

**DB2 Version 9** for Linux, UNIX, and Windows





Common Criteria Certification: Installing IBM DB2 Version 9.1 Enterprise Server Edition for Linux, UNIX, and Windows– Revision 04



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Common Criteria Certification: Installing IBM DB2 Version 9.1 Enterprise Server Edition for Linux, UNIX, and Windows– Revision 04 Before using this information and the product it supports, be sure to read the general information under Notices.

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# **Common Criteria certification of DB2 products**

For Version 9.1, IBM DB2 products are certified according to the Common Criteria evaluation assurance level 4 (EAL4), augmented with Flaw remediation ALC\_FLR.1. The following product is certified on the following operating systems:

#### Table 1. Certified configurations

	Windows Server 2003	Red Hat Enterprise Linux 4	SuSE Linux Enterprise Server 9	AIX 5.3	Solaris 9
IBM DB2 Version 9.1 Enterprise Server Edition for Linux, UNIX, and Windows	Yes	Yes	Yes	Yes	Yes

#### Notes:

- 1. For a Common Criteria certified DB2 environment, DB2 requires 64-bit Windows Server 2003 x64, Red Hat Enterprise Linux 4, or SuSE Linux Enterprise Server 9 operating systems for Intel EM64T- and AMD64-based systems.
- 2. In a Common Criteria certified DB2 environment, DB2 clients are supported on the following operating systems:
  - Windows 2003
  - Red Hat Enterprise Linux 4
  - SuSE Linux Enterprise Server 9
  - AIX 5.3
  - Solaris 9

For more information about Common Criteria, see the Common Criteria web site at: http://niap.nist.gov/cc-scheme/.

For information about installing and configuring a DB2 system that conforms to the Common Criteria EAL4, see the following books:

- Common Criteria Certification: Installing IBM DB2 Version 9.1 Enterprise Server Edition for Linux, UNIX, and Windows
- Common Criteria Certification: Administration and User Documentation

These books are available in PDF format from the DB2 Information Management Library.

# Supported interfaces for a Common Criteria evaluated configuration

The set of DB2 interfaces that are used in the Common Criteria evaluation of DB2 are as follows:

- The DB2 install program
- The command line processor
- DB2 commands
- DB2 application programming interfaces (APIs)
- SQL statements

You can use these interfaces when installing and configuring a Common Criteria compliant DB2 system.

Other interfaces that are provided by DB2, such as the Control Center or Command Editor were not used during the Common Criteria evaluation of DB2, and must not be used in the Common Criteria evaluation configuration.

NOT FENCED routines are not supported.

In the Common Criteria evaluation configuration, the installation procedures as documented in the following sections must be followed and the configuration options selected must not be modified while in the evaluation configuration:

- "Installing DB2 Enterprise 9 on AIX 5.3 for a single-partition Common Criteria compliant installation" on page 61
- "Installing DB2 Enterprise 9 on SuSE Linux Enterprise Server 9 for a single-partition Common Criteria compliant installation" on page 75
- "Installing DB2 Enterprise 9 on Solaris 9 for a single-partition Common Criteria compliant installation" on page 89
- "Installing DB2 Enterprise 9 on Red Hat Enterprise Linux 4 for a single-partition Common Criteria compliant installation" on page 102
- "Installing DB2 Enterprise 9 on Windows Server 2003 for a single-partition Common Criteria compliant installation" on page 117
- "Installing DB2 Enterprise 9 on AIX 5.3 for a multipartition Common Criteria compliant installation" on page 145
- "Installing DB2 Enterprise 9 on SuSE Linux Enterprise Server 9 for a multipartition Common Criteria compliant installation" on page 160
- "Installing DB2 Enterprise 9 on Solaris 9 for a multipartition Common Criteria compliant installation" on page 175
- "Installing DB2 Enterprise 9 on Red Hat Enterprise Linux 4 for a multipartition Common Criteria compliant installation" on page 190
- "Installing DB2 Enterprise 9 on Windows Server 2003 for a multipartition Common Criteria compliant installation" on page 205

# **About This Book**

This book describes how to install IBM DB2 Version 9.1 Enterprise Server Edition for Linux, UNIX, and Windows (DB2 Enterprise 9) for a Common Criteria evaluation. It includes detailed instructions on installing this product on the following operating systems in a single-partition or a multiple-partition environment:

- Windows 2003
- Red Hat Enterprise Linux 4
- SuSE Linux Enterprise Server 9
- Solaris 9
- AIX Version 5.3

For information about security in a DB2 environment, and for information on configuring DB2 for the Common Criteria evaluation, refer to the following book:

• IBM DB2 Common Criteria Certification: Administration and User Documentation

Some topics in this book and the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book may link to topics that are not in either of these books. Topics that are referenced outside of the Common Criteria certification documentation are for informational purposes only, and are not required for either installing or configuring a Common Criteria compliant environment. Part 1. Installing DB2 servers

# Chapter 1. Installation overview

## **DB2 Version 9 product and packaging information**

For information about DB2 Version 9 product and packaging information, see http://www-1.ibm.com/support/docview.wss?rs=73&uid=swg21219983.

#### **Related tasks:**

- "An overview of installing your DB2 product (Linux and UNIX)" on page 7
- "An overview of installing your DB2 product (Windows)" on page 6

### **DB2** installation methods

This topic provides information about DB2<sup>®</sup> installation methods. The following table shows the installation methods that are available by operating system.

Installation method	Windows®	Linux <sup>™</sup> or UNIX <sup>®</sup>
DB2 Setup wizard	Yes	Yes
db2_install script	No	Yes
Response file installation	Yes	Yes
Manual installation	No	Yes

Table 2. Installation method by operating system.

The following list describes DB2 installation methods.

**Note:** For a Common Criteria environment, only the DB2 Setup wizard and response file installation methods are supported.

#### DB2 Setup wizard

The DB2 Setup wizard is a GUI installer available on Linux, UNIX, and Windows operating systems. The DB2 Setup wizard provides an easy-to-use interface for installing DB2 products and for performing initial setup and configuration tasks. The DB2 Setup wizard can also be used to create instances and response files. The DB2 Setup wizard on Linux and UNIX requires an X server to display the GUI.

#### db2\_install script

DB2 product installations are no longer operating system packages, and as a result, you can no longer use operating system commands for installation. Any existing scripts that you use to interface and query with DB2 installations will need to change.

The db2\_install script installs *all* components for the DB2 product you specify with the English interface support. You can select additional languages to support with the -L parameter. You cannot select or deselect components.

The db2\_install script allows more control over the setup process, in exchange for less control over the installation process, as it installs everything in the language(s) you specify. The DB2 Setup wizard allows

you more control over the installation process by choosing exactly what gets installed using the custom installation option.

The db2\_install script does not perform user and group creation, instance creation, or configuration. This method of installation might be preferred in cases where greater control over the setup process than the GUI installer provides is required.

On Linux and UNIX operating systems, if you embed the DB2 installation image in your own application, it is possible for your application to receive installation progress information and CD location prompts from the installer in computer-readable form.

#### **Response file installation**

A response file is a text file that contains setup and configuration values. The file is read by the DB2 setup program and the installation is performed according to the values that have been specified. There are a number of ways to create a response file:

- Using the response file generator (Windows)
- Using the DB2 Setup wizard
- Customizing the sample response files that are provided for each DB2 product

Using the response file generator, you can create a response file that replicates an existing installation. For example, you might install a DB2 client, fully configure the client, then generate a response file to replicate the installation and configuration of the client to other computers. The response file generator is available only on Windows.

The DB2 Setup wizard can create a response file based on the selections you make as you proceed through the DB2 Setup wizard. Your selections are recorded in a response file that you can save to a location on your system. If you select a partitioned database installation, two response files will be generated, one for the instance-owning computer and one for participating computers.

You can export a client or server profile with the db2cfexp command to save your client or server configuration, and then easily import the profile using the db2cfimp command. A client or server profile exported with the db2cfexp command can also be imported during a silent installation using the CLIENT\_IMPORT\_PROFILE keyword.

For your convenience, you can create a response file without performing an installation. This feature can be useful in an environment where a DBA does not have the authority required to perform an installation. The DBA can create a response file for the installation and provide it to the system administrator who installs the product on the DBA's behalf. On Linux and UNIX, you need root authority to generate a response file.

An alternative to using the response file generator or the DB2 Setup wizard to create a response file is to manually modify a sample response file. Sample response files are provided on the DB2 product CD. The sample response files provide details about all the valid keywords for each product. They also provide access to parameters that cannot be set using the DB2 Setup wizard.

On Linux and UNIX operating systems, if you embed the DB2 installation image in your own application, it is possible for your application to receive installation progress information and CD location prompts from the installer in computer-readable form.

#### Manual installation (Linux and UNIX only)

This method is an advanced installation method that is not recommended for most users. It requires the user to manually install payload files. A payload file is a compressed tarball that contains all of the files and metadata for an installable component.

#### **Related tasks:**

- "Embedding the DB2 installation image (Linux and UNIX)" in *Installation and Configuration Supplement*
- "Installing a DB2 product manually" in Installation and Configuration Supplement
- "Manually installing payload files (Linux and UNIX)" in *Installation and Configuration Supplement*
- "Response file installation of DB2 overview (Linux and UNIX)" in *Installation* and Configuration Supplement
- "Response file installation of DB2 overview (Windows)" in *Installation and Configuration Supplement*

#### **Related reference:**

- "db2\_install Install DB2 product command" in Command Reference
- "db2cfexp Connectivity configuration export tool command" in *Command Reference*
- "db2cfimp Connectivity configuration import tool command" in *Command Reference*
- "db2rspgn Response file generator command (Windows)" in Command Reference
- "db2setup Install DB2 command" in Command Reference

### Supported combinations of client and server versions

This section describes which versions of a client can connect to which versions of a server. This includes support for earlier versions and support for accessing DB2 databases on midrange and mainframe servers. For the most up-to-date information, see http://www.ibm.com/software/data/db2/udb/sysreqs.html

**Note:** For a Common Criteria environment, only DB2 Version 9.1 Enterprise Server Edition for Linux, UNIX, and Windows, and DB2 Version 9.1 clients are supported.

#### Combinations of DB2 UDB Version 8 and DB2 Version 9:

DB2 UDB Version 8 is compatible with DB2 Version 9. That is, clients from either version can access a remote server of either version. Note the following restrictions:

• There is a restriction when a DB2 client is located on the same system as a DB2 server, and they are different versions. In this case, local client-to-server connections using Interprocess Communication (IPC) are not supported. Instead, a connection can be established by treating the connection as a remote connection (called a loopback connection) using TCP/IP.

#### Access to DB2 Version 9 servers from DB2 UDB Version 7 clients:

Access from DB2 UDB Version 7 clients is supported but with the same restrictions as for accessing DB2 UDB Version 8 servers. Restrictions that apply to all DB2 UDB Version 7 clients include:

• DB2 UDB Version 7 clients support only SQL requests on a DB2 Version 9 server. There is no support for utility or API requests.

Additional restrictions that apply to 32-bit DB2 UDB Version 7 clients include:

• 32-bit DB2 UDB Version 7 clients support only connections to DB2 on Windows. There is no support for connecting to DB2 on other operating systems. To overcome this restriction, use a 32-bit DB2 Connect gateway.

Additional restrictions that apply to 64-bit DB2 UDB Version 7 clients include:

• 64-bit DB2 UDB Version 7 clients support only connections to DB2 on operating systems other than Windows.

# Combinations of DB2 Version 9 and DB2 products on midrange and mainframe platforms:

DB2 Version 9 for Linux, UNIX, and Windows *servers* support access from the following DB2 *clients* on midrange and mainframe platforms:

- DB2 for z/OS Version 7 and Version 8.
- DB2 for iSeries Version 5.
- DB2 for VM and VSE Version 7.

DB2 Version 9 for Linux, UNIX, and Windows clients can access the following earlier versions of DB2 Connect:

• DB2 Connect Version 8.

DB2 Connect Personal Edition Version 9 can connect to the same DB2 server versions as can DB2 Version 9 clients or servers.

#### **Related concepts:**

- "About the Release Notes" in Release Notes
- "Client-to-server communications configuration overview" in *Quick Beginnings* for DB2 Clients
- "DB2 client setup overview" in Quick Beginnings for DB2 Clients
- "Types of clients DB2 Runtime Client and DB2 Client" in *Quick Beginnings for* DB2 Clients
- "Version 9 incompatibilities with previous releases and changed behaviors" in *Administration Guide: Planning*

### An overview of installing your DB2 product (Windows)

This topic outlines the steps for installing your DB2 server product on Windows.

#### **Procedure:**

To install your DB2 server product on Windows:

- 1. Review your DB2 product prerequisites accessible from the DB2 Setup wizard Launchpad.
- 2. Review DB2 migration information if applicable.
- **3.** Install your DB2 product using the DB2 Setup wizard. DB2 Setup wizard features include:
  - A launchpad from which you can view installation notes, product prerequisites, and release notes, and learn about DB2 Version 9 features.

- Selecting DB2 installation type (typical, compact, or custom).
- Selecting DB2 product installation location.
- Setting up database partitioning options.
- Setting the DB2 copy name.
- Enabling Extended Security.
- Setting the user interface and product messages. The user interface and product messages are available in several languages and are installed in the languages that you choose. By installing multiple languages, you can view the interface and messages in your preferred languages.
- Setting up the DB2 Administration Server (including DAS user setup).
- Setting up Administration contact and health monitor notification.
- Setting up and configuring your instance setup and configuration (including instance user setup).
- Preparing the DB2 tools catalog.
- Creating response files; you can save your installation choices in a response file for later installation, or to duplicate the installation on another computer, or to add another participating computer in a partitioned database environment.

#### **Related concepts:**

• "Migration to DB2 Version 9" in Migration Guide

#### Related tasks:

- "Notification and contact list setup and configuration" in *Administration Guide: Implementation*
- "Tools catalog database and DB2 administration server (DAS) scheduler setup and configuration" in *Administration Guide: Implementation*
- "Installing DB2 servers (Windows)" on page 51

#### **Related reference:**

- "setup Install DB2 command" in Command Reference
- "UPDATE ADMIN CONFIGURATION command" in Command Reference
- "Disk and memory requirements" on page 9
- "Installation requirements for DB2 clients and servers (Windows)" on page 9
- "Required user accounts for installation of DB2 server products (Windows)" on page 12

## An overview of installing your DB2 product (Linux and UNIX)

This topic outlines steps for installing your DB2 server product on AIX<sup>®</sup>, Linux, and Solaris Operating Environment.

#### **Procedure:**

To install your DB2 server product:

- 1. Review your DB2 product prerequisites.
- 2. Review DB2 migration information if applicable.
- **3.** Modify kernel parameters on Linux and Solaris Operating Environment. On all platforms, the user must install a 64-bit kernel before proceeding with the installation, otherwise the installation will fail.

- 4. Install your DB2 product using the DB2 Setup wizard. DB2 Setup wizard features include:
  - A launchpad from which you can view installation notes and release notes, and learn about DB2 Version 9 features.
  - Selecting DB2 installation type (typical, compact, or custom).
  - Selecting DB2 product installation location.
  - Setting up database partitioning options for the DB2 instance.
  - Setting up the DB2 Administration Server (including DAS user setup).
  - Setting up Administration contact and health monitor notification.
  - Setting up and configuring your instance setup and configuration (including instance user setup).
  - Preparing the DB2 tools catalog.
  - Creating response files.

#### **Related concepts:**

• "Migration to DB2 Version 9" in Migration Guide

#### **Related reference:**

- "Installation requirements for DB2 clients and servers (AIX)" on page 18
- "Installation requirements for DB2 clients and servers (HP-UX)" in *Quick Beginnings for DB2 Servers*
- "Installation requirements for DB2 clients and servers (Linux)" on page 20
- "Installation requirements for DB2 clients and servers (Solaris Operating System)" on page 23
- "db2setup Install DB2 command" in Command Reference

# **Chapter 2. Installation prerequisites**

## **Disk and memory requirements**

#### Disk requirements:

The disk space required for your product depends on the type of installation you choose and the type of file system you have. The DB2 Setup wizard provides dynamic size estimates based on the components selected during a typical, compact, or custom installation.

On Windows, you might require significantly more space on FAT (File Allocation Table) drives with large cluster sizes than with NTFS (New Technology File System) drives.

Remember to include disk space for required software and communication products.

#### Memory requirements:

At a minimum, a DB2 database system requires 256 MB of RAM. For a system running just DB2 and the DB2 GUI tools, a minimum of 512 MB of RAM is required. However, 1 GB of RAM is recommended for improved performance. These requirements do not include any additional memory requirements for other software that is running on your system.

When determining memory requirements, be aware of the following:

- For DB2 client support, these memory requirements are for a base of five concurrent client connections. You will need an additional 16 MB of RAM per five client connections.
- Memory requirements are affected by the size and complexity of your database system, as well as by the extent of database activity and the number of clients accessing your system.

In DB2 Version 9, the new self-tuning memory feature simplifies the task of memory configuration by automatically setting values for several memory configuration parameters. When enabled, the memory tuner dynamically distributes available memory resources among several memory consumers including sort, the package cache, the lock list and buffer pools.

• On Linux, swap space at least twice as large as RAM is recommended.

#### **Related concepts:**

• "Self tuning memory" in Performance Guide

## DB2 server installation (Windows)

# Installation requirements for DB2 clients and servers (Windows)

For the most up-to-date prerequisite information, see

• www.ibm.com/software/data/db2/udb/sysreqs.html.

To install a DB2 client or server product, the following operating system, software, and hardware prerequisites must be met:

**Note:** For a Common Criteria compliant installation, only Windows Server 2003 (64-bit) is supported.

Operating System	Service Pack	Hardware
Windows 2003 Standard Edition (32-bit and 64-bit) Windows 2003 Advanced Edition (32-bit and 64-bit)	Service Pack 1 or later	All Intel <sup>®</sup> and AMD processors capable of running the supported Windows operating systems (32-bit and 64-bit).
Windows 2003 Datacenter Edition (32-bit and 64-bit)		

Table 3. Windows installation prerequisites

#### Additional software considerations

- MDAC 2.8 is required. The DB2 Setup wizard will install MDAC 2.8 if it is not already installed.
  - **Note:** If a previous version of MDAC (for example, 2.7) is already installed, DB2 install will upgrade MDAC to 2.8. For a typical install, MDAC 2.8 is installed. For a compact install, MDAC 2.8 is not installed. For a custom install, MDAC 2.8 is installed but only if you have not deselected the default which is to install it. If you deselect MDAC as part of a custom install, it will not be installed.
- If you plan to use LDAP (Lightweight Directory Access Protocol), you should use either a Microsoft<sup>®</sup> LDAP client or the IBM<sup>®</sup> Tivoli<sup>®</sup> Directory Server v6 client (also known as the IBM LDAP client which is included with DB2). Prior to installation of the Microsoft Active Directory, you will need to extend your directory schema using the db2schex utility, which can be found on the installation media.

The Microsoft LDAP client is included with the operating system for Windows XP, and Windows Server 2003.

Note: LDAP is not supported in a Common Criteria environment.

- If you plan to use the Tivoli Storage Manager facilities for the backup and restoration of your databases, you need the Tivoli Storage Manager Client Version 4.2.0 or later.
  - For Windows 64-bit operating systems, you require the TSM client API Version 5.1.
- If you have the IBM Antivirus program installed on your operating system, it must be disabled or uninstalled to complete a DB2 installation.
- TCP/IP support must be enabled to view online help.
- One of the following browsers is required to view online help, run the DB2 install launchpad (setup.exe), and to run First Steps (db2fs):
  - Internet Explorer 5.5 and up
  - Mozilla 1.4 and up
  - Firefox 1.0 and up
  - Netscape 7.0 and up

#### **Related concepts:**

• "Support changes for 32-bit and 64-bit DB2 servers" in Migration Guide

#### **Related tasks:**

• "An overview of installing your DB2 product (Windows)" on page 6

#### **Related reference:**

- "IBM Software Development Kit for Java levels for DB2 products" on page 29
- "Communication protocols supported" in Quick Beginnings for DB2 Clients

### DB2 services running on your system (Windows)

The following table lists the DB2 services that run on your system when DB2 9.1 is installed. In the table, *db2copyname* is the DB2 copy name.

Table 4. DB2 Services

Service Display Name	Service Name	Description
DB2 - ( <i>db2copyname</i> ) - <instance name=""></instance>	<instance name=""></instance>	Allows applications to create, update, control, and manage relational databases.
DB2 Governor ( <i>db2copyname</i> )	DB2GOVERNOR _db2copyname	Collects statistics for applications connected to DB2 databases.
DB2 Information Center Server V9.1	DB2ICSERVER_V91	Provides documentation for DB2 Universal Database <sup>™</sup> and related DB2 products.
DB2 License Server ( <i>db2copyname</i> )	DB2LICD _db2copyname	Monitors DB2 license compliance.
DB2 Management Service ( <i>db2copyname</i> )	DB2MGMTSVC _db2copyname	Manages DB2 registry entries for backward compatibility purposes for the DB2 copy.
DB2 Query Patroller ( <i>db2copyname</i> )	DB2QP _db2copyname	DB2 Query Patroller
DB2 Remote Command Server ( <i>db2copyname</i> )	DB2REMOTECMD _db2copyname	Supports remote DB2 command execution.
DB2 Security Server ( <i>db2copyname</i> )	DB2NTSECSERVER _db2copyname	Authenticates DB2 database users when the authentication is performed at the client computer.
DB2DAS - DB2DASXX	DB2DASXX (where XX is 00-99)	Supports local and remote database administrative requests.

#### **Related tasks:**

• "An overview of installing your DB2 product (Windows)" on page 6

#### Related reference:

• "Installation requirements for DB2 clients and servers (Windows)" on page 9

# Required user accounts for installation of DB2 server products (Windows)

If you are installing a DB2 server product on Windows, you require the following user accounts:

- An installation user account and
- One or more setup user accounts.
  - A DB2 Administration Server (DAS) user account
  - A DB2 instance user account.

The installation user account is the account of the user performing the installation. The installation user account must be defined prior to running the DB2 Setup wizard. The setup user accounts can be defined prior to installation or you can have the DB2 Setup wizard create them for you.

**Note:** For a Common Criteria compliant installation, the setup user accounts must be defined before installation.

All user account names must adhere to your system naming rules and to DB2 naming rules.

#### **Extended security on Windows:**

**Note:** Extended Windows security is not supported in a Common Criteria environment.

DB2 products offer extended Windows security. You can install DB2 with a user ID, but unless that user ID belongs to either the DB2ADMNS or DB2USERS group, that user ID won't be able to run any DB2 commands.

The DB2 installer creates these two new groups. You can either specify a new name during a custom installation or accept the default names.

To enable this security feature, select the **Enable operating system security** check box on the **Enable operating system security for DB2 objects** panel during the DB2 installation. Accept the default values for the DB2 Administrators Group field, and the DB2 Users Group field. The default group names are DB2ADMNS and DB2USERS. If there is a conflict with existing group names, you will be prompted to change the group names. If required, you can specify your own values.

#### DB2 server user accounts:

#### Installation user account

A local or domain user account is required to perform the installation. Normally, the user account must belong to the *Administrators* group on the machine where you will perform the installation.

The user right "Access this computer from the network" is required for the installation user account.

For domain accounts, to verify user IDs on the DB2 server, the installation user ID must belong to the Domain Administrators group on the domain where the accounts are going to be created.

#### User rights granted by the DB2 installer:

The DB2 installation program does not grant the Debug Programs user right. The DB2 installer grants the following user rights:

- Act as part of the operating system
- · Create token object
- Lock pages in memory
- Log on as a service
- Increase quotas
- Replace a process level token

#### DB2 Administration Server (DAS) user account

A local or domain user account is required for the DB2 Administration Server (DAS).

If you are performing a response file installation, you can also specify the Local System account in the response file. For more details, refer to the sample response files in the db2\windows\samples directory.

The DB2 Administration Server (DAS) is a special DB2 administration service used to support the GUI tools and assist with administration tasks on local and remote DB2 servers. The DAS has an assigned user account that is used to log the DAS service on to the computer when the DAS service is started.

You can create the DAS user account before installing DB2 or you can have the DB2 Setup wizard create it for you. If you want to have the DB2 Setup wizard create a new domain user account, the user account you use to perform the installation must have authority to create domain user accounts. The user account must belong to the *Administrators* group on the machine where you will perform the installation. This account will be granted the following user rights:

- Act as part of the operating system
- Debug programs
- Create token object
- Lock pages in memory
- Log on as a service
- Increase quotas (adjust memory quotas for a process on Windows XP and Windows Server 2003 operating systems)
- Replace a process level token

If extended security is enabled, then the DB2ADMNS group will have all these privileges. You can simply add users to that group and you do not need to add these privileges explicitly. However, the user still needs to be a member of the Local Administrators group.

The Lock pages in memory privilege is required for AWE (Advanced Windowing Extensions) support. The "Debug programs" privilege is only needed when DB2 group lookup is explicitly specified to use the access token.

If the user account is created by the install program, the user account will be granted these privileges and if the user account already exists, this account will also be granted these privileges. If the install grants the privileges, some of them will only be effective on first log-on by the account that was granted the privileges or upon reboot. It is recommended that the DAS user have SYSADM authority on each of the DB2 systems within your environment so that it can start or stop other instances if required. By default, any user that is part of the *Administrator* group has SYSADM authority.

#### DB2 instance user account

The user account must belong to the *Administrators* group on the machine where you will perform the installation.

A local or domain user account is required for the DB2 instance. Every DB2 instance has one user that is assigned when the instance is created. DB2 logs on with this user name when the instance is started.

You can create the DB2 instance user account before installing DB2 or you can have theDB2 Setup wizard create it for you. If you want to have the DB2 Setup wizard create a new domain user account, the user account you use to perform the installation must have authority to create domain user accounts. This account will be granted the following user rights:

- · Act as part of the operating system
- Debug programs
- · Create token object
- Increase quotas
- Lock pages in memory
- · Log on as a service
- Replace a process level token

If extended security is enabled, then the DB2ADMNS group will have all these privileges. You can simply add users to that group and you do not need to add these privileges explicitly. However, the user still needs to be a member of the Local Administrators group.

The Lock pages in memory privilege is required for AWE (Advanced Windowing Extensions) support. The "Debug programs" privilege is only needed when DB2 group lookup is explicitly specified to use the access token.

If the user account is created by the install program, the user account will be granted these privileges and if the user account already exists, this account will also be granted these privileges. If the install grants the privileges, some of them will only be effective on first log-on by the account that was granted the privileges or upon reboot.

#### Related concepts:

• "User, user ID and group naming rules" in Administration Guide: Implementation

#### Related tasks:

- "An overview of installing your DB2 product (Windows)" on page 6
- on page 0

# Preparing the environment for a partitioned DB2 server (Windows)

This topic describes the steps required to prepare your Windows environment for a partitioned installation of the DB2 product.

#### **Restrictions:**

Each participating computer must have the same operating system. For example, you cannot have a partitioned database system that includes both Windows 2000 and Windows Server 2003 operating systems.

#### **Procedure:**

To prepare your Windows environment for installation:

- 1. Ensure that the primary computer and participating computers belong to the same Windows domain. Check the domain to which the computer belongs by using the System Properties dialog, accessible through the Control Panel.
- 2. Ensure that time and date settings on the primary computer and participating computers are consistent. To be considered consistent, the difference in GMT time between all computers must be no greater than one hour.

System date and time can be modified using the Date/Time Properties dialog, accessible through the Control Panel. You can use the max\_time\_diff configuration parameter to change this restriction. The default is max\_time\_diff = 60, which allows a difference of less than 60 minutes.

- **3**. Ensure that each computer object that participates in the partitioned database environment has the "Trust computer for delegation" privilege flagged.
- 4. Ensure that all participating computers can communicate with each other using TCP/IP:
  - a. On one participating computer, enter the hostname command, which will return the hostname of the computer.
  - b. On another participating computer, enter the following command:

ping hostname

where *hostname* represents the hostname of the primary computer. If the test is successful, you will receive output similar to the following:

Pinging ServerA.ibm.com [9.21.27.230] with 32 bytes of data:

Reply from 9.21.27.230: bytes=32 time<10ms TTL=128 Reply from 9.21.27.230: bytes=32 time<10ms TTL=128 Reply from 9.21.27.230: bytes=32 time<10ms TTL=128

Repeat these steps until you are sure that all participating computers can communicate with each other using TCP/IP. Each computer must have a static IP address.

If you are planning to use multiple network adapters, you can specify which adapter to use to communicate between database partition servers. Use the db2nchg command to specify the netname field in the db2nodes.cfg file after the installation is complete.

- 5. During the installation you will be asked to provide a DB2 Administration Server user account. This is a local or domain user account that will be used by the DB2 Administration Server (DAS). The DAS is an administration service used to support the GUI tools and assist with administration tasks. You can define a user now or have the DB2 Setup wizard create one for you. If you want to create a new domain user using the DB2 Setup wizard, the account used to perform the installation must have authority to create domain users.
- 6. On the primary computer, where you will install the instance-owning partition, you must have a domain user account that belongs to the local *Administrators* group. You will log on as this user when you install DB2. You must add the

same user account to the local *Administrators* group on each participating computer. This user must have the *Act as part of the operating system* user right.

- 7. Ensure that all computers in the instance have the database directory on the same local drive letter.
- 8. During the installation you will be asked to provide a domain user account to be associated with the DB2 instance. Every DB2 instance has one user assigned. DB2 logs on with this user name when the instance is started. You can define a user now, or you can have the DB2 Setup wizard create a new domain user for you.

When adding a new node to a partitioned environment the DB2 copy name must be the same on all computers.

If you want to create a new domain user using the DB2 Setup wizard, the account used to perform the installation must have authority to create domain users. The instance user domain account must belong to the local *Administrators* group on all the participating computers and will be granted the following user rights:

- Act as part of the operating system
- Create token object
- Lock pages in memory
- · Log on as a service
- Increase quotas
- Replace a process level token

The installation program grants all of these privileges except for the Debug programs privilege.

If extended security was selected, then the account must also be a member of the DB2ADMNS group. The DB2ADMNS group already has these privileges so the privileges would not be required to be added explicitly to the account.

#### **Related reference:**

- "db2nchg Change database partition server configuration command" in *Command Reference*
- "Required user accounts for installation of DB2 server products (Windows)" on page 12

## Granting user rights (Windows)

This topic describes the steps required to grant user rights on Windows operating systems. Specific user rights are recommended for user accounts required to install and set up DB2.

#### **Prerequisites:**

To grant advanced user rights on Windows you must be logged on as a local Administrator.

#### Procedure:

- 1. Click Start and select Run ....
- 2. Type secpol.msc and click OK.
- 3. Select Local Security Policy.
- 4. In the left window pane, expand the Local Policies object, then select User Rights Assignment.

- 5. In the right window pane, select the user right that you want to assign.
- 6. From the menu, select Action —> Security...
- 7. Click Add, then select a user or group to assign the right to, and click Add.
- 8. Click OK.

If your computer belongs to a Windows 2000 or Windows Server 2003 domain, the domain user rights may override your local settings. In this case, your Network Administrator will have to make the changes to the user rights.

#### **Related concepts:**

• "User, user ID and group naming rules" in Administration Guide: Implementation

#### **Related reference:**

 "Required user accounts for installation of DB2 server products (Windows)" on page 12

### DB2 system administrator group considerations (Windows)

By default, system administrative (SYSADM) authority is granted to any valid DB2 user account that belongs to the Administrators group on the computer where the account is defined. If the account is a local account, then it must belong to the local Administrators group. If the account is a domain account, then it must belong to the Administrators group at the domain controller or the local Administrators group.

For example, if a user logs on to a domain account and tries to access a DB2 database, the DB2 database server goes to a domain controller to enumerate groups (including the Administrators group). You can force the DB2 database server to always perform group lookup on the local computer by setting the registry variable DB2\_GRP\_LOOKUP=local and adding the domain accounts (or global groups) to the local group.

For a domain user to have SYSADM authority, they must belong to the local Administrators group or the Administrators group at the domain controller. Since the DB2 database server always performs authorization at the machine where the account is defined, adding a domain user to the local Administrators group on the server does not grant the domain user SYSADM authority to this group.

To avoid adding a domain user to the Administrators group at the domain controller, create a global group and add the domain users to which you want to grant SYSADM authority to it. Then update the DB2 configuration parameter SYSADM\_GROUP with the name of the global group.

To update the DB2 configuration parameter, enter the following commands:

db2 update dbm cfg using sysadm\_group global\_group db2stop db2start

#### **Related concepts:**

• "System administration authority (SYSADM)" in *Administration Guide: Implementation* 

#### **Related reference:**

• "sysadm\_group - System administration authority group name configuration parameter" in *Performance Guide* 

## Fast communications manager (Windows)

The fast communications manager (FCM) provides communications support for DB2 server products. Each database partition server has one FCM sender, and one FCM receiver daemon to provide communications between database partition servers to handle agent requests and to deliver message buffers. The FCM daemon is started when you start the instance.

If communications fail between database partition servers or if they re-establish communications, the FCM thread updates information (that you can query with the database system monitor) and causes the appropriate action (such as the rollback of an affected transaction) to be performed. You can use the database system monitor to help you set the FCM configuration parameters.

You can specify the number of FCM message buffers with the *fcm\_num\_buffers* database manager configuration parameter and the number of FCM channels with the*fcm\_num\_channels* database manager configuration parameter. The *fcm\_num\_buffers* and *fcm\_num\_channels* database manager configuration parameter are set to AUTOMATIC as the default value. FCM monitors resource usage when any of these parameter are set to automatic, and incrementally releases resources. It is recommended to leave these parameters set to AUTOMATIC.

#### **Related tasks:**

- "Setting up a partitioned database environment" on page 55
- "Verifying port range availability on participating computers (Windows)" on page 31

## DB2 server installation (Linux and UNIX)

## Installation requirements for DB2 clients and servers (AIX)

For the most up-to-date prerequisite information, see http://www.ibm.com/ software/data/db2/udb/sysreqs.html.

To install a DB2 client or server product, the following operating system, hardware, and communications prerequisites must be met:

AIX Version	Operating System	Hardware
AIX Version 5.3.0	DB2 client is available using the 64-bit AIX kernel. DB2 Enterprise 9, for either single-partition or partitioned database environment, is available with the required 64-bit AIX kernel.	IBM RISC/6000

Table 5. AIX installation prerequisites

#### Software considerations:

• (Clients only:) If you plan to use Kerberos Authentication, you require IBM Network Authentication Service client v1.3 or later. The NAS client is provided with the AIX Bonus CD.

**Note:** Kerberos authentication is not supported in a Common Criteria environment.

- To use the DB2 Setup wizard to install DB2 on a Linux- or UNIX-based computer, X Window System software is required. If DB2 is being installed remotely, the X Window System software can be on either the target computer, or the computer from where the installation is being directed.
- Use the bosboot command to switch to the 64-bit kernel.

To switch to a 64-bit kernel, you require root authority and should enter the following commands:

```
ln -sf /usr/lib/boot/unix_64 /unix
ln -sf /usr/lib/boot/unix_64 /usr/lib/boot/unix
bosboot -a
shutdown -Fr
```

- DB2 Version 9 requires the "IBM C++ Runtime Environment Components for AIX" which includes xlC.rte 8.0.0.4. This is available from the IBM AIX support web site.
- One of the following browsers is required to view online help and to run First Steps (db2fs):
  - Mozilla 1.4 and up
  - Firefox 1.0 and up
  - Netscape 7.0 and up

#### DB2 product installation on NFS (Network File System):

The installation of DB2 products on NFS (Network File System) is not recommended. Running DB2 products on NFS (for example, NFS mounting /opt/IBM/db2/V9.1 and then running off code that was physically installed on a remote system) requires several manual setup steps. There are also a number of potential issues with setting up NFS for DB2. These include possible problems that involve:

- Performance (impacted by network performance)
- Availability (you are allowing a single point of failure)
- Licensing (there is no checking done across machines)
- Diagnosing NFS errors can be difficult

As mentioned, the setup for NFS will require several manual actions including:

- Ensuring that the mount point preserve the install path
- Permission must be controlled (for example, write permission should not be given to the mounting machine)
- DB2 registries have to be set up manually and maintained across all mounting machines
- The list installed DB2 products and features command (db2ls) must be set up and maintained properly if you need to detect DB2 products and features
- More care is required when updating your DB2 product environment
- More steps are required when cleaning up on the exporting machine and the mounting machine

For detailed instructions, look for the "Setting Up DB2 on NFS Mounted File System" white paper which will be available soon after DB2 Version 9 is made available.

#### **Related tasks:**

• "An overview of installing your DB2 product (Linux and UNIX)" on page 7

#### **Related reference:**

- "IBM Software Development Kit for Java levels for DB2 products" on page 29
- "Communication protocols supported" in *Quick Beginnings for DB2 Clients*

## Installation requirements for DB2 clients and servers (Linux)

For the most up-to-date prerequisite information, see http://www.ibm.com/ software/data/db2/udb/sysreqs.html.

For the latest information on supported Linux distributions, point your browser to http://www.ibm.com/db2/linux/validate.

The supported operating systems for Linux include:

- Red Hat Enterprise Linux 4 (RHEL4) Update 2
- SUSE Linux Enterprise Server 9 (SLES9) Service Pack 2

To install a DB2 client or server product, the following distribution requirements, hardware, and communications prerequisites must be met:

Table 6. Linux prerequisites

Distribution Requirements	Hardware
You should update your kernel configuration parameters in preparation for your Linux distribution. The default values for particular kernel parameters are not sufficient when running a DB2 database system.	For a Common Criteria compliant environment, DB2 server products are supported on AMD64- and Intel EM64T-based hardware.
You may also have other products or applications that require Linux system resources. You should set the kernel configuration parameters based on the needs of your Linux system working environment.	
The kernel configuration parameters are set in /etc/sysctl.conf. See the Modifying kernel parameters (Linux) section of the DB2 Information Center.	
Refer to your operating system manual for information on setting and activating these parameters using the sysct1 command.	

#### Package requirements (server only):

The following tables list the package requirements for SUSE Linux and Red Hat distributions for DB2 Version 9 partitioned servers.

- The pdksh Korn Shell package is required for all DB2 systems.
- A remote shell utility is required for partitioned database systems. DB2 supports the following remote shell utilities:
  - rsh

Note: For a Common Criteria compliant environment, rsh is used.

– ssh

By default, DB2 uses rsh when executing commands on remote DB2 nodes, for example, when starting a remote DB2 database partition. To use the DB2 default, the rsh-server package must be installed (see table below).

If you choose to use the rsh remote shell utility, inetd (or xinetd) must be installed and running as well.

• The nfs-utils Network File System support package is required for partitioned database systems.

All required packages should be installed and configured before continuing with the DB2 setup. For general Linux information, see your Linux distribution documentation.

Package name	Description
pdksh	Korn Shell. This package is required for partitioned database environments.
openssh	This package contains a set of server programs which allow users to run commands on (and from) remote computers via a secure shell. This package is not required if you use the default configuration of DB2 with rsh.
rsh-server	This package contains a set of server programs which allow users to run commands on remote computers, login in to other computers, and copy files between computers (rsh, rexec, rlogin, and rcp). This package is not required if you configure DB2 to use ssh.
nfs-utils	Network File System support package. It allows access to local files from remote computers.

Package requirements for SUSE Linux

Package requirements for Red Hat

Directory	Package name	Description
/System Environment/Shell	pdksh	Korn Shell. This package is required for partitioned database environments.
/Applications/Internet	openssh	This package contains a set of client programs which allow users to run commands on a remote computer via a secure shell. This package is not required if you use the default configuration of DB2 with rsh.
/System Environment/ Daemons	openssh-server	This package contains a set of server programs which allow users to run commands from a remote computer via a secure shell. This package is not required if you use the default configuration of DB2 with rsh.
/System Environment/ Daemons	rsh-server	This package contains a set of programs which allow users to run commands on a remote computer. Required for partitioned database environments. This package is not required if you configure DB2 to use ssh.
/System Environment/ Daemons	nfs-utils	Network File System support package. It allows access to local files from remote computers.

#### Software considerations:

- One of the following browsers is required to view online help and to run First Steps (db2fs):
  - Mozilla 1.4 and up
  - Firefox 1.0 and up
  - Netscape 7.0 and up
- To use the DB2 Setup wizard to install DB2 on a Linux- or UNIX-based computer, X Window System software is required. If DB2 is being installed remotely, the X Window System software can be on either the target computer, or the computer from where the installation is being directed.

#### DB2 product installation on NFS (Network File System):

The installation of DB2 products on NFS (Network File System) is not recommended. Running DB2 products on NFS (for example, NFS mounting /opt/IBM/db2/V9.1 and then running off code that was physically installed on a remote system) requires several manual setup steps. There are also a number of potential issues with setting up NFS for DB2. These include possible problems that involve:

- Performance (impacted by network performance)
- Availability (you are allowing a single point of failure)
- Licensing (there is no checking done across machines)
- Diagnosing NFS errors can be difficult

As mentioned, the setup for NFS will require several manual actions including:

- Ensuring that the mount point preserve the install path
- Permission must be controlled (for example, write permission should not be given to the mounting machine)
- DB2 registries have to be set up manually and maintained across all mounting machines
- The list installed DB2 products and features command (db2ls) must be set up and maintained properly if you need to detect DB2 products and features
- More care is required when updating your DB2 product environment
- More steps are required when cleaning up on the exporting machine and the mounting machine

For detailed instructions, look for the "Setting Up DB2 on NFS Mounted File System" white paper which will be available soon after DB2 Version 9 is made available.

#### **Related concepts:**

• "Security issues when installing the DB2 database manager" in *Administration Guide: Implementation* 

#### **Related tasks:**

- "Modifying kernel parameters (Linux)" on page 32
- "Preparing to install DB2 for Linux on zSeries" in *Quick Beginnings for DB2* Servers

#### **Related reference:**

• "Communication protocols supported" in Quick Beginnings for DB2 Clients

- "IBM Software Development Kit for Java levels for DB2 products" on page 29
- "Communications variables" in Performance Guide

# Installation requirements for DB2 clients and servers (Solaris Operating System)

For the most up-to-date prerequisite information, see http://www.ibm.com/ software/data/db2/udb/sysreqs.html.

To install a DB2 client or server product, the following operating system, hardware, and communications prerequisites must be met:

Table 7. Solaris Operating System installation prerequisites

Operating System	Hardware
DB2 client and server products are supported on the following Solaris Operating System versions:	Solaris UltraSPARC-based computer
• Solaris 9	
The following patches are also required:	
- 111711-12	
- 111712-12	

#### Kernel configuration considerations:

A system restart is required if you update the kernel configuration parameters. The kernel configuration parameters are set in /etc/system and if these parameters require modification to accommodate the DB2 client, a reboot is necessary to make the changes to /etc/system effective. These parameters must be set before you install a DB2 client.

#### Software considerations:

 (Clients only:) If you plan to use Kerberos Authentication, you require Solaris Operating System 9 or higher with IBM Network Authentication Service (NAS) client v1.4 or higher. The NAS client can be downloaded from Web site: https://www6.software.ibm.com/dl/dm/dm-nas-p.

Note: Kerberos is not supported in a Common Criteria environment.

- One of the following browsers is required to view online help and to run First Steps (db2fs):
  - Mozilla 1.4 and up
  - Firefox 1.0 and up
  - Netscape 7.0 and up
- To use the DB2 Setup wizard to install DB2 on a Linux- or UNIX-based computer, X Window System software is required. If DB2 is being installed remotely, the X Window System software can be on either the target computer, or the computer from where the installation is being directed.

"Recommended & Security Patches" can be obtained from the http://sunsolve.sun.com Web site. From the SunSolve Online Web site, click on the "Patches" menu item in the left panel.

The Java<sup>™</sup>2 Standard Edition (J2SE) Solaris Operating System Patch Clusters and the SUNWlibC software are also required and can be obtained from the http://sunsolve.sun.com Web site.

For DB2 on 64-bit Fujitsu PRIMEPOWER systems, you require the following:

• Solaris 9 Kernel Update Patch 112233-01 or later to get the fix for patch 912041-01.

The Fujitsu PRIMEPOWER patches for the Solaris Operating System can be downloaded from FTSI at: http://download.ftsi.fujitsu.com/.

#### DB2 product installation on NFS (Network File System):

The installation of DB2 products on NFS (Network File System) is not recommended. Running DB2 products on NFS (for example, NFS mounting /opt/IBM/db2/V9.1 and then running off code that was physically installed on a remote system) requires several manual setup steps. There are also a number of potential issues with setting up NFS for DB2. These include possible problems that involve:

- Performance (impacted by network performance)
- Availability (you are allowing a single point of failure)
- Licensing (there is no checking done across machines)
- Diagnosing NFS errors can be difficult

As mentioned, the setup for NFS will require several manual actions including:

- Ensuring that the mount point preserve the install path
- Permission must be controlled (for example, write permission should not be given to the mounting machine)
- DB2 registries have to be set up manually and maintained across all mounting machines
- The list installed DB2 products and features command (db2ls) must be set up and maintained properly if you need to detect DB2 products and features
- More care is required when updating your DB2 product environment
- More steps are required when cleaning up on the exporting machine and the mounting machine

For detailed instructions, look for the "Setting Up DB2 on NFS Mounted File System" white paper which will be available soon after DB2 Version 9 is made available.

#### **Related tasks:**

• "Modifying kernel parameters (Solaris Operating Environment)" on page 34

#### Related reference:

- "Communication protocols supported" in Quick Beginnings for DB2 Clients
- "IBM Software Development Kit for Java levels for DB2 products" on page 29

# Listing DB2 products installed on your system (Linux and UNIX)

With the ability to install multiple copies of DB2 products on your system and the flexibility to install DB2 products and features in the path of your choice, you need a tool to help you keep track of what is installed and where it is installed. On supported Linux and UNIX operating systems, the db21s command lists the DB2 products and features installed on your system, including the DB2 Version 9 HTML documentation.

The db21s command can be used to list:

- where DB2 products are installed on your system and list the DB2 product level
- all or specific DB2 products and features in a particular installation path

#### **Prerequisites:**

At least one DB2 Version 9 product must already be installed for a symbolic link to the db21s command to be available in /usr/local/bin directory.

#### **Restrictions:**

The db21s command is the only method to query a DB2 product. You *cannot* query DB2 products using Linux or UNIX operating system native utilities. Any existing scripts containing a native installation utility that you use to interface and query with DB2 installations will need to change.

You cannot use the db21s command on Windows operating systems.

#### **Procedure:**

To list the path where DB2 products are installed on your system and list the DB2 product level, enter:

db21s

The command lists the following information for each DB2 product installed on your system:

- Installation path
- Level
- Fix pack
- Installation date listing when the DB2 product was last modified.

To list information about DB2 products or features in a particular installation path the *q* parameter must be specified:

db2ls -q -b baseInstallDirectory

where

- *q* specifies you are querying a product or feature. This parameter is mandatory. If a DB2 Version 8 product is queried, a blank value is returned.
- *b* specifies the installation directory of the product or feature. This parameter is mandatory if you are not running the command from the installation directory.

Depending on the parameters provided, the command lists the following information:

- Installation path. This is specified only once, not for each feature.
- The following information is displayed:
  - Response file ID for the installed feature, or if the *p* option is specified, the response file ID for the installed product. For example ENTERPRISE\_SERVER\_EDITION.
  - Feature name, or if the *p* option is specified, product name.
  - Product version, release, modification level, fix pack level (VRMF). For example, 9.1.0.0
  - Fix pack, if applicable. For example, if fix pack 1 is installed, the value displayed is 1. This includes interim fix packs, such as fix pack 1a.

• If any of the product's VRMF information do not match, a warning message displays at the end of the output listing. The message suggests the fix pack to apply.

#### **Related concepts:**

• "Multiple DB2 copies on the same computer (Linux and UNIX)" in *Installation* and Configuration Supplement

#### Related tasks:

- "Installing a DB2 product using the db2\_install or doce\_install command (Linux and UNIX)" in *Installation and Configuration Supplement*
- "Removing DB2 products using the db2\_deinstall or doce\_deinstall command (Linux and UNIX)" in *Quick Beginnings for DB2 Servers*
- "Using the Default DB2 Selection wizard (Windows)" in Quick Beginnings for DB2 Servers

#### **Related reference:**

- "db2ls List installed DB2 products and features command" in *Command Reference*
- "Multiple DB2 copies roadmap" in Administration Guide: Implementation

### Fast communications manager (Linux and UNIX)

The fast communications manager (FCM) provides communications support for DB2 server products. Each database partition server has one FCM sender, and one FCM receiver daemon to provide communications between database partition servers to handle agent requests and to deliver message buffers. The FCM daemon is started when you start the instance.

If communications fail between database partition servers or if they re-establish communications, the FCM daemons updates information (that you can query with the database system monitor) and cause the appropriate action (such as the rollback of an affected transaction) to be performed. You can use the database system monitor to help you set the FCM configuration parameters.

You can specify the number of FCM message buffers with the *fcm\_num\_buffers* database manager configuration parameter and the number of FCM channels with the *fcm\_num\_channels* database manager configuration parameter. The *fcm\_num\_buffers* and *fcm\_num\_channels* database manager configuration parameter are set to AUTOMATIC as the default value. FCM monitors resource usage when any of these parameter are set to automatic, and incrementally releases resources. It is recommended to leave these parameters set to AUTOMATIC.

#### **Related tasks:**

- "Enabling communications between database partition servers (Linux and UNIX)" on page 250
- "Setting up a partitioned database environment" on page 55

### DB2 users and groups (Linux and UNIX)

The DB2 Setup wizard creates the following users and groups automatically (if needed) during the installation of your DB2 product. If you are using the DB2 Setup wizard, you do not need to manually create these users and groups.

**Note:** In a Common Criteria compliant environment, these users and groups must be created prior to installing DB2.

Three users and three groups are used to operate DB2 on Linux and UNIX.

#### Instance owner

The DB2 instance is created in the instance owner home directory. This user ID controls all DB2 processes and owns all filesystems and devices used by the databases contained within the instance. The default user is db2inst1 and the default group is db2iadm1.

When using the DB2 Setup wizard, the default action is to create a new user for your DB2 instance. The default name is db2inst1 – if that user name already exists, DB2 will try to create another user name, db2inst2. If that user name also exists, DB2 will keep searching through user names db2inst3, db2inst4, and so on until it identifies the first user name that is not already an existing user on the system as the default instance owner ID. If you choose to proceed this user would be created by DB2. However, you also have a choice to specify any existing user as the instance owner.

