



**CONNIX 14.5**

**Release Notes**  
**September 29, 2020**

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## CONNX 14.5 Release Notes

### Product Installation

The CONNX product installation is available in the Software Download Center (SDC) in Empower: <https://empower.softwareag.com> (login required). Please consult the file Installation instructions can in the Installation Guide located on the Empower web site.

### Default Ports

The following is a list of 32- and 64-bit components and the default ports they listen on:

Component Name	Default Port
32-bit Enterprise Server Service	6500
64-bit Enterprise Server Service	6502
32-bit JDBC Server	7500
64-bit JDBC Server	7502
License Server	7501
InstantdbSync Message Queue	9200
InstantdbSync Controller	9205
JMS Server	7600
CONNX DataSync REST Server	9500

If CONNX is installed in an environment where a firewall is present, these ports need to be opened.

## Changes/Bug Fixes for CONNX 14.5

### *Critical Changes*

Please take special note of the following corrections and changes (listed below as well) as they may cause a change in expected behavior.

- The CONNX Mobile App KPiSync has been discontinued and is no longer supported.
- Event Replication and the Adabas server on HPUX-RISC has been discontinued.
- The internal format of data dictionaries has changed slightly. CONNX will automatically upgrade the CDD to the new format on first usage, but this will require read/write access to the CDD and read/write access to the directory where the CDD is located.
- With the introduction of the DataSync REST interface and web GUI, the original DataSync GUI has been deprecated. It is still included in the product installation but is now referred to as DataSync Classic. It will be discontinued at some point in the future. Please migrate to the new browser-based GUI.

### *New Platform Support*

- Added optimized target adapter support for Snowflake with DataSync.

### *New Features*

- Added a DataSync REST Interface that can be called from the new DataSync web GUI or from any REST application.
- Added a DataSync Web Interface that will replace the current Windows GUI, however both are included in release. The original DataSync GUI has been deprecated and is now referred to as DataSync Classic.
- Added optimized target adapter support for Snowflake with DataSync.
- Added DataSync Functionality - Transformation Export, Import and Duplicate functions.
- Added ability to change server name and port from a script and command line - (CDDMove.exe).

- Added configuration setting EXCELADDINNOSAVEPASSWORD, when set to 1 it will disable the ability to save the password to the ODC connection file. The user will have to log in every time a connection is loaded or refreshed.
- In the Data Dictionary Viewer, when table columns are displayed, added Null Suppression to the list of information about each column.
- Added CURRENT\_USER and SESSION\_USER functions.
- Added support for nested comments in SQL Queries.
- Added requested optional JDBC connection string syntax:  
ADADBIDLIST=(<logicalCDDDatabaseName>:<new DBID>,<logicalCDDDatabaseName>:<new DBID>,...)
- Added 3 new functions for trimming all whitespace characters not just spaces, LTRIMWHITESPACE, RTRIMWHITESPACE and TRIMWHITESPACE.
- Added configuration setting ADABAS\JOINMUDESC to permit the old (incorrect) join behavior of allowing joins on MU descriptors.
- Added new packed complement data type.
- Added new function called REMOVENULL which will remove any embedded nulls from a string value - this works for both Unicode and ANSI character sets.
- Added AutoBulkUpdate Feature
- Added feature to log new connections to the console for CICS
- Added Packet Tracing feature
- Added optional setting ALLOWTRAILINGSPACEINVARCHAR to enable VARCHAR to accept trailing spaces as was the way CONNX 8 worked.
- Added support for specifying a view clause during Adabas DDL imports.
- Added full support for Replicating source tables to different owners for target tables in a database. Previously, separate owners in replication was partially supported - only for existing tables. Now Target tables in replication can be created under different owners in a database.
- Added an optional Registry setting under CONNX\DATASYNC - ONDEMANDCONNECTIONONLY, if it is not there or set to 0 then DataSync operates as it always has by doing a full connection when a CDD is chosen to see if it is valid. If the

ONDEMANDCONNECTIONONLY is set to 1 then DataSync will never do a full connection, only an on-demand connection.

- Added support for AIX sha256 and AIX sha512
- EntireX driver - added a registry setting called MAX\_WAIT\_MILLISECONDS that defaults to 1000000 milliseconds (1000 seconds) as the longest to wait for a slow transaction to complete.
- Added ability for LUW replicator controller to be in the cloud while Admin is on premise.
- Added support for SQL Server 2019 as a source for InstantdbSync/ Open Systems Event Replicator replication.

### ***Known Issues in CONNXX 14.5***

- DataSync Web GUI - Creating a Change Data Capture transformation will succeed however the first sync will fail. To work around the bug - create Change Data Capture transform in DataSync GUI (Classic) and it will sync correctly in Web GUI. This issue is fixed in build 20267 and later. If needed, please contact technical support to receive this build.
- DataSync Web GUI – The ONDEMANDCONNECTIONONLY functions for the DataSync Classic GUI but is not functioning for the web GUI. Support for the Web GUI is in build 20262 and later. If needed, please contact technical support to receive this build

## ***Resolved Issues in CONNX 14.5***

These are the major issues that were resolved and features that were added in ConnX 14.5:

### **ConnX client/server**

- Fixed problem where we weren't dumping the Adabas format buffer when ADA\_DEBUG\_ERROR\_ONLY was set on.
- Fix for UTF8 conversion when the data is too large for the field - was previously putting an invalid Unicode sequence at the end - now remove the partial Unicode character.
- Fix for crash in .NET data provider - occasionally it would crash due to the timing of garbage collection because we did not ensure that the statement handled for all resultsets were zeroed out when we issued SQLDisconnect.
- Fix problem where behavior of {setfilename } with the refresh option was inconsistent - changed so the query plan will reflect the correct information, and also so that the query uses the correct index if the index information changes.
- Fix for bug in like/slike - was not handling trailing % properly.
- MS Access - Fixed error returned when trying to create a table that has the LONGVARCHAR or LONGNVARCHAR data type.
- Adabas - Improved efficiency for greater than searches against superdescriptors.
- PostgreSQL - Fixed issue where the log(10) function did not work in passthrough mode.
- Adabas - Added Audit field data length to the record buffer length.
- Fix for issue that users were able to perform a TRUNCATE TABLE even if the CDD file was read only.
- Fix for issue where values from 0.1 to 0.9 were not inserted in DECIMAL column on temp tables.
- Fix for SQL query receiving ADABAS RC=146 SC=2, when there is a very large Adabas record buffer.
- Changed {syntaxcheckonly} with an on-demand connection to create a virtual connection to the database instead of a full connection.
- Changed the LIKE operator to conform to SQL standards, it previously would allow a query to perform LIKE against columns and

