



IBM Software Group

# IBM® WebSphere® Partner Gateway V6.0 Advanced and Enterprise Editions

## *Installation and Getting Started*



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The goal of this presentation is to provide you with a high level understanding of WebSphere Partner Gateway V6.0 Advanced or Enterprise Edition installation.

The installation process has not changed from the previous release of WebSphere Business Integration Connect V4.2.2.

## Agenda

- Topology Options
- Install
  - ▶ Required components – overview
  - ▶ Install steps and dependencies
  - ▶ Pre-requisite installs
  - ▶ WebSphere Partner Gateway product install
  - ▶ DIS Client install
  - ▶ InstallShield vpd.properties file
  - ▶ Install Log files
- Uninstall
- Getting Started

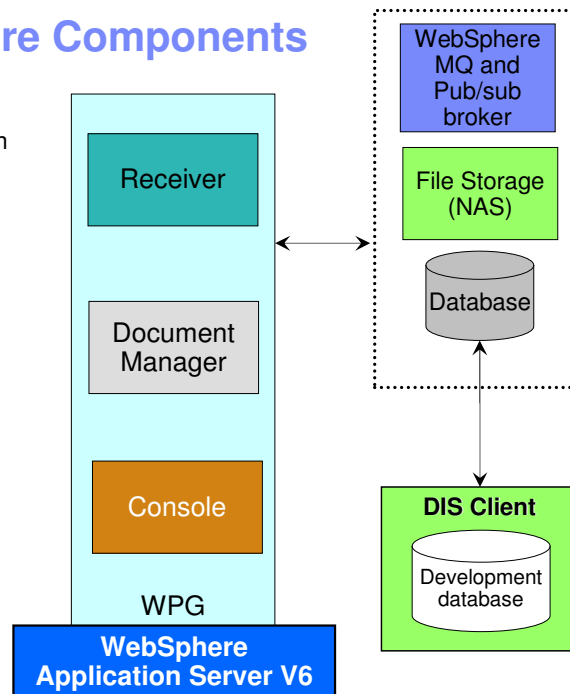
The topics covered by this presentation include the following:

- Topology options
- Install
- Uninstall
- Getting started

## WPG: Required Software Components

- **WebSphere Partner Gateway**
  - ▶ Contains base WebSphere Application Server V6
  - ▶ Receiver
  - ▶ Document Manager
  - ▶ Console
- **WebSphere MQ 5.3 with CSD08**
  - ▶ It contains Publish/subscribe broker
- **Database (one of them)**
  - ▶ DB2 V8.2
  - ▶ Oracle V9i 9.2.0.4
- **Data Interchange Service (DIS) Client Tool - optional**

Except for Network Attached Storage and Oracle database, all other components are bundled in the WebSphere Partner Gateway V6.0 product



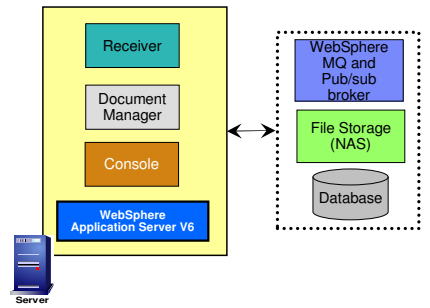
This graphic represents a high-level view of the WebSphere Partner Gateway architecture and the configuration components that comprise the hub environment.

## Section

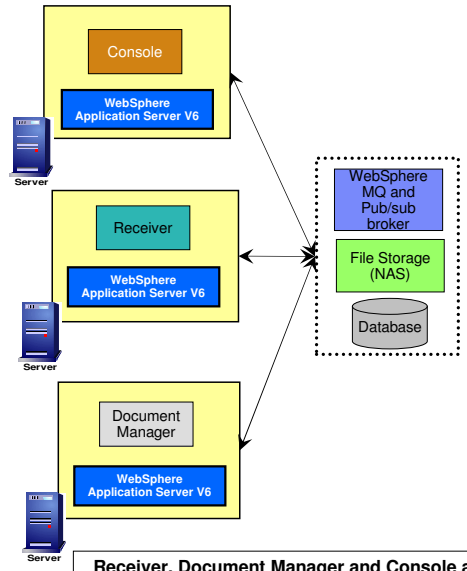
# *Topology Options*

This section will provide an overview of the installation of prerequisite software and the WebSphere Partner Gateway Components.

