# Release Bulletin Enterprise Connect<sup>™</sup> Data Access 12.6.1 for Linux and UNIX

Document ID: DC74921-01-1261-02

Last revised: June 2006

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# 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 product release, use the Sybase® Product Manuals Web site.

#### \* Accessing release bulletins at the Sybase 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<sup>™</sup> Data Access (ECDA) 12.5, its options were sold as individual DirectConnect<sup>™</sup> 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:

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

Table 1: Individual DirectConnect products/packaging

# 3. About this release bulletin

This release bulletin for DirectConnect version 12.6.1 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 a DirectConnect product is noted.

# 4. Product summary for version 12.6.1

Enclosed are the DirectConnect version 12.6.1 products that are built on Open Client<sup>TM</sup> and Open Server<sup>TM</sup> 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 12.6.1, the following DirectConnect products are shipped:

- DirectConnect for DB2 UDB (supports access to DB2 UDB on z/OS, AS/400, Microsoft Windows, and UNIX platforms)
- DirectConnect for Informix
- DirectConnect for Microsoft SQL Server
- DirectConnect for ODBC
- DirectConnect for Oracle

Server and client products are distributed on separate CDs.

**Note** Starting with ECDA 12.6, DirectConnect for AS/400, which provided SNA-based access to DB2 UDB for AS/400, is no longer supported. However, access to DB2 UDB on AS/400 is now provided through TCP/IP with the ECDA Option for DB2 UDB.

## 4.1 Version contents

DirectConnect 12.6.1 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 12.6.1.

Table 2. Direct Connect 12.0.1 product Set				
Product/Documentation	Media	Product ID		
Enterprise Connect Data Access Options for Sun Solaris	CD-ROM	CD68121-55-1261-01		

#### Table 2: DirectConnect 12.6.1 product set

Product/Documentation	Media	Product ID
Enterprise Connect Data Access Options for IBM RISC/6000 AIX	CD-ROM	CD68125-55-1261-01
Enterprise Connect Data Access Options for Linux	CD-ROM	CD68127-55-1261-01
DirectConnect Clients	CD-ROM	CD68122-55-1261-01
SyBooks <sup>TM</sup>	CD-ROM	CD30002-55-1260-01
Enterprise Connect Data Access Installation Guide for Linux and UNIX	SyBooks <sup>TM</sup> CD-ROM	DC39555-01-1260-01
Enterprise Connect Data Access and Mainframe Connect <i>Server</i> <i>Administration Guide</i> for DirectConnect	SyBooks CD-ROM	DC35365-01-1260-01
Enterprise Connect Data Access Options User's Guide for Access Services	SyBooks CD-ROM	DC38454-01-1250-01
Enterprise Connect Data Access Option for Oracle Server Administration and User's Guide	SyBooks CD-ROM	DC34201-01-1260-01
<i>Release Bulletin</i> for Enterprise Connect Data Access for Linux and UNIX	This document	DC74921-01-1261-02

## 4.2 Hardware and software requirements

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

**Warning!** On Linux and UNIX platforms, DirectConnect customers must use only the DataDirect ODBC Drivers that Sybase provides and may not use third-party ODBC drivers. This requirement is due to licensing restrictions. An exception: for the ECDA Option for ODBC, customers may use any DataDirect driver.

#### 4.2.1 System requirements for UNIX platforms

Following are the minimum system requirements for HP, RISC/6000 AIX, Sun Solaris, and Linux. The software requirements section identifies required software for specific DirectConnect products.

	Tuble 5: 0)	stem requirements i		
ltem	HP 9000(8xx)	RS/6000 AIX	Sun Solaris	Linux
CPU	An HP 9000/800	An IBM RISC	A Sun Solaris	Intel-compatible
		System/6000	(SPARC) system	
RAM		Minimum	of 256MB.	
Storage	Minimum of 3	00MB, plus at least 500	KB for each <i>locale</i> you	plan to support.
Software requir	rements			
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 3.0
DirectConnect for ODBC	ODBC 3.5-compliant are using DirectConne	driver to access the target for ODBC.	eted database, on the sar	ne platform where you
DirectConnect for DB2 UDB	Note Onl	y TCP/IP connectivity is	currently supported for	DB2 UDB.
DirectConnect for DB2 UDB (for AS/400 only)		unning at operating syst ix (PTF) SF99502: 520	•	

Table 3: System requirements for UNIX platforms

## 4.2.2 System requirements for DirectConnect Manager

Following are minimum system requirements for DirectConnect Manager:

