IBM WebSphere Partner Gateway Enterprise and Advanced Editions

Installation Guide

Version 6.0

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Note!
Before using this information and the product it supports, read the information in "Notices" on page 83

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This edition applies to Version 6, Release 0, Modification 0, of IBM(TM) WebSphere(TM) Partner Gateway Advanced Edition (5724-L68) and Enterprise Edition (5724-L69), and to all subsequent releases and modifications until otherwise indicated in new editions.

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Contents

Preface

About this book

This book covers IBM WebSphere Partner Gateway Advanced Edition Version 6.0 and IBM WebSphere Partner Gateway Enterprise Edition Version 6.0, and includes the following information:

- A description of the prerequisites that you must have installed before you install WebSphere Partner Gateway.
- Information to help you plan for the installation.
- Descriptions of several deployment configurations that you can use.
- Instructions to execute WebSphere Partner Gateway's installation wizards.
- Instructions on how to start WebSphere Partner Gateway and log in.
- Instructions for uninstalling WebSphere Partner Gateway.

After you have installed WebSphere Partner Gateway, refer to the *Hub Configuration Guide* for the steps to set up the community.

Audience

This guide is for the IT professional responsible for installing WebSphere Partner Gateway, and assumes that you are familiar with the following:

- At least one of the following operating systems:
  - Linux
  - Solaris
  - AIX(R)
  - Windows 2000
- DB2(R) or Oracle 9i and 10g
- WebSphere MQ
- B2B concepts
- Business processes
- Security
- Environment planning

In the WebSphere Partner Gateway environment, there are four types of administrative users: Hub Admin and Operator Admin (the Community Operator's administrative users), Manager Admin (the Community Manager's administrative user), and Participant Admin (the Participant's administrative user). These users may participate in the installation and configuration of the product in the following ways:

- Hub Admin

  The role of the Hub Admin is to:
  - Perform environment planning to optimize scalability and load balancing.
  - Ensure that prerequisites are installed.
  - Install WebSphere Partner Gateway.
  - Configure system parameters.

If you are planning to configure the hub to deliver events to an external queue using JMS, refer to the *Hub Configuration Guide* for more information.

- Manager Admin

  Responsible for the health and maintenance of the Community Manager's portion of the community.
- Operator Admin

  The role of the Operator Admin is to:
  - Configure connections available to the hub community.
  - Manage access to the console by the Community Operator's employees.
- Participant Admin

  Configure system parameters.

For more information on these user roles, see the *Administrator Guide*.

Typographic conventions

This document uses the following typographic conventions:

Convention	Description
`Monospace font`	Text in this font indicates text that you type, values for arguments or command options, examples and code examples, or information that the system prints on the screen (message text or prompts).
bold	Boldface text indicates graphical user interface controls (for example, online button names, menu names, or menu options) and column headings in tables and text.
Italics	Text in italics indicates emphasis, book titles, new terms and terms that are defined in the text, variable names, or letters of the alphabet used as letters.
`Italic monospace font`	Text in italic monospace font indicates variable names within monospace-font text.
Underlined colored text	Underlined colored text indicates a cross-reference. Click the text to go to the object of the reference.
Text in a blue outline	(In PDF files only) A blue outline around text indicates a cross-reference. Click the outlined text to go to the object of the reference. This convention is the equivalent for PDF files of the "Underlined colored text" convention included in this table.
{INSTALL DIR}	Represents the directory where the product is installed.
UNIX:/Windows:	Paragraphs beginning with either of these indicate notes listing operating system differences.
" "(quotation marks)	(In PDF files only) Quotation marks surround cross-references to other sections of the document.
{ }	In a syntax line, curly braces surround a set of options from which you must choose one and only one.
`[ ]`	In a syntax line, square brackets surround optional parameters.
`...`	In a syntax line, ellipses indicate a repetition of the previous parameter. For example, `option[,...]` means that you can enter multiple, comma-separated options.
`< >`	Angle brackets surround variable elements of a name to distinguish them from one another. For example, <*server_name*><*connector_name*>tmp.log.

\, /	Backslashes (\) are used as component separators in directory paths in Windows installations. For UNIX installations, substitute slashes (/) for backslashes.

Related documents

The complete set of documentation available with this product includes comprehensive information about installing, configuring, administering, and using WebSphere Partner Gateway Enterprise and Advanced Editions.

You can download the documentation or read it directly online at the following site:

http://www.ibm.com/software/integration/wspartnergateway/library/infocenter

Note: Important information about this product may be available in Technical Support Technotes and Flashes issued after this document was published. These can be found on the WebSphere Business Integration Support Web site:

http://www.ibm.com/software/integration/wspartnergateway/support/

Select the component area of interest and browse the Technotes and Flashes section.

New in this release

New in release 6.0

This section highlights the changes to WebSphere Partner Gateway for version 6.0.

- Product name has changed from WebSphere Business Integration Connect to WebSphere Partner Gateway.
- File names and directories have been updated to reflect new naming convention.
- The option for installing the embedded version of IBM WebSphere Application Server Express or using an existing WebSphere Application Server v6.0 has been added to the WebSphere Partner Gateway Installer.
- Upgrade information has been updated and moved to a separate chapter. See, Chapter 4, "Upgrading WebSphere Partner Gateway," on page 73.

New in release 4.2.2

Changes made to this guide since its last release (4.2.1) include the following:

- Product provides a launchpad to access the product documentation, DBLoader, and Installer. See "LaunchPad" on page 16 (UNIX(R)) or "LaunchPad" on page 48 (Windows(R)) for more information.
- Upgrade information has been updated. See, Chapter 4, "Upgrading WebSphere Partner Gateway," on page 73.
- New database connection confirmation windows are provided as part of the WebSphere Partner Gateway Installer.

Chapter 1. Before you begin

This chapter describes the platform, hardware, and software required to install and run the Enterprise and Advanced Editions of WebSphere Partner Gateway.

The Environment planning section identifies items that you should consider before you install, to ensure that you create an optimal installation.

Finally, this chapter includes information on several deployment configurations that you can use to install WebSphere Partner Gateway.

This chapter contains the following sections:

Platform, hardware, and software requirements

The following tables lists the hardware and software requirements for the operating systems currently supported by WebSphere Partner Gateway and also identifies products that must be installed before you install WebSphere Partner Gateway.

Note: Actual requirements for your system may be greater, depending on the complexity of your specific environment, throughput, and data object size.

Table 1. Hardware requirements

Server	Version	Hardware recommendations:
Red Hat Enterprise Linux Advanced Server (Intel(TM))	3 with update 3	• 2 GHz Intel Xeon processor • Minimum 2 GB RAM • Minimum 300 MB available disk space for the application • Additional disk space for document storage, 30 GB recommended • Additional servers for added capacity and redundancy • Multi-server installations require network-attached shared storage

Table 1. Hardware requirements (continued)

Server	Version	Hardware recommendations:
Microsoft(R) Windows Server or Microsoft Windows Advanced or Microsoft 2003 Standard and Enterprise	2000 with Service Pack 3 and 4	• 2 GHz Intel Xeon processor • Minimum 2 GB RAM • At least 300 MB of available hard disk space • Additional disk space for document storage, 30 GB recommended • Additional servers for added capacity and redundancy • Multi-server installations require network-attached shared storage
AIX	5.2 with maintenance level 3 or 5.3	• 600 Mhz processor • Minimum 2 GB RAM • At least 300 MB of available hard disk space • Additional disk space for document storage, 30 GB recommended • Additional servers for added capacity and redundancy • Multi-server installations require network-attached shared storage
Solaris	9 with recommended patch cluster of June 2004	• 750 MHz or faster UltraSparc • Minimum 2 GB RAM • At least 300 MB of available hard disk space • Additional disk space for document storage, 30 GB recommended • Additional servers for added capacity and redundancy • Multi-server installations require network-attached shared storage
SuSE Linux Enterprise Server	8.0 with SuSE SP3 9.0	• 2 GHz Intel Xeon processor • Minimum 2 GB RAM • Minimum 300 MB available disk space for application • Additional disk space for document storage, 30 GB recommended • Additional servers for added capacity and redundancy • Multi-server installations require network-attached shared storage

Table 2 lists the software requirements for WebSphere Partner Gateway. These applications can reside anywhere on your network, although it is recommended that your RDBMS and WebSphere MQ reside on dedicated servers.

Table 2. Software requirements

Item	Version	Notes
Database Server:		

Table 2. Software requirements (continued)

Item	Version	Notes
IBM DB2 Universal Database(TM) Enterprise Server Edition or	8.2 DB2 universal JDBC driver	Required to persist WebSphere Partner Gateway data. DB2 should be installed on a dedicated server. DB2 is bundled with the WebSphere Partner Gateway media pack. WebSphere Partner Gateway will install a set of database stored procedures for its use. **Note:** Please check the DB2 documentation for specific operating system requirements, such as configuration settings or required product versions.
Oracle 9i or 10g	9.2.0.4 or 10.1.0.3 with Oracle JDBC thin driver	You can download the JDBC driver from the OTN website. It is also installed with Oracle 9i and 10g.
WebSphere MQ with Java™ Message Service (JMS)	5.3 with CSD08 or later	Required to handle messaging between the components of WebSphere Partner Gateway. WebSphere MQ should be installed on a dedicated server. WebSphere MQ is bundled with the WebSphere Partner Gateway media pack. To obtain CSD08, go to http://www.ibm.com/software/integration/support/SupportPac/
Simple Mail Transport Protocol (SMTP) based e-mail relay server		Required for e-mail alerts, SMTP message delivery, and outbound transport.
ProFTPD or other FTP server		Only required if you plan to use FTP. You can obtain ProFTPD from www.proftpd.org.
Shared network storage such as Network Attached Storage (NAS)		Required only for a multi-server environment.

Table 3 lists the browser requirements to access the Community Console.

Table 3. Browser requirements

Item	Version	Notes
Mozilla or Microsoft Internet Explorer (Windows only)	1.7 or later 6.0 FP1	Required to use the Community Console.
Screen resolution setting		1024 x 768 recommended

Environment planning

This section lists some of the things you should consider before installing WebSphere Partner Gateway. Adequate planning enables you to decide on the deployment topology that fits your requirements.

Availability

System downtime can seriously affect your business productivity and profitability. When you create a high availability system, you are ensuring your hub community that the system is always up and running and ready to receive documents. A typical high availability environment ensures that the system is working 99.9 percent of the time, with some systems achieving 99.999 percent of the time. Availability levels can decrease due to events such as system failure, system overload, network congestion, and network attacks. To maximize availability, you need to provide system redundancy. You can accomplish this by having at least two implementations of each logical function (Community Console, Receiver, and Document Manager) on separate servers in your architecture. Therefore, if you place all three components on one server, you need a second server to provide redundancy. If you separate each component onto its own server, you need six servers in total to provide redundancy. Additionally, you should consider creating another set of servers in your disaster recovery location so that you can run the system from that location.

To create a highly available WebSphere Partner Gateway implementation, its supporting infrastructure (such as network, Internet connection, even power coming into your facility) must also be highly available. The high availability requirement also applies to MQ and your RDBMS. If either of these supporting applications fails, your production environment will fail.

Scalability

WebSphere Partner Gateway scales horizontally. That is, you increase its processing ability by adding instances of its components. The actual number of servers, instances of a particular component, or network capability that you will need depends on the following factors:

- **Community Size** A large number of partners connecting to a hub means that more users will be accessing the hub. You may need to increase the number of Community Console instances and increase the capabilities of your database to support greater numbers of users.
- **Document volume** A larger number of documents sent by Community participants and the Community Manager means that you may need to increase the number of Document Manager instances and increase the capabilities of WebSphere MQ.
- **Complexity of flows** Process flows that are complex require more Document Manager instances to handle them. Examples are flows that require additional receipt acknowledgments, large documents or complex transformations in conjunction with high volumes.
- **File Size** Large files require more network bandwidth and impact the shared file service more than small files.
- **Document flow** If the number of documents being received spikes, as will occur when a Community participant uses batch processing to send messages, you will need sufficient Receiver instances to handle the maximum number of messages in that spike. Note that Receivers are generally four to five times faster than Document Managers.
- **Latency** The amount of time it takes for a document to get from one point to another. Things that can increase latency include the means of transmission, the size of the document, and Document Manager processing. You can reduce latency by increasing the number of Document Managers. However, you can also decide to accept increased latency for things like batch processes that occur at the end of the business day. For example, if you know that you will receive

batch processes between 3:00 p.m. and 5:00 p.m, you can either decide to handle all of that data quickly by implementing more Document Managers, or you can decide that there will be an increase in latency during that time while your Document Managers work through the queued messages.

As these factors change, you can scale WebSphere Partner Gateway by adding multiple instances of its components. The Receiver, Community Console, and Document Manager instances can live anywhere independently. However, there are some things to consider when creating redundant WebSphere Partner Gateway components:

- When you create multiple Document Managers, all instances must communicate with the same WebSphere MQ queue manager and point to the same database instance.
- When you create multiple Community Consoles and Receivers, because these components accept connections from the Internet, the network must have a load balancer.
- That the components share a common file system.

Note that as you scale WebSphere Partner Gateway, you must also scale the supporting infrastructure, such as WebSphere MQ and your RDBMS.

Once you have configured your servers, it is important to monitor your system performance to determine when and if additional servers are required to meet demands.

Data storage

Data storage is a key component in your topology as it is a WebSphere Partner Gateway prerequisite. How you address the shared storage requirement depends on your storage needs and the answers to the following questions:

- How long are you required to store data? Are there specific data retention requirements for your industry?
- Do you need highly available data storage?
- Do you need mission critical redundancy?

If your requirements are low in these areas, you can consider implementing your shared storage on the same server as one or more of the WebSphere Partner Gateway components. If not, it should be on a separate server from WebSphere Partner Gateway. When high availability is a requirement, consider a redundant NAS product because it can scale independently from the servers. Note that your RDBMS and WebSphere MQ do not have to be on NAS.

Security

WebSphere Partner Gateway will work within a standard secure environment. However, you should consider the following things:

- Even though WebSphere Partner Gateway does not explicitly support proxy servers, it is possible to use an independent reverse proxy server on inbound Internet connections. WebSphere Partner Gateway can use proxy servers to the Internet as long as those servers do not interfere with the SSL connection. This is because WebSphere Partner Gateway uses the initial SSL connection to obtain information critical for making a connection.

  Note: WPG supports forward proxy for the outbound documents.

- WebSphere Partner Gateway is adversely impacted by anti-virus or firewall software that checks documents as they enter your system. To optimize performance, consider disabling this type of checking on WebSphere Partner Gateway servers.

The Community Console requires that sticky sessions (also referred to as Server Affinity) be enabled if you are using a load balancer. Sticky sessions are used to tell the load balancer that if a client request comes from the same IP address within a configured time period, the request should be sent to the same server as specified the last time instead of selecting a new server.

The Console uses cookies to ensure that all incoming requests, via the browser, for a session go to the same server. Without the sticky sessions turned on, each request from the Console can be sent by the load balancer to a different server. This can cause problems. For example, the Console will not think that the user is logged in. Enabling sticky sessions at the IP Address level may impact scaling because the Recievers will also be affected. Participants with high document volumes can have their documents sent to the same Receiver instance each time because the load balancer will see the same client IP address being used for each document request. Another option is to enable stickiness only for cookies so that the Receivers are not affected.

Port planning

This section provides default port information to assist you in planning your installation. This information allows you to check for port availability before you install WebSphere Partner Gateway.

Table 4. Installer default ports - Visible to user

Visible to user	Console	Receiver	Router
HTTP	58080	57080	56080
HTTPS	58443	57443	56443

Table 5. Installer default ports - Not visible to user

Not visible to user	Console	Receiver	Router
HTTP2	58090	57090	56090
HTTPS2	58043	57043	56043
SOAP_CONNECTOR	58880	57880	56880
BOOTSTRAP	58809	57809	56809

In addition, the following ports should also be considered during your planning:

Table 6. Default ports for third-party connections

Requirement	Default port
Port used to connect to WebSphere MQ Queue Manager	9999
Port used to connect to DB2	50000
Port used to connect to Oracle	1521
Port used to connect to Help System	58888
Port used for SMTP connection from router to e-mail server	25

Firewall considerations

You must configure port access for all WebSphere Partner Gateway components that are installed across firewalls. See Table 7 for a list of port access requirements.

Table 7. Component connections across firewalls

Component	Components requiring access
WebSphere MQ Queue Manager	Console, Receiver, and Document Manager need access to WebSphere MQ Queue Manager.
DB2 or Oracle	Console, Receiver, and Document Manager need access to DB2 or Oracle.
Common shared file	Console, Receiver, and Document Manager need access to the Common shared file.
Receiver	Document Manager needs access to the HTTP port of the Receiver for synchronous responses. For example, synchronous MDNs for AS2.

Topologies

This section describes some of the topologies (deployment configurations) to consider before you install WebSphere Partner Gateway and its prerequisite software. The topology that you choose should be based on the factors described in the Environment planning section. The topologies described in this section are consolidated topology, split topology, and distributed topology.

In split and distributed toplogies, you must ensure that the shared common folder uses the same mount point and directory structure on all of the machines. An example scenario is if the dbloader, receiver, console are installed on machine A and document manager is installed on machine B. In this scenario, a mapped drive (for example Y:) must be created on machine A. The user must provide this mapped drive when prompted for the location of the shared common folder. On machine B (and all subsequent machines where an instance of document manager is to be installed) the same map (Y:) will need to be created and directed to the shared common folder.

Consolidated topology

This topology is the simplest one. It consists of a single server running all three WebSphere Partner Gateway components (Receiver, Community Console, and Document Manager). You might also put WebSphere MQ and your RDBMS on the server as well, although these products should be on separate dedicated servers.

Split topology

The split topology consists of a front-end server containing the Receiver and Community Console components and a back-end server containing the Document Manager component. This topology is an entry level topology for a small production environment and maximizes your software investment. Note that WebSphere MQ and RDBMS can be anywhere, including on these servers. A better implementation is to have them on dedicated servers.

In a split topology, all instances of the three WebSphere Partner Gateway components need to communicate with the same shared file system. If high volume or high availability is not a concern, hosting the storage on the back-end server is an inexpensive solution. A back-end solution is preferable to front-end

storage due to performance and security concerns. When this solution is used, the front-end server can use an NFS connection, or an equivalent file sharing solution, to share files with the back-end server.

Note: The system time of all machines in a split topology deployment should be synchronized as closely as possible. Events that occur at the receiver host machine when messages are received are logged with a timestamp from the receiver machine. Other events involved in processing the same message may occur on the document manager machine, and these will be logged with a timestamp from the document manager machine. Since perfect time synchronization is not possible, awareness of this can help explain apparent sequencing quirks when viewing log records on the console.

Distributed topology

If you have a large installation and want a highly scalable and highly redundant environment, you will probably create a distributed topology. This topology consists of one or more dedicated servers for each WebSphere Partner Gateway component (Receiver, Community Console, and Document Manager). For example, you can have an environment that requires two Receiver servers for redundancy, four Community Console servers to support a large number of Community Console users, and six Document Managers for document processing. You can scale this topology by adding additional servers for the component that needs to handle a higher level of document processing (Document Manager), users (Community Consoles), or connections (Receivers) as needed.

In a distributed topology, an external NAS device is a good solution to shared storage. It will give the environment a high performance, redundant storage device that is independent of any of the other servers. All servers can make an NFS connection, or equivalent file sharing solution, to the external device. Your RDBMS and WebSphere MQ should be on dedicated servers; their data storage does not have to be on NAS devices.

Best practice design

Once you have decided on a topology, you should consider how to implement the topology to provide redundancy and disaster recovery capabilities. The Pod-based design is a recommended design. In this design, you have a primary production pod. This pod contains all of the WebSphere Partner Gateway components required to handle a production load. There is a secondary production pod, which can also handle the production load, and a load balancer to switch between the two. The secondary production pod provides redundancy. Figure 1 on page 9 shows how you could implement the two pods.

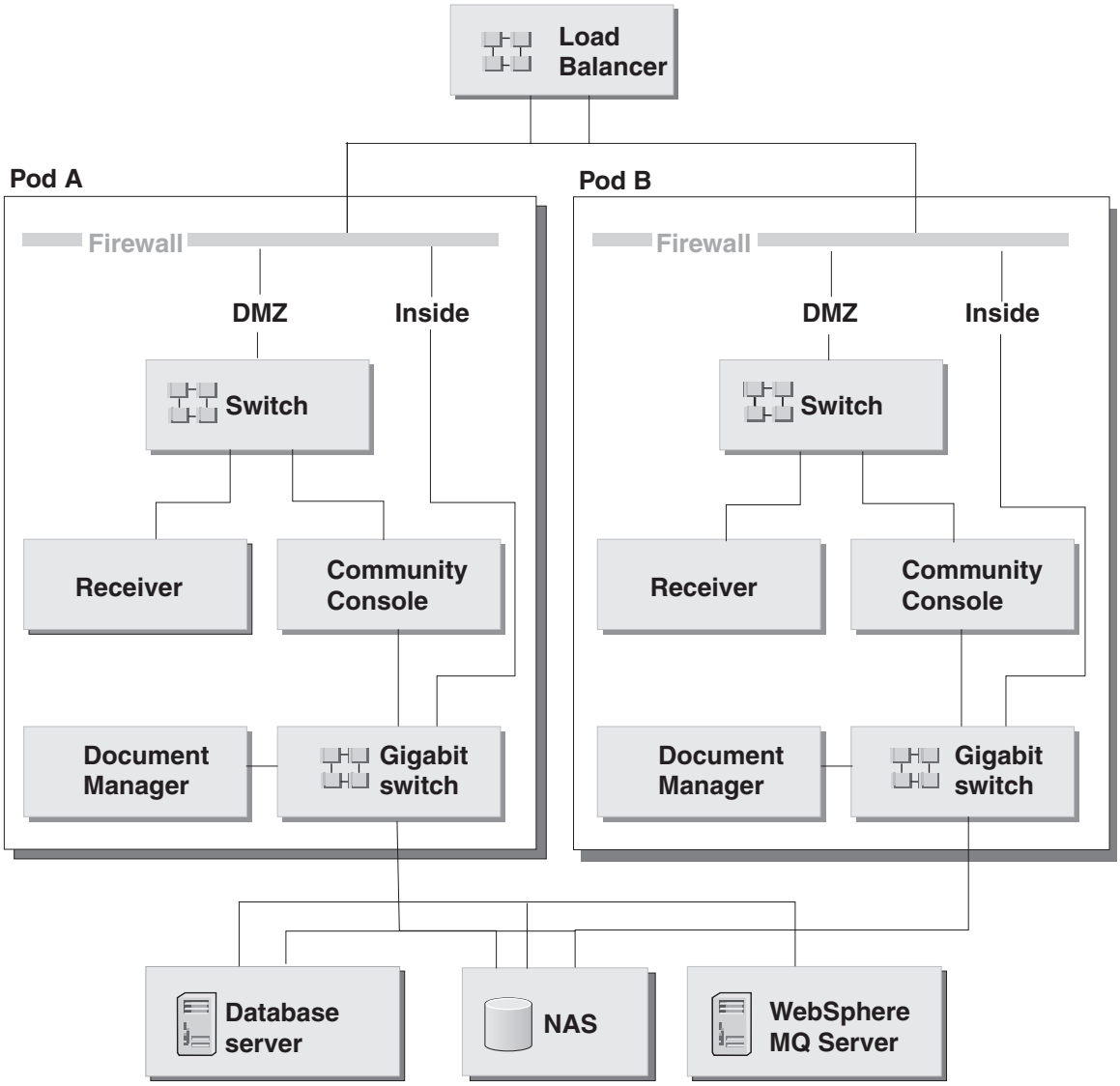

Figure 1. Pod-based topology

Another pod capable of handling the production load could be located at your disaster recovery site. The front-end components of all three pods should be identical. However, the back-end components for the disaster recovery pod must be separate from the production components. Therefore, a separate database server, WebSphere MQ server, and shared file system are required. You must implement some form of data synchronization between the production and disaster recovery back-end components. WebSphere Partner Gateway only supports a single active production environment at any given time. You can also add a test pod, which can be a minimum implementation such as the consolidated topology.

WebSphere Application Server considerations

Starting with WebSphere Partner Gateway version 6.0, you have the option of installing on top of an existing installation of Websphere Application Server V6.0. If you plan to do so, please note the following:

- WebSphere Partner Gateway does not support the Network Deployment and the Extended Deployment editions of Websphere Application Server V6.0.