# Topology Options



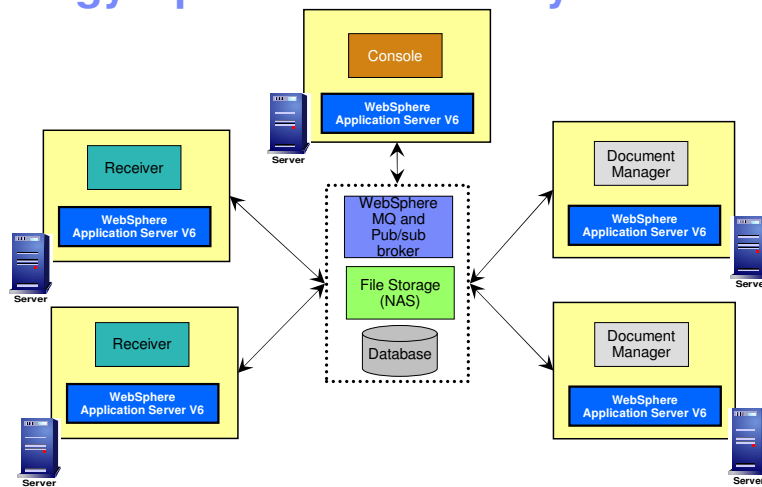
**Receiver, Document Manager and Console installed on the same machine. Each of them are different server profiles under WebSphere Application Server V6 and run as a separate server runtime (JVMs) sharing the same WebSphere Application Server V6 product binaries**



**Receiver, Document Manager and Console are installed on separate machines – They all have access to the common storage**

This graphic represents some of the options for WebSphere Partner Gateway V6.0 topologies.

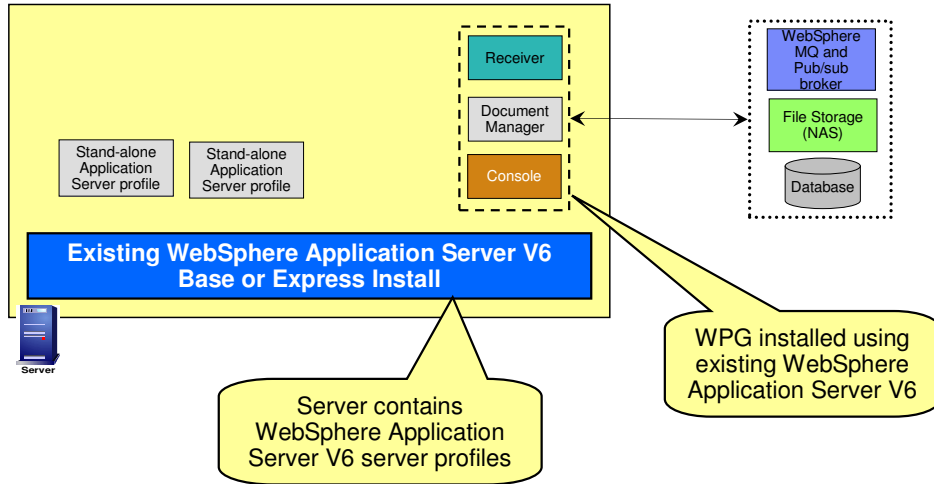
## Topology Options - Scalability



- Multiple installs of Receiver or Document Manager can provide the scalability
- WPG does not exploit the scalability and HA features of WebSphere Application Server V6
- Any Document manager can pick up a incoming document and process it providing scalability