			• • •	
ltem	HP 9000(8xx)	RS/6000 AIX	Sun Solaris	Linux
CPU	An HP 9000/800	An IBM RISC System/6000	A Sun Solaris (SPARC) system	Intel-compatible
RAM		Minim	um of 256MB	
Storage		Minimu	n of 75-100MB	
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 3.0

#### Table 4: DirectConnect Manager system requirements

# 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:

- New backend ODBC Drivers
- System environment files

- Installing OS-specific runtime library (Linux only)
- Creating licenses with SySAM 1 or SySAM 2
- DirectConnect for Oracle (AIX only)
- Installing DirectConnect 12.6.1 with ASE 15.0
- Installing DirectConnect 12.6.1 with Open Client and Open Server 12.5
- Configuring the data source for DB2 UDB targets
- Installing multiple products on the same machine
- Uninstalling from an environment with multiple Sybase products
- Uninstalling from an environment with ECDA Options and DirectConnect for z/OS
- ESD installation process warning (UNIX only)

## 5.1 New backend ODBC Drivers

This release includes a new version of the backend ODBC drivers for DB2 UDB (DRDA), Microsoft SQL Server, and Informix. The installation process will not delete the previous version of these drivers, because the new versions are named differently. However, version 12.6.1 of DirectConnect will not work with previous versions of the drivers or driver manager.

Sybase recommends that you use the new *odbc.ini* (or *odbc.ini.NEW* if an *odbc.ini* already exists) generated during the installation.

For all drivers\*, the driver property should point to the new drivers:

- MVmsssaa21 (Microsoft SQL Server wire protocol)
- MVdb2aa21 (DB2 UDB (DRDA))
- MVifclaa21 (Informix wire protocol)

\* The trace DLL should be *odbctracaa*.

## 5.2 System environment files

For version 12.6 and later, to allow multiple DirectConnect installations on the same machine, Sybase provides the following environment files: \$SYBASE/DC-12\_6/DC\_SYBASE.csh and \$SYBASE/DC-12\_6/DC\_SYBASE.sh.

**Note** The *\$SYBASE/SYBASE.csh* or *\$SYBASE/SYBASE.sh* environment files are no longer used.

## 5.3 Installing OS-specific runtime library (Linux only)

(CR426135) On the Linux platform, DirectConnect is built as a 32-bit application. To run DirectConnect on a 64-bit machine, you must install the OS-specific, 32-bit runtime C++ library in */usr/lib*. The runtime C++ library required is *libstdc*++.so.

If the runtime library is not found by the runtime linker, DirectConnect fails to start and an error message occurs similar to the following:

/usr/lib/dld.sl: Can't open shared library: /opt /hp-gcc/3.3.6/ilp32/lib/libstdc++.sl.5 /usr/lib/dld.sl: No such file or directory

## 5.4 Creating licenses with SySAM 1 or SySAM 2

To enter licenses for the ECDA products using SySAM 1 or SySAM 2, you must create a SYSAM license file.

#### \* To create a SYSAM license file

- 1 Go to the *\$SYBASE/DC-12\_6\install\sysam\_utils* directory, or for Oracle, go to the *\$SYBASE/DCO-12\_6\install\sysam\_utils* directory.
- 2 Run the *dc\_lmgr* script.
- 3 Enter your licenses and click OK.

A license file is created based on one of the following conditions:

• If a *SYSAM-1\_0* directory exists in the installation parent directory, a *license.dat* file is created and updated in the *\$SYBASE/SYSAM-1\_0* /*licenses* directory.

- If a SYSAM-2\_0 directory exists in the installation parent directory, a SYBASE\_DC\_License.lic file is created and updated in the \$SYBASE/SYSAM-2\_0\licenses directory.
- If both SYSAM-1\_0 and SYSAM-2\_0 directories exist in the parent directory, only the SYSAM-2\_0 License file is created or updated.

The following are the locations for the *lmutil* scripts:

• For SySAM 1.0:

\$SYBASE/SYSAM-1\_0/bin

For SySAM 2.0:

\$SYBASE/SYSAM-2\_0/bin

## 5.5 DirectConnect for Oracle (AIX only)

With this release of DirectConnect for Oracle (as with the previous version of DirectConnect for Oracle), you no longer need to install Oracle software on the machine where DirectConnect for Oracle is installed. However, on the AIX platform, the Async I/O must be installed on the same machine before running DirectConnect for Oracle 12.6.1.

