Release Bulletin
Enterprise Connect™ Data Access 12.6
for Linux and UNIX

Document ID: DC74921-01-1260-02

Last revised: September 2005

1. Accessing current release bulletin information

A more recent version of this release bulletin may be available on the Web. To check for critical product or document information added after the release of the product CD, use the Sybase® Technical Library Product Manuals Web site.

❖ **Accessing release bulletins at the Technical Library Product Manuals Web site**

1   Go to Product Manuals at http://www.sybase.com/support/manuals/.

2   Follow the links to the appropriate Sybase product.

3   Select the Release Bulletins link.

4   Select the Sybase product version from the Release Bulletins list.

5   From the list of individual documents, select the link to the release bulletin for your platform. You can either download the PDF version or browse the document online.

2. Product names and packaging

Before Sybase introduced Enterprise Connect ™Data Access (ECDA) 12.5, its options were sold as individual DirectConnect™ products named "DirectConnect for [target]." You will see the name "DirectConnect" used in the software and in documents. This document uses the old product names except for the title page. Past and current option names are as follows:

Table 1: Individual DirectConnect products/packaging

Old product name	Current option name
DirectConnect for DB2 UDB	Enterprise Connect Data Access Option for DB2 UDB

Old product name	Current option name
DirectConnect for Informix	Enterprise Connect Data Access Option for Informix
DirectConnect Manager	Part of each Enterprise Connect Data Access Option and still called DC Manager
DirectConnect for Microsoft SQL Server	Enterprise Connect Data Access Option for Microsoft SQL Server
DirectConnect for ODBC	Enterprise Connect Data Access Option for ODBC
DirectConnect for Oracle	Enterprise Connect Data Access Option for Oracle

3. About this release bulletin

This release bulletin for DirectConnect version 12.6 contains fixes and enhancements for the following DirectConnect products:

• DirectConnect for DB2 UDB

• DirectConnect for Informix

• DirectConnect for Microsoft SQL Server

• DirectConnect for ODBC

• DirectConnect for Oracle

In this release bulletin, any information that is specific to any DirectConnect product is noted.

4. Product summary for version 12.6

Enclosed are the DirectConnect version 12.6 products that are built on Open Client™ and Open Server™ version 12.5.1.

DirectConnect products are within the Enterprise Connect Data Access product set for UNIX, which consists of products that provide access to distributed data. For more information, see the Enterprise Connect Data Access *Overview Guide*.

In version 12.6, the following DirectConnect products are shipped:

• DirectConnect for DB2 UDB

• DirectConnect for Informix

• DirectConnect for Microsoft SQL Server

• DirectConnect for ODBC

- DirectConnect for Oracle

Server and client products are distributed on separate CDs.

4.1 Version contents

DirectConnect 12.6 includes the following:

- Program CD-ROMs

- Installation documentation and all product documentation on CD-ROM

- This release bulletin on CD-ROM

The following table shows the contents and product ID numbers for DirectConnect 12.6:

Table 2: DirectConnect 12.6 product set

Product/Documentation	Media	Product ID
Enterprise Connect Data Access Options for HP	CD-ROM	CD68547-55-1260-01
Enterprise Connect Data Access Options for Sun Solaris	CD-ROM	CD68121-55-1260-01
Enterprise Connect Data Access Options for IBM RISC/6000 AIX	CD-ROM	CD68125-55-1260-01
Enterprise Connect Data Access Options for Linux	CD-ROM	CD68127-55-1260-01
DirectConnect Client	CD-ROM	CD68122-55-1260-01
Technical Library	CD-ROM	CD30002-55-1260-01
Enterprise Connect Data Access *Installation Guide* for Linux and UNIX	Technical Library CD-ROM	DC39555-01-1260-01
Enterprise Connect Data Access and Mainframe Connect *Server Administration Guide* for DirectConnect	Technical Library CD-ROM	DC35365-01-1260-01
Enterprise Connect Data Access Options *User's Guide for Access Services*	Technical Library CD-ROM	DC38454-01-1250-01
Enterprise Connect Data Access Option for Oracle *Server Administration and User's Guide*	Technical Library CD-ROM	DC34201-01-1260-01
Release Bulletin Enterprise Connect Data Access for Linux and UNIX	This document	DC74921-01-1260-02

4.2 Hardware and software requirements

This section contains hardware and software requirements for DirectConnect on UNIX platforms, and DirectConnect Manager.

4.2.1 System requirements for UNIX platforms

Following are the minimum system requirements for HP, IBM AIX, Sun Solaris and Linux. The Software requirements section identifies required software for specific DirectConnect products.