- During installation, WebSphere Partner Gateway will create separate Websphere Application Server profiles for each of the components (Receiver, Console, and Document Manager). These profiles are for WebSphere Partner Gateway use only. Please do not deploy other Websphere Application Server applications into these profiles. Use the default profile or create another profile if needed.

Chapter 2. Installing WebSphere Partner Gateway on Linux, Solaris, or AIX

The following procedures describe how to install, start, test, troubleshoot, and uninstall WebSphere Partner Gateway on either a Linux, Solaris, or an AIX system.

Procedures in this chapter are specific to Linux. Paths may vary slightly for AIX and Solaris environments.

This chapter contains the following sections:

Installation overview

This section provides a high-level view of the WebSphere Partner Gateway installation process.

The following tasks are described in detail in this chapter:

1. Confirming that your system meets the minimum hardware and software installation prerequisites.
2. Creating and configure the WebSphere Partner Gateway database tables.
3. Installing the WebSphere Partner Gateway software.

Verifying and configuring installation prerequisites

Before you install WebSphere Partner Gateway, ensure that you have all the necessary prerequisites. The topics in this section give you a brief overview of the system hardware and software requirements, the supported databases, and the user accounts required to run WebSphere Partner Gateway.

Pre-installation checklists are included at the end of this section to help prepare for the installation. These checklists list the tasks that must be performed before you install WebSphere Partner Gateway.

- Table 1 lists the values that you must enter when you run the Database Loader installation wizard. When you are planning your installation, you can record required installation information in this table (for example, the database instance name and tablespace information).
- Table 2 lists the values that you must enter when you run the WebSphere Partner Gateway installation wizard. As you plan your installation, you can

record required installation information such as the host name of the WebSphere MQ server and port numbers for the Community Console, Receiver, and Document Manager.

This section contains the following topics:

Adding user accounts

In order to operate securely, WebSphere Partner Gateway requires a set of operating system users. The following procedure walks you through setting up these users. Although this procedure uses default names, you can substitute your own user and group names. Note that if you use your own group and user names, they cannot exceed eight characters.

If you are installing WebSphere Partner Gateway on multiple machines, the group's ID (GID) and the user's ID (UID) on each machine must match the group GIDs and user UIDs on all of the other machines.

The following procedure assumes that all WebSphere Partner Gateway features and components are being installed on one machine.

To create user accounts:

1. Create the group to contain the WebSphere Partner Gateway users. For example, create bcggroup.

   Business Integration uses a user in this group to manage WebSphere Partner Gateway components.
2. Create a user.

   WebSphere Partner Gateway uses this user to manage WebSphere Partner Gateway components. The installation wizard installs and runs software as this user. This is a normal user, not a super user. For example, create bcguser.
3. If you are using DB2, add the appropriate user for each component that you are going to install. These user IDs are necessary for the DB2 server to control access data. The following are examples of user names created for each component:
   - Community Console - bcgcon.
   - Document Manager - bcgdoc.
   - Receiver - bcgrecv.
4. Add all users to bcggroup.
5. Record the user names and passwords in the tables in "Pre-installation checklist tables" on page 14.

Configuring WebSphere MQ

The following procedure describes how to configure WebSphere MQ after it is installed. See "Platform, hardware, and software requirements" on page 1 for a list of SupportPacs and updates that must be applied. For information on specific commands used in this procedure, see the WebSphere MQ documentation.

Note: The default queue manager name is bcg.queue.manager, and the default listener port is 9999. If you change these default values, you must be sure to change them wherever they are used.

To configure WebSphere MQ:

1. Enter t following command to change the user to mqm:

   ```
   su - mqm
   ```

2. Create the queue manager by entering the following:

   ```
   crtmqm -q bcg.queue.manager
   ```

   IBM recommends changing the following default log parameters, located in <MQInstallDir>/qmgrs/<qmgr>/qm.ini, to avoid potential Process Transaction Rollback errors. Refer to the WebSphere MQ documentation for specific information on these attributes.

   - LogPrimaryFiles=62
   - LogSecondaryFiles=2
   - LogFilePages=2048
   - LogBufferPages=128

3. Add the following lines to the bottom of the queue manager configuration file (MQHomeInstallDir/mqm/qmgrs/bcg/qm.ini) to update the channel parameters.

   ```
   Channels:
      MaxChannels=1000
      MaxActiveChannels=1000
   ```

   Enter an empty line below `MaxActiveChannels=1000` and save the changes to the configuration file.

4. If the computer has more than one CPU, enter the following command:

   ```
   setmqcap <number of CPUs>
   ```

5. Start the queue manager with the following command:

   ```
   strmqm bcg.queue.manager
   ```

6. Start the listener with the following command:

   ```
   runmqlsr -t tcp -p 9999 -m bcg.queue.manager &
   ```

7. Wait about 10 seconds and press Enter to return the command prompt.
8. Start the JMS Broker (the publish and subscribe broker):

   ```
   strmqbrk -m bcg.queue.manager
   ```

9. Start the MQ command services with the following command:

   ```
   strmqcsv bcg.queue.manager
   ```

10. Use the Tools/MQSeries/BCGCreate_Queues.mqsc file to define the queues and channels for the queue manager:

    ```
    runmqsc bcg.queue.manager <
     <CD image>/Tools/MQSeries/BCGCreate_Queues.mqsc
    ```

    Where `<CD image>` is the mount location of the WebSphere Partner Gateway installation CD or the location of the uninstalled WebSphere Partner Gateway installation files.

11. Use the <MQHomeInstallDir>/mqm/Java/bin/MQJMS_PSQ.mqsc file to configure the JMS publish and subscribe queues:

    ```
    runmqsc bcg.queue.manager <
          <MQHomeInstallDir>/mqm/Java/bin/MQJMS_PSQ.mqsc
    ```

12. Record the MQ host name, queue manager name, and listener port in "Pre-installation checklist tables" on page 14.

Installing and configuring DB2

For maximum performance in a production environment, the WebSphere Partner Gateway database should reside on a dedicated server.

The database is configured with the assumption that DB2 UDB is running on a multi-processor machine. In particular the DFT_DEGREE parameter is set to 4, which indicates that a SQL query is executed as 4 sub-processes running in parallel. If you are running DB2 UDB on a single processor machine, this configuration is not optimal and might cause a system memory and CPU conflict. You should review the database configuration with your database administrator and modify it if necessary to conform to your specific database environment.

Note: WebSphere Partner Gateway does not use the fenced-user option. Do not use the fenced-user ID as part of the WebSphere Partner Gateway Installation.

Use the following procedure to install and configure DB2:

1. Install DB2 by following the installation instructions for DB2 and using the DB2 Setup wizard. Refer to the DB2 documentation for specific DB2 installation instructions.

   Note: You can also use an existing installation.
2. If DB2 is not running, start it by entering the following command:

   ```
   db2start
   ```

For quick reference, record the names and passwords in the tables in "Pre-installation checklist tables" on page 14. Record the default values also, especially if the default values were changed.

Installing and configuring Oracle

This guide does not provide installation instructions for Oracle. For procedures on how to install Oracle, see the appropriate Oracle documentation.

IBM recommends that you follow the guidelines in this section during your Oracle installation:

1. Export Oracle system environment variables (including: ORACLE_HOME, ORACLE_SID, and ORACLE_BASE), as described in the Oracle installation documentation. This is required for the root/Administrator user if the Database Loader will run SQL automatically during the WebSphere Partner Gateway installation process.
2. The Oracle JDBC driver must be available on each machine that will run the hub components. The JDBC driver must be the same level as the Oracle version that is installed.

Record the names and passwords in the tables in "Pre-installation checklist tables" on page 14. Record default values also, especially if the default values were changed.

Pre-installation checklist tables

The following checklist items must be performed before you install WebSphere Partner Gateway:

Note: These checklist items assume a single machine installation.

1. User group, bcggroup, exists in the operating system. Operating system user bcguser exists and is a member of bcggroup. If you are using DB2, operating system users bcgcon, bcgdoc and bcgrecv all exist and are members of bcggroup. If you are using Oracle, the operating system users bcgcon, bcgdoc & bcgrecv are not required.
2. DB2 or Oracle is installed and configured on a server.
3. WebSphere MQ is installed and configured on a server.
4. An SMTP server exists. (optional)
5. If you plan to use a multiple computer topology, make sure that shared network storage (for example, NAS, NFS) is installed and configured on each computer.

Table 8 identifies information that you must have before you start the Database Loader and WebSphere Partner Gateway installation wizards. Consult the table as you run the wizards.

Table 8. Required information

Required Information	**Value**
WebSphere Partner Gateway user name	(bcguser is the default)
WebSphere Partner Gateway user password	
WebSphere Partner Gateway group name	(bcggroup is the default)
Community Console user name	(bcgcon is the default)
Community Console user password	
Community Console port numbers	(HTTP - 58080 is the default) (HTTPS - 58443 is the default)
Help System	(58888 is the default)
Document Manager user name	(bcgdoc is the default)
Document Manager user password	
Document Manager port numbers	(HTTP - 56080 is the default) (HTTPS - 56443 is the default)
Receiver user name	(bcgrecv is the default)
Receiver user password	
Receiver port numbers	(HTTP - 57080 is the default) (HTTPS - 57443 is the default)
WebSphere MQ host name	
WebSphere MQ Queue Manager	(bcg.queue.manager is the default)
WebSphere MQ port for Listener	9999
Mount Point for Shared Location	
Database host name	
Database port	default is (DB2=50000 if using default Instance). (Oracle=1521)
Database owner (DB2)	
Owner's password (DB2)	
Database name (DB2)	

Table 8. Required information (continued)

Required Information	Value
Instance name (DB2)	
Administrator login ID (Oracle)	
Administrator password (Oracle)	
Oracle SID (Oracle)	
Schema owner login (Oracle)	
Schema owner password (Oracle)	
SMTP host name	
SMTP Port Number	(25 is the default)

Installing WebSphere Partner Gateway

When you have met all of the prerequisites noted in the previous sections, you are ready to run the Database Loader and WebSphere Partner Gateway installation wizards. These wizards can be executed directly, or through the LaunchPad. See, "LaunchPad" for more information.

Note: The AIX electronic product image tar file cannot be successfully unarchived using the default tar program available on AIX since the image has path lengths of more than 100 characters. However, IBM distributes a tar program that will successfully unarchive the AIX electronic product image tar file. This tar program is available through the AIX Toolbox for Linux Applications at the following location:

`http://www-1.ibm.com/servers/aix/products/aixos/linux/download.html`

DISPLAY environment variable

The Database Loader and Hub install wizards use the X Windows system on UNIX to display the graphical user interface. The X Windows system requires that the DISPLAY environment variable be exported to the system environment. The following lines set the DISPLAY environment variable to the IP_Address from a Bourne shell:

```
DISPLAY=IP_Address:0.0
export DISPLAY
```

Use the syntax appropriate to your shell to set the DISPLAY environment variable.

Note: Test that the DISPLAY system environment variable and X Windows system are properly configured by running an X client program, such as xclock, from the command line. If the xclock client displays on the X Server window (local or remote), then the wizards should also display properly.

LaunchPad

WebSphere Partner Gateway provides a LaunchPad program to provide one-stop access to the *Product Overview*, ReadMe File, product documentation, Database Loader, and WebSphere Partner Gateway Installer. Alternatively, you can start the database loader and installation programs using the supplied setup*.* programs. See, "Creating the database" on page 17, and "Installing the components using the install wizard" on page 22.

Note: Some options on the LaunchPad require a browser to be installed and available in the system path.

The LaunchPad executable file is located in:

```
{CD_ROM/MEDIA DIR}/LaunchPad.sh
```

Creating the database

WebSphere Partner Gateway includes an installation wizard to set up the database tables. This wizard, Database Loader, gathers information to create and populate the tables for you. Alternatively, it can save the SQL files it uses to create the tables. You can then use the SQL files to create and populate the tables. Running the SQL files manually allows you to review the database tables before populating them.

Before you begin, verify that your database server is installed, configured correctly, and running.

DBLoader can be run on a machine that does not have the actual database. Oracle/DB2 should be installed on that machine, but the actual database can be on another machine. The DBA needs to do some configuration changes for that, which probably are out of scope of this guide. First you create the database on a remote machine. Then you configure a remote database with oracle/db2 on the machine on which dbloader will be installed, specifying on which machine its running , which port it uses etc. Once this configuration is done, DBLoader can be run as if the database is local. The Oracle/DB2 will automatically take care of the rest. All sql commands against this database will goto the correct machine for processing. The SQLs can be run automatically.

The following procedure describes how to configure the database using the Database Loader GUI. You can also install the Database Loader without using the GUI. See "Installing the components using the command line" on page 34 for information.

Note: Please check the DB2 documentation for specific operating system requirements, such as configuration settings or required product versions.

To set up the database tables:

1. Log in as the root user.

   Database Loader requires administrator privileges to automatically run the SQL create/change ownership of the tablespaces directories.
2. From the Database Loader directory, run the setup executable listed in Table 9 specific to your platform:

   cd DBLoader

Table 9. Platform-specific executables for Installer

Platform	Executable
Linux	setupLinux
AIX	setupAIX
Solaris	setupSunOS

The Database Loader wizard starts and displays the Welcome window. Click **Next**.

3. In the Software License Agreement window, read the Software License Agreement. If you agree to the terms in the agreement, select **I accept the terms of the license agreement**. Click **Next**.
4. In the Directory Name window, type the path and directory name of the directory that the Database Loader will use when it sets up the database. IBM recommends that you create a new directory location, or select an empty one. Embedded spaces or special characters should not be used in directory names.

   Select a location with enough space for your database and all the application data that will be stored in it. Click **Next.**

   Note: When browsing to select a directory, enter a ″.″ in the **Enter file name** field after selecting the desired install path. If a ″.″ is not entered, the **Select a directory** window will not return to the window from which it was launched.
5. In the database type selection window, select the database server you plan to use for WebSphere Partner Gateway. You can select either DB2 8.2 or Oracle 9i 9.2.0.4 or later. Click **Next**.
6. In the database information window, type the following database information, then click **Next** when you are finished.

   DB2:

   If you selected DB2, the DB2 Database Information window appears. Enter the following DB2 database information:

   - Database name
   - Instance name
   - Group name
   - Owner name
   - Owner password

   Oracle:

   a. If you selected Oracle, the Oracle Database Information window appears. Enter the following Oracle database information:
      - Administrator login ID
      - Administrator password
      - Oracle SID
      - Schema owner login
      - Schema owner password

   b. The Oracle home location window appears. Type in or click **Browse** to input the Oracle Home directory location. See Figure 2 on page 19.

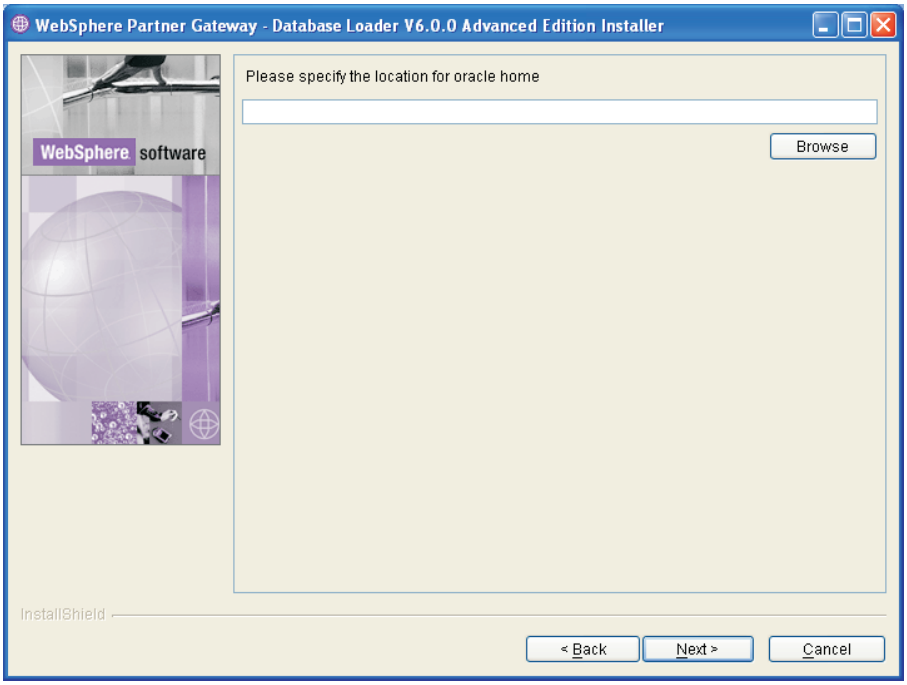

Figure 2. Oracle home directory location window

7. In the database location window, Figure 3 on page 20 for DB2 and Figure 4 on page 20 for Oracle, type the full path for the location of the database and each of its tablespaces on the database server. For example the DB2 database directory path might look like the this: *DB2Home/IBM/bcgdbloader/tables*.

   Note: When browsing to select a directory, enter a "." in the **Enter file name** field after selecting the desired install path. If a "." is not entered, the **Select a directory** window will not return to the window from which it was launched.

   If any of these values are changed, they must exist before the SQL files are executed. If they do not exist, then they must be created manually.

   Once you have entered the required information, click **Next**.

   Note: Select a file system location with sufficient space to hold the database and all application data. The database size will increase while WebSphere Partner Gateway runs.

   DB2

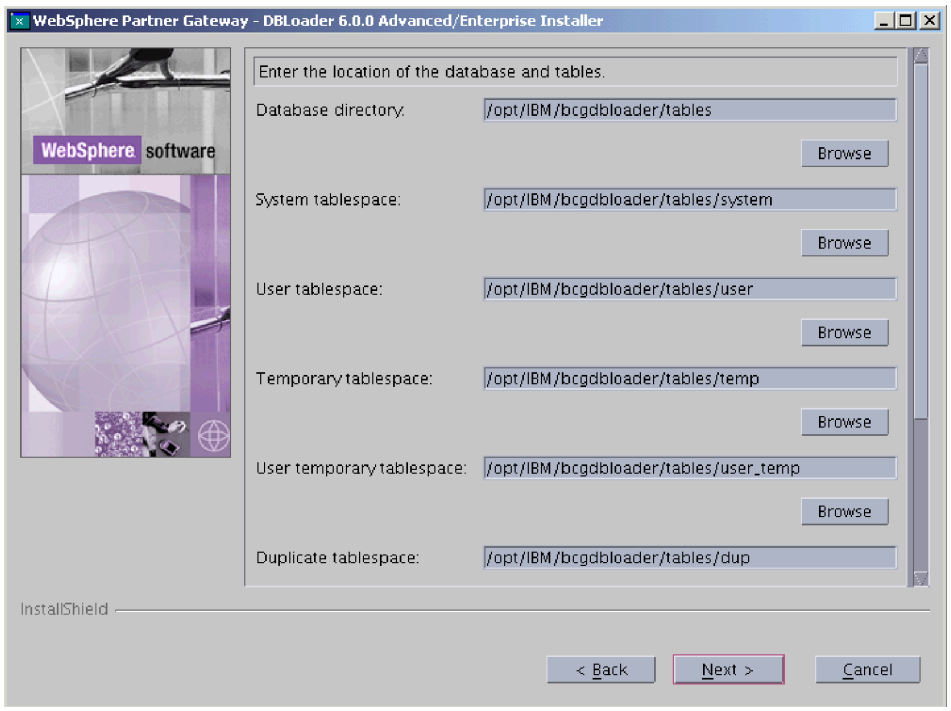

Figure 3. DB2 database location window

Oracle

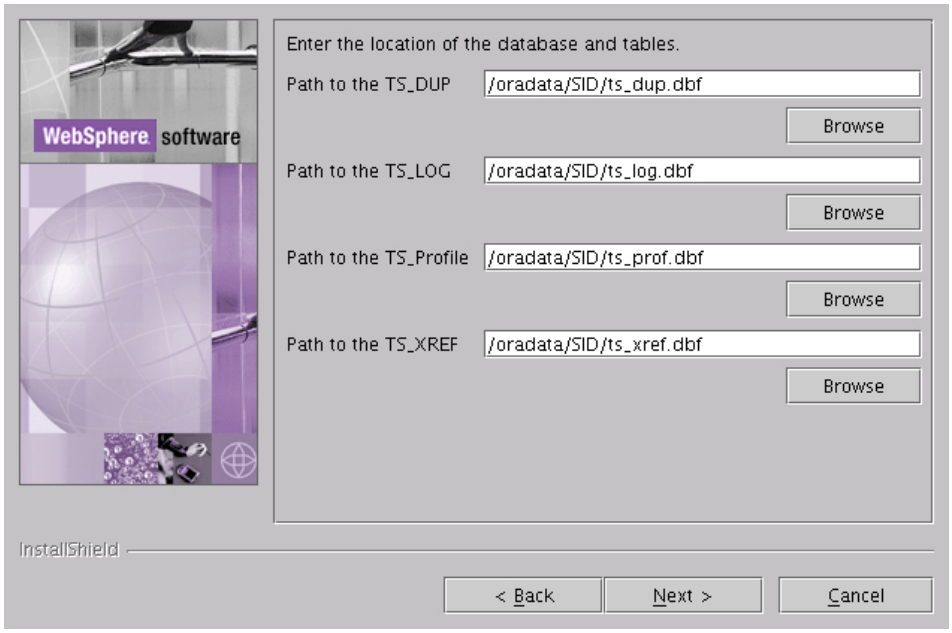

Figure 4. Oracle database location window

8. In the Component configuration window, Figure 5 on page 21, type the login information for the WebSphere Partner Gateway components and the location of the common shared files. Click **Next** when you are finished.

In the **User name** and **Password** fields for the Community Console, Document Manager, and Receiver, type the name and password of the user for each component. If using DB2, these users were created when the server was configured.

In the **Group Name** field, type the name of the group that contains the WebSphere Partner Gateway users.

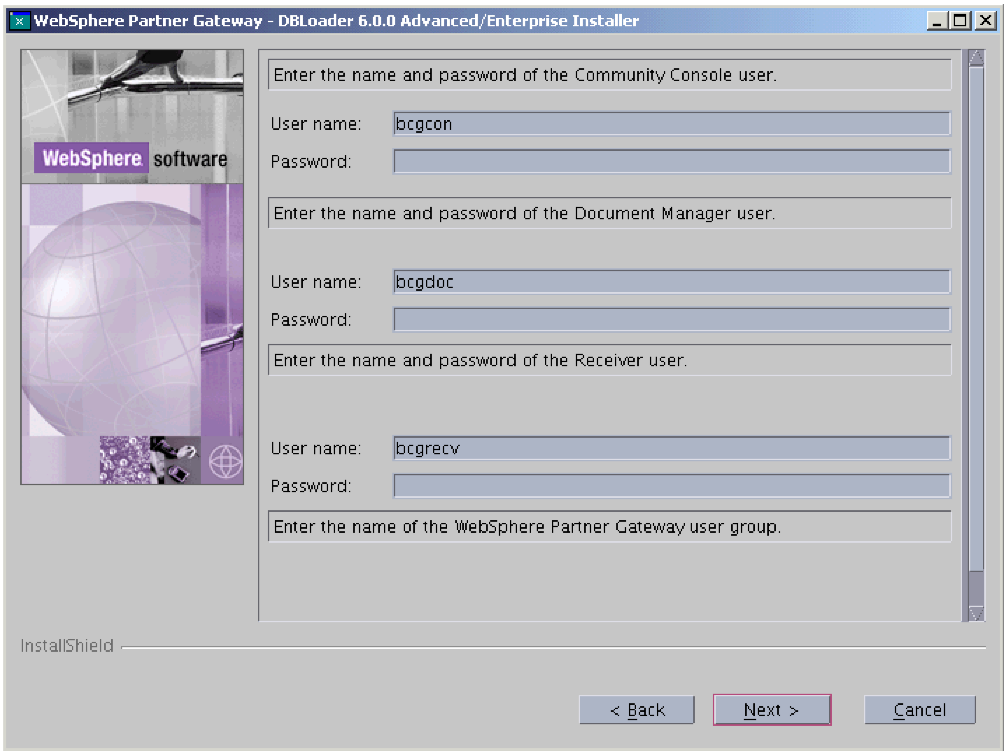

Figure 5. Component configuration window

9. From the Mount point for shared information window, type the location of the common shared files used by the main components of WebSphere Partner Gateway.

   Notes:

   a. If you are installing WebSphere Partner Gateway on multiple machines, the shared common folder must use the same mount point and directory structure on all of the machines.

   b. When browsing to select a directory, enter a "." in the **Enter file name** field after selecting the desired install path. If a "." is not entered, the **Select a directory** window will not return to the window from which it was launched.