- expressions that were not strings. This is no longer allowed, however if the previous behavior is desired, it can be used by creating the CONNX\AUTOCONVERTFORLIKE key in the Configuration manager and setting the value to 1.
- Fix for the DB2 database, some data type conversions to binary did not work if {nopassthrough} was not specified.
  - Fix for an old intermittent crashing bug in the CONNX driver.
  - Add support to {syntaxcheckonly} so it works with other CONNX special functions.
  - Fix for the TRIM, LTRIM and RTRIM SQL implementations - they should only trim spaces, and not whitespace characters.
  - Fix for Power BI desktop app, Tables were not displayed when making OLEDB connections to the CDD.
  - Fix for connection to VMS using CONNX .Net data provider. The connection was not reporting when the connection was lost on the VMS server, now by checking the CNXConnection.State property, a call is made to the server to verify the if the connection is open or closed.
  - Fixed but in Sybase ASE server in 64 bit mode "cannot create table".
  - Fixed Mainframe listener abend USER=1208 in module CNXRUNA.
  - Added userexit functionality for C-ISAM.
  - Fixed problem where newline & carriage return were trimmed incorrectly when converting from CHAR to VARCHAR.
  - Fixed problem with all the JDBC updatexxx functions - it was not resetting the null flag if the value was already NULL.
  - Fixed LSNDEBUG so that it completely overrides DEBUG if it is present.
  - Fixed {usekey} function so it works with SQL UPDATE statements.
  - Fixed bug in CONNX for RMS - if the first record of a file is locked, if a select \* is issued against the table, CONNX returns no results.
  - Fixed problem where windows returns 0 for the codepage on some systems. If that happens the codepage will now default to 1252.
  - Docker Adabas Server - Do to occasional errors, removed the gunzip command and replaced it with a tar -zxvf command.
  - Fixed issue in queries where the union of two 1 byte fields results in length of 2 instead of 1.
  - CONNX Server for CICS - Fixed formatting for CONSOLE message



- CONNX Server - Added console logging if CNXCONNECTBACK is set to 1.
- Fixed crash in query when performing a select MIN(ISN) from an Adabas table.
- Fixed issue with bound parameters of type SQL\_DATE when connecting to SQL Server from Linux/UNIX without using enterprise server.
- SQL Server from Linux/UNIX Driver - add a support for SQL Server 2008 time data types.
- Added support to call SQLGetInfo in SQL Server from Linux/UNIX so we can detect the version of SQL server.
- Changes for implementing TIME type in SQL Server from Linux/UNIX.
- Fix to allow the following applications start without being prompted for password when UAC is on: Replication Admin, Configuration manager, DataSync Admin (Classic) and Infonaut.
- Fix for support of mainframe DB2 12 and above.
- Changed Limit function so it processes the ORDER part of the query first before truncating results.
- Fixed bug when committing an update which didn't affect any rows the JDBC Server entered an infinite loop with 100% CPU.
- Fixed bug in mainframe RCI interface - A SQL statement with a syntax error leads to the ACE error message "INIT 1: Internal application error. Please contact technical support".
- Added deadlock RMS error code to CNX\_DATA\_LOCKED return.
- Fixed problem when strict is set to true and issuing an update query with parameter markers.
- Implemented passthrough parameter marker support for PostgreSQL.
- Fixed bug found by having a where clause with bounds outside each part, ex: AND col1 BETWEEN 1 AND 9999 AND col1 in ( 0 ).
- Fixed memory overwrites when incorrectly encoded data is sent to the CONNX Driver in a query.
- Fixed AutoConvertForLike, it did not work with parameter markers.
- When issuing a connxserver stop, the child process ids and names are printed along with a warning message that they need to be stopped before starting the listener if applicable. Additionally, issuing a connxserver cancel will now find and kill orphaned child processes.

- Fixed a crash when issuing a select statement against a table that exists in the CDD, however there are no valid license present anymore for the database it belongs to.

## **InfoNaut**

- The help document was blocking Infonaut when open, now it is floating so Infonaut and the help document can be seen at the same time.
- Fix of intermittent problem in Infonaut where the cancel button does not actually cancel the query.
- Fixed bug where duplicate column names returned in the results would cause an error once the number of duplicate columns exceeded 4.
- Fixed bug regarding the Infonaut history file location, if the location in the registry setting is not valid, infonaut will go through the process of finding a valid folder based on install directory and user directories first, instead of just returning an error.

## **CDD Manager**

- Fixed problem with MySQL import with long server names (like cloud instance names like this: Craft-sanitized-25k-1.cgihgbodsl5g.us-east-1.rds.amazonaws.com).
- Fixed Adabas flat table import for the COUNT fields for MUs and PEs - counts over 127 previously returned an incorrect negative value.
- Fix for CNXROWNUMBER support for codasyl dbms - you can now select the "show cnxrownumber" checkbox for DBMS.
- Enhanced DISAM table name with the full path specification.
- Clarified and improved error message when checking views and there are no valid licenses.
- Fix for issue when an empty message box is returned when you cancel out of a Desktop or Enterprise OLEDB/ODBC Adapter import.
- Fixed problem with Adabas Systrans import - was skipping some tables where type was null.

- Fix for crash in CDD Manager when it cannot connect to a license server while creating a view.
- Fix for CDD Manager - Previously, an error was returned when importing tables with same name into different containers.
- Fix for CDD Manager - Previously, if a table name is selected before group is created, the group does not show up in users until a different table selected.
- Fix for multiple database imports, the port # did not default to 6500 when the import database type was changed after a previous import.
- Fixed problem where after a create view, the connection remained virtual and returned no data.
- Added ability for DDM imports to handle count fields for MUs and PUs - allowing users to access the hidden COUNT\_FIELD with DDM imports for ADABAS.
- Fixed very intermittent bug in Replication Admin where after saving replications that do not have target tables specified, multiple times can cause the replications to be deleted when the Replication Admin is opened.
- Fixed ADABAS Systrans import error when the Systrans file has 130 character line lengths instead of 80.

### **InstantdbSync/Open Systems Event Replicator**

- Fix for connection issue when using an EntireX target that is on Integration Server version 10.5.
- Replication for Docker - Added changes to allow the CONNX registry to be edited from the host machine and have the changes persist in the Docker container
- EntireX replication - there was an entry in the log for every transaction that that was supposed to be only for Extreme logging - fixed.
- EntireX replication - intermittently, timeout returns from transactions were not handled properly - fixed.
- Replication for Docker - Removed Windows carriage returns and replaced them with newline characters in the startEventServer script.

The Windows carriage returns would cause problems in a Linux environment.

- EntireX driver - fixed bug when connecting to Integration Server version 10.5 with using the broker id field on a syncpoint call during replication.
- EntireX driver - fix for bulk mode in our syncpoint call during replication.
- EntireX driver - fix for when performing very large transactions with a remote server, a Transport Timeout can be returned. When this happens, the process will make another call and continue the operation where it was left off.
- Fix issue where the index on a JMS table wasn't being set when it was the target of a replication, this bug was introduced in CONNX version 14.0.
- ACD Replication - Adabas Producer log, added warning to let user know when timestamp is not shown on ACD table and how to enable it.
- Replication Controller - fixed crash that happens when deploying to 40 different Producers, with statistics on.
- Fixed issue where the Replication Admin was displaying an incorrect value for the number of errors in the performance statistics display.
- Fix for replication problem where engine count was set to 1 due to uninitialized variable.
- Fix for replication problem with scankeys due to uninitialized variable added with the view clause optimization logic.
- Fixed an issue where the Replication Admin would get stuck in the "Controller Configuring Event Consumer(s)" dialogue box when deploying with many EPs (20+).
- Fix for when a target table in an active replication was reimported with a new column in the middle of the table, the Replication Admin was not able to update the replication data correctly.
- Fixed SQL Error problem in replication that would cause a memory overwrite when error text was greater than 4096.
- EntireX - Fixed the problem of skipping logging when a transaction is aborted or retried due to unexpected failures.