This method for user name creation also applies to the creation of fenced users and DB2 administration server users.

#### Fenced user

The fenced user is used to run user defined functions (UDFs) and stored procedures outside of the address space used by the DB2 database. The default user is db2fenc1 and the default group is db2fadm1. If you do not need this level of security, for example in a test environment, you may use your instance owner as your fenced user.

#### DB2 administration server user

The user ID for the DB2 administration server user is used to run the DB2 administration server on your system. Default user is dasusr1 and default group is dasadm1. This user ID is also used by the DB2 GUI tools to perform administration tasks against the local server database instances and databases.

This user does not contain any databases and there is only one administration server per machine. For example, one administration server can service multiple database instances.

#### **Related tasks:**

- "Creating required users for a DB2 server installation in a partitioned database environment (AIX)" on page 46
- "Creating required users for a DB2 server installation in a partitioned database environment (HP-UX)" in *Quick Beginnings for DB2 Servers*
- "Creating required users for a DB2 server installation in a partitioned database environment (Linux)" on page 47
- "Creating required users for a DB2 server installation in a partitioned database environment (Solaris Operating Environment)" on page 49

# Centralized user-management considerations (Linux and UNIX)

In environments that include security software, such as NIS (Network Information Services) or NIS+, there are some installation considerations. The DB2 installation

scripts attempt to update objects that are under the control of the security packages, such as users and groups, and will not be able to do so if NIS or NIS+ is being used for user management.

At instance creation, without a security component present, instance owner's group list is modified to include that of the database administrative server (DAS) user's primary group, if the DAS is created. If the instance creation program is unable to modify these properties (it will not if NIS/NIS+ is controlling the group), it reports that it could not. The warning message provides the necessary information to manually make the changes.

These considerations hold true for any environment in which an external security program does not allow the DB2 installation or instance creation programs to modify user characteristics.

If the DB2 Setup wizard detects NIS on your computer, you are not given the option of creating new users during the installation. Instead, you must choose existing users.

Consider the following restrictions if you are using NIS or NIS+:

- Groups and users must be created on the NIS server before running the DB2 Setup wizard.
- Secondary groups must be created for the DB2 instance owner and the DB2 Administration Server on the NIS server. You must then add the primary group of the instance owner to the secondary DB2 Administration Server group. Likewise, you must add the primary DB2 Administration Server group to the secondary group for the instance owner.
- On a partitioned DB2 database system, before you create an instance, there must be an entry for the instance in the etc/services file. For example, if you want to create an instance for the user db2inst1, you require an entry similar to the following:

DB2 db2inst1 50000/tcp

#### **Related tasks:**

• "Installing DB2 servers (Linux and UNIX)" on page 53

#### **Related reference:**

- "Installation requirements for DB2 clients and servers (AIX)" on page 18
- "Installation requirements for DB2 clients and servers (HP-UX)" in *Quick Beginnings for DB2 Servers*
- "Installation requirements for DB2 clients and servers (Linux)" on page 20
- "Installation requirements for DB2 clients and servers (Solaris Operating System)" on page 23

# Chapter 3. Before you install

## IBM Software Development Kit for Java levels for DB2 products

You require the appropriate level of IBM Software Development Kit (SDK) for Java listed below to use Java-based tools and to create and run Java applications, including stored procedures and user-defined functions.

If the IBM SDK for Java is required by a component being installed and the SDK for Java is not already installed in that path, the SDK for Java will be installed if you use either the DB2 Setup wizard or a response file to install the product.

The SDK for Java is not installed with the DB2 Runtime client.

The following table lists the installed SDK for Java levels for DB2 according to operating system platform:

Operating System Platform	SDK for Java level
Windows x86	SDK 5 Service Release 1
Windows x64	SDK 5 Service Release 1
Windows IA64	SDK 1.4.2 Service Release 3
AIX 5	SDK 5 Service Release 1
Solaris Operating Environment	SDK 1.4.2_07
Linux on x86	SDK 5 Service Release 1
Linux on IPF	SDK 1.4.2 Service Release 3
Linux on AMD64/EM64T	SDK 5 Service Release 1
Linux on POWER	SDK 5 Service Release 1

#### Notes:

 With the exception of Linux on IPF, Solaris Operating Environment, and Windows IA64, although the table above lists the installed SDK for Java levels, SDK 1.4.2 to SDK 5 is also supported. The SDK for Java levels can be downloaded from the developerWorks<sup>®</sup> web page at: http://www.ibm.com/ developerworks/java/jdk/index.html

**Note:** For Windows operating system platforms, use the IBM Development Package for Eclipse downloads.

- 2. On Windows x86 and Linux on x86:
  - the 32-bit SDK is installed
  - 32-bit applications and Java external routines are supported
- 3. On Linux on IPF:
  - only 64-bit applications and Java external routines are supported
- 4. On all supported platforms (except Windows x86, Linux on x86, and Linux on IPF):
  - 32-bit applications are supported
  - 32-bit Java external routines are not supported
  - 64-bit applications and Java external routines are supported

#### **Related tasks:**

- "Installing DB2 servers (Linux and UNIX)" on page 53
- "Installing DB2 servers (Windows)" on page 51

# Creating group and user IDs for a DB2 database installation (Linux and UNIX)

Three users and groups are required.

The DB2 Setup wizard will create these users and groups for you during the installation process. If you want, you can create them ahead of time.

**Note:** In a Common Criteria compliant installation, these required users and groups must be created before installing DB2.

The user and group names used in the following instructions are documented in the table below. You can specify your own user and group names as long as they adhere to system naming rules and DB2 naming rules.

The user IDs you create will be required to complete subsequent setup tasks.

Table 8. Default users and groups

User	Example user name	Example group name
Instance owner	db2inst1	db2iadm1
Fenced user	db2fenc1	db2fadm1
DB2 administration server user	dasusr1	dasadm1

- The instance owner home directory is where the DB2 instance will be created.
- The fenced user is used to run user defined functions (UDFs) and stored procedures outside of the address space used by the DB2 database.
- The user ID for the *DB2 administration server user* is used to run the DB2 administration server on your system.

#### **Prerequisites:**

You must have root authority to create users and groups.

#### **Procedure:**

To create the required groups and user IDs for DB2:

- 1. Log in as a user with root authority.
- 2. Enter the appropriate commands for your operating system.
  - **Note:** These command line examples do not contain passwords. They are examples only. You can use the *passwd username* parameter from the command line to set the password.
  - **AIX** To create groups on AIX, enter the following commands:

mkgroup id=999 db2iadm1 mkgroup id=998 db2fadm1 mkgroup id=997 dasadm1 Create users for each group:

```
mkuser id=1004 pgrp=db2iadm1 groups=db2iadm1
home=/home/db2inst1 db2inst1
mkuser id=1003 pgrp=db2fadm1 groups=db2fadm1
home=/home/db2fenc1 db2fenc1
mkuser id=1002 pgrp=dasadm1 groups=dasadm1
home=/home/dasusr1 dasusr1
```

**Linux** To create groups on Linux, enter the following commands:

```
groupadd -g 999 db2iadm1
groupadd -g 998 db2fadm1
groupadd -g 997 dasadm1
```

Create users for each group:

```
useradd -u 1004 -g db2iadm1 -m -d /home/db2inst1 db2inst1
useradd -u 1003 -g db2fadm1 -m -d /home/db2fenc1 db2fenc1
useradd -u 1002 -g dasadm1 -m -d /home/dasusr1 dasusr1
```

Solaris

To create groups on Solaris, enter the following commands:

groupadd -g 999 db2iadm1 groupadd -g 998 db2fadm1 groupadd -g 997 dasadm1

Create users for each group: useradd -g db2iadm1 -u 1004 -d /export/home/db2inst1 -m db2inst1 useradd -g db2fadm1 -u 1003 -d /export/home/db2fenc1 -m db2fenc1 useradd -g dasadm1 -u 1002 -d /export/home/dasusr1 -m dasusr1

#### **Related concepts:**

• "General naming rules" in Administration Guide: Implementation

#### **Related tasks:**

• "Installing a DB2 product manually" in Installation and Configuration Supplement

### Verifying port range availability on participating computers (Windows)

This task describes the steps required to verify port range availability on participating computers. The port range is used by the Fast Communications Manager (FCM). FCM is a feature of DB2 that handles communications between database partition servers.

When you install the instance-owning database partition server on the primary machine, DB2 reserves a port range according to the specified number of database partition servers participating in partitioned database environment. The default range is four ports. The DB2 Setup wizard must be able to reserve an identical port range when database partition servers are installed on participating computers; the port range needs to be free on each of the database partition servers.

This task should be done after you install the instance-owning database partition server and before you install any participating database partition servers.

#### **Procedure:**

To verify the port range availability on participating computers:

- Open the services file. The default location of the services file is in the %SystemRoot%\system32\drivers\etc directory, where %SystemRoot% is your Windows root directory.
- 2. Locate the ports reserved for the DB2 Fast Communications Manager (FCM). The entries should appear similar to the following:

DB2 DB2	60000/tcp
DB2 DB2 1	60001/tcp
DB2_DB2_2	60002/tcp
DB2_DB2_END	60003/tcp

DB2 reserves the first four available ports after 60000.

- **3**. On each participating computer, open the services file and verify that the ports reserved for DB2 FCM in the services file of the primary computer are not being used.
- 4. In the event that the required ports are in use on a participating computer, identify an available port range for all computers and update each service file, including the services file on the primary computer.

#### **Related concepts:**

• "Fast communications manager (Windows)" on page 18

#### **Related reference:**

• "DB2 node configuration file - db2nodes.cfg" on page 243

### Kernel parameters (Linux and UNIX)

### Modifying kernel parameters (Linux)

Before installing a DB2 database system, you should update your Linux kernel parameters. The default values for particular kernel parameters on Linux are not sufficient when running a DB2 database system. DB2 automatically raises the IPC limits where necessary based on the needs of the DB2 database system. However, it may be more practical to set the limits permanently on your Linux system if you have products or applications other than a DB2 database system.

#### **Prerequisites:**

You must have root authority to modify kernel parameters.

#### **Procedure:**

To update kernel parameters:

#### Red Hat and SUSE Linux

The following information can be used to determine if there are any necessary changes required for your system.

The following is the output from the ipcs -1 command. Comments have been added following the // to show what the parameter names are.

```
# ipcs -1
```

----- Shared Memory Limits ----max number of segments = 4096 // SHMMNI max seg size (kbytes) = 32768 // SHMMAX max total shared memory (kbytes) = 8388608 // SHMALL min seg size (bytes) = 1

Semaphore Limits max number of arrays = 1024 max semaphores per array = 250 max semaphores system wide = 256000 max ops per semop call = 32 semaphore max value = 32767	// SEMMNI // SEMMSL // SEMMNS // SEMOPM
Messages: Limits max queues system wide = 1024 max size of message (bytes) = 65536 default max size of queue (bytes) = 65536	// MSGMNI // MSGMAX // MSGMNB

Beginning with the first section on Shared Memory Limits, SHMMAX and SHMALL are the parameters that need to be looked at. SHMMAX is the maximum size of a shared memory segment on a Linux system whereas SHMALL is the maximum allocation of shared memory pages on a system.

For SHMMAX, the minimum required on x86 systems would be 268435456 (256 MB) and for 64-bit systems, it would be 1073741824 (1 GB).

SHMALL is set to 8 GB by default (8388608 KB = 8 GB). If you have more physical memory than this, and it is to be used for DB2, then this parameter should be increased to approximately 90% of the physical memory on the box. For instance, if you have a computer system with 16 GB of memory to be used primarily for DB2, then 90% of 16 GB is 14.4 GB divided by 4 KB (the base page size) is 3774873. The ipcs output has converted SHMALL into kilobytes. The kernel requires this value as a number of pages.

The next section covers the amount of semaphores available to the operating system. The kernel parameter sem consists of 4 tokens, SEMMSL, SEMMNS, SEMOPM and SEMMNI. SEMMNS is the result of SEMMSL multiplied by SEMMNI. The database manager requires that the number of arrays (SEMMNI) be increased as necessary. Typically, SEMMNI should be twice the maximum number of connections allowed (MAXAGENTS) multiplied by the number of logical partitions on the database server computer plus the number of local application connections on the database server computer.

The third section covers messages on the system.

MSGMNI affects the number of agents that can be started, MSGMAX affects the size of the message that can be sent in a queue, and MSGMNB affects the size of the queue.

MSGMAX should be change to 64 KB (that is, 65535 bytes), and MSGMNB should be increased to 65535 on Server systems.

To modify these kernel parameters, we need to edit the /etc/sysctl.conf file. If this file does not exist, it should be created. The following lines are examples of what should be placed into the file:

kernel.sem=250 256000 32 1024
#Example shmmax for a 64-bit system
kernel.shmmax=1073741824
#Example shmall for 90 percent of 16 GB memory
kernel.shmall=3774873
kernel.msgmax=65535
kernel.msgmnb=65535

Run sysctl with -p parameter to load in sysctl settings from the default file /etc/sysctl.conf.

sysctl -p

To make the changes effective after every reboot, boot.sysctl needs to be active on SUSE Linux. On Red Hat, the rc.sysinit initialization script will read the /etc/sysctl.conf file automatically.

#### Related tasks:

• "Installing DB2 servers (Linux and UNIX)" on page 53

#### **Related reference:**

• "Installation requirements for DB2 clients and servers (Linux)" on page 20

### Modifying kernel parameters (Solaris Operating Environment)

For the DB2 database system to operate properly, it is recommended that you update your system's kernel configuration parameters. You can use the db2osconf utility to suggest recommended kernel parameters.

To use the db2osconf command, you must first install the DB2 database system. The db2osconf utility can only be run from \$DB2DIR/bin, where \$DB2DIR is the directory where you installed your DB2 product.

You must restart your system after modifying kernel parameters.

#### **Prerequisites:**

You must have root authority to modify kernel parameters.

#### **Procedure:**

To set a kernel parameter, add a line at the end of the /etc/system file as follows: set parameter\_name = value

For example, to set the value of the msgsys:msginfo\_msgmax parameter, add the following line to the end of the /etc/system file:

set msgsys:msginfo\_msgmax = 65535

After updating the /etc/system file, restart the system.

#### **Related reference:**

• "db2osconf - Utility for kernel parameter values command" in *Command Reference* 

# Additional partitioned database environment preinstallation tasks (Linux and UNIX)

# Updating environment settings for a partitioned DB2 installation (AIX)

This task describes the environment settings that you need to update on each computer that will participate in your partitioned database system.

#### Procedure:

To update AIX environment settings:

- 1. Log on to the computer as a user with root authority.
- 2. Set the AIX maxuproc (maximum number of processes per user) device attribute to 4096 by entering the following command:

chdev -1 sys0 -a maxuproc='4096'

**Note:** A bosboot/reboot may be required to switch to the 64-bit kernel if a different image is being run.

3. Set the TCP/IP network parameters on all the workstations that are participating in your partitioned database system to the following values. These values are the minimum values for these parameters. If any of the network-related parameters are already set to a higher value, do not change it.

```
thewall = 65536
sb_max = 1310720
rfc1323 = 1
tcp_sendspace = 221184
tcp_recvspace = 65536
udp_recvspace = 65536
ipqmaxlen = 250
somaxconn = 1024
```

To list the current settings of all network-related parameters, enter the following command:

```
no -a | more
```

To set a parameter, enter the follow command:

no -o parameter\_name=value

where:

- *parameter\_name* represents the parameter you want to set.
- *value* represents the value that you want to set for this parameter.

For example, to set the tcp\_sendspace parameter to 221184, enter the following command:

no -o tcp\_sendspace=221184

4. If you are using a high speed interconnect, you must set the *spoolsize* and *rpoolsize* for *css0* to the following values:

spoolsize	16777216
rpoolsize	16777216

To list the current settings of these parameters, enter the following command:

```
lsattr -l css0 -E
```

To set these parameters, enter the following commands:

```
/usr/lpp/ssp/css/chgcss -1 css0 -a spoolsize=16777216
/usr/lpp/ssp/css/chgcss -1 css0 -a rpoolsize=16777216
```

If you are not using the /tftpboot/tuning.cst file to tune your system, you can use the DB2DIR/misc/rc.local.sample sample script file, where DB2DIR is path where the DB2 product has been installed to, to update the network-related parameters after installation. To update the network-related parameters using the sample script file after installation, perform the following steps:

a. Copy this script file to the /etc directory and make it executable by root by entering the following commands:

cp /usr/opt/db2\_09\_01/misc/rc.local.sample /etc/rc.local chown root:sys /etc/rc.local chmod 744 /etc/rc.local

- b. Review the /etc/rc.local file and update it if necessary.
- c. Add an entry to the /etc/inittab file so that the /etc/rc.local script is executed whenever the machine is rebooted. You can use the mkitab command to add an entry to the /etc/inittab file. To add this entry, enter the following command:

mkitab "rclocal:2:wait:/etc/rc.local > /dev/console 2>&1"

d. Ensure that /etc/rc.nfs entry is included in the /etc/inittab file by entering the following command:

lsitab rcnfs

e. Update the network parameters without rebooting your system by entering the following command:

/etc/rc.local

5. Ensure that you have enough paging space for a partitioned installation of DB2 ESE to run. If you do not have sufficient paging space, the operating system will kill the process that is using the most virtual memory (this is likely to be one of the DB2 processes). To check for available paging space, enter the following command:

lsps -a

This command will return output similar to the following:

Page Space	Physical	Volume	Volume Group	Size	%Used	Active	Auto	Туре
paging00	hdisk1		rootvg	60MB	19	yes	yes	1v
hd6	hdisk0		rootvg	60MB	21	yes	yes	1 v
hd6	hdisk2		rootvg	64MB	21	yes	yes	1 v

We recommend that the paging space available be equal to twice the amount of physical memory installed on your computer.

6. If you are creating a small to intermediate size partitioned database system, the number of network file system daemons (NFSDs) on the instance-owning computer should be close to:

 $\ensuremath{\#}$  of biod on a computer X  $\ensuremath{\#}$  of computers in the instance

We recommended that you run 10 biod processes on every computer. According to the above formula, on a four computer system with 10 biod processes, you would use 40 NFSDs.

If you are installing a larger system, you can have up to 120 NFSDs on the computer.

For additional information about NFS, refer to your NFS documentation.

#### **Related tasks:**

• "Setting up a partitioned database environment" on page 55

# Setting up a working collective to distribute commands to ESE workstations (AIX)

In a partitioned database environment on AIX, you can set up a working collective to distribute commands to the set of  $RS/6000^{\text{C}} SP^{\text{TM}}$  workstations that participate in your partitioned database system. Commands can be distributed to the workstations by the dsh command.

This can be useful when installing or administrating a partitioned database system on AIX, to enable you quickly execute the same commands on all the computers in your environment with less opportunity for error.

#### **Prerequisites:**

You must know the hostname of each computer that you want to include in the working collective.

You must be logged on to the Control workstation as a user with root authority.

#### **Procedure:**

Have a file that lists the hostnames for all of the RS/6000 SP workstations that will participate in your partitioned database system. To set up the working collective to distribute commands to this list of workstations:

1. Create a file called eeelist.txt that will list the *hostnames* for all of the workstations that will participate in the working collective.

For example, assume that you wanted to create a working collective with two SP nodes called workstation1 and workstation2. The contents of this file would be:

workstation1 workstation2

2. Update the working collective environment variable. To update this list, enter the following command:

export WCOLL=path/eeelist.txt

where *path* is the location where *eeelist.txt* was created, and *eeelist.txt* is the name of the file that you created that lists the RS/6000 SP workstations in the working collective.

**3**. Verify that the names in the working collective are indeed the workstations that you want, by entering the following command:

dsh -q

You will receive output similar to the following:

```
Working collective file /eeelist.txt:
workstation1
workstation2
Fanout: 64
```

#### **Related tasks:**

• "Verifying that NFS is running (Linux and UNIX)" on page 37

### Verifying that NFS is running (Linux and UNIX)

Before setting up a database partitioned environment, you should verify that Network File System (NFS) is running on each computer that will participate in your partitioned database system.

#### **Prerequisites:**

NFS must be running on each computer.

#### **Procedure:**

To verify that NFS is running on each computer:

**AIX** Type the following command on each computer:

lssrc -g nfs

The Status field for NFS processes should indicate active.

After you have verified that NFS is running on each system, you should check for the specific NFS processes required by DB2 products. The required processes are:

rpc.lockd rpc.statd

#### Solaris Operating Environment

Type the following command on each computer:

showmount -e hostname

Enter the showmount command without the *hostname* parameter to check the local system.

If NFS is not active you will receive a message similar to the following: showmount: ServerA: RPC: Program not registered

After you have verified that NFS is running on each system, you should check for the specific NFS processes required by DB2 products:

rpc.lockd rpc.statd

You can use the following commands to check for these processes:

ps	-ef	grep	rpc.lockd rpc.statd
ps	-ef	grep	rpc.statd

**Linux** Type the following command on each computer:

showmount -e hostname

Enter the showmount command without the *hostname* parameter to check the local system.

If NFS is not active you will receive a message similar to the following: showmount: ServerA: RPC: Program not registered

After you have verified that NFS is running on each system, you should check for the specific NFS processes required by DB2 products. The required process is rpc.statd. You can use the ps -ef | grep rpc.statd commands to check for this process.

If these processes are not running, consult your operating system documentation.

#### **Related tasks:**

• "Setting up a partitioned database environment" on page 55

# Verifying port range availability on participating computers (Linux and UNIX)

This task describes the steps required to verify port range availability on participating computers. The port range is used by the Fast Communications Manager (FCM). FCM is a feature of DB2 that handles communications between database partition servers.

When you install the instance-owning database partition server on the primary machine, DB2 reserves a port range according to the specified number of database partition servers participating in partitioned database environment. The default range is four ports. The DB2 Setup wizard must be able to reserve an identical port range when database partition servers are installed on participating computers; the port range needs to be free on each of the database partition servers.

This task should be done after you install the instance-owning database partition server and before you install any participating database partition servers.

#### **Prerequisites:**

To make changes to the services file, you require root authority.

#### **Procedure:**

To verify the port range availability on participating computers:

- 1. Open the services file located in the /etc/services directory.
- **2.** Locate the ports reserved for the DB2 Fast Communications Manager (FCM). The entries should appear similar to the following:

DB2 db2inst1	60000/tcp
DB2_db2inst1_1	60001/tcp
DB2_db2inst1_2	60002/tcp
DB2_db2inst1_END	60003/tcp

DB2 reserves the first four available ports after 60000.

- **3**. On each participating computer, open the services file and verify that the ports reserved for DB2 FCM in the services file of the primary computer are not being used.
- 4. In the event that the required ports are in use on a participating computer, identify an available port range for all computers and update each service file, including the services file on the primary computer.

#### **Related concepts:**

• "Fast communications manager (Linux and UNIX)" on page 26

#### **Related reference:**

• "DB2 node configuration file - db2nodes.cfg" on page 243

# Creating file system for a partitioned database environment (Linux and UNIX)

# Creating a DB2 home file system for a partitioned database system (AIX)

This task is part of setting up your partitioned database system. This task describes how to:

- create a DB2 home file system
- NFS export the home file system
- NFS mount the home file system from each participating computer

It is recommended that you create a home file system that is 1 GB in size or greater. Later installation instruction will ask that you copy the contents of the DB2 product CD to a directory on your DB2 home file system. The DB2 product CD will temporarily occupy approximately 700 MB of space. A DB2 instance will require at least 50 MB of space. If you do not have 1 GB of free space, you can mount the DB2 product CD from each participating computer as an alternative to copying the contents to disk.

#### **Prerequisites:**

You must have:

- root authority to create a file system
- Created a volume group where your file system is to physically reside.

#### **Procedure:**

To create, NFS export, and NFS mount the DB2 home file system, perform the following steps:

#### Creating the DB2 home file system

Log on to the primary computer (ServerA) in your partitioned database system as a user with root authority and create a home file system for your partitioned database system called /db2home.

- 1. Enter the **smit jfs** command.
- 2. Click on the Add a Journaled File System icon.
- 3. Click on the Add a Standard Journaled File System icon.
- 4. Select an existing volume group from the **Volume Group Name** list where you want this file system to physically reside.
- 5. Set the SIZE of file system (SIZE of file system (in 512–byte blocks) (Num.) field). This sizing is enumerated in 512-byte blocks, so if you only need to create a file system for the instance home directory, you can use 180 000, which is about 90 MB. If you need to copy the product CD image over to run the installation, you can create it with a value of 20 000 000, which is about 1 GB.
- 6. Enter the mount point for this file system in the **MOUNT POINT** field. In this example, the mount point is /db2home.
- 7. Set the Mount AUTOMATICALLY at system restart field to yes.

The remaining fields can be left to the default settings.

8. Click OK.

#### Exporting the DB2 home file system

- 1. NFS export the /db2home file system so that it is available to all of the computers that will participate in your partitioned database system:
  - a. Enter the **smit nfs** command.
  - b. Click on the Network File System (NFS) icon.
  - c. Click on the Add a Directory to Exports List icon.
  - d. Enter the pathname and directory to export (for example, /db2home) in the **PATHNAME of directory to export** field.
  - e. Enter the name of each workstation that will participate in your partitioned database system in the **HOSTS allowed root access** field. Use a comma (,) as the delimiter between each name. For example, ServerA, ServerB, ServerC. If you are using a high speed interconnect, we recommend that you specify the high speed interconnect names for each workstation in this field as well. The remaining fields can be left to the default settings.
  - f. Click OK.
- 2. Log out.

#### Mounting the DB2 home file system from each participating computer

Log on to *each* participating computer (ServerB, ServerC, ServerD) and NFS mount the file system that you exported by performing the following steps:

- 1. Enter the **smit nfs** command.
- 2. Click on the Network File System (NFS) icon.
- 3. Click on the Add a File System for Mounting icon.
- 4. Enter the pathname of the mount point in the **PATHNAME of the mount point (Path)** field.

The path name of the mount point is where you should create the DB2 home directory. For this example, use/db2home.

5. Enter the pathname of the remote directory in the **PATHNAME of the remote directory** field.

For our example, you should enter the same value that you entered in the **PATHNAME of the mount point (Path)** field.

6. Enter the *hostname* of the machine where you exported the file system in the **HOST where the remote directory resides** field.

This is the hostname of the machine where the file system that you are mounting was created.

To improve performance, you may want to NFS mount the file system that you created over a high speed interconnect. If you want to mount this file system using a high speed interconnect, you must enter its name in the **HOST where remote directory resides** field.

You should be aware that if the high speed interconnect ever becomes unavailable for some reason, every workstation that participates in your partitioned database system will lose access to the DB2 home directory.

- 7. Set the **MOUNT now, add entry to /etc/filesystems or both?** field to both.
- 8. Set the /etc/filesystems entry will mount the directory on system **RESTART** field to yes.
- 9. Set the MODE for this NFS file system field to read-write.
- 10. Set the Mount file system soft or hard field to soft.

A soft mount means that the computer *will not* try for an infinite period of time to remotely mount the directory. A hard mount means that your machine will infinitely try to mount the directory. This could cause problems in the event of a system crash. We recommend that you set this field to soft.

The remaining fields can be left to the default settings.

- 11. Ensure that this file system is mounted with the Allow execution of **SUID and sgid programs in this file system?** field set to Yes. This is the default setting.
- 12. Click OK.
- 13. Log out.

#### Related tasks:

- "Copying the contents of the DB2 product CD to your computer (Linux and UNIX)" in *Quick Beginnings for DB2 Servers*
- "Setting up a partitioned database environment" on page 55

#### Creating a file system for a partitioned DB2 server (Linux)

This task is part of setting up your partitioned database system. This task describes how to:

- create a DB2 home file system
- NFS export the home file system
- NFS mount the home file system from each participating computer

You must have a file system that is available to all machines that will participate in your partitioned database system. This file system will be used as the instance home directory.

For configurations that use more than one machine for a single database instance, NFS (Network File System) is used to share this file system. Typically, one machine in a cluster is used to export the file system using NFS, and the remaining machines in the cluster mount the NFS file system from this machine. The machine that exports the file system has the file system mounted locally.

For more command information, see your Linux distribution documentation.

#### **Procedure:**

To create this file system:

- 1. On one machine, select a disk partition or create one using fdisk.
- 2. Using a utility like mkfs, create a file system on this partition. The file system should be large enough to contain the necessary DB2 program files as well as enough space for your database needs.
- **3**. Locally mount the file system you have just created and add an entry to the /etc/fstab file so that this file system is mounted each time the system is rebooted. For example:

/dev/hda1 /db2home ext3 defaults 1 2

4. To automatically export an NFS file system on Linux at boot time, add an entry to the /etc/exports file. Be sure to include all of the host names participating in the cluster as well as all of the names that a machine might be known as. Also, ensure that each machine in the cluster has root authority on the exported file system by using the "root" option.

The /etc/exports is an ASCII file which contains the following type of information:

/db2home machine1\_name(rw) machine2\_name(rw)

To export the NFS directory, run

/usr/sbin/exports -r

5. On each of the remaining machines in the cluster, add an entry to the /etc/fstab file to NFS mount the file system automatically at boot time. As in the following example, when you specify the mount point options, ensure that the file system is mounted at boot time, is read-write, is mounted hard, includes the bg (background) option, and that setuid programs can be run properly.

fusion-en:/db2home /db2home nfs rw,timeo=7, hard,intr,bg,suid,lock

where *fusion-en* represents the machine name.

6. NFS mount the exported file system on each of the remaining machines in the cluster by entering the following command:

mount /db2home

If the mount command fails, use the showmount command to check the status of the NFS server. For example:

showmount -e fusion-en

This showmount command should list the file systems which are exported from the machine named fusion-en. If this command fails, the NFS server may not have been started. Run the following command as root on the NFS server to start the server manually:

/etc/rc.d/init.d/nfs restart

Assuming the present run level is 3, you can have this command run automatically at boot time by renaming K20nfs to S20nfs under the following directory: /etc/rc.d/rc3.d.

- 7. Ensure that the following steps were successful:
  - a. On a single machine in the cluster, you have created a file system to be used as the instance and home directory.
  - b. If you have a configuration that uses more than one machine for a single database instance, you have exported this file system using NFS.
  - **c.** You have mounted the exported file system on each of the remaining machines in the cluster.

#### **Related tasks:**

- "Copying the contents of the DB2 product CD to your computer (Linux and UNIX)" in *Quick Beginnings for DB2 Servers*
- "Setting up a partitioned database environment" on page 55

# Creating a file system for a partitioned DB2 server (Solaris Operating Environment)

This task is part of setting up your partitioned database system. This task describes how to:

- create a DB2 home file system
- NFS export the home file system

• NFS mount the home file system from each participating computer

It is recommended that you create a home file system that is 1 GB in size or greater. Later installation instructions will ask that you copy the contents of the DB2 product CD to a directory on your DB2 home file system. The DB2 product CD will temporarily occupy approximately 700 MB of space. A DB2 instance will require at least 50 MB of space. If you do not have 1 GB of free space, you can mount the DB2 product CD from each participating computer as an alternative to copying the contents to disk.

There are a number of ways to create a local file system on a Solaris Operating Environment system. If you want to use a product, such as Veritas, to create the file system, refer to the product's documentation.

#### **Prerequisites:**

You must have root authority to create a file system.

#### **Procedure:**

To create, NFS export, and NFS mount the DB2 home file system, perform the following steps:

#### Creating the DB2 home file system

- 1. On the primary computer (ServerA), select a disk partition or configure one using the format command. When using the format command, ensure that the disk partitions being used do not overlap. Overlapping partitions can cause data corruption or file system failures. Ensure you have correctly entered the command, as mistakes can cause serious problems.
- 2. Using a utility like newfs or mkfs, create a file system on this partition. The file system should be large enough to contain the necessary DB2 files as well as other non-DB2 files. A minimum of 300 MB is recommended.
- **3**. Locally mount the file system you have just created and add an entry to the /etc/vfstab file so that this file system is mounted each time the system is rebooted. For example:

/dev/dsk/c1t0d2s2 /dev/rdsk/c1t0d2s2 /db2home ufs 2 yes

#### Exporting the DB2 home file system

 To automatically export an NFS file system on Solaris at boot time, add an entry to the /etc/dfs/dfstab file. Be sure to include all of the host names of the participating computers as well as all of the names that a given computer might be known as. Also, ensure that each computer has root authority on the exported file system by using the "root" option.

In the following example, an entry for a four computer partitioned database system is added to the /etc/dfs/dfstab file. The participating computers, ServerB, ServerC, and ServerD, are given permission to mount the file system /db2home, which will be used as the DB2 home file system.

```
share -F nfs -o \
rw=ServerB.torolab.ibm.com,\
root=ServerB.torolab.ibm.com \
```

```
rw=ServerC.torolab.ibm.com, \
```

root=ServerC.torolab.ibm.com\

rw=ServerD.torolab.ibm.com,\
root=ServerD.torolab.ibm.com \
-d "homes" /db2home

If a computer is known by more than one hostname, all aliases must be included in the /etc/dfs/dfstab file. For example, if ServerB was also known by the name ServerB-tokenring, the entry in the /etc/dfs/dfstab for ServerB would appear as follows:

rw=ServerB.torolab.ibm.com:ServerB-tokenring.torolab.ibm.com,\
root=ServerB.torolab.ibm.com:ServerB-tokenring.torolab.ibm.com

2. On each of the participating computers, add an entry to the /etc/vfstab file to NFS mount the file system automatically at boot time. As in the following example, when you specify the mount point options, ensure that the file system is mounted at boot time, is read-write, is mounted hard, includes the bg (background) option, and that suid programs can be run properly:

ServerA:/db2home - /db2home nfs - yes rw,hard,intr,bg,suid

#### Mounting the DB2 home file system from each participating computer

1. Create and NFS mount the exported file system on each of the participating computers in the partitioned database environment by entering the following commands:

mkdir /db2home mount /db2home

If the mount command fails, use the showmount command to check the status of the NFS server. For example:

showmount -e ServerA

This showmount command should list the file systems which are exported from the computer named ServerA. If this command fails, the NFS server may not have been started. To start the server manually, run the following commands as root on the NFS server:

/usr/lib/nfs/mountd /usr/lib/nfs/nfsd -a 16

These commands are run automatically at boot time if there are any entries in the /etc/dfs/dfstab file. After starting the NFS server, export the NFS file system again by running the following command: sh /etc/dfs/dfstab

Ensure that you have completed the following steps:

- 1. On a single computer in the partitioned database environment, you have created a file system to be used as the instance and home directory.
- 2. You have exported this file system via NFS.
- 3. You have mounted the exported file system on each participating computer.

#### **Related tasks:**

- "Copying the contents of the DB2 product CD to your computer (Linux and UNIX)" in *Quick Beginnings for DB2 Servers*
- "Setting up a partitioned database environment" on page 55

## Creating required users (Linux and UNIX)

# Creating required users for a DB2 server installation in a partitioned database environment (AIX)

Three users and groups are required to operate a DB2 database. The user and group names used in the following instructions are documented in the following table. You may specify your own user and group names as long as they adhere to your system naming rules and DB2 naming rules.

If you are planning to use the DB2 Setup wizard to install your DB2 product, the DB2 Setup wizard will create these users for you.

Required user	User name	Group name
Instance owner	db2inst1	db2iadm1
Fenced user	db2fenc1	db2fadm1
Administration server user	dasusr1	dasadm1

Table 9. Required users and groups (AIX)

If the Administration server user is an existing user, this user must exist on all the participating computers before the installation. If you use the DB2 Setup wizard to create a new user for the Administration server on the instance-owning computer, then this user is also created (if necessary) during the response file installations on the participating computers. If the user already exists on the participating computers, the user must have the same primary group.

#### **Prerequisites:**

- You must have root authority to create users and groups.
- If you manage users and groups with NIS/NIS+ or similar security software, see *NIS/NIS+ considerations* before creating users and groups. Additional steps may be required to when defining DB2 users and groups.

#### **Restrictions:**

The user names you create must conform to both your operating system's naming rules, and those of DB2.

#### **Procedure:**

To create all three of these users, perform the following steps:

- 1. Log on to the primary computer.
- 2. Create a group for the instance owner (for example, db2iadm1), the user that will execute UDFs or stored procedures (for example, db2fadm1), and the Administration Server (for example, dasadm1) by entering the following commands:

mkgroup id=999 db2iadm1 mkgroup id=998 db2fadm1 mkgroup id=997 dasadm1

**3**. Create a user that belongs to each group that you created in the previous step using the following commands. The home directory for each user will be the DB2 home directory that you previously created and shared (db2home).

```
mkuser id=1004 pgrp=db2iadm1 groups=db2iadm1 home=/db2home/db2inst1
    core=-1 data=491519 stack=32767 rss=-1 fsize=-1 db2inst1
mkuser id=1003 pgrp=db2fadm1 groups=db2fadm1 home=/db2home/db2fenc1
    db2fenc1
mkuser id=1002 pgrp=dasadm1 groups=dasadm1 home=/home/dasusr1
    dasusr1
```

4. Set an initial password for each user that you created by entering the following commands:

```
passwd db2inst1
passwd db2fenc1
passwd dasusr1
```

- 5. Log out.
- 6. Log on to the primary computer as each user that you created (db2inst1, db2fenc1, and dasusr1). You may be prompted to change each user's password since this is the first time that these users have logged onto the system.
- 7. Log out.
- 8. Create the exact same user and group accounts on each computer that will participate in your partitioned database environment. For our example, perform this task on ComputerB, ComputerC, and ComputerD.

#### **Related tasks:**

• "Setting up a partitioned database environment" on page 55

#### **Related reference:**

• "Centralized user-management considerations (Linux and UNIX)" on page 27

# Creating required users for a DB2 server installation in a partitioned database environment (Linux)

Three users and groups are required to operate a DB2 database. The user and group names used in the following instructions are documented in the following table. You may specify your own user and group names as long as they adhere to your system naming rules and DB2 naming rules.

If you are planning to use the DB2 Setup wizard to install your DB2 product, the DB2 Setup wizard will create these users for you.

Required user	user name	group name
Instance owner	db2inst1	db2iadm1
Fenced user	db2fenc1	db2fadm1
Administration server user	dasusr1	dasadm1

Table 10. Required users and groups

If an existing user is used as the Administration server user, this user must also exist on all the participating computers before installation. If you use the DB2 Setup wizard to create a new user for the Administration server on the instance owning computer, then this user will also be created (if necessary) during the response file installations on the participating computers. If the user already exists on the participating computers, it must have the same primary group.

#### **Prerequisites:**

• You must have root authority to create users and groups.

• If you manage users and groups with NIS/NIS+ or similar security software, see *NIS/NIS+ considerations* before creating users and groups. Additional steps may be required when defining DB2 users and groups.

#### **Restrictions:**

The user names you create must conform to both your operating system's naming rules, and those of DB2.

#### **Procedure:**

To create all three of these users, perform the following steps:

- 1. Log on to the primary computer.
- 2. Create a group for the instance owner (for example, db2iadm1), the user that will execute UDFs or stored procedures (for example, db2fadm1), and the Administration Server (for example, dasadm1) by entering the following commands:

groupadd -g 999 db2iadm1 groupadd -g 998 db2fadm1 groupadd -g 997 dasadm1

Ensure that the specific numbers you are using do not currently exist on any of the machines.

**3**. Create a user that belongs to each group that you created in the previous step using the following commands. The home directory for each user will be the DB2 home directory that you previously created and shared (db2home).

```
useradd -u 1004 -g db2iadm1 -m -d /db2home/db2inst1 db2inst1 -p password1
useradd -u 1003 -g db2fadm1 -m -d /db2home/db2fenc1 db2fenc1 -p password2
useradd -u 1002 -g dasadm1 -m -d /home/dasusr1 dasusr1 -p password3
```

- 4. Set an initial password for each user that you created by entering the following commands:
  - passwd db2inst1 passwd db2fenc1 passwd dasusr1
- 5. Log out.
- 6. Log on to the primary computer as each user that you created (db2inst1, db2fenc1, and dasusr1). You may be prompted to change each user's password since this is the first time that these users have logged onto the system.
- 7. Log out.
- 8. Create the exact same user and group accounts on each computer that will participate in your partitioned database environment. For our example, perform this task on ComputerB, ComputerC, and ComputerD.

#### **Related tasks:**

• "Setting up a partitioned database environment" on page 55

#### **Related reference:**

• "Centralized user-management considerations (Linux and UNIX)" on page 27

# Creating required users for a DB2 server installation in a partitioned database environment (Solaris Operating Environment)

Three users and groups are required to operate DB2. The user and group names used in the following instructions are documented in the following table. You may specify your own user and group names as long as they adhere to your system naming rules and DB2 naming rules.

If you are planning to use the DB2 Setup wizard to install your DB2 product, the DB2 Setup wizard will create these users for you.

Required user	user name	group name		
Instance owner	db2inst1	db2iadm1		
Fenced user	db2fenc1	db2fadm1		
Administration server user	dasusr1	dasadm1		

Table 11. Required users and groups

If an existing user is used as the Administration server user, this user must also exist on all the participating computers before installation. If you use the DB2 Setup wizard to create a new user for the Administration server on the instance owning computer, then this user will also be created (if necessary) during the response file installations on the participating computers. If the user already exists on the participating computers, it must have the same primary group.

#### **Prerequisites:**

- You must have root authority to create users and groups.
- If you manage users and groups with NIS/NIS+ or similar security software, see *NIS/NIS+ considerations* before creating users and groups.

#### **Restrictions:**

The user names you create must conform to both your operating system's naming rules, and those of DB2.

#### **Procedure:**

To create all three of these users, perform the following steps:

- 1. Log on to the primary computer.
- 2. Create a group for the instance owner (for example, db2iadm1), the user that will execute UDFs or stored procedures (for example, db2fadm1), and the Administration Server (for example, dasadm1 ) by entering the following commands:

```
groupadd id=999 db2iadm1
groupadd id=998 db2fadm1
groupadd id=997 dasadm1
```

**3**. Create a user for each group using the following commands. The home directory for each user will be the DB2 home directory that you previously created and shared (/db2home).

```
useradd -u 1004 -g db2iadm1 -d /db2home/db2inst1 -m db2inst1 passwd mypasswrd
useradd -u 1003 -g db2fadm1 -d /db2home/db2fenc1 -m db2fenc1 passwd mypasswrd
useradd -u 1002 -g dasadm1 -d /export/home/dasusr1 -m dasusr1 passwd mypasswrd
```

4. Set an initial password for each user that you created by entering the following commands:

```
passwd db2inst1
passwd db2fenc1
passwd dasusr1
```

- 5. Log out.
- 6. Log on to the primary computer as each user that you created (db2inst1, db2fenc1, and dasusr1). You may be prompted to change each user's password since this is the first time that these users have logged onto the system.
- 7. Log out.
- 8. Create the exact same user and group accounts on each computer that will participate in your partitioned database environment. For our example, perform this task on ComputerB, ComputerC, and ComputerD.

#### Related tasks:

• "Setting up a partitioned database environment" on page 55

#### **Related reference:**

• "Centralized user-management considerations (Linux and UNIX)" on page 27

# Chapter 4. Installing your DB2 server product

## Installing DB2 servers (Windows)

This task describes how to start the DB2 Setup wizard on Windows. You will use the DB2 Setup wizard to define your installation and install your DB2 product on your system.

#### **Prerequisites:**

Before you start the DB2 Setup wizard:

- If you are planning on setting up a partitioned database environment, see the "Setting up a partitioned database environment" topic.
- Ensure that your system meets installation, memory, and disk requirements.
- You must have a local *Administrator* user account with the recommended user rights to perform the installation.
- Although not mandatory, it is recommended that you close all programs so that the installation program can update any files on the computer without requiring a reboot.

#### **Restrictions:**

- The DB2 copy name and the instance name cannot start with a numeric value.
- The DB2 copy name and the instance name must be unique among all DB2 copies.
- The use of XML features is restricted to a database that is defined with the code set UTF-8 and that has only one database partition.

#### Procedure:

To start the DB2 Setup wizard:

- 1. Log on to the system with the local Administrator account that you have defined for the DB2 installation.
- 2. Download the self-extracting file and the applicable activation files for the configuration that you intend to install.
- **3**. From the DB2 Setup launchpad, you can view installation prerequisites and the release notes, or you can proceed directly to the installation. You may want to review the installation prerequisites and release notes for late-breaking information.
- 4. Click **Install a Product** and the **Install a Product** window will display the products available for installation.

If you have no existing DB2 products installed on your computer, launch the installation by clicking **Install New**. Proceed through the installation following the DB2 Setup wizard's prompts.

If you have at least one existing DB2 product installed on your computer, you can:

- Click Install New to create a new DB2 copy
- Click **Work with Existing** to upgrade an existing DB2 copy, to add functionality to an existing DB2 copy, or to install an add-on product.

• Click **Migrate** to migrate an existing DB2 Version 8 copy.

Note: For a Common Criteria environment, only Install New is supported.

5. The DB2 Setup wizard will determine the system language, and launch the setup program for that language. Online help is available to guide you through the remaining steps. To invoke the online help, click **Help** or press **F1**. You can click **Cancel** at any time to end the installation.

Your DB2 product will be installed, by default, in the x:\Program Files\IBM\sqllib directory, where x: represent the drive letter of the drive where you have installed your DB2 product.

You can also specify your own DB2 product installation path.

For information on errors encountered during installation, review the installation log file located in the My Documents\DB2LOG\ directory. The log file uses the following format: DB2-ProductAbrrev-DateTime.log, for example, DB2-ESE-Tue Apr 04 17\_04\_45 2006.log.

If you want your DB2 product to have access to DB2 documentation either on your local computer or on another computer on your network, then you must install the DB2 Information Center. TheDB2 Information Center contains documentation for the DB2 database system and DB2 related products. By default, DB2 information will be accessed from the web if the DB2 Information Center is not locally installed.

#### **Related concepts:**

- "About the Release Notes" in *Release Notes*
- "DB2 database object naming rules" in Administration Guide: Implementation
- "DB2 Information Center installation options" in Quick Beginnings for DB2 Servers

#### **Related tasks:**

- "Notification and contact list setup and configuration" in *Administration Guide: Implementation*
- "Tools catalog database and DB2 administration server (DAS) scheduler setup and configuration" in *Administration Guide: Implementation*
- "Migrating a DB2 server (Windows)" in Migration Guide
- "Setting up a partitioned database environment" on page 55
- "Using the Default DB2 Selection wizard (Windows)" in *Quick Beginnings for* DB2 Servers

#### **Related reference:**

- "UPDATE ADMIN CONFIGURATION command" in Command Reference
- "Multiple DB2 copies roadmap" in Administration Guide: Implementation
- "Disk and memory requirements" on page 9
- "Installation requirements for DB2 clients and servers (Windows)" on page 9
- on page 0

### Installing DB2 servers (Linux and UNIX)

This task describes how to start the DB2 Setup wizard on Linux and UNIX systems. The DB2 Setup wizard is used to define your installation preferences and to install your DB2 product on your system.

#### **Prerequisites:**

Before you start the DB2 Setup wizard:

- Ensure that your system meets installation, memory, and disk requirements.
- You must have root authority to perform the installation.
- The DB2 product image must be available.
- The DB2 Setup wizard is a graphical installer. You must have X windows software capable of rendering a graphical user interface for the DB2 Setup wizard to run on your machine. Ensure that the X windows server is running. Ensure that you have properly exported your display. For example, export DISPLAY=9.26.163.144:0.
- If NIS/NIS+ or similar security software is used in your environment, you must manually create required DB2 users before you start the DB2 Setup wizard. Refer to the referenced Centralized user-management considerations topic before you begin.

#### **Restrictions:**

The use of XML features is restricted to a database that is defined with the code set UTF-8 and has only one database partition.

#### Procedure:

To start the DB2 Setup wizard:

- 1. Log on to the system as a user with root authority.
- 2. Download the DB2 product image, then decompress and untar the product file.
  - a. Decompress the product file:
    - gzip -d *product*.tar.gz

where *product* is the name of the product that you downloaded.

b. Untar the product file:

tar xvf product.tar

- c. Change directory:
  - cd ./product/disk1
- **3**. Enter the ./db2setup command from the directory where the product image resides to start the DB2 Setup wizard.
- 4. The IBM DB2 Setup Launchpad opens. From this window, you can view installation prerequisites and the release notes, or you can proceed directly to the installation. You may want to review the installation prerequisites and release notes for late-breaking information.
- 5. Click **Install a Product** and the **Install a Product** window will display the products available for installation.

Launch the installation by clicking **Install New**. Proceed through the installation following the DB2 Setup wizard's prompts.

Once you have initiated the installation, proceed through the DB2 Setup wizard installation panels and make your selections. Installation help is available to guide you through the remaining steps. To invoke the installation help, click **Help** or press F1. You can click **Cancel** at any time to end the installation.

Your DB2 product will be installed, by default, in one of the following directories:

#### AIX, Solaris Operating Environment

/opt/IBM/db2/V9.1

Linux /opt/ibm/db2/V9.1

If you are installing on a system where this directory is already being used, the DB2 product installation path will have \_xx added to it, where \_xx are digits, starting at 01 and increasing depending on how many DB2 copies you have installed.

You can also specify your own DB2 product installation path.

The installation logs, db2setup.log and db2setup.err will be located, by default, in the /tmp directory. You can specify the location of the log files.

The db2setup.log file captures all DB2 installation information including errors. The db2setup.err file captures any error output that is returned by Java (for example, exceptions and trap information).

There is no longer a db2setup.his file. Instead, the DB2 installer saves a copy of the db2setup.log file in the DB2\_DIR/install/logs/ directory, and renames it db2install.history. If the name already exists, then the DB2 installer renames it db2install.history.xxxx, where xxxx is 0000-9999, depending on the number of installations you have on that machine.

Each installation copy has a separate list of history files. If an installation copy is removed, the history files under this install path will be removed as well. This copying action is done near the end of the installation and if the program is stopped or aborted before completion, then the history file will not be created.

On Linux 32-bit, if you want your DB2 product to have access to DB2 documentation either on your local computer or on another computer on your network, then you must install the DB2 Information Center. The DB2 Information Center contains documentation for the DB2 database system and DB2 related products.