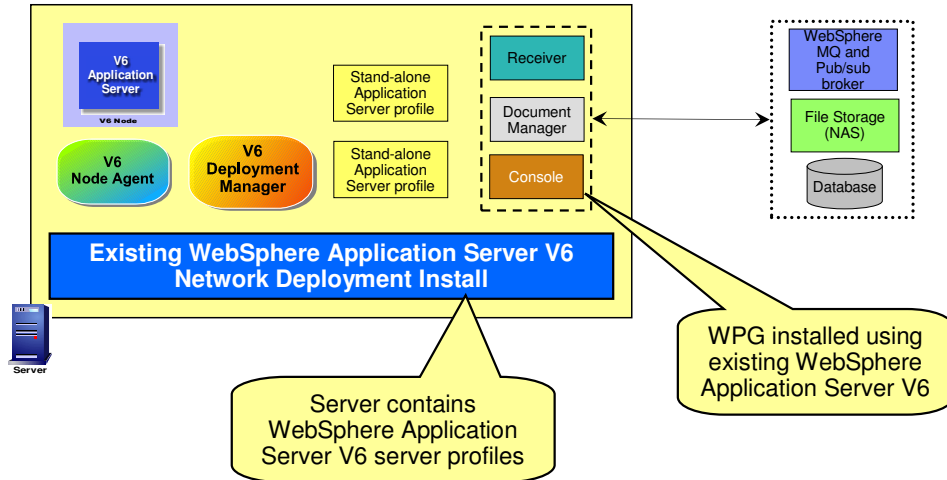
Multiple installations of the Receiver or Document Manager servers provide scalability.

# Topology Options – Using Existing WebSphere Application Server V6 Install



WebSphere Partner Gateway can be installed with an existing WebSphere Application Server V6 Base Edition installation.

# Topology Options – Using Existing WebSphere Application Server V6 Network Deployment Install



WebSphere Partner Gateway V6.0 can also be installed with an existing WebSphere Application Server V6 Network Deployment Edition installation.



## Section

# *Installation Steps*

This section will provide an overview of the steps necessary for installation of WebSphere Partner Gateway V6.0

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## WPG Installation: Typical Steps and dependencies

1. Create WPG users and group
2. Install WebSphere MQ V5.3 with CS08
  - ▶ Create queue manager – default name is bcg.queue.manager
3. Install any one of the supported database
  - ▶ DB2 or Oracle
  - ▶ Install DB2 Connect on the WPG machines, where the database is remote
4. Optional – install shared file system, if the WPG servers are on different machines

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5. Install WPG DBLoader
  - ▶ Run SQL statements as part of the install or outside
6. Install WPG runtime
7. Optionally, install DIS Client install (available on Windows platform only)
  - ▶ Create ODBC connection to the WPG database (created by DBLoader)

At this point, the Hub and the DIS Client is ready for use

WebSphere Partner Gateway V6 – Installation and Getting Started
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A typical sequence of installation steps is shown here.

- Create the users and group used by WPG.
- Install pre-requisites, namely WebSphere MQ and the supported enterprise database, DB2 or Oracle.
- Optionally install shared file system for common storage. This is required only if the WPG servers are on different systems.

The installation of WebSphere Partner Gateway begins with the installation of Database loader, called DBLoader. This creates the database and optionally runs the SQL statements necessary to configure the hub database. Alternatively, the SQL statements can be run outside the installation process with the provided scripts. After the installation of the DBLoader, WebSphere Partner Gateway is installed, after which you can use the hub.

Optionally, the DIS Client can be installed on Windows platforms, if needed.

## Section

# ***Pre-req and Install of Pre-req software***

This section will cover the installation of prerequisite software and the WebSphere Partner Gateway Components

## Create Users and Groups

- In order to connect with the database, WebSphere Partner Gateway requires a set of operating system users
- Create users and groups
  - ▶ Default user names: bcgcon, bcgrezv and bcgdoc
  - ▶ Default group name: bcgroup
  - ▶ Add bcgcon, bcgrezv and bcgdoc to bcgroup



bcgcon



bcgrezv



bcgdoc



bcgroup

The Operating System Users and groups shown here must be created for the WebSphere Partner Gateway servers, receiver, document manager and console. The default users are:

- Bcgrezv
- Bcgdoc
- bcgcon.