- Replication for Docker - Added missing parameter for the mapping of the CONNX log directory for the example run command used to start the event producer container.
- Replication Admin fix for an editing an existing Transform, with an existing Target table. In edit mode if a user pressed next, the correct Target table radio button was not selected.
- Replication for Docker - Updated the readme installation and configuration documents.
- Replication Admin and repcmd - will now throw an error if an initial state is requested while an A2A initial state is already in progress.
- Replication Admin - fix for Data Types in column map screen - the data types SQL\_LONGVARCHAR, SQL\_WLONGVARCHAR and SQL\_LONGVARBINARY were showing a large number in the length and it was editable, they now show 0 because they do not have specified length and are not editable.
- Fixed an issue with commit sequence when an empty transaction is encountered in replication processing.
- Replication Install Script - Fixed incorrect script location in install script. To start the services, it listed the ".../connx/replicator" directory when it should have been ".../connx"
- Replication for Docker - Fixed crash in the event server container during a deploy when looking up the host name on Centos8.
- Change to allow Postgres target columns to be specified as Unicode.
- Fix for issue where the controller was crashing if the EP was shut down and then restarted while the controller was running.
- Updated status logic to use message queue on the controller's server for ADM Status reply messages, specifically added to support the controller installed in the cloud.
- Added support for SQL Server 2019 as a source for InstantdbSync/ Open Systems Event Replicator replication.

## DataSync

- Fixed DataSync Index issue for Adabas targets. When Adabas is a target for either Table Syncs or Transform syncs, the unique index from the source was not created on the target table.
- DataSync Transforms – The name of scheduled transform shows up under Groups tab (as well as Transforms) if the transform was not synced previously to scheduling it.
- DataSync Classic GUI change - Made the Group properties form sizable and the Group Filter field larger and expandable.
- DataSync Classic GUI change - Added a multi-select delete to the Groups and Schedules tabs.
- DataSync Classic GUI change - Added a Filter field to the Schedule tab.
- Fixed problem where create database fails when the machine is configured for German text.

## Excel Add-In

- On the Excel Add-in data task pane, moved the Import tab to the left and made it selected by default instead of the edit tab.
- Workaround fix for Excel Add-In - With integrated security off in the data dictionary and connecting with Excel, the user is not always prompted for login information. The bug is in the Microsoft OleDb connection code, the text to prompt for login is not always sent from Excel. To get around this bug, in the driver, when the connecting source is Excel, it will always prompt if the connection information isn't present.

## **JDBC Server**

- Fixed memory leak in SSL logic for JDBC server.

## **License Server/Licensing**

- Fixed issue where Oracle replication license was not recognized as a valid license.

## **Configuration Manager**

- Fixed issue where the Configuration Manager was allowing changes to both 32- and 64-bit registries for both user and system DSN's, changes only apply to one.

## **Install**

- Added check to see if Visual Studio 2010 Tools for Office Runtime is installed before running the VSTO installer.
- Fixed RDB installation issue - we were not using the SQL\$USER logical - we hard coded the opt file to SYS\$LIBRARY:SQL\$USER
- During install, set permissions on CONNX registry keys to full control for the "Users" group.
- Do not require admin privileges on the License administrator.
- Allow non-admin to start and stop DataSync scheduler service.
- Fix when installing the CONNX Linux client to a machine that has never had the client installer installed on it and the Manual Copy Installation option generated an error if the username was not filled out.
- Added Visual Studio 2017 versions of the sample projects.
- Fixed KeyboardInteractiveAuthentication error for scp and sftp

## Requirements for CONNX 14.5

### *Data (Host) Server Requirements*

Please see the accompanying documentation for additional System Requirements.

Database	Hardware	Network	Operating System	Memory/ HD requirements
Digital RMS (any version)	Compaq/DEC VAXServer Compaq/DEC AlphaServer	UCX 3.0 or above compatible TCP/IP Software	OpenVMS/VAX OpenVMS/Alpha {AXP] VMS 5.3 and above Itanium 64-bit	12mb VAX 32 mb Alpha Working Memory 20k Blocks HD avail
Oracle Rdb (version 4.1) (version 6.0 and above)	Compaq/DEC VAXServer Compaq/DEC AlphaServer	UCX 3.0 or above Compatible TCP/IP Software	OpenVMS/VAX OpenVMS/Alpha [APX] VMS 5.3 and above	12mb VAX 32 mb Alpha Working Memory 20k Blocks HD avail
Oracle DBMS (version 4.3 and above)	Compaq/DEC VAXServer Compaq/DEC AlphaServer	UCX 3.0 or above Compatible TCP/IP Software	OpenVMS/VAX OpenVMS/Alpha [APX] VMS 5.3 and above	12mb VAX 32 mb Alpha Working Memory 20k Blocks HD avail
Oracle RDBMS (version 7.3 and above)	Compaq/DEC VAXServer Compaq/DEC AlphaServer Personal Computer (Intel) Sun Workstation IBM RS/6000(AIX)	TCP/IP	OpenVMS/VAX OpenVMS/Alpha VMS 5.3 and above [APX] Microsoft Windows Server 2012 and above UNIX(ANY)	12mb VAX 32 mb Alpha Working Memory 20k Blocks HD avail



Database	Hardware	Network	Operating System	Memory/ HD requirements
C-ISAM	SunSparc RS/6000 Intel HP Server	TCP/IP	SunOS AIX Linux HPUX Windows Server 2012 and above	5 mb of HD space 32mb RAM
DISAM	SunSparc RS/6000 Intel HP Server	TCP/IP	SunOS AIX Linux HPUX Windows Server 2012 and above	5 mb of HD space 32mb RAM
Micro Focus	SunSparc RS/6000 Intel HP Server	TCP/IP	SunOS AIX Linux HPUX Windows Server 2012 and above	5 mb of HD space 32mb RAM
DataFlex & PowerFlex (any version)	Personal Computer Sun Workstation	Any supported protocol under Windows	Windows, UNIX	
Any OLE DB Compliant data source Sybase Informix SQL Server	No requirements except those of the database itself and the third-party driver An ODBC Level 2- compliant driver must exist for the platform and database.	TCP/IP software Requirements of third-party driver	No requirements except those of the database itself and the third-party driver	No requirements except those of the database itself and the third- party driver