10. The wizard displays a window where you can select whether the Database Loader just creates the SQL files or creates the SQL files and then runs them. See Figure 6 on page 22.

    When the Database Loader runs the SQL files, it does the following:

    - Creates the tablespaces
    - Creates the schema
    - Creates the tables, views, sequences, procedures, and functions, then populates them with metadata
    - Assigns permissions to the tables

- Creates the stored procedures

Because the Database Loader restarts the DB2 instance as part of its routine, disconnect any applications that are using the DB2 instance where you are setting up the WebSphere Partner Gateway database.

If you want the Database Loader to run the files for you, select the **Run the SQL files** check box. Click **Next**.

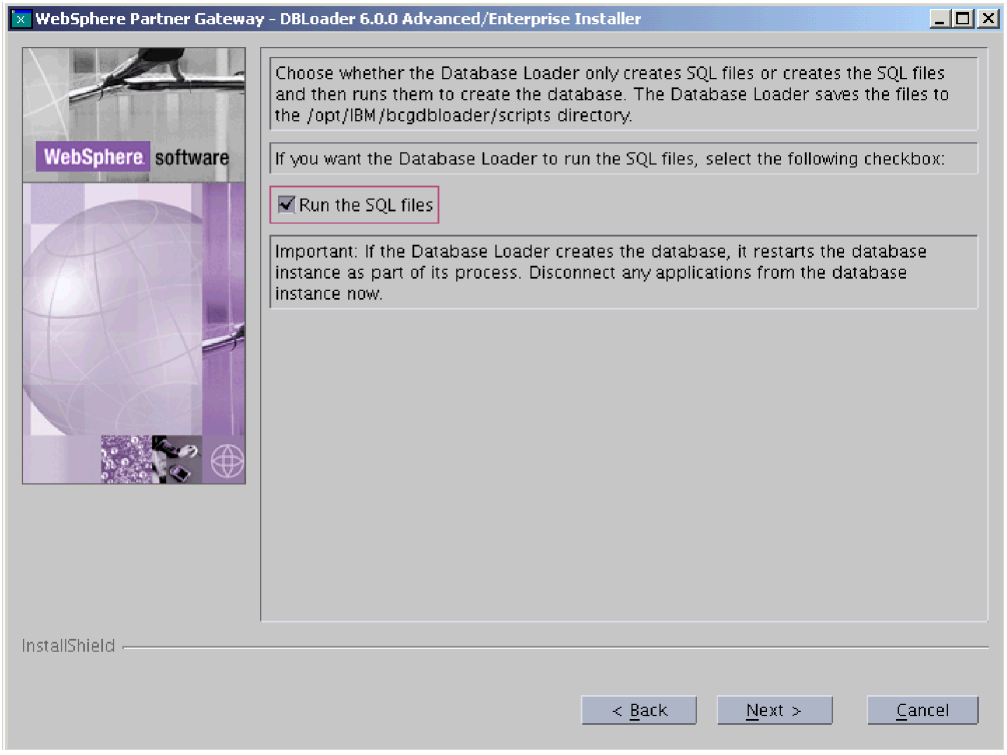

Figure 6. Run the SQL files window

11. Confirm the Database Loader installation location. Click **Next**.
12. Click the **Finish** button when it is enabled.
13. If you are running the SQL manually, refer to the `Instructions.txt` file in the bcgdbloader/scripts subdirectory (installed by the Database Loader installation wizard) for more information.

    When you have set up the WebSphere Partner Gateway database, you are ready to install the WebSphere Partner Gateway components.

    The following section describes how to install the components using the InstallShield wizard GUI. You can also install the components without using the GUI. See "Installing the components using the command line" on page 34 for information.

Installing the components using the install wizard

WebSphere Partner Gateway has three main components: Community Console, Receiver, and Document Manager. All three components share common content. You can install the components and common content on a single server, install each component on a separate server, or use a combination of these two options. You must install one instance of each component on at least one server. See "Environment planning" on page 3 and "Topologies" on page 7 for information on how to plan the placement of the various components on different servers.

Note: If you are installing WebSphere Partner Gateway on multiple machines, the shared `common` folder must use the same mount point and directory structure on all of the machines.

Before you begin, make sure that the prerequisite software is installed and configured properly. Consult the Requirements for all WebSphere Partner Gateway servers table in "Platform, hardware, and software requirements" on page 1 for software prerequisites and "Installation overview" on page 11 for information on how to configure that software. You must also have the WebSphere Partner Gateway database set up. For information on this, see "Creating the database" on page 17. Finally, your database server and WebSphere MQ must be running, including the queue manager and listener.

Common components need to be installed only once when using anything other than the consolidated topology.

To install WebSphere Partner Gateway:

1. Log in as root administrator.

   The Hub installer requires root/Administrator privilege to integrate with the native software registry.
2. In the hub directory, run the setup executable listed in Table 10 specific to your platform.

Table 10. Platform-specific executables for Installer

Platform	Executable
Linux	setupLinux
AIX	setupAIX
Solaris	setupSolaris

   The wizard starts and displays the Welcome window. Click **Next**.
3. In the Software License Agreement window, read the license agreement. If you agree to its terms, click **I accept the terms of the license agreement**. Click **Next**.
4. In the Directory Name window, type the path and name of the directory that the wizard should use when it installs WebSphere Partner Gateway. IBM recommends that you create a new directory location, or select an empty one. Embedded spaces or special characters should not be used in directory names. Click **Next**.

   Note: When browsing to select a directory, enter a "." in the **Enter file name** field after selecting the desired install path. If a "." is not entered, the **Select a directory** window will not return to the window from which it was launched.
5. In the component selection window, Figure 7 on page 24, select the components you want to install on the server. You can select multiple components. Click **Next**.

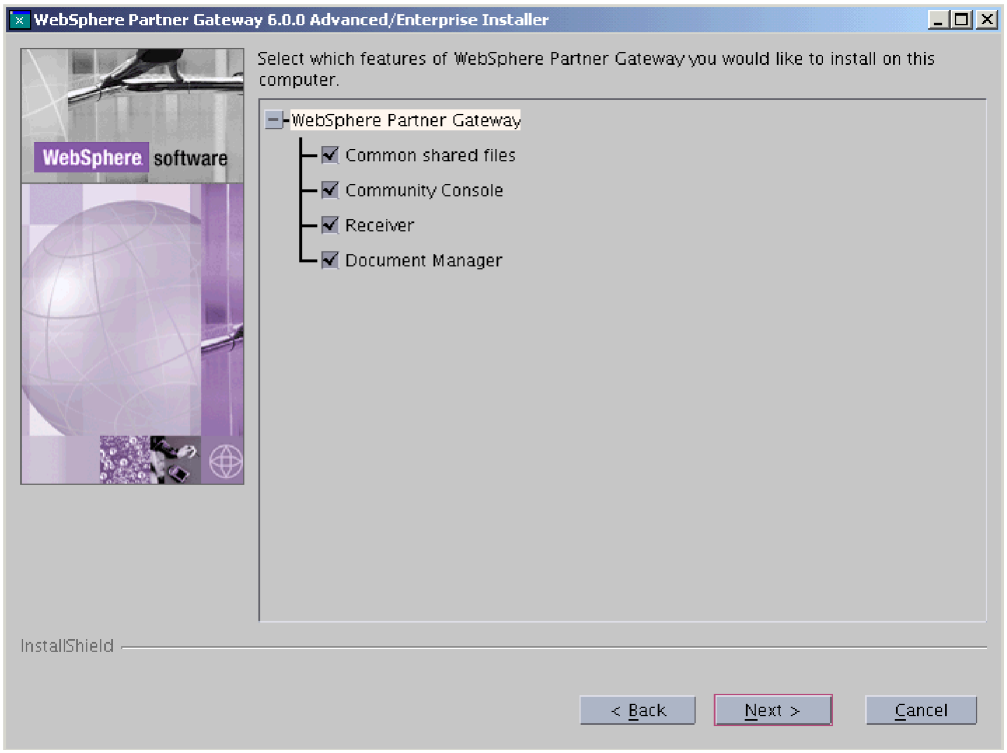

Figure 7. Component selection window

The rest of this procedure assumes that you are installing all of the components. If you are not installing all of them, some of the windows described in the rest of this procedure will not appear.

6. Specify the fully qualified host name for the machine that you are installing on. Click **Next**.
7. Select one of the following WebSphere Application Servers that will be used to host WebSphere Partner Gateway. See Figure 8 on page 25. Click **Next**:
   - Automatically install the embedded version of IBM WebSphere Application Server Express.
   - Use WebSphere Application Server v6.0 which is already installed on this computer.

     If you select this option, another window will appear and you must enter the directory where WebSphere Application Server is installed.

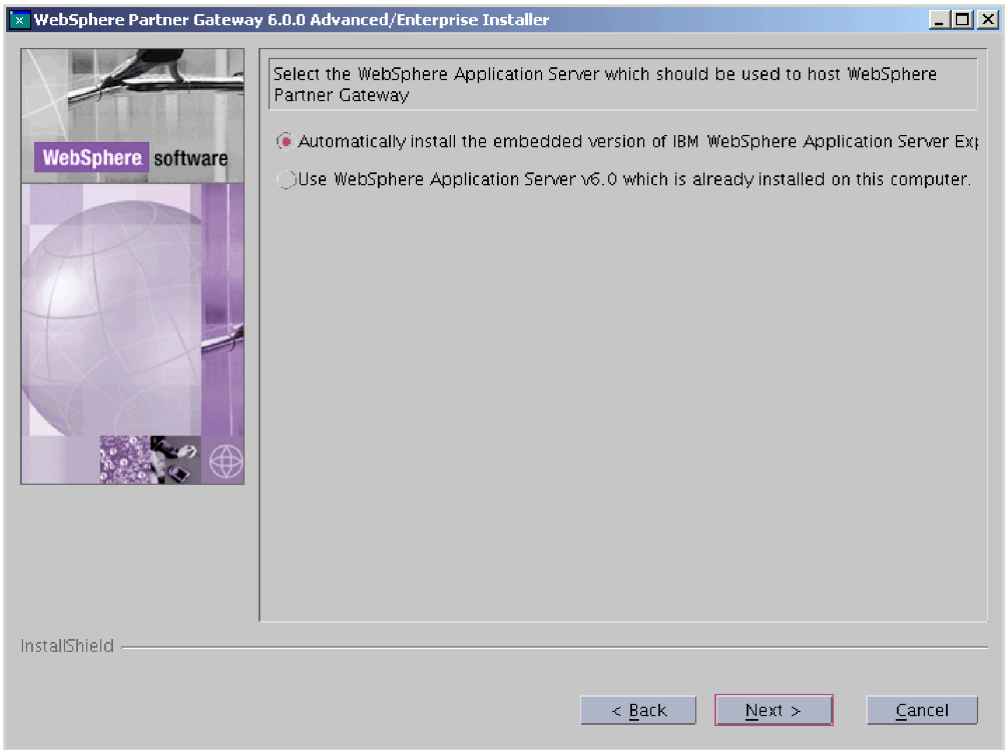

Figure 8. Server selection window

8. In the Database server selection window, Figure 9 on page 26, select the database server that you plan to use. You can select either **DB2 8.2 or later** or **Oracle 9i 9.2.0.4 or later**. Click **Next**.

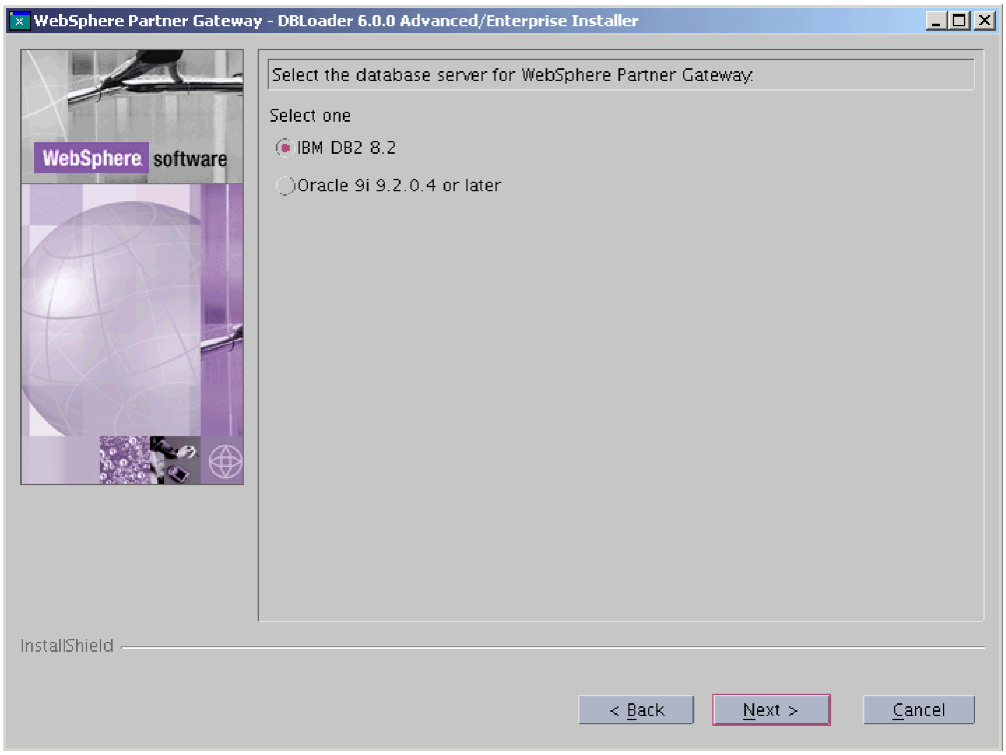

Figure 9. Database selection window

9. The Database information window appears. If you selected DB2 as your Database server, follow the DB2 specific instructions in this procedure. If you selected Oracle as your Database server, follow the Oracle specific instructions in this procedure.

   DB2

   If you selected DB2, the DB2 Database information window appears. Figure 10 on page 27.

   Enter the **Host name** of the computer running DB2 if it is not installed on the current system by replacing `localhost` with the name of the system containing DB2.

   In the **Port** field, type the port number that the DB2 instance is using. To find out which port the DB2 instance is using either use the DB2 Control Center (GUI) to determine the properties or enter the following DB2 configuration command on a command prompt: `db2 get dbm cfg`. This DB2 configuration information is also saved by the Database Loader in the system temp/bcgdbloader/logs directory. The default port is 50000.

   In the **Owner name**, **Owner password**, **Database name**, and **Schema name** fields, type the owner name, owner's password, database name and the instance name respectively. These are the names used in the Database Loader installation to define the database. See "Creating the database" on page 17.

   Click **Next**.

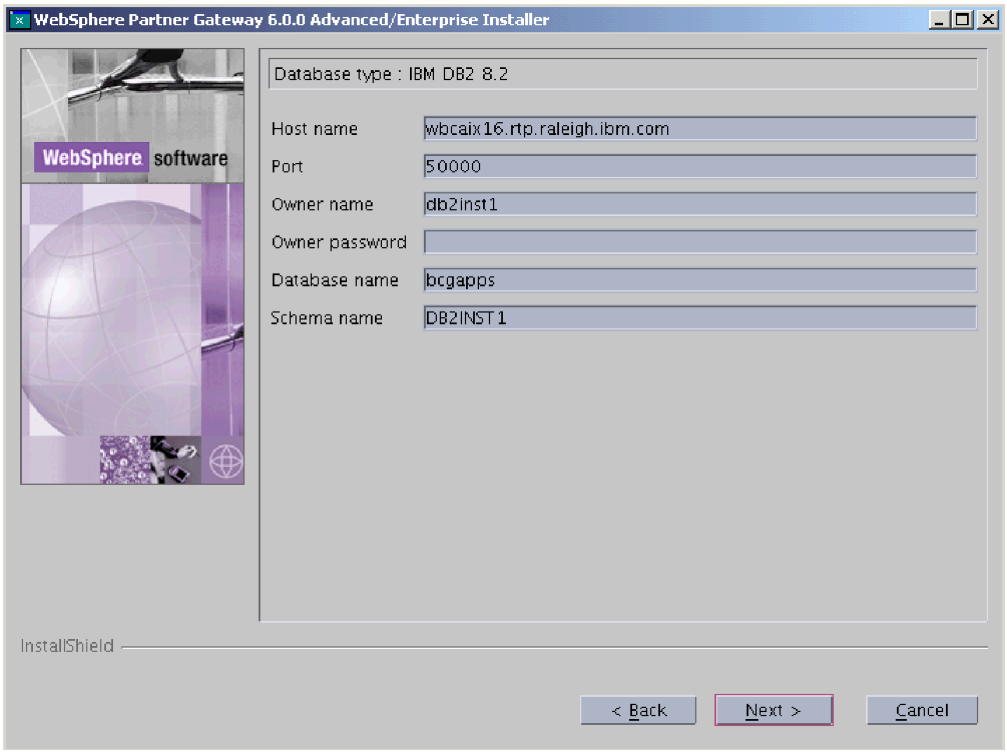

Figure 10. DB2 information window

Oracle:

If you selected Oracle, the database information window appears, see Figure 11 on page 28.

Enter the required information about the Oracle database. The default port is 1521.

The full path and name of the JDBC driver must point to the correct version of the driver on this computer. The driver can be found in the Oracle installation directory.

It can also be downloaded from http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/index.html. In the section JDBC Driver Downloads, click on Oracle *xx* Release *x* drivers. Be sure to select the driver version that matches the Oracle *xx* version that you are running.

Note: When browsing to select a directory, enter a "." in the **Enter file name** field after selecting the desired install path. If a "." is not entered, the **Select a directory** window will not return to the window from which it was launched.

Click **Next**.

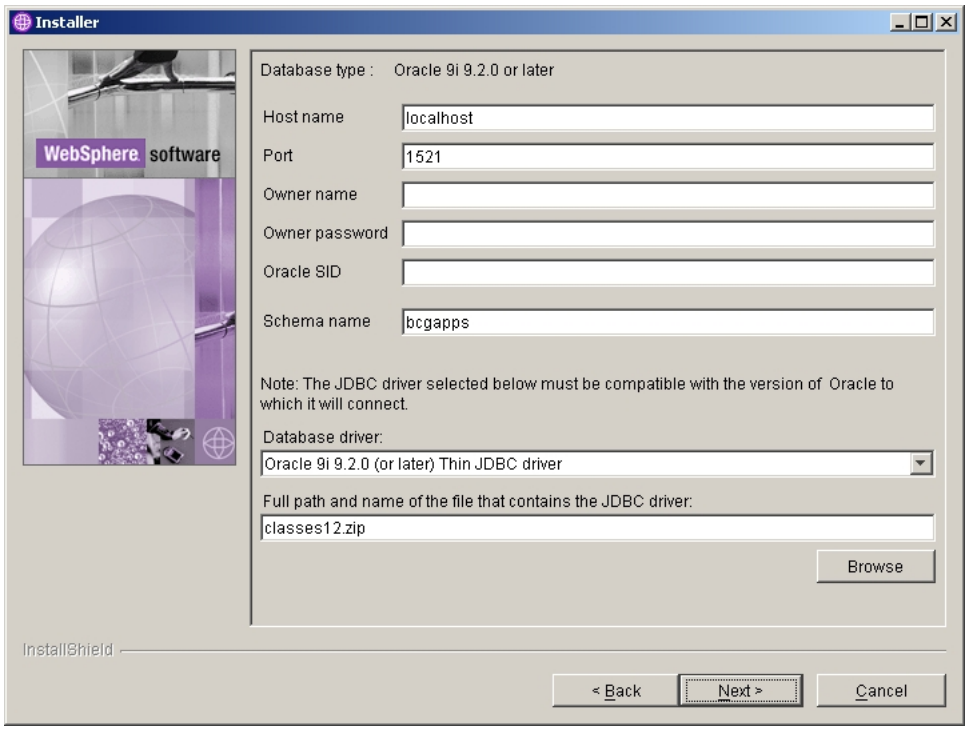

Figure 11. Oracle database information window

The database connection confirmation window will appear. See Figure 12 on page 29. If your connection is successful, note and confirm the Table, View, Function, and Procedure count information. If the connection fails, review the information window for guidance, or refer to your database documentation to address the error code.

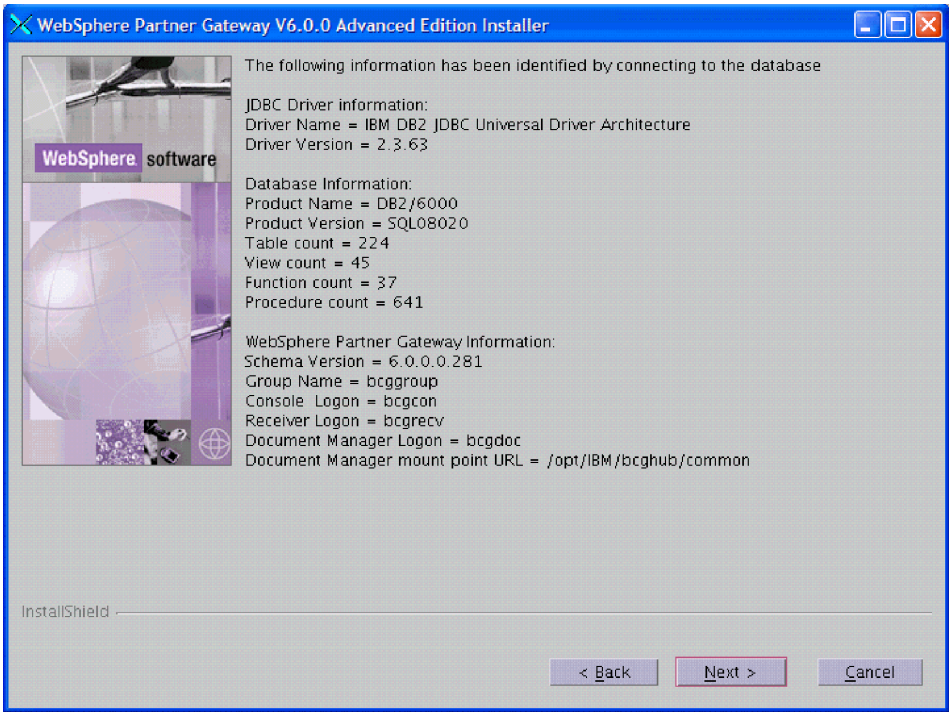

Figure 12. Database connection confirmation window

10. In the User Information window, enter the user name, password, and group name of the administrator responsible for the installation. Click **Next**.

    Note: This information must match the information used in the Database Loader installation.

11. In the Common information directory window, enter the location of the common information shared by the components. Click **Next**.

    Note: When browsing to select a directory, enter a "." in the **Enter file name** field after selecting the desired install path. If a "." is not entered, the **Select a directory** window will not return to the window from which it was launched.

12. In the WebSphere MQ Server window, Figure 13, enter the host name of the computer running WebSphere MQ if it is not installed on the same computer. Make sure to change the name of the queue manager if the default name was not used.

    In the **Host name** field, if WebSphere MQ is not on the current machine, replace `localhost` with the name of the system containing WebSphere MQ.

    In the **Queue Manager** field, replace the default name with the name that was used when configuring WebSphere MQ (See step 2 in "Configuring WebSphere MQ" on page 12).

    In the **Listener Port** field, type the port that the listener is using (see "Configuring WebSphere MQ" on page 12). The default port is 9999.

    Click **Next**.

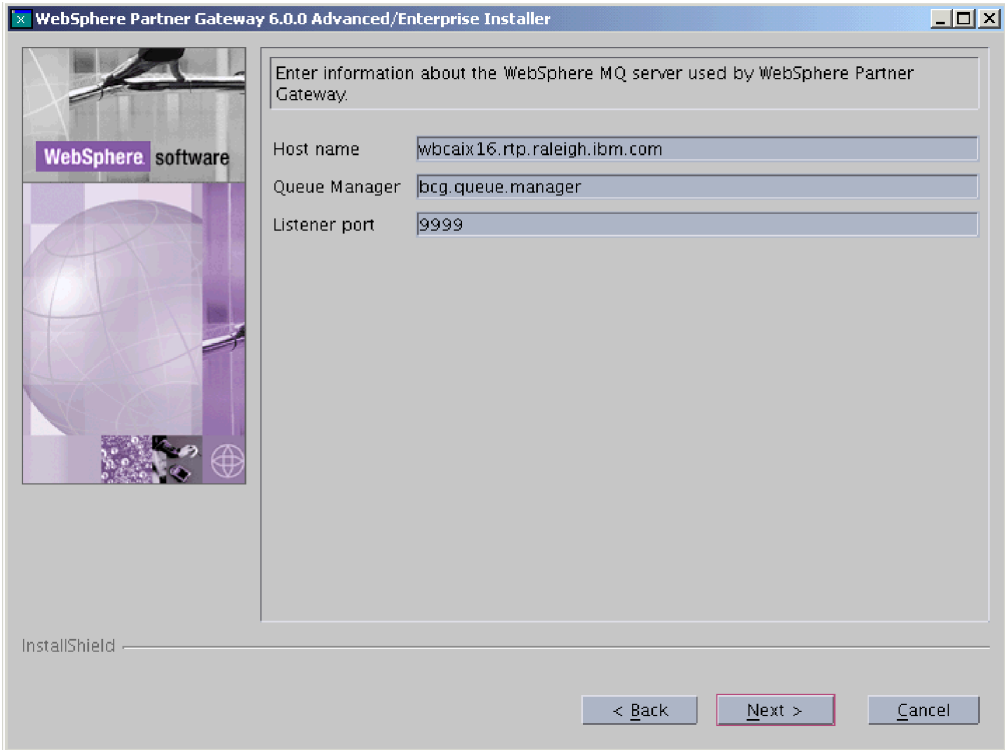

Figure 13. WebSphere MQ Server window

13. If you selected to install the Community Console, configure it using the Community Console configuration window. See Figure 14.