Table 3: System requirements for UNIX platforms

Item	HP 9000(8xx)	RS/6000 AIX	Sun Solaris	Linux (DirectConnect for Oracle only)
CPU	An HP 9000/800	An IBM RISC System/6000	A Sun Solaris (SPARC) system	Linux Red Hat 2.1
RAM	Minimum of 64MB	Minimum of 64MB	Minimum of 64MB	Minimum of 64MB
Storage	A minimum of 300MB, plus at least 500KB for each *locale* you plan to support	Minimum of 300MB, plus at least 500KB for each *locale* you plan to support	Minimum of 300MB, plus at least 500KB for each *locale* you plan to support	Minimum of 300MB, plus at least 500KB for each *locale* you plan to support
Software requirements				
Platform requirements	Production release of HP 9000/800 and 900 HP-UX 11.23	Production release of AIX 5.3	Production release of Sun Solaris 2.9	Linux Red Hat 2.1
DirectConnect for ODBC	ODBC 3.5-compliant driver to access the targeted database, on the same platform where you are using DirectConnect for ODBC	ODBC 3.5-compliant driver to access the targeted database, on the same platform where you are using DirectConnect for ODBC	ODBC 3.5-compliant driver to access the targeted database, on the same platform where you are using DirectConnect for ODBC	N/A
DirectConnect for DB2 UDB	**Note** Only TCP/IP connectivity is currently supported for DB2 UDB.			N/A
DirectConnect for DB2 UDB (for AS/400 only)	For ISERIES servers running at operating system level 5VR2M0, you need to install the Program Temporary Fix (PTF) SF99502: 520 DB2 UDB for ISERIES.			N/A

4.2.2 System requirements for DirectConnect Manager

Following are minimum system requirements for DirectConnect Manager:

Table 4: DirectConnect Manager system requirements

Item	HP 9000(8xx)	RS/6000 AIX	Sun Solaris	Linux
CPU	An HP 9000/800	An IBM RISC System/6000	A Sun Solaris (SPARC) system	Linux Red Hat 2.1
RAM	Minimum of 64MB	Minimum of 64MB	Minimum of 64MB	Minimum of 64MB
Storage	Minimum of 300MB	Minimum of 300MB	Minimum of 300MB	Minimum of 300MB
Platform requirements	HP 9000/800 and 900, HP-UX 11.11 and 11.23	AIX 5.2 and 5.3	Sun Solaris 2.8 and 2.9	Linux Red Hat 2.1 and 3.0

5. Special installation and configuration instructions

The following special installation instructions either replace existing documented instructions or are new installation instructions that were created after the release of DirectConnect version 12.6:

- •   System environment files

- •   Null pointer exception during installation

- •   DirectConnect for Oracle (AIX only)

- •   Installing DirectConnect 12.6 with Open Client and Open Server 12.5

- •   Installing multiple products on the same machine

- •   Uninstalling from an environment that has multiple Sybase products

5.1 System environment files

For 12.6, to allow multiple DirectConnect installations on the same machine, Sybase provides the environment files; *$SYBASE/DC-12_6/DC_SYBASE.csh* and *$SYBASE/DC-12_6/DC_SYBASE.sh*. The *$SYBASE/SYBASE.csh* or *$SYBASE/SYBASE.sh* environment files are no longer used.

5.2 Null pointer exception during installation

A null pointer exception may occur when you install DirectConnect into ASE 12.5.3 or ESD #1 installations. If the DirectConnect installation fails with a Java null pointer exception error during the extraction of installation files, make the following adjustments.

❖   **To correct the installation**

1   Cancel the current DirectConnect installation.

2   Delete the *$SYBASE/_jvm_ECDA_Suite* directory created during installation.

3   Reinstall DirectConnect, selecting the Custom installation option.

4   During custom installation, deselect the ESQL/C and ESQL/COBOL options.

5.3 DirectConnect for Oracle (AIX only)

AS of this release of DirectConnect for Oracle, as with the previous version of DirectConnect for Oracle 12.5, you no longer need to have Oracle software installed on the machine where DirectConnect for Oracle is installed. However, on the AIX platform, the Async I/O must be installed on the machine prior to running DirectConnect for Oracle 12.6.

5.4 Installing DirectConnect 12.6 with ASE 15.0

As a result of incompatibilities with ASE 15.0, Sybase strongly recommends that you install the Enterprise Connect Data Access 12.6 options, including DirectConnect Manager, in their own product directory.

5.5 Installing DirectConnect 12.6 with Open Client and Open Server 12.5

If you are installing DirectConnect 12.6 into a directory that already has Open Client and Open Server 12.5 or earlier, you must do one of the following:

•   Uninstall Open Client and Open Server before installing DirectConnect 12.6,

    or

•   Install DirectConnect into a different directory than Open Client and Open Server 12.5.

