you will need to move to the next release and then to the next release before migrating the database to V6.1.

Each script applies changes to migrate to the next fix pack or the next major version.

Migrate database scripts: WebSphere Business Integration Connect → WebSphere Partner Gateway V6.0

From Fix Pack or Release	To Fix Pack or Release	Script to Run
WebSphere Business Integration Connect V4.2.1	WebSphere Business Integration Connect 4.2.2	BCGUpgrade421FP1_422.sql
WebSphere Business Integration Connect V4.2.2	WebSphere Business Integration Connect V4.2.2.1	BCGUpgrade422_422FP1.sql
WebSphere Business Integration Connect V4.2.2.1	WebSphere Business Integration Connect V4.2.2.2	BCGUpgrade422FP1_422FP2.sql
WebSphere Business Integration Connect V4.2.2.2	WebSphere Business Integration Connect V4.2.2.3	BCGUpgrade422FP2_422FP3.sql
WebSphere Business Integration Connect V4.2.2.3	WebSphere Business Integration Connect V4.2.2.4	BCGUpgrage422FP3_422FP4.sql
WebSphere Business Integration Connect V4.2.2.4 or later	**WebSphere Partner Gateway V6.0.0.0**	BCGUpgrade422FP4_600.sql

Changes made in 4.2.2 fix pack 5 and later are handled in WebSphere Partner Gateway V6.0 fix packs

The table here lists the migration script to run for different WebSphere Business Integration Connect release or fix pack to move to the next fix pack or major version.

So, going from WebSphere Business Integration Connect V4.2.1 to V4.2.2, you will have to run BCGUpgrade421FP1_422.sql, as shown in the first row of the table. Subsequent entries in the table indicate the migration to the next WebSphere Business Integration Connect fix pack or WebSphere Partner Gateway V6.0.

Any changes made in the 4.2.2.5 or later, they are handled by the 4.2.2.4 migration script, namely, BCGUpgrade422FP4_600.sql.
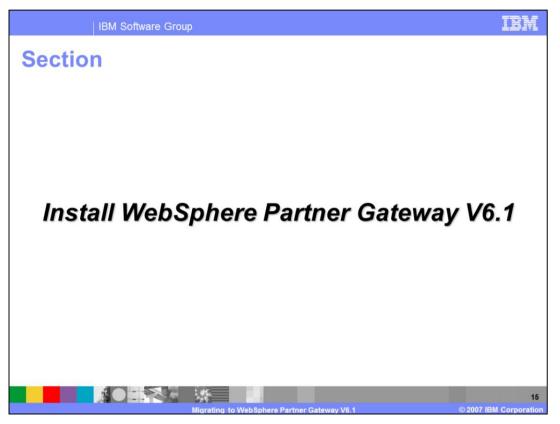
Hence, if you are on WebSphere Business Integration Connect 4.2.1, you will have to migrate to 4.2.2, then to 4.2.3, then to 4.2.4 and then to WebSphere Partner Gateway V6.0. Once you are on WebSphere Partner Gateway V6.0, you will have to migrate to all the fix packs of WebSphere Partner Gateway to go up to V6.1 and that is shown on the next page.

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Scripts to migrate database from WebSphere Partner Gateway V6.0 to V6.1

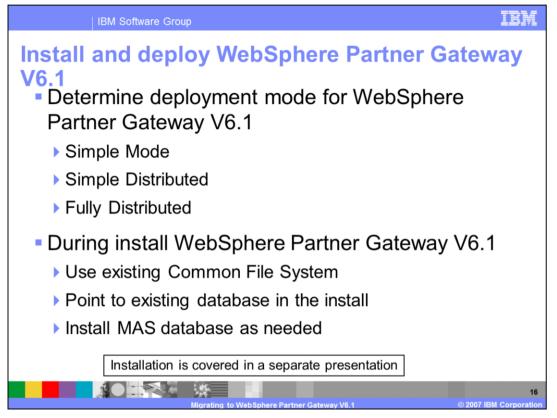| From WebSphere Partner Gateway Fix Pack or Release	To WebSphere Partner Gateway Fix Pack or Release	Script to Run
V6.0.0.0	V6.0.0.1	BCGUpgrade600_600FP1.sql
V6.0.0.1	V6.0.0.2	BCGUpgrade600FP1_600FP2.sql
V6.0.0.2	V6.0.0.3	BCGUpgrade600FP2_600FP3.sql
V6.0.0.3	V6.0.0.4	BCGUpgrade600FP3_600FP4.sql
V6.0.0.4	V6.0.0.5	BCGUpgrade600FP4_600FP5.sql
V6.0.0.5	**V6.1**	BCGUpgrade600FP5_610.sql

The table here lists the migration script to run for different WebSphere Partner Gateway V6.0 release or fix pack to move to the next fix pack or major version.