## 5.6 Installing DirectConnect 12.6.1 with ASE 15.0

As a result of incompatibilities with Adaptive Server Enterprise (ASE) 15.0, Sybase strongly recommends that you install the Enterprise Connect Data Access 12.6.1 options, including DirectConnect Manager, in their own product directory.

ASE 15.0 includes new major versions of ASE and many of the common supporting components shared by other products. All other current Sybase products (for example, Replication Server® 12.6 or Enterprise Connect Data Access 12.6.1) contain earlier versions of those same components. Installing ASE 15.0 into the same directory with existing products should not impact the existing products. However, installing other products *after* ASE 15.0 may result in one or more products not working correctly. Sybase recommends that you install ASE 15.0 into its own directory, if possible. When ASE cannot installed into a separate directory (for example, on Windows) and when other products must be installed into the same directory, install ASE 15.0 as the *last* product.

# 5.7 Installing DirectConnect 12.6.1 with Open Client and Open Server 12.5

If you are installing DirectConnect 12.6.1 into a directory that already has Open Client<sup>TM</sup> and Open Server<sup>TM</sup> 12.5 or earlier, you must do one of the following:

• Uninstall Open Client and Open Server before installing DirectConnect 12.6.1,

or

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

## 5.8 Configuring the data source for DB2 UDB targets

(CR397278) When you configure the data source to connect to DB2 UDB targets, specify the following parameters in the Bind parameter:

- Package Collection Enter the collection or location name where the driver creates the bind packages and searches for them when required. The default is NULLID.
- Package Owner (optional) Enter the AuthID assigned to the package. The DB2AuthID must have authority to execute all the SQL commands in the package.

## 5.9 Installing multiple products on the same machine

The following are tasks that you need to perform before you install any Sybase<br/>software into a directory in which Sybase software is already installed.Create a backupCreate a backup of the existing installation directory and the environment<br/>variable settings.Overwrite older<br/>existing filesWhen you install Sybase products into a directory that contains other Sybase<br/>products, the installation program overwrites existing files with the same<br/>name. However, if the files on the system are newer than those being installed,<br/>the installation procedure prompts you to specify whether or not to overwrite<br/>the existing files. In most instances, you want the *newer* version of the system<br/>files and should choose not to overwrite them.

# 5.10 Uninstalling from an environment with 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 <i>OCS-12_5</i> directory), JVM files (in the <i>shared</i> or <i>shared-1_0</i> directories), language modules, and SySAM files.
Shared files between products	When you are uninstalling Sybase products from a directory that contains multiple Sybase products, be aware that you may remove files that other products require. Therefore, if you uninstall one of the products that share files, you may remove files that the remaining products require and cause the products to fail.

# 5.11 Uninstalling from an environment with ECDA Options and DirectConnect for z/OS

To uninstall when an Enterprise Connect Data Access Option and a DirectConnect for z/OS are installed, you must uninstall the products in *reverse order* of how they were installed. This is due to a problem with the uninstall procedure.

**Note** Following the uninstall procedure, you may need to manually delete files that may not have been removed.

## 5.12 ESD installation process warning (UNIX only)

When you install a DirectConnect ESD, only the *standard-named* service libraries are upgraded. You must check to see if there are any custom-named service libraries in the *\$SYBASE/\$SYBASE\_ECON/svclib* directory, and if there are, you must do the following:

- Run trscopy again, or
- Copy the *standard library* file to the *custom library* files.

# 6. Software fixes in version 12.6.1

The following sections describe the fixes for version 12.6.1.

## 6.1 DirectConnect use of Open Client and Open Server libraries

(CR381977) Starting with version 12.6.1, DirectConnect 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 *\$SYBASE/OC-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 updates these libraries.

## 6.2 Revised DirectConnect scripts

The DirectConnect scripts (*DCStart*, *AddServer*, *DCDirector*, *DC\_SYBASE*) generated during installation have been simplified and improved. The 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—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 DirectConnect Installation programs will not set global environment variables, and will require the use of supplied DirectConnect scripts for starting DirectConnect and DCDirector.

## 6.3 Changing administrator IDs in DirectConnect Manager

(CR390680 & CR 390830) The ability for you to add, delete, and alter administrator user IDs to DirectConnect from DirectConnect Manager has been added to DirectConnect Manager 12.6.1.

Sybase recommends that for directed DirectConnect servers, the administrator user IDs and passwords must be consistent between the Director and its directed DirectConnect servers. If not consistent, the login information must be entered repeatedly for each server as they access it. Although this is feasible and works well, it may become cumbersome and reduce the value of using the DCDirector. If you choose to use different UID/PWD combinations across servers, you can save this information on your local machine by selecting the Permanent Connection option on the login dialog box. This may reduce the impact of using different UID/PWD combinations somewhat, but it reduces security.