5.6 Installing multiple products on the same machine

The following are tasks that you need to perform before you install any Sybase software into a directory in which Sybase software is already installed.

Create a backup   Create a backup of the existing installation directory and the environment
                               variable settings.

Overwrite existing files   When you install Sybase products into a directory that contains other Sybase
                               products, the installer overwrites existing files with the same name. If the files
                               on the system are newer than the ones being installed, the installer prompts you
                               to specify whether or not to overwrite the existing files. In most instances, you
                               want the newer version of the files and should choose not to overwrite newer
                               files.

5.7 Uninstalling from an environment that has multiple Sybase products

Uninstalling Sybase products from environments that contain multiple Sybase
products may affect operation of the remaining Sybase products. This occurs
because Sybase products frequently share modules or files, such as
Connectivity (files in the Sybase *OCS-12_5* directory), JVM (files in the
shared or *shared-1_0* directories), Language Modules, and Sybase Software
Access Management (SySAM.)

Shared files between
products

When you are uninstalling Sybase products from a directory that contains
multiple Sybase products, be aware that if you choose to uninstall one of the
products that share files, you may remove files that the remaining products
require and thus, cause the products to fail.

6. New functionality and software fixes in version 12.6

The following sections provide references to a new features document that
describes the new functionality, and lists the fixes for version 12.6.

6.1 New functionality

The new functionality is described in the Enterprise Connect Data Access *New
Features* 12.6 document.

6.2 DirectConnect use of Open Client and Open Server libraries

DirectConnect 12.6 has changed how it uses the Open Client and Open Server libraries. Although DirectConnect will continue to install the Open Client and Open Server libraries in the Sybase root directory (*SYBASE/OCS-12_5*), it will not use these libraries. Instead, it installs a copy of these libraries in the DirectConnect *DC_12_6/lib* directory, which allows DirectConnect to isolate these libraries from Open Client and Open Server updates and from other Sybase products. This ensures that the DirectConnect libraries are the same version as the libraries used for certification. The DirectConnect ESD installation process makes updates to these libraries.

6.3 Revised DirectConnect scripts

The DirectConnect scripts (*DCStart*, *AddServer*, *DCDirector*, *DC_SYBASE*) generated during installation have been simplified and improved. These scripts no longer rely on global shell environment variables; instead, they set environment variables based on the installation-generated file, *DC_SYBASE*.

Warning! The DirectConnect scripts use the *DC_SYBASE.csh* or *DC_SYBASE.sh* script and not the *SYBASE* script.

The scripts and installation program have been changed to prevent environment variable overruns or truncation (CR 325317). Sybase strongly recommends that you use the scripts for DirectConnect operations to ensure a proper operating environment.

Future versions of the DirectConnect installation program will not set global environment variables; they will require the use of supplied DirectConnect scripts for starting DirectConnect and *DCDirector*.

Note *Express Transfer and ODBC option users*: If you are using third-party ODBC drivers, including the Adaptive Server® Enterprise (ASE) ODBC driver, you may need to modify the *DC_SYBASE* script to contain the library search path information required by the third-party ODBC driver.

6.4 Software fixes

The following table lists the known problems that were fixed for DirectConnect version 12.6. The DirectConnect products affected are identified and each issue contains a description, resolution, and the associated Quality Tracking System (QTS) number.

Table 5: Description of software fixes

Product	Description	Resolution	QTS #
All DirectConnects	Adaptive Server® Enterprise/Component Integrated Services (ASE/CIS) was unable to delete all rows using cursors.	The sequence error that prevented all rows from being deleted has been resolved.	347653
DirectConnect for DB2 UDB only	A stored procedure with multiple results sets caused a fetch error.	Stored procedures now support multiple results sets.	369255
	A stored procedure output parameter had an incorrect value of *NULL* instead of an integer value.	A problem with DB2 output parameters has been corrected.	369807
	A request was made for Sybase to support AS/400 SQL stored procedures.	AS/400 SQL stored procedures are now supported.	226468
DirectConnect for Informix only	Select statements and other results-generating queries did not produce results against Informix tables containing VARBINARY columns.	This has been corrected.	275721
	Dynamic inserts into char columns on Informix failed because the UserDataType field of the CS_DATAFMT structure was not initialized.	The UserDataType field of the CS_DATAFMT structure is now initialized.	268278
	Attempts to perform bulk transfers of rows containing a NULL value datetime column failed.	This has been corrected, and it is now possible to perform bulk transfers of NULL value datetime columns.	241483
	When in sybase transformation mode, a failure occurred when inserting binary values preceded by an 0x.	This problem has been corrected, and it is now possible to insert binary values preceded by 0x, with or without quotation marks.	234250
DirectConnect for Microsoft SQL Server only	The SQL_GUID datatype caused failures.	The SQL_GUID datatype is now supported.	224420
	A null character data caused SQL statement truncation.	Null characters and binary zeros in SQL statement are stripped when the StripBinaryZero property is set.	291774