Next, create the bcgroup at the OS level and add the 3 users to the group.

These users and group are used by the servers and database for access control.

## WebSphere MQ



- Install WebSphere MQ 5.3 with CSD 08 or later
  - ▶ Create Queue manager used by WPG
    - Default name used is bcg.queue.manager
  - ▶ Configure the necessary queues to be used by WPG
- Required to handle messaging between the components of Business Integration Connect. WebSphere MQ should be installed on a dedicated server.

After installing WebSphere MQ, a queue manager must be created. The default name for the queue manager is bcg.queue.manager.

WebSphere Partner Gateway server installation requires this default queue name.

## Database Server



- WPG requires an enterprise database to persist data
  - ▶ Can use DB2 v8.2 or Oracle v9.1
- If using DB2 on remote machine, DB2 Connect may be needed for DIS client tool and WPG runtime servers
- For DIS client tool, ODBC data source for the WPG database is required
  - ▶ For DB2, this is done using the DB2 Configuration Assistant that is provided as part of DB2 tools

A Database is required to persist Websphere Partner Gateway data.

The DBLoader will install a set of database stored procedures for its use. The configuration data is also stored in the Database.

For better performance, the database should be installed on a dedicated server.

## Section

# *Product Installation*

This section will cover installation of the WebSphere Partner Gateway Components

## Install Overview

- WebSphere Partner Gateway V6.0 install package consists of the following programs
  - ▶ DBLoader – Creates Database
  - ▶ WebSphere Partner Gateway – runtime servers
- Installer uses InstallShield Multiplatform (ISMP)
  - ▶ Creates/updates vpd.properties file (more on this later)
- Install process supports GUI or command line silent install






WebSphere Partner Gateway installation utilizes InstallShield MultiPlatform (ISMP) and consists of the following 2 steps:

1. Install the DBLoader, which creates, and optionally configures the database.
2. Install the runtime servers.

Either a silent or GUI install can be performed. Sample option files for the silent install are provided in the product image for the DBLoader and the product runtime.



## WPG Installation

- DBLoader - Creates the database (default name is bcgapps) and runs the SQL statements to setup the database 
- Product Install – installs Console, Receiver and Document Manager 
  - ▶ If the servers are not on the same machine, install Shared network storage for the common shared directory
  - ▶ Option to install on top of an existing WebSphere Application Server V6 install or create a new instance of the Application server
- Separate optional DIS Client Tool install 
  - ▶ Available on Windows platform only

Both the installation steps can be launched from the GUI install launch pad. Click the Show-me demo link above to view a demo of the installation steps.

During installation of the DBLoader, the database is created, along with the tables. The user group is granted permission to access the database. Optionally, the database and tables can be installed outside the DBLoader using the supplied SQL scripts.

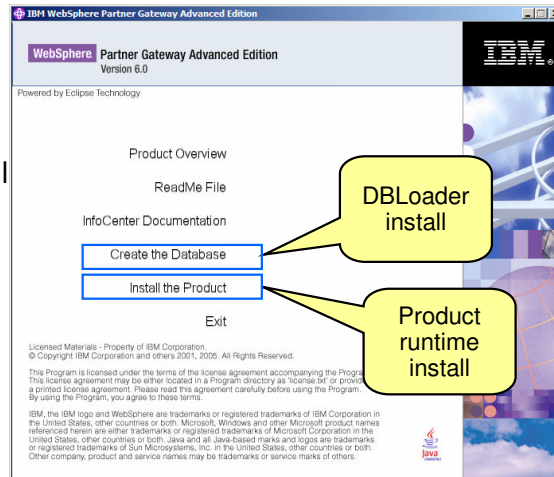
During product installation, the WebSphere Partner Gateway runtime servers are created. These servers can be installed on the same or different systems. If installed on different systems than the database, access must be provided for the servers.