    In the **User name** field, type the user ID that the Community Console component uses to log in to the database.

    In the **Password** field, type the password associated with the user name. Make sure that you enter the correct password because the Community Console will not function with an incorrect password.

    In the **HTTP port** field, type the name of the port on which the component listens for messages. The Community Console, Receiver, and Document Manager must have unique port numbers, and they must be available on this computer. The default port is `58080`.

    In the **HTTPS port** field, type the name of the secure port on which the component listens for messages. The Community Console, Receiver, and Document Manager must have unique port numbers, and they must be available on this computer. The default port is `58443`.

    Click **Next**.

    Note: If the database connection fails, the database information window will appear. Review the information window for guidance, or refer to your database documentation to address the error code.

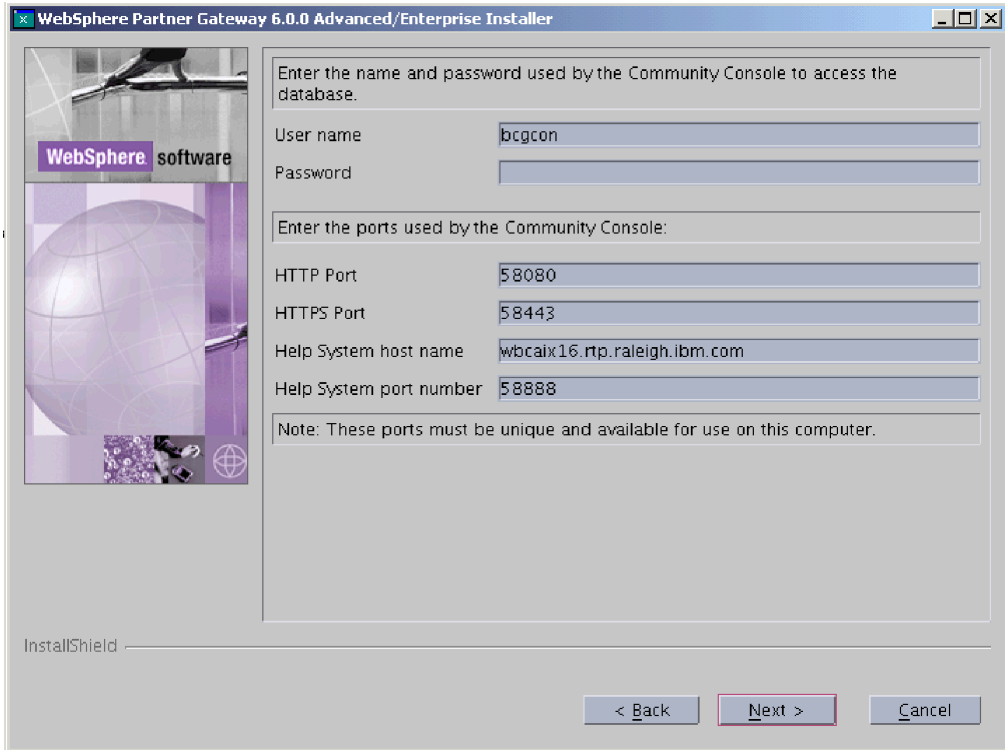

Figure 14. Community Console configuration window

14. If you selected the Receiver or Document Manager components, configure them using their configuration windows. These windows have the same fields as the Community Console configuration window. All three components (Community Console, Receiver, and Document Manager) must have different HTTP and HTTPS ports. See figures 15 and 16 on page 31.

Note: If you are installing the Receiver and Document Manager on different machines, the Receiver machine must have a host name that can be resolved by the Document Manager machine.

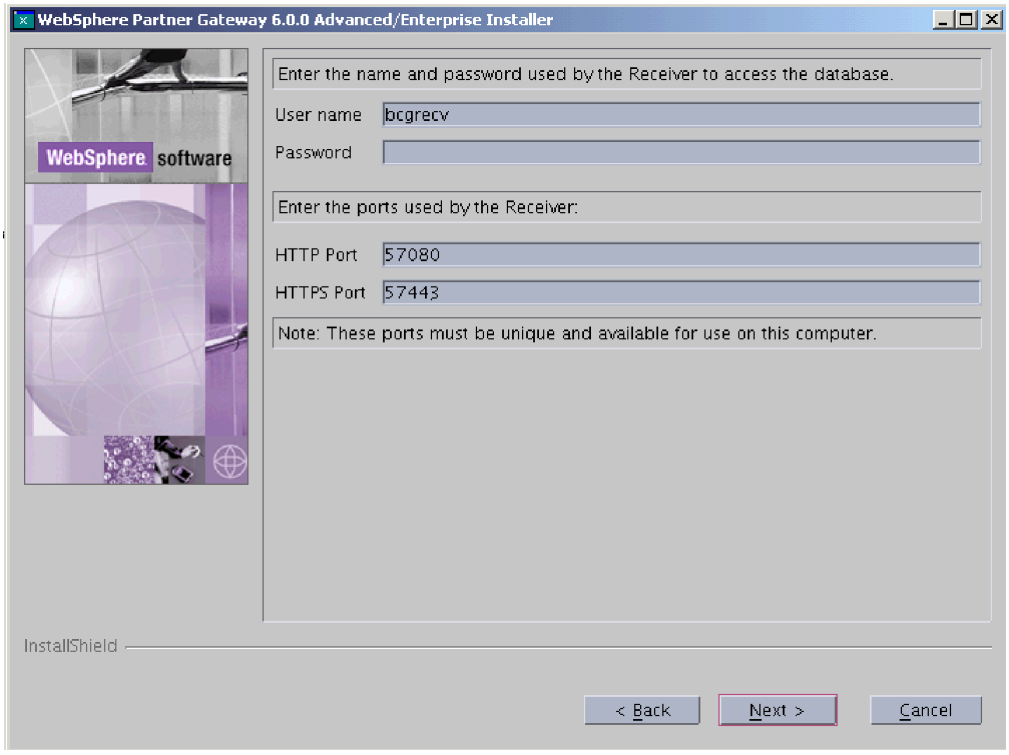

Figure 15. Receiver configuration window

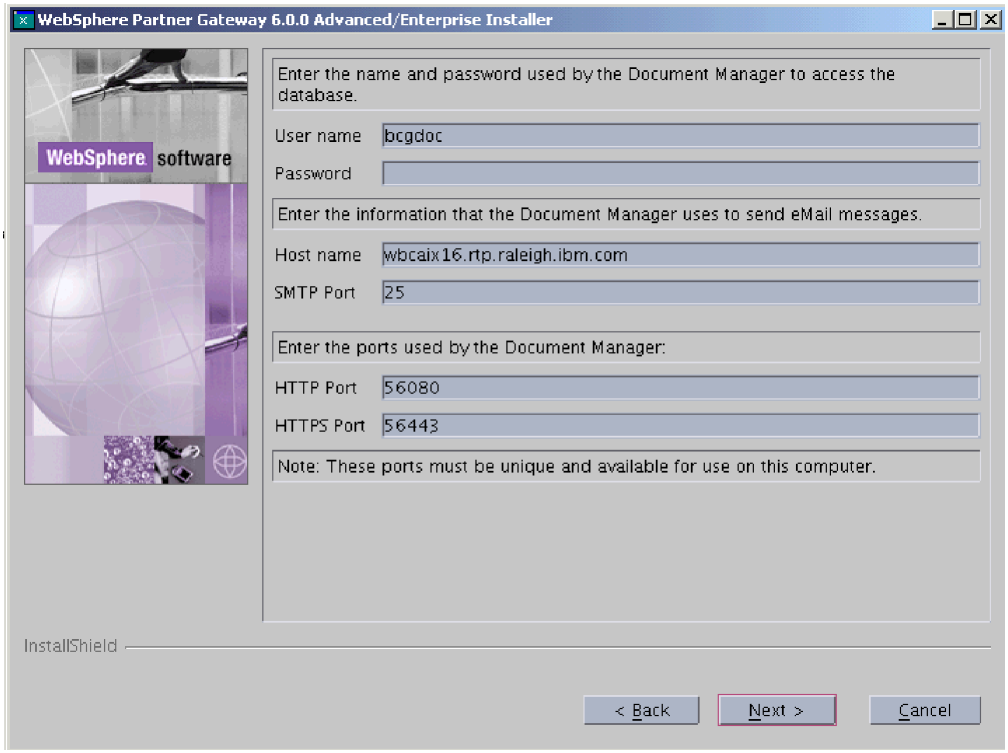

Figure 16. Document Manager configuration window

15. In the RosettaNet configuration window, Figure 17 on page 33, type the contact information for RosettaNet messages. If you do not know the proper values, use the required default values. This information is required if you are using RosettaNet and is recommended for all installations.

    In the **Name** field, type the name of the person that should be contacted for RosettaNet problems.

    In the **Phone number** and **Fax number** fields, type the telephone and fax numbers for the RosettaNet contact.

    In the **e-mail address** field, type the e-mail address for the RosettaNet contact person.

    Click **Next**.

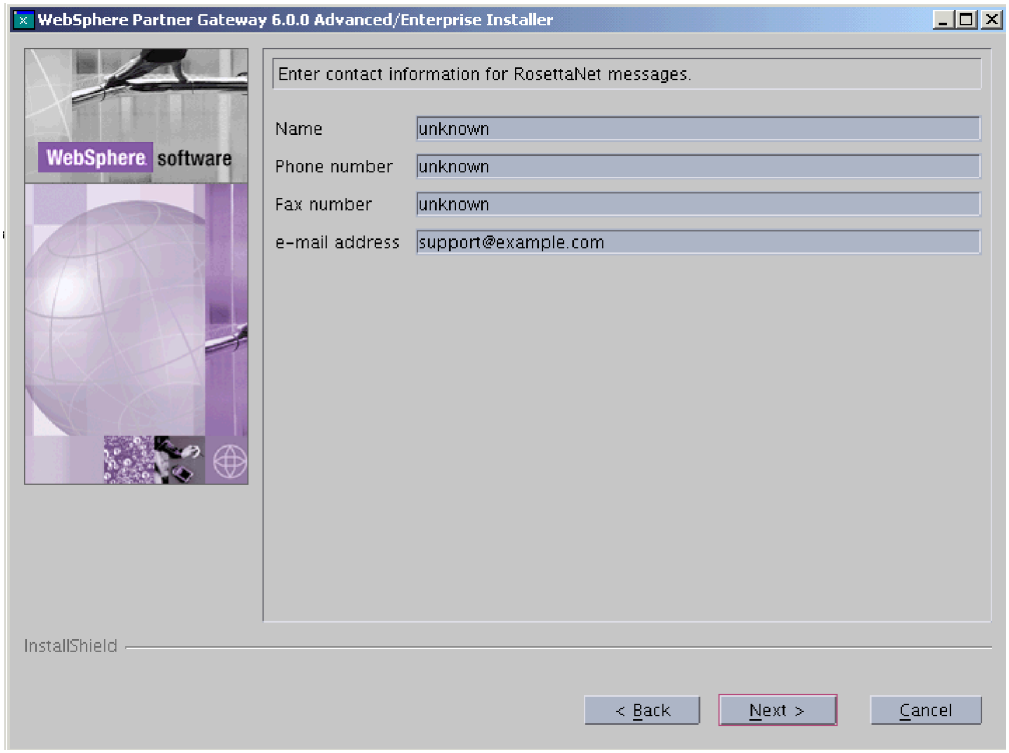

Figure 17. RosettaNet configuration window

16. In the alert notification window, Figure 18 on page 34, configure WebSphere Partner Gateway so that it can send alerts by e-mail. Values are required. Use the default values if you do not know the proper values.

    In the **SMTP relay** field, type the host name of the SMTP if it is not running on this computer.

    In the **From e-mail address** field, type the e-mail address, that WebSphere Partner Gateway will use to send e-mails.

    In the **To e-mail address** field, type the destination e-mail address that users responding to alert notifications use when they send a response e-mail.

    Click **Next**.

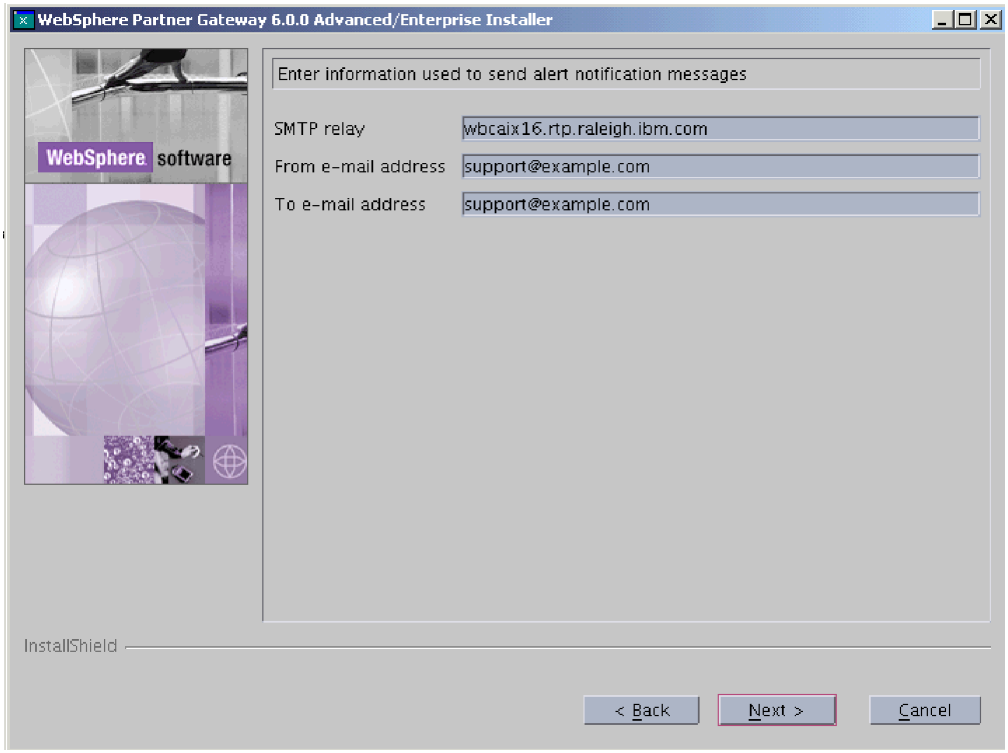

Figure 18. Alert notification window

17. In the Summary window, review the information, which identifies the components that will be installed. If any of this information is incorrect, click **Back** to return to previous windows. When all of the information on the summary window is correct, click **Next**.
18. The WebSphere Partner Gateway Installer installs and configures the selected components. When it has completed this task, the Installer enables the **Finish** button. Click **Finish**.

Repeat this procedure on each server where you want to install WebSphere Partner Gateway components. The common content needs to be installed only once because it is available to all computers via the shared file system.

When you have installed all WebSphere Partner Gateway components, see "Starting WebSphere Partner Gateway" on page 36.

Installing the components using the command line

WebSphere Partner Gateway also provides a way to install the components using a command line. This feature requires an options file that provides values for all of the installation options. You can modify the provided sample ISS files to create a custom options file.

The sample files for the Database Loader are in either the Database Loader directory on the CD or in the unarchived install image, while the WebSphere Partner Gateway sample files are in either the hub directory on the CD or in the unarchived install image.

Each option in the file appears on a separate line and is preceded by comments that describe the setting and present an example of the option. In the sample files,

the option values are the default values presented in the GUI. Some settings, such as passwords and hostnames, require information about the local configuration.

To install the Database Loader or WebSphere Partner Gateway using the command line:

1. Log in as root administrator.
2. Open a command line on the machine on which you want to install the code.
3. Navigate to the location of the installation executable. For example, enter

   ```
   cd DBLoader
   ```

   or

   ```
   cd hub
   ```

4. Enter the command below that is specific to your operating system:

   For Linux, enter:

   ```
   ./setupLinux -options <options file name>
   ```

   For AIX, enter:

   ```
   ./setupAIX -options <options file name>
   ```

   For Solaris, enter:

   ```
   ./setupSunOS -options <options file name>
   ```

   Where *<options file name>* identifies the file that contains the option values the Installer will use.

   With this command, the installer displays all of the windows that appear in a normal GUI installation, and all of the fields in the windows contain the values listed in the options file.

Performing a silent installation

Database Loader and WebSphere Partner Gateway can be installed and uninstalled without either a GUI or user interaction through what is called a silent install. A silent installation is particularly useful when installing components with the same settings on multiple systems, using software distribution products, or when a graphical environment is not available.

To install the Database Loader or WebSphere Partner Gateway silently, follow these steps:

1. Log in as root administrator.
2. Open a command line on the machine on which you want to install the code.
3. Navigate to the location of the installation executable. For example:

   ```
   cd DBLoader
   ```

   or

   ```
   cd hub
   ```

4. Enter the command below that is specific to your platform:

   For Linux, enter:

   ```
   ./setupLinux -options "<options file name>" -silent
   ```

   For AIX, enter:

   ```
   ./setupAIX -options "<options file name>" -silent
   ```

   For Solaris, enter:

   ```
   ./setup -options "<options file name>" -silent
   ```

   Where *<options file name>* identifies the file that contains the option values the installer will use.

The Installer runs without any user interaction or GUI. When the installation is complete, the installer returns to the command prompt.

Starting WebSphere Partner Gateway

After you have installed WebSphere Partner Gateway, you can start it by following the procedures below.

To start WebSphere Partner Gateway:

1. Change to the general WebSphere Partner Gateway user by entering:
   ```
   su - bcguser
   ```
2. Navigate to the script directory:
   ```
   cd {INSTALL DIR}/bin
   ```
3. Start the Community Console by entering the following command:
   ```
   ./bcgStartServer.sh bcgconsole
   ```
4. Start the Receiver by entering the following command:
   ```
   ./bcgStartServer.sh bcgreceiver
   ```
5. Start the Document Manager by entering the following command:
   ```
   ./bcgStartServer.sh bcgdocmgr
   ```
6. Start the Help System. See, "Starting the Help system" on page 37.
7. Open a Web browser and type one of the following URLs to display the console:

   Unsecure:

   `http://<hostname>.<domain>:58080/console`

   Secure:

   `https://<hostname>.<domain>:58443/console`

   Where *<hostname>* and *<domain>* are the name and location of the computer hosting the Community Console component.

   Notes:

   a. These URLs assume the default port numbers are used. If you changed the default port numbers, replace the default numbers with the values you specified.

   b. The Community Console requires cookie support to be turned on to maintain session information. No personal information is stored in the cookie, and it expires when the browser is closed.
8. The Web browser displays the Welcome page. Log into WebSphere Partner Gateway using the following information:
   - In the **User Name** field, type:
     ```
     hubadmin
     ```
   - In the **Password** field, type:
     ```
     Pa55word
     ```
   - In the **Company Login Name** field, type:
     ```
     Operator
     ```

   Click **Login**.
9. When you log in for the first time, you must create a new password. Enter a new password, then enter the new password a second time in the **Verify** field.
10. Click **Save**. The system displays the Community Console's initial entry window.

You have now logged into WebSphere Partner Gateway. See the next section, "Testing your installation" for a way to test your installation. Also see the *Getting Started* guide for information on what to do next.

Starting the Help system

For the help system to function, the Help system server must be running. By default, the Help system is installed on the same server as the Console; however, you can specify a different server for the Help system during the Console installation.

You can confirm the help system location by checking the value of the ibm.bcg.help.host property in the bcg_console.properties file, located in {INSTALL DIR}/console/lib/config/.

To start the Help system:

1. Change to the general WebSphere Partner Gateway user by entering:
   ```
   su - bcguser
   ```
2. Run the following script:
   ```
   {INSTALL DIR}/bin/bcgStartHelp.sh
   ```

To stop the Help system:

1. Change to the general WebSphere Partner Gateway user by entering:
   ```
   su - bcguser
   ```
2. Run the following script:
   ```
   {INSTALL DIR}/bin/bcgStopHelp.sh
   ```

Testing your installation

Use this procedure to test your installation when WebSphere Partner Gateway is running:

1. Create a user login event-based alert and set yourself up as the contact for the alert.
   a. In the **Alert Owner** list, select **Hub Operator**.
   b. In the **Participant** list, select **Hub Operator**.
   c. In the **Event Type** list, select **Info**.
   d. In the **Event Name** list, select **102002 User Login was successful**.
2. Log out and then log in again as the Hub Admin user.
3. Check your e-mail for an alert message.

If you encounter any problems with your WebSphere Partner Gateway installation, see "Troubleshooting" on page 39.

Note: If you want to test document flow, you can refer to the Simulating production traffic chapter in the *Administrator Guide*.

Uninstalling WebSphere Partner Gateway

Use this procedure to uninstall WebSphere Partner Gateway or the Database Loader:

Note: Save the options file, and back up the common directory tree, as well as the console, receiver, and document manager directories if you plan to install the components again. You should also back up your database before using the Database Loader uninstaller.

1. Navigate to the following directory:
   ```
   {INSTALL DIR}/bin
   ```
2. Shut down the server by entering the following command:
   ```
   ./bcgStopServer.sh bcgconsole
   ```
3. Shut down the receiver by entering the following command:
   ```
   ./bcgStopServer.sh bcgreceiver
   ```
4. Shut down the router by entering the following command:
   ```
   ./bcgStopServer.sh bcgdocmgr
   ```
5. Stop the Help Server by entering the following command:
   ```
   ./bcgStopHelp.sh
   ```
6. In the _unist directory, run the uninstaller executable by entering the following:
   ```
   cd _uninst
   ./uninstaller
   ```
   The uninstaller wizard starts and displays the Welcome window. Click **Next**.
7. If you are uninstalling WebSphere Partner Gateway, in the Component selection window, select the components that you want to remove from this system. You can select multiple components.

   Note: WebSphere Partner Gateway requires at least one instance of each component. If you remove the only instance of a component, you must install that component on another system. For example, if you remove the only instance of Document Manager on your network, you must install Document Manager on another system and it must be configured to use the same database and queue manager.

   Click **Next**. The Uninstaller displays the Summary window.
8. The Summary window lists the components that the uninstaller will remove. Review this information. If any of this information is incorrect, click **Back** to return to previous windows and correct it. When all of the information on the summary window is correct, click **Next**.

   Note: The uninstaller only removes files that were created during the installation. It does not remove any files or folders that were created after installation. You can remove any remaining files or folders manually after the uninstall is complete.
9. The uninstaller removes the selected components. When it has removed all of the components, the uninstaller enables the **Finish** button. Click **Finish**.
10. Review the files that remain in the directory structure and then remove the directory tree.
11. To uninstall the database, run the uninstall executable located in the bcgdbloader/_uninst directory.

Troubleshooting

The following procedures describe how to troubleshoot problems with WebSphere Partner Gateway installations.

This chapter contains the following sections:

- "Locating Database Loader errors"
- "Recovering from incorrect version detection problems"

Locating Database Loader errors

If you encountered problems while installing the Database Loader, consult the Database Loader logs in the system temp/bcgdbloader/logs directory for information on the problem. Once the problem is resolved, do the following to delete the created database:

1. Run the Database Loader uninstaller and remove the database.
2. Once you have deleted the database, rerun the Database Loader wizard.