**Note** If DirectConnect Manager 12.6.1 is used with pre-12.6.1 DirectConnect servers, the ability to alter an administrator properties has been disabled. To alter the properties of the administrator in a pre-12.6.1 DirectConnect server, you must drop and re-enter the administrator user ID with the proper property values.

## 6.4 Software fixes

The following table lists the known problems that were fixed for DirectConnect version 12.6.1. The DirectConnect products affected are identified, and each issue contains a description, a resolution, and the associated Quality Tracking System (QTS) number.

Product	Description	Resolution	QTS #
DirectConnect for ODBC only	The odbct test utility did not work in the bourne shell.	Corrected DC_SYBASE.sh.	420665
	Column names containing "\$" were not correctly SQL transformed.	SQL transformation now supports "\$" in column names.	417800
	A template transfer using a stored procedure failed.	Sybase now supports stored procedures in template transfer.	416251

 Table 5: Description of software fixes

Product	Description	Resolution	QTS #
DirectConnect for DB2 UDB only	Incorrect date formatting occurred with only 3-digit years.	Dates are correctly formatted with all 4 digits.	421328
	The sp_who stored procedure caused a segmentation fault.	Result handling was corrected to allow zero row result set for DB2 targets.	420094
	The sp_tables stored procedure with an owner name starting with "@" failed.	Sybase now supports owner names starting with "@" in sp_tables and other catalog stored procedures.	415687
	SQL statements containing SUBSTRING would not change or be transformed to SUBSTR.	SUBSTR is now used for DB2 targets.	402619
	The ASE/CIS cursor date parameter was bound as datetime datatype.	The date datatype parameter is now bound as date datatype.	402362
	Revoked user ID caused the system to fail.	The ODBC driver now returns an error for a revoked user ID.	392025
	Using the AlternateID property to connect to the mainframe caused errors.	This has been corrected.	385229
	The Varchar (2048) proxy table failed. Also, bulk transfer had problems with varchar (2048).	The driver problem with reporting long characters has been fixed.	383500 377053
DirectConnect for DB2 UDB only	A DB2 varchar datatype larger than 255 characters was incorrectly reported as a varchar datatype by the sp_columns property.	This has been corrected.	383494 385500
	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	Support for quoted identifiers to ASE/CIS was incorrectly reported.	Quoted identifiers are now identified as not supported.	424820 323126
	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 0x.	This problem has been corrected, and it is now possible to insert binary values preceded by 0x, with or without quotation marks.	234250

Product	Description	Resolution	QTS #
DirectConnect for Microsoft	WCHAR columns caused a failure in sp_columns.	WCHAR columns are now supported in sp_columns.	417657
SQL Server only	ReturnNativeError = yes returned an error message instead of a Microsoft SQL error message.	ReturnNativeError = yes now returns a Microsoft SQL error message.	404658
	Null text column result failed when tracing was set to "on."	The method of sending null result value was changed.	401899
	The NTEXT datatype mapped incorrectly through ASE/CIS.	sp_columns was adjusted for NTEXT datatype and XNL settings.	392089
	Conflicting datatype was returned in sp_columns when mapping unicode to text.	The problem in sp_columns was fixed for both cspcolumnODBCVersion = $2$ and $3$ .	354091
	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 now stripped when the StripBinaryZero property is set.	291774
DirectConnect Manager	A Java exception occurred when the DCON/Oracle userID was not the DCON/Oracle admin.	This has been corrected.	393601
	The security of using a fixed userid=sa and password=null was too weak.	The user ID and password is now configurable.	390680 390830

# 7. Known issues

Following are known issues with DirectConnect version 12.6.1:

- 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 ESD *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 are described in the table and the following sections.

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.	Use the SQL CAST function to convert query datatypes from char to decimal datatypes in the transfer query statement.	None.
	All	Express transfer does not support the transfer of text datatypes to and from char datatypes.	Use the SQL CAST function to convert query datatypes from text to char datatypes in the transfer query statement.	None.
	Linux	When executing a bulk transfer on the Linux platform, DirectConnect may report LONGCHAR errors and abort the transfer. When transferring character data through a Linux-based DirectConnect ECDA to an ASE 15.0, the transfer of char columns may fail. This results from a charset incompatibility between the Linux platform-based DirectConnect and ASE. The transfer may be attempting to move UTF-8 double-byte data into an ASE configured for single-byte characters like iso_1 or cp_850.	Correct his problem by setting the Linux \$LANG variable to the desired name value found in the <i>locales.dat</i> file.	None.
DirectConnect for DB2 UDB only	All	CLOB data is limited to 32K. BLOB datatype is not supported.	Use DirectConnect for z/OS.	None.
	All	Specifying the host name as the IP Address causes a failure on some Sun Solaris systems.	You must specify the IP Number as the IP Address.	None.