<b>DB2 Database</b>	<b>Hardware</b>	<b>Network</b>
DB2/6000; DB2 UDB for AIX	AIX 4.3 and above	TCP/IP and SNA/LU 6.2
DB2/MVS V4R1 and above	MVS	SNA/LU 6.2 only
DB2 UDB for z/OS and OS/390	z/OS and OS/390	TCP/IP and SNA/LU 6.2
DB2/400 V3R1 and above	OS/400	SNA/LU 6.2 only
DB2/400 V4R2 and above; DB2 UDB for iSeries	OS/400 and iSeries	TCP/IP and SNA/LU 6.2
DB2 UDB Enterprise Server Edition	Windows Server 2012 and above	TCP/IP and SNA/LU 6.2
DB2 UDB for Linux Enterprise Server Edition	Linux	TCP/IP

<b>CONNX for VSAM Product</b>	<b>Operating System</b>	<b>Supported File Types</b>	<b>Network Software</b>	<b>CICS Version/Release</b>
CONNX for CICS/VSAM	OS/390 and z/OS	VSAM	TCP/IP V3R2 and above	V4R1 or TS 1.x and above
CONNX for VSAM / QSAM / PDS	OS/390 and z/OS	VSAM / QSAM / PDS	TCP/IP V3R2 and above	N/A
CONNX for CICS/VSAM	VSE 2.3 and below	VSAM	TCP/IP (CSI / IBM), Barnard TCP/IP Stack	V2R3 and below
CONNX for CICS/VSAM	VSE 2.4 and above	VSAM	TCP/IP (CSI / IBM), Barnard TCP/IP Stack	TS 1.1.1 and above

<b>Adabas SQL Gateway (CONNX for Adabas) Product</b>	<b>Operating System</b>	<b>Network Software</b>
Adabas	OS/390, z/OS, VSE, Windows Server 2012 and above, Solaris, HPUX, AIX, VSE, Linux Intel, zLinux	TCP/IP, Barnard TCP/IP Stack (VSE only)

**CLIENT PC REQUIREMENTS**

	Minimum	Recommended
Available space on hard drive	150 MB	250 MB
OS	Windows Server 2012 and above (32/64bit)	Windows Server 2012 and above (32/64bit)
Network Connectivity	Microsoft TCP/IP	Microsoft TCP/IP
Access or permission on the appropriate databases	YES	YES

**Unix Client System Requirements**

<b>PC Linux Client System Requirements</b>	
Hardware	Processor: 2 core or better Memory: 2 GB
Operating System	Any Linux OS which supports Linux Kernel 2.6.18 or above, for example, Fedora Core Release 6 or above, RedHat Enterprise Linux, version 4 or above, or SUSE Enterprise Linux 11 or above. Please see the documentation for your specific Linux distribution to determine the Linux kernel version.
Free Hard Disk Space	50 MB
Software – ODBC Driver Manager	Any ODBC Driver Manager

<b>Solaris Client System Requirements</b>	
Hardware	Processor: UltraSPARC Memory: 512 MB
Operating System	Sun OS 5.8 or above
Free Hard Disk Space	50 MB
Software – ODBC Driver Manager	Any ODBC Driver Manager

<b>AIX Client System Requirements</b>	
Hardware	Processor: IBM e-Server P-Series or RS/6000 Memory: 512 MB
Operating System	AIX 5.x Operating System: IBM AIX 5L Version 5.1, system maintenance level 2 (64-bit) or Version 5.2
Free Hard Disk Space	50 MB
Software – ODBC Driver Manager	Any ODBC Driver Manager

<b>HP-UX Client System Requirements</b>	
Hardware	Processor: PA-RISC or Itanium Memory: 512 MB
Operating System	HP-UX 11.0 (64-bit) or HP-UX V11.11i (64-bit)
Free Hard Disk Space	50 MB
Software – ODBC Driver Manager	Any ODBC Driver Manager

***JDBC Pure Java Client Requirements***

<b>Requirement</b>	<b>Minimum</b>
JDK*	1.3 for JDBC server. 1.7 for JMS server
Hard Drive Space	10 MB Free
Network Connectivity	TCP/IP

***InstantdbSync Requirements***

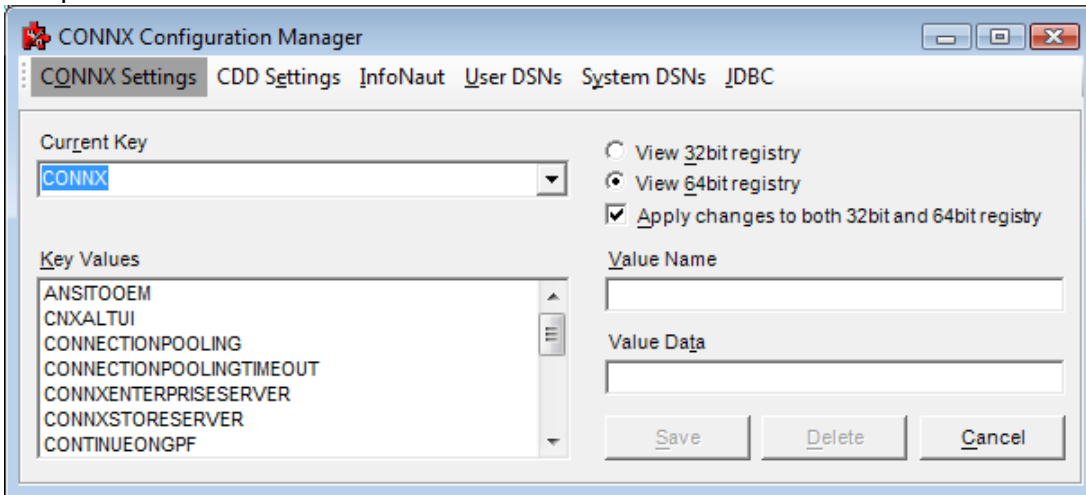
<b>Requirement</b>	<b>Minimum</b>
Operating System	64bit Windows Server class operating system
Source Database	When SQL Server is the source: SQL Server 2008 to 2019 When MySQL is the source: MySQL 5.6 and above When Oracle is the source: Oracle 11g to 18c
Hard Drive Space	200 MB Free
RAM	8 GB

**Accessing 32-bit only data sources from 64-bit applications**

It is possible to access a 32-bit only data source, such as Dataflex on Windows, C-ISAM/D-ISAM on Windows, etc. from a 64-bit application using the CONNX Enterprise Server Service (ESS). Using the ESS, a 64-bit application such as MS SQL Server can load the 64-bit CONNX client. The CONNX Solutions CDD can then be configured to access the 32-bit data source via the 32-bit Enterprise Server Service. This configuration allows the 64-bit client to call into the 32-bit ESS via TCPIP which, in turn, is able to load the 32-bit only DLLs used to access the data. The opposite is also true: if you have a 64-bit only data source that you need to access from a 32 bit application, you can use the 64 bit ESS to access the data and pass it to the 32 bit CONNX client.