So, going from WebSphere Partner Gateway V6.0.0.0 to V6.0.0.1, BCGUpgrade600_600FP1.sql, as shown in the first row of the table. Subsequent entries in the table indicate the migration to the next WebSphere Partner Gateway V6.0 fix pack to finally the WebSphere Partner Gateway V6.1 release.
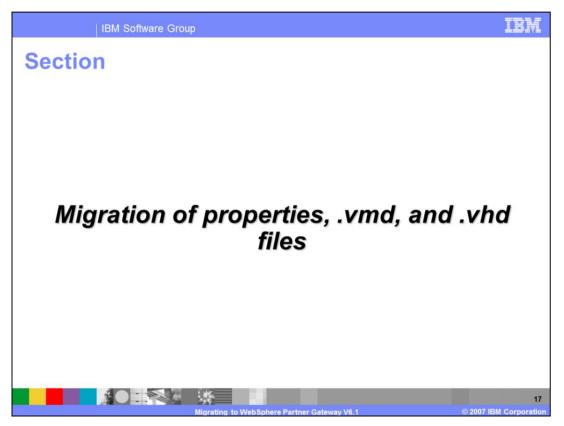
The next section covers brief overview of the WebSphere Partner Gateway V6.1 install.

Install and deploy WebSphere Partner Gateway V6.1

- Determine deployment mode for WebSphere Partner Gateway V6.1
  - Simple Mode
  - Simple Distributed
  - Fully Distributed
- During install WebSphere Partner Gateway V6.1
  - Use existing Common File System
  - Point to existing database in the install
  - Install MAS database as needed

Installation is covered in a separate presentation

During the installation of WebSphere Partner Gateway V6.1, you will need to decide the installation or deployment mode. In WebSphere Partner Gateway V6.1, there are several install options available from simple installation for low workload to fully scalable distributed environment for high work loads.

During the installation of WebSphere Partner Gateway V6.1, you must use the existing file system from the prior release. Also it must point to the database that has been migrated. If you are using Simple or Fully distributed installation mode, you will also have to install the Messaging database, MAS, required for scalable messaging.

The details of all the installation modes, its topologies and tradeoffs are covered in a separate installation presentation.
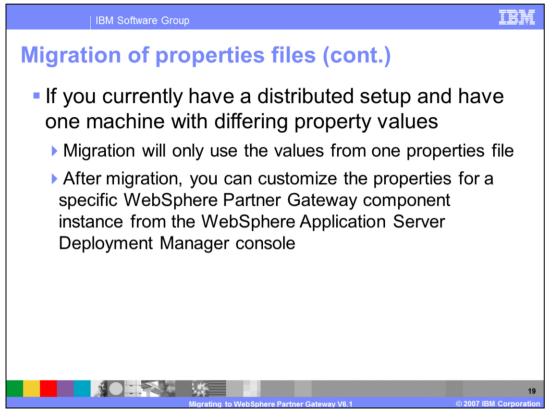
The next section covers the migration of the properties files and the information in the VMD and VHD files.
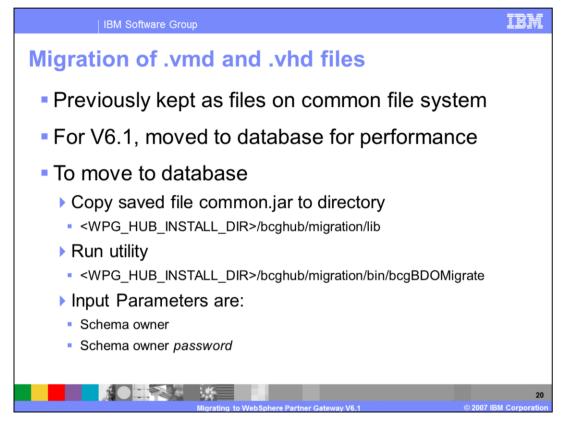
Migration of properties files

- WebSphere Partner Gateway V6.1 keeps its properties in the database
  - Need to move values from previous version's properties files
  - Run utility <WPG_IMAGE>/bcghub/migration/bcgPropMigrate
  - Parameters are :
    - Schema owner
    - Schema owner password
    - Directory where saved properties files are located

WebSphere Partner Gateway V6.1 keeps all its properties in the database. You can edit them using the WebSphere Partner Gateway Console. Hence, there is a need to migrate the previous version properties to WebSphere Partner Gateway V6.1 properties in the database.