Table 6: Known issues for DirectConnect products

Product	Platform	Description	Workaround	QTS #
DirectConnect for Microsoft SQL Server	All	An update of read-only cursors fails to return errors against Microsoft SQL Server 2005.	None.	425343
	All	ASE/CIS is not correctly mapped to the correct datatype, resulting in insert failures.	None.	275506

## 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 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 InstallShield issues

This section contains issues that pertain to InstallShield.

#### 7.3.1 InstallShield errors (HP-UX only)

On HP-UX, two types of error messages that occur during installation can be ignored and have no impact on the InstallShield installation:

- When in GUI mode, the installation procedure displays "gif file not found" messages in the console before the GUI interface is displayed.
- When you create a response file for silent installations the installation procedure displays "Illegal character '8' in encoding name" messages. These error messages have no effect on the functionality of the response file created and on a successful silent installation. Additionally, some of the comments inserted into the response file are not formatted correctly and can also can be ignored.

#### 7.3.2 Uninstall function not removing all DirectConnect files

When you use InstallShield's uninstall function, it does not remove all the DirectConnect server files. Be sure to verify the files and manually remove any that remain.

**Note** The *locales* file, the *charsets* directory, and any file that was created following the installation is not removed by the uninstall procedure.

## 7.4 Software fixes in version 12.6.1

The following sections provide fixes for version 12.6.1.

#### 7.4.1 DirectConnect use of Open Client and Open Server libraries

DirectConnect 12.6 and later 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*, or the 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. Updates to these libraries are made through the DirectConnect installation process.

#### 7.4.2 Changing Administrator IDs in DirectConnect Manager

(CR390680 & CR 390830) The ability to add, delete and alter Administrator user IDs to DirectConnect from DirectConnect Manager has been added to DirectConnect Manager 12.6.1.

Sybase recommends that for directed DirectConnect servers, the Administrator user IDs and passwords must be consistent between the Director and its directed DirectConnect servers. If not consistent, the login information must be entered repeatedly for each server as they access it. While this is feasible and works well, it may become cumbersome and reduce the value of using the DCDirector. If you choose to use different UID/PWD combinations across servers, this information can be saved on your local machine by selecting the permanent connection option on the login dialog box. This may reduce the impact of using different UID and PWD combinations somewhat, but it reduces security.

**Note** If DirectConnect Manager 12.6.1 is used with pre-12.6.1 DirectConnect servers, the ability to alter an administrator properties has been disabled. To alter the properties of the administrator in a pre-12.6.1 DirectConnect server, the administrator user ID must be dropped and re-added with the proper property values.

#### 7.4.3 Software fixes

The following sections describe the software fixes in version 12.6.1.

#### **Revised DirectConnect scripts**

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

**Warning!** DirectConnect scripts use the *DC\_SYBASE* 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, and 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 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.

#### Known issues fixed for 12.6.1

The following table lists the known problems that were fixed for DirectConnect version 12.6.1. Each issue has a description, resolution, and the associated Quality Tracking System (QTS) number.

Description	Resolution	QTS #
The trscopy utility fails on Windows 2003.	The trscopy utility was rewritten to support Windows 2003.	422693
Request to add tracing where the hex data stream from CICS to DirectConnect TRS or DirectConnect for DB2 is written out to a trace file with a timestamp showing milliseconds.	Tracing was enhanced to display milliseconds.	405792
The LU62 service crashes when an attention misses the end of a result set.	This problem has been fixed.	405787
Installation issues occurred when creating soft links for SNA stub for non-SNA box.	This problem has been fixed.	394681
System crashes resulted when the client application times out and ASE/CIS requested a transaction count.	The null client connection is now checked, and connection to the target is terminated.	391101
When MFC was configured to send back TEXT for LongVarChar, it resulted in a TDS token error message.	Software was changed to check for text data.	364771
The RSP ailed to return large char and text from the RSP.	Added RSP large text and char processing.	363443

Table 7: Description of software fixes

## 7.5 Product-specific issues

Following are issues that apply to specific DirectConnect products.