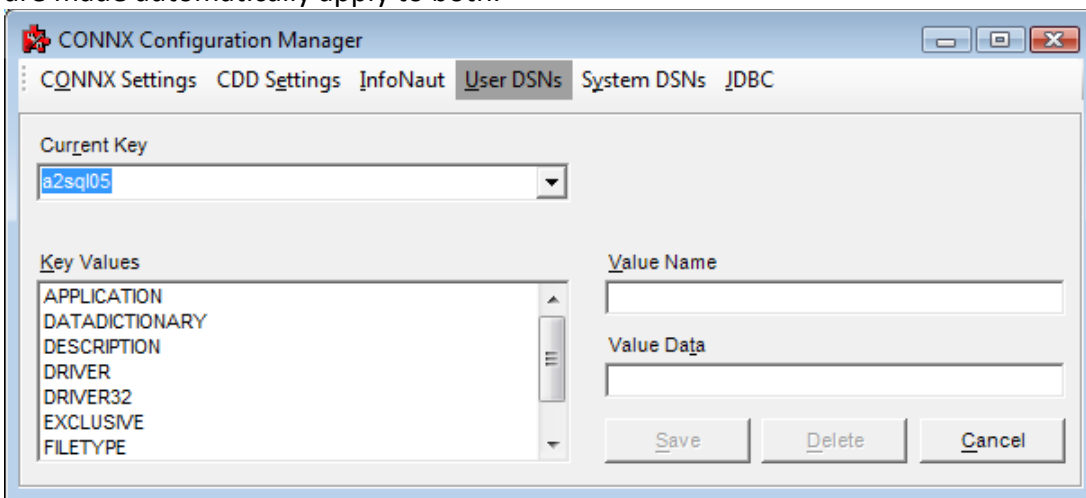
### Configuring 32-bit and 64-bit components

CONNX is configured with the CONNX Configuration Manager. The CONNX Configuration Manager can be used for managing both the 32-bit and 64-bit components.



There is a radio button to select which registry setting to configure. Usually, the registry settings will be the same for both the 32-bit and 64-bit components. Checking the “Apply changes to both 32bit and 64bit registry” checkbox will cause a setting made for one component to be made for the other, as well. There are some settings, however, where it may be necessary to maintain different values for the two components; for example, the port the ESS listens on. In these cases, this check box should be unchecked when changing the value.

On the InfoNaut tab and the User DSNs tab, the settings are not differentiated between 32-bit and 64-bit. The selection radio buttons are not displayed, and any settings that are made automatically apply to both.



## CONNX .Net Data Provider - Connection Pooling and Pooled Connection Timeout

This covers the corrections to the pooling and timeout of connections in the CONNX .Net data provider along with some inconsistencies with Microsoft's generic .Net data provider implementation. The following is the correct way to turn on or off the CONNX .Net Data provider connection pooling, and how to set the pooled connection timeout.

### Connection Pooling

Turning connection pooling on/off; by default connection pooling is enabled. If connection pooling is enabled the .Net Data provider will hold a connection open for a specified amount of time after the `CNXConnection.Close()` function is called and use it the next time a connection is opened. Since the connection to the server was never closed, the opening of the new connection will be faster if a pooled connection is used.

- The first way to control connection pooling is through the `CNXConnection.PoolConnection` property.
- `CNXConnection.PoolConnection = true`; enables connection pooling in the provider,
- `CNXConnection.PoolConnection = false`; disables connection pooling in the provider.
- This property can be set before or after the connection has been opened, but must be assigned before the `CNXConnection.Close()` function is called.
- A second way to control connection pooling is through the connection string input to the `CNXConnection` object; Add "Pooling=true" to enable connection pooling, "Pooling=false" to disable connection pooling in the provider.
- Ex: "Persist Security Info=True;DD=c:\Test.cdd;UID=test;PWD=test;Mode=ReadWrite;Pooling=False;"

### Pooled Connection Timeout

Only used when connection pooling is enabled, this setting controls how long a connection will remain in the pool while not in use. The input is in seconds, so setting it to 20 would mean the connection will remain in the pool for 20 seconds before it is closed. The default setting is 60 seconds, an input value of 0 means there is no timeout. This setting is only used when connection pooling is enabled.

- The first way to set this is with the `CNXConnection.ConnectionPoolTimeout` property.
- `CNXConnection.ConnectionPoolTimeout=10`; connections will last in the pool for 10 seconds after the `CNXConnection.Close()` function is called, before the connection to the server is closed.

- This property can be set before or after the connection has been opened, but must be assigned before the `CNXConnection.Close()` function is called.
- The second way to set this property is through the connection string input to the `CNXConnection` object; Add "Connection Lifetime=25" to set the time in seconds the unused connection will last in the pool.
- Ex: "DD=c:\Test.cdd;UID=test;PWD=test;Pooling=true; Connection Lifetime=25;"

### **CNXConnection.ConnectionTimeout property change**

This property has been changed for clarity and consistency with the Microsoft generic .Net data provider implementation. The description that appears with this function in Visual Studio has been changed to "(Read Only) The time (in seconds) to wait for a connection to open. This is not controlled by the CONNX .Net Data Provider". Also, since this property should have been read only, it has been changed to read only in the ConnX .Net Data Provider.



## Changes/Bug Fixes for CONNX 14.0

### *Critical Changes*

Please take special note of the following corrections and changes (listed below as well) as they may cause a change in expected behavior.

- The CONNX function CastAsCONNXTType has been deprecated. Please use CNXRawConvert instead. CastAsCONNXTType does not support expressions and makes assumptions about having the raw pre-converted column data available. CNXRawConvert does not have these limitations.
- Turned on the CLIENT\_FOUND\_ROWS flag 100% for the MySQL driver - this will have the effect of always returning the number of rows "matched" during an update - vs the number of rows actually changed. In other words, if I update a row to a value that matched the original values, MySQL by default says 0 rows updated because the data did not change, even though 1 or more rows matched. This behavior causes problems with InstantDBSync which relies on an accurate reporting of the number of rows updated in order to detect potentially serious error conditions.
- The following CDD data type names:
  - "JMS Integer Text"
  - "JMS Big Integer Text"
  - "JMS Double"
  - "JMS Numeric"
  - "JMS DateTime (yyyy-mm-ddThh:mm:ss.fffffffff)"
  - "JMS Time from SQL Server Time2 (hh:mm:ss.fffffffff)"
  - "JMS Time from Timestamp (hh:mm:ss.fffffffff)"
  - "JMS Byte"
  - "JMS Byte Bit (1/0)"
  - "JMS Date (YYYY-MM-DD)"
  - "JMS Binary"

Have had their CDD data type names changed to:

- "XML Integer Text"
- "XML Big Integer Text"
- "XML Double"
- "XML Numeric"
- "XML DateTime (yyyy-mm-ddThh:mm:ss.fffffffff)"
- "XML Time from SQL Server Time2 (hh:mm:ss.fffffffff)"
- "XML Time from Timestamp (hh:mm:ss.fffffffff)"
- "XML Byte"
- "XML Byte Bit (1/0)"
- "XML Date (YYYY-MM-DD)"
- "XML Binary"