#### **Related concepts:**

- "DB2 Information Center installation options" in Quick Beginnings for DB2 Servers
- "DB2 database object naming rules" in Administration Guide: Implementation

#### **Related tasks:**

- "Notification and contact list setup and configuration" in *Administration Guide: Implementation*
- "Tools catalog database and DB2 administration server (DAS) scheduler setup and configuration" in *Administration Guide: Implementation*
- "Migrating a DB2 server (Linux and UNIX)" in Migration Guide

#### **Related reference:**

• "Centralized user-management considerations (Linux and UNIX)" on page 27

- "UPDATE ADMIN CONFIGURATION command" in Command Reference
- "Multiple DB2 copies roadmap" in Administration Guide: Implementation

### Setting up a partitioned database environment

This topic describes how to set up a partitioned database environment. You will use the DB2 Setup wizard to install your instance-owning database server and to create the response files that will in turn be used to create your participating database servers.

If you have purchased DB2 Enterprise 9, you can create a partitioned instance. This option is called Database Partitioning Feature. A database partition is part of a database that consists of its own data, indexes, configuration files, and transaction logs. A partitioned database is a database with two or more partitions.

To take advantage of the Database Partitioning Feature (DPF, you must have a DPF license key in addition to the DB2 Enterprise 9 license key.

#### **Prerequisites:**

- During instance creation, a number of ports equal to the number of participating DB2 database servers that the instance is capable of supporting will be reserved in the /etc/services on Linux and UNIX and in the %SystemRoot%\system32\ drivers\etc\services on Windows. These ports will be used by the Fast Communication Manager. The reserved ports will be in the following format:
  - DB2\_InstanceName DB2\_InstanceName\_1 DB2\_InstanceName\_2 DB2\_InstanceName\_END

The only mandatory entries are the beginning (DB2\_InstanceName) and ending (DB2\_InstanceName\_END) ports. The other entries are reserved in the services file so that other applications do not use these ports

- To support multiple participating DB2 database servers, the computer on which you want to install DB2 must belong to an accessible domain. However, you can add local partitions to this computer even though the computer doesn't belong to a domain.
- On Linux and UNIX systems, a remote shell utility is required for partitioned database systems. DB2 supports the following remote shell utilities:
  - rsh
  - ssh

By default, DB2 uses rsh when executing commands on remote DB2 nodes, for example, when starting a remote DB2 database partition. To use the DB2 default, the rsh-server package must be installed (see table below).

If you choose to use the rsh remote shell utility, inetd (or xinetd) must be installed and running as well. If you choose to use the ssh remote shell utility, you need to set the DB2RSHCMD registry variable immediately after the DB2 installation is complete. If this registry variable is not set, rsh is used.

#### **Restrictions:**

The use of XML features prohibits later use of the Database Partitioning Feature (DPF).

#### **Procedure:**

To set up a partitioned database environment:

- 1. Install your instance-owning database server using the DB2 Setup wizard. For detailed instructions, see the appropriate "Installing DB2 servers" topic.
  - On the Select installation, response files creation, or both window, ensure that you select the Save my installation settings in a response files option. After the installation has completed, two files will be copied to the directory specified in the DB2 Setup wizard: PROD\_ESE.rsp and PROD\_ESE\_addpart.rsp. The PROD\_ESE.rsp file is the response file for instance-owning database servers. The PROD\_ESE\_addpart.rsp file is the response file for participating database servers.
  - On the **Set up partitioning options for the DB2 instance** window, ensure that you select **Multiple partition instance**, and enter the maximum number of logical partitions.
- 2. Make the DB2 product install image available to all participating computers in the partitioned database environment.
- Distribute the participating database servers response file (PROD\_ESE\_addpart.rsp).

**Note:** Place the response file in the same location as the setup.exe file on every computer that will participate in the partitioned database environment.

4. Install a DB2 database server on each of the participating computers using the db2setup command on Linux and UNIX, or the setup command on Windows:

#### Linux and UNIX

Go to the directory where the DB2 product code is available and run:

./db2setup -r /responsefile\_directory/response\_file\_name

#### Windows

setup -u x:\responsefile\_directory\response\_file\_name

For example, here is the command using the PROD\_ESE\_addpart.rsp as the response file:

#### Linux and UNIX

Go to the directory where the DB2 product code is available and run: ./db2setup -r /db2home/PROD\_ESE\_addpart.rsp

where /db2home is the directory where you have copied the response file.

#### Windows

setup -u c:\resp\_files\PROD\_ESE\_addpart.rsp

where c:\resp\_files\ is the directory where you have copied the response file.

#### **Related tasks:**

- "Creating a DB2 home file system for a partitioned database system (HP-UX)" in *Quick Beginnings for DB2 Servers*
- "Creating a file system for a partitioned DB2 server (Linux)" on page 42
- "Creating a file system for a partitioned DB2 server (Solaris Operating Environment)" on page 43

- "Creating a DB2 home file system for a partitioned database system (AIX)" on page 40
- "Creating required users for a DB2 server installation in a partitioned database environment (AIX)" on page 46
- "Creating required users for a DB2 server installation in a partitioned database environment (HP-UX)" in *Quick Beginnings for DB2 Servers*
- "Creating required users for a DB2 server installation in a partitioned database environment (Linux)" on page 47
- "Creating required users for a DB2 server installation in a partitioned database environment (Solaris Operating Environment)" on page 49
- "Installing database partition servers on participating computers using a response file (Linux and UNIX)" on page 57
- "Installing DB2 servers (Linux and UNIX)" on page 53
- "Installing DB2 servers (Windows)" on page 51
- "Updating environment settings for a partitioned DB2 installation (AIX)" on page 34

#### **Related reference:**

• "DB2 node configuration file - db2nodes.cfg" on page 243

# Installing database partition servers on participating computers using a response file (Linux and UNIX)

In this task you will use the response file you created using the DB2 Setup wizard to install database partition servers on participating computers.

#### **Prerequisites:**

- You have installed DB2 on the primary computer using the DB2 Setup wizard and have created a response file for installing on participating computers.
- You must have root authority on participating computers.

#### **Procedure:**

To install additional database partition servers using a response file:

- 1. As root, log on to a computer that will participate in the partitioned database environment.
- 2. Change to the directory where you copied the contents of the DB2 product CD-ROM:

cd /db2home/db2cdrom

 Enter the ./db2setup command as follows: ./db2setup -r /responsefile directory/response file name

In our example, we saved the response file, AddPartitionResponse.file, to the /db2home directory. The command for our example, would be:

- ./db2setup -r /db2home/AddPartitionResponse.file
- 4. Check the messages in the log file when the installation finishes.

You must log onto each participating computer and perform a response file installation.

If you want your DB2 product to have access to DB2 documentation either on your local computer or on another computer on your network, then you must install the DB2 Information Center. The DB2 Information Center contains documentation for the DB2 database system and DB2 related products.

#### Related tasks:

- "Installing the DB2 Information Center using the DB2 Setup wizard (Linux)" in *Quick Beginnings for DB2 Servers*
- "Setting up a partitioned database environment" on page 55

## **Applying DB2 product licenses**

The DB2 product installation can apply an unlicensed version of the DB2 product. To correctly license your product, you must register the proper license key with your DB2 product. The license key and fully detailed license registration procedures are available on the product Activation CD.

If you want the product or feature license key added automatically during the installation, you need to copy the license key to the /db2/license directory of the installation image before launching the DB2 Setup wizard.

#### **Prerequisites:**

You must have installed your DB2 product.

#### **Procedure:**

To enable DB2 features or to be in compliance with your current product entitlement, you might be required to:

- Install a new DB2 product license key
- Install the DB2 code that will install the appropriate license keys

#### **Related tasks:**

- "Registering a DB2 product or feature license key using the db2licm command" on page 240
- "Registering a DB2 product or feature license key using the License Center" in *Installation and Configuration Supplement*

#### **Related reference:**

"DB2 product license files" on page 240

Part 2. Installing a Common Criteria compliant environment

# Chapter 5. Installing single-partition Common Criteria compliant environments

The following topics describe how to install single-partition Common Criteria compliant environments.

# Installing DB2 Enterprise 9 on AIX 5.3 for a single-partition Common Criteria compliant installation

This task provides detailed instructions on installing DB2 Enterprise 9 on AIX 5.3 for a Common Criteria compliant installation.

### **Prerequisites:**

- The prerequisites listed in "Installation requirements for DB2 clients and servers (AIX)" must be met.
- The computer on which you install DB2 must be physically protected from untrusted users.
- AIX 5.3 must be installed on the computer with hot fix IY83580. The hot fix is available at: ftp://service.software.ibm.com/aix/efixes/iy83580/
- You must have the file v9fp1\_aix\_ese.tar.gz downloaded to the directory of your choice. This file is available from the DB2 9 download site (http://ibm.com/ software/data/db2/udb/support/downloadv9.html).
- You must have downloaded the applicable activation files from the Passport Advantage site to the same directory. You require these files to activate Enterprise 9 after installation. The instance owner must have read/write authority on this directory.
  - One of the following:
    - DB2\_Enterp\_Svr\_Auth\_User\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per user basis.
    - DB2\_Enterprise\_Svr\_Ed\_CPU\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per CPU basis.
  - DB2\_Advanced\_Access\_Cntrl\_Activation.zip. Required to activate label-based access control (LBAC).
- The user names to be used for the following:
  - The DB2 instance owner
  - The DB2 Administration Server
  - The fenced user

If you do not have these user names, obtain them from your system administrator. For more information about these users, see "DB2 users and groups (Linux and UNIX)" on page 26. For information about creating these users, see "Creating group and user IDs for a DB2 database installation (Linux and UNIX)" on page 30.

The topic "Installing DB2 servers (Linux and UNIX)" provides an overview of installing on Linux and UNIX-based platforms.

#### Procedure:

Use the following steps to install DB2 Enterprise 9 on AIX 5.3 for a Common Criteria compliant environment.

- 1. Log on to the system as a user with root authority.
- Decompress the product file: gzip -d v9fp1\_aix\_ese.tar.gz
- Untar the product file: tar xvf v9fp1\_aix\_ese.tar
- Change directory: cd \$HOME/ese/disk1
- 5. Issue the ./db2setup command to open the "IBM DB2 Setup Launchpad" at the "Welcome" page:

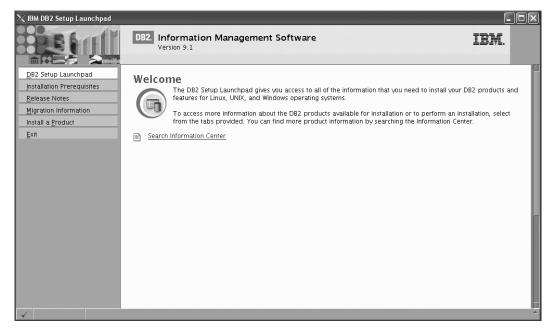


Figure 1. Welcome page of the DB2 Setup Launchpad

6. On the "Welcome" page of the "IBM DB2 Setup Launchpad", click **Install a Product** to open the "Install a Product" page.

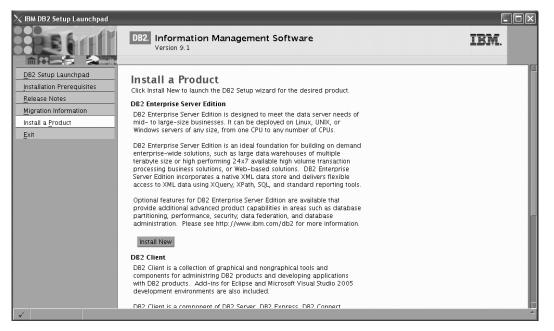


Figure 2. Install a Product page of the DB2 Setup Launchpad

7. On the "Install a Product" page of the "IBM DB2 Setup Launchpad", click the Install New button for DB2 Enterprise Server Edition
The "IDP2 Content in a line"

The "DB2 Setup wizard" opens.

×
Einish Cancel Help

Figure 3. DB2 Setup wizard

- 8. Click Next. The "License Agreement" page opens.
- 9. On the "License Agreement" page:
  - a. After reviewing and agreeing to the license text, select the **Accept** radio button:

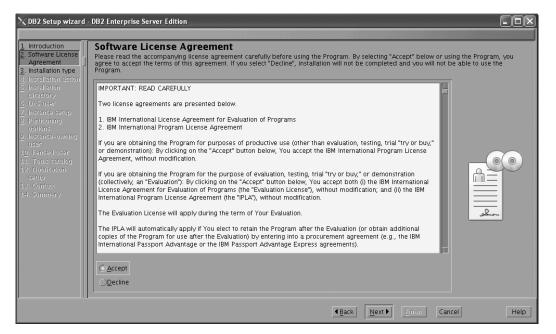


Figure 4. DB2 Setup wizard - Licence Agreement page

- b. Click Next. The "Select the installation type" page opens.
- 10. On the "Select the installation type" page:
  - a. Select the **Custom** radio button:

$ imes$ DB2 Setup wizard $\cdot$	DB2 Enterprise Server Edition	X
1. Introduction 2. Software License	Select the installation type	
3. Installation type 4. Installation action	() <u>Typ</u> ical: 500 – 610 MB	
5. Features 6. Languages 7. Documentation	<u>○Compact: 450 - 550 MB</u>	
8. DAS user 9. Instance setup	C <u>Cu</u> stom: 450 - 760 MB	
10. Partitioning opti 11. Instance-owning	Information about the installation type	
12. Fenced user	Custom	
13. Communication 14. Tools catalog	If you are already familiar with DB2 features and settings, you can select the features that you want installed and specify your configuration preferences.	J
15. Notification setu 16. Contact 17. Summary	The default settings for a custom installation are the same as those for a typical installation, but you can customize optional features and configuration parameters.	
27. Sammary		
	Back Next Enish Cancel Help	

Figure 5. DB2 Setup wizard - Select the installation type page

- b. Click Next. The "Select the installation, response file creation, or both" page opens.
- 11. On the "Select the installation, response file creation, or both" page:
  - a. Select the **Install DB2 Enterprise Server Edition on this computer** radio button.

🔀 DB2 Setup wizard - DB2 Enterprise Server Edition	
1. Introduction 2. Software License 3. Installation stype 4. Installation action 5. Features 6. Longtages 7. Doctmentation 9. Installation setup 10. Install DB2 Enterprise Server Edition on this computer, create a response file that you can use to install this proceed on the other computers that will act as database partition servers. Installation action 5. Longtages 7. Doctmentation 9. Install DB2 Enterprise Server Edition on this computer 9. Install DB2 Enterprise Server Edition on this computer 9. Install DB2 Enterprise Server Edition on this computer 9. Install DB2 Enterprise Server Edition on this computer 9. Install DB2 Enterprise Server Edition on this computer 9. Install DB2 Enterprise Server Edition on this computer 9. Install DB2 Enterprise Server Edition on this computer 9. Install DB2 Enterprise Server Edition on this computer 9. Install DB2 Enterprise Server Edition on this computer 9. Install DB2 Enterprise Server Edition on this computer 9. Install DB2 Enterprise Server Edition on this computer and save my settings in a response file No software will be installed on this computer and save my settings in a response file No software will be installed on this computer and save my settings in a response file No software Will be installed on this computer and save my settings in a response file No software Will be install DB2 Enterprise Server Edition on this computer and save my settings in a response file No software Will be install DB2 Enterprise Server Edition on this computer and save my settings in a response file No software Will be install DB2 Enterprise Server Edition on this computer and save my settings in a response file No software Will be install DB2 Enterprise Server Edition on this computer and save my settings in a response file No software Will be install DB2 Enterprise Ser	
Back Next Finish Cancel	Help

Figure 6. DB2 Setup wizard - Select the installation, response file creation, or both page

b. Click Next. The "Select the features to install" page opens.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition	
Introduction     Software License     Installation type     Installation action     Software License     Installation action     Software     Installation action     Software     Installation action     Software     Instance setup     Ioure     Instance setup     Ioure     Instance setup     Ioure     Ioure	Select the features to install Select the features you want to install.	Description DB2 Enterprise Server Edition is designed to meet the data server needs of mid- to large-size businesses.
	Directory /opt/IBM/db2/V9.1	Space required: 492 MB Space available: 1280 MB
	<u> ∉ B</u> ack	Next Enish Cancel Help

Figure 7. DB2 Setup wizard - Select the features to install page

- 12. On the "Select the features to install" page:
  - a. Open the + beside the **Client** feature.
  - b. Select the DB2 LDAP support feature to remove the check mark.

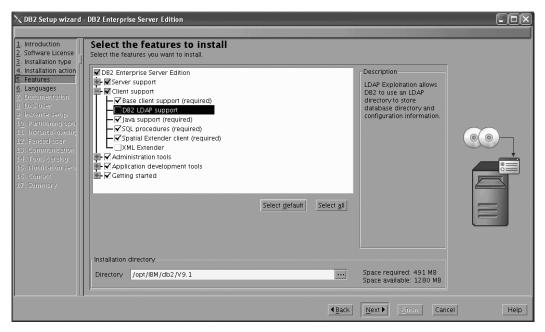


Figure 8. DB2 Setup wizard - Select the features to install page; DB2 LDAP support feature deselected for install

- c. Open the + beside Administration tools.
- d. Ensure that the following features under **Administration tools** are deselected for installation:
  - DB2 Instance Setup wizard
  - DB2 Web Tools

DB2 Setup wizard -     Software License     Installation type     Installation action     Sectors     Installation action     Sectors     Languages     Locurementation     Do2 User     Jostance setup     Do2 User     Instance-owning     I. Franced User     I. Stance-owning     S. Communication     I. Tools catalog     S. Notification setu     S. Commany	DB2 Enterprise Server Edition  Select the features to install  Select the features you want to install.  DB2 Enterprise Server Edition  Clent support  Select default  Installation directory  Director	Select all	Description The Administration tools group contains DB2 graphical and command line tools used to administer local and remote databases.	
	Directory /opt/IBM/db2/V9.1		Space required: 481 MB Space available: 1280 MB	
		▲ <u>B</u> ack	Next Einish Can	cel Help

Figure 9. DB2 Setup wizard - Select the features to install page; Administration tools features deselected for install

- e. Open the + beside Application development tools.
- f. Ensure that the **ADT sample programs** feature and the **Spatial Extender samples** feature are deselected for installation.

	DB2 Enterprise Server Edition			
Introduction     Software License     Software License     Installation type     Installation action     Software Setup     Documentation     Documentation     Documentation     Documentation     Documentation     Documentation     Documentation     Software Setup     Documentation     Software Setup     Softwa	Select the features to install Select the features you want to install.		Description Spatial Extender samples component provides examples for using Spatial Extender features.	
	Directory /opt/IBM/db2/V9.1		Space required: 465 MB Space available: 1280 MB	
	[	▲ <u>B</u> ack	Next Einish Cancel	Help

Figure 10. DB2 Setup wizard - Select the features to install page; Application development tools features deselected for installation

- g. Open the + beside Getting started.
- h. Ensure that the **First Steps** feature and the **XML Extender samples** feature are deselected for installation.

XDB2 Setup wizard	DB2 Enterprise Server Edition	
Introduction     Software License     Installation type     Installation action     S. Features     C. Documentation     J. DAS user     J. Installate setup     Instance setup     Instance setup     I. Instance-owning     I. Fenced user     I. Contract     S. Contract     T. Summary	Select the features to install Select the features you want to install.	Description XML Extender samples are sample programs you can use to learn about XML Extender technology.
	Directory /opt/IBM/db2/V9.1	Space required: 464 MB Space available: 1280 MB
	<u> </u>	Next Einisin Cancel Help

Figure 11. DB2 Setup wizard - Select the features to install page; Getting started features deselected for installation

- i. Click Next. The "Select the languages to install" page opens.
- **13**. On the "Select the languages to install" page, English is the only language support that is installed by default.

DB2 Setup wizard -	DB2 Enterprise Server Edition Select the languages to install The user interface and product messages will be installed in the languag space requirements.	es that you choose. Installing multiple languages will increase the disk
A. Installation action     S. Features     C. Languages     Documentation     DoJ user     Drace setup     Dy Partitioning upofi     Instance setup     Second User     S	Available languages <u>Chinese (Traditional)</u> Czech French (Standard) German Italian Japanese Confirm installation directory Directory /opt/IBM/db2/V9.1	d languages Space required: 464 MB Space available: 1280 MB
		Back         Next >         Emisin         Cancel         Help

Figure 12. DB2 Setup wizard - Select the languages to install page; English language support selected for installation

- 14. Click **Next**. The "Specify the location of the DB2 Information Center" page opens.
- 15. On the "Specify the location of the DB2 Information Center" page:
  - a. Ensure that the **On the IBM Web site** radio button is selected.

≻ DB2 Setup wizard	DB2 Enterprise Server Edition	
1. Introduction       2. Software License       3. Installation type       4. Installation action	Specify the location of the DB2 Information Center The DB2 Information Center contains documentation for DB2 products. The DB2 Information Center can be accessed o installed and accessed on another computer on your intranet, or installed and accessed on a local computer. This setti after installation is complete.	
5. Features 6. Languages 7. Documentation 8. DAS user	Select the location from which you will access the DB2 Information Center:	
<ul> <li>Instance setup</li> <li>Partitoning opti</li> <li>Instance-owning</li> <li>Instance-owning</li> <li>Fanced user</li> <li>Communication</li> <li>Tools catalog</li> <li>Notification setu</li> <li>Contact</li> <li>Summary</li> </ul>	If you want to install and access the DB2 Information Center locally, install the DB2 Information Center on this computer from the CD labeled DB2 Information Center. Of the following intranet genver Host name Port number \$1000	
	Back Dext D Binish Can	cel Heip

Figure 13. DB2 Setup wizard - Specify the location of the DB2 Information Center; On the IBM Web site option selected

- b. Click **Next**. The "Set user information for the DB2 Administration Server" page opens.
- 16. On the "Set user information for the DB2 Administration Server" page:
  - a. Select the Existing user radio button.

b. Use the ... button to select the user previously defined for the DB2 Administration Server.

<u>1</u> . Introduction <u>2</u> . Software License <u>3</u> . Installation type     4. Installation action	Set user information for the DB2 Administra The DB2 Administration Server (DA3) runs on your computer to provid privileges is required to run the DAS. Specify the required user inform	le support required by the DB2 tools. A user with a minimal set of
5. Features	⊖Ne <u>w</u> user	
<u>6</u> . Languages <u>7</u> . Documentation	User name	
8. DAS user 9. Instance setup		Use default UID
	Group name	
	GD	Use default <u>G</u> D
	Password	
15. Notification setu 16. Contact	Confirm password	T
	Home directory	
	© Existing user	
	User name	

Figure 14. DB2 Setup wizard - Set user information for the DB2 Administration Server page

- c. Click Next. The "Set up a DB2 instance" page opens.
- 17. On the "Set up a DB2 instance" page:
  - a. Ensure that the Create a DB2 instance radio button is selected.

≫DB2 Setup wizard -	- DB2 Enterprise Server Edition	. DX
1. Introduction         2. Software License         3. Installation type         4. Installation action         5. Features	Set up a DB2 instance A DB2 instance is an environment in which you store data and run applications. You must have an instance to use this product. If you would like to add this computer to an existing partitioned database environment, you should not create an instance on this comput The instance should be created on the instance-owning database partition server.	er.
6. Languages 7. Documentation 8. DAS user 9. Instance setup 10. Partitioning opti 11. Instance-owning 12. Fenced user 13. Communication	© <u>Cr</u> eate a DB2 instance <u>D</u> o not create a DB2 instance	
14. Tools catalog 15. Indification seru 15. Contact 17. Summary		
	▲Back Next ► Emism Cancel	Help

Figure 15. DB2 Setup wizard - Set up a DB2 instance page; Create a DB2 instance option selected

- b. Click **Next**. The "Set up partitioning options for the DB2 instance" page opens.
- 18. On the "Set up partitioning options for the DB2 instance" page:

a. Ensure that the **Single partition instance** radio button is selected.

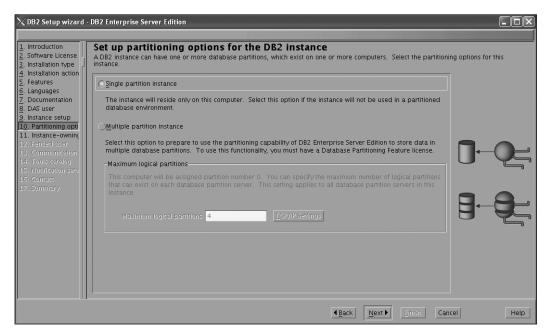


Figure 16. DB2 Setup wizard - Set up partitioning options for the DB2 instance page

- b. Click **Next**. The "Set user information for the DB2 instance owner" page opens.
- 19. On the "Set user information for the DB2 instance owner" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the DB2 instance owner.

1. Introduction       2. Software License       3. Installation type	Specify the instance-ownin	ition Ition for the DB2 instance owner Ig user information for the DB2 instance. DB2 will use this user to perform instance fu ome directory. The name of the instance will be the same as the user name.	nctions, and will store instance
<ol> <li>Installation action</li> <li>Features</li> </ol>	⊖Ne <u>w</u> user		
<u>6</u> . Languages 7. Documentation	User name		
8. DAS user	UID	Use defaul	
<u>9</u> . Instance setup 1 <u>0</u> . Partitioning opti	Group name		
11. Instance-owning 12. Fenced user	GID	Use defaul	r GID
13. Communication	Password		
14. Tools catalog 15. Notification setu	Confirm password		ित्त
16. Contact 17. Summary	Home directory		
17. Summary			
	○Existing user		
	User name		
		<b>▲<u>B</u>ack</b> <u>Hext</u> <u>Finish</u>	Cancel Help

Figure 17. DB2 Setup wizard - Set user information for the DB2 instance owner page

c. Click Next. The "Set user information for the fenced user" page opens.

- 20. On the "Set user information for the fenced user" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the fenced user.

1. Introduction 2. Software License 3. Installation type	B2 Enterprise Server Edition
4. Installation action 5. Features 6. Languages 7. Documentation 8. DAS user 9. Instance setup 10. Partitioning opti 11. Instance-owning 12. Fenced user 13. Communication 14. Tools catalog 15. Notification setu 15. Context 17. Summary	New user         User name         UD         Group name         GD         CDD         Password         Continni password         Home directory         Existing user         User name
	<back bext="" cancel="" finish="" help<="" th="" ▶=""></back>

Figure 18. DB2 Setup wizard - Set user information for the fenced user page

- c. Click Next. The "Configure instance communication and startup" page opens.
- 21. On the "Configure instance communication and startup" page:
  - a. Select the **Configure** radio button.
  - b. Ensure that the **Autostart the instance at system startup** check box is deselected.

	- DB2 Enterprise Server Edition	
Introduction     Software License     Software License     Installation type     Installation action     Seatures     Languages     Tocumentation     DAS user     Instance setup     O. Partitioning opti     I. Instance-ownin;     Fenced user     I. Communication     I. Notification setu     S. Contract     To Sommary	Configure instance communication and startup         In order for remote clients to access data stored in the DB2 instance, you must configure the DB2 instance for TCP/IP communications protocol on your client computers.         The DB2 instance can also be set to start automatically when your computer starts.         TCP/IP configure that this time         Og ont configure         Service name       db2c_db2inst2         Port number       50000         Restore default settings	must
	<b>▲Back</b> <u>Next</u> Einisin Cancel	Help

Figure 19. DB2 Setup wizard - Configure instance communication and startup page

- c. Click Next. The "Prepare the DB2 tools catalog" page opens.
- 22. On the "Prepare the DB2 tools catalog" page:
  - a. Select the Do not prepare the DB2 tools catalog radio button.

imesDB2 Setup wizard -	DB2 Enterprise Server	dition	- D ×
1. Introduction       2. Software License       3. Installation type       4. Installation action	Prepare the DB Certain DB2 tools such a tools catalog must be st	is the Task Center and scheduler require a DB2 tools catalog on one of the DB2 server:	s in your environment. The DB2
5. Features 6. Languages	OPrepare the DB2	tools catalog	
7. Documentation 8. DAS user	Instance	db2inst2	Δ
9. Instance setup	Database		
10. Partitioning opti 11. Instance-owning	ONEW	TOOLSDB	
12. Fenced user 13. Communication	⊖E <u>x</u> isting	<select></select>	
14. Tools catalog	Schema		
15. Notification setu 16. Contact	ONew	รารางอาสาร	
17. Summary	OExisting	<select></select>	
	ODo not prepare t	ne DB2 tools catalog	
		<u> </u>	Cancel Help

Figure 20. DB2 Setup wizard - Prepare the DB2 tools catalog page

- b. Click Next. The "Set up notifications" page opens.
- **23**. On the "Set up notifications" page:
  - a. Select the **Do not set up your DB2 server to send notifications at this time** radio button.

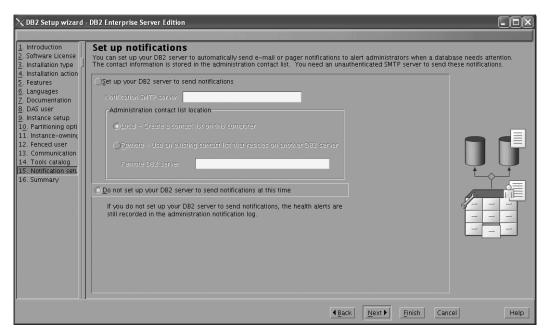


Figure 21. DB2 Setup wizard - Set up notifications page

b. Click Next. The "Start copying files" page opens.

DB2 Setup wizard - 1. Introduction 2. Software License 3. Installation type 4. Installation action 5. Features	DB2 Enterprise Server Edition  Start copying files  The DB2 Setup wizard has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Finish to begin copying files.  Current settings
<ul> <li>Languages</li> <li>Documentation</li> <li>DAS user</li> <li>Instance setup</li> <li>Partitioning opti</li> <li>Instance-owning</li> <li>Fenced user</li> <li>Communication</li> <li>Tools catalog</li> <li>Notification setu</li> <li>Summary</li> </ul>	Product to install: DB2 Enterprise Server Edition Installation type: Custom Previously Installed Components: Selected Components: Selected Components: GSKit support Product Messages - English Base client support IBM Software Development Kit (SDK) for Java(TM) Java Help (HTML) - English Replication with MQ Server Run-time Environment SQL procedures ICU Utilities SQL Replication Support Base server support Connect support Java Common files Spatial Extender client Base application development tools Administration Server Communication support - TCP/IP Parallel Extension Replication tools DB2 data source support Product Signature for DB2 Enterprise Server Edition
	<b>▲</b> Back <u>Finish</u> Cancel Help

Figure 22. DB2 Setup wizard - Start copying files page

24. On the "Start copying files" page, click **Finish** to begin installing DB2 on your computer.

The "Installing DB2 Enterprise Server Edition" page opens.

imes Installing DB2 Ente	erprise Server Edition 🛛 🗙
Server Edition on you	DB2 Setup wizard installs DB2 Enterprise ir computer and performs the required nay take several minutes.
Task: Installing Jav	a Help (HTML) – English
0%	100%
Overall progress:	
0%	100%

Figure 23. Installing DB2 Enterprise Server Edition page

When the installation completes, the "Setup Complete" page opens.

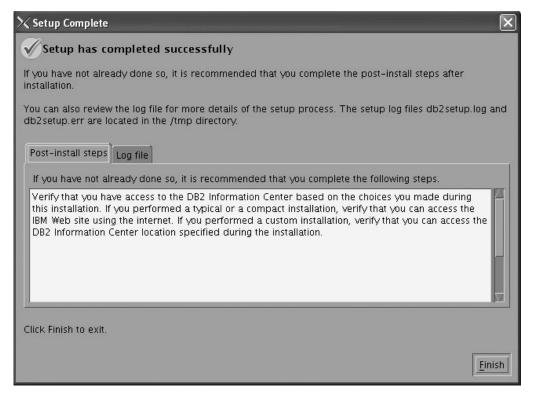


Figure 24. Setup Complete page

Click **Finish** to exit.

**25**. Activate the license files. See the topic " Registering a DB2 product or feature license key using the db2licm command".

After DB2 Enterprise 9 is installed, see the topic on configuring DB2 to be Common Criteria compliant in the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book.

# Installing DB2 Enterprise 9 on SuSE Linux Enterprise Server 9 for a single-partition Common Criteria compliant installation

This task provides detailed instructions on installing DB2 Enterprise 9 on SuSE Linux Enterprise Server 9 for a Common Criteria compliant installation.

## **Prerequisites:**

- The prerequisites listed in "Installation requirements for DB2 clients and servers (Linux)" must be met.
- The computer on which you install DB2 must be physically protected from untrusted users.
- SuSE Linux Enterprise Server 9 must be installed on the computer.
- You must have the file v9fp1\_linuxx64\_ese.tar.gz downloaded to the directory of your choice. This file is available from the DB2 9 download site (http://ibm.com/software/data/db2/udb/support/downloadv9.html).
- You must have downloaded the applicable activation files from the Passport Advantage site to the same directory. You require these files to activate Enterprise 9 after installation. The instance owner must have read/write authority on this directory.
  - One of the following:
    - DB2\_Enterp\_Svr\_Auth\_User\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per user basis.
    - DB2\_Enterprise\_Svr\_Ed\_CPU\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per CPU basis.
  - DB2\_Advanced\_Access\_Cntrl\_Activation.zip. Required to activate label-based access control (LBAC).
- The user names to be used for the following:
  - The DB2 instance owner
  - The DB2 Administration Server
  - The fenced user

If you do not have these user names, obtain them from your system administrator. For more information about these users, see "DB2 users and groups (Linux and UNIX)" on page 26. For information about creating these users, see "Creating group and user IDs for a DB2 database installation (Linux and UNIX)" on page 30.

The topic "Installing DB2 servers (Linux and UNIX)" provides an overview of installing on Linux and UNIX-based platforms.

## **Procedure:**

Use the following steps to install DB2 Enterprise 9 on SuSE Linux Enterprise Server 9 for a Common Criteria compliant environment.

- 1. Log on to the system as a user with root authority.
- **2**. Decompress the product file:
  - gzip -d v9fp1\_linuxx64\_ese.tar.gz
- **3**. Untar the product file:

tar xvf v9fp1\_linuxx64\_ese.tar

- 4. Change directory:
  - cd \$HOME/ese/disk1
- 5. Issue the ./db2setup command to open the "IBM DB2 Setup Launchpad" at the "Welcome" page:



Figure 25. Welcome page of the DB2 Setup Launchpad

6. On the "Welcome" page of the "IBM DB2 Setup Launchpad", click **Install a Product** to open the "Install a Product" page.

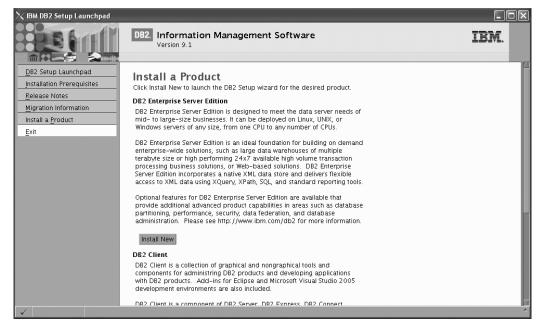


Figure 26. Install a Product page of the DB2 Setup Launchpad

 On the "Install a Product" page of the "IBM DB2 Setup Launchpad", click the Install New button for DB2 Enterprise Server Edition The "DB2 Setup wigerd" opens.

The "DB2 Setup wizard" opens.

≫DB2 Setup wizard	- DB2 Enterprise Server Edition	
Introduction     Software License     Agreement     Instellation type     Instellation     directory     DAS user     Instellation     Software     Isolation     Software     Isolation     Software     Isolation     Software     Isolation     Software     Instellation     Software     Isolation     Software     Isolation     Isolation	DB2 Enterprise Server Edition      Welcome to the DB2 Setup wizard      The DB2 Setup wizard will install DB2 Enterprise Server Edition on your     computer. To continue, click Next.	
	Next First Ca	ncel Help

Figure 27. DB2 Setup wizard

- 8. Click Next. The "License Agreement" page opens.
- 9. On the "License Agreement" page:
  - a. After reviewing and agreeing to the license text, select the **Accept** radio button:

1. Introduction 2. Software License	DB2 Enterprise Server Edition  Software License Agreement Please read the accompanying license agreement carefully before using the Program. By selecting "Accept" below or using the Program, you
Agreement J 3. Installation type 4 4. Installation action 5. Installation directory 9. DA5 user 7. Instance setup 9. Instance setup 9. Instance-owning 10. Panced user 11. Tools carelog 12. Notification setup 13. Contact 14. Summary	agree to accept the terms of this agreement. If you select "Decline", installation will not be completed and you will not be able to use the Program.  IMPORTANT: READ CAREFULLY Two license agreements are presented below.  I. IBM International License Agreement for Evaluation of Programs 2. IBM International Program License Agreement If you are obtaining the Program for purposes of productive use (other than evaluation, testing, trial "try or buy," or demonstration). By clicking on the "Accept" button below, You accept the IBM International Program License Agreement, without modification. If you are obtaining the Program for the purpose of evaluation, testing, trial "try or buy," or demonstration (collectively, an "Evaluation"). By clicking on the "Accept" button below, You accept both (0) the IBM International License Agreement for Evaluation of Programs (the "PCavitation License"), without modification. The Evaluation License Agreement (the "IPLA"), without modification. The Evaluation License will apply during the term of Your Evaluation. The IPLA will automatically apply if You elect to retain the Program after the Evaluation (or obtain additional copies of the Program for use after the Evaluation) by entering into a procurement agreement (e.g., the IBM International Passport Advantage or the IBM Passport Advantage Express agreements).
	▲Back Next Cancel Help

Figure 28. DB2 Setup wizard - Licence Agreement page

b. Click Next. The "Select the installation type" page opens.

# 10. On the "Select the installation type" page:

a. Select the **Custom** radio button:

🔀 DB2 Setup wizard	- DB2 Enterprise Server Edition
<u> </u>	
1. Introduction 2. Software License	Select the installation type
3. Installation type 4. Installation action	⊖ <u>Typ</u> ical: 530 - 640 MB
5. Features 6. Languages 7. Documentation	⊖ <u>C</u> ompact: 450 - 550 MB
2. DAS user 9. Instance setup	C Custom: 450 - 880 MB
1 <u>0</u> . Partitioning opti 11. Instance-owning	Information about the installation type
12. Fenced user 13. Communication	
14. Tools catalog	If you are already familiar with DB2 features and settings, you can select the features that you want installed and specify your configuration preferences.
15. Notification setu 16. Contact 17. Summary	The default settings for a custom installation are the same as those for a typical installation, but you can customize optional features and configuration parameters.
TV Primitary	
	Back Next Emisin Cancel Help

Figure 29. DB2 Setup wizard - Select the installation type page

- b. Click **Next**. The "Select the installation, response file creation, or both" page opens.
- 11. On the "Select the installation, response file creation, or both" page:
  - a. Select the **Install DB2 Enterprise Server Edition on this computer** radio button.

∑DB2 Setup wizard -	DB2 Enterprise Server Edition
Introduction     Software License     Installation type     A Installation action     Features     Languages     Toocumentation	Select installation, response file creation, or both The D82 Setup wizard can install D82 Enterprise Server Edition on this computer, create a response file that you can use to install this product on a computer later, or both. If you are setting up a D82 Enterprise Server Edition (ESE) partitioned database environment, you can also create a response file to install D82 on the other computers that will act as database partition servers.           Image:
<ol> <li>DAS user</li> <li>Instance setup</li> <li>Partitioning opti</li> <li>Partitioning opti</li> <li>Instance-owning</li> <li>Fanced user</li> <li>Communication</li> <li>Tools catalog</li> <li>Notification setu</li> <li>S. Contract</li> </ol>	Save my installation settings in a response file No software will be installed on this computer. Install DB2 Enterprise Server Edition on this computer and save my settings in a response file Response file name /root/db2ese.rsp
17. Jummary	
	▲Back Next Binish Cancel Help

Figure 30. DB2 Setup wizard - Select the installation, response file creation, or both page

b. Click Next. The "Select the features to install" page opens.

$ imes$ DB2 Setup wizard $\cdot$	DB2 Enterprise Server Edition			
1. Introduction       2. Software License       3. Installation type       4. Installation action       5. Features	Select the features to install Select the features you want to install.		Description	
<ul> <li>beatures</li> <li>Languages</li> <li>Documentation</li> <li>DAS user</li> <li>Instance-setup</li> <li>Instance-owning</li> <li>Farned user</li> <li>Communication</li> <li>Tools catalog</li> <li>Notification setu</li> <li>Contact</li> <li>Contact</li> <li>Summary</li> </ul>	Administration tools		DB2 Enterprise Server Edition is designed to meet the data server needs of mid- to large-size businesses.	
	Installation directory Directory /opt/ibm/db2/V9.1	Select default Select all	Space required: 525 MB	
		<u>▲B</u> ack	Space available: 12177 MB	cel Help

Figure 31. DB2 Setup wizard - Select the features to install page

- 12. On the "Select the features to install" page:
  - a. Open the + beside **Client**.
  - b. Select the **DB2 LDAP support** feature to remove the check mark.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition				- D ×
Introduction     Z. Software License     Software License     Installation type     Installation action     S. Features     Documentation     DAS user     Instance setup     Partitioning opti     I. Instance-owning     Renced user     I. Communication     S. Notification setu     S. Software     Summary	Select the features to install Select the features you want to install DB2 Enterprise Server Edition Server support Class client support Server support	Select default	Select all	Description LDAP Exploitation allows DB2 to use an LDAP directory to store database directory and configuration information.	
	Directory /opt/ibm/db2/V9.1			Space available: 50878 MB	
			<b>▲</b> <u>B</u> ack	Next Finish Ca	Incel Help

Figure 32. DB2 Setup wizard - Select the features to install page; DB2 LDAP support feature deselected for install

- c. Open the + beside Administration tools.
- d. Ensure that the following features under **Administration tools** are deselected for installation:
  - Configuration Assistant

**Note:** The **Configuration Assistant** feature must be deselected after the **Control Center** feature.

- Control Center
- DB2 Instance Setup Wizard
- DB2 Web Tools

∑DB2 Setup wizard	DB2 Enterprise Server Edition	- D ×
Introduction     Software License     Installation type     Installation type     Installation type     Installation action     Features     Languages     Doctmentation     DAS user     Instance-owning     Partitioning opti     I. Instance-owning     Partitioning opti     I. Instance-owning     Partitioning opti     I. Instance-owning     I. Feated user     I. Contance setup     Software     Software     Software     Software     Instance-owning     I. Instance-owning     I. Feated user     I. Contance setup     Software     So	Select the features to install.         Select the features you want to install.         Image: Server Support         Image: Server Server Support         Image: Server Server Support         Image: Server Serve	
	Directory /opt/ibm/db2/V9.1 Space required: 473 MB Space available: 50878 MB	
	Back Next Binish Cance	l Help

Figure 33. DB2 Setup wizard - Select the features to install page; Administration tools features deselected for install

- e. Open the + beside Application development tools.
- f. Ensure that the **ADT sample programs** feature and the **Spatial Extender samples** feature are deselected for installation.

1. Introduction 2. Software License	DB2 Enterprise Server Edition Select the features to install Select the features you want to install.	
Installation type     Installation type     Installation action     Seatures     Languages     Documentation     DAS user     Jost user     Jost user     Jost user     Instance setup     Io, Partitioning opdi     II, Instance-owning     I2, Panced user     I3, Communication     I4, Tools catalog     I5, Notification setu     I5, Contact     I7, Summary	W D82 Enterprise Server Edition           Server support           Server support           Server support           Spatial Extender samples         component provides         examples for using         Spatial Extender           features.             W D8D Software Development tools           Spatial Extender samples           Seconder            Seconder Gerauit	
	-Installation directory Directory /opt/ibm/db2/V9.1 Space required: 458 MB Space available: 50878 MB	
	Back Next Emisin Cance	l Help

Figure 34. DB2 Setup wizard - Select the features to install page; Application development tools features deselected for installation

- g. Open the + beside Getting started.
- h. Ensure that the **First Steps** feature and the **XML Extender samples** feature are deselected for installation.

$\chi$ DB2 Setup wizard $\cdot$	DB2 Enterprise Server Edition	-ox
Introduction     Software License     Installation type     Anstallation action     S. Features     Languages     J. Documentation     J. Documentation     J. Documentation     J. Dastance setup     J., Instance-owning     I2. Fenced user     I3. Communication     I3. Forinteation setu     I5. Contact     I7. Summary	Select the features to install         Select the features you want to install.         Image: Server Support         Image: Server	
	Directory /opt/ibm/db2/V9.1 Space required: 457 MB Space available: 50878 MB	
	<b>▲Back</b> <u>Next</u> <u>Hnish</u> Cancel	Help

Figure 35. DB2 Setup wizard - Select the features to install page; Getting started features deselected for installation

- i. Click Next. The "Select the languages to install" page opens.
- **13**. On the "Select the languages to install" page, English is the only language support that is installed by default.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition	
DB2 Setup wizard -     Introduction     Software License     Installation type     Installation action     Seatures     DB2 Setup     DS User     Instance setup     Iosare setup     I. Instance-owning     Software     Sof	DB2 Enterprise Server Edition         Select the languages to install         The user interface and product messages will be installed in the language disk space requirements.         Available languages         Select disk space requirements.         Available (anguages         Chinese (Traditional)         Czech         French (Standard)         German         Italian         Japanese         Confirm installation directory         Directory       /opt/ibm/db2/V9.1	

Figure 36. DB2 Setup wizard - Select the languages to install page; English language support selected for installation

- 14. Click **Next**. The "Specify the location of the DB2 Information Center" page opens.
- 15. On the "Specify the location of the DB2 Information Center" page:
  - a. Ensure that the **On the IBM Web site** radio button is selected.

∑DB2 Setup wizard -	DB2 Enterprise Server Edition
1. Introduction       2. Software License       3. Installation type       4. Installation action	Specify the location of the DB2 Information Center The DB2 Information Center contains documentation for DB2 products. The DB2 Information Center can be accessed on the IBM Web site, installed and accessed on another computer on your intranet, or installed and accessed on a local computer. This setting can also be changed after installation is complete.
5. Features 6. Languages 7. Documentation 8. DAS user	Select the location from which you will access the DB2 Information Center:
<ol> <li>Instance setup</li> <li>Partitioning optil</li> <li>Instance-owning</li> <li>Instance-owning</li> <li>Fenced user</li> <li>Communication</li> <li>Tools catalog</li> </ol>	If you want to install and access the DB2 Information Center locally, install the DB2 Information Center on this computer from the CD labeled DB2 Information Center.
15. Notification seru 16. Contact 17. Summary	Port number 51000
	<u> </u>

Figure 37. DB2 Setup wizard - Specify the location of the DB2 Information Center; On the IBM Web site option selected

- b. Click **Next**. The "Set user information for the DB2 Administration Server" page opens.
- 16. On the "Set user information for the DB2 Administration Server" page:
  - a. Select the Existing user radio button list.

b. Use the ... button to select the user previously defined for the DB2 Administration Server.

1. Introduction       2. Software License       3. Installation type	DB2 Enterprise Server Edition     Set user information for the DB2 Administration Server The DB2 Administration Server (DAS) runs on your computer to provide support required by the DB2 tools. A user with a minimal set of privileges is required to run the DAS.			
4. Installation action 5. Features	⊖Ne <u>w</u> user			
<u>6</u> . Languages <u>7</u> . Documentation	User name			
8. DAS user 9. Instance setup	UID	<u>√U</u> se default UID		
10. Partitioning opti	Group name			
11. Instance-owning 12. Fenced user	GID	√Use default <u>G</u> D		
13. Communication 14. Tools catalog	Password		- CA	
15. Notification setu 16. Contact	Confirm password			
17. Summary	Home directory			
	<u>     Existing user</u>			
	User name			
		Back         Hext >         Einish         Cancel	Help	

Figure 38. DB2 Setup wizard - Set user information for the DB2 Administration Server page

- c. Click Next. The "Set up a DB2 instance" page opens.
- 17. On the "Set up a DB2 instance" page:
  - a. Ensure that the Create a DB2 instance radio button is selected.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition	
1. Introduction       2. Software License       3. Installation type       4. Installation action       5. Features	Set up a DB2 instance A DB2 instance is an environment in which you store data and run applications. You must have an instance to use this If you would like to add this computer to an existing partitioned database environment, you should not create an inst The instance should be created on the instance-owning database partition server.	
6 Languages 7 Documentation 8 DAS user 9. Instance setup 10. Partitioning opti 11. Instance-owning 12. Fenced user 13. Communication	© <u>C</u> reate a DB2 instance ○ <u>D</u> o not create a DB2 instance	
14. Tools catalog 15. Notification satu 16. Contest 17. Summary		
		el Help

Figure 39. DB2 Setup wizard - Set up a DB2 instance page; Create a DB2 instance option selected

- b. Click **Next**. The "Set up partitioning options for the DB2 instance" page opens.
- 18. On the "Set up partitioning options for the DB2 instance" page:

a. Ensure that the **Single partition instance** radio button is selected.

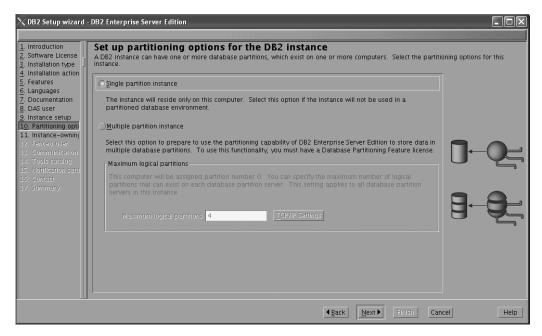


Figure 40. DB2 Setup wizard - Set up partitioning options for the DB2 instance page

- b. Click **Next**. The "Set user information for the DB2 instance owner" page opens.
- 19. On the "Set user information for the DB2 instance owner" page:
  - a. Select the Existing user radio button list.
  - b. Use the ... button to select the user previously defined for the DB2 instance owner.

≫DB2 Setup wizard	DB2 Enterprise Server Edition		
1. Introduction	Set user information for the DB2 instance owner		
2. Software License	Specify the instance-owning user information for the DB2 instance. DB2 will use	this user to perform instance functions	, and will store
<ol> <li>Installation type</li> <li>Installation action</li> </ol>	instance information in the user's home directory. The name of the instance will	be the same as the user name.	
5. Features	ONe <u>w</u> user		
<u>6</u> . Languages 7. Documentation	User name		
8. DAS user	UD	√Use default UID	
<ol> <li>Instance setup</li> <li>Partitioning opti</li> </ol>	Group name		
11. Instance-owning	GD		
12. Fenced user 13. Communication		√Use clefault <u>C</u> ID	
14. Tools catalog	Password		877
15. Notification setu 16. Contact	Confirm password		
17. Summary	Home directory	***	
	© Existing user		
	User name		U
	45	Back Mext Finish Cancel	Help

Figure 41. DB2 Setup wizard - Set user information for the DB2 instance owner page

c. Click Next. The "Set user information for the fenced user" page opens.