WebSphere Partner Gateway server uses WebSphere Application Server V6 as a base. An option is provided to use an existing WebSphere Application Server V6 install or to create a new instance of the Application Server.

Optionally, the DIS Client tool can be installed. This is supported only on the Windows platform. Once the DIS client is installed, additional configuration is needed to access to the WebSphere Partner Gateway database if the maps and other data are to be exported to the database from the DIS Client.

## GUI Install from Launch Pad

- GUI install is invoked from a browser-based Launch pad
- It can be used to access product overview, to access the readme file, to access the install guide, create the database and to install the product
- Launch pad is available on the root directory of the product CD
  - ▶ `launchpad.sh` on Linux<sup>®</sup> and UNIX<sup>®</sup> platforms
  - ▶ `launchpad.bat` on Windows<sup>™</sup> platforms



The various wizard-based GUI install programs can be started from the Launch pad program that comes with WebSphere Partner Gateway V6.0. Various documentation on the product can also be accessed from the Launch pad. The Launch pad can be found in the root directory of the product CD.

## Silent Install

- WPG components (DBLoader and WPG) can be installed using silent install command line
- Command from the dbloader or hub directory of the install image
  - ▶ setup<OS> -options <option File>
  - ▶ Example
    - setupWindows -options <option File>
    - setupLinux -options <option File>
- Option file is needed for the silent install
  - ▶ Sample ISS files provided
  - ▶ Generate an options file from GUI install
    - setup<OS> -options -record <option File> → Options file creates as part of the GUI install
    - setup<OS> -options -template <option File> → Generate options file without install
    - Example
      - ./setupAIX -options -record <option File>
    - Options file placed in the {INSTALL DIR}/bcgdbloader or {INSTALL DIR}/IBM/bcghub directory
    - Once created, you can edit the files to customize for your install



Both the DBLoader and the runtime can also be installed using the command line silent install.

The OS specific setup command for install is setup<OS>, for example, setupWindows, setupAIX, setupLinux, setupSolaris.

The setup command for silent install requires an option file where all the installation options are provided. Sample option files are provided in the install image.

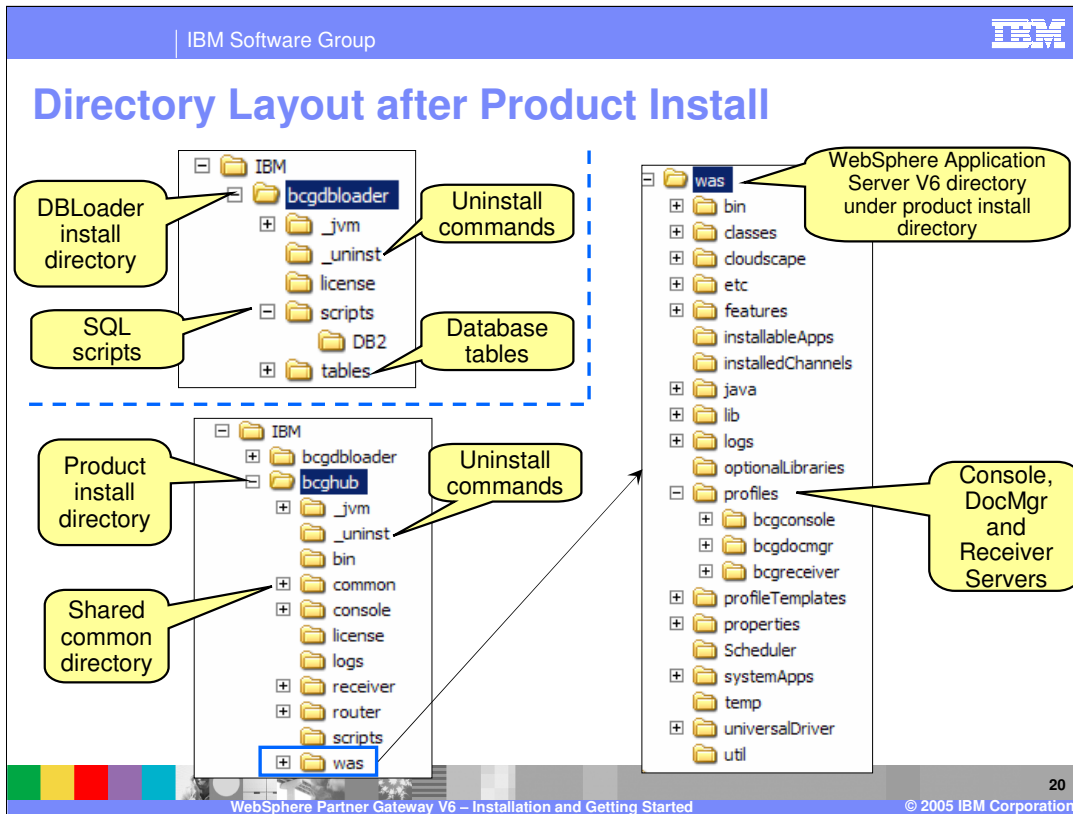
The option file can also be recorded during a GUI install, using the “-record” option. The command to record the GUI install, using Linux as an example, is as follows:

```
setupLinux -options -record MyOption.txt
```