- Performance statistics are turned on by default for replication

### ***New Features***

- Added support to LUW Replication for webMethods Integration Server as a target
- Added Docker support to LUW Replication
- Added Ability to use JDBC Updatable rowsets in conjunction with "select .. for update" clause
- Added CNXROWNUMBER support for CONNX for DBMS
- Added read lock support to CONNX for RMS
- Added support of setObject and getObject JDBC statement interface
- Added support to the database connection button in the CDD Manager to have the ability to connect to TLS/SSL data servers
- Import CDD from command line using TLS/SSL
- Added ability to create log file when using CDD administrator in command line mode
- Added auditing capabilities
- Added ability for Flushopenfilecache to work on a specific RMS table file
- Added new Data Type called "Timestamp19 (YYYYMMDDTHHMMSSFFFZ)" which is stored as a text string, but becomes an ODBC timestamp when we read it.
- Added REGEX\_LIKE feature
- Added Snowflake support to CONNX.

## ***Resolved Issues***

These are the major issues that were resolved and features that were added in CONNX 14.0:

### **CONNX client/server**

- Fix for memory overwrite when processing an unknown structure area in an RMS file.
- Fixed .NET Data Provider exception when issuing an SQL Statement with a LIMIT
- Turned on the CLIENT\_FOUND\_ROWS flag 100% for the MySQL driver - this will have the effect of always returning the number of rows "matched" during an update - vs the number of rows actually changed. In other words, if I update a row to a value that matched the original values, MySQL by default says 0 rows updated because the data did not change, even though 1 or more rows matched. This behavior causes problems with InstantDBSync which relies on an accurate reporting of the number of rows updated in order to detect potentially serious error conditions.
- Added setting CONNX\ERRORONTRUNCATE – When doing an INSERT SELECT, if a string column is too wide to fit in the target column the string is truncated to fit and then moved to the target. When ERRORONTRUNCATE is set to 1 and there is a truncation of data detected, it will throw an error and stop the entire Insert Select. When the value is set to 0, the data is truncated and processing continues. The default value is 0 which is the behavior of previous versions.
- Fixed parsing error with Oracle floating values larger than or equal to 1e125 and smaller than or equal 1e-125
- Changed CNXStop so that it logs every step to the system console
- Fixed crash in GROUP BY logic
- Fixed crash in MIN/MAX functions
- Fix for ACE1745 - RSP 201 AdaSCR password was not being set properly after recovery from Transaction timeout (nucleus error 9)
- Created a new aggregate function call GROUP\_CONTACT which will concatenate into a single string all of the items in the group - up to 1024 length string

- Added a new optional parameter to {fn setfilename} called refresh, which will refresh the indexes for the newly attached file - this is only done in memory, and the CDD is not affected.
- Fixed memory overwrite when DB2 tracing is enabled and the DB2 table name is 128 characters (max length)
- Added new feature that will only allow connections from CDDs where the CDD password matches this new setting - CDDPASSWORD - this is a data server setting.
- Changed behavior of Regex to match that of Oracle - partial matches are allowed now.
- CONNX now returns an error with a SQL statement that contains a mismatched starting comment with no ending comment (/\* with no \*/)
- Fixed memory overwrite in the aggregate function logic
- Fixed iTrac ACE-1760 "SELECT COUNT(\*) returns invalid results"
- Fix for RMS empty file with blockio
- Fixed iTrac CXA-59 PostgreSQL - COUNT function returns error when used in PostgreSQL 10.1 or newer
- Replaced VMS command LOGOFF (which is not the correct command) with LOGOUT
- Fixed iTrac CXA-47 - Rounding problem with DECIMAL data type on negative numbers
- Fixed problem where creating a table with a period "." in the name resulted in an error
- Fixed iTrac CXA-56 Problem with some aggregate functions with unicode data type caused the length to be cut in half with Access 2013
- Fix for Support Incident: 5364280 Query uses NU superdescriptor to look for zero.
- Fix for Support Incident: 5369451 Duplicate rows in query result in complex superdescriptor.
- Fix for problem where CONNX did not recognize Solaris hashed passwords with a non-default number of rounds
- Fixed issue so query plans (where the priority count is zero in all tables) do not differ per platform
- Fix problem with index information not being calculated properly for some MU/PE tables in adabas.

- Added Snowflake support to CONNX.
- Added support for DEBUG logical for VMS
- Fixed crash where MU or PE count > 192 would result in a crash if the record buffer was too small
- Fix for Acucobol - SQLUnbind causes future fetches to fail.
- Fixed truncate command when there is a SQL view clause on the table
- Fixed crash huge sql statement - put in a guard to prevent stack overflow if nesting depth exceeds 5000
- Fixed iTrac ACE1791: Audit logging resulted in nucleus response code 47 when selecting MU subtable.
- Fixed problem with TableCache logic when {fn setfilename } was used - tables were never reused from the cache
- Fix usage of ineligible complex superdescriptor
- Added row number support for Codasyl dbms

### **InfoNaut**

- Fixed iTrac ACE-1754 - In InfoNaut when your SQL ends with a comment marked with double hyphen, clicking the Execution Plan has no effect. The query gets performed and not just analyzed.
- Add save results in 3 new formats - Excel 2007 and newer, Semicolon separated values and custom separated values.
- Added feature so that when a query is saved to an infonaut query file (.ciq) the formatting is kept when they are opened.

### **CDD Manager**

- Fixed bug in import of Excel files in to the CDD - skips over import of stored procedures since these are not supported.
- Fix for CDDPassword length 10 or longer not working properly
- CDDPASSWORD can now be a comma separated list with support for up to 10 passwords
- Fixed issue where CONNX did not import Oracle indexes properly if the index contained more than one column and one of the columns was descending.

### **CDD Comparison Tool**

- Added ability to check consistency of Adabas rotated tables (MUs and PEs)
- Fixed iTrac Issue CXA68: Octet length error when comparing 2 CDD's

### **InstantdbSync/Open Systems Event Replicator**

- Fixed crash in Oracle EP when Oracle unique index was greater than 1700 bytes
- Changed the Replication Admin so that instead of opening the Event\_Replication license and holding it open while the Replication Admin was active, the license is checked and then released.
- Fixed reliability problems when starting the SQL Server EP
- Fixed issue where sending back-to-back on-demand initial states could cause the replication to stay in an “initial state pending” state forever.
- Fixed several errors in Oracle connect/reconnect logic
- Fixed problem where A2A re-deploy loses initial state start and end timestamps.
- Fixed issue where only the first error was being reported when there were multiple errors
- Fixed issue where TRUNCATE was not being replicated when MySQL was the source
- Fixed issue where recmd was not displaying error messages on the console.
- Enhanced repcmd status output to reflect all the information displayed in the replication admin status screen
- Performance improvement when using view clause support with replication
- Fixed performance issue in replication - statements were being re-prepared every transaction
- Fixed message queue performance problems when running on HPUX
- Fixed problem where the source column expression syntax check did not use double quotes around the full table name
- Fixed missing double quotes around the full table name in the create table statement