- 20. On the "Set user information for the fenced user" page:
  - a. Select the Existing user radio button list.
  - b. Use the ... button to select the user previously defined for the fenced user.

次DB2 Setup wizard -	- DB2 Enterprise Server Edition		
1. Introduction 2. Software License 3. Installation type	Set user information for the fenced user Specify the required information for the fenced user. Fenced user defined functions (UD user and group.	-s) and stored procedures will e	execute under this
4. Installation action 5. Features	ONe <u>w</u> user		
<u>6</u> . Languages 7. Documentation	User name		
8. DAS user	UID	Use default UID	
<u>9</u> . Instance setup 1 <u>0</u> . Partitioning opti	Group name		
11. Instance-owning 12. Fenced user			
13. Communication	Password		_
14. Tools catalog 15. Notification setu	Confirm password	_	_ EA
16. Contact 17. Summary	Home directory		
117. Summary			
	O <u>E</u> xisting user		
	User name		
	<u> </u>	Next      Finish Cancel	Help

Figure 42. DB2 Setup wizard - Set user information for the fenced user page

- c. Click Next. The "Configure instance communication and startup" page opens.
- 21. On the "Configure instance communication and startup" page:
  - a. Select the **Configure** radio button.
  - b. Ensure that the **Autostart the instance at system startup** check box is deselected.

∕X DB2 Setup wizard	- DB2 Enterprise Serv	ver Edition	
Introduction     Software License     Installation type     Installation type     Installation type     Installation type     Installation action     Seatures     Languages     Toocumentation     DAS user     Instance setup     Io. Partitioning opti     Instance -owning     I. Instance-owning     I. Instance-owning     I. Fenced user     I. Communication     I. Tools catalog     I. Notification setu     I.S. Commany	In order for remote must also configure 1 The DB2 instance ca DD0 not configure Configure Service name Port number		P communication. You
		Back Dext Finish Can	u cel Heip

Figure 43. DB2 Setup wizard - Configure instance communication and startup page

- c. Click Next. The "Prepare the DB2 tools catalog" page opens.
- 22. On the "Prepare the DB2 tools catalog" page:
  - a. Select the Do not prepare the DB2 tools catalog radio button.

℅DB2 Setup wizard	- DB2 Enterprise Server I	dition	- DX
1. Introduction         2. Software License         3. Installation type         4. Installation action	Prepare the DB Certain DB2 tools such a DB2 tools catalog must i	2 tools catalog is the Task Center and scheduler require a D82 tools catalog on one of the D82 e stored in a D82 database.	2 servers in your environment. The
5. Features 6. Languages	OPrepare the DB2	tools catalog	
7. Documentation 8. DAS user	Instance	db2inst1	
9. Instance setup	Database		
10. Partitioning opti 11. Instance-owning	© N <u>e</u> w	TOOLSDB	
12. Fenced user 13. Communication	⊖E <u>x</u> isting	<select></select>	
14. Tools catalog	Schema		
15. Notification setu 16. Contact	Onlew	21001272	
17. Summary	OExisting	<select></select>	
	O Do not prepare ti	ne DB2 tools cataloo	
		▲ <u>Back</u> <u>Next</u> E	rish Cancel Help

Figure 44. DB2 Setup wizard - Prepare the DB2 tools catalog page

- b. Click Next. The "Set up notifications" page opens.
- **23**. On the "Set up notifications" page:
  - a. Select the **Do not set up your DB2 server to send notifications at this time** radio button.

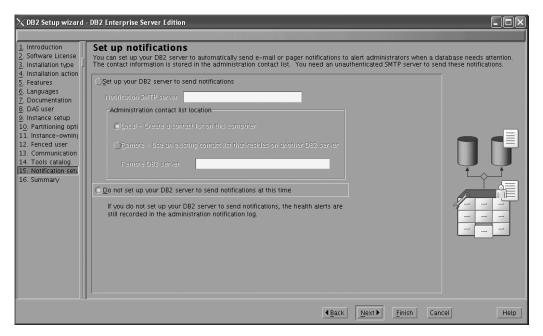


Figure 45. DB2 Setup wizard - Set up notifications page

b. Click Next. The "Start copying files" page opens.

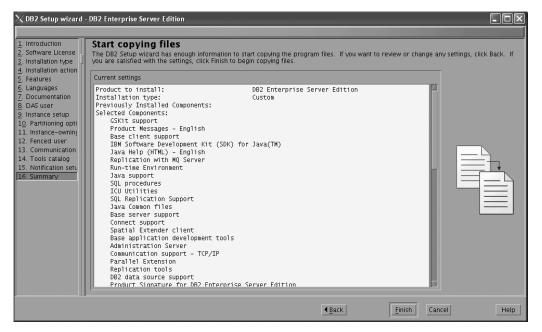


Figure 46. DB2 Setup wizard - Start copying files page

24. On the "Start copying files" page, click **Finish** to begin installing DB2 on your computer.

The "Installing DB2 Enterprise Server Edition" page opens.

imes Installing DB2 Enterprise Server Edition	$\mathbf{X}$
Please wait while the DB2 Setup wizard installs DB2 Enterprise Server Edition on your computer and performs the required configuration. This may take several minutes.	e
Task: Installing Base client support	
0% 1009	%
Overall progress:	
0% 100	%

Figure 47. Installing DB2 Enterprise Server Edition page

When the installation completes, the "Setup Complete" page opens.

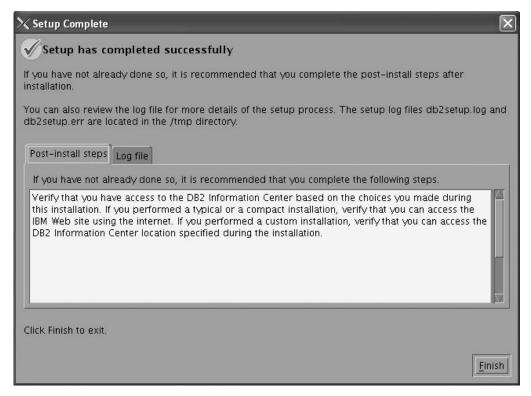


Figure 48. Setup Complete page

Click **Finish** to exit.

**25**. Activate the license files. See the topic " Registering a DB2 product or feature license key using the db2licm command".

After DB2 Enterprise 9 is installed, see the topic on configuring DB2 to be Common Criteria compliant in the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book.

# Installing DB2 Enterprise 9 on Solaris 9 for a single-partition Common Criteria compliant installation

This task provides detailed instructions on installing DB2 Enterprise 9 on Solaris 9 for a Common Criteria compliant installation.

#### **Prerequisites:**

- The prerequisites listed in "Installation requirements for DB2 clients and servers (Solaris Operating System)" must be met.
- The computer on which you install DB2 must be physically protected from untrusted users.
- Solaris 9 must be installed on the computer.
- You must have the file v9fp1\_sunos\_ese.tar.gz downloaded to the directory of your choice. This file is available from the DB2 9 download site (http://ibm.com/software/data/db2/udb/support/downloadv9.html).
- You must have downloaded the applicable activation files from the Passport Advantage site to the same directory. You require these files to activate Enterprise 9 after installation. The instance owner must have read/write authority on this directory.
  - One of the following:
    - DB2\_Enterp\_Svr\_Auth\_User\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per user basis.
    - DB2\_Enterprise\_Svr\_Ed\_CPU\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per CPU basis.
  - DB2\_Advanced\_Access\_Cntrl\_Activation.zip. Required to activate label-based access control (LBAC).
- The user names to be used for the following:
  - The DB2 instance owner
  - The DB2 Administration Server
  - The fenced user

If you do not have these user names, obtain them from your system administrator. For more information about these users, see "DB2 users and groups (Linux and UNIX)" on page 26. For information about creating these users, see "Creating group and user IDs for a DB2 database installation (Linux and UNIX)" on page 30.

The topic "Installing DB2 servers (Linux and UNIX)" provides an overview of installing on Linux and UNIX-based platforms.

#### **Procedure:**

Use the following steps to install DB2 Enterprise 9 on Solaris 9 for a Common Criteria compliant environment.

- 1. Log on to the system as a user with root authority.
- **2**. Decompress the product file:
  - gzip -d v9fp1\_sunos\_ese.tar.gz
- 3. Untar the product file:

tar xvf v9fp1\_sunos\_ese.tar

- 4. Change directory:
  - cd \$HOME/ese/disk1
- 5. Issue the ./db2setup command to open the "IBM DB2 Setup Launchpad" at the "Welcome" page:

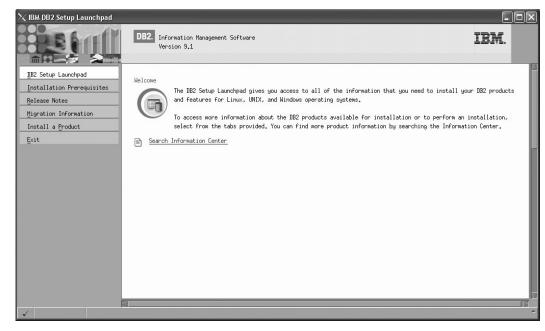


Figure 49. Welcome page of the DB2 Setup Launchpad

6. On the "Welcome" page of the "IBM DB2 Setup Launchpad", click **Install a Product** to open the "Install a Product" page.



Figure 50. Install a Product page of the DB2 Setup Launchpad

 On the "Install a Product" page of the "IBM DB2 Setup Launchpad", click the Install New button for DB2 Enterprise Server Edition

The "DB2 Setup wizard" opens.

$ imes$ DB2 Setup wizard $\cdot$	DB2 Enterprise Server Edition	
1. Introduction	Welcome to the DB2 Setup wizard	
2. Software License		-
Agreement - <u>3</u> . Installation	The DB2 Setup wizard will install DB2	
type	Enterprise Server Edition on your	
4. Installation	computer. To continue, click Next.	
action		
5. Installation directory		
<u>6</u> , DAS user		
7. Instance setup		
<ol> <li>Partitioning</li> </ol>		
options		
<ol> <li>Instance-coning user</li> </ol>		
10, Fenced user		
11, Tools catalog		
12, Notification		
setup		
15, Contact		
14. Summary		
	<u>N</u> ext ► <u>Einish</u> Ca	Help

Figure 51. DB2 Setup wizard

- 8. Click Next. The "Software License Agreement" page opens.
- 9. On the "License Agreement" page:
  - a. After reviewing and agreeing to the license text, select the **Accept** radio button:

🔀 DB2 Setup wizard -	DB2 Enterprise Server Edition
1. Introduction	Software License Agreement
2. Software License Agreement 3. Installation type	Please read the accompanying license agreement carefully before using the Program. By selecting "Accept" below or using the Program, you agree to accept the terms of this agreement. If you select "Decline", installation will not be completed and you will not be able to use the Program.
<ol> <li>Installation</li> <li>astion</li> </ol>	IMPORTANT: READ CAREFULLY
<ol> <li>Installation directory</li> </ol>	Two license agreements are presented below.
<u>6</u> , DAS user <u>7</u> , Instance setup	1. IBM International License Agreement for Evaluation of Programs 2. IBM International Program License Agreement
월, Partitioning options 일, Instance-coning user	If you are obtaining the Program for purposes of productive use (other than evaluation, testing, trial "try or bug," or demonstration): By clicking on the "Accept" button below, You accept the IBM International Program License Agreement, without modification.
10. Fenced user 11. Tools catalog 12. Notification setup	If you are obtaining the Program for the purpose of evaluation, testing, trial "try or buy," or demonstration (collectively, an "Evaluation"): By clicking on the "Accept" button below, You accept both (i) the IBM International License Agreement for Evaluation of Programs (the "Evaluation ticense"), without modification; and (ii) the IBM International Program License Agreement (the "IPLA"), without modification:
13. Contast 14. Summary	The Evaluation License will apply during the term of Your Evaluation.
	CBccept
	<u></u>
	Least         Next         Einisin         Cancel         Help

Figure 52. DB2 Setup wizard - Software Licence Agreement page

b. Click Next. The "Select the installation type" page opens.

## 10. On the "Select the installation type" page:

a. Select the **Custom** radio button:

X DB2 Setup wizard	- DB2 Enterprise Server Edition
1. Introduction 2. Software License	Select the installation type
3. Installation typ	
5. Features 6. Languages	Compact: 630 - 760 MB
Z. Documentation 8. DAS user	C Luston: 630 - 850 MB
9. Instance setup 10. Partitioning op	Information about the installation type
11. Instance-owning 12. Fenced user	Lustom If you are already familiar with DB2 features and settings, you can select the features that you want installed
13, Communication an 14, Tools catalog 15, Notification set	and specify your configuration preferences. The default settings for a custom installation are the same as those for a typical installation, but you can customize optional features and configuration parameters.
16, Contact 17, Summary	Customize optional reatures and configuration parameters.
	▲Back         Mext ▶         Einish         Cancel         Help

Figure 53. DB2 Setup wizard - Select the installation type page

- b. Click **Next**. The "Select the installation, response file creation, or both" page opens.
- 11. On the "Select the installation, response file creation, or both" page:
  - a. Select the **Install DB2 Enterprise Server Edition on this computer** radio button.

ightarrow DB2 Setup wizard	DB2 Enterprise Server Edition
1. Introduction 2. Software License	Select installation, response file creation, or both The DB2 Setup wizard can install DB2 Enterprise Server Edition on this computer, create a response file that you can use to install this
3. Installation typ 4. Installation act 5. Features	product on a computer later, or both. If you are setting up a DB2 Enterprise Server Edition (ESE) partitioned database environment, you can also create a response file to install DB2 on the other computers that will act as database partition servers.
<u>6</u> . Languages <u>7</u> . Documentation <u>8</u> . DAS user	Install DB2 Enterprise Server Edition on this computer     Save my installation settings in a response file
<u>9</u> . Instance setup 1 <u>9</u> . Partitioning op 11. Instance-owning	No software will be installed on this computer.
12, Fenced user 13, Communication an 14, Tools catalog	Response file name /tmp/db2ese,rsp
15. Notification sel 16. Contact 17. Summary	
	▲Back Next ► Enrich Cancel Help

Figure 54. DB2 Setup wizard - Select the installation, response file creation, or both page

b. Click Next. The "Select the features to install" page opens.

次DB2 Setup wizard -	DB2 Enterprise Server Edition			
Introduction     Software License     Installation type     Linstallation act     Software Software     Languages     Languages     Languages     Joccumentation     Joccumentation	Select the features to install Select the features you want to install.		Description DB2 Enterprise Server Edition is designed to meet the data server needs of mid- to large-size businesses.	
18, Contact 17, Summary	Installation directory Directory /opt/IBM/db2/V9,1	Select default Select all	Space required: 674 MB Space available: 3874 MB	
		▲ Back	Next D Einish Car	Help

Figure 55. DB2 Setup wizard - Select the features to install page

- 12. On the "Select the features to install" page:
  - a. Open the + beside **Client**.
  - b. Select the **DB2 LDAP support** feature to remove the check mark.

imesDB2 Setup wizard	DB2 Enterprise Server Edition	
<ol> <li>Introduction</li> <li>Software License</li> <li>Installation typ</li> <li>Installation act</li> </ol>		_Description
5. Features 5. Languages 7. Jocumentation 3. DBG user 9. Instance setup 19. Partitioning op 11. Instance-setup 12. Fanced user 13. Consumination an 14. Tools catalog 15. Notification set 15. Conteat 17. Summary	Server support Glient support Vilient support Vilient support Visual Support Visual Extender Visual Ex	LDAP Exploitation allows DB2 to use an LDAP directory to store database directory and configuration information.
	Installation directory Directory /opt/IBM/db2/V9.1	Space required: 671 MB Space available: 3874 MB
	4 Eack	Next Einich Cancel Help

Figure 56. DB2 Setup wizard - Select the features to install page; DB2 LDAP support feature deselected for install

- c. Open the + beside Administration tools.
- d. Ensure that the following features under **Administration tools** are deselected for installation:
  - DB2 Instance Setup wizard

### • DB2 Web Tools

🔀 DB2 Setup wizard	DB2 Enterprise Server Edition	- 0×
1. Introduction 2. Software License 3. Installation typ 4. Installation act 5. Features	Select the features to install Select the features you want to install.	Description
<ol> <li>Languages</li> <li>Documentation</li> <li>JAD user</li> <li>Instance setup</li> <li>Particioning opt</li> <li>Instance-woming</li> <li>Fenced user</li> <li>Scommutication and</li> <li>Conductication and</li> </ol>	Client support definistration tools DB2 Instance Setup wizerd DB2 Meb Tools Replication tools (required) For Application development tools For Getting started	The Administration tools group contains IB2 graphical and command line tools used to administer local and remote databases.
15. Notification sa 15. Contast 17. Simmary	Installation directory Directory /opt/IBM/db2/V9,1	Space required: 662 MB
	4 Bac	Space available: 3874 HB k Next Finish Cancel Help

Figure 57. DB2 Setup wizard - Select the features to install page; Administration tools features deselected for install

- e. Open the + beside Application development tools.
- f. Ensure that the **ADT sample programs** feature and the **Spatial Extender samples** feature are deselected for installation.

imesDB2 Setup wizard	DB2 Enterprise Server Edition	
1. Introduction 2. Software License 3. Installation typ	Select the features to install.	
4. Installation act 5. Features 6. Languages 7. Documentation 9. DAG user 9. Instance setup 10. Partitioning opt 11. Instance-coming 12. Fanced user 13. Communication an 14. Tools catalog 15. Notification set 15. Contact 17. Summary	▼ DB2 Enterprise Server Edition         ▼ Server support         ▼ Client support         ▼ Application development tools         → M Base application development tools (required)         ↓ ♥ Base application development kit (SDK) for Java(TM) (required)         ↓ ♥ Getting started             Select default    Select all	Description Spatial Extender samples component provides examples for using Spatial Extender features.
	Installation directory Directory /opt/IBM/db2/V9.1	Space required: 646 MB Space available: 3874 MB
	4 <u>B</u> ack	terrish Cancel Help

Figure 58. DB2 Setup wizard - Select the features to install page; Application development tools features deselected for installation

g. Open the + beside Getting started.

h. Ensure that the **First Steps** feature and the **XML Extender samples** feature are deselected for installation.

次 DB2 Setup wizard	DB2 Enterprise Server Edition			
Introduction     Software License     Installation top     Installation act     Features     Locumentation     Job user     Jostance catup     Partitioning op     Informer-coming     Sometrication a     Id, fools catalog     Stolsfieldston act     Sometrication as     Id, fools catalog     Stolsfieldston act     Sometrication as     Id, fools catalog     Stolsfieldston act     Sometrication as     Id, fools catalog     Sometrication as     Id, contact     Sometrication act     Sometrication act     Id, fools catalog     Sometrication act     Sometrication act     Sometrication     Sometrication     Sometrication	Select the features to install Select the features you want to install.	Select default Select all	Description XML Extender samples are sample programs you can use to learn about XML Extender technology.	
	Installation directory Directory /opt/IBM/db2/V9,1		Space required: 645 MB Space available: 3874 MB	
		<b>▲</b> <u>B</u> ack	Next D Einish Can	el Help

Figure 59. DB2 Setup wizard - Select the features to install page; Getting started features deselected for installation

- i. Click Next. The "Select the languages to install" page opens.
- **13.** On the "Select the languages to install" page, English is the only language support that is installed by default.

ightarrow DB2 Setup wizard	DB2 Enterprise Server Edition	
1. Introduction         2. Software License         3. Installation typ         4. Installation act	Select the languages to install The user interface and product messages will be installed in the languages that you choose. Installing multiple lang disk space requirements.	guages will increase the
4. Installation act 5. Features 6. Languages 7. Documentation 9. JRD User 9. Instance setup 10. Partitioning opt 11. Instance-country 12. Fenced User 13. Communication and 14. Trois catalog 15. Contact 17. Summang	Available languages       Selected languages         Drinese (Traditional)       French (Standard)         German       Italian         Japanese       Italian         Confirm installation directory.       Italian         Directory       /opt/IBH/db2/V9.1         Space required: 645 MB       Space available: 3874 MB	
	【Back Next ► Firrish Can	Help

Figure 60. DB2 Setup wizard - Select the languages to install page; English language support selected for installation

- 14. Click **Next**. The "Specify the location of the DB2 Information Center" page opens.
- 15. On the "Specify the location of the DB2 Information Center" page:

a. Ensure that the **On the IBM Web site** radio button is selected.

🗙 DB2 Setup wizard -	- DB2 Enterprise Server Edition	- D ×
1. Introduction	Specify the location of the DB2 Information Center	
2. Software License 3. Installation typ 4. Installation act	The DB2 Information Center contains documentation for DB2 products. The DB2 Information Center can be accessed on the II installed and accessed on another computer on your intranet, or installed and accessed on a local computer. This setting changed after installation is complete.	
5. Features 6. Languages	Select the location from which you will access the DB2 Information Center:	
7. Documentation 8. DAS user	©On the IBM Web site	
<ol> <li>Instance setup</li> <li>Partitioning op</li> <li>Instance-coming</li> <li>Fenced user</li> </ol>	If you want to install and access the DB2 Information Center locally, install the DB2 Information Center on this computer from the CD labeled DB2 Information Center.	
13, Communication and 14, Tools catalog	Host name	
14, Tools Bacalog 15, Notification sel 16, Contact 17, Summary	Parts number 51000	
	88	
	- ▲ Back Next ► Elmisin Cancel	Help

Figure 61. DB2 Setup wizard - Specify the location of the DB2 Information Center; On the IBM Web site option selected

- b. Click **Next**. The "Set user information for the DB2 Administration Server" page opens.
- 16. On the "Set user information for the DB2 Administration Server" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the DB2 Administration Server.

imesDB2 Setup wizard	I - DB2 Enterprise Server Edition	
1. Introduction	Set user information for the IB2 Administration Server	
2. Software License	The DB2 Administration Server (DAS) runs on your computer to provide support required by the DB2 tools. A user wi	th a minimal set of
3. Installation typ	privileges is required to run the DAS. Specify the required user information for the DAS.	
<ol> <li>Installation act</li> <li>Features</li> </ol>	(New user	
5. Languages		
7. Documentation	User name	
8. DAS user	UID 📃 🖳 🛄 se default UID	
<u>9</u> , Instance setup	Group name	
10. Partitioning op		
11. Instance-owning	GID GID	
12, Fenced user 13, Communication an	Ressured	
14. Tools catalog	Confirm passoord	
15. Notification set 16. Contact	Home directory	
17, Summary		
	© Existing user	
	User name	
	▲Back Hext > Finish Co	ncel Help
		neth

Figure 62. DB2 Setup wizard - Set user information for the DB2 Administration Server page

- c. Click Next. The "Set up a DB2 instance" page opens.
- 17. On the "Set up a DB2 instance" page:
  - a. Ensure that the Create a DB2 instance radio button is selected.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition	
1. Introduction	Set up a DB2 instance	
2. Software License	A DB2 instance is an environment in which you store data and run applications. You must have an instance to use this	s product.
<ol> <li>Installation typ</li> <li>Installation act</li> </ol>	If you would like to add this computer to an existing partitioned database environment, you should not create an ins	stance on this
5. Features	computer. The instance should be created on the instance-owning database partition server.	
6. Languages	C Create a IB2 instance	
7. Documentation		
8. DAS user	○ <u>D</u> o not create a DB2 instance	
9. Instance setup		
10. Partitioning op 11. Instance-swning		
12, Fenced user		
13, Communication an		
14, Tools catalog		
15, Notification set		
16, Contact		Ľ,
17, Summary		
	<u>▲Back</u> <u>Next</u> <u>Finish</u> Can	Help

Figure 63. DB2 Setup wizard - Set up a DB2 instance page; Create a DB2 instance option selected

- b. Click **Next**. The "Set up partitioning options for the DB2 instance" page opens.
- 18. On the "Set up partitioning options for the DB2 instance" page:
  - a. Ensure that the Single partition instance radio button is selected.

$ imes$ DB2 Setup wizard $\cdot$	DB2 Enterprise Server Edition	×
1. Introduction	Set up partitioning options for the DB2 instance	
<ol> <li>Software License</li> <li>Installation typ</li> </ol>	A DB2 instance can have one or more database partitions, which exist on one or more computers. Select the partitioning options for this instance.	
4. Installation act		
5. Features	Ogingle partition instance	
6. Languages 7. Documentation	The instance will reside only on this computer. Select this option if the instance will not be used in a	
8. DAS user	partitioned database environment.	
9. Instance setup 10. Partitioning op	OMultiple partition instance	
11. Instance-owning	Select this option to prepare to use the partitioning capability of DB2 Enterprise Server Edition to store	0
12, Fenced user 13. Communication an	data in wultiple database partitions. To use this functionality, you must have a Database Partitioning	Ð
14. Tools catalog	Maximum logical partitions	
15. Notification set	This computer will be assigned partition number 0. You can specify the maximum number of logical	
16, Contact 17. Summary	partitions that can exist on each database partition server. This setting applies to all database	9
	partition servers in this instance.	Ð
	Naxinum Logical partitions 4	
	▲Back         Mext ▶         Einish         Cancel         Help	J

Figure 64. DB2 Setup wizard - Set up partitioning options for the DB2 instance page

- b. Click **Next**. The "Set user information for the DB2 instance owner" page opens.
- 19. On the "Set user information for the DB2 instance owner" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the DB2 instance owner.

🔀 DB2 Setup wizard	DB2 Enterprise Server Edition		
1. Introduction	Set user information for the DB2 instance owner		
2. Software License	Specify the instance-owning user information for the DB2 in instance information in the user's home directory. The nam		ions, and will store
<ol> <li>Installation typ</li> <li>Installation act</li> </ol>	instance information in the user's nome directory. The ham	e of the instance will be the same as the user hame.	
5. Features	New_user		
6. Languages	User name		
7. Documentation			
8. DAS user	(11)	<u>∭U</u> se default UID	
9. Instance setup 10. Partitioning op	Group name		
11. Instance-owning	GID	<b>∭</b> Use default GID	
12, Fenced user			
13. Communication an	Password		en
14. Tools catalog	Confirm password		
15. Notification set 16. Contact	Home directory		
17, Sunnary			
	© Existing user		
	User name		
		▲Back Einish Cance	Help

Figure 65. DB2 Setup wizard - Set user information for the DB2 instance owner page

- c. Click Next. The "Set user information for the fenced user" page opens.
- 20. On the "Set user information for the fenced user" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the fenced user.

X DB2 Setup wizard -	)82 Enterprise Server Edition
<ol> <li>Introduction</li> <li>Software License</li> <li>Installation typ</li> <li>Installation act</li> </ol>	Set user information for the fenced user Specify the required information for the fenced user. Fenced user defined functions (UDFs) and stored procedures will execute under this user and group.
5. Features	ONew user
6. Languages	Usam nawa
<ol> <li>Documentation</li> <li>DAS user</li> </ol>	UID
9. Instance setup 10. Partitioning op	Group name
11. Instance-owning	CIU
12. Fenced user 13. Communication an	Passond
14. Tools catalog 15. Notification set	Confirm passiond
16, Contact	Home directory
17. Summary	©Existing user
	User name
	Image: second

Figure 66. DB2 Setup wizard - Set user information for the fenced user page

- c. Click Next. The "Configure instance communication and startup" page opens.
- 21. On the "Configure instance communication and startup" page:
  - a. Select the **Configure** radio button.
  - b. Ensure that the **Autostart the instance at system startup** check box is deselected.

∕XDB2 Setup wizard	- DB2 Enterprise Ser	ver Edition					
1. Introduction 2. Software License 3. Installation typ 4. Installation act 5. Features 8. Languages 7. Documentation 8. DPS user 9. Instance setup 10. Partitioning op 11. Instance-owning 12. Fenced user 13. Communication at 14. Tools catalog 15. Conteact 17. Summeng	In order for remote must also configure The DB2 instance ca 		stored in the DB2 inst is protocol on your ol itomatically when your	ient computers.	-		<sup>2</sup> communication. You
				<u>▲ B</u> a	ack Next Firm	sh Cancel	l Help

Figure 67. DB2 Setup wizard - Configure instance communication and startup page

- **c**. Click **Next**. The "Prepare the DB2 tools catalog" page opens.
- **22**. On the "Prepare the DB2 tools catalog" page:

∑DB2 Setup wizard ∙	DB2 Enterprise Server E	lition				
1. Introduction 2. Software License 3. Installation typ 4. Installation act	Prepare the DB2 tools ca Certain DB2 tools such a tools catalog must be st	s the Task Center and scheduler	require a DB2 tools cat	alog on one of the DB	2 servers in your er	wironment. The DB2
5. Features	OPrepare the DB2 to	ols catalog				
<ol> <li>Languages</li> <li>Documentation</li> </ol>	Instance	ccuser3				
8. DAS user 9. Instance setup	Database					
1 <u>0</u> . Partitioning op 11. Instance-owning	OHea	TOOLSDB				
12. Fenced user	⊖E⊻isting	<select></select>			V	
13. Communication a 14. Tools catalog	Schema					1
15. Notification se	Olien	SYSTOOLS				
16. Contact 17. Summary	⊖Ex <u>i</u> sting	<select></select>			Δ	
	Ollo not prepare the	DB2 tools catalog				
				▲Back Next ►	<u>Finish</u> Cancel	Help

a. Select the **Do not prepare the DB2 tools catalog** radio button.

Figure 68. DB2 Setup wizard - Prepare the DB2 tools catalog page

- b. Click Next. The "Set up notifications" page opens.
- 23. On the "Set up notifications" page:
  - a. Select the **Do not set up your DB2 server to send notifications at this time** radio button.

1. Introduction	Set up notifications	
2. Software License	You can set up your DB2 server to automatically send e-mail or pager notifications to alert administr	ators when a database needs
3. Installation typ	attention. The contact information is stored in the administration contact list. You need an unauth	
4. Installation act	notifications.	
5. Features	OSet up your IB2 server to send notifications	
<u>6</u> . Languages		
7. Documentation	Notification SMTP server sol9test	
8. DAS user	Administration contact list location	
9. Instance setup 10. Partitioning op		
10. Partitioning op	©local - Create a contact list on this computer	
12. Fenced user	Remote - Use an existing contact list that resides on another UB2 server	
13. Communication a	Overanose - ose an existing concess risk ches resides on another pay server	Ų Ų
14. Tools catalog	Remote 182 server	tt
15. Notification se		
16. Summary		
	Olo not set up your DB2 server to send notifications at this time	S7
	If you do not set up your DB2 server to send notifications, the health alerts	
	are still recorded in the administration notification log.	

Figure 69. DB2 Setup wizard - Set up notifications page

b. Click Next. The "Start copying files" page opens.

Features       Current settings         Languages       Product to install:       DB2 Enterprise Server Edition         Documentation       Installiciton type:       Custom         DAS user       Previously Installed Components:       Selected Components:         Instance-owning       Selected Components:       Selected components:         1. Instance-owning       Base client support         2. Partitioning op       Freduct Messages - English         3. Notification a       IBM Software Development Kit (SDK) for Java(TM)         J. Tools catalog       Replication with MQ Server         5. Notification se       Run-time Environment	. Introduction . Software License . Installation typ	DB2 Enterprise Server Edition
Languages Languages Documentation Differentiation type: Custom Differentiation	. Installation act Features	Current settings
	Languages Documentation DRS user Instance setup 2. Partitioning op I. Instance-owning 2. Fenced user 3. Communication a 4. Tools catalog 5. Notification se 5. Summary	Installation type: Custom Previously Installed Components: Selected Components: GSKit support Product Messages - English Base client support IBM Software Development Kit (SDK) for Java(TM) Java Help (HTML) - English Replication with MQ Server Run-time Environment SQL procedures IQU Utilities SQL Replication Support Base server support Connect support Java Support Support Java Support Java Support Support Java Support Java Support Java Support Java Support Java Support Java Support Java Support Java Support Java Support Support

Figure 70. DB2 Setup wizard - Start copying files page

24. On the "Start copying files" page, click **Finish** to begin installing DB2 on your computer.

The "Installing DB2 Enterprise Server Edition" page opens.

imes Installing DB2 Enterprise Server Edition	[	×
Please wait while the DB2 Setup wizard installs DB2 Enterprise Server Edition on your computer and performs required configuration. This may take several minutes.	the	
Task: Installing Base client support		
oz	100%	
Overall progress:		
0%	100%	

Figure 71. Installing DB2 Enterprise Server Edition page

When the installation completes, the "Setup Complete" page opens.

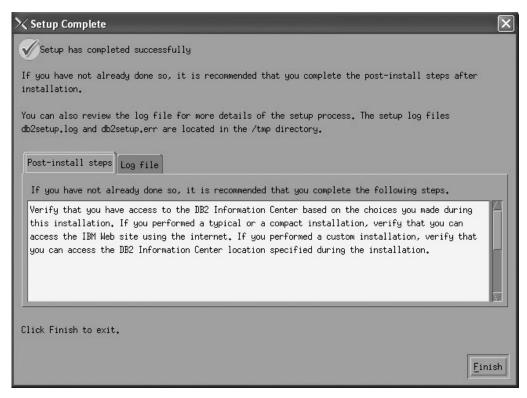


Figure 72. Setup Complete page

Click Finish to exit.

**25**. Activate the license files. See the topic " Registering a DB2 product or feature license key using the db2licm command".

After DB2 Enterprise 9 is installed, see the topic on configuring DB2 to be Common Criteria compliant in the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book.

# Installing DB2 Enterprise 9 on Red Hat Enterprise Linux 4 for a single-partition Common Criteria compliant installation

This task provides detailed instructions on installing DB2 Enterprise 9 on Red Hat Enterprise Linux 4 for a Common Criteria compliant installation.

### **Prerequisites:**

- The prerequisites listed in "Installation requirements for DB2 clients and servers (Linux)" must be met.
- The computer on which you install DB2 must be physically protected from untrusted users.
- Red Hat Enterprise Linux 4 must be installed on the computer.
- You must have the file v9fp1\_linuxx64\_ese.tar.gz downloaded to the directory of your choice. This file is available from the DB2 9 download site (http://ibm.com/software/data/db2/udb/support/downloadv9.html).
- You must have downloaded the applicable activation files from the Passport Advantage site to the same directory. You require these files to activate Enterprise 9 after installation. The instance owner must have read/write authority on this directory.

- One of the following:
  - DB2\_Enterp\_Svr\_Auth\_User\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per user basis.
  - DB2\_Enterprise\_Svr\_Ed\_CPU\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per CPU basis.
- DB2\_Advanced\_Access\_Cntrl\_Activation.zip. Required to activate label-based access control (LBAC).
- The user names to be used for the following:
  - The DB2 instance owner
  - The DB2 Administration Server
  - The fenced user

If you do not have these user names, obtain them from your system administrator. For more information about these users, see "DB2 users and groups (Linux and UNIX)" on page 26. For information about creating these users, see "Creating group and user IDs for a DB2 database installation (Linux and UNIX)" on page 30.

The topic "Installing DB2 servers (Linux and UNIX)" provides an overview of installing on Linux and UNIX-based platforms.

#### **Procedure:**

Use the following steps to install DB2 Enterprise 9 on Red Hat Enterprise Linux 4 for a Common Criteria compliant environment.

- 1. Log on to the system as a user with root authority.
- **2**. Decompress the product file:

gzip -d v9fp1\_linuxx64\_ese.tar.gz

- Untar the product file: tar xvf v9fp1\_linuxx64\_ese.tar
- Change directory: cd \$HOME/ese/disk1
- 5. Issue the ./db2setup command to open the "IBM DB2 Setup Launchpad" at the "Welcome" page:



Figure 73. Welcome page of the DB2 Setup Launchpad

6. On the "Welcome" page of the "IBM DB2 Setup Launchpad", click **Install a Product** to open the "Install a Product" page.

│		
	DB2. Information Management Software Version 9.1	IBM.
DB2 Setup Launchpad Installation Prerequisites Release Notes Migration Information Install a <u>P</u> roduct Exit	Install a Product Click Install New to launch the DB2 Setup wizard for the desired product. DB2 Enterprise Server Edition is designed to meet the data server needs of midi-to large-size businesses. It can be deployed on Linux, UNIX, or Windows servers of any size, from one CPU to any number of CPUs. DB2 Enterprise Server Edition is an ideal foundation for building on demand enterprise-wide solutions, such as large data warehouses of multiple trabyte size or high performing 24x7 available high volume transaction processing business solutions, or Web-based solutions. DB2 Enterprise Server Edition incorporates a native XML data store and delivers flexible access to XML data using XQuery, XPath, SQL, and standard reporting tools. Optional features for DB2 Enterprise Server Edition are available that provide additional advanced product capabilities in areas such as database administration. Plaze see http://www.lbm.com/db2 for more information. Install New DB2 Client is a collection of graphical and nongraphical tools and component for Edipse and Microsoft Visual Studio 2005 development environments are also included. DB2 Client is a component of DB2 Enzer. DB2 Express. DB2 Connect	
4		^

Figure 74. Install a Product page of the DB2 Setup Launchpad

 On the "Install a Product" page of the "IBM DB2 Setup Launchpad", click the Install New button for DB2 Enterprise Server Edition The "DB2 Setup wizard" opens.

≫DB2 Setup wizard	- DB2 Enterprise Server Edition	- D ×
DB2 Setup wizard     Introduction     Software License     Agreement     Installation color     Installation action     Instance-owning     User     Instance-owning     User     Instance-owning     User     Instance-owning     User     Installation     Instance-owning     User     I. Tools catalog     I. Notification     satup     Software     I. Summary	• DB2 Enterprise Server Edition         Welcome to the DB2 Setup wizard         The DB2 Setup wizard will install DB2 Enterprise Server Edition on your computer. To continue, click Next.	
	Next P Birlisin Can	cel Help

Figure 75. DB2 Setup wizard

- 8. Click Next. The "License Agreement" page opens.
- 9. On the "License Agreement" page:
  - a. After reviewing and agreeing to the license text, select the **Accept** radio button:

imesDB2 Setup wizard -	DB2 Enterprise Server Edition	- DX
1. Introduction       2. Software License       Agreement       3. Installation type	Software License Agreement Please read the accompanying license agreement carefully before using the Program. By selecting "Accept" below or using the Progra- agree to accept the terms of this agreement. If you select "Decline", installation will not be completed and you will not be able to use Program.	
<ul> <li>a) Installation action</li> <li>b) Installation</li> <li>c) Installation</li> <li>d) actory</li> <li>c) DAS user</li> <li>7. Instance setup</li> <li>3) Partitioning</li> <li>options</li> <li>10) Instance-owning</li> <li>user</li> <li>10) Fenced user</li> <li>11. Tools carelog</li> <li>12. Inbiffication</li> <li>setup</li> <li>13. Contact</li> <li>14. Summary</li> </ul>	IMPORTANT: READ CAREFULLY Two license agreements are presented below.    I. IBM International License Agreement for Evaluation of Programs  I. IBM International Program License Agreement If you are obtaining the Program for purposes of productive use (other than evaluation, testing, trial "try or buy," or demonstration; By Clicking on the "Accept" button below, You accept the IBM International Program License Agreement, without modification. If you are obtaining the Program for the purpose of evaluation, testing, trial "try or buy," or demonstration (collectively, an "Evaluation"): By Clicking on the "Accept" button below, You accept both (0) the IBM International License Agreement for Evaluation of Programs (the "Evaluation License"), withhout modification, and (ii) the IBM International Program License Agreement (the "IPLA"), without modification. The Evaluation License will apply during the term of Your Evaluation. The IPLA will automatically apply if You elect to retain the Program after the Evaluation (or obtain additional copies of the Program for use after the Evaluation) by entering into a procurement agreement (e.g., the IBM International Passport Advantage or the IBM Passport Advantage Express agreements).	9
	<u> </u>	Help

Figure 76. DB2 Setup wizard - Licence Agreement page

- b. Click Next. The "Select the installation type" page opens.
- **10**. On the "Select the installation type" page:
  - a. Select the **Custom** radio button:

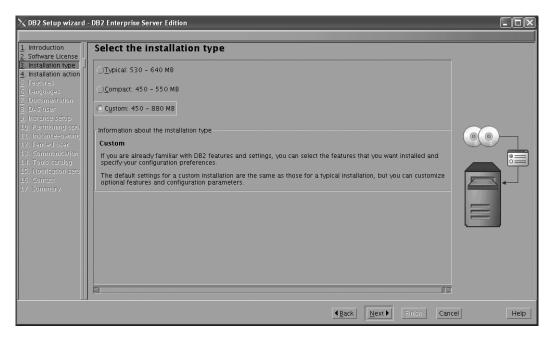


Figure 77. DB2 Setup wizard - Select the installation type page

- b. Click **Next**. The "Select the installation, response file creation, or both" page opens.
- 11. On the "Select the installation, response file creation, or both" page:
  - a. Select the **Install DB2 Enterprise Server Edition on this computer** radio button.

∑DB2 Setup wizard -	DB2 Enterprise Server Edition
1. Introduction 2. Software License	Select installation, response file creation, or both
3. Installation type	The DB2 Setup wizard can install DB2 Enterprise Server Edition on this computer, create a response file that you can use to install this product on a computer later, or both.
<ol> <li>Installation action</li> <li>Features</li> </ol>	If you are setting up a DB2 Enterprise Server Edition (ESE) partitioned database environment, you can also create a response file to install DB2 on the other computers that will act as database partition servers.
<u>6</u> . Languages <u>7</u> . Documentation	O Install DB2 Enterprise Server Edition on this computer
8. DAS user 9. Instance setup	○ Save my installation settings in a response file
10. Partitioning opti 11. Instance-owning	No software will be installed on this computer.
12. Fenced user 13. Communication	) Install DB2 Enterprise Server Edition on this computer and save my settings in a response file
14. Tools catalog 15. Notification setu	Response file name /root/db2ese.rsp
16. Contact 17. Summary	
	Back Next Cancel Help

Figure 78. DB2 Setup wizard - Select the installation, response file creation, or both page

b. Click Next. The "Select the features to install" page opens.

1. Introduction 2. Software License 3. Installation type	DB2 Enterprise Server Edition Select the features to install Select the features you want to install.	
	✓ DB2 Enterprise Server Edition         ✓ Server support         ✓ Administration tools         ✓ Application development tools         ✓ Cetting started    Select default Select all	Description DB2 Enterprise Server Edition is designed to meet the data server needs of mid- to large-size businesses.
	Installation directory Directory /opt/ibm/db2/V9.1	Space required: 525 MB Space available: 10763 MB
	< <u>€ack</u>	L Next Enish Cancel Help

Figure 79. DB2 Setup wizard - Select the features to install page

- 12. On the "Select the features to install" page:
  - a. Open the + beside Client support.
  - b. Select the **DB2 LDAP support** feature to remove the check mark.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition	- DX
Introduction     Software License     Software License     Installation type     Installation action     Software     Description     Descriptin     Description     Desc	Select the features to install         Select the features you want to install. <ul> <li>DB2 Enterprise Server Edition</li> <li>Server support</li> <li>Client support (required)</li> <li>Base client support (required)</li> <li>Solution (required)</li> <li>Solution (required)</li> <li>Solution (required)</li> <li>Solution development tools</li> <li>Cetting started</li> </ul> Description           Installation directory-         Directory         /opt/lbm/db2/Y9.1         Space required: 524 MB Space available: 10763 MB	
		el Help

Figure 80. DB2 Setup wizard - Select the features to install page; DB2 LDAP support feature deselected for install

- c. Open the + beside Administration tools.
- d. Ensure that the following features under **Administration tools** are deselected for installation:
  - Configuration Assistant

Note: The Configuration Assistant feature must be deselected after the Control Center feature.

- Control Center
- DB2 Instance Setup Wizard
- DB2 Web Tools

imesDB2 Setup wizard	DB2 Enterprise Server Edition	
Introduction     Software License     Installation type     Installation action     Features     Documentation     Documentation	Select the features to install Select the features you want to install.	Description The Administration tools graphical and command line tools used to administer local and remote databases.
	Directory /opt/ibm/db2/V9.1	Space required: 473 MB Space available: 10763 MB
	<b>4</b> ₿a	ck <u>Next</u> <u>Finish</u> Cancel Help

Figure 81. DB2 Setup wizard - Select the features to install page; Administration tools features deselected for install

- e. Open the + beside Application development tools.
- f. Ensure that the **ADT sample programs** feature and the **Spatial Extender samples** feature are deselected for installation.

DB2 Setup wizard - 1. Introduction 2. Software License 3. Installation type	- DB2 Enterprise Server Edition	. 🗆 🗙
Installation action     Features     Content of the second s	ØB2 Enterprise Server Edition         ØB3 Estender fabrication development tools (required)         ØB3 Estender Server Edition Server Edition         ØB3 Estender Server Edition Server Edition Server Edition         ØB3 Estender Server Edition Server Edition         ØB3 Estender Server Edition Server Edition         ØB3 Estender Server Edition Server Edition Server Edition         ØB3 Estender Server Edition Se	
	Installation directory Directory /opt/ibm/db2/V9.1 Space required: 458 MB Space available: 10763 MB	
	Back Back Binish Cancel	Help

Figure 82. DB2 Setup wizard - Select the features to install page; Application development tools features deselected for installation

- g. Open the + beside Getting started.
- h. Ensure that the **First Steps** feature and the **XML Extender samples** feature are deselected for installation.

∑DB2 Setup wizard -	DB2 Enterprise Server Edition	×
1. Introduction 2. Software License	Select the features to install Select the features you want to install.	
Solvate Control of the second se	DB2 Enterprise Server Edition         Server support         Client support         Application development tools         Gatting started         First Steps         XML Extender samples	
	Installation directory Directory /opt/ibm/db2/V9.1 Space required: 457 MB Space available: 10763 MB	
	4 <u>B</u> ack <u>N</u> ext → Enibit Cancel Help	

Figure 83. DB2 Setup wizard - Select the features to install page; Getting started features deselected for installation

- i. Click Next. The "Select the languages to install" page opens.
- **13**. On the "Select the languages to install" page, English is the only language support that is installed by default.

X DB2 Setup wizard -	DB2 Enterprise Server Edition Select the languages to install	
2. Software License 3. Installation type		languages that you choose. Installing multiple languages will increase the disk
Installation action     S. Features     Caugages     Documentation     DoS user     Destructioning optit     Instance setup     Partitioning optit     Instance-owning     Setup     Communication     Soft catalog     Soft c	Available languages Finese (Traditional) Czech French (Standard) German Italian Italian Confirm installation directory- Directory /opt/ibm/db2/V9.1	Selected languages English

Figure 84. DB2 Setup wizard - Select the languages to install page; English language support selected for installation

- 14. Click **Next**. The "Specify the location of the DB2 Information Center" page opens.
- 15. On the "Specify the location of the DB2 Information Center" page:
  - a. Ensure that the **On the IBM Web site** radio button is selected.

$ imes$ DB2 Setup wizard $\cdot$	DB2 Enterprise Server Edition	- D×
1. Introduction       2. Software License       3. Installation type       4. Installation action	Specify the location of the DB2 Information Center The DB2 Information Center contains documentation for DB2 products. The DB2 Information Center can be accessed or installed and accessed on another computer on your intranet, or installed and accessed on a local computer. This sett after installation is complete.	
<u>5</u> . Features <u>6</u> . Languages	Select the location from which you will access the DB2 Information Center:	
7. Documentation 8. DAS user	On the IBM Web site	
<u>9</u> . Instance setup 1 <u>0</u> . Partitioning opti	If you want to install and access the DB2 Information Center locally, install the DB2 Information Center on this computer from the CD labeled DB2 Information Center.	
11. Instance-owning 12. Fenced user	On the following intranet server	
13. Communication 14. Tools catalog	Host name	
15. Notification setu 16. Contact	Part number 51000	
17. Summary		
	<u>▲Back</u> <u>Next</u> Einish Car	icel Help

Figure 85. DB2 Setup wizard - Specify the location of the DB2 Information Center; On the IBM Web site option selected

- b. Click **Next**. The "Set user information for the DB2 Administration Server" page opens.
- 16. On the "Set user information for the DB2 Administration Server" page:a. Select the Existing user radio button.

b. Use the ... button to select the user previously defined for the DB2 Administration Server.

1. Introduction       2. Software License       3. Installation type	DB2 Enterprise Server Edition Set user information for the DB2 Administration Serve The DB2 Administration Server (DAS) runs on your computer to provide support requi privileges is required to run the DAS. Specify the required user information for the D.	uired by the DB2 tools. A user with a minimal set of
5. Features	⊖Ne <u>w</u> user	
<u>6</u> . Languages <u>7</u> . Documentation	User name	
8. DAS user 9. Instance setup	UD	<b>⊻</b> ∐se defauit UID
10. Partitioning opti	Group name	
11. Instance-owning 12. Fenced user	GD	<b>⊴</b> Use default <u>G</u> D
13. Communication 14. Tools catalog	Password	
15. Notification setu 16. Contact	Confirm password	
17. Summary	Home directory	
	© Existing user	
	User name	
	< <u>∎a</u> ac	ck Einish Cancel Help

Figure 86. DB2 Setup wizard - Set user information for the DB2 Administration Server page

- c. Click Next. The "Set up a DB2 instance" page opens.
- 17. On the "Set up a DB2 instance" page:
  - a. Ensure that the **Create a DB2 instance** radio button is selected.

🗙 DB2 Setup wizard -	DB2 Enterprise Server Edition	
Introduction     Software License     Installation type     Installation action     Features     Languages     Concumentation     DAS user     Instance setup     Instance setup     Instance user     Software license     Communication     14. Tools catalog     IS. Notification setu     16. Contact     T. Summary	Set up a DB2 instance         A DB2 instance is an environment in which you store data and run applications. You must have an instance to use this put if you would like to add this computer to an existing partitioned database environment, you should not create an instance the instance should be created on the instance-owning database partition server.         Image: Create a DB2 instance         Image: Do not create a DB2 instance	
	▲Back Next Binisin Cance	el Help

Figure 87. DB2 Setup wizard - Set up a DB2 instance page; Create a DB2 instance option selected

- b. Click **Next**. The "Set up partitioning options for the DB2 instance" page opens.
- 18. On the "Set up partitioning options for the DB2 instance" page:

a. Ensure that the **Single partition instance** radio button is selected.