Another way to create the options file is to create a template without actually going through the GUI install. The command uses a “-template” option. The command to record the GUI install, using Linux as an example, is as follows:

```
setupLinux -options -template MyOption.txt
```

The generated options file, MyOption.txt, for record or template options is created in {INSTALL DIR}/bcgdbloader or {INSTALL DIR}/IBM/bcghub directory by default.



The directory structure of the DBLoader and the WebSphere Partner Gateway runtime servers is shown here. The runtime servers show the installation of the Console, Receiver and Document manager servers.

On the top left is the DBLoader directory. The scripts directory contains the appropriate database SQL files that can be executed to set up the WebSphere Partner Gateway database. IBM DB2 is used in this example. The tables directory contain the database tables.

On the bottom left, the WebSphere Partner Gateway runtime is in the bcghub directory. The common shared directory is located in this directory. The location of the shared directory is customizable during the installation process. The console, receiver and router directory contain the specific library files for those servers. The “was” directory contains the base WebSphere Application Server V6 product files, as shown on the right side of the page. The Console, Document Manager, and the Receiver servers are located Under the “was” directory in the “profiles” directory. The log files will be in each of the server sub directories.

## Default names used for install

Component	Value
<b>Users and Groups (done at OS level)</b>	<u>Users:</u> Receiver: <b>bcgrece</b> Document Manager: <b>bcgdoc</b> Console: <b>bcgcon</b>  <u>Group:</u> <b>bcggroup</b> Must contain the above users in this group
<b>WPG database</b>	<b>bcgapps</b>
<b>WebSphere MQ queue manager</b>	<b>bcg.queue.manager</b>



The default values for the database, queue manager, users, and groups can be changed during the installation process. Caution must be taken to ensure that the same names are used at each install panel, when prompted for those names. The install panels come pre-filled with the default names, and keeping the default names might help you avoid problems.

## Section

# *Install Log Files*

This section will provide information on where to look for installation log files.

## Install Log Files - Directory

- Install log files directory:
  - ▶ {WPG\_INSTALL\_DIR}\logs\console
  - ▶ {WPG\_INSTALL\_DIR}\logs\receiver
  - ▶ {WPG\_INSTALL\_DIR}\logs\router
- Log Files from Profile creation (WebSphere Application Server V6)
  - ▶ {WPG\_INSTALL\_DIR}\was\logs\wasprofile
- Directory of Log files for creating database
  - ▶ <Temp-directory>\WBICConnect\logs
  - ▶ Example: On Windows, the directory is
    - C:\Documents and Settings\<user>\Local Settings\Temp\WBICConnect\logs



The location of installation log files is shown here. The installation log files provide details about the installation of server components, including the creation of the different profiles and deployment of the default applications on the servers. The DBLoader installation uses the system temporary directory to log messages when running the SQL scripts to create and configure the database.