If you experience problems installing the WebSphere Partner Gateway components, review the following component installation logs:

{INSTALL DIR}/logs/bcgconsole

{INSTALL DIR}/logs/bcgreceiver

{INSTALL DIR}/logs/bcgdocmgr

You should also examine the following runtime logs:

Embedded WebSphere Application Server

{INSTALL DIR}was/profiles/bcgconsole/logs

{INSTALL DIR}was/profiles/bcgreceiver/logs

{INSTALL DIR}was/profiles/bcgdocmgr/logs

WebSphere Application Server v6.0

{INSTALL DIR}profiles/bcgconsole/logs

{INSTALL DIR}profiles/bcgreceiver/logs

{INSTALL DIR}profiles/bcgdocmgr/logs

Recovering from incorrect version detection problems

The InstallShield wizard stores product data in a file named vpd.properties. Equivalent information is also stored in the operating system software registry, if applicable. For example, RPM on Linux, lslpp on AIX and pkginfo on Solaris.

The information includes a unique ID key (UID), version.release information and the installed directory for each product and component. These three pieces of information form a unique logical key for each entry.

The information stored in vpd.properties file, operating system software registry, or both is used to resolve already installed conditions, etc. Occassionally the information in vpd.properties file, the native operating system software registry, or both becomes inaccurate and does not represent the state of the system. This can occur when two or more install or uninstall wizards run concurrently. There are numerous other scenarios that can also corrupt this information.

The location of the vpd.properties file varies per operating platform:

- AIX platforms: The root directory or the usr/lib/objrepos directory
- Linux platforms: The /root directory
- Windows platforms: installation directory of the operating system, such as the C:\WINNT directory or the C:\windows directory.

The following information will guide you through the process of manually removing data for products or components that are no longer installed. The process is the same for each operating system:

1. Make a backup copy of vpd.properties before proceeding. All products that use InstallShield MultiPlatform or InstallShield Universal Install wizards update vpd.properties. Corrupting the contents of vpd.properties could cause future upgrades, maintenance installs or uninstalls to fail.
2. Open vpd.properties using an editor of your choice. If possible, turn line wrap off or use an editor that does not wrap the lines.
3. Each line in vpd.properties represents a product or product component. The first entry in the line is the unique ID (UID). Each field in the line (″record″) is separated by a vertical bar (|). Approximately the next 4 fields are the version, release, modification and update fields. Visually scan across the line to locate the install location path.
4. Using the information described in step 3 above, manually identify all the entries which point to products/components that are no longer installed.
   - For WBI Connect v4.2.2 and older, search the file for ″wbic″ (case insensitive.) ″wbic″ is a common abbreviation in those versions and it was part of the default install location directory name.
   - For WebSphere Partner Gateway V6.0 and later search the file for ″bcg″ (case insensitive).
   - Delete each full line that represents a product or component that is no longer installed.
5. Save and close the vpd.properties file.

AIX

1. Clean up vpd.properties as described above.
2. Search for entries that are no longer installed using smit or lslpp. For example, from the command line use the following command to find all entries for WebSphere Business Integration Connect v4.2.2 and older. Note the names that are returned:

   ```
   lslpp -l | grep -i wbic
   ```

3. Delete each package name returned from step 2 using the geninstall -u command.
4. If the geninstall -u command does not work, consult with your AIX support for instructions on manually cleaning the object data manager (odm).

Linux

1. Cleanup vpd.properties as described above.

2. Search rpm for entries that are no longer installed, using the tool of your choice. For example, use the following command from the command line to find all the entries for WebSphere Business Integration Connect v4.2.2 and older. Note the package names returned:

   ```
   rpm -qa |grep -i wbic
   ```

3. Delete each package name returned from step 2 delete them from rpm using the tool of your choice. For example, from the command line use rpm -e
4. If the list contains packages that you intend to delete and no others, remove all of the packages with the following command:

   ```
   rpm -qa | grep -i wbic | xargs rpm -e
   ```

Solaris

1. Cleanup vpd.properties as described above.
2. Search for entries that are no longer installed using pkginfo. For example, from the command line use the following command to find all entries for WebSphere Business Integration Connect v4.2.2 and older. Note the names that are returned:

   ```
   pkginfo | grep -i wbic
   ```

3. Delete each package name returned from step 2 using the geninstall -u command.
   a. Change directory to where the package information is registered

      ```
      cd /var/sadm/pkg
      ```

   b. Execute the pkgrm -n command on each package name to be removed. For example:

      ```
      ls |grep -i wbic | xargs -i pkgrm -n {}
      ```

   c. If there is a problem running the pkgrm -n command, try removing the related package directories and then rerun the pkgrm -n command. For example:

      ```
      - rm -rf /var/sadm/pkg/WBICpackageName1/
      ```

Windows

1. Cleanup vpd.properties as described above.
2. As a precaution, backup the Windows Registry using the regback.exe program from the Windows Resource Kit.
3. Use regedit.exe to search for and remove keys for versions which are no longer installed under these keys:
   a. HKEY_LOCAL_MACHINE\Software\IBM
   b. HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\ CurrentVersion\Uninstall\

Chapter 3. Installing WebSphere Partner Gateway on Windows

The following procedures describe how to install, upgrade, start, test, troubleshoot, and uninstall WebSphere Partner Gateway on a Windows system.

This chapter contains the following sections:

Installation overview

This section provides a high-level view of the WebSphere Partner Gateway installation process.

The following tasks are described in detail in this chapter:

1. Confirming that your system meets the minimum hardware and software installation prerequisites.
2. Creating and configure the WebSphere Partner Gateway database tables.
3. Installing the WebSphere Partner Gateway software.

Verifying and configuring installed prerequisites

Before you install WebSphere Partner Gateway, ensure that you have all the necessary prerequisites. The topics in this section give you a brief overview of the system hardware and software requirements, the supported databases, and the user accounts required to run WebSphere Partner Gateway software.

A pre-installation checklist (Table 11 on page 47) is included at the end of this section to help you prepare for the installation. This checklist lists the tasks that must be performed before you install WebSphere Partner Gateway. You can also use it when planning your installation to:

- record required installation information, such as the database instance name and tablespace information.
- record required installation information such as the host name of the WebSphere MQ server and port numbers for the Community Console, Receiver, and Document Manager.

This section contains the following topics:

- "Installing and configuring Oracle" on page 46
- "Pre-installation checklist" on page 46

Adding user accounts

In order to connect with the database, WebSphere Partner Gateway requires a set of operating system users. The following procedure walks you through setting up these users. Although this procedure uses default names, you can substitute your own user and group names. Group and user names cannot exceed eight characters.

Note: It is not necessary to create a group if you plan to have only one user.

To create user accounts:

1. Click **Start** > **Settings** > **Control screen**, then double-click **Administrative Tools** > **Computer Management** > **Local Users and Groups**.

   The Local Users and Groups dialog box appears. Right click **Users**, and select **New User**.

   The New User dialog box appears. Add the following users: bcguser, bcgcon, bcgdoc, and bcgrecv. Also select the **Password Never Expires** option.

   Note: Oracle users are only required to create the bcguser user.
2. Business Integration uses a user in this group to manage WebSphere Partner Gateway components.
3. From the Users and Groups dialog box, right click **Groups** and select **New Group**.
4. The New Group dialog box appears. Add the group bcggroup.
5. Add the following users to bcggroup: bcguser, bcgcon, bcgdoc, and bcgrecv.

   Note: Oracle users are only required to add bcguser user to bcggroup.
6. Exit the computer management window.
7. Record the user names and passwords in the table in "Pre-installation checklist" on page 46.

Configuring WebSphere MQ

The following procedure describes how to configure WebSphere MQ after it is installed. See "Platform, hardware, and software requirements" on page 1 for a list of SupportPacs and updates that must be applied. For information on specific commands used in this procedure, see the WebSphere MQ documentation.

Note: The default queue manager name is bcg.queue.manager, and the default listener port is `9999`. If you change these default values, you must be sure to change them wherever they are used.

To configure WebSphere MQ:

1. Confirm that you are logged into your operating system as an administrator or a user that is a member of the administrator's group.
2. Create the queue manager by entering the following:

   ```
   crtmqm -q bcg.queue.manager
   ```

   IBM recommends changing the following default log parameters to avoid potential Process Transaction Rollback errors. Refer to the WebSphere MQ documentation for specific information on these attributes. These attributes can be viewed from the Log tab of the queue manager's Properties window in MQ Services.

- LogPrimaryFiles=62
- LogSecondaryFiles=2
- LogFilePages=2048
- LogBufferPages=128

3. Update the channel parameters:
   a. From MQServices, right click your queue manager, select **Properties**, and select the **Channels** tab.
   b. Update the channel properties with the following values:

      ```
      MaxChannels=1000
      MaxActiveChannels=1000
      ```

4. If the computer has more than one CPU, enter the following command:

   ```
   setmqcap <number of CPUs>
   ```

5. Start the queue manager with the following command:

   ```
   strmqm bcg.queue.manager
   ```

6. Start the listener with the following command:

   ```
   runmqlsr -t tcp -p 9999 -m bcg.queue.manager
   ```

7. The listener runs in this window, so leave it open.
8. Open a new window and start the JMS Broker (the publish and subscribe broker) with the following command:

   ```
   strmqbrk -m bcg.queue.manager
   ```

9. Start the MQ command services with the following command:

   ```
   strmqcsv bcg.queue.manager
   ```

10. Use the Tools\MQSeries\BCGCreate_Queues.mqsc file to define the queues and channels for the queue manager:

    ```
    runmqsc bcg.queue.manager <
     <CD image>\Tools\MQSeries\BCGCreate_Queues.mqsc
    ```

    Where *<CD image>* is the location of the WebSphere Partner Gateway CD or the location of the unarchived WebSphere Partner Gateway installation files.
11. Use the MQHomeInstallDir\Java\bin\MQJMS_PSQ.mqsc file to configure the JMS publish and subscribe queues:

    ```
    runmqsc bcg.queue.manager <
    MQHomeInstallDir\mqm\Java\bin\MQJMS_PSQ.mqsc
    ```

12. Record the MQ host name, queue manager name, and listener port in the "Pre-installation checklist" on page 46.

Installing and configuring DB2

For maximum performance in a production environment, the WebSphere Partner Gateway database should reside on a dedicated server.

The database is configured with the assumption that DB2 UDB is running on a multi-processor machine. In particular the DFT_DEGREE parameter is set to 4 which indicates that a SQL query is executed as 4 sub-processes running in parallel. If you are running DB2 UDB on a single processor machine, this configuration is not optimal and might cause a system memory and CPU conflict. You should review the database configuration with your database administrator and modify it if necessary to conform to your specific database environment.

Note: WebSphere Partner Gateway does not use the fenced-user option. Do not use the fenced-user ID as part of the WebSphere Partner Gateway Installation.

Use the following procedure to install and configure DB2:

1. Install DB2 by following the installation instructions provided and using the DB2 Setup wizard. In the wizard, do the following:

   Note: You can also use an existing installation.

   - When you come to the window in which you select the type of installation, select a **Custom** install. In the following window, add **Application Development Toolkit** to the default selections.
   - For the remaining windows, use the default values or your own values. Note the instance name, instance owner userid, and password, and record them in the **Information required by the Database Loader Installation wizard** table later in this section. For information on these options, see the installation guide for DB2.
2. If DB2 is not running, start it by entering the following command:

   ```
   db2start
   ```

Record the names and passwords in the "Pre-installation checklist" on page 46.

Installing and configuring Oracle

This guide does not provide installation instructions for Oracle. See the appropriate Oracle documentation for the installation procedures.

WebSphere Partner Gateway is a Unicode application. Please ensure that the database character set and the national character set for your database are set to Unicode.

IBM recommends that you follow these guidelines as you install your Oracle database:

1. Export Oracle system environment variables (including: ORACLE_HOME, ORACLE_SID, and ORACLE_BASE), as described in the Oracle installation documentation. This is required for the administrator user if the Database Loader is to run SQL automatically during the WebSphere Partner Gateway installation process.
2. The Oracle JDBC driver must be available on each machine that will run the hub components. The JDBC driver must be the same level as the Oracle version that is installed.

Record the names and passwords in the Pre-installation checklist in the next section. Record the default values also, especially if they were changed.

Pre-installation checklist

The following tasks must be performed before you install WebSphere Partner Gateway:

Note: These tasks assume a single machine installation.

1. Ensure that the bcggroup user group exists in the operating system. Also ensure that bcguser user exists and is a member of bcggroup. If you are using DB2, operating system users bcgcon, bcgdoc, and bcgrecv must all exist as members of bcggroup. If you are using Oracle, the operating system users bcgcon, bcgdoc, and bcgrecv are not required.
2. DB2 or Oracle is installed and configured on a server.
3. WebSphere MQ is installed and configured on a server.

4. An SMTP server exists. (This is optional)
5. If multiple computers are used, you must create network file shares on each computer. This allows all of the computers to access and share the common files across the network.

Table 11 identifies information that you must have before you start the Database Loader and WebSphere Partner Gateway installation wizards. Consult the table as you run the wizards.

Table 11. Required information checklist

Required Information	**Value**
WebSphere Partner Gateway user name	(bcguser is the default)
WebSphere Partner Gateway user password	
WebSphere Partner Gateway group name	(bcggroup is the default)
Community Console user name	(bcgcon is the default)
Community Console user password	
Community Console port numbers	(HTTP - 58080 is the default) (HTTPS - 58443 is the default)
Document Manager user name	(bcgdoc is the default)
Help System	(58888 is the default)
Document Manager user password	
Document Manager port numbers	(HTTP - 56080 is the default) (HTTPS - 56443 is the default)
Receiver user name	(bcgrecv is the default)
Receiver user password	
Receiver port numbers	(HTTP - 57080 is the default) (HTTPS - 57443 is the default)
WebSphere MQ host name	
WebSphere MQ Queue Manager	(bcg.queue.manager is the default)
WebSphere MQ port for Listener	9999
Mount Point for Shared Location	
Database host name	
Database port	DB2=50000 is the default if using the default Instance. Oracle=1521 is the default.
Database owner (DB2)	
Owner's password (DB2)	
Database name (DB2)	
Instance name (DB2)	
Administrator login ID (Oracle)	
Administrator password (Oracle)	
Oracle SID (Oracle)	
Schema owner login (Oracle)	

Table 11. Required information checklist (continued)

Required Information	Value
Schema owner password (Oracle)	
SMTP host name	
SMTP Port Number	(25 is the default)

Installing WebSphere Partner Gateway

When you have met all of the prerequisites noted in previous sections, you are ready to run the Database Loader and WebSphere Partner Gateway installation wizards.

LaunchPad

WebSphere Partner Gateway provides a launch pad program to provide one-stop access to the *Product Overview*, ReadMe file, product documentation, Database Loader, and WebSphere Partner Gateway Installer. Alternatively, you can start the database loader and installation programs using the supplied setup*.* programs. See "Creating the database" and "Installing the components using the install wizard" on page 54.

Note: Some options on the launch pad require a browser to be installed and available in the system path.

The launch pad executable file is located in the following directory:

{CD_ROM/MEDIA DIR}/LaunchPad.*

Creating the database

WebSphere Partner Gateway includes an installation wizard to set up the database tables. This wizard, Database Loader, gathers information to create and populate the tables for you. Alternatively, it can save the SQL files it uses to create the tables so that you can then use them to manually create and populate the tables. Running the SQL files manually allows you to review the database tables before populating them.

Before you begin, verify that your database server is installed, configured correctly, and running.

The following procedure describes how to configure the database using the Database Loader GUI. You can also install the Database Loader without using the GUI.

Note: If you plan to use DB2 as your database server, you must execute the SQL (either manually or automatically) as the DB2ADMIN Windows user.

To set up the database tables:

1. Log in as DB2ADMIN if you are using DB2 as your database.
2. Run the Database Loader CD-MediaDir\DBLoader\setup.exe file located on the WebSphere Partner Gateway system product CD.

   The Database Loader wizard starts and displays the Welcome window. Click **Next**.

3. In the Software License Agreement window, read the Software License Agreement. If you agree to the terms in the agreement, select **I accept the terms of the license agreement**. Click **Next**.
4. In the Directory Name window, type the path and directory name of the directory that the Database Loader will use when it sets up the database. IBM recommends that you create a new directory location, or select an empty one.

   Select a location with enough space for your database and all the application data that will be stored in it.

   Note: When browsing to select a directory, enter a ″.″ in the **Enter file name** field after selecting the desired install path. If a ″.″ is not entered, the **Select a directory** window will not return to the window from which it was launched.

   Click **Next.**
5. In the database type selection window, select the database server you plan to use for WebSphere Partner Gateway. You can select either DB2 8.2 or Oracle 9i 9.2.0.4 or later. Click **Next**.
6. In the Database Information window, type the following database information, then click **Next** when you are finished.

   DB2

   If you selected DB2, the DB2 Database Information window appears. Enter the following DB2 database information:

   - Database name
   - Instance name
   - Group name
   - Owner name
   - Owner password

   Note: If any of these values are changed, they must exist before executing the SQL files. If they do not exist, then they must be created manually.

   Oracle

   a. If you selected Oracle, the Oracle Database Information window appears. Enter the following Oracle database information:
      - Administrator login ID
      - Administrator password
      - Oracle SID
      - Schema owner login
      - Schema owner password

   b. The Oracle home location window appears. Type in or click **Browse** to input the Oracle Home directory location. Figure 19 on page 50.

   Note: If any of these values are changed, they must exist before executing the SQL files. If they do not exist, then they must be created manually.

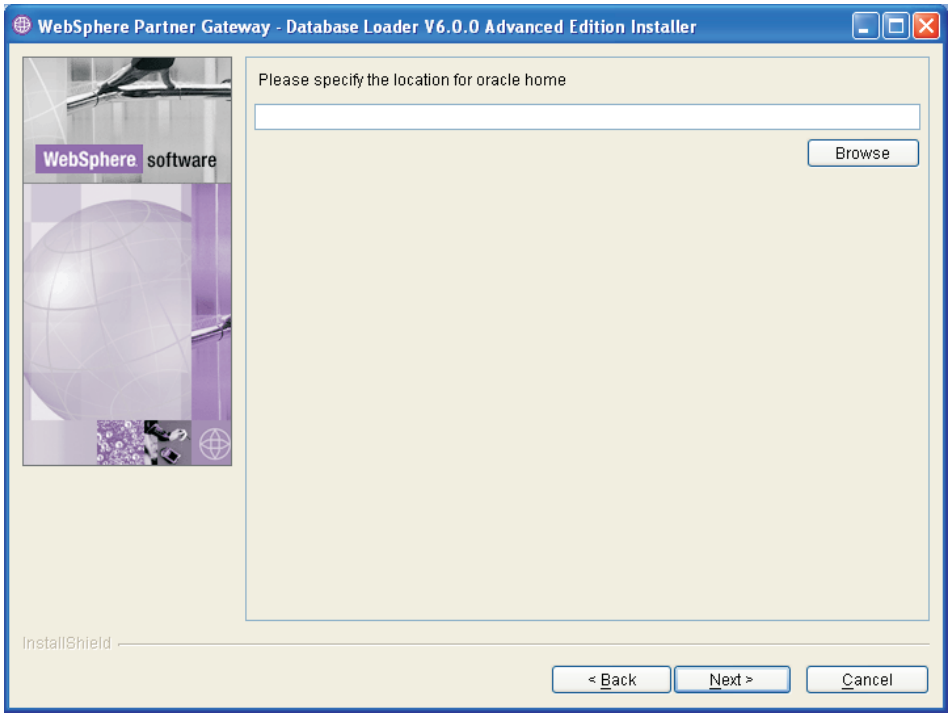

Figure 19. Oracle home directory location window

7. In the database location window, select a file system location with sufficient space to hold the database and all application data. The database size will increase while running WebSphere Partner Gateway.

   DB2

   Type the location of the database and each one of its tablespaces on the RDBMS server. The fields must contain the full path. Click **Next**. See Figure 2 on page 19.

   Note: When browsing to select a directory, enter a ″.″ in the **Enter file name** field after selecting the desired install path. If a ″.″ is not entered, the **Select a directory** window will not return to the window from which it was launched.

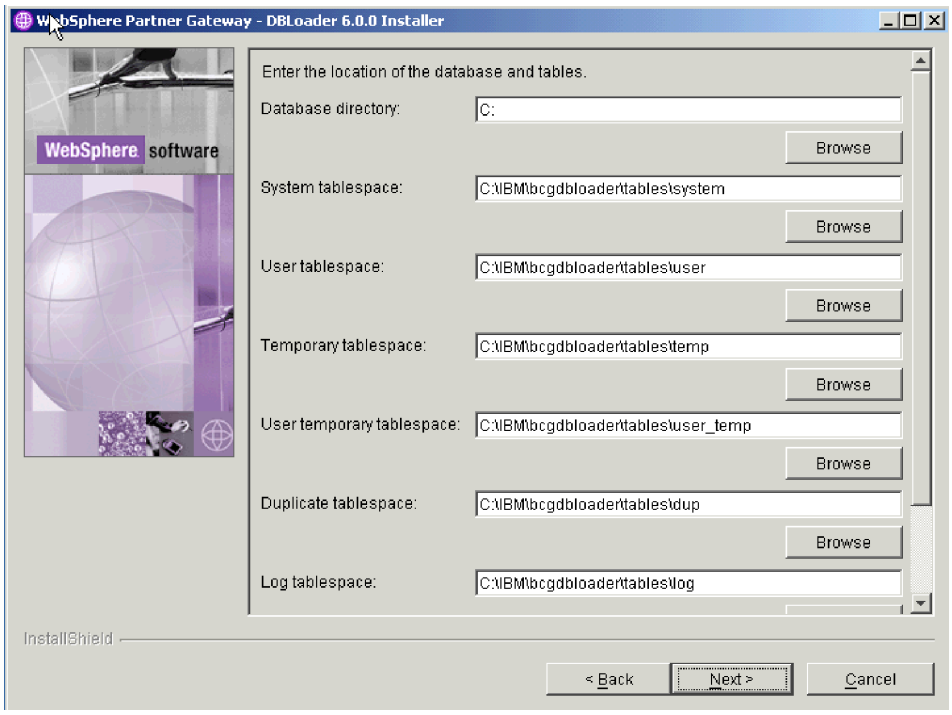

Figure 20. DB2 database location window

Oracle

Type the location of the database and each one of its tablespaces on the RDBMS server. The fields must contain the full path. Click **Next**. See Figure 21 on page 52.

Note: When browsing to select a directory, enter a "." in the **Enter file name** field after selecting the desired install path. If a "." is not entered, the **Select a directory** window will not return to the window from which it was launched.

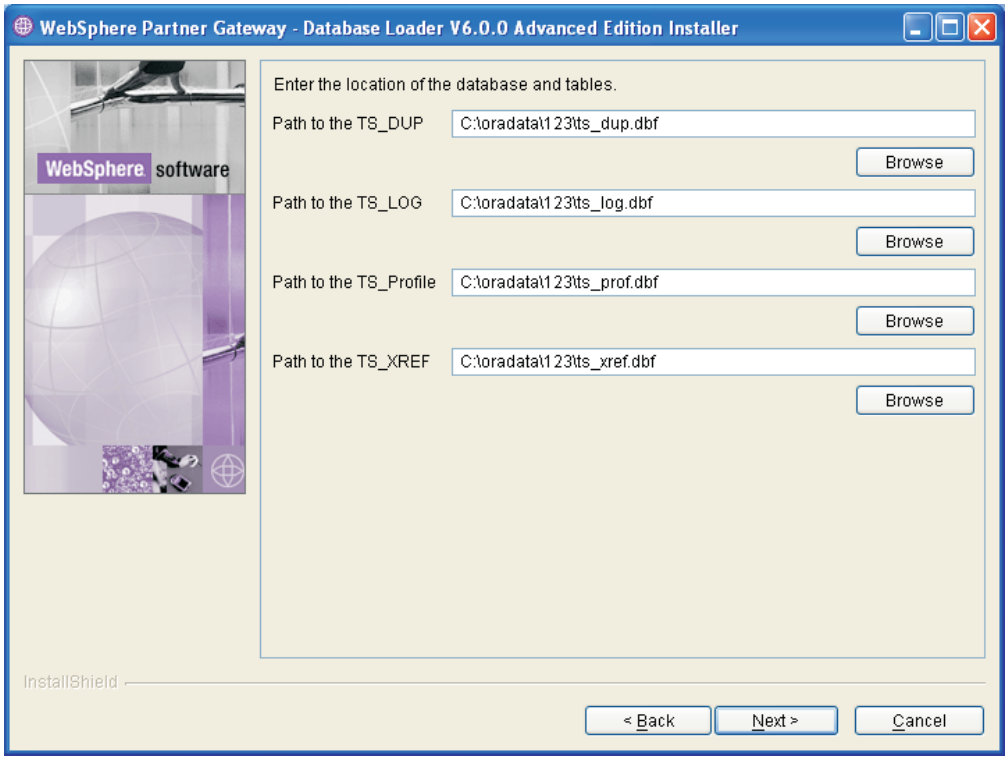

Figure 21. Oracle database location window

8. In the Component Configuration window, see Figure 22 on page 53, type the login information for the WebSphere Partner Gateway components and the location of the common shared files.