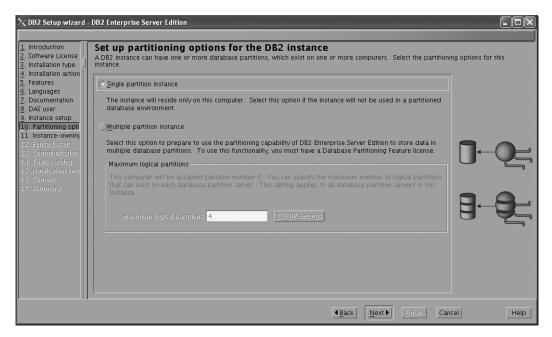


Figure 88. DB2 Setup wizard - Set up partitioning options for the DB2 instance page

- b. Click **Next**. The "Set user information for the DB2 instance owner" page opens.
- 19. On the "Set user information for the DB2 instance owner" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the DB2 instance owner.

∑DB2 Setup wizard	DB2 Enterprise Server E	dition	
1. Introduction 2. Software License 3. Installation type		ation for the DB2 instance owner ing user information for the DB2 instance. DB2 will use this user to perform home directory. The name of the instance will be the same as the user name	instance functions, and will store instance e.
<ol> <li>Installation action</li> <li>Features</li> </ol>	⊖Ne <u>w</u> user		
<u>6</u> . Languages 7. Documentation	User name		
8. DAS user 9. Instance setup	UID		( <u>U</u> se default UID
10. Partitioning opti	Group name		
11. Instance-owning 12. Fenced user	GID		(Use clefault GID
13. Communication 14. Tools catalog	Password		
15. Notification setu	Confirm password		
16. Contact 17. Summary	Home directory		
	©Existing user		
	User name		U
	User name		
		4Back Next •	Einish Cancel Help

Figure 89. DB2 Setup wizard - Set user information for the DB2 instance owner page

c. Click Next. The "Set user information for the fenced user" page opens.

- 20. On the "Set user information for the fenced user" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the fenced user.

1. Introduction 2. Software License 3. Installation type	DB2 Enterprise Server Edition Set user information for the fenced Specify the required information for the fenced user. Fe and group.	USER I USER Inced user defined functions (UDFs) and stored procedures will execute under this user
4. Installation action 5. Features 6. Languages	Ne <u>w</u> user	
7. Documentation	User name	
8. DAS user 9. Instance setup	UD	<u>√U</u> se default UID
10. Partitioning opti	Group hame	
11. Instance-owning 12. Fenced user	GD	
13. Communication 14. Tools catalog	Pasoword	
15. Notification setu	Confirm password	
16. Contact 17. Summary	Home directory	
	©Existing user	
	User name	
		▲Back         Mext ▶         Einish         Cancel         Help

Figure 90. DB2 Setup wizard - Set user information for the fenced user page

- c. Click Next. The "Configure instance communication and startup" page opens.
- 21. On the "Configure instance communication and startup" page:
  - a. Select the **Configure** radio button.
  - b. Ensure that the **Autostart the instance at system startup** check box is deselected.

∑DB2 Setup wizard -	DB2 Enterprise Serv	er Edition	
DB2 Setup wizard -     Introduction     Software License     Installation type     Installation action     Features     Da5 User     Da5 User	Configure in In order for remote, also configure the TC TCP/IP configuration Do not configure Configure Service name Port number	stance communication and startup clients to access data stored in the DB2 instance, you must configure the DB2 instance for TCP/ CP/IP communications protocol on your client computers. In also be set to start automatically when your computer starts.	IP communication. You must
		▲Back Next ■ Emisin	Cancel Help

Figure 91. DB2 Setup wizard - Configure instance communication and startup page

- c. Click Next. The "Prepare the DB2 tools catalog" page opens.
- 22. On the "Prepare the DB2 tools catalog" page:
  - a. Select the Do not prepare the DB2 tools catalog radio button.

imesDB2 Setup wizard	- DB2 Enterprise Server I	dition	- D ×
1. Introduction       2. Software License       3. Installation type       4. Installation action	Prepare the DB Certain DB2 tools such a tools catalog must be st	s the Task Center and scheduler require a DB2 tools catalog on one of the DB2 servers i	in your environment. The DB2
5. Features 6. Languages	OPrepare the DB2	ools catalog	
7. Documentation 8. DAS user	Instance	db2inst1	Y
9. Instance setup 10. Partitioning opti 11. Instance-owning	Database ONew	TOOLSDB	
12. Fenced user 13. Communication	⊖E <u>x</u> isting	<select></select>	V 0000
14. Tools catalog	Schema		
15. Notification setu 16. Contact	()Ne <u>w</u>	21001272	
17. Summary	⊖Existing	<select></select>	
	ODo not prepare t	e DB2 tools catalog	
		Back Next Emisin	Cancel

Figure 92. DB2 Setup wizard - Prepare the DB2 tools catalog page

- b. Click Next. The "Set up notifications" page opens.
- 23. On the "Set up notifications" page:
  - a. Select the **Do not set up your DB2 server to send notifications at this time** radio button.

≫DB2 Setup wizard -	DB2 Enterprise Server Edition
1. Introduction       2. Software License       3. Installation type       4. Installation action	Set up notifications You can set up your DB2 server to automatically send e-mail or pager notifications to alert administrators when a database needs attention. The contact information is stored in the administration contact list. You need an unauthenticated SMTP server to send these notifications.
5. Features 6. Languages 7. Documentation 8. DAS user 9. Instance setup 10. Partitioning opti 11. Instance-owning 12. Fenced user 13. Communication 14. Tools catalog	Set up your DB2 server to send notifications         Notification SMTP server         Administration contact list location         Egocal - Create a contact list on this computer         Egemote - Use an existing contact list that resides on another DB2 server         Remote DB2 server
15. Notification seti 16. Summary	Do not set up your DB2 server to send notifications at this time If you do not set up your DB2 server to send notifications, the health alerts are still recorded in the administration notification log.

Figure 93. DB2 Setup wizard - Set up notifications page

b. Click Next. The "Start copying files" page opens.

X DB2 Setup wizard -	DB2 Enterprise Server Edition
Introduction     Software License     J. Installation type     Installation action     S. Features     Languages	Start copying files         The DB2 Setup wizard has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Finish to begin copying files.         Current settings         Product to install:       DB2 Enterprise Server Edition
Documentation     DAS user     Jost sure     Jost sure     Jost sure     Sontationing opti     Instance-owning     Sontation     Tools catalog     Sontatication     Summany	Installation type: Custom Previously Installed Components: Custom Custom Previously Installed Components: Custom Components: GKit support Product Messages - English Base Client support IDM Software Development Kit (SDK) for Java(TM) Java Help (HTML) - English Replication with MQ Server Run-time Environment Java Support SQL Replication Support ICU Utilities Base Server support Comment Gevelopment tools Administration Server Communication support - TCP/IP Parallel Extension Replication tools DB2 data source support Product Signature for DB2 Entergrise Server Edition
	Back         Finish         Cancel         Help

Figure 94. DB2 Setup wizard - Start copying files page

24. On the "Start copying files" page, click **Finish** to begin installing DB2 on your computer.

The "Installing DB2 Enterprise Server Edition" page opens.

imes Installing DB2 Enterprise Server Edition	×
Please wait while the DB2 Setup wizard installs DB2 Server Edition on your computer and performs the configuration. This may take several minutes.	
Task: Installing IBM Software Development Kit (SD Java(TM)	)K) for
0%	100%
Overall progress:	
0%	100%

Figure 95. Installing DB2 Enterprise Server Edition page

When the installation completes, the "Setup Complete" page opens.

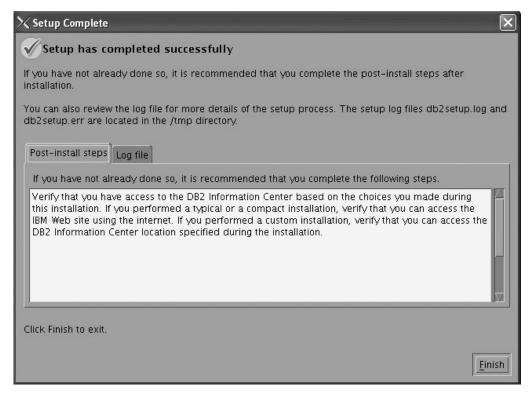


Figure 96. Setup Complete page

Click **Finish** to exit.

**25**. Activate the license files. See the topic " Registering a DB2 product or feature license key using the db2licm command".

After DB2 Enterprise 9 is installed, see the topic on configuring DB2 to be Common Criteria compliant in the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book.

## Installing DB2 Enterprise 9 on Windows Server 2003 for a single-partition Common Criteria compliant installation

This task provides detailed instructions on installing DB2 Enterprise 9 on Windows Server 2003 for a Common Criteria compliant installation.

### **Prerequisites:**

- The prerequisites listed in "Installation requirements for DB2 clients and servers (Windows)" must be met.
- Windows Server 2003 must be installed on the computer.
- Windows Server 2003 must be configured to disable remote access services (such as terminal server and file system shares) before DB2 is installed. For information on performing this task, refer to the operating system documentation.
- The computer on which you install DB2 must be physically protected from untrusted users.
- You must have the file v9fp1\_winx64\_ese.exe downloaded to the directory of your choice. This file is available from the DB2 9 download site (http://ibm.com/software/data/db2/udb/support/downloadv9.html). This file is self-extracting.
- You must have downloaded the applicable activation files from the Passport Advantage site to the same directory. You require these files to activate Enterprise 9 after installation:
  - One of the following:
    - DB2\_Enterp\_Svr\_Auth\_User\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per user basis.
    - DB2\_Enterprise\_Svr\_Ed\_CPU\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per CPU basis.
  - DB2\_Advanced\_Access\_Cntrl\_Activation.zip. Required to activate label-based access control (LBAC).
- The domain name.
- The user names to be used for the following:
  - The DB2 instance owner
  - The DB2 Administration Server

If you do not have these user names, obtain them from your system administrator. For more information about these users, see "Required user accounts for installation of DB2 server products (Windows)" on page 12.

The topic "Installing DB2 servers (Windows)" provides an overview of installing on Windows.

### **Procedure:**

To install DB2 Enterprise Server Edition on Windows Server 2003 for a Common Criteria compliant installation.

1. Double click on the v9fp1\_winx64\_ese.exe file. Windows will prompt you with a default temporary directory in which the files will be unzipped.

- 2. Optional: To select a directory other than the default directory, use the **Browse** button.
- 3. Click **Unzip** to unzip the files.
- 4. Change directories to the directory where you extracted the files.
- 5. Double-click the setup.exe file to open the "IBM DB2 Setup Launchpad" at the "Welcome" page:

DB2 Setup Launchpad		
	DB2. Information Management Software Version 9.1	IBM. Z
DB2 Setup Launchpad Installation Prerequisites Release Notes Migration Information Install a Product	Welcome The DB2 Setup Launchpad gives you access to all of the information that you need to install your DB2 products and features for Linux, UNIX, and Windows operating systems. To access more information about the DB2 products available for installation or to perform an installation, select from the tabs provided. You can find more product information by searching the information Center.	
Exit	Search Information Center	
	(C) Copyright International Business Machines Corporation, 1903, 2006. All rights reserved.	×

Figure 97. Welcome page of the DB2 Setup Launchpad

6. On the "Welcome" page of the "IBM DB2 Setup Launchpad", click **Install a Product** to open the "Install a Product" page.

DB2 Setup Launchpad		
	DB2. Information Management Software Version 9.1	IBM.
DB2 Setup Launchpad	Install a Product	
Installation Prerequisites Release Notes Migration Information	Click Install New to launch the DB2 Setup wizard for the desired product. If you want to migrate from a previous version of a DB2 product, click Migrate. If you want to add features to an existing product or upgrade an existing product, click Work with Existing.	
Install a Product	DB2 Enterprise Server Edition	
Exit	DB2 Enterprise Server Edition is designed to meet the data server needs of mid- to large-size businesses. It can be deployed on Linux, UNIX, or Windows servers of any size, from one CPU to any number of CPUs.	
	DB2 Enterprise Server Edition is an ideal foundation for building on demand enterprise-wide solutions, such as large data warehouses of multiple terabyte size or high performing 24x7 available high volume transaction processing business solutions, or Web-based solutions. DB2 Enterprise Server Edition incorporates a native XML data store and delivers flexible access to XML data using XQuery, XPath, SQL, and standard reporting tools.	
	Optional features for DB2 Enterprise Server Edition are available that provide additional advanced product capabilities in areas such as database partitioning, performance, security, data federation, and database administration. Please see http://www.ibm.com/db2 for more information.	
	Install New	
	DB2 Client	
	DB2 Client is a collection of graphical and nongraphical tools and components for administring DB2 products and developing applications with DB2 products. Add-ins for Eclipse and Microsoft Visual Studio 2005 development environments are also included.	
	DB2 Client is a component of DB2 Server, DB2 Express, DB2 Connect Server, and DB2 Connect Personal Edition products. Please see http://www.ibm.com/db2 for more information.	
	Install New	
		Ţ

Figure 98. Install a Product page of the DB2 Setup Launchpad

 On the "Install a Product" page of the "IBM DB2 Setup Launchpad", click the Install New button for DB2 Enterprise Server Edition The "DB2 Setup wizard" opens.

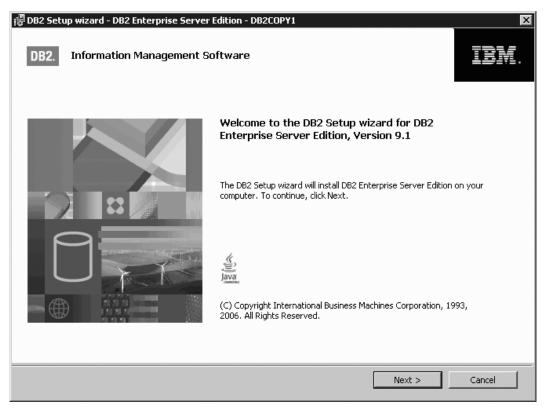


Figure 99. DB2 Setup wizard

- 8. Click Next. The "License Agreement" page opens.
- 9. On the "License Agreement" page:
  - a. After reviewing and agreeing to the license text, select the **I accept the terms in the license agreement** radio button:

DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1					
License Agreement Please read the following license agreement carefully.					
IMPORTANT: READ CAREFULLY	-				
Two license agreements are presented below.					
1. IBM International License Agreement for Evaluation of Programs 2. IBM International Program License Agreement					
If you are obtaining the Program for purposes of productive use (other than evaluation, testing, trial "try or buy," or demonstration): By clicking on the "Accept" button below, You accept the IBM International Program License Agreement, without modification.					
If you are obtaining the Program for the purpose of evaluation, testing, trial "try or buy," or demonstration (collectively, an "Evaluation"): By clicking on the "Accept" button below, You accept both (i) the IBM International License Agreement for Evaluation of Programs (the "Evaluation License"), without modification; and (ii) the IBM International Program License Agreement (the "IPLA"), without modification.					
The Evaluation License will apply during the term of Your Evaluation.					
I accept the terms in the license agreement					
C I do not accept the terms in the license agreement					
nstallShield					
Print < Back Next > Can	icel				

Figure 100. DB2 Setup wizard - Licence Agreement page

- b. Click Next. The "Select the installation type" page opens.
- 10. On the "Select the installation type" page:
  - a. Select the **Custom** radio button:

[ᡒDB2 Setup wizard - DB2 Select the installati	Enterprise Server Edition - DB2COPY1
○ Typical: ○ Compact: ⓒ Custom:	Approximately 350 - 560 MB Approximately 260 - 400 MB Approximately 260 - 600 MB
If you are alrea installed and sp The default set!	the installation type dy familiar with DB2 features and settings, you can select the features that you want ecify your configuration preferences. tings for a custom installation are the same as those for a typical installation, but you can nal features and configuration parameters.
InstallShield	< Back Next > Cancel Help

Figure 101. DB2 Setup wizard - Select the installation type page

- b. Click **Next**. The "Select the installation, response file creation, or both" page opens.
- 11. On the "Select the installation, response file creation, or both" page:
  - a. Select the **Install DB2 Enterprise Server Edition on this computer** radio button.

🙀 DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1	
Select the installation, response file creation, or both	
The DB2 Setup Wizard can install DB2 Enterprise Server Edition on this computer, create a response file that you can use to install this product on a computer later, or both.	
If you are setting up a DB2 Enterprise Server Edition (ESE) partitioned database environment, you can also create a response file to install DB2 on the other computers that will act as database partition servers.	
Install DB2 Enterprise Server Edition on this computer	
O Save my installation settings in a response file	
No software will be installed on this computer.	
O Install DB2 Enterprise Server Edition on this computer and save my settings in a response file	
Response file name C:\Documents and Settings\herrickm\My Documents\PROD_ESE.rsp	
InstallShield	
< Back Next > Cancel	Help

Figure 102. DB2 Setup wizard - Select the installation, response file creation, or both page

b. Click Next. The "Select the features to install" page opens.

)B2 Setup wizar	d - DB2 Enterprise Ser	ver Edition - DB2COI	P¥1	I
Select the fea	atures to install			
To customize which features are installed, click on icons in the following list.				
Installation fo	lder		This feature requires 450 MB on your hard drive. It has 5 of 5 subfeatures selected. The subfeatures require 90 MB on your hard drive.	
Directory	C:\Program Files\IBM	I\SQLLIB\		
	Space required:	615 MB	Disk Space	
allShield		< <u>B</u> ack	Cancel Help	

Figure 103. DB2 Setup wizard - Select the features to install page

- 12. On the "Select the features to install" page:
  - a. Open the + beside **Server support**.
  - b. Select the **Connect support** feature and left click. Select **This feature will not be available** from the pop-up menu to deselect the **Connect Support** feature.

译 DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1 Select the features to install	×
To customize which features are installed, click on icons in the followin DB2 Enterprise Server Edition DB2 Enterprise Server support Connect support This feature will be installed on local h This feature, and all subfeatures, will This feature will not be available. Application development tools Getting started	Feature Description Connect support provides the ability to connect to host, AS/400, and iSeries systems. ard drive.
Installation folder Directory C:\Program Files\IBM\SQLLIB\ Space required: 615 MB InstallShield	

Figure 104. DB2 Setup wizard - Select the features to install page; Connect support feature deselected for installation

- **c**. Ensure that the following features under **Server support** are also deselected for installation:
  - Satellite Control Server
  - Informix data source support

After the **Server support** features are deselected, open the **+** beside **Communication protocols**, and deselect the **NetBIOS Listener** feature and the **Named Pipes Listener** feature.

Note: Do not deselect the TCP/IP Listener feature.

霥DB2 Setup wizard - DB2 Enterprise Server Edition - D Select the features to install	B2COPY1 X
To customize which features are installed, click on icons in DB2 Enterprise Server Edition Server support Connect support Satellite Control Server Informix data source suppir Communication protocols NetBIOS Listener Named Pines Listen TCP/IP Listener Client support Administration tools Application development tools	Feature Description     The Named Pipes Listener component provides     Named Pipes listening functionality required for     client/server communication
Directory	
Directory C:\Program Files\IBM\SQLLIB\ Space required: 615 MB	
InstaliShield	ck Next > Cancel Help

Figure 105. DB2 Setup wizard - Select the features to install page; all features except TCP/IP Listener deselected for installation

- d. Open the + beside **Client support**.
- e. Deselect the DB2 LDAP support feature.
- f. Open the + beside **Communication protocols**.
- g. Deselect the **NetBIOS** feature and the **Named Pipes** feature. These protocols are not supported in a Common Criteria compliant environment.

**Note:** TCP/IP is supported in a Common Criteria compliant environment. Do *not* deselect the **TCP/IP** feature.

	l - DB2 Enterprise Serve Itures to install	er Edition - DB2COF	941	×
To customize wł	ich features are installed, c Server support Client support Thterfaces Base client su System Bind Satellite Synd Statellite Synd Statellite Synd Communicati X V NetBI X V NetBI X V NetBI	upport Files chronization ider client pport on protocols iOS d Pipes	<ul> <li>Feature Descripti</li> <li>Named Pipes allov communication pr client/server envi</li> </ul>	ws you to use the Named Pipes rotocol to transfer data in a
Installation fo	der			
Directory	C:\Program Files\IBM\S	SQLLIB\		⊆hange
	Space required:	613 MB		Disk Space
nstallShield ————		< <u>B</u> ack	<u>N</u> ext >	Cancel Help

Figure 106. DB2 Setup wizard - Select the features to install page; NetBIOS and Named Pipes features deselected for installation

h. Select the Administration tools feature, and left click. Select This feature will not be available from the pop-up menu to deselect the Administration tools feature.

	d - DB2 Enterprise Serv atures to install	er Edition – DB2LU		
To customize which features are installed, click on icons in the follow		This feature requires 2 KB on your hard drive. It has 0 of 8 subfeatures selected. The subfeatures require 93 MB on your hard drive.		
Installation fo	lder C:\Program Files\IBM\ Space required:	SQLLIB\ 557 MB		
IIShield		< <u>B</u> ack	Cancel Help	

Figure 107. DB2 Setup wizard - Select the features to install page; Administration tools feature deselected for installation

- i. Open the + beside Getting started.
- j. Select the **First Steps** feature, and left click. Select **This feature will not be available** from the pop-up menu. Performing this action prevents the **First Steps** feature from being installed.

DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1     ×       Select the features to install     Image: Comparison of the second se			
To customize which features are installed, click on icons in the following of the server support of the server	Feature Description First Steps is a graphical tool that will help familiarize you with DB2 features and functions. This feature requires 73 MB on your hard drive.		
Installation folder Directory C:\Program Files\IBM\SQLLIB\ Space required: 557 MB			
InstallShield	Next > Cancel Help		

Figure 108. DB2 Setup wizard - Select the features to install page; First Steps feature deselected for installation

k. Click Next. The "Select the languages to install" page opens.

**13**. On the "Select the languages to install" page, English is the only language support that is installed by default.

DB2 Setup wizard	l - DB2 Enterprise Serve	r Edition - DB2COPY1			_ 🗆 ×
Select the lan	guages to install				Ţ
	all the user interfaces and p e disk space required.	roduct messages in sever	ral languages. Installing m	nultiple languages	
Available Ian Chinese (Sim			Selected langua	ges	
Chinese (Tra Czech Danish Finnish French (Stan German	ditional)	>			
	stallation folder	<<			
Directory	C:\Program Files\IBM\S	SQLLIB\ 557 MB		⊆hange Disk space	]
stallShield		< <u>B</u> ack	Next >	Cancel He	p

Figure 109. DB2 Setup wizard - Select the languages to install page; English language support selected for installation

14. Click Next. The "Set the DB2 copy name" page opens.

🕞 DB2 Setup wizard - DB2 Enterpri:	se Server Edition - DB2COPY1	×
Set the DB2 copy name		
The DB2 copy name is used to DB2 copy name for the location	identify a location where DB2 products are installed on the computer. Enter the n you have chosen.	
DB2 copy name	DB2COPY1	
specific DB2 copy. It will also b	omputer will be used by applications that are not enabled or configured to use a e the copy that will be accessible by default from the command line.	
Set this as the default D	B2 copy on this computer	
	< Back Next > Cancel	Help

Figure 110. DB2 Setup wizard - Set the DB2 copy name page

- **15**. Click **Next**. The "Specify the location of the DB2 Information Center" page opens.
- 16. On the "Specify the location of the DB2 Information Center" page:a. Ensure that the **On the IBM Web site** radio button is selected.

🕞 DB2 Setup wizard - DB2 Enterprise S	erver Edition - DB2COPY1 🛛 🗖 🗖 🔀			
Specify the location of the DB2	2 Information Center			
The DB2 Information Center contains documentation for DB2 products. The DB2 Information Center can be accessed on the IBM Web site, installed and accessed on another computer on your intranet, or installed and accessed on a local computer. This setting can also be changed after installation is complete.				
Select the location from which you v	vill access the DB2 Information Center:			
On the IBM Web site				
If you want to install and access the DB2 Information Center locally, install the DB2 Information Center on this computer from the CD labeled DB2 Information Center.				
○ On the following intranet serve	er			
Host name				
Port number	51000			
Install5hield				
	< <u>B</u> ack <u>Next</u> Cancel Help			

Figure 111. DB2 Setup wizard - Specify the location of the DB2 Information Center; On the IBM Web site option selected

- b. Click **Next**. The "Set user information for the DB2 Administration Server" page opens.
- 17. On the "Set user information for the DB2 Administration Server" page:
  - a. Select the domain of the user from the Domain drop-down list.
  - b. Type the user name for the DB2 Administration Server in the **User name** field.
  - c. Type the password for the user in the Password field.
  - d. Type the password again in the **Confirm password** field.
  - e. Ensure that the **Use the same user name and password for the remaining DB2 services** check box is not selected.

	DB2 Enterprise Server Edition - tion for the DB2 Administr		
	tration Server (DAS) runs on your c ired user information for the DAS.	omputer to provide support required by the DB2 tools.	
	User information		1
	Domain	None - use local user account	
	User name	db2admin	
	Password	*****	
	Confirm password	****	
Instal/Shield	e user name and password for the	remaining DB2 services	
1150010111610	</td <td>Back Next &gt; Cancel</td> <td>Help</td>	Back Next > Cancel	Help

Figure 112. DB2 Setup wizard - Set user information for the DB2 Administration Server page

f. Click Next. The "Set up a DB2 instance" page opens.

- 18. On the "Set up a DB2 instance" page:
  - a. Ensure that the **Create the default DB2 instance** radio button is selected.

谩 DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1	_ 🗆 🗙
Set up a DB2 instance	
A DB2 instance is an environment in which you store data. You must have an instance to use this product.	
Either create the default DB2 instance or join an existing partitioned database environment.	
Create the default DB2 instance	
C loin an existing partitioned database environment	
InstallShield	
< <u>B</u> ack <u>N</u> ext > Cancel	Help

Figure 113. DB2 Setup wizard - Set up a DB2 instance page; Create the default DB2 instance option selected

- b. Click **Next**. The "Set up partitioning options for the default DB2 instance" page opens.
- **19**. On the "Set up partitioning options for the default DB2 instance" page:
  - a. Ensure that the **Single partition instance** radio button is selected.

🖟 DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1 🛛 🗖 🗖 🔀
Set up partitioning options for the default DB2 instance
A DB2 instance can have one or more database partitions, which exist on one or more computers. Select the partitioning options for the default DB2 instance.
Single partition instance
The instance will reside only on this computer. Select this option if the instance will not be used in a partitioned database environment.
C Multiple partition instance
Select this option to prepare to use the partitioning capability of DB2 Enterprise Server Edition to store data in multiple database partitions. To use this functionality, you must have a Database Partitioning Feature license.
If you select this option, two response files will be saved. See the help for details.
Maximum logical partitions
This computer is assigned partition number 0. Type the maximum number of logical partitions that can exist on each database partition server. This setting applies to all database partition servers in this instance.
Maximum logical partitions 4 ICP/IP Settings
Instal/Shield
< <u>B</u> ack Cancel Help

Figure 114. DB2 Setup wizard - Set up partitioning options for the default DB2 instance page

b. Click Next. The "Configure DB2 instances" page opens.

🖟 DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1 🛛 🗧 🗖	
Configure DB2 instances	
The following instances will be created during installation. You can customize the configurations by clicking on the Configure button.	
DB2 Instances:	
D62Configure	J
Instance description	
The default instance, DB2, stores application data. You can build a partitioned database environment by installing DB2 Enterprise Server Edition on other computers, and specify that these computers participate in the default instance.	
InstaliShield	

Figure 115. Configure DB2 instances page

- **20**. On the "Configure DB2 instances" page, select **Configure**. The "DB2 instance configuration" window opens.
- **21**. On the "DB2 instance configuration" page:
  - a. On the "Startup" tab, select the **Do not autostart the instance. The instance must be started manually.** radio button.

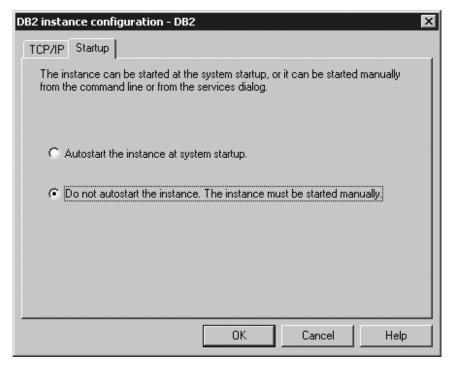


Figure 116. DB2 instance configuration window

- b. Click OK. The "DB2 instance configuration" window closes.
- **c.** On the "Configure DB2 instances" page, click **Next**. The "Set user information for the default DB2 instance" page opens.
- 22. On the "Set user information for the DB2 instance" page:
  - a. Select the domain of the user from the Domain drop-down list.
  - b. Type the user name for the instance in the **User name** field.
  - c. Type the password for the user in the Password field.
  - d. Type the password again in the **Confirm password** field.
  - e. Ensure that the **Use the same user name and password for the remaining DB2 services** check box is not selected.

Set user information for the default DB2 instance	
Specify the required user information that the DB2 instance, DB2, will use to log on to your system.	
User information	
Domain None - use local user account	
User name db2admin	
Password ******	
Confirm password	
Use the same user name and password for the remaining DB2 services	
InstallShield	
< <u>B</u> ack <u>N</u> ext > Cancel Help	

Figure 117. DB2 Setup wizard - Set user information for the DB2 instance

- f. Click Next. The "Prepare the DB2 tools catalog" page opens.
- 23. On the "Prepare the DB2 tools catalog" page:
  - a. Ensure that the Prepare the DB2 tools catalog check box is deselected.

🕞 DB2 Setup wizard - DB2 Enterprise Serve	er Edition - DB2COPY1	
Prepare the DB2 tools catalog		
	ter and scheduler require a DB2 tools catalc alog must be stored in a DB2 database.	ig on one of the DB2 servers
Prepare the DB2 tools catalog		
Instance	DB2	
Database		
C New	TOOLSDB	
C Existing		
Schema		
🖲 Ne <u>w</u>	SYSTOOLS	
C Existing		
InstallShield		
	< Back	Cancel Help

Figure 118. DB2 Setup wizard - Prepare the DB2 tools catalog page

- b. Click Next. The "Set up notifications" page opens.
- 24. On the "Set up notifications" page:
  - a. Ensure that the **Set up your DB2 server to send notifications** check box is deselected.

082 Setup wizard - DB2 Enterprise Ser	ver Edition - DB2COPY1	
Set up notifications		
	atically send e-mail or pager notifications to alert administrators when a formation is stored in the administration contact list. You need an se notifications.	3
If you do not set up your DB2 server to se administration notification log.	end notifications at this time, the health alerts are still recorded in the	
🗖 Şet up your DB2 server to send notifi	ications	
Notification SMTP server		
Administration contact list location –		
Local - Create a contact list or	n this computer	
C Remote - Use an existing cont	tact list on another DB2 server	
Remote DB2 server		
alShield		
	< <u>B</u> ack <u>N</u> ext > Cancel	Help

Figure 119. DB2 Setup wizard - Set up notifications page

- b. Click **Next**. The "Enable operating system security for DB2 objects" page opens.
- 25. On the "Enable operating system security for DB2 objects" page:
  - a. Ensure that the **Enable operating system security** check box is deselected.

뤻 DB2 Setup wizard - DB2 Enterprise Server I	Edition - DB2COPY1		×
Enable operating system security fo	r DB2 objects		
Specify if you would like to enable operatir objects on your computer. If you enable t the groups specified below.			
Note: The DB2 Setup wizard has detected	that the group names shown below a	lready exist on your computer.	
Enable operating system security			
Information on the DB2 administrators	group and DB2 users group is availab	e by clicking Help.	
DB2 administrators group	DB2ADMNS		
DB2 users group	DB2USERS		
InstallShield			
	< <u>B</u> ack <u>N</u> ext >	Cancel	Help

Figure 120. DB2 Setup wizard - Enable operating system security for DB2 objects page

b. Click Next. The "Start copying files" page opens.

뤻 DB2 Setup wizard - DB2 Enterprise Server	Edition - DB2COPY1
Start copying files	
	ation to start copying the program files. If you want to review or e satisfied with the settings, click Install to begin copying files.
Current settings:	
Product to install: Installation type: DB2 copy name: Set as Default DB2 copy: Selected features: TCP/IP Listener TCP/IP DB2 WMI Provider SQLJ Samples SQLJ Application Developm SQLJ Support Sample database source ADT sample programs OLE DB Support ODBC Sunnort	DB2 Enterprise Server Edition - DB2COPY1 Custom DB2COPY1 Yes ent Tools
InstallShield	< <u>B</u> ack Install Cancel Help

Figure 121. DB2 Setup wizard - Start copying files page

**26**. On the "Start copying files" page, click **Install** to begin installing DB2 on your computer.

The "Installing DB2 Enterprise Server Edition" page opens.

뤻 DB2 Setup wizard	d - DB2 Enterprise Server Edition - DB2COP1	/1		
Installing DB2 En	terprise Server Edition - DB2COPY1			
P				
	Status:			
InstallShield				
		< Back	Next >	Cancel

Figure 122. DB2 Setup wizard - Installing DB2 Enterprise Server Edition page

**Note:** If a window called "Digital Signature Not Found" opens, click **Yes** to continue.

When the installation completes, the "Setup is complete" page opens.

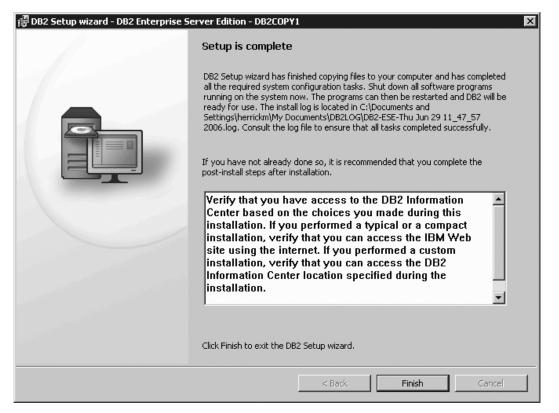


Figure 123. DB2 Setup wizard - Setup is complete page

Click Finish to exit from the "DB2 Setup wizard".

**27**. Activate the license files. See the topic " Registering a DB2 product or feature license key using the db2licm command".

After DB2 Enterprise 9 is installed, see the topic on configuring DB2 to be Common Criteria compliant in the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book.

# Chapter 6. Installing multi-partition Common Criteria compliant environments

The following topics describe how to install multi-partition Common Criteria compliant environments.

### Installing DB2 Enterprise 9 on AIX 5.3 for a multipartition Common Criteria compliant installation

This task provides detailed instructions on installing DB2 Enterprise 9 on AIX 5.3 for a Common Criteria compliant installation.

#### **Prerequisites:**

- The prerequisites listed in "Installation requirements for DB2 clients and servers (AIX)" must be met.
- The prerequisites listed in "Updating environment settings for a partitioned DB2 installation (AIX)" must be met.
- The prerequisites listed in "Verifying that NFS is running (Linux and UNIX)" must be met.
- The prerequisites listed in "Creating a DB2 home file system for a partitioned database system (AIX)" must be met.
- The computer on which you install DB2 must be physically protected from untrusted users.
- AIX 5.3 must be installed on the computer with hot fix IY83580. The hot fix is available at: ftp://service.software.ibm.com/aix/efixes/iy83580/
- You must have the file v9fp1\_aix\_ese.tar.gz downloaded to the directory of your choice. You must download this file to the same directory on all computers that will participate in the environment. This file is available from the DB2 9 download site (http://ibm.com/software/data/db2/udb/support/ downloadv9.html).
- You must have downloaded the applicable activation files from the Passport Advantage site to the same directory on all participating computers. You require these files to activate Enterprise 9 after installation. The instance owner must have read/write authority on this directory.
  - One of the following:
    - DB2\_Enterp\_Svr\_Auth\_User\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per user basis.
    - DB2\_Enterprise\_Svr\_Ed\_CPU\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per CPU basis.
  - DB2\_Database\_Partitioning\_Activation.zip. Required to active the Database Partitioning Feature (DPF)
  - DB2\_Advanced\_Access\_Cntrl\_Activation.zip. Required to activate label-based access control (LBAC).
- The user names to be used for the following:
  - The DB2 instance owner
  - The DB2 Administration Server
  - The fenced user

If you do not have these user names, obtain them from your system administrator. For more information about these users, see "DB2 users and groups (Linux and UNIX)" on page 26. For information about creating these users, see "Creating group and user IDs for a DB2 database installation (Linux and UNIX)" on page 30.

The topic "Installing DB2 servers (Linux and UNIX)" provides an overview of installing on Linux and UNIX-based platforms.

#### **Procedure:**

Use the following steps to install DB2 Enterprise 9 on AIX 5.3 for a Common Criteria compliant environment.

- 1. Log on to the system as a user with root authority.
- Decompress the product file: gzip -d v9fp1\_aix\_ese.tar.gz
- Untar the product file: tar xvf v9fp1 aix ese.tar
- 4. Repeat steps 1, 2, and 3 for every computer that will participate in the partitioned database environment.
- Change directory on the computer that you want to use as the instance owner: cd \$HOME/ese/disk1
- On the computer that you want to use as the instance owner, issue the ./db2setup command to open the "IBM DB2 Setup Launchpad" at the "Welcome" page:



Figure 124. Welcome page of the DB2 Setup Launchpad

7. On the "Welcome" page of the "IBM DB2 Setup Launchpad", click **Install a Product** to open the "Install a Product" page.

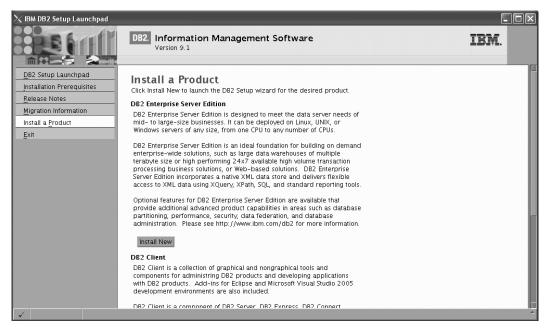


Figure 125. Install a Product page of the DB2 Setup Launchpad

 On the "Install a Product" page of the "IBM DB2 Setup Launchpad", click the Install New button for DB2 Enterprise Server Edition

The "DB2 Setup wizard" opens.

imesDB2 Setup wizard	- DB2 Enterprise Server Edition	
Introduction     Software License     Agreement     Installation type     Installation color     Installation     directory     DAS user     Installation     priotos     Partitioning     user     Instance-owning     Instance-o	Welcome to the DB2 Setup wizard           The DB2 Setup wizard will install DB2 Enterprise Server Edition on your computer. To continue, click Next.	
	Next D Brish Cance	el Help

Figure 126. DB2 Setup wizard

- 9. Click Next. The "Software License Agreement" page opens.
- 10. On the "License Agreement" page:
  - **a**. After reviewing and agreeing to the license text, select the **Accept** radio button:

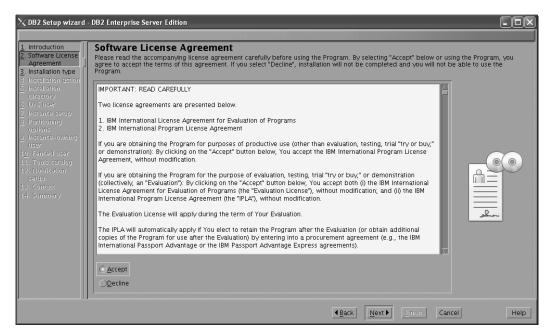


Figure 127. DB2 Setup wizard - Software Licence Agreement page

- b. Click Next. The "Select the installation type" page opens.
- 11. On the "Select the installation type" page:
  - a. Select the **Custom** radio button:

imesDB2 Setup wizard	- DB2 Enterprise Server Edition
1. Introduction 2. Software License	Select the installation type
3. Installation type 4. Installation action	() <u>Typical:</u> 500 - 610 MB
5. Features 6. Languages 7. Documentation	⊖ <u>C</u> ompact: 450 – 550 MB
8. DAS user 9. Instance setup	C Custom: 450 - 760 MB
10. Partitioning opti 11. Instance-owning	Information about the installation type
12. Fenced user	Custom
13. Communication 14. Tools catalog	If you are already familiar with DB2 features and settings, you can select the features that you want installed and specify your configuration preferences.
15. Notification setu 16. Contact	The default settings for a custom installation are the same as those for a typical installation, but you can customize optional features and configuration parameters.
17. Summary	
	Back         Next >         Enrich         Cancel         Help

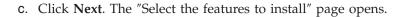
Figure 128. DB2 Setup wizard - Select the installation type page

- b. Click **Next**. The "Select the installation, response file creation, or both" page opens.
- 12. On the "Select the installation, response file creation, or both" page:
  - a. Select the **Install DB2 Enterprise Server Edition on this computer and save my settings in a response file** radio button.

b. Use the default value listed in the **Response file name field**. Subsequent installs for the partitioned database environment are performed using the response file db2ese.rsp in the /tmp directory. Using the response file guarantees a consistent setup of the database environment on all participating computers.

🔀 DB2 Setup wizard -	DB2 Enterprise Server Edition
1. Introduction	Select installation, response file creation, or both
2. Software License	The DB2 Setup wizard can install DB2 Enterprise Server Edition on this computer, create a response file that you can use to install this product on a computer later, or both.
3. Installation type	on a computer later, or both. If you are setting up a DB2 Enterprise Server Edition (ESE) partitioned database environment, you can also create a response file to install DB2
5. Features	in you are setting up a biz Enterprise server culture (EE) particulared database environment, you can also create a response me to instan bbz
6. Languages	
7. Documentation	Install DB2 Enterprise Server Edition on this computer
<ol> <li>DAS user</li> <li>Instance setup</li> </ol>	○ Save my installation settings in a response file
10. Partitioning opti 11. Instance-owning	No software will be installed on this computer.
12. Fenced user	Install DB2 Enterprise Server Edition on this computer and save my settings in a response file
13. Communication	
14. Tools catalog 15. Notification setu	Response file name //tmp/db2ese.rsp
15. Notification setu 16. Contact	
17. Summary	
	Back         Next >         Emistric         Cancel         Help

Figure 129. DB2 Setup wizard - Select the installation, response file creation, or both page



DB2 Setup wizard -	DB2 Enterprise Server Edition Select the features to install Select the features you want to install.	
Installation action     Features     Languages     Zoctimentation     Destimentation     DA5 User     Johnstnet setup     Instance-owning     L. Particleum     Sommunication     Tools catalog     Notification setur     Sommunicati     Sommany	Server support DB: ✓ Client support Edit ✓ Administration tools mee ✓ Administration tools nee	scription 2 Enterprise Server tion is designed to et the data server ads of mid- to ge-size businesses.
		ice required: 492 MB ice available: 1280 MB
		ext Einish Cancel Help

Figure 130. DB2 Setup wizard - Select the features to install page

- **13**. On the "Select the features to install" page:
  - a. Open the + beside Client support.

b. Select the DB2 LDAP support feature to remove the check mark.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition	- 0 ×
Introduction     Software License     Installation type     Installation type     Installation action     Sreatures     Languages     Documentation     B D45 usar     Instance-setup     Io. Partitioning opti- Instance-owning     I. Instance-owning     I. Fenced usar     Software     Software	Select the features to install Select the features you want to install.	Description LDAP Exploitation allows DB2 to use an LDAP directory to store database directory and configuration information.
	Directory /opt/IBM/db2/V9.1	Space required: 491 MB Space available: 1280 MB
	▲Back	Next Finish Cancel Help

Figure 131. DB2 Setup wizard - Select the features to install page; DB2 LDAP support feature deselected for install

- c. Open the + beside Administration tools.
- d. Ensure that the following features under **Administration tools** are deselected for installation:
  - DB2 Instance Setup wizard
  - DB2 Web Tools

$\chi$ DB2 Setup wizard - DB2 Enterprise Server Edition		
Introduction     Select the features to install     Select the features     Select the features     Selex to install     Selex     Selex     Selex	Description The Administration tools group contains DB2 graphical and command line tools used to administer local and remote databases.	
Directory /opt/IBM/db2/V9.1	Space required: 481 MB	
	Space available: 1280 MB	el Help

Figure 132. DB2 Setup wizard - Select the features to install page; Administration tools features deselected for install

e. Open the + beside Application development tools.

f. Ensure that the **ADT sample programs** feature and the **Spatial Extender samples** feature are deselected for installation.

ightarrow DB2 Setup wizard -	DB2 Enterprise Server Edition	
Introduction     Software License     Installation type     Installation action     Features     Languages     Joctmentation     Do2 user     Jinstanes setup     Instanes setup     Io, Partitoining opti     I. Instanes-owning     I.2. Fenced user     I.3. Communication     I.4. Tools catalog     I.5. Notification setup     I.5. Contact     I.7. Summary		Description Spatial Extender samples component provides examples for using Spatial Extender features.
		Space available: 1280 MB
		Next Finish Cancel Help

Figure 133. DB2 Setup wizard - Select the features to install page; Application development tools features deselected for installation

- g. Open the + beside Getting started.
- h. Ensure that the **First Steps** feature and the **XML Extender samples** feature are deselected for installation.

imesDB2 Setup wizard - I	DB2 Enterprise Server Edition	
1. Introduction	Select the features to install Select the features you want to install.	Description XML Extender samples are sample programs you can use to learn about XML Extender technology.
	< <u>∎ack</u>	Next Einish Cancel Help

Figure 134. DB2 Setup wizard - Select the features to install page; Getting started features deselected for installation

i. Click Next. The "Select the languages to install" page opens.

14. On the "Select the languages to install" page, English is the only language support that is installed by default.

DB2 Setup wizard - 1. Introduction 2. Software License 3. Installation type	DB2 Enterprise Server Edition  Select the languages to install  The user interface and product messages will be installed in the languages that you choose. Installing multiple languages will increase the disk space requirements.
A Installation action     A Installation action     Features     Commentation     Documentation     Documentation	Available languages Chinese (fraditional) Czech French (Standard) German Italian Japanese Confirm installation directory Directory /opt/IBM/db2/V9.1 Space required: 464 MB Space available: 1280 MB
	Back         Next         Emisin         Cancel         Help

Figure 135. DB2 Setup wizard - Select the languages to install page; English language support selected for installation

- **15**. Click **Next**. The "Specify the location of the DB2 Information Center" page opens.
- 16. On the "Specify the location of the DB2 Information Center" page:
  - a. Ensure that the **On the IBM Web site** radio button is selected.

🔀 DB2 Setup wizard -	DB2 Enterprise Server Edition	- D ×
1. Introduction       2. Software License       3. Installation type       4. Installation action	Specify the location of the DB2 Information Center The DB2 Information Center contains documentation for DB2 products. The DB2 Information Center can be accessed or installed and accessed on another computer on your intranet, or installed and accessed on a local computer. This sett after installation is complete.	n the IBM Web site, ng can also be changed
5. Features 6. Languages	Select the location from which you will access the DB2 Information Center:	
7. Documentation 8. DAS user	O on the IBM Web site	
<u>9</u> . Instance setup 1 <u>0</u> . Partitioning opti	If you want to install and access the DB2 Information Center locally, install the DB2 Information Center on this computer from the CD labeled DB2 Information Center.	
11. Instance-owning 12. Fenced user	On the following intranet server	
13. Communication 14. Tools catalog	Host name	
15. Notification setu 16. Contact	Port number 51000	
17. Summary		
	Back Next Emilin Can	tel Help

Figure 136. DB2 Setup wizard - Specify the location of the DB2 Information Center; On the IBM Web site option selected

- b. Click **Next**. The "Set user information for the DB2 Administration Server" page opens.
- 17. On the "Set user information for the DB2 Administration Server" page:a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the DB2 Administration Server.

ightarrow DB2 Setup wizard -	DB2 Enterprise Server E	dition	
1. Introduction       2. Software License       3. Installation type	The DB2 Administration	Nation for the DB2 Administration Server Server (DAS) runs on your computer to provide support required by the DB2 tools. A user with run the DAS. Specify the required user information for the DAS.	a minimal set of
4. Installation action       5. Features       6. Languages       7. Documentation	⊖Ne <u>w</u> user		
6. Languages 7. Documentation	User name		
8. DAS user 9. Instance setup	UID	📕 Lise default UD	
1 <u>0</u> . Partitioning opti	Group name		
11. Instance-owning 12. Fenced user	GID	Use default <u>G</u> D	
13. Communication 14. Tools catalog	Password		
15. Notification setu 16. Contact	Confirm password		
17. Summary	Home directory		
	○ Existing user		
	User name		
		▲Back Hext ► Finish Cance	Help

Figure 137. DB2 Setup wizard - Set user information for the DB2 Administration Server page

- c. Click Next. The "Set up a DB2 instance" page opens.
- 18. On the "Set up a DB2 instance" page:
  - a. Ensure that the Create a DB2 instance radio button is selected.

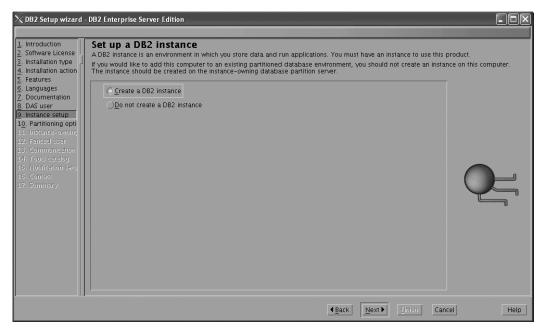


Figure 138. DB2 Setup wizard - Set up a DB2 instance page; Create a DB2 instance option selected

- b. Click **Next**. The "Set up partitioning options for the DB2 instance" page opens.
- 19. On the "Set up partitioning options for the DB2 instance" page:
  - a. Select the **Multiple partition instance** radio button.
  - b. Type 2 for the Maximum logical partitions field.