## Section

# ***InstallShield Multiplatform (ISMP) vpd.properties File***

This section will provide a description of the InstallShield Multiplatform and the vpd.properties file.



## ISMP vpd.properties File

- ISMP uses a file called **vpd.properties**, to track all installed WebSphere products on all distributed platforms except Solaris™ and HP™ Unix platforms
- More on vpd.properties file
  - ▶ It lists program components that are currently installed
  - ▶ It is updated during install and uninstall
  - ▶ It helps ISMP to recognize previous installs of the product
  - ▶ It is located in the following directory:
    - AIX®: **root directory** or **usr/lib/objrepos**
    - Linux: **root directory**
    - Windows: **C:\WINNT** or **C:\Windows**

Each install process creates a different set of log files to contain information about the success or failure of the installation. Install Shield for Multi Platforms uses a properties file to track installs of WebSphere products on platforms except for Solaris and HP Unix. This file contains information about what components have been installed on a system and where they are installed.

## More on vpd.properties File

- Certain situations require you to edit and manually remove the entries in vpd.properties file before reinstalling WebSphere Partner Gateway product
  - ▶ Bypassing the uninstaller program to uninstall a product manually
  - ▶ Uninstalling a product manually when the uninstaller program is not present or is not working



In certain situations you might need to manually edit the vpd.properties file in order to enable a reinstall. This is needed in the rare situations where you will need to manually uninstall a product rather than use the uninstaller.

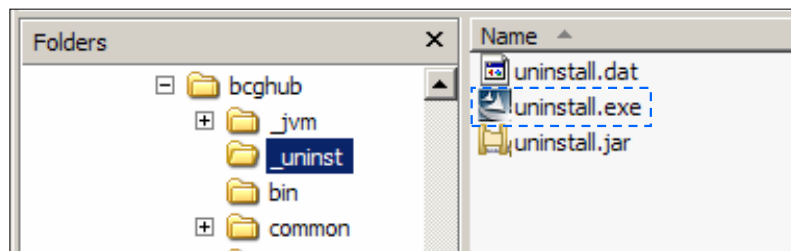
## Section

# *Uninstall*

This section will cover uninstalling the product.

## Uninstall

- The installer creates an uninstall directory, “\_uninst” within the product directory for the DBLoader and the WPG runtime servers
- Run the uninstall executable to uninstall the components
- On Windows platform, the “Add/Remove Program” option can be used to uninstall the product
- Uninstall of DBLoader provides an option to drop the WPG database
- Uninstall of the components will remove the entries in the vpd.properties file



Uninstalling the product is simple. The DBLoader and the product runtime installer creates an uninstaller in the “\_uninst” directory. To uninstall, run the uninstall executable. Uninstall of DBLoader provides an option to drop the WPG database. The database can also be dropped using the database commands.

For Windows platforms, uninstall can also be done using the Windows provided “Add/Remove programs”.

When components are uninstalled, entries in vpd.properties file are removed.

## Section

# *Getting Started*

This section will provide a brief introduction on how to log in to the console and get started using WebSphere Partner Gateway V6.0.

## Getting Started Steps

- Start the database
- Start MQ Listeners
  - Details shown on next page
- Start the WPG runtime servers
- Log in the Console with the 1<sup>st</sup> time default login user, password and company
- Change the default password
- Now ready to configure and use the gateway

The screenshot shows the IBM Community Console login interface. On the left is a login form with fields for User Name, Password, Company Name, and Language (English (United States)), and a Login button. On the right is a welcome message: "Welcome to the Community Console! Enter your user name, password, and company. Then click login." Two yellow callout boxes provide additional information: one at the top indicates the URL is `http://<hostname>:58080/console`, and another at the bottom indicates the first-time login credentials: User: `hubadmin`, Password: `Pa55word`, and Company: `Operator`.