   In the **User name** and **Password** fields for the Community Console, Document Manager, and Receiver, type the name and password of the user for each component. If using DB2, these users were created when the server was configured.

   In the **Group Name** field, type the name of the group that contains the WebSphere Partner Gateway users.

   Click **Next**.

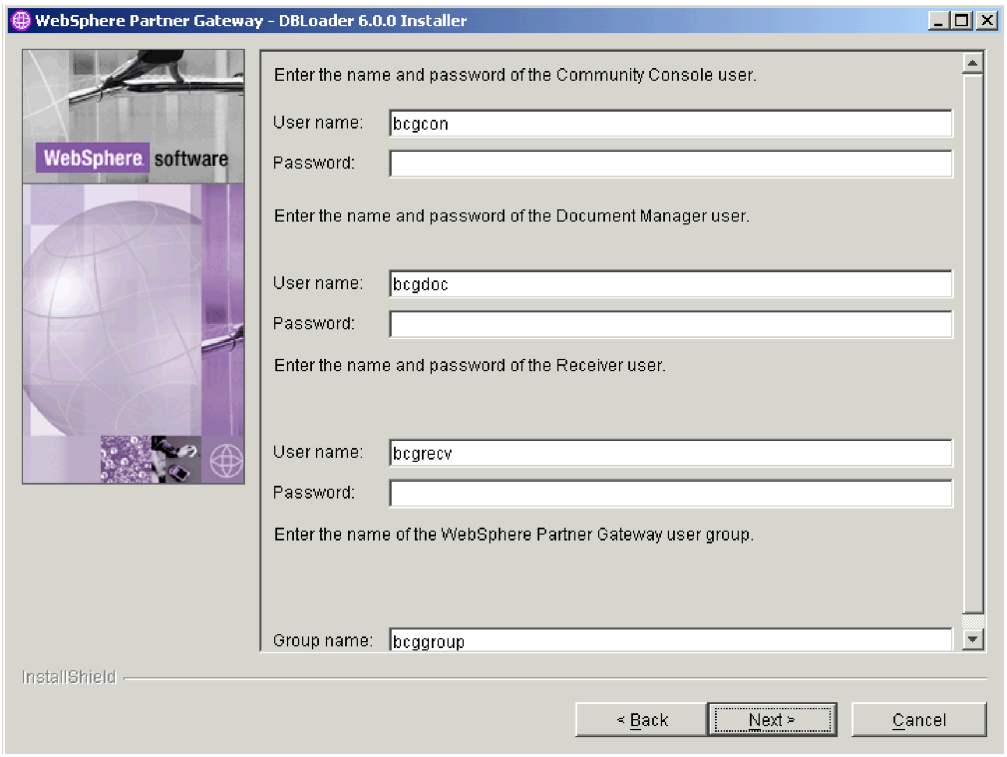

Figure 22. Component configuration window

9. The system displays the Mount point for shared information window. Type the location of the common shared files used by the main components of WebSphere Partner Gateway. Click **Next**.

   Notes:

   a. If you are installing WebSphere Partner Gateway on multiple machines, the shared common folder must use the same mount point and directory structure on all of the machines.

   b. When browsing to select a directory, enter a "." in the **Enter file name** field after selecting the desired install path. If a "." is not entered, the **Select a directory** window will not return to the window from which it was launched.

10. The wizard displays a window, see Figure 23 on page 54, where you can select whether the Database Loader either creates the SQL files only or creates the SQL files and then runs them for you.

    If the Database Loader runs the SQL files, it does the following:

    - Creates the tablespaces
    - Creates the schema
    - Creates the tables, views, sequences, procedures, and functions, then populates them with metadata
    - Assigns permissions to the tables
    - Creates the stored procedures

    Because the Database Loader restarts the DB2 instance as part of its routine, disconnect any applications that are using the DB2 instance where you are setting up the WebSphere Partner Gateway database.

If you want the Database Loader to run the files for you, select the **Run the SQL files** check box. Click **Next**.

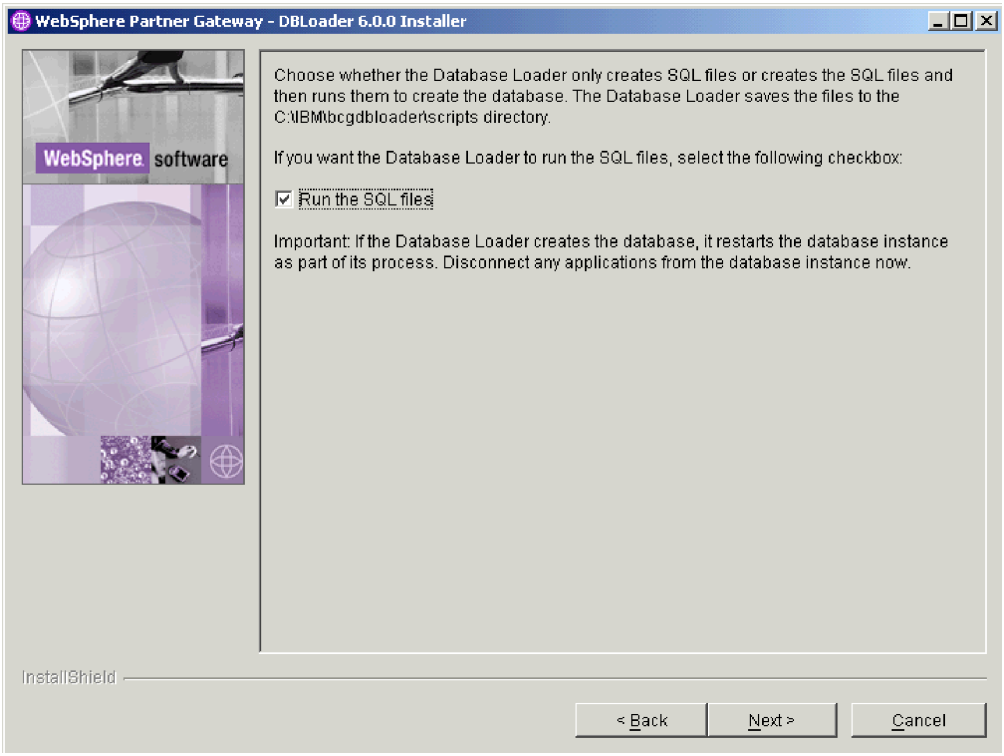

Figure 23. Run the SQL files window

11. Confirm the Database Loader installation location. Click **Next**.
12. Click the **Finish** button when it is enabled.
13. If you are running the SQL manually, refer to the `Instructions.txt` file in the bcgdbloader/scripts subdirectory (installed by the Database Loader) for more information.

    When you have set up the WebSphere Partner Gateway database, you are ready to install the WebSphere Partner Gateway components.

Installing the components using the install wizard

WebSphere Partner Gateway has three main components: Community Console, Receiver, and Document Manager. All three components share common content. You can either install the components and common content on a single server or install each component on a separate server. You must install one instance of each component on at least one server. See "Environment planning" on page 3 and "Topologies" on page 7 for information on how to plan the placement of the various components on different servers.

Note: If you are installing WebSphere Partner Gateway on multiple machines, the shared `common` folder must use the same drive letter and directory structure on all of the machines.

Before you begin, make sure that the prerequisite software is installed and configured properly. Consult the Requirements for all WebSphere Partner Gateway servers table in "Platform, hardware, and software requirements" on page 1 for

software prerequisites and “Verifying and configuring installed prerequisites” on page 43 for information on how to configure that software.

You must also have the WebSphere Partner Gateway database set up. For information on this, see “Creating the database” on page 48. Finally, your database server and WebSphere MQ must be running, including the queue manager and listener.

The following procedure describes how to install the components using the InstallShield wizard GUI.

Note: You can also install the components using the command line. See “Installing the components using the command line” on page 68 for details.

To install WebSphere Partner Gateway follow these steps:

1. Log in as a user with Administrator privileges.

   Hub installer requires Administrator privilege to properly create the Windows service.
2. Run the CD-MediaDir\hub\setup.exe file located on the WebSphere Partner Gateway system product CD.

   The wizard starts and displays the Welcome window. Click **Next**.
3. In the Software License Agreement window, read the license agreement. If you agree to its terms, click **I accept the terms of the license agreement**. Click **Next**.
4. In the Directory Name window, type the path and directory name of the directory where WebSphere Partner Gateway is installed. IBM recommends that you create a new directory location, or select an empty one. Click **Next**.

   Note: When browsing to select a directory, enter a ″.″ in the **Enter file name** field after selecting the desired install path. If a ″.″ is not entered, the **Select a directory** window will not return to the window from which it was launched.
5. In the component selection window, Figure 24 on page 56, select the components you want to install on the server. You can select multiple components. Click **Next**.

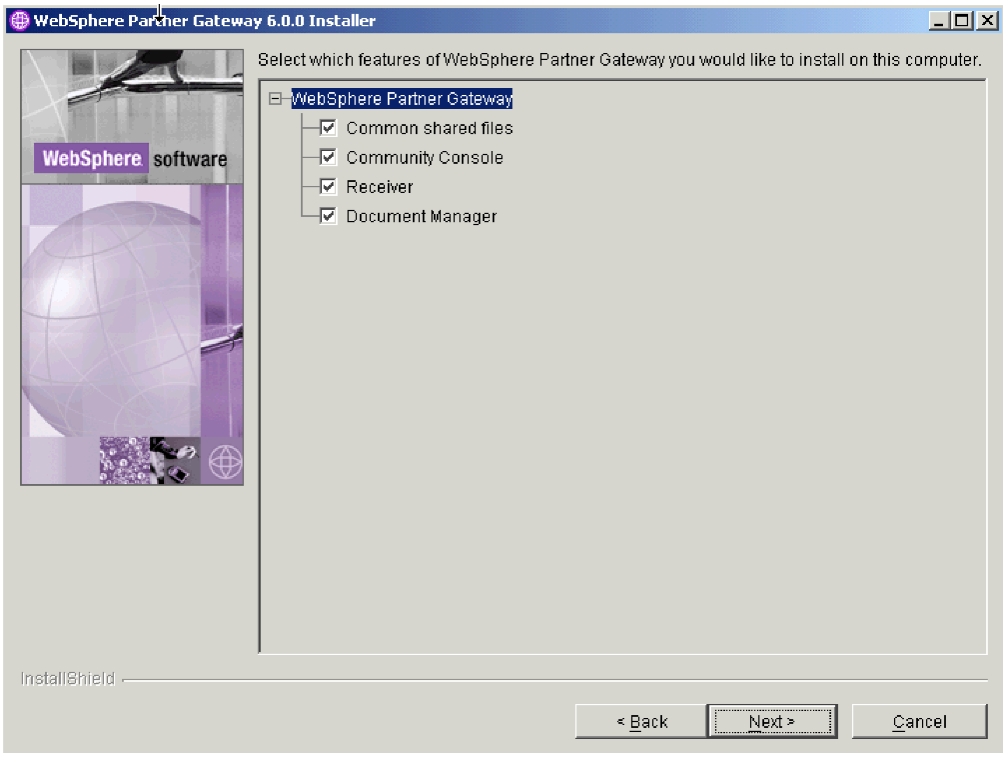

Figure 24. Component selection window

The rest of this procedure assumes that you are installing all of the components. If you are not installing all of them, some of the windows described in the rest of this procedure will not appear.

6. Specify the fully qualified host name for the machine that you are installing on. Click **Next**.
7. Select one of the following WebSphere Application Servers that will be used to host WebSphere Partner Gateway and click **Next**. See Figure 7 on page 24.
   - Automatically install the embedded version of IBM WebSphere Application Server Express.
   - Use WebSphere Application Server v6.0 which is already installed on this computer.

     If you select this option, another window will appear and you must enter the directory where WebSphere Application Server is installed.

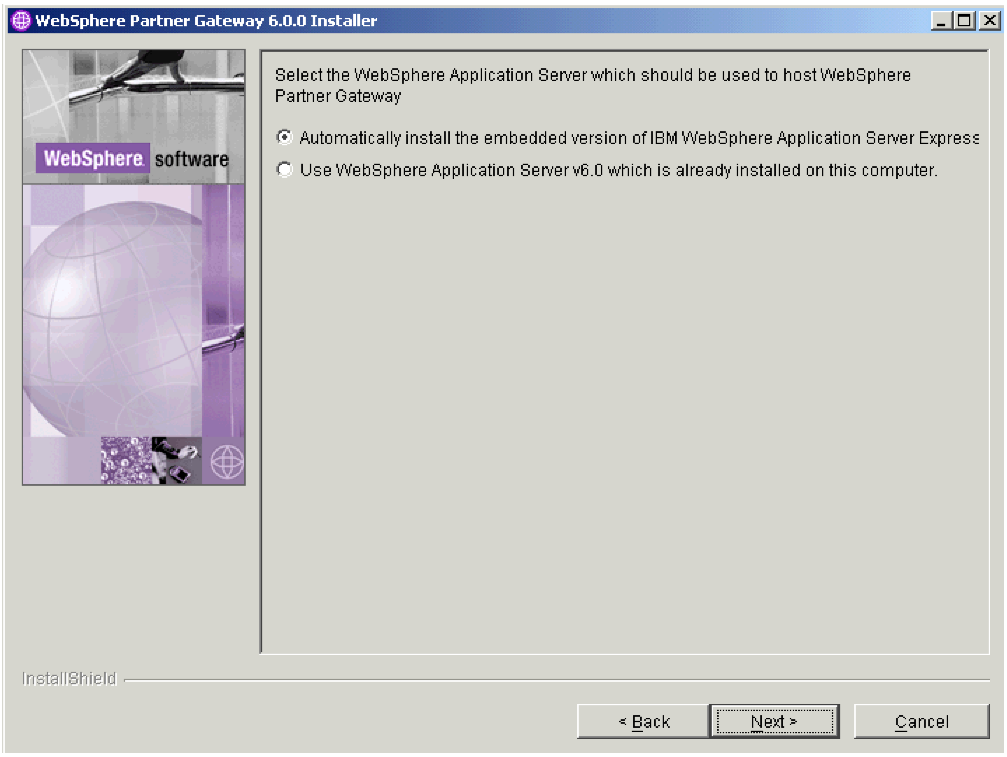

Figure 25. Server selection window

8. In the database server selection window, Figure 26 on page 58, select the database server that you plan to use. You can select either **DB2 8.2 or later** or **Oracle 9i.9.2.0.4 or later**. Click **Next**.

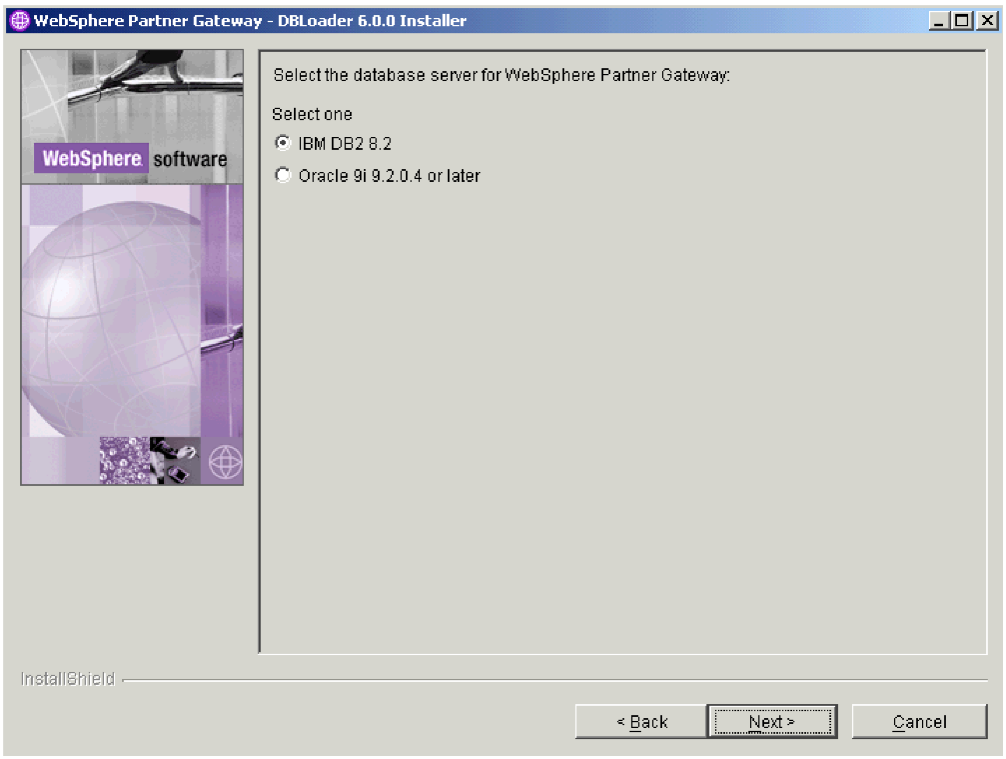

Figure 26. Database selection window

9. The Database Information window appears. If you selected DB2 as your database, follow the DB2 specific instructions in this procedure. If you selected Oracle as your database, follow the Oracle specific instructions in this procedure.

   DB2

   If you selected DB2, the DB2 database information window appears. See Figure 27 on page 59.

   In the **Host name** field, if DB2 is not on the current system, replace `localhost` with the name of the system containing DB2.

   In the **Port** field, type the port that the DB2 instance is using. To find out which port the DB2 instance is using, either use the DB2 Control Center (GUI) to determine the properties, or enter the following on a command line: `db2 get dbm cfg`. This information (DB2 configuration) is also saved by the Database Loader in the "system temp"/bcgdbloader/logs directory. The default port is `50000`.

   In the **Owner name**, **Owner password**, **Database name**, and **Schema name** text fields, enter the requested information. These are the names that were used in the Database Loader installation to define the database. See "Creating the database" on page 48.

   Click **Next**.

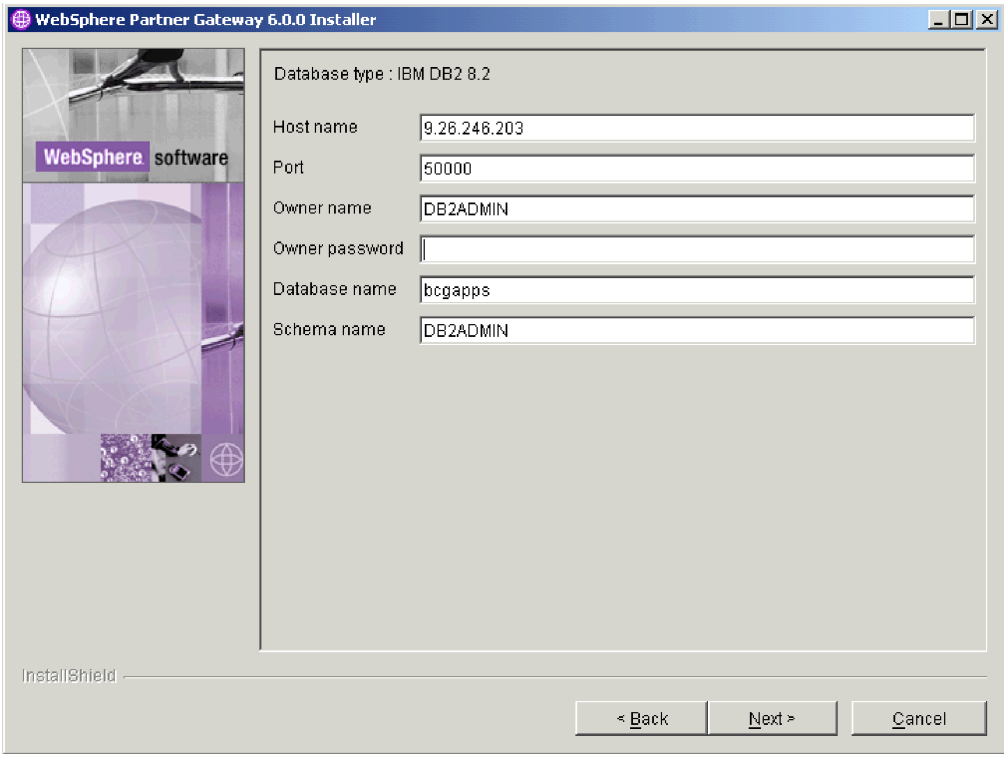

Figure 27. DB2 information window

Oracle

If you selected Oracle, the Oracle database information window appears.Figure 28 on page 60.

Enter the required information about the Oracle database. The default port is 1521.

Note: The full path and name of the JDBC driver must point to the correct version of the driver on this computer. The driver can be found in the Oracle installed directory tree. It can also be downloaded from the following website: http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/index.html. In the section "JDBC Driver Downloads" click on **Oracle *xx* Release *x* drivers**. Be sure to select the driver version that matches the Oracle version that you are running.

Note: When browsing to select a directory, enter a "." in the **Enter file name** field after selecting the desired install path. If a "." is not entered, the **Select a directory** window will not return to the window from which it was launched.

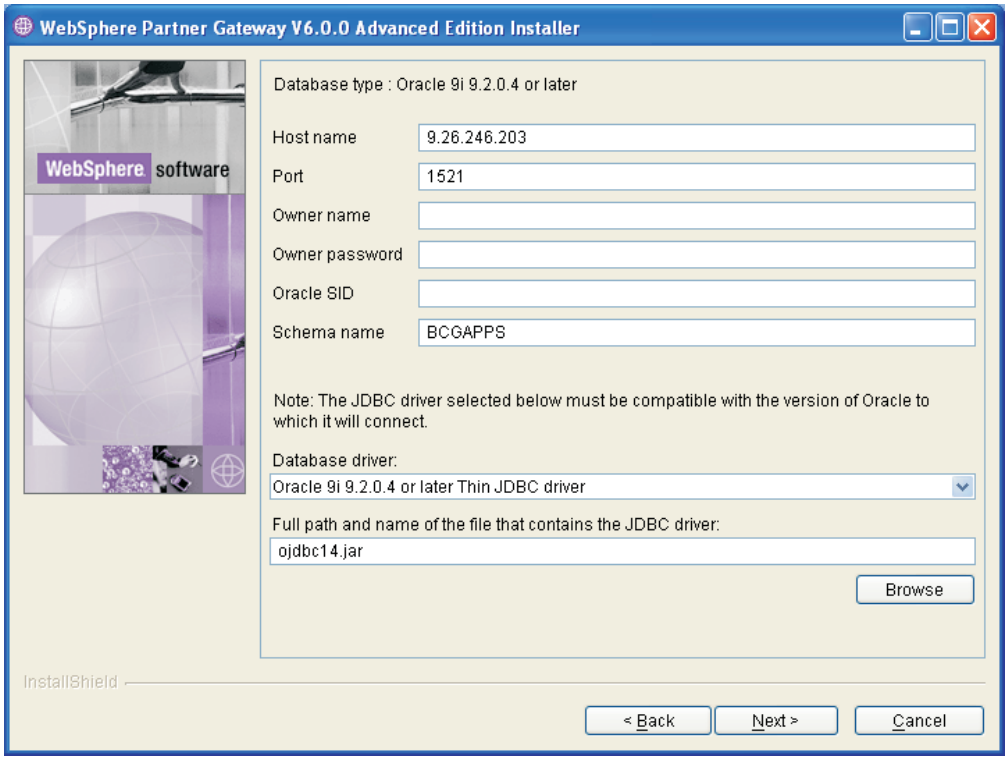

Figure 28. Oracle information window

The Database connection confirmation window will appear. See Figure 29 on page 61. If your connection is successful, note and confirm the Table, View, Function, and Procedure count information. If the connection fails, review the information window for guidance, or refer to your database documentation to address the error code.