- Fixed iTrac CXB-76 Duplicate replications with no target table added after dropping target tables.
- Fixed iTrac CXB-78 A2A replications are unchecked in the Design screen when they are undeployed.
- Fixed problem where the ACD replications for Adabas MUPE tables did not pass validation even though they had a correct unique index.
- Fixed iTrac ARN-77: Replication admin does not prevent conflicting primary key mapping between parent file and MU/PE subtables
- Fixed problem where some replications in the Replication Admin were displaying a status of "Replicating" when they should have displayed as "Replication Paused."
- Fixed issue when target table is Oracle and has multiple CLOBS - empty clob values would generate an error.
- Fixed issue where a reimport of a source Adabas flat table with fewer columns resulted in the SQL statements not being correct after being opened in the rep admin.
- Fixed replication error message when it fails diagnostic check.
- Fixed iTrac ARN-103: Invalid column mapping on replication.
- Added the ability for the Replication Admin to create many target tables from one source table - target database combination.
- Performance statistics are turned on by default for replication
- 

## DataSync

- Fixed issue where CONNXStore column was sometimes truncated when synchronizing to a destination database
- Fix for Support Incident 5368935: While extracting CLOBS via CONNX multiple duplicate records found. The problem was that the CONNX Driver loaded DataSync configuration settings into global memory on DLL startup - and when the setting was changed in the DataSync GUI, the CONNX Core driver still had the old setting
- Fixed problems with Oracle CLOBs
- Added better error message in situations where incremental syncs fail

## Excel Add-In

- Fixed iTrac Issue ACE1773: Excel plug-in validation error occurred. The Excel add in was blocking some select statements that were valid.
- Fixed iTrac ACE-1776: Excel Addin does not write back to sample Vehicle and Employees Adabas files when the file is imported with SUPERDESCRIPTORASFIELD turned on.
- Fixed a bug in the alignment of the text of the data task pane buttons.
- Fixed issue where if certain 3<sup>rd</sup> party excel adds were installed with the CONNX excel add in all buttons for both ribbons would show in the same ribbon
- Changed Write Changes button to say Write Changes to File Only to avoid confusion that this button saves the changes to the database also.

## JDBC Server

- Fixed JDBC Logging - added critical section to make it thread safe
- Increased JAVA RPC size from 4k to 100k for performance
- Changed the JDBC Client TCP/IP Send logic so it sends the entire buffer all at once instead of breaking it up into 4k chunks.
- Fix the Java client so that we properly detect the first word of the SQL statement - skipping past any comments or white space
- Fixed iTrac CXA-6: Unix/Linux machines with JDBC server with bigint data type lost a last negative digit for big numbers
- Fix memory overwrite/crash when logging is enabled and SQL statement is greater than 65535.
- Implemented PreparedStatement.setObject( -, -)



## **License Server/Licensing**

- Changed configuration so that license server picks up configuration settings from the same location as the JDBC server.
- Fixed problem with Revoke service - it now revokes by serial number instead of license code, since the license code may have changed.
- Improved error message when there are no supported databases listed in the registry. The error "You are not licensed for any databases." has been changed to "You are not configured for any databases in the CONNX Configuration Manager under the key CONNX/DATABASES." The Linux/Unix version is worded to reflect the use of sqlregistry.
- Corrected LICENSEPORT to LICENSESERVERPORT in help messages in the installclient script as well as error messages in the license server

## **Install**

- Updated to latest SSH client library to resolve authentication issues.
- Fixed iTrac CXB-73 ADAREX value incorrect after install
- Corrected LICENSEPORT to LICENSESERVERPORT in help messages in the installclient script as well as error messages in the license server
- Provide users with a choice between su and sudo on re-install for Linux/Unix
- Fixed file path naming convention for Excel Add-In installer
- Fixed KeyboardInteractiveAuthentication error for scp and sftp

## Changes/Bug Fixes for CONNX 13.8

### *Critical Changes*

Please take special note of the following corrections and changes (listed below as well) as they may cause a change in expected behavior.

- Windows XP, Windows 7 and Windows Server 2008 are no longer supported for CONNX 13.8 and above.
- SCO Unix is no longer a supported platform
- RM Cobol is no longer supported
- 32bit support for DISAM, CISAM and Microfocus have been dropped. 64bit versions of these data servers are still supported.
- Update the data types shown in the Query Builder to show ANSI 92 data types instead of the .net datatypes.
- REGION parameter in JCL for mainframe servers changed to OM.
- Mainframe servers - changed default for ALLOWMIXEDPWD from 0 to 1. This will allow mixed case passwords on the mainframe data servers. If mixed case passwords are not enabled on the mainframe, this setting should be set to 0 in CNXPARMs.
- DECNet (Pathworks) is no longer supported when connecting to OpenVMS systems. This affects RMS, RDB and DBMS server components.
- Replaced CONNX Solutions program folder on the Windows Start menu with separate folders for each CONNX product. This change makes us consistent with the new Windows 10 menu structure.

### *New Features*

- Added support Oracle as an InstantdbSync source.
- Added support for the JDBC Server, License Server, Adabas data server, CISAM data server and DISAM data server to run in Docker Containers
- Added support for SSL/TLS on all TCP/IP connections

## ***Resolved Issues***

These are the major issues that were resolved and features that were added in CONNX 13.8:

### **CONNX client/server**

- Added support for the JDBC Server, License Server, Adabas data server, CISAM data server and DISAM data server to run in Docker Containers
- Added support for SSL/TLS on all TCP/IP connections
- SCO Unix is no longer supported
- Added support for Oracle Timestamp with Timezone data type (previous version did not support timezone)
- Fixed issue where we did not properly detect we were communicating to the mainframe when WCP(Entire network) was used.
- Added logic so if listen socket fails then we reissue the listen.
- Fix crash in Select  
cnxclientcodepage(),cnxclienticucodepage(),cnxclientdgcpage(),cnxclientdefaultcodepage() when code page was not supported or zero
- Implemented a specialized bulk update feature for Adabas
- Memory leak fixes
- Fixed problem where pooled connections that became invalidated were being held in the pool until the timeout period expired. Invalid connections are now removed immediately
- Add RMS Wait support to RMS RFA
- Added a new ODBC/JDBC optional connection parameter called SERVERPORT which will enable the user to override the port of the data server from a JDBC/ODBC connection
- Added code to put a pointer to the user id in the Adabas control block for user exits
- Added logic so that string manipulation collation adjusts based on code page for windows (this already happened on Linux/Unix based on LANG= setting)
- Fixed intermittent memory overwrites when running VSE data servers (Adabas or VSAM)
- Changed SYSCNXCOLUMNS to expose the physical column length

### **InfoNaut**

- Fixed error in Show Tables function where a double click on the white area caused an error message

### **CDD Manager**

- Prevent message popups when the CDD Manager is invoked using the command line interface.
- Fixed problem in Adabas DDM import code that caused a crash when there were more than 926 fields defined for a file.
- Fixed problem with vms browse function not working when installed to a location with a space in the name
- Fixed problem with Adabas SYSOBJH imports where the import skipped items when the group level was greater than 6
- Fixed crash if Delete Restriction is attempted when no restrictions are present (Table Security tab)

### **InstantdbSync/Open Systems Event Replicator**

- Added support for Oracle as an InstantdbSync source.
- Corrected problems arising from truncating the source table
- Corrected crashes when running under heavy load with SQL Server as the source.
- Corrected problems with updates not being replicated when running under heavy load with SQL Server as the source
- Resolved memory overwrite errors in SQL Server EP.
- Corrected memory leak which caused a crash during initial state when replicating to an Oracle target and the source table had several billion records.