Listed below are some steps that must be completed before the hub administrator can log in to the console for the first time following product install. Some of these steps are described in more details in subsequent pages.

- The database and the WebSphere MQ listeners must be started.
- The runtime servers must be started. The order of starting the Console, Document manager and Receiver servers is not important.

Once the Console has started, the administrator can log in at the URL shown. The initial user id and password are hubadmin and Pa55word, with the company name “Operator”. The administrator will be prompted to change the password at the first login.

Once logged in, the hub is ready to be configured and used as the trading gateway.

## Starting MQ and Listeners

- Start MQ queue manager
  - ▶ `strmqm bcg.queue.manager`
- Start MQ Broker
  - ▶ `strmqbrk -m bcg.queue.manager`
- Start services on the Queue manager
  - ▶ `strmqcsv bcg.queue.manager`
- Run MQ listener (9999 is the default port used by the installer)
  - ▶ `runmqlsr -t tcp -p 9999 -m bcg.queue.manager`

`bcg.queue.manager` is the default Queue manager – it can be changed, but need to make sure its consistent

Starting the WebSphere MQ Queue manager and listeners requires executing the MQ commands shown here. The administrator could create a small script file that includes these commands and run the script file to get started.

## Starting and Stopping Servers

From the product install bin directory, `<WPG_INSTALL>/bin`

- Console
    - ▶ **bcgstartserver bcgconsole**
    - ▶ **bcgstopserver bcgconsole**
  - Receiver
    - ▶ **bcgstartserver bcgreceiver**
    - ▶ **bcgstopserver bcgreceiver**
  - Doc. Manager
    - ▶ **bcgstartserver bcgdocmgr**
    - ▶ **bcgstopserver bcgdocmgr**
- 
- On Windows platform,
    - ▶ Windows Services can be created during install – this allows server start and stop from Windows Service



At this time, all the components are installed and now the Console, Document Manager and the Receiver servers can be started.

Servers can be started and stopped in multiple ways using multiple commands.

Starting and stopping servers by executing the `bcgstartserver` and `bcgstopserver` in the product install bin directory is shown here.

On the Windows platform, Server start and stop can be added to the Windows services.



## Starting and Stopping Servers (cont.)

From the install WebSphere profile directory:

- Console: From `<WPG_INSTALL>/was/profiles/bcgconsole/bin` directory:
  - ▶ **startserver bcgconsole**
  - ▶ **stopserver bcgconsole**
- Receiver: From `<WPG_INSTALL>/was/profiles/bcgreceiver/bin` directory:
  - ▶ **startserver bcgreceiver**
  - ▶ **stopserver bcgreceiver**
- Doc. Manager: From `<WPG_INSTALL>/was/profiles/bcgdocmgr/bin` directory:
  - ▶ **startserver bcgdocmgr**
  - ▶ **stopserver bcgreceiver**



The servers can also be started and stopped from each of the server profile directories under the WebSphere Application Server V6 directory.

The “was” directory contains the sub directories for each of the servers.

The bin directory for each of the servers are shown here. From that bin directory, the standard startserver and stopserver commands can be used.

## Getting Started with DIS Client

- DIS Client comes with a local developer database
  - ▶ All development work (maps, dictionaries, etc.) is done using the developer database
  - ▶ Maps and tables are compiled
  - ▶ Maps and translation tables are exported to the WPG database or to a file
- For exporting directly to the WPG database, a ODBC connection to the WPG database (created by DBLoader) is required

The DIS client includes a local developer database where all development work is performed. Once development is complete, items such as maps, translation tables, and dictionaries are compiled, then exported to the WebSphere Partner Gateway database. An ODBC connection is required to enable exporting these items directly.

## Section

# *Summary*

This section provides a summary of this presentation.

## Summary

- Presentation covered the details of the install process and the pre-requisites
- WebSphere Partner Gateway V6.0 install is similar to previous release

This presentation covered details of the installation process and dependencies. The details of this presentation along with the show-me demo should simplify installation of WebSphere Partner Gateway V6.0.

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