$ imes$ DB2 Setup wizard $\cdot$	DB2 Enterprise Server Edition	-o×
Introduction     Software License     Installation type     Installation type     Installation action     Features     Languages     Cocumentation     DAS user     Instance-owning     Instance-owning     Instance-owning     I. Farciec duser     I. Fools carelog     Softmaring     Softmary	Set up partitioning options for the DB2 instance         A DB2 instance can have one or more database partitions, which exist on one or more computers. Select the partition instance.         Image: Select this option instance         The instance will reside only on this computer. Select this option if the instance will not be used in a partitioned database environment.         Multiple partition instance         Select this option to prepare to use the partitioning capability of DB2 Enterprise Server Edition to store data in multiple database partitions. To use this functionality, you must have a Database Partitioning Feature license.         If you select this option, two response files will be saved. See the help for details.         Maximum logical partitions         This computer will be assigned partition number 0. You can specify the maximum number of logical partitions that can exist on each database partition server. This setting applies to all database partition servers in this instance.         Maximum logical partitions       Image: CP/IP Settings	ing options for this
	▲Back Next Eirish Can	cel Help

Figure 139. DB2 Setup wizard - Set up partitioning options for the DB2 instance page

**Note:** For the Common Criteria certification, an SMP configuration of two logical partitions on two computers is demonstrated. Depending on your requirements, it is possible to install one logical partition per computer, or more than two logical partitions per computer. Because

a response file is used to install DB2 Enterprise Server Edition on all subsequent computers, the environment will be consistent across all computers that participate in the partitioned database environment.

- c. Click Next. The "Set user information for the DB2 instance owner" page opens.
- 20. On the "Set user information for the DB2 instance owner" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the DB2 instance owner.

1. Introduction       2. Software License       3. Installation type	DB2 Enterprise Server Edition Set user information for the Specify the instance-owning user information information in the user's home directory. The	DB2 instance owner for the DB2 instance. DB2 will use this user to perf a name of the instance will be the same as the user	orm instance functions, and will store instance name.
<ol> <li>Installation action</li> <li>Features</li> </ol>	⊖Ne <u>w</u> user		
<u>6</u> . Languages 7. Documentation	User name		
8. DAS user	UID		Use default UID
<u>9</u> . Instance setup 1 <u>0</u> . Partitioning opti	Group name		
11. Instance-owning 12. Fenced user	GID		Use default GID
13. Communication	Password		
14. Tools catalog 15. Notification setu	Confirm password		en la constante de la constante
16. Contact 17. Summary	Home directory		
17. Summary			
	○ Existing user		
	User name		
			Einish Cancel Help

Figure 140. DB2 Setup wizard - Set user information for the DB2 instance owner page

- c. Click Next. The "Set user information for the fenced user" page opens.
- 21. On the "Set user information for the fenced user" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the fenced user.

	formation for the fenced red information for the fenced user. Fer	d stored procedures will	execute under this user
Ne <u>w</u> user			
n User name			
UID		Use default UID	
o opti Group nam			
ning GID		Use default GID	
ion Password		_	
etu Confirm pa:	aword		<u> </u>
Home direc	ory	 ī	
C. C		2	
© Existing use			
User name			

Figure 141. DB2 Setup wizard - Set user information for the fenced user page

- **c.** Click **Next**. The "Configure instance communication and startup" page opens.
- 22. On the "Configure instance communication and startup" page:
  - a. Select the **Configure** radio button.
  - b. Ensure that the **Autostart the instance at system startup** check box is deselected.

XDB2 Setup wizard	DB2 Enterprise Server Edition	
Introduction     Software License     Installation type     Installation action     Features     Languages     Languages     Locumentation     DAS user     Instance setup     Io. Partitioning opti     I. Instance-owning     I. Freadures     Software     Softwa	Configure instance communication and startup In order for remote clients to access data stored in the DB2 instance, you must configure the DB2 instance for TCP/IP communications protocol on your client computers. The DB2 instance can also be set to start automatically when your computer starts.  TCP/IP configure at this time Configure Service name db2c, db2inst2 Port number 50000  Restore default settings  Autostart the instance at system startup	nust
	Lender L	lelp

Figure 142. DB2 Setup wizard - Configure instance communication and startup page

c. Click Next. The "Prepare the DB2 tools catalog" page opens.23. On the "Prepare the DB2 tools catalog" page:

$\chi$ DB2 Setup wizard $\cdot$	- DB2 Enterprise Server	dition	
1. Introduction         2. Software License         3. Installation type         4. Installation action	Prepare the DB Certain DB2 tools such a cools catalog must be st	is the Task Center and scheduler require a DB2 tools catalog on one of the DB2 servers in yo	our environment. The DB2
5. Features 6. Languages	OPrepare the DB2	tools catalog	
7. Documentation 8. DAS user	Instance	db2inst2	
<u>9</u> . Instance setup	Database		
1 <u>0</u> . Partitioning opti 11. Instance-ownin(	ONew	TOOLSDB	
12. Fenced user		<select></select>	<u> </u>
13. Communication 14. Tools catalog	Schema		
15. Notification setu 16. Contact	ONew	SYSTOOLS	1
17. Summary	OExisting	<select></select>	
	O Do not prepare t	ne DB2 tools catalog	
		▲Back Next Elinish Ca	ancel Help

a. Select the **Do not prepare the DB2 tools catalog** radio button.

Figure 143. DB2 Setup wizard - Prepare the DB2 tools catalog page

- b. Click Next. The "Set up notifications" page opens.
- 24. On the "Set up notifications" page:
  - a. Select the **Do not set up your DB2 server to send notifications at this time** radio button.

$\chi$ DB2 Setup wizard -	DB2 Enterprise Server Edition	- 0 ×
1. Introduction       2. Software License       3. Installation type       4. Installation action	Set up notifications You can set up your DB2 server to automatically send e-mail or pager notifications to alert administrators when a database needs atte The contact information is stored in the administration contact list. You need an unauthenticated SMTP server to send these notification	ntion. 15.
5. Features 6. Languages 7. Documentation 8. DAS user 9. Instance setup 10. Partitioning opti 11. Instance-owning 12. Fenced user 13. Communication	Set up your DB2 server to send notifications         Horification SHTP server         Administration contact list location         Olgocal - Create a contact list on this computer         Olgometer - Use an existing contact list that resides on another DB2 server	-8
14. Tools catalog 15. Notification setu 16. Summary	Remote DB2 server         Do not set up your DB2 server to send notifications at this time         If you do not set up your DB2 server to send notifications, the health alerts are still recorded in the administration notification log.	
	■ Back Next Finish Cancel	Help

Figure 144. DB2 Setup wizard - Set up notifications page

b. Click Next. The "Start copying files and create response files" page opens.

1. Introduction           2. Software License           3. Installation type           4. Installation action	Start copying files and cre. The DB2 Setup wizard has enough informa any settings, click Back. If you are satisfied Current settings	ate response files tion to start copying the program files and create the res with the settings, click Finish to begin copying files and	ponse files. If you want to review or change create the response files.
5. Features 6. Languages 7. Documentation 8. DAS user 9. Instance-exetup 10. Partitioning opti 11. Instance-owning 12. Fenced user 13. Communication 14. Tools catalog 15. Notification sett 16. Summary	Product to install: Installation type: Previously Installed Components: Selected Components: GSKit support Product Messages - English Base client support IBM Software Development Kit (1 Java Help (HTML) - English Replication with NQ Server Run-time Environment SQL procedures ICU Utilities SQL Replication Support Java Support Java Support Java Support Java Common files Spatial Extender client Base application development to Administration Server Communication support - TCP/IP Parallel Extension Replication tools DB2 data source Support	201s	

Figure 145. DB2 Setup wizard - Start copying files and create response files page

25. On the "Start copying files and create response files" page, click **Finish** to begin installing DB2 on your computer.

The "Installing DB2 Enterprise Server Edition" page opens.

imes Installing DB2 Enterprise Server Edition	×
Please wait while the DB2 Setup wizard installs DB2 Enterpris Server Edition on your computer and performs the required configuration. This may take several minutes.	e
Task: Installing Base client support	
0% 100	%
Overall progress:	
0% 100	%

Figure 146. Installing DB2 Enterprise Server Edition page

When the installation completes, the "Setup Complete" page opens.

imes Setup Complete $ imes$
Setup has completed successfully
If you have not already done so, it is recommended that you complete the post-install steps after installation.
You can also review the log file for more details of the setup process. The setup log files db2setup.log and db2setup.err are located in the /tmp directory.
Post-install steps Log file
If you have not already done so, it is recommended that you complete the following steps.
Click Finish to exit.
<u>Finish</u>

Figure 147. Setup Complete page

On the **Post-install steps** tab, note that the installation results in two response files being created in the /tmp directory: db2ese\_rsp and db2ese\_addpart.rsp. The response file db2ese\_addpart.rsp is used to finish installing the partitioned database environment.

Click Finish to exit from the installation GUI.

After you finish using the DB2 Setup wizard to install DB2 on the instance owning computer, you need to verify port range availability, install DB2 on the remaining machines that you want to participate in the instance, create or modify a few files, and finally activate the license files that you downloaded before installing DB2.

- 1. Perform the steps described in "Verifying port range availability on participating computers (Linux and UNIX)".
- 2. Copy the db2ese\_addpart.rsp file to the same directory as the setup.exe file on the second computer that you want to participate in the partitioned database environment. You can use FTP to accomplish this task, or any other tool that permits you to transfer files. Repeat this step for every computer that you want to participate in the environment.
- 3. Run the response file on the second computer using the ./db2setup -r command as described in the topic "Installing database partition servers on participating computers using a response file (Linux and UNIX) ". Repeat this step for every computer that you want to participate in the environment.
- 4. Update the db2nodes.cfg file in the InstanceHome/sqllib/ directory. For details, see the topic "Updating the node configuration file (Linux and UNIX)"
- 5. Create the .rhosts file. See the topic "Enabling the execution of remote commands (Linux and UNIX)" for details.
- 6. Update the /etc/services file. For more information, see the topic "Enabling communications between database partition servers (Linux and UNIX)".

7. Activate the license files on every computer that you want to participate in the partitioned database environment. See the topic " Registering a DB2 product or feature license key using the db2licm command".

After DB2 Enterprise 9 is installed, see the topic on configuring DB2 to be Common Criteria compliant in the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book.

## Installing DB2 Enterprise 9 on SuSE Linux Enterprise Server 9 for a multipartition Common Criteria compliant installation

This task provides detailed instructions on installing DB2 Enterprise 9 on SuSE Linux Enterprise Server 9 for a Common Criteria compliant installation.

#### **Prerequisites:**

- The prerequisites listed in "Installation requirements for DB2 clients and servers (Linux)" must be met.
- The prerequisites listed in "Verifying that NFS is running (Linux and UNIX)" must be met.
- The prerequisites listed in "Creating a file system for a partitioned DB2 server (Linux)" must be met.
- The computer on which you install DB2 must be physically protected from untrusted users.
- SuSE Linux Enterprise Server 9 must be installed on the computer.
- The instructions that follow assume that the rsh-server package has been installed as part of the SuSE Linux Enterprise Server 9 installation. See Installation requirements for DB2 clients and servers (Linux) for more information.
- You must have the file v9fp1\_linuxx64\_ese.tar.gz downloaded to the directory of your choice. You must download this file to the same directory on all computers that will participate in the environment. This file is available from the DB2 9 download site (http://ibm.com/software/data/db2/udb/support/ downloadv9.html).
- You must have downloaded the applicable activation files from the Passport Advantage site to the same directory on all participating computers. You require these files to activate Enterprise 9 after installation. The instance owner must have read/write authority on this directory.
  - One of the following:
    - DB2\_Enterp\_Svr\_Auth\_User\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per user basis.
    - DB2\_Enterprise\_Svr\_Ed\_CPU\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per CPU basis.
  - DB2\_Database\_Partitioning\_Activation.zip. Required to active the Database Partitioning Feature (DPF)
  - DB2\_Advanced\_Access\_Cntrl\_Activation.zip. Required to activate label-based access control (LBAC).
- The user names to be used for the following:
  - The DB2 instance owner
  - The DB2 Administration Server
  - The fenced user

If you do not have these user names, obtain them from your system administrator. For more information about these users, see "DB2 users and groups (Linux and UNIX)" on page 26. For information about creating these users, see "Creating group and user IDs for a DB2 database installation (Linux and UNIX)" on page 30.

The topic "Installing DB2 servers (Linux and UNIX)" provides an overview of installing on Linux and UNIX-based platforms.

#### **Procedure:**

Use the following steps to install DB2 Enterprise 9 on SuSE Linux Enterprise Server 9 for a Common Criteria compliant environment.

- 1. Log on to the system as a user with root authority.
- Decompress the product file: gzip -d v9fp1\_linuxx64\_ese.tar.gz
- **3**. Untar the product file:

tar xvf v9fp1\_linuxx64\_ese.tar

- 4. Repeat steps 1, 2, and 3 for every computer that will participate in the partitioned database environment.
- Change directory on the computer that you want to use as the instance owner: cd \$HOME/ese/disk1
- 6. On the computer that you want to use as the instance owner, issue the ./db2setup command to open the "IBM DB2 Setup Launchpad" at the "Welcome" page:



Figure 148. Welcome page of the DB2 Setup Launchpad

7. On the "Welcome" page of the "IBM DB2 Setup Launchpad", click **Install a Product** to open the "Install a Product" page.

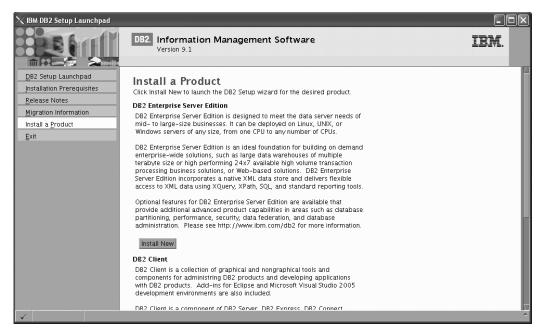


Figure 149. Install a Product page of the DB2 Setup Launchpad

 On the "Install a Product" page of the "IBM DB2 Setup Launchpad", click the Install New button for DB2 Enterprise Server Edition The "DB2 Setup suitand" energy

The "DB2 Setup wizard" opens.

🔀 DB2 Setup wizard	- DB2 Enterprise Server Edition	- D ×
Introduction     Software License     Agreement     Installation action     Constantiation     directory     DAS user     To instance setup     partitioning     options     Instance-owning     user     10, Fenced user     11, Tools catalog     I22, Notification     setup     I2, Contact     14, Sümmary	Welcome to the DB2 Setup wizard           The DB2 Setup wizard will install DB2 Enterprise Server Edition on your computer. To continue, click Next.	
	Next Finish Cance	Help

Figure 150. DB2 Setup wizard

- 9. Click Next. The "Software License Agreement" page opens.
- 10. On the "License Agreement" page:
  - a. After reviewing and agreeing to the license text, select the **Accept** radio button:

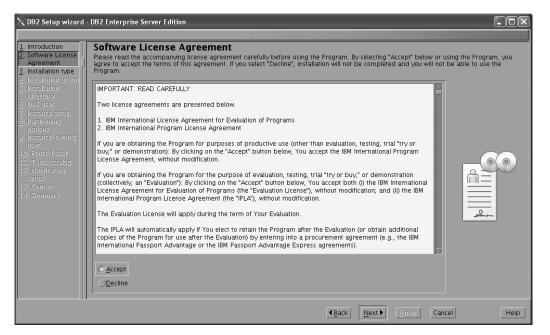


Figure 151. DB2 Setup wizard - Software Licence Agreement page

- b. Click Next. The "Select the installation type" page opens.
- 11. On the "Select the installation type" page:
  - a. Select the **Custom** radio button:

imesDB2 Setup wizard	DB2 Enterprise Server Edition	- D ×
Introduction     Software License     Installation type     Installation action     Features     Languages     Documentation     DA5 user     Instance setup     Particulationing opti     Instance-owning     Renced user     I. Instance-owning     Software     S	Select the installation type	
15. Norhiteation Setu 15. Context 17. Summary	The default settings for a custom installation are the same as those for a typical installation, but you can customize optional features and configuration parameters.	
	<b>▲Back</b> <u>N</u> ext Emish Canc	el Help

Figure 152. DB2 Setup wizard - Select the installation type page

- b. Click **Next**. The "Select the installation, response file creation, or both" page opens.
- 12. On the "Select the installation, response file creation, or both" page:
  - a. Select the Install DB2 Enterprise Server Edition on this computer and save my settings in a response file radio button.

b. Use the default value listed in the **Response file name field**. Subsequent installs for the partitioned database environment are performed using the response file db2ese.rsp in the /root directory. Using the response file guarantees a consistent setup of the database environment on all participating computers.

𝗙 DB2 Setup wizard ∙	DB2 Enterprise Server Edition
1. Introduction 2. Software License	Select installation, response file creation, or both
3. Installation type	The DB2 Setup wizard can install DB2 Enterprise Server Edition on this computer, create a response file that you can use to install this product on a computer later, or both.
4. Installation action 5. Features	If you are setting up a DB2 Enterprise Server Edition (ESE) partitioned database environment, you can also create a response file to install DB2 on the other computers that will act as database partition servers.
<u>6</u> . Languages <u>7</u> . Documentation 8. DAS user	O Install DB2 Enterprise Server Edition on this computer
<u>o.</u> DAS user 9. Instance setup	$\bigcirc$ Save my installation settings in a response file
10. Partitioning opti 11. Instance-owning	No software will be installed on this computer.
12. Fenced user 13. Communication	O Install DB2 Enterprise Server Edition on this computer and save my settings in a response file
14. Tools catalog 15. Notification setu	Response file name /root/db2ese.rsp
16. Contact 17. Summary	
	Image: Back         Next >         Emisit         Cancel         Help

Figure 153. DB2 Setup wizard - Select the installation, response file creation, or both page

c.	Click Next.	The	"Select	the	features	to	install"	page	opens.

∝DB2 Setup wizard	DB2 Enterprise Server Edition	
Introduction     Z. Software License     Installation type     Installation action     Features     Doctmentation     Doctmentation     Doct user     J. Installation action     Dy user     J. Partitioning optil     Instance setup     Partitioning optil     Instance setup     Software lise     Communication     I. Communication     S. Notification setu     IS. Context     I7. Summary	Select the features to install.         Select the features you want to install.         Image: Server Edition         Image: Server Support         Image: Server Serve	
	Installation directory Directory /opt/ibm/db2/V9.1 Space required: 525 MB Space available: 26798 MB	
	Back Next Erristin Can	el Help

Figure 154. DB2 Setup wizard - Select the features to install page

13. On the "Select the features to install" page:a. Open the + beside Client support.

b. Select the **DB2 LDAP support** feature to remove the check mark.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition	
Introduction     Software License     Installation action     Features     Linstallation action     Features     Languages     Jocumentation     DyS user     Jocumentestup     Instance-symp     Instance-symp     I.f. Forded user     I.S. Forded user     I.S. Forded user     I.S. Forded user     I.S. Fordification setu     I.S. Communication     I.S. Summary	Select the features to install Select the features you want to install.	
	▲Back Next Finish Cance	Help

Figure 155. DB2 Setup wizard - Select the features to install page; DB2 LDAP support feature deselected for install

- c. Open the + beside Administration tools.
- d. Ensure that the following features under **Administration tools** are deselected for installation:
  - Configuration Assistant

Note: The Configuration Assistant feature must be deselected after the Control Center feature.

- Control Center
- DB2 Instance Setup wizard
- DB2 Web Tools

imesDB2 Setup wizard	- DB2 Enterprise Server Edition	- DX
Introduction     Software License     Installation type     Installation action     Features     DAS user     DAS user     Instance satup     Partitioning optit     Instance-owning     Iz. Fanced user     Iz. Fonced user     Is. Notification satu     Software y	Select default Select all	
	Directory /opt/ibm/db2/V9.1 Space required: 473 MB Space available: 50878 MB	
	Back Next Finish Cancel	Help

Figure 156. DB2 Setup wizard - Select the features to install page; Administration tools features deselected for install

- e. Open the + beside Application development tools.
- f. Ensure that the **ADT sample programs** feature and the **Spatial Extender samples** feature are deselected for installation.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition	
DB2 Setup wizard -     Introduction     Software License     Installation type     Installation action     Features     DA5 user     DA5 user	DB2 Enterprise Server Edition  Select the features to install Select the features you want to install.  DB2 Enterprise Server Edition  Contemport  Con	Description Spatial Extender samples component provides examples for using Spatial Extender features.
		Space required: 458 MB Space available: 50878 MB
	<u>▲Back</u>	Next Finish Cancel Help

Figure 157. DB2 Setup wizard - Select the features to install page; Application development tools features deselected for installation

- g. Open the + beside Getting started.
- h. Ensure that the **First Steps** feature and the **XML Extender samples** feature are deselected for installation.

∑ DB2 Setup wizard -	DB2 Enterprise Server Edition
Introduction     Software License     Installation type     Installation action     Features     Documentation     Documentation     Documentation     Documentation     Documentation     Documentation     Documentation     Instance setup     Deartitioning optit     I. Instance-owning     I. Featuree-owning     Software duser     I. Communication     I. Tools catalog     Software	Select the features to install Select the features you want to install.
15. Contact 17. Summary	Select default       Select all         Installation directory-       Directory         Directory       /opt/ibm/db2/V9.1         Space required: 457 MB         Space available: 50878 MB
	▲Back         Next ►         Einisin         Cancel         Help

Figure 158. DB2 Setup wizard - Select the features to install page; Getting started features deselected for installation

- i. Click Next. The "Select the languages to install" page opens.
- 14. On the "Select the languages to install" page, English is the only language support that is installed by default.

ightarrow DB2 Setup wizard	- DB2 Enterprise Server Edition	
1. Introduction 2. Software License 3. Installation type	Select the languages to install The user interface and product messages will be installed in the languages that you choose. Installing multiple languages will increase the c space requirements.	lisk
4. Installation action 5. Features 6 Languages 7. Documentation 8 DA5 user 9 Instance setup 10. Partitioning opdi 11. Instance-owning 12. Fenced user 13. Communication 14. Tools catalog 15. Notification setu 15. Context 17. Summary	Available languages          Available languages         Chinese (Traditional)         Czech         Prench (Standard)         German         Italian         Japanese         Confirm installation directory         Directory /opt/ibm/db2/V9.1         Space required: 457 MB         Space available: 50878 MB	
	▲Back Back Binish Cancel Here	elp

Figure 159. DB2 Setup wizard - Select the languages to install page; English language support selected for installation

- 15. Click **Next**. The "Specify the location of the DB2 Information Center" page opens.
- 16. On the "Specify the location of the DB2 Information Center" page:
  - a. Ensure that the **On the IBM Web site** radio button is selected.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition
1. Introduction       2. Software License       3. Installation type       4. Installation action	Specify the location of the DB2 Information Center The DB2 Information Center contains documentation for DB2 products. The DB2 Information Center can be accessed on the IBM Web site, installed and accessed on another computer on your intranet, or installed and accessed on a local computer. This setting can also be changed after installation is complete.
5. Features 6. Languages	Select the location from which you will access the DB2 Information Center.
7. Documentation 8. DAS user	O On the IBM Web site
<u>9</u> . Instance setup 1 <u>0</u> . Partitioning opti	If you want to install and access the DB2 Information Center locally, install the DB2 Information Center on this computer from the CD labeled DB2 Information Center.
11. Instance-owning 12. Fenced user	On the following intranet server
13. Communication 14. Tools catalog	Host name
15. Notification setu 16. Contact 17. Summary	Port number 51000
	< <u>Back</u> <u>Next</u> <u>Binish</u> Cancel Help

Figure 160. DB2 Setup wizard - Specify the location of the DB2 Information Center; On the IBM Web site option selected

- b. Click **Next**. The "Set user information for the DB2 Administration Server" page opens.
- 17. On the "Set user information for the DB2 Administration Server" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the DB2 Administration Server.

∑DB2 Setup wizard -	DB2 Enterprise Server E	lition	- D ×
1. Introduction       2. Software License       3. Installation type		ation for the DB2 Administration Server erver (DAS) runs on your computer to provide support required by the DB2 tools. A us un the DAS. Specify the required user information for the DAS.	ser with a minimal set of
4. Installation action 5. Features	ONe <u>w</u> user		
6. Languages 7. Documentation	User name		
8. DAS user 9. Instance setup	UID		
10. Partitioning opti	Group name		
11. Instance-owning 12. Fenced user	GID	🖬 Use default (	
13. Communication 14. Tools catalog	Password		
15. Notification setu	Confirm password		
16. Contact 17. Summary	Home directory		
	CExisting user		
	User name		
	Ľ		
		Back Einstein	Cancel Help

Figure 161. DB2 Setup wizard - Set user information for the DB2 Administration Server page

c. Click Next. The "Set up a DB2 instance" page opens.18. On the "Set up a DB2 instance" page:

a. Ensure that the **Create a DB2 instance** radio button is selected.

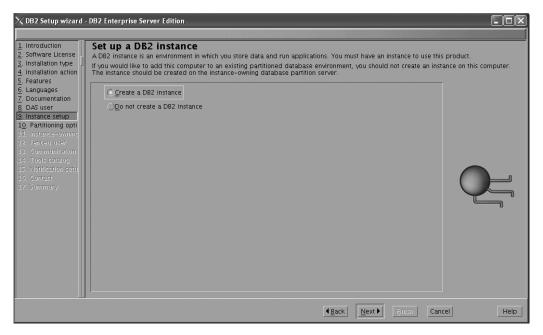


Figure 162. DB2 Setup wizard - Set up a DB2 instance page; Create a DB2 instance option selected

- b. Click **Next**. The "Set up partitioning options for the DB2 instance" page opens.
- 19. On the "Set up partitioning options for the DB2 instance" page:
  - a. Select the Multiple partition instance radio button.
  - b. Type 2 for the Maximum logical partitions field.

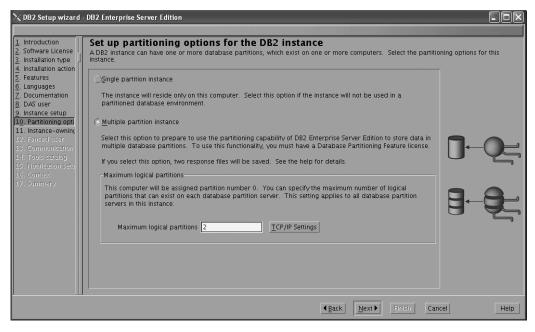


Figure 163. DB2 Setup wizard - Set up partitioning options for the DB2 instance page

**Note:** For the Common Criteria certification, an SMP configuration of two logical partitions on two computers is demonstrated. Depending on

your requirements, it is possible to install one logical partition per computer, or more than two logical partitions per computer. Because a response file is used to install DB2 Enterprise Server Edition on all subsequent computers, the environment will be consistent across all computers that participate in the partitioned database environment.

- **c.** Click **Next**. The "Set user information for the DB2 instance owner" page opens.
- 20. On the "Set user information for the DB2 instance owner" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the DB2 instance owner.

1. Introduction 2. Software License 3. Installation type 4. Installation action	Set user information for the DB2 instance Specify the instance-owning user information for the DB2 instance. Information in the user's home directory. The name of the instance	DB2 will use this user to perform instance functions, and will store instance
5. Features	⊖Ne <u>w</u> user	
5. Languages 7. Documentation	User name	
3. DAS user	din	<u>√U</u> se default UID
9. Instance setup 1 <u>0</u> . Partitioning opti	Group name	
11. Instance-owning 12. Fenced user	GD	
	Password	
14. Tools catalog 15. Notification setu	Confirm password	
	Home directory	
	(1500) - 50(y	
	© Existing user	
	User name	

Figure 164. DB2 Setup wizard - Set user information for the DB2 instance owner page

- c. Click Next. The "Set user information for the fenced user" page opens.
- 21. On the "Set user information for the fenced user" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the fenced user.

duction vare License Ilation type	Set user information for the Specify the required information for the fence user and group.		) and stored procedures will e	xecute under this
ures	⊖Ne <u>w</u> user			
uages Imentation	User name			
user	UD		✓Use default UID	
nce setup titioning opti	Group name			
ance-owning	GD			
nmunication	Password			
lis catalog ification setu	Confirm password			
ntact nmary	Home clirectory	[		
ningiy				
	© Existing user			
	User name		•••	

Figure 165. DB2 Setup wizard - Set user information for the fenced user page

- **c.** Click **Next**. The "Configure instance communication and startup" page opens.
- 22. On the "Configure instance communication and startup" page:
  - a. Select the **Configure** radio button.
  - b. Ensure that the **Autostart the instance at system startup** check box is deselected.

∑DB2 Setup wizard -	DB2 Enterprise Serv	ver Edition	
DB2 Setup wizard -     DB2 Setup wizard -     Software License -     Installation type -     Installation action -     Features -     Languages -     Documentation -     B DAS user -     Instance setup -     Partitioning opti -     I. Instance-owning -     Fenced user -     I. Communication -     I. Fortification setu -     for catalog -     I. Fortification setu -     Software -     Summary -	Configure in In order for remote un must also configure The DB2 instance ca DD0 not configure Configure Service name Port number	Istance communication and startup Clents to access data stored in the DB2 instance, you must configure the DB2 instance for TCP/IF the TCP/IP communications protocol on your client computers. an also be set to start automatically when your computer starts.	communication. You
		▲Back Next ► Birlish Can	cel Help

Figure 166. DB2 Setup wizard - Configure instance communication and startup page

- c. Click Next. The "Prepare the DB2 tools catalog" page opens.
- 23. On the "Prepare the DB2 tools catalog" page:

1 Introduction	DB2 Enterprise Server I Prepare the DB Certain DB2 tools such a tools catalog must be st	2 tools catalog as the Task Center and s	cheduler require a DB2 t	ools catalog on one of the	DB2 servers in your	environment. The DB2
2. Software License 3. Installation type 4. Installation action 5. Features 6. Languages	OPrepare the DB2					
7. Documentation	Instance	db2inst1				
8. DAS user 9. Instance setup 1 <u>0</u> . Partitioning opti	Database					
10. Partitioning opti 11. Instance-owning	ONew	TOOLSDB				
12. Fenced user 13. Communication					Δ	0
14. Tools catalog	Schema					
15. Notification setu 16. Contact	ONew	SYSTOOLS				1
17. Summary	⊖Exjsting				A	
	ODo not prepare ti	ne DB2 tools catalog				
				▲Back Next ▶	Einish Cancel	Help

a. Select the **Do not prepare the DB2 tools catalog** radio button.

Figure 167. DB2 Setup wizard - Prepare the DB2 tools catalog page

- b. Click Next. The "Set up notifications" page opens.
- 24. On the "Set up notifications" page:
  - a. Select the **Do not set up your DB2 server to send notifications at this time** radio button.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition	
1. Introduction       2. Software License       3. Installation type       4. Installation action	Set up notifications You can set up your DB2 server to automatically send e-mail or pager notifications to alert administrators when a database needs atten The contact information is stored in the administration contact list. You need an unauthenticated SMTP server to send these notifications	tion. 5.
5. Features 6. Languages	Set up your DB2 server to send notifications	
7. Documentation 8. DAS user	Notification SMTP server	
9. Instance setup 10. Partitioning opti 11. Instance-owning	●Local – Create a contact list on this computer	E
12. Fenced user 13. Communication	ORemote - Use an existing contact list that resides on another D82 server	
14. Tools catalog 15. Notification setu 16. Summary	Remote DB2 server	
10. Summary	© Do not set up your DB2 server to send notifications at this time	
	If you do not set up your DB2 server to send notifications, the health alerts are still recorded in the administration notification log.	
	▲Back Next ► Einish Cancel	Help

Figure 168. DB2 Setup wizard - Set up notifications page

b. Click Next. The "Start copying files and create response files" page opens.

Introduction     Software License     Installation type     Installation action	DB2 Enterprise Server Edition  Start copying files and create response files  The DB2 Setup wizard has enough information to start copying the program files and create the response files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Finish to begin copying files and create the response files.
5. Features	Current settings
6. Languages 7. Documentation 8. DAS user 9. Instance setup 10. Partitioning opti 11. Instance-owning 12. Fenced user 13. Communication 14. Tools catalog 15. Notification setu 16. Summary	Product to install: DB2 Enterprise Server Edition Installation type: Custom Previously Installed Components: Selected Components: GSKit Support Product Messages - English Base Cient Support IBM Software Development Kit (SDK) for Java(TM) Java Help (HTML) - English Replication with MQ Server Run-time Environment Java Support SQL procedures ICU Utilities SQL procedures ICU Utilities Base server Support Connect Support Spatial Extender Client Base application development tools Addministration Server Communication Support - TCP/IP Parallel Extension Replication tools DB2 data Source Support Product Signature for DB2 Enterprise Server Edition
	Back Finish Cancel Help

Figure 169. DB2 Setup wizard - Start copying files and create response files page

**25**. On the "Start copying files and create response files" page, click **Finish** to begin installing DB2 on your computer.

The "Installing DB2 Enterprise Server Edition" page opens.

imes Installing DB2 Enterprise Server Edition	×
Please wait while the DB2 Setup wizard installs DB2 Enterpris Server Edition on your computer and performs the required configuration. This may take several minutes.	e
Task: Installing Base client support	_
0% 100	%
Overall progress:	
0% 100	%

Figure 170. Installing DB2 Enterprise Server Edition page

When the installation completes, the "Setup Complete" page opens.

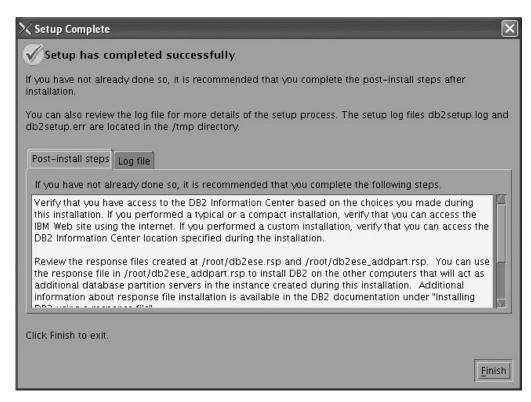


Figure 171. Setup Complete page

On the **Post-install steps** tab, note that the installation results in two response files being created in the /root directory: db2ese.rsp and db2ese\_addpart.rsp. The response file db2ese\_addpart.rsp is used to finish installing the partitioned database environment.

Click Finish to exit from the installation GUI.

After you finish using the DB2 Setup wizard to install DB2 on the instance owning computer, you need to verify port range availability, install DB2 on the remaining machines that you want to participate in the instance, create or modify a few files, and finally activate the license files that you downloaded before installing DB2.

- 1. Perform the steps described in "Verifying port range availability on participating computers (Linux and UNIX)".
- 2. Copy the db2ese\_addpart.rsp file to the same directory as the setup.exe file on the second computer that you want to participate in the partitioned database environment. You can use FTP to accomplish this task, or any other tool that permits you to transfer files. Repeat this step for every computer that you want to participate in the environment.
- 3. Run the response file on the second computer using the ./db2setup -r command as described in the topic "Installing database partition servers on participating computers using a response file (Linux and UNIX) ". Repeat this step for every computer that you want to participate in the environment.
- 4. Update the db2nodes.cfg file in the InstanceHome/sqllib/ directory. For details, see the topic "Updating the node configuration file (Linux and UNIX)"
- 5. Create the .rhosts file. See the topic "Enabling the execution of remote commands (Linux and UNIX)" for details.
- 6. Update the /etc/services file. For more information, see the topic "Enabling communications between database partition servers (Linux and UNIX)".

7. Activate the license files on every computer that you want to participate in the partitioned database environment. See the topic " Registering a DB2 product or feature license key using the db2licm command".

After DB2 Enterprise 9 is installed, see the topic on configuring DB2 to be Common Criteria compliant in the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book.

# Installing DB2 Enterprise 9 on Solaris 9 for a multipartition Common Criteria compliant installation

This task provides detailed instructions on installing DB2 Enterprise 9 on Solaris 9 for a Common Criteria compliant installation.

## **Prerequisites:**

- The prerequisites listed in "Installation requirements for DB2 clients and servers (Solaris Operating System)" must be met.
- The prerequisites listed in "Verifying that NFS is running (Linux and UNIX)" must be met.
- The prerequisites listed in "Creating a file system for a partitioned DB2 server (Solaris Operating Environment)" must be met.
- The computer on which you install DB2 must be physically protected from untrusted users.
- Solaris 9 must be installed on the computer.
- You must have the file v9fp1\_sunos\_ese.tar.gz downloaded to the directory of your choice. You must download this file to the same directory on all computers that will participate in the environment. This file is available from the DB2 9 download site (http://ibm.com/software/data/db2/udb/support/ downloadv9.html).
- You must have downloaded the applicable activation files from the Passport Advantage site to the same directory on all participating computers. You require these files to activate Enterprise 9 after installation. The instance owner must have read/write authority on this directory.
  - One of the following:
    - DB2\_Enterp\_Svr\_Auth\_User\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per user basis.
    - DB2\_Enterprise\_Svr\_Ed\_CPU\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per CPU basis.
  - DB2\_Database\_Partitioning\_Activation.zip. Required to active the Database Partitioning Feature (DPF)
  - DB2\_Advanced\_Access\_Cntrl\_Activation.zip. Required to activate label-based access control (LBAC).
- The user names to be used for the following:
  - The DB2 instance owner
  - The DB2 Administration Server
  - The fenced user

If you do not have these user names, obtain them from your system administrator. For more information about these users, see "DB2 users and groups (Linux and UNIX)" on page 26. For information about creating these users, see "Creating group and user IDs for a DB2 database installation (Linux and UNIX)" on page 30. The topic "Installing DB2 servers (Linux and UNIX)" provides an overview of installing on Linux and UNIX-based platforms.

## **Procedure:**

Use the following steps to install DB2 Enterprise 9 on Solaris 9 for a Common Criteria compliant environment.

- 1. Log on to the system as a user with root authority.
- Decompress the product file: gzip -d v9fp1\_sunos\_ese.tar.gz
- 3. Untar the product file:

tar xvf v9fp1\_sunos\_ese.tar

- 4. Repeat steps 1, 2, and 3 for every computer that will participate in the partitioned database environment.
- Change directory on the computer that you want to use as the instance owner: cd \$HOME/ese/disk1
- On the computer that you want to use as the instance owner, issue the ./db2setup command to open the "IBM DB2 Setup Launchpad" at the "Welcome" page:

🔀 IBM DB2 Setup Launchpad	
	DB2 Information Management Software Version 9,1
DB2 Setup Launchpad	Welcome .
Installation Prerequisites	The DB2 Setup Launchpad gives you access to all of the information that you need to install your DB2 products
Release Notes	and features for Linux, UNIX, and Windows operating systems.
Migration Information	To access more information about the DB2 products available for installation or to perform an installation,
Install a Product Exit	select from the tabs provided. You can find more product information by searching the Information Center.
	Search Information Center
✓	

Figure 172. Welcome page of the DB2 Setup Launchpad

 On the "Welcome" page of the "IBM DB2 Setup Launchpad", click Install a Product to open the "Install a Product" page.

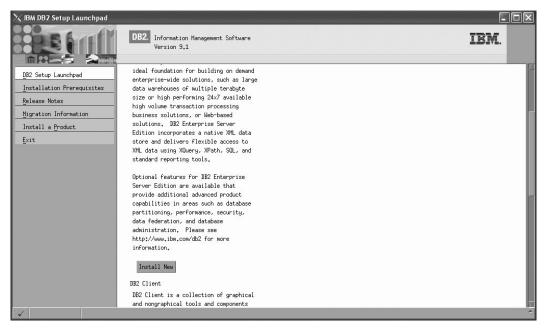


Figure 173. Install a Product page of the DB2 Setup Launchpad

8. On the "Install a Product" page of the "IBM DB2 Setup Launchpad", click the Install New button for DB2 Enterprise Server Edition

The "DB2 Setup wizard" opens.

X DB2 Setup wizard	- DB2 Enterprise Server Edition	
DB2 Setup wizard     Contract Cont	B2 Enterprise Server Edition           Welcome to the DE2 Setup wizard           The DE2 Setup wizard will install DE2           Enterprise Server Edition on your           computer.           To continue, click Next.	
	Next	Einish Cancel Help

Figure 174. DB2 Setup wizard

- 9. Click Next. The "Software License Agreement" page opens.
- 10. On the "License Agreement" page:
  - a. After reviewing and agreeing to the license text, select the **Accept** radio button:

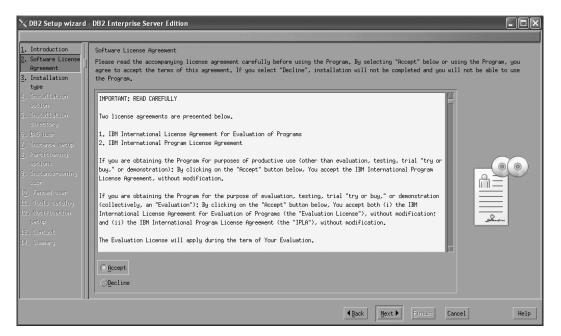


Figure 175. DB2 Setup wizard - Software Licence Agreement page

- b. Click Next. The "Select the installation type" page opens.
- 11. On the "Select the installation type" page:
  - a. Select the **Custom** radio button:

imesDB2 Setup wizard	- DB2 Enterprise Server Edition	- D ×
<ol> <li>Introduction</li> <li>Software License</li> </ol>	Select the installation type	
3. Installation typ	◯ <u>Ty</u> pical: 680 - 820 MB	
5. Features 6. Languages		
<ol> <li>Documentation</li> <li>B, DAS user</li> </ol>	C Custom: 630 - 850 MB	
<ol> <li>Instance setup</li> <li>Partitioning op</li> <li>Instance-coming</li> <li>Finical usar</li> <li>Communication at</li> <li>Tools catalog</li> <li>Ibblication set</li> <li>Contact</li> <li>Summary</li> </ol>	Information about the installation type Custom If you are already familiar with DB2 features and settings, you can select the features that you want installed and specify your configuration preferences. The default settings for a custom installation are the same as those for a typical installation, but you can customize optional features and configuration parameters.	
1	▲Back         Next ▶         Einish         Cancel	Help

Figure 176. DB2 Setup wizard - Select the installation type page

- b. Click **Next**. The "Select the installation, response file creation, or both" page opens.
- 12. On the "Select the installation, response file creation, or both" page:
  - a. Select the **Install DB2 Enterprise Server Edition on this computer and save my settings in a response file** radio button.

b. Use the default value listed in the **Response file name field**. Subsequent installs for the partitioned database environment are performed using the response file db2ese.rsp in the /tmp directory. Using the response file guarantees a consistent setup of the database environment on all participating computers.

🗙 DB2 Setup wizard -	DB2 Enterprise Server Edition
1. Introduction	Select installation, response file creation, or both
2. Software License 3. Installation typ	The DB2 Setup wizard can install DB2 Enterprise Server Edition on this computer, create a response file that you can use to install this product on a computer later, or both.
<ol> <li>Installation act</li> <li>Features</li> </ol>	If you are setting up a DE2 Enterprise Server Edition (ESE) partitioned database environment, you can also create a response file to install DE2 on the other computers that will act as database partition servers.
<ol> <li>Languages</li> <li>Jocumentation</li> </ol>	◯ Install DB2 Enterprise Server Edition on this computer
<u>8</u> . DAS user <u>9</u> . Instance setup	⊖Save my installation settings in a response file
1 <u>0</u> , Partitioning op	No software will be installed on this computer.
11, Instance-owning 12, Fenced user	O Install DB2 Enterprise Server Edition on this computer and save my settings in a response file
13. Communication and 14. Tools catalog	Response file name /tmp/db2ese.rsp
15. Notification set	
16, Contact 17. Summary	
ar, samang	
	Heat         Next >         Etrish         Cancel         Help

Figure 177. DB2 Setup wizard - Select the installation, response file creation, or both page

c. Click Next. The "Select the features to install" page opens.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition			
Introduction     Software License     Software License     Installation typ     Installation act     Features     Languages     J. Jostimentation     J. Bio user     J. Instance setup     Instance setup     Softwared user     Softwared	Select the features to install Select the features you want to install.	Select default Select all	Description DB2 Enterprise Server Edition is designed to neet the data server needs of mid- to large-size businesses.	
	Directory /opt/IBM/db2/V9,1		Space required: 674 MB Space available: 3874 MB	
		<b>∢</b> <u>B</u> ack	<u>N</u> ext ▶ <u>F</u> inish Can	Help

Figure 178. DB2 Setup wizard - Select the features to install page

- **13**. On the "Select the features to install" page:
  - a. Open the + beside Client support.

b. Select the **DB2 LDAP support** feature to remove the check mark.

≫DB2 Setup wizard	DB2 Enterprise Server Edition	
1. Introduction 2. Software License 3. Installation typ 4. Installation act	Select the features to install Select the features you want to install.	Description
5. Features 6. Languages 7. Documentation 3. DiS User 9. Instance setup 10. Particioning opt 11. Instance-coming 12. Fanced User 13. Communication an 14. Tools catalog 15. Notification set	<pre>Server support Client support Dis2 Live support Dis2 Live support Viava support (required) Viava support (required)</pre>	LDAP Exploitation allows DB2 to use an LDAP directory to store database directory and configuration information.
19, Contact 17, Sammary	Installation directory Directory /opt/IBM/db2/V9,1	Space required: 671 MB Space available: 3874 MB
	μ <u>.</u> 	. <u>Next ▶ Einish Cancel Help</u>

Figure 179. DB2 Setup wizard - Select the features to install page; DB2 LDAP support feature deselected for install

- c. Open the + beside Administration tools.
- d. Ensure that the following features under **Administration tools** are deselected for installation:
  - DB2 Instance Setup wizard
  - DB2 Web Tools

imesDB2 Setup wizard	- DB2 Enterprise Server Edition			- D ×
Introduction     Software License     Installation styp     Installation act     S. Features     J. Installation act     S. Features     J. Jock unertation     J. B46 user     J. Instance-satup     Instance-satup     I. Instance-satup     I. Fractance-satup     I. Fract	Select the features to install Select the features you want to install.	Select all	Description The Adwinistration tools group contains DB2 graphical and command line tools used to adwinister local and remote databases,	
	Installation directory Directory /opt/IBM/db2/V9.1		Space required: 662 MB Space available: 3874 MB	
		<b>▲</b> <u>B</u> ack	Next D Einish Canc	el Help

Figure 180. DB2 Setup wizard - Select the features to install page; Administration tools features deselected for install

e. Open the + beside Application development tools.

f. Ensure that the **ADT sample programs** feature and the **Spatial Extender samples** feature are deselected for installation.

≫ DB2 Setup wizard	DB2 Enterprise Server Edition	
DB2 Setup wizard      J. Introduction     Software License     J. Installation typ     4. Installation at     S. Features     Languages     J. Documentation     J. Big User     J. Instance satup     J., Partitioning opt     L. Instance satup     J., Partitioning opt     L. Instance satup     J., Partitioning     stature     Someurication at     Li, Contact     J., Summary	Select the features to install Select the features you want to install.	
	Installation directory           Directory         /opt/IBM/db2/V9.1         Space required: 646 MB           Space available: 3874 MB	
	▲ Back         Next ▶         Einisin         Can	cel Help

Figure 181. DB2 Setup wizard - Select the features to install page; Application development tools features deselected for installation

- g. Open the + beside Getting started.
- h. Ensure that the **First Steps** feature and the **XML Extender samples** feature are deselected for installation.

🔀 DB2 Setup wizard -	DB2 Enterprise Server Edition			- D×
1. Introduction       2. Software License       3. Installation typ       4. Installation act	Select the features to install Select the features you want to install.		Description	
4. Installation act 5. Features 6. Languages 7. Documentation 3. DAG user 9. Instance setup 10. Partitioning op 11. Instance-coming 12. Fanced user 13. Communication an 14. Tools catalog 15. NotiFication set	Will be the server fultion     Very support     ✓ Client support     ✓ Client support     ✓ Administration tools     ✓ Getting started     ✓ First Steps     ✓ Saple database source     ✓ WML Extender samples		Jaser ption XML Extender samples are sample programs you can use to learn about XML Extender technology.	
18, Contact 17, Summary	Installation directory Directory /opt/IBM/db2/V9,1	Select default Select all	Space required: 645 MB Space available: 3874 MB	
		<b>▲</b> <u>B</u> ack	Next D Einish Cancel	Help

Figure 182. DB2 Setup wizard - Select the features to install page; Getting started options deselected for installation

i. Click Next. The "Select the languages to install" page opens.

14. On the "Select the languages to install" page, English is the only language support that is installed by default.

$\times$ DB2 Setup wizard $\cdot$	DB2 Enterprise Server Edition	-o×
1. Introduction 2. Software License 3. Installation typ	Select the languages to install The user interface and product messages will be installed in the languages that you choose. Installing multiple langua disk space requirements.	ages will increase the
4. Installation act 5. Features 8. Languages 7. Nocumentation 9. DRS user 9. Instance satur 10. Partitioning opt 11. Instance-couring 12. Fanced user 13. Communication an 14. Tools catalog 15. NotiFication set 16. Contact 17. Summary	Available languages       Selected languages         Phinese (Traditional)       Image: Selected languages         French (Standard)       Image: Selected languages         German       Image: Selected languages         Italian       Image: Selected languages         Japanese       Image: Selected languages         Korean       Image: Selected languages         Confirm installation directory       Image: Selected languages         Birectory       /opt/IBH/db2/V9.1         Space required: 645 MB       Space available: 3874 MB	
	(Back Next) Einish Cance	1 Help

Figure 183. DB2 Setup wizard - Select the languages to install page; English language support selected for installation

- **15**. Click **Next**. The "Specify the location of the DB2 Information Center" page opens.
- 16. On the "Specify the location of the DB2 Information Center" page:
  - a. Ensure that the **On the IBM Web site** radio button is selected.

imesDB2 Setup wizard	- DB2 Enterprise Server Edition	- DX
1. Introduction         2. Software License         3. Installation typ	Specify the location of the DB2 Information Center The DB2 Information Center contains documentation for DB2 products. The DB2 Information Center can be accessed on the IBM W installed and accessed on another computer on your intranet, or installed and accessed on a local computer. This setting ca	
<ol> <li>Installation act</li> <li>Features</li> <li>Languages</li> </ol>	changed after installation is complete. Select the location from which you will access the DB2 Information Center:	
7. Documentation 8. DAS user	C On the IBM Meb site	
9. Instance setup 19. Partitioning op 11. Instance-owning 12. Fenced user	If you want to install and access the DB2 Information Center locally, install the DB2 Information Center on this computer from the CD labeled DB2 Information Center.	
13, Communication a 14, Tools catalog 15, Notification se 18, Contact	Host name Part number: 51000	
15, Concass 17, Summary		
	21 21	
	▲ Eack         Next ▶         Einish         Cancel	Help

Figure 184. DB2 Setup wizard - Specify the location of the DB2 Information Center; On the IBM Web site option selected

- b. Click **Next**. The "Set user information for the DB2 Administration Server" page opens.
- 17. On the "Set user information for the DB2 Administration Server" page:a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the DB2 Administration Server.