## DataSync

- Fixed intermittent problem where syncs would report a blank table name
- Fixed problem where Incremental syncs failed if there were changes to a table and the source table name had a space in it
- Fixed problem in transform wizard where it was rewriting sql and making joins in the from clause invalid
- Fixed slow performance when running scheduled syncs
- Fixed intermittent problem where scheduled syncs could lock up
- Fixed a problem with license counts
- Fixed issue where error condition still triggered on success task
- Fixed issue where the target schema was not being created in a transform.
- Fixed problem where a sync would fail when column names contained single quotes.
- Fixed problem where if a scheduled sync failed because of a crash, it did not properly detect it and trigger the failure task.

## Excel Add-In

- Corrected update error when a column name had spaces in it
- Corrected problem where the add-in would no longer access data if any changes were made in the connection
- Corrected display problems when running Excel on Windows 10 with certain laptop displays
- Corrected a problem when editing a row in an Adabas table that contains null column. The commit caused an incorrect “no unique row” error even though the row was unique

## RCI

- Fix for issue where stored procedures that return result sets were not always reporting the correct column count in the RCI interface.

## **JDBC Server**

- Fix for java executeQuery - if the execute failed the whole statement handle was being closed
- Show warning message in the DSN Registry tool when a new DSN exceeds the 50-character limit and provide an opportunity to correct the >50 characters error

## **License Server/Licensing**

- Adding Hyper threading compensation for SQL Server core checks
- Fix for core count logic if there are multiple connections in the CDD pointing to the same server.

## **Configuration Manager**

- Fixed issue where it was reading/writing from 32bit when 64 was selected and 64bit when 32bit was selected. This affected the CONNX key only

## **Install**

- Fixed missing or non-working shortcut keys in UNIX Client Setup, CONNX Server Setup, License Admin, and Adabas SQL Gtwy Emb SQL Setup
- Fixed issue where references uninstalled items were being left in the menu
- Fixed issue in the Windows logon validation logic which failed if the password contained '&' or '#'
- Corrected problem where the file association for .CDD was incorrect if CONNX was installed in a location other than the default location

## Changes/Bug Fixes for CONNX 13.5

### *Critical Changes*

Please take special note of the following corrections and changes (listed below as well) as they may cause a change in expected behavior.

- When connecting to VSE with the Barnard TCP/IP stack, you need **BSTTENVR.OBJ** from **Build 257 pre32** or newer. Please contact Barnard Software, Inc. for a copy of this file.
- CONNX is no longer supported on Solaris 5.7. Solaris 5.8 and above is required to install and run CONNX 13.5 and above.
- InstantdbSync/Open Systems Event replicator now uses sqlregistry64 rather than sqlregistry32 on Linux/Unix systems. The installation process will automatically migrate settings from the 32bit registry database to the 64bit registry database during the upgrade. When adding or updating replication settings, please use sqlregistry64. This change effects version 13.5 and above.
- We have discovered an incompatibility with the Oracle 10.1 Instant Client. For users who wish to use the Oracle 10 instant client, they must upgrade to 10.2.
- Oracle 8 is no longer supported. This applies to both the Oracle client as well as the Oracle 8 database.
- When upgrading from versions of InstantdbSync or Open Systems Event Replicator previous to 12.5, the message queue must be drained prior to performing the upgrade. To drain the message queue, stop all activity on the source database(s) and wait for the queue length to go to 0 on the status screen. Note: This only applies to customers that are replicating to relational targets, ACD targets or JMS targets. This does not apply to Open Systems Event Replication customers doing Adabas to Adabas replication.
- Changed default value of CNXNOPREAUTHORIZE from 0 to 1 for IMS server.
- Changed default GROUP name for CICS server installations to be CNXGROUP instead of CNXvrr
- All shipping executables are now digitally signed
- Fixed default value for CONNECTIONPOOLING. The correct default is 2.
- Made default data type on oracle table creation for longvarchar, longvarbinary and nlongvarchar as - CLOB, BLOB and NCLOB respectively.
- The underlying DataSync database CONNXStore has been upgraded to PostgreSQL version 9.3.4. The installer will run a conversion process. The database will be backed up prior to conversion.

### ***New Features***

- Support for Redshift
- Enhanced Replication Administrator to display performance statistics on status screen
- Added command line options to replication controller
- SSL support added for connections between client and server code

### ***Resolved Issues***

These are the major issues that were resolved and features that were added in CONNX 13.5:

#### **CONNX client/server**

- Added SSL support
- Added support for Redshift
- Fixed problem where mixed case FDTs on mainframe Adabas were being read as upper case only
- Security fixes
- Fix to problem where connections to the database were not closed properly when license check failed
- Fixed NULLABLE attribute for all IMS tables
- Fix for givesocket/takesocket support on VSE
- Fix for being unable to drop an index using index name on some databases
- Corrected user fault alignments with CONNX for RMS on Itanium
- Fixed linked server problem when table names were not fully qualified

#### **CDD Manager**

- Added ability to import VSAM copybooks from local PC
- Fixed Adabas import issue where MU/PE occurrences were being prompted for when ADA\_TABLENAME option was set to 1
- Fixed problem where the toolbar was not displayed properly during application startup



### **InstantdbSync/Open Systems Event Replicator**

- Fixed issue where replication admin did not prevent conflicting primary key mapping between parent file and MU/PE subtables.
- Fixed memory leak with Adabas to Adabas replication
- Fixed issues with truncate command when source is SQL Server
- All components are now 64bit
- Added command line functions for Pause/Resume replication, Start Initial State and Get Status
- Added performance statistics to replication admin status screen

### **InfoNaut**

- Auto size columns for very small result sets - less than 60 columns, less than 500 rows

### **DataSync**

- Fixed "Unspecified Error" problem with Datasync. The correct diagnostics are now returned
- Fixed GUI issues with tab order and default buttons
- Corrected errors that occurred when Postgres was a database in the DataSync CDD

### **Install**

- Added manual copy option to z/OS server installer
- 32bit compatibility libraries are no longer necessary when installing on a 64bit Linux system
- Added a check to ensure that the main CONNX installer had been run prior to installing the Unix client