### 7.5.1 DirectConnect for DB2 UDB

Following are issues relating to DirectConnect for DB2 UDB.

#### 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.

For additional information, refer to the Enterprise Connect Data Access Options *User's Guide for Access Services*, Chapter 2, "Configuring the Access Service Library for DirectConnect," in the section titled, "Code page translation for ODBC-based products."

### 7.5.2 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.

## 7.5.3 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, because 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.

#### Language and character set settings

(CR 401934) DirectConnect for Oracle has multiple settings that correspond to the character set and language setting, which can set in many ways. However, you must keep the character set setting consistent with the charset, languages, and charset settings.

If the configuration parameter charset is set to *Sybase iso\_1*, the mapping coded in the "charsets" stanza must be mapped to Oracle's equivalent character set, which is *we8iso8859p1*. In addition, this setting must also be reflected in the "languages" stanza by including the *we8iso8859p1* in the Oracle charset setting. If these are not set consistently, when a character is used that is contained in either the Sybase or Oracle character set and not in the other, you may receive an "ORA-00911: invalid character" message.

DirectConnect for Oracle converts the incoming client characters to the charset setting, which should match that of the Oracle setting. When characters are returned to the DirectConnect for Oracle client, they are converted back to the client's character set setting.

The language setting corresponds to the language in which the local DirectConnect for Oracle error messages are returned. The setting for Oracle Language and Territory coded in the languages stanza is the language in which the Oracle-defined error messages will be sent back to the client. All attempts must be made to make sure the language settings match.

#### 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 the 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"

Oracle does not make blank-padded comparison for arguments to like clauses. However, 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 performs blank-padded comparisons.

#### Admin Service user.pwd file

The Admin Service of DirectConnect 12.6.1 has been changed to read and write encrypted passwords to the *user.pwd* file. Earlier versions of *user.pwd* files are not supported with DirectConnect 12.6.1 and will result in administrator login failures. To fix this problem, you must re-enter the administrator IDs and passwords from earlier installations to the new Admin Service.

#### Multiple services having different admin user IDs and passwords causes an error

(CR429661) DirectConnect Manager fails with a null pointer exception when two DirectConnect for Oracle services have different admin user IDs or passwords.

The problem is in DirectConnect for Oracle, a result of the admin login security being controlled by the remote Oracle database defined in the service connection string. When multiple services connect to different Oracle servers and each of those Oracle database logins are different, the login to the remote Oracle database server fails when the service is clicked on.

*Workaround*: If multiple DirectConnect for Oracle services connect to different Oracle databases, verify that the Oracle user ID and password is common to all Oracle databases.

# 8. Product compatibilities

DirectConnect products in version 12.6.1 are compatible with the following:

- Sybase Open Client 12.5.1 and later
- Adaptive Server 12.5 and later
- Sybase Replication Server® 12.6 and later
- jConnect<sup>TM</sup> for JDBC<sup>TM</sup> for 6.0 and later

• DirectConnect Manager 12.6 and later

## 9. Documentation updates and corrections

This section describes additions and revisions to the DirectConnect 12.6 documents to reflect issues in version 12.6.1.

## 9.1 Enterprise Connect Data Access Installation Guide

Following are document revisions for Chapter 4.

#### 9.1.1 Chapter 4, Installing DirectConnect

The following are revisions to Chapter 4:

• In the "Installing DirectConnect in GUI mode" section, add the following for Linux in step 2:

For Linux, enter:

./setupLinux

• In the "Installing DirectConnect in console mode" section, add the following for Linux in step 1:

For Linux, enter:

./setupLinux -console

• (For AIX only) In the "Setting up and verifying your environment" section, correct the path for AIX from LIB\_PATH to LIBPATH.

# 9.2 ECDA Option for Oracle Server Administration and User's Guide

Following are documentation revisions for each chapter.

#### 9.2.1 Chapter 2, Configuring and Operating DirectConnect for Oracle

Following are datatypes that were added and revised for version 12.6.1.

#### timestamp\_tz\_format

A new datatype, a timestamp with timezone format (timestamp\_tz\_format), normalizes the data value returned to the timezone of DirectConnect for Oracle. The new timestamp\_tz\_format default value is "MON DD YYYY HH:MI:SS.FFAM TZH:TZM" and is independent of the timestamp millisecond support configuration parameter.

The Oracle timestamp with timezone datatype is sent back to the client as a character string and is formatted depending on the following conditions:

- If the client is a non-CIS client and the timestamp\_tz\_format was changed, the new format is used.
- If the client is a non-CIS client and the timestamp\_tz\_format was not changed, the default format is used.
- If the client is a CIS client, the character string is returned using the default format.