🗙 DB2 Setup wizard -	DB2 Enterprise Server Editior	n				- DX
1. Introduction	Set user information for the 3					
<ol> <li>Software License</li> <li>Installation typ</li> </ol>	The DB2 Administration Server privileges is required to run				)B2 tools. A user wit	h a minimal set of
4. Installation act			•			
5. Features	ONe <u>w</u> user					
<ol> <li>6. Languages</li> <li>7. Documentation</li> </ol>	User name					
8. DAS user	UID				₩ <u>U</u> se default UID	
<u>9</u> . Instance setup	Group name					
10, Partitioning op 11, Instance-coming	610					
12, Fenced user	010				₩Use default <u>C</u> ID	
13, Communication an	Password					
14. Tools catalog	Confirm password					
15, Notification se 16, Contact	Home directory					
17, Summary						
	○Existing user					
	User name					
				<b>▲</b> <u>B</u> ack	t 🕨 🔄 Einish 🛛 Car	Help

Figure 185. DB2 Setup wizard - Set user information for the DB2 Administration Server page

- c. Click Next. The "Set up a DB2 instance" page opens.
- 18. On the "Set up a DB2 instance" page:
  - a. Ensure that the Create a DB2 instance radio button is selected.

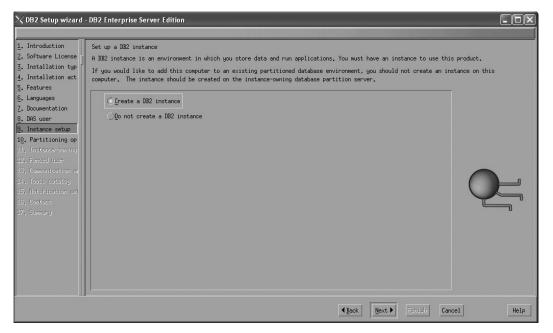


Figure 186. DB2 Setup wizard - Set up a DB2 instance page; Create a DB2 instance option selected

- b. Click **Next**. The "Set up partitioning options for the DB2 instance" page opens.
- 19. On the "Set up partitioning options for the DB2 instance" page:
  - a. Select the **Multiple partition instance** radio button.
  - b. Type 2 for the Maximum logical partitions field.

∕XDB2 Setup wizard -	DB2 Enterprise Server Edition	
1. Introduction 2. Software License 3. Installation typ 4. Installation act 5. Features 6. Languages 7. Documentation 8. DAS user 9. Instance setup 10. Partitioning op 11. Instance-owning 12. Fenced user 13. Communication at 14. Tools catalog 15. NotiFication set 16. Contact 17. Summers	Set up partitioning options for the IB2 instance A IB2 instance can have one or more database partitions, which exist on one or more computers. Select the partitioning options for this instance. Oscillation instance The instance will reside only on this computer. Select this option if the instance will not be used in a partitioned database environment. Oscillation database environment. Oscillation instance Select this option to prepare to use the partitioning capability of IB2 Enterprise Server Edition to store data in multiple database partitions. To use this functionality, you must have a Database Partitioning Feature license. If you select this option, two response files will be saved. See the help for datails. Maximum logical partitions This computer will be assigned partition number 0. You can specify the maximum number of logical partitions servers in this instance.	L ال ال ال ال
	Maximum logical partitions 2	
	▲Back Back Elrish Cancel He	:lp

Figure 187. DB2 Setup wizard - Set up partitioning options for the DB2 instance page

**Note:** For the Common Criteria certification, an SMP configuration of two logical partitions on two computers is demonstrated. Depending on your requirements, it is possible to install one logical partition per computer, or more than two logical partitions per computer. Because

a response file is used to install DB2 Enterprise Server Edition on all subsequent computers, the environment will be consistent across all computers that participate in the partitioned database environment.

- c. Click Next. The "Set user information for the DB2 instance owner" page opens.
- 20. On the "Set user information for the DB2 instance owner" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the DB2 instance owner.

X DB2 Setup wizard	DB2 Enterprise Server Edition	
<ol> <li>Introduction</li> <li>Software License</li> <li>Installation typ</li> <li>Installation act</li> </ol>	Set user information for the DB2 instance owner Specify the instance-owning user information for the DB2 instance information in the user's home directory. The	instance. DB2 will use this user to perform instance functions, and will store name of the instance will be the same as the user name.
5. Features	⊖Ne <u>w</u> user	
6. Languages	User name	
7. Documentation 8. DAS user	010	Use default UID
9. Instance setup 10. Partitioning op	Group name	
11. Instance-owning	GID	Use default CID
12, Fenced user 13, Communication an	Password	
14. Tools catalog	Confirm password	
15, Notification se 16, Contact	Home directory	
17, Summary	C Existing user	·
	User name	•••
		▲Back         Einish         Cancel         Help

Figure 188. DB2 Setup wizard - Set user information for the DB2 instance owner page

- c. Click Next. The "Set user information for the fenced user" page opens.
- 21. On the "Set user information for the fenced user" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the fenced user.

X DB2 Setup wizard	- DB2 Enterprise Server Edition
1. Introduction         2. Software License         3. Installation typ         4. Installation act	Set user information for the fenced user Specify the required information for the fenced user. Fenced user defined functions (UDFs) and stored procedures will execute under this user and group.
5. Features	New user
6. Languages	User name
<ol> <li>Documentation</li> <li>DAS user</li> </ol>	UID UID
9. Instance setup	Enoup name
11. Instance-owning	GID
12. Fenced user 13. Communication at	Passoond
14. Tools catalog	Confirm passuord
15, Notification set 16, Contact	Hone directory
17, Summary	©Existing user
	User nane
	Light         Finish         Cancel         Help

Figure 189. DB2 Setup wizard - Set user information for the fenced user page

- **c.** Click **Next**. The "Configure instance communication and startup" page opens.
- 22. On the "Configure instance communication and startup" page:
  - a. Select the **Configure** radio button.
  - b. Ensure that the **Autostart the instance at system startup** check box is deselected.

X DB2 Setup wizard -	DB2 Enterprise Server Edition
1. Introduction 2. Software License	Configure instance communication and startup
<ol> <li>Installation type</li> <li>Installation action</li> </ol>	In order for remote clients to access data stored in the DB2 instance, you must configure the DB2 instance for TCP/IP communication. You must also configure the TCP/IP communications protocol on your client computers. The DB2 instance can also be set to start automatically when your computer starts.
5. Features 6. Languages 7. Documentation	TCP/IP configuration
8. DAS user 9. Instance setup	
10. Partitioning opti 11. Instance-owning 12. Fenced user	Service name db2c_db2inst1
13. Communication 14. Tools catalog 15. Notification setu	Port number 50000 Restore default settings
15. Notification setu 16. Contact 17. Summary	
	Autostart the instance at system startup
	Lear         Mext >         Einish         Cancel         Help

Figure 190. DB2 Setup wizard - Configure instance communication and startup page

c. Click Next. The "Prepare the DB2 tools catalog" page opens.23. On the "Prepare the DB2 tools catalog" page:

∑ DB2 Setup wizard	- DB2 Enterprise Server E	lition		
1. Introduction         2. Software License         3. Installation typ         4. Installation act	Prepare the DB2 tools ca Certain DB2 tools such a tools catalog must be st	s the Task Center and scheduler require a DB2 tools catalog on one of the	DB2 servers in your en	vironment. The DB2
5. Features 6. Languages	⊖ <u>P</u> repare the DB2 to	ols catalog		
7. Documentation	Instance	db2inst1	<b>V</b>	
8. DAS user 9. Instance setup	Database			
10. Partitioning op	Olien	TOOLSDB		·
11. Instance-owning 12. Fenced user	OExisting	<pre> </pre> <pre> </pre> <pre> </pre>	γ	
13. Communication a	Schema			
14. Tools catalog 15. Notification se	©Ne <u>w</u>	SYSTOOLS		
15. Contact 17. Summary	⊖Existing	<select></select>	A	
	O lo not prepare the	DB2 tools catalog		
		<b>▲</b> <u>B</u> ack <u>N</u> ext ▶	Einish Cancel	Help

a. Select the **Do not prepare the DB2 tools catalog** radio button.

Figure 191. DB2 Setup wizard - Prepare the DB2 tools catalog page

- b. Click **Next**. The "Set up notifications" page opens.
- 24. On the "Set up notifications" page:
  - a. Select the **Do not set up your DB2 server to send notifications at this time** radio button.

1. Introduction	Set up notifications	
2. Software License	You can set up your DB2 server to automatically send e-mail or pager notifications to alert administrat	tone when a database needs
3. Installation typ	attention. The contact information is stored in the administration contact list. You need an unauther	
4. Installation act	notifications.	
5. Features		
6. Languages	⊖Set up your DB2 server to send notifications	
7. Documentation	Natification SNTP server sol9test	
8. DAS user	Administration contact list location	
9. Instance setup	Hdministration contact list location	
10. Partitioning op	○Local - Create a contact list on this computer	
11. Instance-owning		
12. Fenced user	$\bigcirc \underline{R}$ amote - Use an existing contast list that resides on another UB2 server	
13. Communication a		<b>+ +</b>
14. Tools catalog	Remote UB2 server	
15. Notification se		
16. Summary	○ Do not set up your DB2 server to send notifications at this time	
	If you do not set up your DB2 server to send notifications, the health alerts	
	are still recorded in the administration notification log.	

Figure 192. DB2 Setup wizard - Set up notifications page

b. Click Next. The "Start copying files and create response files" page opens.

<ul> <li>1. Introduction</li> <li>2. Software License</li> <li>3. Installation type</li> <li>4. Installation at to react the response files</li> <li>4. Installation at to react the response files, and create the response files.</li> <li>4. Installation at to react the response files.</li> <li>7. Features</li> <li>6. Languages</li> <li>9. Discusse</li> <li>9. Thistance-ouning op 11. Installed Components:</li> <li>9. Selected Components:</li> <li>9. Software Leonent</li> <li>10. Partitioning op 11. Instance-ouning</li> <li>11. Instance-ouning the software Development Kit (SDK) for Java(TM)</li> <li>13. Communication at 14. Tools catalog</li> <li>15. Notification set</li> <li>16. Sommary</li> <li>10. Weithic to support</li> <li>10. Software Development tools</li> <li>10. Weithic testings</li> <li>10. Weithic testings</li> <li>10. Weithic testings</li> <li>11. Instance-ouning</li> <li>12. Fended user</li> <li>13. Communication at 14. Tools catalog</li> <li>15. Notification set</li> <li>16. Sommary</li> <li>10. Weithic testings</li> <li>11. Instance-ouning</li> <li>12. Fended user</li> <li>13. Communication at 18. Sommary</li> <li>14. Tools catalog</li> <li>15. Notification set</li> <li>16. Sommary</li> <li>10. Weithic testings</li> <li>11. Instance-ouning</li> <li>12. Compute testings</li> <li>13. Communication at 19. Software Development tools</li> <li>14. Tools catalog</li> <li>15. Software User testings</li> <li>16. Software User testings</li> <li>17. Weithic testings</li> <li>18. Software User testings</li> <li>19. Software User testings</li> <li< th=""><th></th><th>DB2 Enterprise Server Edition</th></li<></ul>		DB2 Enterprise Server Edition
<ul> <li>6. Languages</li> <li>7. Documentation</li> <li>7. Documentation</li> <li>8. DRS user</li> <li>9. Instance setup</li> <li>10. Partitioning op</li> <li>11. Instance-owning</li> <li>12. Fened user</li> <li>13. Communication a</li> <li>14. Tools catalog</li> <li>15. Notification se</li> <li>16. Summary</li> <li>17. Base client Support</li> <li>18. Berver</li> <li>19. Partities</li> <li>10. With the setup of the</li></ul>		The IBE2 Setup wizard has enough information to start copying the program files and create the response files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Finish to begin copying files and create the response files.
	Z. Documentation 8. DRS user 9. Instance setup 10. Partitioning op 11. Instance-owning 12. Fenced user 13. Communication a 14. Tools catalog 15. Notification se	Installation type: Custom Previously Installed Components: Selected Components: GSKit support Product Messages - English Base olient support IBM Software Development Kit (SDK) for Java(TM) Java Help (HTML) - English Replication with MQ Server Run-time Environment SQL procedures ICU Utilities SQL Pepication Support Base server support Connect support Java Support Softial Extender client Base application development tools

Figure 193. DB2 Setup wizard - Start copying files and create response files page

**25**. On the "Start copying files and create response files" page, click **Finish** to begin installing DB2 on your computer.

The "Installing DB2 Enterprise Server Edition" page opens.

imes Installing DB2 Enterprise Server Edition		×
Please wait while the DB2 Setup wizard installs DB2 Enterprise Server Edition on your computer and performs required configuration. This may take several minutes.	the	
Task: Installing Java support		-
0Z	100%	
Overall progress:		-
oz	100%	

Figure 194. Installing DB2 Enterprise Server Edition page

When the installation completes, the "Setup Complete" page opens.

imes Setup Complete	×
Setup has completed successfully	
If you have not already done so, it is recommended that you complete the post-install steps after installation.	
You can also review the log file for more details of the setup process. The setup log files db2setup.log and db2setup.err are located in the /tmp directory.	
Post-install steps Log file	
If you have not already done so, it is recommended that you complete the following steps.	
Verify that you have access to the DB2 Information Center based on the choices you made during this installation. If you performed a typical or a compact installation, verify that you can access the IBM Web site using the internet. If you performed a custom installation, verify that you can access the DB2 Information Center location specified during the installation. Review the response files created at /tmp/db2ese.rsp and /tmp/db2ese_addpart.rsp. You can use	
the response file in /tmp/db2ese_addpart.rsp to install DB2 on the other computers that will act	
Click Finish to exit.	
Ein	ish

Figure 195. Setup Complete page

On the **Post-install steps** tab, note that the installation results in two response files being created in the /tmp directory: db2ese\_rsp and db2ese\_addpart.rsp. The response file db2ese\_addpart.rsp is used to finish installing the partitioned database environment.

Click Finish to exit from the installation GUI.

After you finish using the DB2 Setup wizard to install DB2 on the instance owning computer, you need to verify port range availability, install DB2 on the remaining machines that you want to participate in the instance, create or modify a few files, and finally activate the license files that you downloaded before installing DB2.

- 1. Perform the steps described in "Verifying port range availability on participating computers (Linux and UNIX)".
- 2. Copy the db2ese\_addpart.rsp file to the same directory as the setup.exe file on the second computer that you want to participate in the partitioned database environment. You can use FTP to accomplish this task, or any other tool that permits you to transfer files. Repeat this step for every computer that you want to participate in the environment.
- 3. Run the response file on the second computer using the ./db2setup -r command as described in the topic "Installing database partition servers on participating computers using a response file (Linux and UNIX) ". Repeat this step for every computer that you want to participate in the environment.
- 4. Update the db2nodes.cfg file in the InstanceHome/sqllib/ directory. For details, see the topic "Updating the node configuration file (Linux and UNIX)"
- 5. Create the .rhosts file. See the topic "Enabling the execution of remote commands (Linux and UNIX)" for details.
- 6. Update the /etc/services file. For more information, see the topic "Enabling communications between database partition servers (Linux and UNIX)".

7. Activate the license files on every computer that you want to participate in the partitioned database environment. See the topic " Registering a DB2 product or feature license key using the db2licm command".

After DB2 Enterprise 9 is installed, see the topic on configuring DB2 to be Common Criteria compliant in the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book.

# Installing DB2 Enterprise 9 on Red Hat Enterprise Linux 4 for a multipartition Common Criteria compliant installation

This task provides detailed instructions on installing DB2 Enterprise 9 on Red Hat Enterprise Linux 4 for a Common Criteria compliant installation.

# **Prerequisites:**

- The prerequisites listed in "Installation requirements for DB2 clients and servers (Linux)" must be met.
- The prerequisites listed in "Verifying that NFS is running (Linux and UNIX)" must be met.
- The prerequisites listed in "Creating a file system for a partitioned DB2 server (Linux)" must be met.
- The computer on which you install DB2 must be physically protected from untrusted users.
- Red Hat Enterprise Linux 4 must be installed on the computer.
- The instructions that follow assume that the rsh-server package has been installed as part of the Red Hat 4 installation. See Installation requirements for DB2 clients and servers (Linux) for more information.
- You must have the file v9fp1\_linuxx64\_ese.tar.gz downloaded to the directory of your choice. You must download this file to the same directory on all computers that will participate in the environment. This file is available from the DB2 9 download site (http://ibm.com/software/data/db2/udb/support/ downloadv9.html).
- You must have downloaded the applicable activation files from the Passport Advantage site to the same directory on all participating computers. You require these files to activate Enterprise 9 after installation. The instance owner must have read/write authority on this directory.
  - One of the following:
    - DB2\_Enterp\_Svr\_Auth\_User\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per user basis.
    - DB2\_Enterprise\_Svr\_Ed\_CPU\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per CPU basis.
  - DB2\_Database\_Partitioning\_Activation.zip. Required to active the Database Partitioning Feature (DPF)
  - DB2\_Advanced\_Access\_Cntrl\_Activation.zip. Required to activate label-based access control (LBAC).
- The user names to be used for the following:
  - The DB2 instance owner
  - The DB2 Administration Server
  - The fenced user

If you do not have these user names, obtain them from your system administrator. For more information about these users, see "DB2 users and

groups (Linux and UNIX)" on page 26. For information about creating these users, see "Creating group and user IDs for a DB2 database installation (Linux and UNIX)" on page 30.

The topic "Installing DB2 servers (Linux and UNIX)" provides an overview of installing on Linux and UNIX-based platforms.

#### **Procedure:**

Use the following steps to install DB2 Enterprise 9 on Red Hat Enterprise Linux 4 for a Common Criteria compliant environment.

- 1. Log on to the system as a user with root authority.
- 2. Decompress the product file:

gzip -d v9fp1\_linuxx64\_ese.tar.gz

- **3**. Untar the product file:
  - tar xvf v9fp1\_linuxx64\_ese.tar
- 4. Repeat steps 1, 2, and 3 for every computer that will participate in the partitioned database environment.
- Change directory on the computer that you want to use as the instance owner: cd \$HOME/ese/disk1
- On the computer that you want to use as the instance owner, issue the ./db2setup command to open the "IBM DB2 Setup Launchpad" at the "Welcome" page:

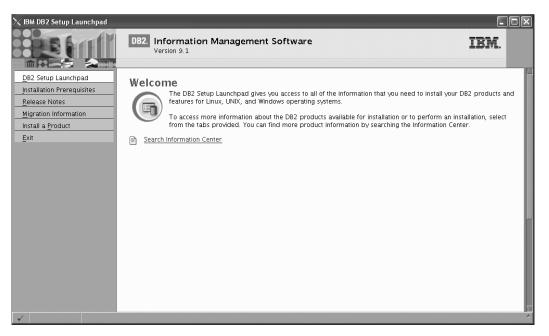


Figure 196. Welcome page of the DB2 Setup Launchpad

7. On the "Welcome" page of the "IBM DB2 Setup Launchpad", click **Install a Product** to open the "Install a Product" page.

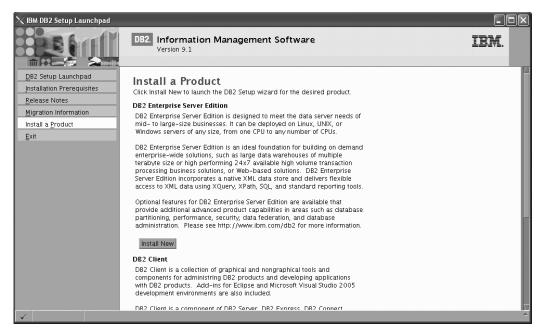


Figure 197. Install a Product page of the DB2 Setup Launchpad

8. On the "Install a Product" page of the "IBM DB2 Setup Launchpad", click the Install New button for DB2 Enterprise Server Edition

The "DB2 Setup wizard" opens.

🗙 DB2 Setup wizard	- DB2 Enterprise Server Edition	
DB2 Setup wizard     DB2 Setup wizard     DB2 Setup wizard     Software License     Agreement     Installation cyce     Installation action     Installation     directory     DA5 user     Instance setup     Partitoning     options     Instance -owning     toser     I. Tools catalog     I2. Notification     setup     S. Contact     I4. Summary	DB2 Enterprise Server Edition         Welcome to the DB2 Setup wizard will install DB2 Enterprise Server Edition on your computer. To continue, click Next.	
	Next Difficiant Can	cel Help

Figure 198. DB2 Setup wizard

- 9. Click Next. The "Software License Agreement" page opens.
- 10. On the "License Agreement" page:
  - a. After reviewing and agreeing to the license text, select the Accept radio button:

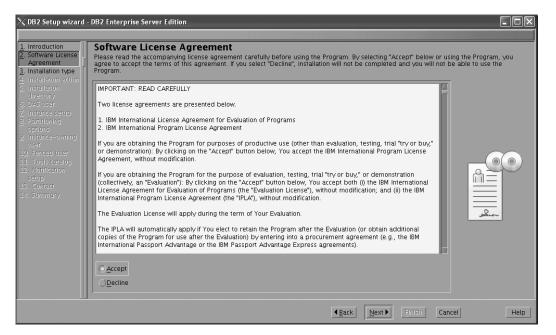


Figure 199. DB2 Setup wizard - Software Licence Agreement page

- b. Click Next. The "Select the installation type" page opens.
- 11. On the "Select the installation type" page:
  - a. Select the Custom radio button:

$ imes$ DB2 Setup wizard $\cdot$	- DB2 Enterprise Server Edition	- DX
1. Introduction 2. Software License	Select the installation type	
3. Installation type 4. Installation action	⊖ <u>Typical:</u> 530 – 640 MB	
5. Features 6. Languages 7. Documentation	Compact: 450 - 550 MB	
8. DAS user 9. Instance setup	C Custom: 450 - 880 MB	
10. Partitioning opti 11. Instance-owning	Information about the installation type	
12. Fenced user	Custom	
13. Communication 14. Tools catalog	If you are already familiar with DB2 features and settings, you can select the features that you want installed and specify your configuration preferences.	
<ol> <li>Notification setu</li> <li>Contact</li> <li>Summary</li> </ol>	The default settings for a custom installation are the same as those for a typical installation, but you can customize optional features and configuration parameters.	
17. Summary		
	81	
	▲Back Next Elmish Cancel	Help

Figure 200. DB2 Setup wizard - Select the installation type page

- b. Click Next. The "Select the installation, response file creation, or both" page opens.
- 12. On the "Select the installation, response file creation, or both" page:
  - a. Select the **Install DB2 Enterprise Server Edition on this computer and save my settings in a response file** radio button.

b. Use the default value listed in the **Response file name field**. Subsequent installs for the partitioned database environment are performed using the response file db2ese.rsp in the /root directory. Using the response file guarantees a consistent setup of the database environment on all participating computers.

Figure 201. DB2 Setup wizard - Select the installation, response file creation, or both page

C.	Click Next.	The	"Select the	features	to	install"	page	opens.
----	-------------	-----	-------------	----------	----	----------	------	--------

DB2 Setup wizard -	DB2 Enterprise Server Edition Select the features to install Select the features you want to install	
Installation action     Section     Decimentation     Decimentation     DeS user     Instance setup     Instance setup     Instance setup     Instance setup     Instance owning     I. Instance-owning     I. Fordication     Sommunication     I. Notification setu     I. Summary	✓ De2: Enterprise Server Edition         ✓ Server support         ✓ Client support         ✓ Application development tools         ✓ Application development tools         ✓ Getting started    Select default Select all	
	Installation directory Directory /opt/ibm/db2/V9.1 Space required: 525 MB Space available: 10760 I	мв
	Back Dext	Cancel Help

Figure 202. DB2 Setup wizard - Select the features to install page

- **13**. On the "Select the features to install" page:
  - a. Open the + beside **Client support**.

b. Select the **DB2 LDAP support** feature to remove the check mark. Also ensure that the **XML Extender** feature is also deselected for installation.

I. Introduction     Select the features to install     Select the features you want to install.     Installation type     Installation action     ✓ DB2 Enterprise Server Edition
2. Software License 3. Installation type
Enduration status         C. Languages         S. Doctimentation         3. DAS tuser         2. Instance serup         10. Peritoning opti         V Solvers         2. Instance serup         12. Fanced user         13. Communication         15. Context         17. Stringers         17. Stringers         18. Context         19. Context         19. Context         19. Context         19. Con
▲Back Next Einish Cancel Help

Figure 203. DB2 Setup wizard - Select the features to install page; Client support features deselected for install

- c. Open the + beside Administration tools.
- d. Ensure that the following features under **Administration tools** are deselected for installation:
  - Configuration Assistant

Note: The Configuration Assistant feature must be deselected after the Control Center feature.

- Control Center
- DB2 Instance Setup wizard
- DB2 Web Tools

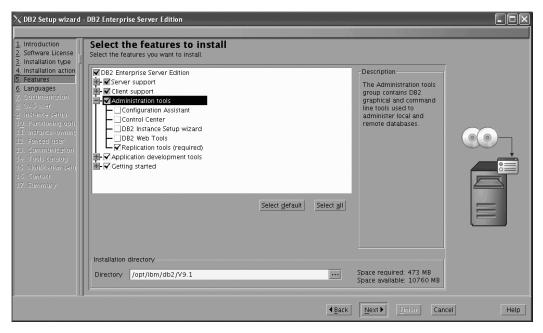


Figure 204. DB2 Setup wizard - Select the features to install page; Administration tools features deselected for install

- e. Open the + beside Application development tools.
- f. Ensure that the **ADT sample programs** feature and the **Spatial Extender samples** feature are deselected for installation.

imesDB2 Setup wizard	DB2 Enterprise Server Edition	
Introduction     Software License     Software License     Installation type     Installation type     Installation action     Seatures     Documentation     DAS user     Destination     Destination     Destination     Software     So	Select the features to install Select the features you want to install.	Description Spatial Extender samples component provides examples for using Spatial Extender features.
	Directory /opt/ibm/db2/V9.1	Space required: 458 MB Space available: 10760 MB
<u>.                                    </u>	4 <u>B</u> ack	Next Finish Cancel Help

Figure 205. DB2 Setup wizard - Select the features to install page; Application development tools features deselected for installation

- g. Open the + beside Getting started.
- h. Ensure that the **First Steps** feature and the **XML Extender samples** feature are deselected for installation.

1. Introduction	DB2 Enterprise Server Edition
2. Software License 3. Installation type 4. Installation action 5. Features 6. Languages 7. Doctmantation 3. D/5 user 9. Instance setup 10. Partitioning optil 11. Instance-owning 12. Fenced user 13. Communication 14. Tools catalog 15. Notification setu 15. Contact 17. Summary	DB2 Enterprise Server Edition         Server support         Client support         Administration tools         Application development tools         Catting started         First Steps         Sample database source         XML Extender samples
	Directory /opt/ibm/db2/V9.1 Space required: 457 MB Space available: 10760 MB
	Back Back Enish Cancel Help

Figure 206. DB2 Setup wizard - Select the features to install page; Getting started features deselected for installation

- i. Click Next. The "Select the languages to install" page opens.
- 14. On the "Select the languages to install" page, English is the only language support that is installed by default.

$ imes$ DB2 Setup wizard $\cdot$	DB2 Enterprise Server Edition		- 0 ×
Introduction     Software License     Software License     Installation type     Installation action     Features     Languages     Z. Documentation     DA5 User     J. Instance-owning     Instance-owning     I. Partitioning optil     I. Instance-owning     I. Partitioning optil     I. Instance-owning     I. Proced User     I.S. Communication     I. Tools catalog     I.S. Notification seru     I.S. Conteact	Select the languages to install The user interface and product messages will be installed in the space requirements. Available languages Minase Simplified) Chinese (Traditional) Czech French (Standard) German Italian Japanese Confirm installation directory Directory /opt/ibm/db2/V9.1	e languages that you choose. Installing multiple languages will increase t Selected languages English English Space required: 457 MB Space available: 10760 MB	he disk
17. Summary			Неір

Figure 207. DB2 Setup wizard - Select the languages to install page; English language support selected for installation

- **15**. Click **Next**. The "Specify the location of the DB2 Information Center" page opens.
- 16. On the "Specify the location of the DB2 Information Center" page:
  - a. Ensure that the **On the IBM Web site** radio button is selected.

次 DB2 Setup wizard ∙	- DB2 Enterprise Server Edition	
Introduction     Software License     Installation type     Installation action     Features     Documentation     Documentation     DoS user     Instance setup     Partitioning optit     Instance -owning     Communication     Software     Softwar	Specify the location of the DB2 Information Center         The DB2 Information Center contains documentation for DB2 products. The DB2 Information Center can be accessed on the IBM installed and accessed on another computer on your intranet, or installed and accessed on a local computer. This setting can also after installation is complete.         Select the location from which you will access the DB2 Information Center:         On the IBM Web site         If you want to install and access the DB2 Information Center.         On the IBM Web site         If you want to install and access the DB2 Information Center.         On the following intranet gerver         Host name         Port number         \$1000	Web site, so be changed
	< <u>∎ack</u> <u>Next</u> <u>Finisin</u> Cancel	Help

Figure 208. DB2 Setup wizard - Specify the location of the DB2 Information Center; On the IBM Web site option selected

- b. Click **Next**. The "Set user information for the DB2 Administration Server" page opens.
- 17. On the "Set user information for the DB2 Administration Server" page:
  - a. Select the **Existing user** radio button.
    - b. Use the ... button to select the user previously defined for the DB2 Administration Server.

∑DB2 Setup wizard -	DB2 Enterprise Server E	dition	- 🗆 🗵
1. Introduction       2. Software License       3. Installation type		ation for the DB2 Administration Server Server (DAS) runs on your computer to provide support required by the DB2 run the DAS. Specify the required user information for the DAS.	2 tools. A user with a minimal set of
4. Installation action 5. Features	⊖Ne <u>w</u> user		
<u>6</u> . Languages 7. Documentation	User name		
8. DAS user	UID		Use default UID
<ol> <li>Instance setup</li> <li>Partitioning opti</li> </ol>	Group name		
11. Instance-owning 12. Fenced user	GD		Use default GID
13. Communication 14. Tools catalog	Password		
15. Notification setu	Confirm password		
16. Contact 17. Summary	Home directory		
	○ Existing user User name		
	User marne		
		▲ <u>Back</u>	Einish Cancel Help

Figure 209. DB2 Setup wizard - Set user information for the DB2 Administration Server page

c. Click Next. The "Set up a DB2 instance" page opens.18. On the "Set up a DB2 instance" page:

a. Ensure that the **Create a DB2 instance** radio button is selected.

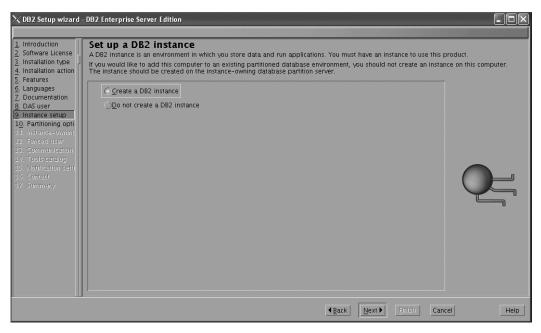


Figure 210. DB2 Setup wizard - Set up a DB2 instance page

- b. Click **Next**. The "Set up partitioning options for the DB2 instance" page opens.
- 19. On the "Set up partitioning options for the DB2 instance" page:
  - a. Select the Multiple partition instance radio button.
  - b. Type 2 for the Maximum logical partitions field.

imesDB2 Setup wizard -	DB2 Enterprise Server Edition	- D ×
1. Introduction       2. Software License       3. Installation type       4. Installation action	Set up partitioning options for the DB2 instance A DB2 instance can have one or more database partitions, which exist on one or more computers. Select the partitionil instance.	ng options for this
<ol> <li>A. Installation action</li> <li>5. Features</li> <li>6. Languages</li> <li>7. Documentation</li> </ol>	Single partition instance The instance will reside only on this computer. Select this option if the instance will not be used in a partitioned	
2. DAS user <u>9. Instance setup</u> 10. Partitioning opti	C Multiple partition instance	
11. Instance-owning 12. Fenced user 13. Communication	Select this option to prepare to use the partitioning capability of DB2 Enterprise Server Edition to store data in multiple database partitions. To use this functionality, you must have a Database Partitioning Feature license.	
14. Tools catalog 15. Notification setu 16. Contact	If you select this option, two response files will be saved. See the help for details. Maximum logical partitions	
17. Summary	This computer will be assigned partition number 0. You can specify the maximum number of logical partitions that can exist on each database partition server. This setting applies to all database partition servers in this instance.	
	Maximum logical partitions 2	U
	·	
	<u> </u>	Help

Figure 211. DB2 Setup wizard - Set up partitioning options for the DB2 instance page

**Note:** For the Common Criteria certification, an SMP configuration of two logical partitions on two computers is demonstrated. Depending on

your requirements, it is possible to install one logical partition per computer, or more than two logical partitions per computer. Because a response file is used to install DB2 Enterprise Server Edition on all subsequent computers, the environment will be consistent across all computers that participate in the partitioned database environment.

- **c.** Click **Next**. The "Set user information for the DB2 instance owner" page opens.
- 20. On the "Set user information for the DB2 instance owner" page:
  - a. Select the Existing user radio button.
  - b. Use the ... button to select the user previously defined for the DB2 instance owner.

uction re License ation type	Set user information for the DB2 instance Specify the instance-owning user information for the DB2 instance information in the user's home directory. The name of the instance	DB2 will use this user to perform instance functions, and will store instance
es	⊖Ne <u>w</u> user	
ages hentation	User name	
ser ce setup	UID	
tioning opti	Group name	
nce-owning edluser	GD	
munication	Password	
ication setu	Confirm password	
act nary	Home directory	
	©Existing user	
	User name	

Figure 212. DB2 Setup wizard - Set user information for the DB2 instance owner page

- c. Click Next. The "Set user information for the fenced user" page opens.
- 21. On the "Set user information for the fenced user" page:
  - a. Select the Existing user radio button.
    - b. Use the ... button to select the user previously defined for the fenced user.

uction are License ation type ation action	Set user information for the fenced user. Fence and group.	ISEE ed user defined functions (UDFs) and stored procedures will execute under this use
res	⊖Ne <u>w</u> user	
ages nentation	User name	
ser	UD	<u>√U</u> se default UID
ce setup tioning opti	Group name	
ince-owning ed user	GD	Use default GD
munication	Password	
s catalog fication setu	Confirm password	
act mary	Home directory	
nary	Thome an estory	
	© <u>E</u> xisting user	
	User name	

Figure 213. DB2 Setup wizard - Set user information for the fenced user page

- c. Click Next. The "Configure instance communication and startup" page opens.
- 22. On the "Configure instance communication and startup" page:
  - a. Select the **Configure** radio button.
  - b. Ensure that the **Autostart the instance at system startup** check box is deselected.

☆DB2 Setup wizard	DB2 Enterprise Server Edition
Introduction     Software License     Installation type     Installation type     Installation action     Features     Languages     Toccumentation     DAS user     Instance setup     Io. Partitioning opti     Instance-owning     Fenced user     I. Kotification serue     S. Communication     I. Tools catalog     Notification serue     S. Context     I. Summary	Configure instance communication and startup         In order for remote clients to access data stored in the DB2 instance, you must configure the DB2 instance for TCP/IP communications protocol on your client computers.         The DB2 instance can also be set to start automatically when your computer starts.         TCP/IP configure at this time         Q onfigure         Service name       db2c_db2inst1         Port number       50000         Restore default settings
	<u> </u>

Figure 214. DB2 Setup wizard - Configure instance communication and startup page

- c. Click Next. The "Prepare the DB2 tools catalog" page opens.
- **23**. On the "Prepare the DB2 tools catalog" page:

1. Introduction       2. Software License       3. Installation type	DB2 Enterprise Server I Prepare the DB Certain DB2 tools such a tools catalog must be st	<b>2 tools catalog</b> s the Task Center and scheduler require a DB2 tools catalog on one of the DB2 servers i	n your environment. The DB2
4. Installation action 5. Features 6. Languages	OPrepare the DB2	tools catalog	
7. Documentation 8. DAS user	Instance	db2inst1	$\overline{\Delta}$
<u>9</u> . Instance setup	Database		
10. Partitioning opti 11. Instance-owning	ONew	TOOLSDB	
12. Fenced user 13. Communication	)E <u>x</u> isting		▼ 0==
14. Tools catalog	Schema		
15. Notification setu 16. Contact	()Ne <u>w</u>	SYSTOOLS	1
17. Summary		<select></select>	
	O Do not prepare ti	e DB2 tools catalog	
		4Back Bext Binish	Cancel Help

a. Select the **Do not prepare the DB2 tools catalog** radio button.

Figure 215. DB2 Setup wizard - Prepare the DB2 tools catalog page

- b. Click Next. The "Set up notifications" page opens.
- 24. On the "Set up notifications" page:
  - a. Select the **Do not set up your DB2 server to send notifications at this time** radio button.

🔀 DB2 Setup wizard -	DB2 Enterprise Server Edition	- 0 ×
Introduction     Software License     Installation type     Installation type     Installation action     Features     Courdinges     Documentation     DAS user     Instance-owning     Instance-owning     I. France-duser     Sommunication     Tools catalog     Is. Notification setu     16. Summary	Set up notifications         You can set up your DB2 server to automatically send e-mail or pager notifications to alert administrators when a data the contact list formation is stored in the administration contact list. You need an unauthenticated SMTP server to send         Set up your DB2 server to send notifications         Notification ShTP server         Cector_redhat         Administration contact list location         Operal - Greate a contact list contact list that resides on another DB2 server         Remote - Use an existing contact list that resides on another DB2 server         Remote DB2 server         If on set up your DB2 server to send notifications at this time         If you do not set up your DB2 server to send notifications, the health alerts are still recorded in the administration notification log.	abase needs attention. these notifications.
	<u> </u>	cel Help

Figure 216. DB2 Setup wizard - Set up notifications page

b. Click Next. The "Start copying files and create response files" page opens.

DB2 Setup wizard -     Introduction     Software License     Installation type     Installation action     Features	DB2 Enterprise Server Edition  Start copying files and create response files  The DB2 Setup wizard has enough information to start copying the program files and create the response files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Finish to begin copying files and create the response files.  Current settings
Enguages     Cocumentation     DAS user     Decumentation     DAS user     Definitioning opti     Partitioning opti     Instance setup     Communication     Tools catalog     S. Notification setu     16. Summary	Product to install: DB2 Enterprise Server Edition Installation type: Custom Previously Installed Components: Selected Components: GSKit support Product Messages - English Base Client Support IDM Software Development Kit (SDK) for Java(TM) Java Help (HTML) - English Replication with MQ Server Run-time Environment Java Support SQL Replication Support ICU Utilities SQL Replication Support Spatial Extender Client Base application development tools Administration Server Communication Support - TCP/IP Parallel Extension Replication tools DB2 data source Support Product Signature for DB2 Enterprise Server Edition
	Enish Cancel Help

Figure 217. DB2 Setup wizard - Start copying files and create response files page

25. On the "Start copying files and create response files" page, click **Finish** to begin installing DB2 on your computer.

The "Installing DB2 Enterprise Server Edition" page opens.

imes Installing DB2 Enterprise Server Edition	×
Please wait while the DB2 Setup wizard installs Server Edition on your computer and performs configuration. This may take several minutes.	
Task: Setting DB2 library path	
, <b>■</b> 0%	100%
Overall progress:	
0%	100%

Figure 218. Installing DB2 Enterprise Server Edition page

When the installation completes, the "Setup Complete" page opens.

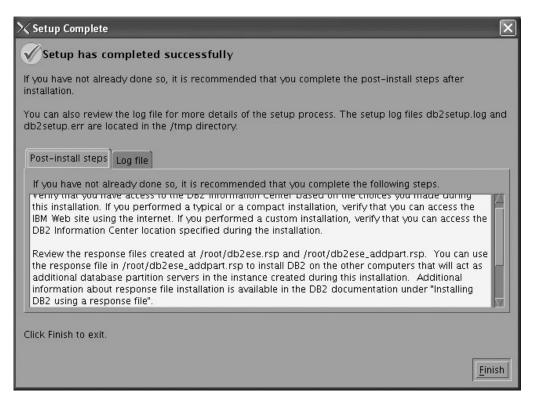


Figure 219. Setup Complete page

On the **Post-install steps** tab, note that the installation results in two response files being created in the /root directory: db2ese.rsp and db2ese\_addpart.rsp. The response file db2ese\_addpart.rsp is used to finish installing the partitioned database environment.

Click Finish to exit from the installation GUI.

After you finish using the DB2 Setup wizard to install DB2 on the instance owning computer, you need to verify port range availability, install DB2 on the remaining machines that you want to participate in the instance, create or modify a few files, and finally activate the license files that you downloaded before installing DB2.

- 1. Perform the steps described in "Verifying port range availability on participating computers (Linux and UNIX)".
- 2. Copy the db2ese\_addpart.rsp file to the same directory as the setup.exe file on the second computer that you want to participate in the partitioned database environment. You can use FTP to accomplish this task, or any other tool that permits you to transfer files. Repeat this step for every computer that you want to participate in the environment.
- 3. Run the response file on the second computer using the ./db2setup -r command as described in the topic "Installing database partition servers on participating computers using a response file (Linux and UNIX) ". Repeat this step for every computer that you want to participate in the environment.
- 4. Update the db2nodes.cfg file in the InstanceHome/sqllib/ directory. For details, see the topic "Updating the node configuration file (Linux and UNIX)"
- 5. Create the .rhosts file. See the topic "Enabling the execution of remote commands (Linux and UNIX)" for details.
- 6. Update the /etc/services file. For more information, see the topic "Enabling communications between database partition servers (Linux and UNIX)".

7. Activate the license files on every computer that you want to participate in the partitioned database environment. See the topic " Registering a DB2 product or feature license key using the db2licm command".

After DB2 Enterprise 9 is installed, see the topic on configuring DB2 to be Common Criteria compliant in the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book.

# Installing DB2 Enterprise 9 on Windows Server 2003 for a multipartition Common Criteria compliant installation

This topic provides detailed instructions on installing DB2 Enterprise 9 on Windows Server 2003 for a Common Criteria compliant installation.

## **Prerequisites:**

- The prerequisites listed in An overview of installing your DB2 product (Windows) must be met.
- The prerequisites listed in "Preparing the environment for a partitioned DB2 server (Windows)" must be met.
- The computer on which you install DB2 must be physically protected from untrusted users.
- Windows Server 2003 must be installed on the computer.
- Windows Server 2003 must be configured to disable remote access services (such as terminal server and file system shares) before DB2 is installed. For information on performing this task, refer to the operating system documentation.
- You must have the file v9fp1\_winx64\_ese.exe downloaded to the directory of your choice. You must download this file to the same directory on all computers that will participate in the environment. This file is available from the DB2 9 download site (http://ibm.com/software/data/db2/udb/support/ downloadv9.html). This file is self-extracting.
- You must have downloaded the applicable activation files from the Passport Advantage site to the same directory on all participating computers. You require these files to activate Enterprise 9 after installation:
  - One of the following:
    - DB2\_Enterp\_Svr\_Auth\_User\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per user basis.
    - DB2\_Enterprise\_Svr\_Ed\_CPU\_Activation.zip. Required to activate DB2 Enterprise 9 if you purchase DB2 Enterprise 9 on a per CPU basis.
  - DB2\_Database\_Partitioning\_Activation.zip. Required to active the Database Partitioning Feature (DPF)
  - DB2\_Advanced\_Access\_Cntrl\_Activation.zip. Required to activate label-based access control (LBAC).
- The domain name.
- The user names to be used for the following:
  - The DB2 instance owner
  - The DB2 Administration Server
  - The fenced user

If you do not have these user names, obtain them from your system administrator. For more information about these users, see "Required user accounts for installation of DB2 server products (Windows)" on page 12. The topic "Installing DB2 servers (Windows)" provides an overview of installing on Windows.

### **Procedure:**

Use the following steps to install DB2 Enterprise 9 on Windows Server 2003 for a Common Criteria compliant environment.

- 1. On the computer that you want to use as the instance owner:
  - **a**. Double click on the v9fp1\_winx64\_ese.exe file. Windows will prompt you with a default temporary directory in which the files will be unzipped.
  - b. Optional: To select a directory other than the default directory, use the **Browse** button.
  - c. Click **Unzip** to unzip the files.
  - d. Change directories to the directory where you extracted the files.
- 2. Double-click the setup.exe file to open the "IBM DB2 Setup Launchpad" at the "Welcome" page:

Information Management Software Version 9.1	IBM.
come	
The DB2 Setup Launchpad gives you access to all of the information that you need to install your DB2 products and features for Linux, UNIX, and Windows operating systems.	
To access more information about the DB2 products available for installation or to perform an installation, select from the tabs provided. You can find more product information by searching the information Center.	
earch Information Center (C) Copyright International Business Machines Corporation, 1993, 2006.	
All rights reserved.	
	V
	Version 8.1  Come  The DB2 Setup Launchpad gives you access to all of the information that you need to install your DB2 products and features for Linux, UNIX, and Windows operating systems. To access more information about the DB2 products available for installation or to perform an installation, select from the tabs provided. You can find more product information by searching the information Center  (c) Copyright International Business Machines Corporation, 1993, 2006.

Figure 220. Welcome page of the DB2 Setup Launchpad

**3**. On the "Welcome" page of the "IBM DB2 Setup Launchpad", click **Install a Product** to open the "Install a Product" page.

DB2 Setup Launchpad		
	DB2. Information Management Software Version 3.1	IBM.
DB2 Setup Launchpad	Install a Product	
Installation Prerequisites Release Notes Migration Information	Click Install New to launch the DB2 Setup wizard for the desired product. If you want to migrate from a previous version of a DB2 product, click Migrate. If you want to add features to an existing product or upgrade an existing product, click Work with Existing.	
Install a Product	DB2 Enterprise Server Edition	
Exit	DB2 Enterprise Server Edition is designed to meet the data server needs of mid- to large-size businesses. It can be deployed on Linux, UNIX, or Windows servers of any size, from one CPU to any number of CPUs.	
	DB2 Enterprise Server Edition is an ideal foundation for building on demand enterprise-wide solutions, such as large data warehouses of multiple terabyte size or high performing 24x7 available high volume transaction processing business solutions, or Web-based solutions. DB2 Enterprise Server Edition incorporates a native XML data store and delivers flexible access to XML data using XQuery, XPath, SQL, and standard reporting tools.	
	Optional features for DB2 Enterprise Server Edition are available that provide additional advanced product capabilities in areas such as database partitioning, performance, security, data federation, and database administration. Please see http://www.ibm.com/db2 for more information.	
	Install New	
	DB2 Client	
	DB2 Client is a collection of graphical and nongraphical tools and components for administring DB2 products and developing applications with DB2 products. Add-ins for Eclipse and Microsoft Visual Studio 2005 development environments are also included.	
	DB2 Client is a component of DB2 Server, DB2 Express, DB2 Connect Server, and DB2 Connect Personal Edition products. Please see http://www.ibm.com/db2 for more information.	
	Install New	
		V

Figure 221. Install a Product page of the DB2 Setup Launchpad

 On the "Install a Product" page of the "IBM DB2 Setup Launchpad", click the Install New button for DB2 Enterprise Server Edition The "DB2 Setup wizard" opens.



Figure 222. DB2 Setup wizard

- 5. Click Next. The "Software License Agreement" page opens.
- 6. On the "License Agreement" page:
  - a. After reviewing and agreeing to the license text, select the **I accept the terms in the license agreement** radio button:

License Agreement Please read the following license agreement carefully. IMPORTANT: READ CAREFULLY Two license agreements are presented below.
IMPORTANT: READ CAREFULLY
Two license agreements are presented helow
The house decompany de province color.
1. IBM International License Agreement for Evaluation of Programs 2. IBM International Program License Agreement
If you are obtaining the Program for purposes of productive use (other than evaluation, testing, trial "try or buy," or demonstration): By clicking on the "Accept" button below, You accept the IBM International Program License Agreement, without modification.
If you are obtaining the Program for the purpose of evaluation, testing, trial "try or buy," or demonstration (collectively, an "Evaluation"): By clicking on the "Accept" button below, You accept both (i) the IBM International License Agreement for Evaluation of Programs (the "Evaluation License"), without modification; and (ii) the IBM International Program License Agreement (the "IPLA"), without modification.
The Evaluation License will apply during the term of Your Evaluation.
I accept the terms in the license agreement
$\odot$ I do not accept the terms in the license agreement
nstallShield
Print < Back Next > Cancel

Figure 223. DB2 Setup wizard - Software Licence Agreement page

- b. Click Next. The "Select the installation type" page opens.
- 7. On the "Select the installation type" page:
  - a. Select the **Custom** radio button:

憬DB2 Setup wizard - DB2 Select the installat	2 Enterprise Server Edition - DB2COPY1
C Typical: C Compact: C Custom:	Approximately 350 - 560 MB Approximately 260 - 400 MB Approximately 260 - 600 MB
If you are alrea installed and sp The default set	the installation type ady familiar with DB2 features and settings, you can select the features that you want becify your configuration preferences. ttings for a custom installation are the same as those for a typical installation, but you can onal features and configuration parameters.
InstallShield	< Back Next > Cancel Help

Figure 224. DB2 Setup wizard - Select the installation type page

- b. Click **Next**. The "Select the installation, response file creation, or both" page opens.
- 8. On the "Select the installation, response file creation, or both" page:
  - a. Select the Install DB2 Enterprise Server Edition on this computer and save my settings in a response file radio button.
  - b. Use the default value listed in the **Response file name field**. Subsequent installs for the partitioned database environment are performed using the response file PROD\_ESE.rsp in the installing user's My Documents directory. Using the response file guarantees a consistent setup of the database environment on all participating computers.