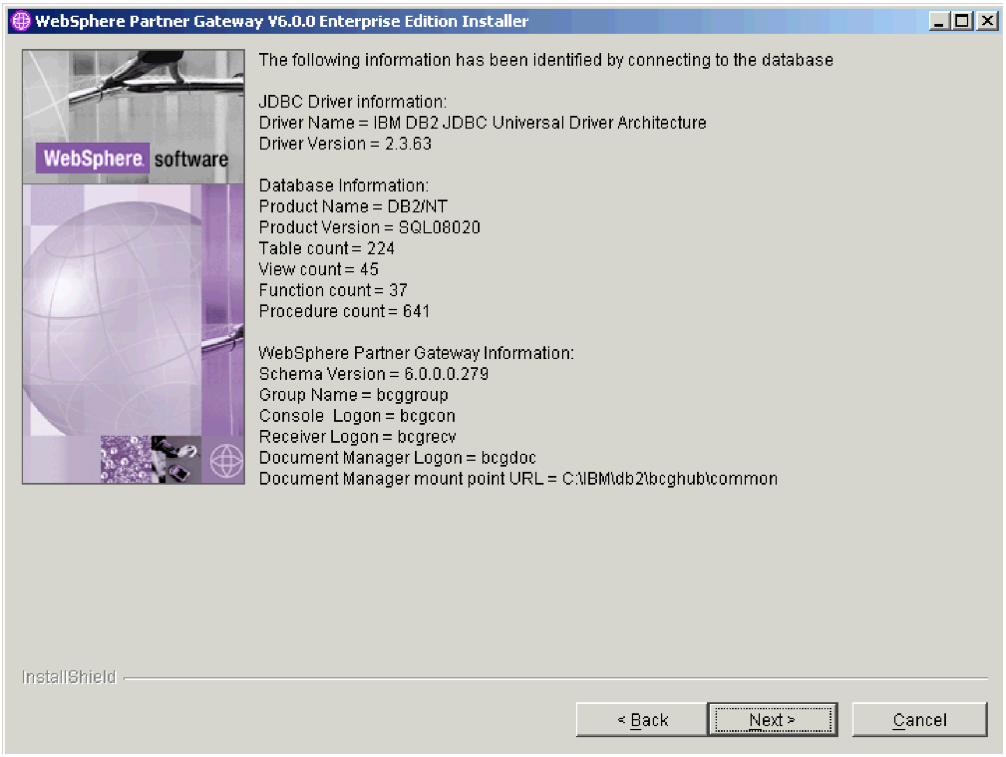

Figure 29. Database connection confirmation window

10. In the Common information directory window, type the location of the common shared components. This value must match the directory location used in the Database Loader installation.

    Note: When browsing to select a directory, enter a "." in the **Enter file name** field after selecting the desired install path. If a "." is not entered, the **Select a directory** window will not return to the window from which it was launched.

11. In the WebSphere MQ server window, type the required information about your WebSphere MQ server. See Figure 30 on page 62.

    In the **Host name** field, if WebSphere MQ is not on the current machine, replace `localhost` with the name of the system containing WebSphere MQ.

    In the **Queue Manager** field, replace the default name with the name that was used when configuring WebSphere MQ (see "Configuring WebSphere MQ" on page 44.)

    In the **Listener port** field, type the port that the listener is using (see "Configuring WebSphere MQ" on page 44.) The default port is 9999.

    Click **Next**.

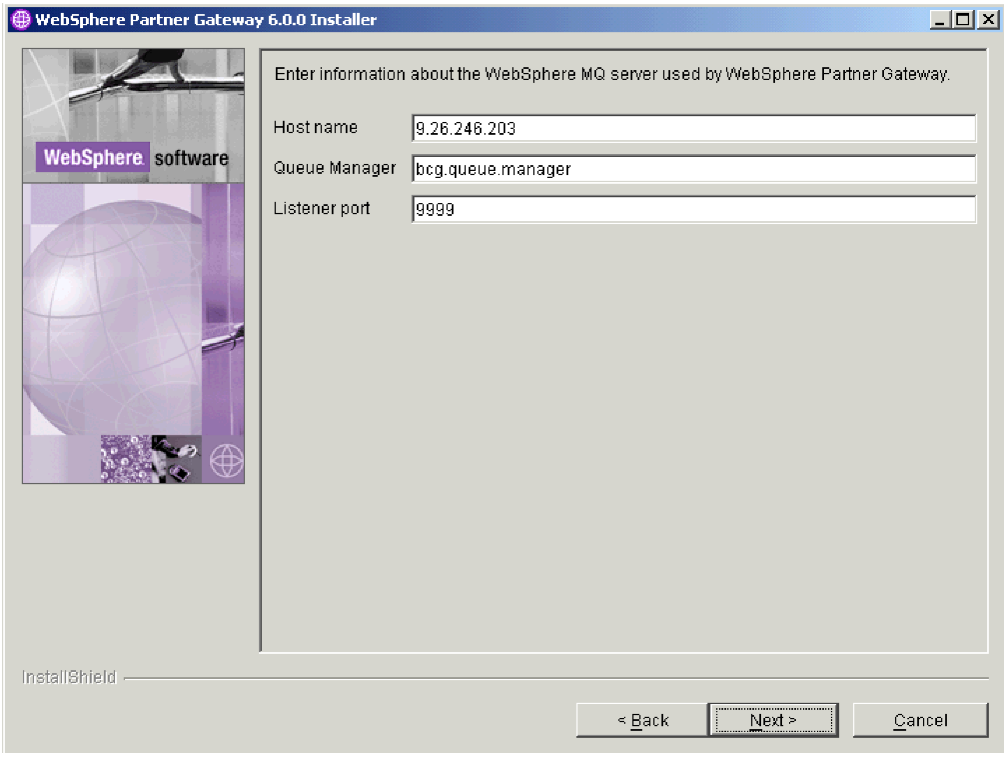

Figure 30. WebSphere MQ server window

12. The Windows Service Installation window appears. If you would like to register WebSphere Partner Gateway feature as a Windows service, select the **Install as Windows Service** check box. See Figure 31 on page 63.

    Click **Next**.

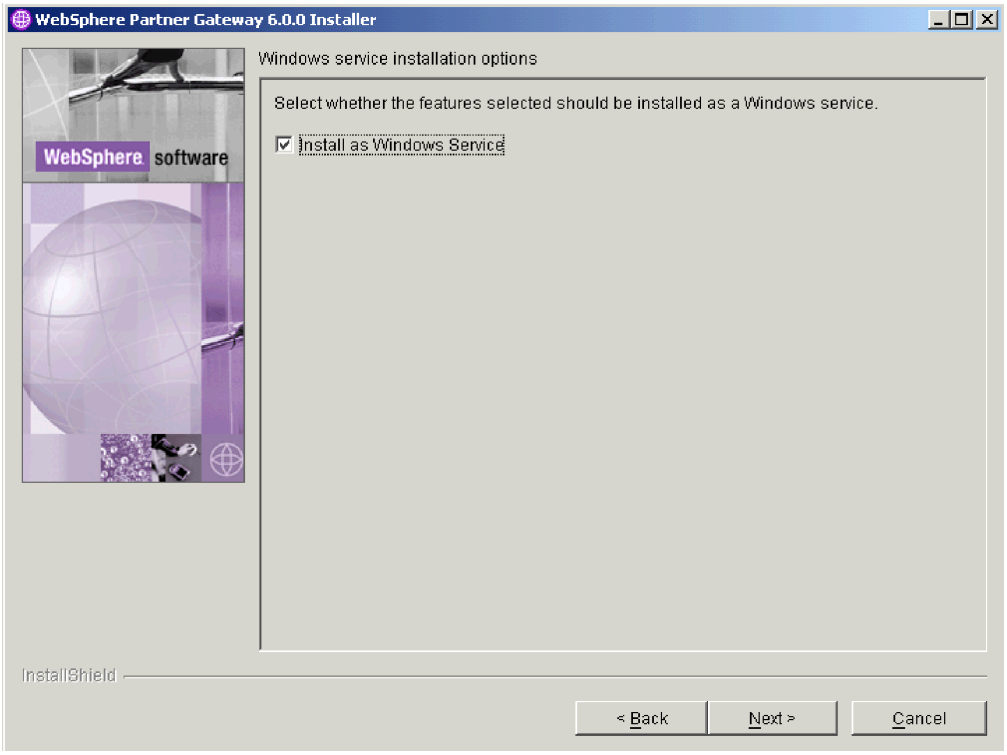

Figure 31. Windows service installation window

13. If you selected to install the Community Console, configure it using the Community Console configuration window. See Figure 32 on page 64.

    In the **User name** field, type the user ID that the Community Console component uses to log into the database.

    In the **Password** field, type the password associated with the user name. Make sure that you enter the correct password, because the Community Console will not function with an incorrect password.

    In the **HTTP Port** field, type the number of the port on which the component listens for messages. The Community Console, Receiver, and Document Manager must have unique port numbers, and they must be available on this computer. The default port is `58080`.

    In the **HTTPS Port** field, enter the number of the secure port on which the component listens for messages. The Community Console, Receiver, and Document Manager must have unique port numbers, and they must be available on this computer. The default port is `58443`.

    In the **Help System host name** field, enter the server address that the Help System will reside on.

    In the **Help System port number** field, enter the port number for access to the Help System.

    Click **Next**.

    Note: If the database connection fails, the database information window will appear. Review the information window for guidance, or refer to your database documentation to address the error code.

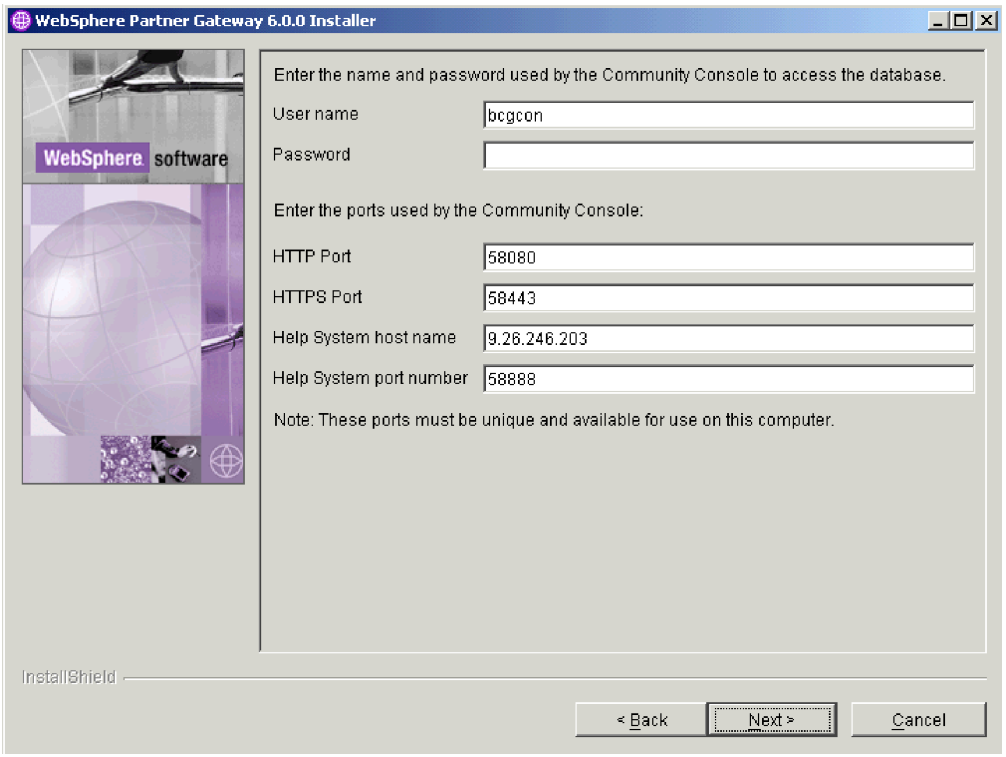

Figure 32. Community Console window

14. If you selected the Receiver or Document Manager components, configure them using their configuration windows. These windows have the same fields as the Community Console Configuration window. All three components (Community Console, Receiver, and Document Manager) must have different HTTP and HTTPS ports. See Figure 33 on page 65 and Figure 34 on page 65.

    Note: If you are installing the Receiver and Document Manager on different machines, the Receiver machine must have a host name that can be resolved by the Document Manager machine.

    Click **Next** when you are finished.

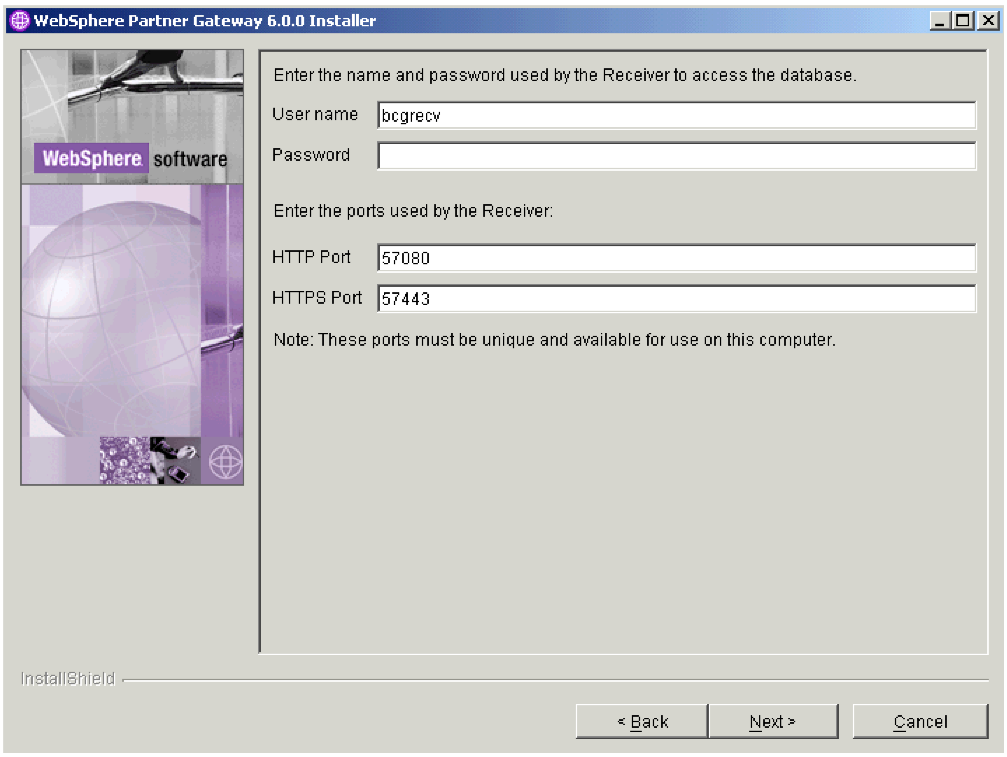

Figure 33. Receiver configuration window

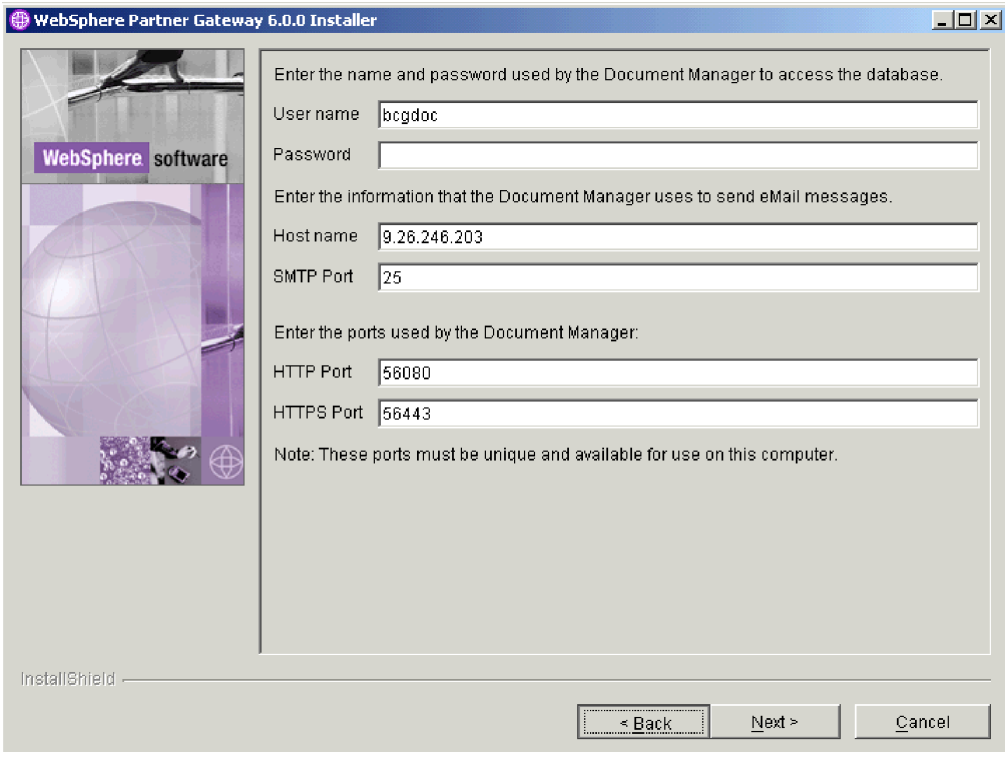

Figure 34. Document Manager configuration window

15. In the RosettaNet configuration window, Figure 35 on page 66, type the contact information for RosettaNet messages. Values are required in these text

fields. Use the default values if you do not know the proper values. This information is required if you are using RosettaNet and is recommended for all installations.

In the **Name** field, type the name of the person that should be contacted for RosettaNet problems.

In the **Phone number** and **Fax number** fields, type the telephone and fax numbers of the RosettaNet contact person.

In the **e-mail address** field, type the RosettaNet contact's e-mail address.

Click **Next**.

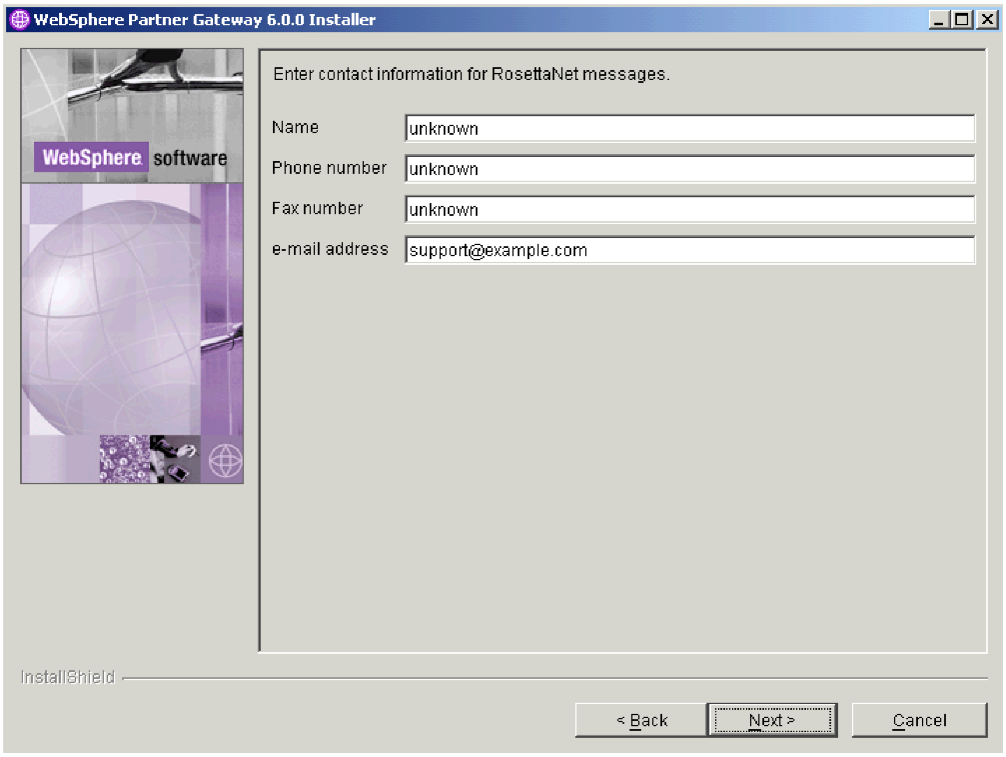

Figure 35. RosettaNet configuration window

16. In the alert notification window, Figure 36 on page 67, configure WebSphere Partner Gateway so that it can send alerts by e-mail. Values are required. Use the default values if you do not know the proper values.

    In the **SMTP relay** field, type the location of the SMTP server.

    In the **From e-mail address** field, type the e-mail address that WebSphere Partner Gateway uses to send e-mails.

    In the **To e-mail address** field, type the destination e-mail address that users responding to alert notifications use when they send a response e-mail.

    Click **Next**.

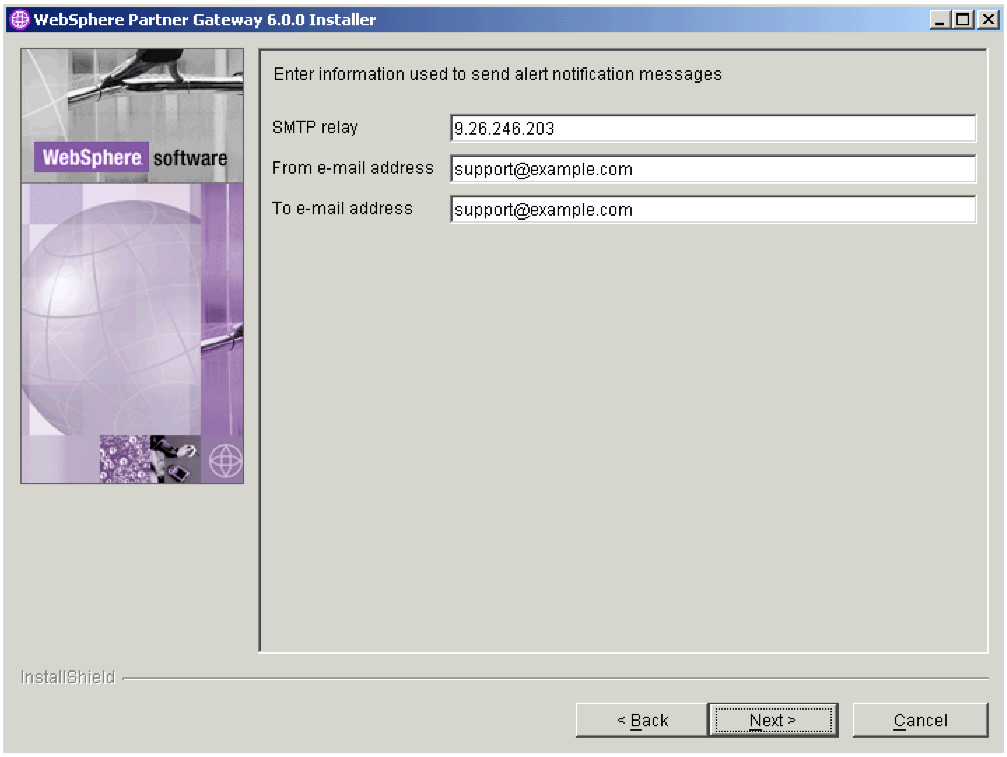

Figure 36. Alert notification window

17. In the Summary window, review the information, which identifies the components that will be installed. If any of this information is incorrect, click **Back** to return to previous windows. When all of the information on the summary window is correct, click **Next**.
18. The WebSphere Partner Gateway Installer installs and configures the selected components. When it has completed this task, the installer enables the **Finish** button. Click **Finish**.
19. Verify that the following values are set:

    DB2:

    a. Open the console\lib\config\bcg_console.properties file. Verify that the following value is set: `bcg.co.db.schema=`**DB2ADMIN**.

    b. Open the receiver\lib\config\bcg_receiver.properties file. Verify that the following value is set: `bcg.co.db.schema=`**DB2ADMIN**.

    c. Open the router\lib\config\bcg.properties file. Verify that the following value is set: `bcg.co.db.schema=`**DB2ADMIN**.

    Oracle:

    a. Open the console\lib\config\bcg_console.properties file. Verify that the following value is set: `bcg.co.db.schema=`**BCGAPPS**.

    b. Open the receiver\lib\config\bcg_receiver.properties file. Verify that the following value is set: `bcg.co.db.schema=`**BCGAPPS**.

    c. Open the router\lib\config\bcg.properties file. Verify that the following value is set: `bcg.co.db.schema=`**BCGAPPS**.
20. Repeat this procedure on each server where you want to install WebSphere Partner Gateway components. The common content needs to be installed only once because it is available to all computers via the shared file system.

When you have installed all WebSphere Partner Gateway components, see "Installing the components using the command line" on page 68.

Installing the components using the command line

WebSphere Partner Gateway also provides a way to install the components from the command line. This feature requires an options file that provides values for all of the installation options. You can modify the provided sample ISS files to create a custom options file.

The sample files for the Database Loader are in the Database Loader directory on the CD and in the unarchived install image. The WebSphere Partner Gateway sample files are in the hub directory on the CD and in the unarchived install image.

Each option in the file appears on a separate line and is preceded by comments that describe the setting and present an example of the option. In the sample files, the option values are the default values presented in the GUI. Some settings, such as passwords and hostnames, require information about the local configuration.