In CIS, to map a proxy table to an existing Oracle table that contains a column with the timestamp\_tz\_format datatype, the create proxy\_table command will map the column to a char (64). If the create existing table command is used, a char (64) must be specified for the column representing the timestamp\_tz\_format.

#### date\_format and timestamp \_format settings

(CR 415010) Two configuration property settings, date\_format and timestamp\_format, are reserved for all DirectConnect for Oracle client connections in passthrough mode (such as isql), which excludes ASE/CIS clients.

#### 9.2.2 Chapter 3, Reference Topics for Oracle

In the section titled, "Lightweight Directory Access Protocol (LDAP)," add the following information for Windows.

#### \* To set up LDAP for Windows

1 In the *\$SYBASE\_SYBASE\_OCS/ini* directory, create a *libtcl.cfg* file and add the following lines under [DIRECTORY]:

; This is the sample Net-Library configuration file
which
; shows how to specify the different types of drivers
that
; will be used by Client-Library and Server-Library

```
; applications.
;
; This is the sample for NT platforms.
;
```

#### [DRIVERS]

NLWNSCK=TCP Sockets NLWNSCK=TCP/IP Sockets

#### [NT\_DIRECTORY]

ldap=libdldap ldap://

#### [SECURITY]

;NTLM=LIBSMSSP

[FILTERS]

;SSL=LIBFSSL

**Warning!** The LDAP URL under the [NT\_DIRECTORY] must be on a single line.

2 Set the following Sybase environment variables:

```
set SYBASE=d:/as125_IR
set SYBASE_TCL_CFG=d:/as125_IR/
OCS-12_5/ini/libtcl.cfg
set SYBASE_OCS=OCS-12_5
set PATH=$SYBASE;$SYBASE/$SYBASE_OCS/dll;
$SYBASE/$SYBASE_OCS/lib3p;$SYBASE
/$SYBASE_OCS/lib;
$SYBASE/$SYBASE_OCS/ini;$SYBASE/$SYBASE_OCS
/bin;$PATH
```

3 Add your server entry to the LDAP server:

\$SYBASE/\$SYBASE\_OCS/bin/dsedit

- 4 Add an entry for your server into the LDAP server, following the same steps that you would for an Adaptive Server Enterprise server. Refer to the Adaptive Server Enterprise *Utility Guide* for more information about using dsedit.
- 5 To test the new setup, isql into the server without using the *sql.ini* file.

#### 9.2.3 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, pass the parameters using positional notation or named notation.

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

## 9.3 ECDA User's Guide for Access Services

Following are document revisions for each chapter.

## 9.3.1 Chapter 2, Configuring the Access Service Library for DirectConnect

Following are configuration properties that were added for version 12.6.1.

#### DisableROLock (for MSSQL only)

of
an

Value	• <i>character string</i> is the configured string that is to be removed from the beginning of the incoming language string. It must match the incoming language string exactly, including case and spaces.	
TransferBatch		
	Sets the number of rows DirectConnect will send and fetch in one batch into the receive buffer. It is part of the Transfer subsection of properties.	
Syntax	TransferBatch= <i>integer</i>	
Default	1 (one)	
Value	• <i>integer</i> is the number of rows that DirectConnect will send and fetch in one batch to ASE.	
	• <i>l</i> (one) is the default value.	
TransferBatchSeparator		
	(CR396955) Delimits the statements in batch. It is part of the Transfer subsection of properties.	
Syntax	TransferBatchSeparator=; (semicolon)	
Default	space	
Value	• ; (semicolon) indicates that the target database is DRDA.	
	• <i>space</i> indicates that the target database is ASE.	
Comment	When required, set the property to a semicolon.	
TransferPacketSize		
	The packet size between DirectConnect and the target database. It is part of the Transfer subsection of properties.	
Syntax	TransferPacketSize= <i>integer</i>	
Default	512	
Value	<i>integer</i> must be in multiples of 512 and must not exceed the target packet size; otherwise, the connection will fail.	
	<b>Warning!</b> If you increase the packet size beyond the capabilities of ASE, the transfer login to the secondary database will fail.	
Comment	You can determine the ASE packet size by using sp_configure:	
28	Release Bulletin for ECDA for Linux and UNIX	