🛱 DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1	
Select the installation, response file creation, or both	
The DB2 Setup Wizard can install DB2 Enterprise Server Edition on this computer, create a response file that you can use to install this product on a computer later, or both.	
If you are setting up a DB2 Enterprise Server Edition (ESE) partitioned database environment, you can also create a response file to install DB2 on the other computers that will act as database partition servers.	
O Install DB2 Enterprise Server Edition on this computer	
O Save my installation settings in a response file	
No software will be installed on this computer.	
• Install DB2 Enterprise Server Edition on this computer and save my settings in a response file	
Response file name C:\Documents and Settings\herrickm\My Documents\PROD_ESE.rsp	
InstallShield	Help

Figure 225. DB2 Setup wizard - Select the installation, response file creation, or both page

c. Click Next. The "Select the features to install" page opens.

elect the fe	atures to install			
To customize w	hich features are installed DB2 Enterprise Server Ec Server support Client support Administration too Application develo Getting started	lition	Feature Descrip	tion Server Edition is designed to meet needs of mid- to large-size
			has 5 of 5 subfe	uires 450 MB on your hard drive. It atures selected. The subfeatures n your hard drive.
- Installation fo			has 5 of 5 subfe	atures selected. The subfeatures n your hard drive.
- Installation fo	older C:\Program Files\IBN	1\SQLLIB\	has 5 of 5 subfe	atures selected. The subfeatures
		1\SQLLIB\ 615 MB	has 5 of 5 subfe	atures selected. The subfeatures n your hard drive.

Figure 226. DB2 Setup wizard - Select the features to install page

- 9. On the "Select the features to install" page:
  - a. Open the + beside Server support.
  - b. Deselect the **Connect support** feature. Left click on **Connect support** and select **This feature will not be available** from the pop-up menu.

i罾DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1	×
Select the features to install	
To customize which features are installed, click on icons in the followin	
DB2 Enterprise Server Edition     Server support     Connect support	Feature Description Connect support provides the ability to connect to host, AS/400, and iSeries systems.
This feature will be installed on local ha	
This feature will not be available.      Application development tools      Getting started	This feature requires 0 KB on your hard drive.
Installation folder	
Directory C:\Program Files\IBM\SQLLIB\	Change
Space required: 615 MB	Disk Space
InstallShield	Next > Cancel Help

Figure 227. DB2 Setup wizard - DB2 Setup wizard - Select the features to install page; Connect support feature deselected for install

- **c**. Ensure that the following features under **Server support** are also deselected for installation:
  - Satellite Control Server
  - Informix data source support

After the **Server support** features are deselected, open the **+** beside **Communication protocols**, and deselect the **NetBIOS Listener** feature and the **Named Pipes Listener** feature.

Note: Do not deselect the TCP/IP Listener feature.

	l - DB2 Enterprise Ser Itures to install	ver Edition - DB2CO	P¥1		×
	Communica Communica	lition upport ontrol Server ata source support ation protocols BIOS Listener Med Pipes Listener P/IP Listener		- Feature Description - The Named Pipes List Named Pipes listening client/server commun	ener component provides g functionality required for lication 80 KB on your hard drive.
☐ Installation fol Directory	der C:\Program Files\IBN	1\SQLLIB\			Change,
	Space required:	615 MB			Disk Space
stallShield		< <u>B</u> ack		<u>N</u> ext >	Cancel Help

Figure 228. DB2 Setup wizard - Select the features to install page; features deselected under Server support

- d. Open the + beside Client support.
- e. Ensure that the following features are deselected:
  - Satellite Synchronization
  - DB2 LDAP support
- f. Open the + beside **Communication protocols**, and deselect the following features:
  - NetBIOS
  - Named Pipes

elect the fea	atures to install			
To customize wi	X - Ne X - Na	: support Id Files Inchronization Iender client support ation protocols	Feature Descrip     Named Pipes all     communication p     client/server en	ows you to use the Named Pipes protocol to transfer data in a
Installation fo	lder C:\Program Files\IBN			Change,
	Space required:	613 MB		Disk Space
Shield				

Figure 229. DB2 Setup wizard - Select the features to install page; Client support features deselected for install

g. Deselect Administration tools.

elect the fea	atures to install			
	hich features are installed, DB2 Enterprise Server Ed Client support Administration too Application develo Getting started	ition	lowing list. Feature Description The Administration tools group conta graphical and command line tools use local and remote databases.	
			This feature year ince 2 KB as your he	
☐ Installation fc	older C:\Program Files\IBM	//SQLLIB/	This feature requires 2 KB on your ha 0 of 8 subfeatures selected. The sub require 93 MB on your hard drive.	features

Figure 230. DB2 Setup wizard - Select the features to install page; Administration tools feature deselected for install

- h. Open the + beside Getting started.
- i. Ensure that the First Steps feature is deselected for installation.

📳 DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1	×
Select the features to install	
To customize which features are installed, click on icons in the following of the following	ng list. Feature Description First Steps is a graphical tool that will help familiarize you with DB2 features and functions. This feature requires 73 MB on your hard drive.
Installation folder Directory C:\Program Files\IBM\SQLLIB\ Space required: 557 MB	
InstallShield	Next > Cancel Help

Figure 231. DB2 Setup wizard - Select the features to install page; First Steps feature deselected for installation

j. Click Next. The "Select the languages to install" page opens.

10. On the "Select the languages to install" page, English is the only language support that is installed by default.

	- DB2 Enterprise Serve	r Edition - DB2COPY1			- 🗆 ×
Select the lang	juages to install				
	II the user interfaces and p disk space required.	roduct messages in seve	ral languages. Installing	multiple languages	
Available lang Chinese (Simp			Selected langua	ages	7
Chinese (Jinin Chinese (Trac Czech Danish Finnish French (Stan German	ditional)	> >> <			
Italian Confirm the ins	stallation folder	<<			]
Directory	C:\Program Files\IBM\S	QLLIB\		<u>⊂</u> hange	
nstallShield	Space required:	557 MB		Disk space	
		< <u>B</u> ack	<u>N</u> ext >	Cancel	Help

Figure 232. DB2 Setup wizard - Select the languages to install page; English language support selected for installation

11. Click Next. The "Set the DB2 copy name" page opens.

🐻 DB2 Setup wizard - DB2 Enterpris	se Server Edition - DB2COPY1	×
Set the DB2 copy name		
The DB2 copy name is used to i DB2 copy name for the location	identify a location where DB2 products are installed on the computer. Enter the 1 you have chosen.	
DB2 copy name	DB2COPY1	
specific DB2 copy. It will also be	omputer will be used by applications that are not enabled or configured to use a e the copy that will be accessible by default from the command line.	
Set this as the default DI	82 copy on this computer	
uiscandinela	c Darly March 201	1.1-1-
	< <u>B</u> ack <u>Next</u> Cancel	Help

Figure 233. DB2 Setup wizard - Set the DB2 copy name page

- **12**. Click **Next**. The "Specify the location of the DB2 Information Center" page opens.
- 13. On the "Specify the location of the DB2 Information Center" page:a. Ensure that the **On the IBM Web site** radio button is selected.

🕞 DB2 Setup wizard - DB2 Enterprise S	ierver Edition - DB2COPY1 📃 🛛 🔀
Specify the location of the DB2	2 Information Center
on the IBM Web site, installed and a	ns documentation for DB2 products. The DB2 Information Center can be accessed accessed on another computer on your intranet, or installed and accessed on a be changed after installation is complete.
Select the location from which you v	will access the DB2 Information Center:
On the IBM Web site	
If you want to install and acc computer from the CD labeled	ess the DB2 Information Center locally, install the DB2 Information Center on this d DB2 Information Center.
○ On the following intranet serve	er
Host name	
Port number	51000
InstallShield	
	< Back [ Cancel Help

Figure 234. DB2 Setup wizard - Specify the location of the DB2 Information Center; On the IBM Web site option selected

- b. Click **Next**. The "Set user information for the DB2 Administration Server" page opens.
- 14. On the "Set user information for the DB2 Administration Server" page:
  - a. Select the domain of the user from the Domain drop-down list.
  - b. Type the user name for the DB2 Administration Server in the **User name** field.
  - c. Type the password for the user in the **Password** field.
  - d. Type the password again in the **Confirm password** field.
  - e. Ensure that the Use the same user name and password for the remaining DB2 services check box is not selected.

뤻 DB2 Setup wizard - I	DB2 Enterprise Server Edition - DB2	COPY1	
Set user informa	tion for the DB2 Administratic	n Server	
	tration Server (DAS) runs on your compu ired user information for the DAS.	iter to provide support required by the DB2 tools.	
	User information		
	Domain	None - use local user account	
	User name	db2admin	
	Password	****	
	Confirm password	*****	
	ne user name and password for the rema	ining DB2 services	
InstallShield			
	<u> </u>	<u>N</u> ext > Cancel	Help

Figure 235. DB2 Setup wizard - Set user information for the DB2 Administration Server page

f. Click Next. The "Set up a DB2 instance" page opens.

- 15. On the "Set up a DB2 instance" page:
  - a. Ensure that the **Create a DB2 instance** radio button is selected.

键 DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1 🛛 🗖 🗐 🛙
Set up a DB2 instance
A DB2 instance is an environment in which you store data. You must have an instance to use this product.
Either create the default DB2 instance or join an existing partitioned database environment.
C loin an existing partitioned database environment
InstallShield
<u> </u>

Figure 236. DB2 Setup wizard - Set up a DB2 instance page; Create a DB2 instance option selected

- b. Click **Next**. The "Set up partitioning options for the default DB2 instance" page opens.
- 16. On the "Set up partitioning options for the default DB2 instance" page:
  - a. Select the Multiple partition instance radio button.
  - b. Type 2 for the Maximum logical partitions field.

i 🖟 DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1 🛛 📃 🗵
Set up partitioning options for the default DB2 instance
A DB2 instance can have one or more database partitions, which exist on one or more computers. Select the partitioning options for the default DB2 instance.
O Single partition instance
The instance will reside only on this computer. Select this option if the instance will not be used in a partitioned database environment.
Multiple partition instance
Select this option to prepare to use the partitioning capability of DB2 Enterprise Server Edition to store data in multiple database partitions. To use this functionality, you must have a Database Partitioning Feature license. If you select this option, two response files will be saved. See the help for details.
Maximum logical partitions This computer is assigned partition number 0. Type the maximum number of logical partitions that can exist on each database partition server. This setting applies to all database partition servers in this instance.
Maximum logical partitions
InstallShield
< <u>B</u> ack <u>N</u> ext > Cancel Help

Figure 237. DB2 Setup wizard - Set up partitioning options for the DB2 instance page

- **Note:** For the Common Criteria certification, an SMP configuration of two logical partitions on two computers is demonstrated. Depending on your requirements, it is possible to install one logical partition per computer, or more than two logical partitions per computer. Because a response file is used to install DB2 Enterprise Server Edition on all subsequent computers, the environment will be consistent across all computers that participate in the partitioned database environment.
- c. Click Next. The "Configure DB2 instances" window opens.

	o wizard - DB2 Enterprise Server Edition - DB2COPY1 📃 🗖
Configu	re DB2 instances
	following instances will be created during installation. You can customize the configurations by clicking on Configure button.
D	B2 Instances:
	<u>C</u> onfigure
	Instance description
	You can build a partitioned database environment by installing DB2 Enterprise Server Edition on other computers, and specify that these computers participate in the default instance.
L. — allShield	

Figure 238. DB2 Setup wizard - Configure DB2 instances page

- 17. On the "Configure DB2 instances" window:
  - a. Click Configure. The "DB2 instance configuration" window opens.
  - b. On the "Startup" tab, ensure that the **Do not autostart the instance. The instance must be started manually** radio button is selected.

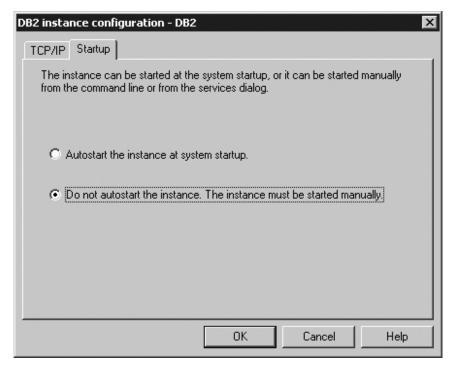


Figure 239. DB2 Setup wizard - DB2 instance configuration window

- c. Click OK. The "DB2 instance configuration" window closes.
- d. Click **Next** on the "Configure DB2 instances" window. The "Set user information for the default DB2 instance" page opens.
- 18. On the "Set user information for the default DB2 instance" page:
  - a. Select the domain of the user from the Domain drop-down list.
  - b. Type the user name for the DB2 Administration Server in the **User name** field.
  - c. Type the password for the user in the **Password** field.
  - d. Type the password again in the **Confirm password** field.

뤻 DB2 Setup wizard	- DB2 Enterprise Server Ec	lition - DB2COPY	1		
Set user inform	nation for the default [	)B2 instance			
Specify the d	omain account for the default	DB2 instance, You (	an create a new use	er or use an existing c	ne.
Domain a	ccount to be used for the defa	ault DB2 instance —			
Dor	nain			<b>•</b>	
Use	er name	db2admin			
Pas	sword	****			
Cor	nfirm password	*****			
InstallShield					
		< <u>B</u> ack	<u>N</u> ext >	Cancel	Help

Figure 240. DB2 Setup wizard - Set user information for the default DB2 instance page

- e. Click Next. The "Prepare the DB2 tools catalog" page opens.
- **19**. On the "Prepare the DB2 tools catalog" page:
  - a. Ensure that the Prepare the DB2 tools catalog check box is deselected.

🙀 DB2 Setup wizard - DB2 Enterprise Serve	er Edition - DB2COPY1	
Prepare the DB2 tools catalog		
Certain DB2 tools such as the Task Cen in your environment. The DB2 tools cat	ter and scheduler require a DB2 tools catalc alog must be stored in a DB2 database.	ig on one of the DB2 servers
Prepare the DB2 tools catalog		
Instance	DB2	
Database		
© New	TOOLSDB	
C E <u>xi</u> sting		
Schema		
🖲 Ne <u>w</u>	SYSTOOLS	
C Existing		***
InstallShield	< Back	Cancel Help

Figure 241. DB2 Setup wizard - Prepare the DB2 tools catalog page

- b. Click Next. The "Set up notifications" page opens.
- 20. On the "Set up notifications" page:
  - a. Ensure that the **Set up your DB2 server to send notifications** check box is deselected.

🐺 DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1	
Set up notifications	
You can set up your DB2 server to automatically send e-mail or pager notifications to alert administrators when a database needs attention. The contact information is stored in the administration contact list. You need an unauthenticated SMTP server to send these notifications.	
If you do not set up your DB2 server to send notifications at this time, the health alerts are still recorded in the administration notification log.	
Est up your DB2 server to send notifications	
Notification SMTP server	
Administration contact list location	
Local - Create a contact list on this computer	
C Remote - Use an existing contact list on another DB2 server	
Remote DB2 server	
InstallShield	
< <u>B</u> ack <u>N</u> ext > Cancel	Help

Figure 242. DB2 Setup wizard - Set up notifications page

- b. Click **Next**. The "Enable operating system security for DB2 objects" page opens.
- **21**. On the "Enable operating system security for DB2 objects" page:
  - a. Ensure that the **Enable operating system security** check box is deselected.

🕞 DB2 Setup wizard - DB2 Enterprise Serv	er Edition - DB2COPY1		×
Enable operating system security	for DB2 objects		
Specify if you would like to enable oper objects on your computer. If you enab the groups specified below.		files, folders, registry keys, and other rem access to DB2 objects will be limited	to
Note: The DB2 Setup wizard has detec	ted that the group names show	wn below already exist on your compute	er.
Enable operating system security			
Information on the DB2 administrat	ors group and DB2 users group	) is available by clicking Help.	
DB2 administrators group	DB2ADMNS		
DB2 users group	DB2USERS		
InstallShield			
	< <u>B</u> ack	Next > Cancel	Help

Figure 243. DB2 Setup wizard - Enable operating system security for DB2 objects page

b. Click Next. The "Start copying files and create response files" page opens.

뤻 DB2 Setup wizard - DB2 Enterprise Serve	r Edition - DB2COPY1
Start copying files and create resp	bonse files
	mation to create the response files and start copying the program files. attings, click Back. If you are satisfied with the settings, type the begin copying files.
Current settings:	
Product to install: Installation type: DB2 copy name: Set as Default DB2 copy: Selected features: TCP/IP Listener TCP/IP DB2 WMI Provider SQLJ Samples SQLJ Application Develop SQLJ Support Sample database source ADT sample programs OLE DB Support ODBC Sunnort	DB2 Enterprise Server Edition - DB2COPY1 Custom DB2COPY1 Yes ment Tools
InstallShield	< Back Finish Cancel Help

Figure 244. Installing DB2 Enterprise Server Edition page

**22**. On the "Start copying files and create response files" page, click **Finish** to begin installing DB2 on your computer.

The "Installing DB2 Enterprise Server Edition" page opens.

🛃 DB2 Setup wizard - DB2 Enterprise Server Edition - DB2COPY1	
Installing DB2 Enterprise Server Edition - DB2C0PY1	
1 <del>2</del>	
Status:	
InstallShield	
< <u>B</u> ack	Next > Cancel

Figure 245. Installing DB2 Enterprise Server Edition page

When the installation completes, the "Setup Complete" page opens.

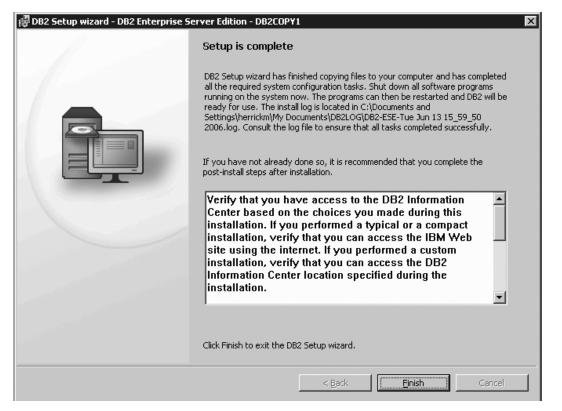


Figure 246. Setup Complete page

On the **Post-install steps** tab, note that the installation results in two response files being created in the installing user's My Documents directory: PROD\_ESE.rsp and PROD\_ESE\_addpart.rsp. The response file PROD\_ESE\_addpart.rsp is used to finish installing the partitioned database environment.

Click **Finish** to exit from the installation GUI.

- 23. Copy the db2ese\_addpart.rsp file to the same directory as the setup.exe file on the second computer that you want to participate in the partitioned database environment. You can use FTP to accomplish this task, or any other tool that permits you to transfer files. Repeat this step for every computer that you want to participate in the environment.
- 24. On the second computer that you want to participate in the environment:
  - a. Double click on the v9fp1\_winx64\_ese.exe file. Windows will prompt you with a default temporary directory in which the files will be unzipped.
  - b. Optional: To select a directory other than the default directory, use the **Browse** button.
  - c. Click **Unzip** to unzip the files.
  - d. Change directories to the directory where you extracted the files.
  - e. Run the response file using the setup -u command as described in the topic "Setting up a partitioned database environment."

**Note:** The temporary files will be automatically deleted when the response file installation completes.

**25**. If you are installing the DB2 product on more than two computers, repeat steps 24a, 24b, 24c, 24d, and 24e for every other computer that you want to participate in the environment.

- **Note:** To avoid repeating these steps, you can also net use to the machine and drive where the DB2 install image was unzipped, and install. Using this method, you only have to unzip the install image once, instead of downloading and unzipping the image on every computer.
- 26. During DB2 installation, the DB2 Setup wizard or response file installation creates one partition on each computer that participates the partitioned database environment. If you want to set up additional logical partitions on a computer, you need to run the db2ncrt command to create each new partition. In this example, two logical partitions are to be created on each of the two computers used in the environment. Therefore, the db2ncrt must be run once on each computer. On the instance-owning computer, open START->Program Files->IBM DB2->DBCOPY1->Command line tools->Command window, then issue the following command:

db2ncrt /n:2 /u:domain\_name\username,password /p:1

Where:

- The *n* parameter indicates a unique partition number. The value 2 is used for the new logical partition on the instance-owning computer because partitions  $\theta$  and 1 were previously created (partition  $\theta$  was created by the DB2 Setup wizard on the instance-owning computer, while partition 1 was created by the response file installation on the second computer).
- The *domain\_name*\*username* and *password* parameters are the domain, user ID, and password for the DB2 instance.
- The *p* parameter indicates the logical port number. Available logical ports on a computer usually begin at 0, and increase by 1. The value 0 would have been assigned to the partition created by the DB2 Setup wizard on the instance-owning computer; therefore the next available logical port is 1.

On the second computer that you want to participate in the environment, open START->Program Files->IBM DB2->DBCOPY1->Command line tools->Command window, then issue the following command:

db2ncrt /n:3 /u:username,password /p:1 /o:instance\_owning\_computer

When running db2ncrt on the second computer:

- Because the partition number must be unique, the next available value for the *n* parameter is 3.
- *username* and *password* are the user ID and password of a local administrator on the computer.
- *instance\_owning\_computer* is the computer on which you performed the DB2 installation using the DB2 setup wizard.

For more information about the db2crt command, see the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book.

27. Activate the license files on every computer that you want to participate in the partitioned database environment. See the topic "Registering a DB2 product or feature license key using the db2licm command".

After DB2 Enterprise 9 is installed, see the topic on configuring DB2 to be Common Criteria compliant in the *IBM DB2 Common Criteria Certification: Administration and User Documentation* book. Part 3. After DB2 server installation

# Chapter 7. After you install

# Verifying the installation

# Verifying the installation using the command line processor (CLP)

You can verify the installation by creating a sample database and running SQL statements to retrieve sample data.

## **Prerequisites:**

- The sample database component, found in the features selection, must be installed on your system and is included in a typical installation.
- You require a user with SYSADM authority.

## **Procedure:**

To verify the installation:

- 1. Log on to the system as a user with SYSADM authority.
- 2. Start the database manager by entering the db2start command.
- 3. Enter the db2samp1 command to create the SAMPLE database.

This command may take a few minutes to process. There is no completion message; when the command prompt returns, the process is complete. The SAMPLE database is automatically cataloged with the database alias SAMPLE when it is created.

4. Connect to the SAMPLE database, retrieve a list of all the employees that work in department 20, and reset the database connection. Enter the following commands from the command line processor (CLP):

connect to sample
"select \* from staff where dept = 20"
connect reset

After you have verified the installation, you can remove the SAMPLE database to free up disk space. Enter the db2 drop database sample command to drop the SAMPLE database.

#### **Related tasks:**

• "Verifying the installation of DB2 servers using First Steps (Linux and Windows)" in *Quick Beginnings for DB2 Servers* 

# Verifying access to the registry on the instance-owning computer (Windows)

This step is only required if you are setting up a partitioned database environment.

After installing DB2 on a participating computer, you should verify that you have access to the registry on the instance-owning computer. This verification step should be run from all participating computers.

## **Prerequisites:**

You must have DB2 installed.

## Procedure:

To verify access to the registry on the instance-owning computer:

- 1. From a command prompt, type the **regedit** command. The Registry Editor window opens.
- 2. Click the **Registry** menu item.
- 3. Select Connect Network Registry.
- 4. Type the name of the instance-owning computer in the Computer name field.

If the information is returned, then you have successfully verified that you have access to the registry on the instance-owning computer.

#### Related tasks:

• "Setting up a partitioned database environment" on page 55

# Verifying a partitioned database server installation (Linux and UNIX)

To verify that your DB2 server installation was successful, you will create a sample database and run SQL commands to retrieve sample data and to verify that the data has been distributed to all participating database partition servers.

#### **Prerequisites:**

You have completed all of the installation steps.

## **Procedure:**

To create the SAMPLE database:

- 1. Log on to the primary computer (ServerA) as the instance-owning user. In our installation example, db2inst1 is the instance-owning user.
- 2. Enter the db2samp1 command to create the SAMPLE database. By default, the sample database will be created in the instance-owner's home directory. In our example /db2home/db2inst1/ is the instance owner's home directory. The instance owner's home directory is the default database path.

This command may take a few minutes to process. There is no completion message; when the command prompt returns, the process is complete. The SAMPLE database is automatically cataloged with the database alias SAMPLE when it is created.

- 3. Start the database manager by entering the db2start command.
- 4. Enter the following DB2 commands from a DB2 command window to connect to the SAMPLE database, retrieve a list of all the employees that work in department 20:

```
db2 connect to sample
db2 "select * from staff where dept = 20"
```

5. To verify that data has been distributed across database partition servers, enter the following commands from a DB2 command window:

db2 select distinct dbpartitionnum(empno) from employee;

The output will list the database partitions used by the employee table. The specific output will depend on the number of database partitions in the database and the number of database partitions in the database partition group that is used by the tablespace where the employee table was created.

After you have verified the installation, you can remove the SAMPLE database to free up disk space. Enter the db2 drop database sample command to drop the SAMPLE database.

### **Related reference:**

• "db2sampl - Create sample database command" in Command Reference

# Verifying a partitioned database environment installation (Windows)

To verify that your DB2 server installation was successful, you will create a sample database and run SQL commands to retrieve sample data and to verify that the data has been distributed to all participating database partition servers.

## **Prerequisites:**

You have completed all of the installation steps.

#### **Procedure:**

To create the SAMPLE database:

- 1. Log on to the primary computer (ServerA). as user with SYSADM authority.
- 2. Enter the db2samp1 command to create the SAMPLE database.

This command may take a few minutes to process. There is no completion message; when the command prompt returns, the process is complete. The SAMPLE database is automatically cataloged with the database alias SAMPLE when it is created.

- 3. Start the database manager by entering the db2start command.
- 4. Enter the following DB2 commands from a DB2 command window to connect to the SAMPLE database, retrieve a list of all the employees that work in department 20:

```
db2 connect to sample
db2 "select * from staff where dept = 20"
```

5. To verify that data has been distributed across database partition servers, enter the following commands from a DB2 command window:

select distinct dbpartitionnum(empno) from employee;

The output will list the database partitions used by the employee table. The specific output will depend on the number of database partitions in the database and the number of database partitions in the database partition group that is used by the tablespace where the employee table was created.

After you have verified the installation, you can remove the SAMPLE database to free up disk space. However, it is useful to keep the sample database, if you plan to make use of the sample applications.

Enter the db2 drop database sample command to drop the SAMPLE database.

**Related tasks:** 

• "Setting up a partitioned database environment" on page 55

# **DB2 product licensing**

# DB2 product license files

Each DB2 product and feature has a license file associated with it. The license file is found on the associated activation CD supplied as a part of the product media. You should register the license file before using the DB2 product.

The management of licenses for DB2 products or features is done through the License Center within the Control Center, or, through the db21icm License Management Tool command.

Note: For a Common Criteria environment, the db2licm command is used.

To assist you in managing your licenses, a compliance report lists the compliance or noncompliance of DB2 features with your current product entitlement.

If you installed a DB2 product with a try and buy license and now want to upgrade to a full license, you do not need to reinstall the DB2 product. You simply upgrade your license. This is also true for upgrading from one license type to another, for example upgrading from a User license to a CPU license. For details see Upgrading your DB2 license.

## **Related concepts:**

- "License Center overview" in Administration Guide: Implementation
- "DB2 installation methods" on page 3

#### **Related tasks:**

- "Checking DB2 license compliance" on page 241
- "Registering a DB2 product or feature license key using the db2licm command" on page 240
- "Registering a DB2 product or feature license key using the License Center" in *Installation and Configuration Supplement*
- "Upgrading a Try and Buy license" in Installation and Configuration Supplement

#### **Related reference:**

• "db2licm - License management tool command" in Command Reference

# Registering a DB2 product or feature license key using the db2licm command

You should register a DB2 product or feature license key on each computer where the DB2 product or feature is installed. For more information on these product options, see the DB2 Version 9 packaging information on the web.

**Note:** In a partitioned database environment, you must activate the license files on every computer that participates in the environment.

#### **Procedure:**

To register a DB2 product or feature license key as the instance owner:

- 1. Log on as the instance owner.
- 2. Register the DB2 license with the appropriate command:
  - For Linux and UNIX operating systems:
    - db2instance\_path/db2licm -a filename.lic
  - For Windows operating systems, open START->Program Files->IBM DB2->DBCOPY1->Command line tools->Command window, then issue the following command:
    - db2licm -a *filename*.lic

where *db2instance\_path* is where the DB2 instance was created and *filename* is the full pathname and filename for the license file that corresponds to the product you have purchased.

#### **Related concepts:**

• "License management" in Administration Guide: Implementation

#### **Related tasks:**

- "Checking DB2 license compliance" on page 241
- "Registering a DB2 product or feature license key using the License Center" in *Installation and Configuration Supplement*

#### **Related reference:**

"DB2 product license files" on page 240

### Checking DB2 license compliance

Each DB2 product and feature has a license file associated with it. The license file should be registered before using the DB2 product or feature. The License Center lists product information on the main panel. DB2 products that do not have the license registered show the License Type as not registered.

To verify license compliance of DB2 features, you can generate a compliance report. The compliance report lists DB2 features out of compliance with your current product entitlement. Each DB2 feature status is listed as either:

- · In compliance: indicating no violations are detected
- Violation: indicating the feature is not licensed and has been used.
- **Note:** Some DB2 functionality is only available under license when purchased as part of a DB2 feature.

You can generate a compliance report using the License Center or the db2licm command.

**Note:** In a Common Criteria environment, only the db21icm command is supported.

#### **Procedure:**

To generate the compliance report from the License Center, select License→Generate Compliance Report.

To generate compliance report using the db2licm command, enter the following command from the command line:

- For Linux and UNIX operating systems:
  - db2instance\_path/adm/db2licm -g filename
- For Windows operating systems:

db2instance\_path\adm\db2licm -g filename

#### where

- *db2instance\_path* is where the DB2 instance was created.
- *filename* specifies the file name where output is to be stored.

DB2 features showing a violation must have the license key registered using either the License Center or the db21icm command. See the related links for details.

#### Related concepts:

• "License Center overview" in Administration Guide: Implementation

#### **Related tasks:**

- "Registering a DB2 product or feature license key using the License Center" in *Installation and Configuration Supplement*
- "Registering a DB2 product or feature license key using the db2licm command" on page 240

#### **Related reference:**

- "DB2 product license files" on page 240
- "db2licm License management tool command" in Command Reference

### **Password rules**

When choosing a password, be aware that:

- On UNIX, your password can be a maximum of eight (8) characters.
- On Windows, your password can be a maximum of fourteen (14) characters.

Some operating systems may have more password rules, such as minimum length and simplicity. See the appropriate operating system documentation.

#### **Related concepts:**

• "General naming rules" in Administration Guide: Implementation

# Adding your user ID to the DB2ADMNS and DB2USERS user groups (Windows)

After successfully completing a DB2 installation, you now have to add users to the DB2ADMNS or the DB2USERS groups to give them access to your DB2 product. The DB2 installer creates two new groups. You can either use a new name or accept the default names. The default group names are DB2ADMNS and DB2USERS.

#### **Prerequisites:**

• You must have installed a DB2 product.

• You must have selected the Enable operating system security check box on the Enable operating system security for DB2 object panel during the installation of your DB2 product.

#### **Procedure:**

To add users to the appropriate group:

- 1. Launch the **Computer Management** tool. Click **Start** and **Select** -> **Settings** -> **Control Panel** -> **Administrative Tools** -> **Computer Management**.
- 2. Select Local Users and Groups.
- 3. Select Users.
- 4. Select the user you want to add.
- 5. Click Properties.
- 6. Click the Member Of tab.
- 7. Click Add.
- 8. Select the appropriate group.
- 9. Click OK.

If you did the install and chose not to enable the new security feature you can still do so post-install by running the db2extsec.exe command.

Once you enable this security feature using the db2extsec.exe command, you have two options for backing out:

- 1. Run the db2extsec.exe command again immediately WITHOUT making any additional changes to the system. If there have been any changes at all made to the system you must use option 2.
- 2. Add the Everyone group to the DB2ADMNS and DB2USERS groups.

#### **Related concepts:**

• "Extended Windows security using DB2ADMNS and DB2USERS groups" in *Administration Guide: Implementation* 

#### **Related reference:**

- "Required user accounts for installation of DB2 server products (Windows)" on page 12
- "db2extsec Set permissions for DB2 objects command" in Command Reference

### DB2 node configuration file - db2nodes.cfg

This topic provides information about the format of the node configuration file (db2nodes.cfg). The db2nodes.cfg file is used to define the database partition servers that participate in a DB2 instance. The db2nodes.cfg file is also used to specify the IP address or host name of a high-speed interconnect, if you want to use a high-speed interconnect for database partition server communication.

The format of the db2nodes.cfg file is as follows:

nodenumber hostname logicalport netname resourcesetname

nodenumber, hostname, logicalport, netname, and resourcesetname are defined in the following section.

nodenumber	hostname computername logicalport netname resourcesetname
nodenumber	A unique number, between $0$ and 999, that identifies a database partition server in a partitioned database system.
	To scale your partitioned database system, you add an entry for each database partition server to the db2nodes.cfg file. The <i>nodenumber</i> value that you select for additional database partition servers must be in ascending order, however, gaps can exist in this sequence. You can choose to put a gap between the <i>nodenumber</i> values if you plan to add logical partition servers and wish to kee the nodes logically grouped in this file.
	This entry is required.
hostname	The TCP/IP host name of the database partition server for use by the FCM.
	This entry is required.
logicalport	Specifies the logical port number for the database partition server. This field is used to specify a particular database partition server on a workstation that is running logical database partition servers.
	DB2 reserves a port range (for example, 60000 - 60003) in the etc/services file for inter-partition communications at the time of installation. This logicalport field in db2nodes.cfg specifies which port in that range you want to assign to a particular logical partition server.
	If there is no entry for this field, the default is 0. However, if you add an entry for the <i>netname</i> field, you must enter a number for the <i>logicalport</i> field.
	If you are using logical database partitions, the <i>logicalport</i> value you specify <i>must</i> start at $0$ and continue in ascending order (for example, $0,1,2$ ).
	Furthermore, if you specify a <i>logicalport</i> entry for one database partition server, you must specify a <i>logicalport</i> for each database partition server listed in your db2nodes.cfg file.
	This field is optional only if you are <i>not</i> using logical database partitions or a high speed interconnect.
netname	Specifies the host name or the IP address of the high speed interconnect for FCM communication.
	If an entry is specified for this field, all communication between database partition servers (except for communications as a result of the db2start, db2stop, and db2_all commands) is handled through the high speed interconnect.
	This parameter is required only if you are using a high speed interconnect for database partition communications.
resourcesetna	me
	The resourcesetname defines the operating system resource that the node should be started in. The resourcesetname is for process affinity support, used for MLNs, provided with a string type field formerly known as guadname

formerly known as quadname.

This parameter is only supported on AIX and Solaris Operating Environment.

On AIX 5.2, this concept is known as "resource sets" and on Solaris Operating Environment it is called "projects". Refer to your operating systems documentation for more information on resource management.

On Windows operating systems, process affinity for a logical node can be defined through the db2processor registry variable. See the related links section for more information on system environment variables.

The netname parameter must be specified if the resourcesetname parameter is used.

#### **Example configurations:**

Use the following example configurations to determine the appropriate configuration for your environment.

#### One computer, four database partitions servers

If you are not using a clustered environment and want to have four database partition servers on one physical workstation called ServerA, update the db2nodes.cfg file as follows:

0	ServerA	0
1	ServerA	1
2	ServerA	2
3	ServerA	3

#### Two computers, one database partition server per computer

If you want your partitioned database system to contain two physical workstations, called ServerA and ServerB, update the db2nodes.cfg file as follows:

0	ServerA	0
1	ServerB	0

#### Two computers, three database partition server on one computer

If you want your partitioned database system to contain two physical workstations, called ServerA and ServerB, and ServerA is running 3 database partition servers, update the db2nodes.cfg file as follows:

4	ServerA	0
6	ServerA	1
8	ServerA	2
9	ServerB	0

#### Two computers, three database partition servers with high speed switches

If you want your partitioned database system to contain two computers, called ServerA and ServerB (with ServerB running two database partition servers), and use a high speed interconnect called switch1 and switch2, update the db2nodes.cfg file as follows:

0	ServerA	Θ	switch1
1	ServerB	Θ	switch2
2	ServerB	1	switch2

#### Examples using resourcename:

These restrictions apply to the following examples:

• This example shows the usage of resourcename when there is no high speed interconnect in the configuration.

- The netname is fourth column and a hostname also can be specified on that column where there is no switch name and you want to use resourcename. The fifth parameter is resourcename if it is defined. The resource group specification can only show as the fifth column in the db2nodes.cfg file. This means that for you to specify a resource group, you must also enter a fourth column. The fourth column is intended for a high speed switch.
- If you do not have a high speed switch or you do not want to use it, you must then enter the hostname (same as the second column). In other words, the DB2 database management system does not support column gaps (or interchanging them) in the db2nodes.cfg files. This restriction already applies to the first three columns, and now it applies to all five columns.

#### AIX example:

Here is an example of how to set up the resource set for AIX 5.2.

In this example, there is one physical node with 32 processors and 8 logical database partitions (MLNs). This example shows how to provide process affinity to each MLN.

```
1. Define resource sets in /etc/rset:
   DB2/MLN1:
                 = db2inst1
       owner
       group = system
perm = rwr-r-
       resources = sys/cpu.00000,sys/cpu.00001,sys/cpu.00002,sys/cpu.00003
   DB2/MLN2:
       owner = db2inst1
       group = system
perm = rwr-r-
       resources = sys/cpu.00004,sys/cpu.00005,sys/cpu.00006,sys/cpu.00007
   DB2/MLN3:
       owner = db2inst1
       group = system
       perm
               = rwr-r-
       resources = sys/cpu.00008,sys/cpu.00009,sys/cpu.00010,sys/cpu.00011
   DB2/MLN4:
       owner
group = system
= rwr-r-
                 = db2inst1
       owner
       resources = sys/cpu.00012,sys/cpu.00013,sys/cpu.00014,sys/cpu.00015
   DB2/MLN5:
       owner = db2inst1
       group = system
       perm
                = rwr-r-
       resources = sys/cpu.00016,sys/cpu.00017,sys/cpu.00018,sys/cpu.00019
   DB2/MLN6:
              = db2inst1
       owner
              = system
       aroup
       perm
                = rwr-r-
       resources = sys/cpu.00020,sys/cpu.00021,sys/cpu.00022,sys/cpu.00023
   DB2/MLN7:
       owner
                 = db2inst1
       group = system
perm = rwr-r-
       resources = sys/cpu.00024,sys/cpu.00025,sys/cpu.00026,sys/cpu.00027
```

DB2/MLN8:		
owner	=	db2inst1
group	=	system
perm	=	rwr-r-
resources	=	sys/cpu.00028,sys/cpu.00029,sys/cpu.00030,sys/cpu.00031

- 2. Enable memory affinity by typing the following command: vmo -p -o memory\_affinity=1.
- 3. Give instance permissions to use resource sets:

chuser capabilities= CAP\_BYPASS\_RAC\_VMM,CAP\_PROPAGATE,CAP\_NUMA\_ATTACH db2inst1

4. Add the resource set name as the fifth column in db2nodes.cfg:

1	regatta	0	regatta	DB2/MLN1
2	regatta	1	regatta	DB2/MLN2
3	regatta	2	regatta	DB2/MLN3
4	regatta	3	regatta	DB2/MLN4
5	regatta	4	regatta	DB2/MLN5
6	regatta	5	regatta	DB2/MLN6
7	regatta	6	regatta	DB2/MLN7
8	regatta	7	regatta	DB2/MLN8

#### Linux example:

On Linux operating systems, the resourcesetname column defines a number that corresponds to a Non-Uniform Memory Access (NUMA) node on the system. The numactl system utility must be available in addition to a 2.6 kernel with NUMA policy support. Refer to the man page for numact1 for more information about NUMA support on Linux operating systems.

This example shows how to set up a four node NUMA computer with each logical node associated with a NUMA node.

- 1. Ensure that NUMA capabilities exist on your system.
- 2. Issue the following command:

```
$ numact1 --hardware
```

Output similar to the following displays:

available: 4 nodes (0-3) node 0 size: 1901 MB node 0 free: 1457 MB node 1 size: 1910 MB node 1 free: 1841 MB node 2 size: 1910 MB node 2 free: 1851 MB node 3 size: 1905 MB node 3 free: 1796 MB

- **3**. In this example, there are four NUMA nodes on the system. Edit the db2nodes.cfg file as follows to associate each Multiple Logical Node (MLN) with a NUMA node on the system:
  - 0 hostname 0 hostname 0 1 hostname 1 hostname 1 2 hostname 2 hostname 2 3 hostname 3 hostname 3

#### Solaris Operating Environment example:

Here is an example of how to set up the project for Solaris Version 9.

In this example, we have 1 physical node with 8 processors: one CPU will be used for the default project, three (3) CPUs will used by the Application Server, and four (4) CPUs for DB2. The instance name is db2inst1.

1. Create a resource pool configuration file using an editor. For this example, the file will be called pool.db2. Here's the content:

```
create system hostname
create pset pset default (uint pset.min = 1)
create pset db0_pset (uint pset.min = 1; uint pset.max = 1)
create pset db1_pset (uint pset.min = 1; uint pset.max = 1)
create pset db2_pset (uint pset.min = 1; uint pset.max = 1)
create pset db3 pset (uint pset.min = 1; uint pset.max = 1)
create pset appsrv pset (uint pset.min = 3; uint pset.max = 3)
create pool pool default (string pool.scheduler="TS";
     boolean pool.default = true)
create pool db0 pool (string pool.scheduler="TS")
create pool db1 pool (string pool.scheduler="TS")
create pool db2 pool (string pool.scheduler="TS")
create pool db3 pool (string pool.scheduler="TS")
create pool appsrv_pool (string pool.scheduler="TS")
associate pool pool default (pset pset default)
associate pool db0 pool (pset db0 pset)
associate pool db1 pool (pset db1 pset)
associate pool db2 pool (pset db2 pset)
associate pool db3 pool (pset db3 pset)
associate pool appsrv_pool (pset appsrv_pset)
```

2. Edit the /etc/project file to add the DB2 projects and appsrv project as follows:

```
system:0::::
user.root:1::::
noproject:2::::
default:3::::
group.staff:10::::
appsrv:4000:App Serv project:root::project.pool=appsrv_pool
db2proj0:5000:DB2 Node 0 project:db2inst1,root::project.pool=db0_pool
db2proj1:5001:DB2 Node 1 project:db2inst1,root::project.pool=db1_pool
db2proj2:5002:DB2 Node 2 project:db2inst1,root::project.pool=db2_pool
db2proj3:5003:DB2 Node 3 project:db2inst1,root::project.pool=db3_pool
```

- 3. Create the resource pool: # poolcfg -f pool.db2.
- 4. Activate the resource pool: # pooladm -c
- 5. Add the project name as the fifth column in db2nodes.cfg file:
  - 0 hostname 0 hostname db2proj0
    1 hostname 1 hostname db2proj1
    2 hostname 2 hostname db2proj2
    3 hostname 3 hostname db2proj3

#### **Related tasks:**

- "Updating the node configuration file (Linux and UNIX)" on page 248
- "Verifying port range availability on participating computers (Linux and UNIX)" on page 39

#### **Related reference:**

• "System environment variables" in *Performance Guide* 

### Updating the node configuration file (Linux and UNIX)

The node configuration file (db2nodes.cfg), located in the instance owner's home directory, contains configuration information that tells DB2 which servers participate in an instance of the partitioned database environment. A db2nodes.cfg file exists for each instance in a partitioned database environment.

The db2nodes.cfg file must contain one entry for each server participating in the instance. When you create an instance, the db2nodes.cfg file is automatically created and an entry for the instance-owning server is added.

For example, when you created the DB2 instance using the DB2 Setup wizard, on the instance-owning server ServerA, the db2nodes.cfg file is updated as follows:

0 ServerA

This task provides steps for updating the db2nodes.cfg file to include entries for participating computers.

#### **Prerequisites:**

- The DB2 application must be installed on all participating computers.
- A DB2 instance must exist on the primary computer.
- You must be a user with SYSADM authority.
- If you plan to use a high speed switch for communication between database partition servers or if your partitioned configuration will have multiple logical partitions, review the *DB2 node configuration file* topic for configuration examples and information about file format of db2nodes.cfg.

#### **Restrictions:**

The hostnames used in the steps of the Procedure section must be fully qualified hostnames.

#### **Procedure:**

To update the db2nodes.cfg file:

- 1. Log on as the instance owner (in our example, db2inst1 is the instance owner).
- 2. Ensure that the DB2 instance is stopped by entering:

INSTHOME/sqllib/adm/db2stop

where *INSTHOME* is the home directory of the instance owner (the db2nodes.cfg file is locked when the instance is running and can only be edited when the instance is stopped).

For example, if your instance home directory is /db2home/db2inst1, enter the following command:

/db2home/db2inst1/sqllib/adm/db2stop

**3**. Add an entry to the .rhosts file for each DB2 instance. Update the file by adding the following:

<hostname> <db2instance>

where <hostname> is the TCP/IP host name of the database server and <db2instance> is the name of the instance you use to access the database server.

4. Add an entry to the db2nodes.cfg file of each participating server. When you first view the db2nodes.cfg file, it should contain an entry similar to the following:

0 ServerA 0

This entry includes the database partition server number (node number), the TCP/IP host name of the server where the database partition server resides, and a logical port number for the database partition server.

If you are installing the partitioned configuration described in the installation overview, with four computers and a database partition server on each computer, the updated db2nodes.cfg should appear similar to the following:

- 0
   ServerA
   0

   1
   ServerB
   0

   2
   ServerC
   0

   3
   ServerD
   0
- 5. When you have finished updating the db2nodes.cfg file, enter the *INSTHOME*/sqllib/adm/db2start command, where *INSTHOME* is the home directory of the instance owner. For example, if your instance home directory is /db2home/db2inst1, enter the following command:

/db2home/db2inst1/sqllib/adm/db2start

6. Log out.

#### **Related reference:**

• "DB2 node configuration file - db2nodes.cfg" on page 243

# Enabling communications between database partition servers (Linux and UNIX)

This task describes how to enable communication between the database partition servers that participate in your partitioned database system. Communication between database partition servers is handled by the Fast Communications Manager (FCM). To enable FCM, a port or port range must be reserved in the /etc/services file on each computer in your partitioned database system.

#### **Prerequisites:**

You must have a user ID with root authority.

#### **Restrictions:**

You must perform this task on participating computers only. When you create an instance using the DB2 Setup wizard, a port range is automatically reserved on the primary (instance-owning) computer.

#### **Procedure:**

To enable communications between servers in a partitioned database environment:

- 1. Log on to the primary computer (instance owning computer) as a user with root authority.
- 2. View the default port range that has been reserved in the /etc/services file. In addition to the base configuration, the FCM ports should appear similar to the following:

db2inst1 50000/tcp #Add FCM port information DB2\_db2inst1 60000/tcp DB2\_db2inst1\_1 60001/tcp DB2\_db2inst1\_2 60002/tcp DB2\_db2inst1\_END 60003/tcp

By default, the first available four ports above 60000 are reserved. One port is for the instance-owning database partition server and three ports are for logical database partition servers that you might choose to add to the computer after installation is complete. DB2 port entries use the following format:

DB2\_instance\_name port\_number

where:

- *instance\_name* is the name of the partitioned instance.
- *port\_number* is the port number that you reserve for database partition server communications.
- **3**. In turn, log onto each participating computer as a root user and add identical entries to the /etc/services file.

You can add a comment to describe each entry using the # comment identifier. For example:

DB2\_db2inst1 60000/tcp # instance-owning partition port DB2\_db2inst1\_1 60001/tcp # logical partition port DB2\_db2inst1\_2 60002/tcp # logical partition port DB2\_db2inst1\_END 60003/tcp # logical partition port

#### **Related concepts:**

"Fast communications manager (Linux and UNIX)" on page 26

#### **Related reference:**

• "DB2 node configuration file - db2nodes.cfg" on page 243

### Enabling the execution of remote commands (Linux and UNIX)

You must update your .rhosts file in both a single-partition and partitioned database environment to execute remote commands.

In a partitioned database system, each database partition server must have the authority to perform remote commands on all the other database partition servers participating in an instance. This authority can be granted by updating the horts file in the home directory for the instance. Because the home directory for the instance is on the shared DB2 home file system, only one .rhosts file is required.

#### **Prerequisites:**

- You must have root authority.
- You must know the host name of each participating computer
- You must know the instance owner's user name.

#### Procedure:

- 1. Log onto the primary computer as a user with root authority.
- 2. Create a .rhosts file in the instance home directory. For example, if your instance home directory is /db2home/db2inst1, you can use a text editor to create the .rhosts file by entering the following command:

vi /db2home/db2inst1/.rhosts

**3**. Add entries to the .rhosts file for each computer including the primary computer. The .rhosts file has the following format:

hostname instance\_owner\_user\_name

Some systems might require a long host name to be specified, for example: ServerA.yourdomain.com. Before you add host name entries to the .rhosts file, make sure the host names in the /etc/hosts and the /etc/resolv.conf files can be resolved. The *INSTHOME*/.rhosts file should contain entries similar to the following:

ServerA.yourdomain.com db2inst1 ServerB.yourdomain.com db2inst1 ServerC.yourdomain.com db2inst1 ServerD.yourdomain.com db2inst1

Rather than specifying each host name individually, you can specify the following entry in the .rhosts file, but this action may pose a security risk and should only be done in a test environment.

+ db2inst1

If you have specified a high speed switch (netname) in the db2nodes.cfg file, you should also add netname entries for each computer to the .rhosts file. The netname values are specified in the fourth column of the db2nodes.cfg file. A .rhosts file with high speed switch (netname) entries may look similar to the following:

ServerA.yourdomain.com db2inst1 ServerB.yourdomain.com db2inst1 ServerC.yourdomain.com db2inst1 ServerD.yourdomain.com db2inst1 Switch1.yourdomain.com db2inst1 Switch2.yourdomain.com db2inst1 Switch3.yourdomain.com db2inst1 Switch4.yourdomain.com db2inst1

An alternative to using a .rhosts file is to use /etc/hosts.equiv file. The /etc/hosts.equiv file would contain the exact same entries as the .rhosts file, but must be created on each computer.

For more information about the .rhosts file or the /etc/hosts.equiv file, see your operating system documentation.

#### **Related tasks:**

- "Creating a DB2 home file system for a partitioned database system (AIX)" on page 40
- "Creating a DB2 home file system for a partitioned database system (HP-UX)" in *Quick Beginnings for DB2 Servers*
- "Creating a file system for a partitioned DB2 server (Linux)" on page 42
- "Creating a file system for a partitioned DB2 server (Solaris Operating Environment)" on page 43

Part 4. Appendixes

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