7. Known issues

Following are known issues with DirectConnect version 12.6:

- DirectConnect issues

- General issues

- Product-specific issues

Note For the most current information regarding the status of the known issues identified in this section, refer to the latest version of the *EBF README* file.

7.1 DirectConnect issues

The following table lists outstanding issues that apply to DirectConnect products. Each issue identifies specific hardware or operating system information, a workaround (if available), and the QTS assigned to it.

Known issues for specific DirectConnect products without QTS identifiers are described in sections following this table.

Table 6: Known issues for DirectConnect products

Product	Platform	Description	Workaround	QTS #
All DirectConnects except DirectConnect for Oracle	All	Express transfer does not support the transfer of char datatypes to and from decimal datatypes.	Convert query datatypes from char to decimal datatypes in the transfer query statement by using the SQL CAST function.	None
		Express transfer does not support the transfer of text datatypes to and from char datatypes.	Convert query datatypes from text to char datatypes in the transfer query statement by using the SQL CAST function.	
DirectConnect for DB2 UDB only	All	CLOB data is limited to 32K. BLOB datatype is not supported.	Use DirectConnect for z/OS.	None
	All	Using the AlternateID property to connect to the mainframe causes errors.	None.	385229
	All	DB2 varchar datatype larger than 255 characters is incorrectly reported as a varchar datatype by the sp_columns property.	None. (A fix is expected in 12.6 ESD #1.)	383494 385500
	All	Specifying host name as the IP Address will cause a failure on some Sun Solaris systems.	The IP Number must be specified as the IP Address.	None

7.2 General issues

Following are general issues that apply to all DirectConnect products, except DirectConnect for Oracle, and have no QTS identifier.

7.2.1 InstallShield errors (HP-UX only)

On HP-UX, errors are generated during the installation process that should be ignored. The installation process works correctly, but there is a problem with the installer that causes these error messages to be generated.

7.2.2 Service name redirection default value

The default *server.cfg* file does not give *snrf.tbl* as the default value. For a workaround, if you are using the default *snrf.tbl*, enter the following in the *server.cfg* file under the Client Interaction section:

```
ServiceRedirectionFile=snrf.tbl
```

7.3 Product-specific issues

Following are issues that apply to specific DirectConnect products and have no QTS identifiers.

7.3.1 DirectConnect for DB2 UDB

Following are issues relating to DirectConnect for DRDA.

Code page support

For code page conversions involving extended character sets, configure a DRDA Data Source Name (DSN) to match the code page of the DirectConnect client application by setting its IANAAppCodePage property to the client's code page.

DirectConnect for DB2 UDB supports code page translation for one code page for each DirectConnect for DB2 UDB service. To configure code page translation, add the following setting to the ODBC DSN configurations corresponding to your DirectConnect for DB2 UDB services:

• IANAAppCodePage – set this to the code page of the clients connecting to the DirectConnect for DB2 UDB service using this DSN entry. Unless you are using characters in the extended character set of the code page, a common code page (for example, 1252) is recommended.

For additional information, refer to the Enterprise Connect Data Access Options *User's Guide for Access Services*, in Chapter 2, "Configuring the Access Service Library for DirectConnect."

7.3.2 DirectConnect for Microsoft SQL Server

Following are issues relating to DirectConnect for Microsoft SQL Server.

Service Pack version

If your Microsoft SQL Server is not at Service Pack 3 or later, set QuotedIdentifiers=yes for the DSN entry for accessing Microsoft SQL Server.

NCHAR and NVARCHAR datatype support

Microsoft NCHAR and NVARCHAR datatypes are not supported but are translated to the single-byte character set of the operating system. Unicode characters that cannot be mapped are translated to a default character for the operating system.

7.3.3 DirectConnect for Oracle

Following are issues relating to DirectConnect for Oracle.

Default character set

If the default character set for DirectConnect for Oracle does not match that of ASE/CIS, and a writetext is issued to insert text, the text field is not converted as expected. For the us_english language, this should not be a problem, as the normal printing characters are the same in the supported character sets. For other languages, this can pose a problem.

The workaround is to make sure that ASE/CIS has the same default character set as DirectConnect for Oracle. For better performance, it is always best to use the same character set.