This is done by the utility, bcgPropMigrate, located in the hub directory of the WebSphere Partner Gateway image, as shown. The utility takes in the schema owner, password and the directory where the saved property files are located. If you recall, in the first step of preparing for the migration, the properties files were saved in a directory. That directory is now used as an input to the utility.
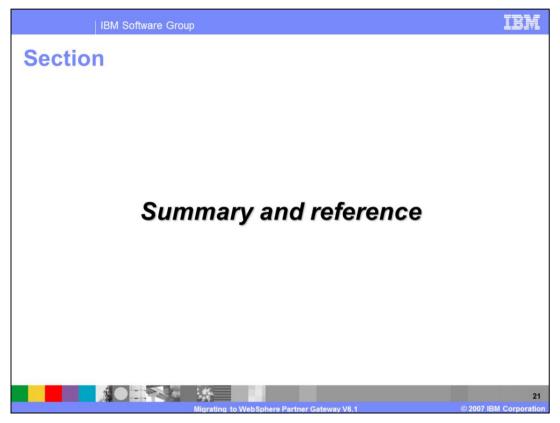
Migration of properties files (cont.)

- If you currently have a distributed setup and have one machine with differing property values
  - ▶ Migration will only use the values from one properties file
  - ▶ After migration, you can customize the properties for a specific WebSphere Partner Gateway component instance from the WebSphere Application Server Deployment Manager console

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If you have a distributed step where the property files for a given component is located on multiple machines, the migration utility will only migrate the value from any one of the machines you specify. So, if you had two document managers with different set of properties, you will need to decide which one of them will be used to migrate the properties.

After migration, the properties can be modified for a specific WebSphere Partner Gateway component instance from the WebSphere Application Server console.
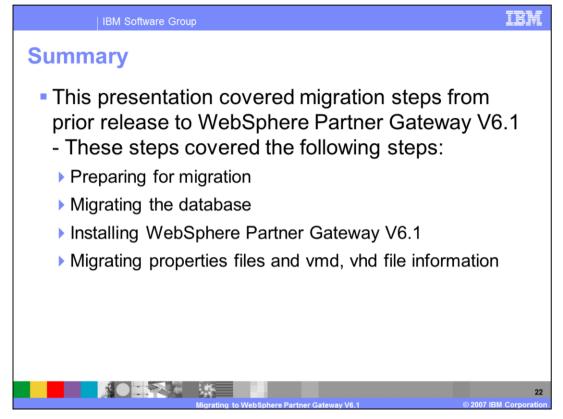
Similar the properties information, the information in vmd and vhd files are moved from the common file system to the database in V6.1. This is primarily done for performance reasons.
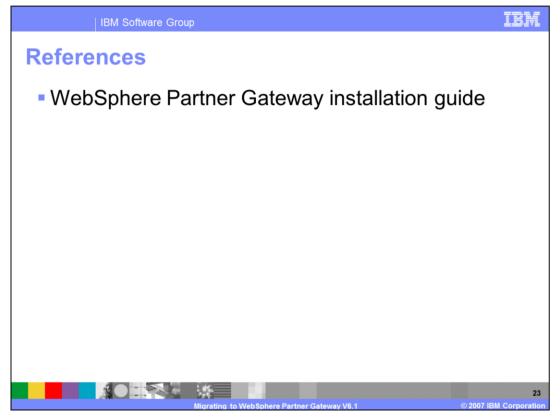
Moving vmd and vhd file information is done by bcgBDOMigrate utility from the WebSphere Partner Gateway hub install directory as specified on the page. Before running the utility, the common.jar file that was backed up in the migration preparation step, need to be copied in the hub install migration lib directory as specified on the slide.

The parameters to the migration utility are the schema owner and password.

The next section covers the summary and reference.

This presentation covered the steps to migrate from previous release of WebSphere Business Integration Connect 4.2 or WebSphere Partner Gateway V6.0 to WebSphere Partner Gateway V6.1. These are preparing for migration, migrating the database, installing WebSphere Partner Gateway V6.1 and last, migrating the properties files and vmd, vhd files.

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References

- WebSphere Partner Gateway installation guide

The details of the migration steps are specified in the WebSphere Partner Gateway installation guide.

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