To install the Database Loader or WebSphere Partner Gateway using the command line:

1. If you are installing the Database Loader, log in as DB2ADMIN.
2. If you are installing WebSphere Partner Gateway, log in as the administrator.
3. Open a command line on the machine on which you want to install the code.
4. Navigate to the location of the installation executable. For example,

   ```
   cd DBLoader
   ```

   or

   ```
   cd hub
   ```
5. Enter the command below:

   ```
   setupWindows -options "<options file name>"
   ```

   Where *<options file name>* identifies the file that contains the option values the installer will use.

   With this command, the installer displays all of the windows that appear in a normal GUI installation, and all of the fields in the windows contain the values listed in the options file.

Performing a silent install

Database Loader and WebSphere Partner Gateway can be installed and uninstalled without either a GUI or user interaction. A silent installation is particularly useful when installing components with the same settings on multiple systems, using software distribution products, or when a graphical environment is not available.

To install the Database Loader or WebSphere Partner Gateway silently, follow these steps:

1. If you are installing the Database Loader, log in as DB2ADMIN.
2. If you are installing WebSphere Partner Gateway, log in as the administrator or as a user who belongs to the Administrators group.
3. Open a command line on the machine on which you want to install the code.
4. Navigate to the location of the installation executable. For example, enter:

   ```
   cd DBLoader
   ```

or

```
cd hub
```

5. Enter the following command:

   ```
   setup -options "<options file name>" -silent
   ```

   Where *<options file name>* identifies the file that contains the option values the installer will use.

The installer runs without any user interaction or GUI. The Installer returns to the command prompt.

Starting WebSphere Partner Gateway

After you have installed WebSphere Partner Gateway, the product is ready to run.

To start WebSphere Partner Gateway from a command prompt, do the following:

1. Navigate to the following directory:

   ```
   {INSTALL DIR}\IBM\bcghub\bin
   ```

2. Start the Community Console by entering the following command:

   ```
   bcgStartServer.bat bcgconsole
   ```

3. Start the Receiver by entering the following command:

   ```
   bcgStartServer.bat bcgreceiver
   ```

4. Start the Document Manager by entering the following command:

   ```
   bcgStartServer.bat bcgdocmgr
   ```

   Note: If you installed the components as Windows services, you can also select to have them start automatically at start up by changing the Services settings in the Administrative Tools.

5. Start the Help System. See, "Starting the Help system" on page 70.
6. Open a Web browser and type the following URL:

   Unsecure:

   ```
   http://<hostname>.<domain>:58080/console
   ```

   Secure:

   ```
   https://<hostname>.<domain>:58443/console
   ```

   Where *<hostname>* and *<domain>* are the name and location of the computer hosting the Community Console component.

   Note: The Community Console requires cookie support to be turned on to maintain session information. No personal information is stored in the cookie, and it expires when the browser is closed.

7. The Web browser displays the Welcome page. Log into WebSphere Partner Gateway using the following information:
   - In the **User Name** field, type:

     ```
     hubadmin
     ```

   - In the **Password** field, type:

     ```
     Pa55word
     ```

   - In the **Company Login Name** field, type:

     ```
     Operator
     ```

   Click **Login**.

8. When you log in for the first time, you must create a new password. Enter a new password, then enter the new password a second time in the **Verify** field.

9. Click **Save**. The system displays the console's initial entry window.

You have now logged into WebSphere Partner Gateway. See the next section, "Testing your installation" for a way to test your installation. Also see the *Getting Started* guide for information on what to do next.

Starting the Help system

For the help system to function, the Help system server must be running. By default, the Help system is installed on the same server as the Console; however, you can specify a different server for the Help system during the Console installation.

You can confirm the help system location by checking the value of the ibm.bcg.help.host property in the bcg_console.properties file, located in {INSTALL DIR}/console/lib/config/.

To start the Help system, run the following script:

```
{INSTALL DIR}/bin/bcgStartHelp.bat
```

Note: For Windows systems, the window that is used to run the bcgStartHelp script must remain open for the help server to continue running.

To stop the Help system, run the following script:

```
{INSTALL DIR}/bin/bcgStopHelp.bat
```

Testing your installation

Use this procedure to test your installation when WebSphere Partner Gateway is running:

1. Create a user login event-based alert and set yourself up as the contact for the alert.
   - In the **Alert Owner** list, select **Hub Operator**.
   - In the **Participant** list, select **Hub Operator**.
   - In the **Event Type** list, select **Info**.
   - In the **Event Name** list, select **102002 User Login was successful**.
2. Log out, and then log in again as the Hub Admin user.
3. Check your e-mail for an alert message.

If you encounter any problems with your WebSphere Partner Gateway installation, see "Troubleshooting" on page 71.

Note: If you want to test document flow, you can refer to the Simulating production traffic chapter in the *Administrator Guide*.

Uninstalling WebSphere Partner Gateway

Use this procedure to uninstall either WebSphere Partner Gateway or the Database Loader:

1. If you want to later install the components you are uninstalling, save the options file used to install the components.

Note: If you plan to install components again, back up the common directory tree as well as the Console, Receiver, and Document Manager directories. You should also back up your database before using the Database Loader uninstaller.

2. Shut down the WebSphere Partner Gateway servers in the following order:
   a. Navigate to the following directory:
      `{INSTALL DIR}\IBM\bcghub\bin`
   b. Shut down the server by entering the following command:
      `bcgStopServer.bat bcgconsole`
   c. Shut down the receiver by entering the following command:
      `bcgStopServer.bat bcgreceiver`
   d. Shut down the router by entering the following command:
      `bcgStopServer.bat bcgdocmgr`
   e. Stop the Help Server by entering the following command:
      `bcgStopHelp.bat`
3. In the bcghub_uninst directory, run the uninstall executable.

   The uninstaller wizard starts and displays the Welcome window. Click **Next**.
4. If you are uninstalling WebSphere Partner Gateway, in the Component selection window, select the components that you want to remove from this system. You can select multiple components.

   Note: WebSphere Partner Gateway requires at least one instance of each component. If you remove the only instance of a component, you must install that component on another system. For example, if you remove the only instance of Document Manager on your network, you must install Document Manager on another system and it must be configured to use the same database and queue manager.

   Click **Next**. The Uninstaller displays the Summary window.
5. The Summary window lists the components that the uninstaller will remove. Review this information. If any of this information is incorrect, click **Back** to return to previous windows and correct it. When all of the information on the summary window is correct, click **Next**.

   Note: The uninstaller only removes files that were created during the installation. It does not remove any files or folders that were created after installation. You can remove any remaining files or folders manually after the uninstall is complete.
6. The uninstaller removes the selected components. When it has removed all of the components, the uninstaller enables the **Finish** button. Click **Finish**.
7. Review the files that remain in the directory structure and then remove the directory tree.
8. To uninstall the database, run the uninstall executable located in the bcgdbloader_uninst directory.

Troubleshooting

The following procedures describe how to troubleshoot problems with WebSphere Partner Gateway installations.

This chapter contains the following sections:

- "Recovering from incorrect version detection problems" on page 39

Locating Database Loader errors

If you encountered problems while installing the Database Loader, consult the Database Loader logs in the system temp\bcgdbloader\logs directory for information on the problem. Once the problem is resolved, do the following to delete the created database:

1. Run the Database Loader uninstaller and remove the database.
2. Once you have deleted the database, rerun the Database Loader wizard.

If you experience problems installing the WebSphere Partner Gateway components, review the following component installation logs:

{INSTALL DIR}\logs\bcgconsole

{INSTALL DIR}\logs\bcgreceiver

{INSTALL DIR}\logs\bcgdocmgr

You should also examine the following runtime logs:

Embedded WebSphere Application Server

{INSTALL DIR}was\profiles\bcgconsole\logs

{INSTALL DIR}was\profiles\bcgreceiver\logs

{INSTALL DIR}was\profiles\bcgdocmgr\logs

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{INSTALL DIR}profiles\bcgconsole\logs

{INSTALL DIR}profiles\bcgreceiver\logs

{INSTALL DIR}profiles\bcgdocmgr\logs

Recovering from incorrect version detection problems

Refer to "Recovering from incorrect version detection problems" on page 39 for more information.

Chapter 4. Upgrading WebSphere Partner Gateway

The following procedures describe how to upgrade WebSphere Partner Gateway. These upgrade procedures assume that the same environment will be used for the new version, including the same version MQSeries queue manager configuration. It is also assumed that the upgrade is for the same WebSphere Partner Gateway Edition (for example, from Enterprise version 4.2.x to Enterprise version 4.2.x).

This chapter contains the following sections:

Shutting down WebSphere Partner Gateway

Before you can upgrade, you must shut down the previous version. The Receiver must be shut down to stop accepting new documents and documents in progress must finish processing. Follow these steps to properly shutdown the system:

1. Stop the Receiver by using the shutdown_bcg.* script that is appropriate for your operating system. The shutdown_bcg.* script is located in the following directory:

   {INSTALL DIR}/receiver/was/bin

   Check the console Document Viewer to verify that documents in progress have finished processing.
2. Stop the Document Manager by using the shutdown_bcg.* script that is appropriate for your operating system. The shutdown_bcg.* script is located in the following directory:

   {INSTALL DIR}/router/was/bin
3. Stop the Community Console by using the stopServer.* script that is appropriate for your operating system. The stopServer.* script is located in the following directory:

   {INSTALL DIR}/console/was/bin
4. Empty the MQ message queues. It is important to empty the queues because the upgraded version of WebSphere Partner Gateway will not be able to process messages created by a previous version. You can empty the queues using WebSphere MQ Explorer as follows:

   Windows:

   a. Expand the Queue Managers folder.
   b. Right-click on the queue manager and select All Tasks > Clear Messages.

Unix:

a. Enter t following command to change the user to mqm:

```
su - mqm
```

b. Run the display command to list the queues.

c. Clear all queues.

d. Repeat this for every queue returned by the display command.

5. Shut down the MQ queue manager and listener using the following commands:

   Note: For Unix systems, this needs to be done by the mqm user.

```
endmqm bcg.queue.manager
endmqlsr -m bcg.queue.manager
```

Backing up the previous version

You must back up your previous version of WebSphere Partner Gateway before proceeding with the upgrade. The following procedure describes the tasks needed to successfully back up your existing system:

1. Back up the database. Refer to your database administrator or database documentation for information on how to do this. This step is important because the database contains WebSphere Partner Gateway data that is difficult to re-create.
2. Back up the shared, common directory tree, located in {INSTALL DIR}/common. This step is important because the shared, common tree contains WebSphere Partner Gateway data, such as the non-repudiation and message store directories, that is difficult to recreate.
3. Back up the previous WebSphere Partner Gateway installation directories. For example: {INSTALL DIR}/console, {INSTALL DIR}/receiver, and { INSTALL DIR}/router.
   Alternatively, you can repeat the following steps to back up only the specified configuration data:
   a. Back up the embedded WebSphere Application Server configuration by calling the was/bin/backupConfig.* script that is appropriate for your operating system. Copy the WebSphereConfig*.zip backup file to the backup location.
   b. Back up the was/jndi/WBIC subdirectory tree.
   c. Back up the was/config subdirectory tree.

Upgrade the operating system

You must ensure that your operating system meets the supported minimum level that is required for the new release of WebSphere Partner Gateway. Refer to “Platform, hardware, and software requirements” on page 1 before continuing with the upgrade process.

Note: For RedHat Linux, we recommend that you make a backup of existing installations of DB2, Oracle, WebSphere MQ, etc. before you upgrade the operating system. RedHat Linux does not support an upgrade from 2.1 to 3. You must uninstall 2.1 and then install 3. Please review the upgrade documentation for RedHat Linux 3.0.

Upgrading the database

The following procedure describes how to use DBLoader to update the database tables for your upgraded version:

1. Uninstall the Database Loader by entering the following command (as an Administrator user on Windows or as a root user on UNIX):

   {INSTALL DIR}/DBLoader/_uninst/uninstall

   Important: Do not select **Drop the database** during the uninstallation. Dropping the database causes data loss if it has not been backed up. The existing database will be upgraded in subsequent steps.

2. Refer to "Platform, hardware, and software requirements" on page 1 to verify that your database meets the supported requirements for this release. Update as needed before continuing.

3. Run the upgraded Database Loader from the media location, using the setup* launcher that is specific to your operating system. For example, enter:

   ```
   {CD_ROM/MEDIA DIR}/DBLoader/setup*
   ```

   Note: For Windows, make sure that you are logged in as the user that owns the database. That user is typically DB2ADMIN.

   Follow the guidelines below:

   a. Specify the same input values used in the previous version. For example: userids, passwords, database vendor, and so on. Version 4.2.2 and later saves the user input information to a file named install_cfg.properties, which you can use to review your previous input.

   b. Verify the configuration defaults and override them as needed.

   c. Do not select **Run the SQL Files automatically**.

      Note: You will receive a warning stating that the database already exists. You can safely ignore this warning.

4. Run the BCGUpgrade*.sql script, located in the {INSTALL DIR}/DBLoader/scripts/DB2 or {INSTALL DIR}/DBLoader/scripts/Oracle directory.

   Note: Each BCGUpgrade_from-ver_to-ver.sql script must be run starting with the oldest version that applies to your system and continuing with each subsequent script.

   DB2

   Run the following commands:

   a. **UNIX**: `su - db2inst1`
      Windows: Start the DB2CLP

      Note: For Windows, make sure that you are logged in as the user that owns the database. That user is typically DB2ADMIN.

   b. `db2start` (if the database is not started)

   c. `db2 connect to bcgapps` (where `bcgapps` is the database name)

   d. `cd {INSTALL DIR}/DBLoader/scripts/DB2`

   e. Run one of the following scripts, depending on your existing version, to upgrade the database:
      4.2.0 to 4.2.1:

      ```
      db2 -td! -f BCGUpgrade_420_421.sql -z
       /tmp/bcgdbloader/logs/BCGUpgrade_420_421.log
      ```

4.2.1.0 to 4.2.1 (Fix Pack 1 not installed):

```
db2 -td! -f BCGUpgrade_421_421FP1.sql -z
 /tmp/bcgdbloader/logs/BCGUpgrade_421_421FP1.log
```

4.2.1.1 to 4.2.2:

```
db2 -td! -f BCGUpgrade_421FP1_422.sql -z
 /tmp/bcgdbloader/logs/BCGUpgrade_421FP1_422.log
```

4.2.2 to 4.2.2.2 (Fix Pack 2 not installed):

```
db2 -td! -f BCGUpgrade_422_422FP2.sql -z
 /tmp/bcgdbloader/logs/BCGUpgrade_422_422FP2.log
```

4.2.2.2 to 4.2.2.3 (Fix Pack 3 not installed):

```
db2 -td! -f BCGUpgrade_422FP2_422FP3.sql -z
 /tmp/bcgdbloader/logs/BCGUpgrade_422FP2_422FP3.log
```

4.2.2.3 to 4.2.2.4 (Fix Pack 4 not installed):

```
db2 -td! -f BCGUpgrade_422FP3_422FP4.sql -z
 /tmp/bcgdbloader/logs/BCGUpgrade_422FP3_422FP4.log
```

4.2.2.4 to 6.0:

```
db2 -td! -f BCGUpgrade_422FP4_600.sql -z
 /tmp/bcgdbloader/logs/BCGUpgrade_422FP4_600.log
```

f. Run the save_inputs script to load the DBLoader user inputs into the database. For example:

```
db2 -td! -f save_inputs.sql -z
 /tmp/bcgdbloader/logs/save_inputs.log
```

g. Run the Set_Grants.sql script to set necessary permissions on the database. For example:

```
db2 -td! -vf Set_Grants.sql >/tmp/bcgdbloader/logs/Set_Grants.log
```

Oracle

Run the following commands:

Note: For Windows, you must be logged in as an Administrator user.

a. `cd {INSTALL DIR}/DBLoader/scripts/Oracle`

b. Run one of the following scripts, depending on your existing version, to upgrade the database:
4.2.1.0 to 4.2.1 (Fix Pack 1 not installed):

```
sqlplus -L bcgapps/password @BCGUpgrade_421_421FP1.sql
 >/tmp/bcgdbloader/logs/BCGUpgrade_421_421FP1.log
```

4.2.1.1 to 4.2.2:

```
sqlplus -L bcgapps/password @BCGUpgrade_421FP1_422.sql
 >/tmp/bcgdbloader/logs/BCGUpgrade_421FP1_422.log
```

4.2.2 to 4.2.2 (Fix Pack 2 not installed):

```
sqlplus -L bcgapps/password @BCGUpgrade_422_422FP2.sql
 >/tmp/bcgdbloader/logs/BCGUpgrade_422_422FP2.log
```

4.2.2.2 to 4.2.2.3 (Fix Pack 3 not installed):

```
sqlplus -L bcgapps/password @BCGUpgrade_422FP2_422FP3.sql
 >/tmp/bcgdbloader/logs/BCGUpgrade_422FP2_422FP3.log
```

4.2.2.3 to 4.2.2.4 (Fix Pack 4 not installed):

```
sqlplus -L bcgapps/password @BCGUpgrade_422FP3_422FP4.sql
 >/tmp/bcgdbloader/logs/BCGUpgrade_422FP3_422FP4.log
```

4.2.2.4 to 6.0:

```
sqlplus -L bcgapps/password @BCGUpgrade_422FP4_600.sql
 >/tmp/bcgdbloader/logs/BCGUpgrade_422FP4_600.log
```

c. Run the save_inputs.sql script to load the DBLoader user inputs into the database. For example:

```
sqlplus -L bcgapps/password @save_inputs.sql
 >/tmp/bcgdbloader/logs/save_inputs.log
```

d. Run the Grants_Syns.sql script to set necessary permissions on the database. For example:

```
sqlplus -L bcgapps/password @Grants_Syns.sql >/tmp/bcgdbloader/logs/
Grants_Syns.log
```

Updating the collating sequence

The following information describes how you can modify the collating sequence for DB2 and Oracle.

DB2

WebSphere Partner Gateway 6.0 on DB2 utilizes the UCA400_NO collating sequence, which improves the sorting of unicode data. DB2 does not allow the collating sequence of an existing database to be changed. When WebSphere Partner Gateway migrates your existing database to version 6.0 it will not change the collating sequence setting. If you would like your installation to utilize the UCA400_NO collating sequence, follow these steps:

1. From the DB2 UDB Control Center, make a backup of your current WebSphere Partner Gateway database (ie BCGAPPS).
2. Drop your current WebSphere Partner Gateway database (BCGAPPS).
3. Create a new database using the Create_db2.sql file created by the DBLoader tool provided with WebSphere Partner Gateway 6.0.

   ```
   db2 -td! -f Create_db2.sql -z Create_db2.log
   ```

4. From the DB2 UDB Control Center, restore the backup of the previous WebSphere Partner Gateway database to the database you just created. Be sure to select the 'Restore to Existing Database' option.

Oracle

Oracle databases allow the changing of collation sequences dynamically. In order to utilize this functionality, WebSphere Partner Gateway changes the value of the NLS_SORT session variable when the BCGUpgrade_422FP4_600.sql script is executed.

For more information on collating sequences, refer to the Troubleshooting chapter in the *Administrators Guide*.

Updating MQSeries and JMS queue configuration

The following procedure describes how to update the MQSeries and JMS queue configuration. This is not required for version 4.2.2 or higher.

1. Refer to "Platform, hardware, and software requirements" on page 1 to verify that MQSeries meets the supported requirements for this release. Update as needed before continuing.
2. UNIX: `su -mqm`
   Windows: Log in as an Administrator user.
3. Run the following command:

   ```
   runmqsc bcg.queue.manager < {CD_ROM/MEDIA DIR}
   /Tools/MQSeries/BCGUpgrade_Queues_v421.mqsc
   ```

   Where `bcg.queue.manager` is the MQSeries queue manager name.

Uninstalling the previous version

The following procedure describes how to uninstall the previous version of WebSphere Partner Gateway:

1. As an Administrator user on Windows or as a root user on UNIX, uninstall the previous version by entering the following command:

   ```
   {INSTALL DIR}/_uninst/uninstall
   ```

   Select all features for uninstallation. If prompted with a message that a file "exists on this system and it has been modified since installation. Do you want to remove this file?" Click **No**.
2. Delete the remaining directory trees.

   Important: Do not delete the `{INSTALL DIR}`/common tree. That is where many of the runtime documents and data are stored. Deleting the common tree will cause data loss if it has not been backed up. Also, files that were not installed by the wizard will remain. Do not delete the files until you confirm that the migration has been successful and that the files are no longer needed. If the DBLoader directory exists in this location, do not delete it.

Installing WebSphere Partner Gateway

As an Administrator user on Windows or as a root user on UNIX, install WebSphere Partner Gateway using the setup* launcher appropriate for your operating system. For example: `CD_ROM/MEDIA DIR}/hub/setup*`

1. Specify the same input values used in the previous version, such as userids, passwords, and so on.

   Note: If you specify the same directory location as the previous version, the Installer will retain the previous configuration information.
2. Verify the configuration defaults and override them as needed.
3. Confirm that the common, shared directory tree is correct.

Restoring custom configurations

Restore any customized configuration from the previous version. Changes to the Receiver and Document Manager configuration files have been introduced with version 6.0. The new 6.0 configuration files must be used. Do not replace the 6.0 version of the configuration files with the older version from the backup directory.

To identify configuration file changes which may have been made to your 4.2.2 installation, compare the contents of each of the files in the 4.2.2 backup and 6.0 installation directories. Manually merge any changes into the 6.0 files.

Note: The `version.properties` files in these directories should not be changed.

Compare the contents of the files located in the following directories:

console/lib/config

receiver/lib/config

router/lib/config

The `router/lib/config/bcg.properties` file contains the `bcg.alertNotifications.mail*` properties and the RosettaNet contact information, located in the `bcg.A01.from*` properties. If these values were not entered properly during the 6.0 hub installation, the values can be copied from the 4.2.2 `bcg.properties` file into the new 6.0 `router/lib/config/bcg.properties` file.

Note: A change to the base RosettaNet V02.00 package requires that it be re-loaded via the console if it had been previously installed.

Starting WebSphere Partner Gateway

For UNIX, refer to "Starting WebSphere Partner Gateway" on page 36.

For Windows, refer to "Starting WebSphere Partner Gateway" on page 69.

Important: The WebSphere MQ queue manager, listener, and JMS broker must be restarted before attempting to restart WebSphere Partner Gateway.

Updating the Oracle JDBC driver

If the service level of Oracle has changed for any reason, for example, if you have applied a fix pack, you need to ensure that the Oracle JDBC driver is compatible. If necessary, follow the procedures in this section to update your Oracle JDBC driver.

To replace the Oracle JDBC driver:

If you are changing the Oracle JDBC driver, and the directory and the full path name to the driver file will remain the same, do the following:

1. Stop the WebSphere Partner Gateway Console, Receiver, and Document Manager.
2. Replace the Oracle JDBC driver file.
3. Start the WebSphere Partner Gateway Console, Receiver, and Document Manager.

If you are replacing the Oracle JDBC driver and the full path name of the driver file changes, then do the following:

1. Stop the WebSphere Partner Gateway Console, Receiver, and Document Manager.
2. For each component, the Console, the Receiver, and the Document Manager, remove the existing JDBC datasource using bcgdatabase.jacl.

Remove the JDBC datasource. To call information from bcgdatabase.jacl, enter the following command:

Note: For Windows, replace the .sh file extension with .bat.

```
./bcgwsadmin.sh -f bcgdatabase.jacl -conntype NONE uninstall
[db2 | oracle] <nodeName> <serverName>
```

Use the following values:

```
./bcgwsadmin.sh -f bcgdatabase.jacl -conntype NONE uninstall
oracle DefaultNode <bcgconsole, bcgreceiver, or bcgdocmgr>
```

3. For each component (Console, Receiver, and Document Manager) create the JDBC datasource by calling bcgdatabase.jacl.

   ```
   ./bcgwsadmin.sh -f bcgdatabase.jacl -conntype NONE
    install <dbType> <dbName> <dbHostname> <dbPort> <dbUserId>
   <dbPassword> <nodeName> <serverName> <dbZipFile> <jndiName>
   ```

   Remember to replace the values in <> with values specified during your installation.

4. When installing using the file produced by the Oracle option, dbZipFile is the full pathname of the Oracle JDBC driver that should be used to connect to the database. Enter the following:

   ```
   ./bcgwsadmin.sh -f bcgdatabase.jacl -conntype NONE install oracle
   <dbName> <dbHostname> <dbPort> <dbUserId> <dbPassword>
   DefaultNode server1 <dbZipFile> datasources/OracleDS
   ```

5. Start the Console, Receiver and Document Manager.

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