	• To return the default packet size:	
	<pre>sp_configure "default network packet"</pre>	
	• To return the maximum size:	
	sp_configure "max network packet"	
MaxResultSize		
	(CR 426212, CR 426209) The following replaces the property description.	
	Specifies the maximum number of bytes an access service returns to the client application in a result set.	
Syntax	MaxResultSize= <i>integer</i>	
Range	0 – unlimited	
Default	unlimited	
Values	• <i>integer</i> is a number of bytes.	
	• A value of 0 indicates that the result size is an unlimited value.	
Comments	• The MaxResultSize value is approximate in that the access service checks at the end of each row to see if the value is exceeded.	
	• If the value is exceeded, the access service does the following:	
	• Sends the entire row to the client application (not a partial row)	
	• Does not send any of the remaining rows in the result set	
MaxRowsReturned		
	(CR 426212, CR 426209) The following replaces the property description.	
	Specifies the maximum number of rows an access service returns to the client application in a result set.	
Syntax	MaxRowsReturned=integer	
Range	0 – unlimited	
Default	unlimited	
Values	• <i>integer</i> is a number of rows.	
	• A value of 0 indicates that the rows returned is an unlimited value.	
Comment	If the MaxRowsReturned value is exceeded, the value is returned to the client as an error.	

### 9.3.2 Chapter 9, Using Bulk Copy Transfer and Express Transfer

(CR401890) Replace the syntax for express transfer in the section titled "Syntax." The properties have changed, and a new option called alter table supplements the insert, replace, and truncate options.

#### Syntax

The following is the required syntax for a bulk copy and express transfer statement:

transfer [with report]

{to | from} 'secondaryname userid password';

with {insert | replace | truncate | alter} into tablename;

sourceselectstatement

where:

- transfer must begin all transfer statements.
- with report is an optional phrase specified in the first line of the transfer statement. It instructs the access service to return processing information to the client application.

This information is returned as a result set consisting of a VARCHAR column and a single row. The row contains the number of rows transferred, rejected, and modified during processing.

- {to | from} indicates the direction of the transfer:
  - to specifies that the data is transferred from the primary database to the secondary database.
  - from specifies that the data is transferred from the secondary database to the primary database.
- secondaryname userid password is a three-part character string that provides the information needed to connect to the secondary database:
  - secondaryname is the name of the secondary database and must be recorded in the following DirectConnect files:
    - For bulk copy transfer, in the *interfaces* file for UNIX, or in the *sql.ini* file for Windows.
    - For express transfer, the secondaryname must match a data source name (DSN) in the *ODBC system information* file.

userid and password must be valid on the secondary database. If the . password is NULL, you can substitute an asterisk for password and it will be corrected to a NULL when sent to the secondary connection. Exactly three tokens are sent to the secondary connection.

All of the elements of the character string must be enclosed in single or double quotes in the order shown.

with {insert | replace | truncate} into specifies whether the data is appended onto the target table (insert) or the existing data is deleted and replaced (replace or truncate).

When transferring data to Adaptive Server, the truncate option causes transfer to issue a truncate, rather than a delete against the target table. For other target databases, delete and truncate are equivalent.

- [with alter] into invokes a UDB command that disables logging for the transaction and will truncate the table, (for DB2 UDB only).
- tablename specifies the table into which data is inserted or replaced. The table must already exist because the transfer statement does not create a new one in the target database.
- sourceselectstatement specifies a SQL statement that is executed against the source database to produce the result set used in the transfer.

This statement can be any statement the source database will accept, including stored procedures. SQL transformation is not performed on the sourceselectstatement. It must be in the source database SQL dialect.

#### 9.3.3 Chapter 12, Retrieving Information with System Procedures

	In the current document, the sp_who system procedure was identified as not being supported by DirectConnect. This information is incorrect; the system procedure sp_who is supported for ECDA Option for Microsoft SQL Server and ECDA Option for Oracle only.
	The following is a description of the sp_who system procedure.
Description	Reports information on current users and processes on SQL Server.
Syntax	sp_who [ login_name   "spid" ]
Usage	Reports the server process ID, its status, the login name, the name of the host computer, the name of the database, and the command being run.
	If no name is provided, sp_who reports on processes being run by all users.

#### Parameters

- login\_name is the user's SQL Server login name. If you provide a login name, sp\_who reports information on processes being run by the specified user.
  - *spid* is the number of a specific process. You must enclose it in quotes because a character-type argument is expected.

# 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<sup>TM</sup> 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.

# Creating a personalized view of the Sybase Web site (including support pages)

Set up a MySybase profile. MySybase is a free service that allows you to create a personalized view of Sybase Web pages.

- 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.