Joins with *char* and *varchar*

Joins between char columns and varchar columns might not return any rows. In addition, the query returns no rows when run directly against Oracle using SQLPLUS. However, running the query against Adaptive Server with the same data will return rows. The difference arises because Sybase and Oracle have different comparison rules when the columns are not all fixed length. The workaround is to alter the table definitions so the column definitions match.

Blank-padded comparisons

If a column *c1* of type char(5) has a value "a" inserted into it, the following SQL statement will not return any rows if the table is on an Oracle database:

    select...where c1 like "a"

Blank-padded comparison is not done by Oracle for arguments to like clauses. When executed against a table on Adaptive Server, the same SQL statement fetches the row.

Given the same setup, the following SQL statement returns the row when the table is on either Adaptive Server or Oracle:

    select...where c1 = "a"

When c1 = "a" is used, Oracle does blank-padded comparison.

8. Product compatibilities

DirectConnect products in version 12.6 are compatible with the following:

- Sybase Open Client 12.5.1 and later

- Adaptive Server 12.5 and later

- ASE/CIS 12.5 and later

- Sybase Replication Server® 12.6 and later

- jConnect™ for JDBC™ for 6.0 and later

- DirectConnect Manager 12.6 and later

9. Documentation updates and corrections

Following is a correction to the Enterprise Connect Data Access Option for Oracle *Server Administration and User's Guide*, Chapter 4, "Executing Remote Procedure Calls."

In the section titled, "RPCs passed to Oracle," replace the second paragraph with the following:

When DirectConnect for Oracle executes a stored program, it associates the actual and formal parameters by position. Therefore, when calling a subprogram using DirectConnect for Oracle, the parameters must be passed using positional notation or named notation.

Note Mixed notations, both positional and named, are not supported in a single Oracle procedure call.

10. Technical support

Each Sybase installation that has purchased a support contract has one or more designated people who are authorized to contact Sybase Technical Support. If you have any questions about this installation, or if you need assistance during the installation process, ask the designated person to contact Sybase Technical Support or the Sybase subsidiary in your area.

11. Other sources of information

Use the Sybase Getting Started CD, the SyBooks™ CD, and the Sybase Product Manuals Web site to learn more about your product:

•   The Getting Started CD contains release bulletins and installation guides in PDF format, and may also contain other documents or updated information not included on the SyBooks CD. It is included with your software. To read or print documents on the Getting Started CD, you need Adobe Acrobat Reader, which you can download at no charge from the Adobe Web site using a link provided on the CD.

•   The SyBooks CD contains product manuals and is included with your software. The Eclipse-based SyBooks browser allows you to access the manuals in an easy-to-use, HTML-based format.

    Some documentation may be provided in PDF format, which you can access through the PDF directory on the SyBooks CD. To read or print the PDF files, you need Adobe Acrobat Reader.

    Refer to the *SyBooks Installation Guide* on the Getting Started CD, or the *README.txt* file on the SyBooks CD for instructions on installing and starting SyBooks.

- The Sybase Product Manuals Web site is an online version of the SyBooks CD that you can access using a standard Web browser. In addition to product manuals, you will find links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, newsgroups, and the Sybase Developer Network.

  To access the Sybase Product Manuals Web site, go to Product Manuals at http://www.sybase.com/support/manuals/.

11.1 Sybase certifications on the Web

Technical documentation at the Sybase Web site is updated frequently.

❖ **Finding the latest information on product certifications**

1 Point your Web browser to Technical Documents at http://www.sybase.com/support/techdocs/.

2 Select Products from the navigation bar on the left.

3 Select a product name from the product list and click Go.

4 Select the Certification Report filter, specify a time frame, and click Go.

5 Click a Certification Report title to display the report.

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1 Point your Web browser to Technical Documents at http://www.sybase.com/support/techdocs/.

2 Click MySybase and create a MySybase profile.

11.2 Sybase EBFs and software maintenance

❖ **Finding the latest information on EBFs and software maintenance**

1 Point your Web browser to the Sybase Support Page at http://www.sybase.com/support.

2 Select EBFs/Maintenance. If prompted, enter your MySybase user name and password.

3 Select a product.

4   Specify a time frame and click Go. A list of EBF/Maintenance releases is displayed.

Padlock icons indicate that you do not have download authorization for certain EBF/Maintenance releases because you are not registered as a Technical Support Contact. If you have not registered, but have valid information provided by your Sybase representative or through your support contract, click Edit Roles to add the "Technical Support Contact" role to your MySybase profile.

5   Click the Info icon to display the EBF/Maintenance report, or click the product description to download the software.