



Informatica® PowerExchange
10.2.0 and Hotfixes

Cumulative Release Notes

Informatica PowerExchange Cumulative Release Notes
10.2.0 and Hotfixes
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Table of Contents

Abstract.	iv
Chapter 1: PowerExchange HotFix Installation Overview.	5
Chapter 2: PowerExchange 10.2.0 HotFix 1.	6
First-Time and Upgrade Installation Files.	6
HotFix Installation Files.	6
Upgrade Considerations.	7
Updated Components in the PowerExchange ECCR CRG.LOAD Library for IMS Synchronous CDC.	7
New SAMPLIB Member for ECCR Programs That Support CICS/VSAM 5.4.	7
Enhancements.	8
Fixes.	10
Known Limitations.	15
Chapter 3: PowerExchange 10.2.0 Base Release.	20
PowerExchange 10.2 Installation and Upgrades.	20
Upgrade Considerations.	20
Consideration for Upgrading to PowerExchange on i5/OS.	20
Updated Components in the PowerExchange ECCR CRG.LOAD Library for IMS Synchronous CDC.	21
Enhancements.	21
Fixes.	22
Known Limitations.	26
Chapter 4: Informatica Global Customer Support.	30
Index.	31

Abstract

This document compiles the release notes that Informatica has issued to date for PowerExchange 10.2.0 and its hotfixes. The release notes are listed from latest to earliest with the 10.2.0 base release notes last.

CHAPTER 1

PowerExchange HotFix Installation Overview

To install a PowerExchange hotfix, you can complete a first-time installation, an upgrade installation, or a hotfix installation. Use the install files that are listed in these release notes by installation type and operating system.

To determine which type of installation to perform, use the following criteria:

- If PowerExchange is not currently installed, complete a first-time installation. Use the install files that are provided for a first-time or upgrade installation.
- If a PowerExchange version earlier than 10.2 is installed, complete an upgrade installation. Use the install files that are provided for a first-time or upgrade installation.
- If PowerExchange 10.2 is currently installed, complete a hotfix installation. Use the hotfix install files.

PowerExchange hotfixes are cumulative. The latest hotfix includes changes from all previous hotfixes on the current version.

Note: If you perform a first-time or upgrade installation on a Linux, UNIX, or Windows system, you can use a localized version of the PowerExchange installer. When you run the installer, you get localized PowerExchange messages. On Windows, you also get a localized version of the PowerExchange Navigator. If you copy the localized help files to the helpdoc folder, you can get localized help through the PowerExchange Navigator.

For more information about installation procedures, upgrade considerations, and software requirements, see the latest *PowerExchange Installation and Upgrade Guide*.

CHAPTER 2

PowerExchange 10.2.0 HotFix 1

This chapter includes the following topics:

- [First-Time and Upgrade Installation Files, 6](#)
- [HotFix Installation Files, 6](#)
- [Upgrade Considerations, 7](#)
- [Enhancements, 8](#)
- [Fixes, 10](#)
- [Known Limitations, 15](#)

First-Time and Upgrade Installation Files

Use the files from the software folder of the CD image to perform a first-time or upgrade installation of the PowerExchange 10.2 software, including the latest hotfix.

The following table provides the installation file name for each operating system:

Operating System	File Name
AIX (64-bit)	pwx1020_01_aix64.tar
i5/OS	pwx1020_01_i5os.exe
Linux x64 Opteron, EM64T (64-bit)	pwx1020_01_linux_em64t.tar
Solaris SPARC (64-bit)	pwx1020_01_solaris_sp64.tar
Windows x64 Opteron, EM64T (64-bit)	pwx1020_01_win_x64.exe
z/OS	pwx1020_01_zos.exe

HotFix Installation Files

If you have PowerExchange 10.2, use the files from the patches folder of the CD image to install 10.2 HotFix 1.

The following table provides the installation file name for each operating system:

Operating System	File Name
AIX (64-bit)	pwx1020_hotfix1_aix64.tar
i5/OS	pwx1020_hotfix1_i5os.exe
Linux x64 Opteron, EM64T (64-bit)	pwx1020_hotfix1_linux_em64t.tar
Solaris SPARC (64-bit)	pwx1020_hotfix1_solaris_sp64.tar
Windows x64 Opteron, EM64T (64-bit)	pwx1020_hotfix1_win_x64.exe
z/OS	pwx1020_hotfix1_zos.exe

Upgrade Considerations

Updated Components in the PowerExchange ECCR CRG.LOAD Library for IMS Synchronous CDC

The PowerExchange 10.2 HotFix 1 updates the PowerExchange CRG.LOAD library for IMS synchronous CDC to provide the latest available version of the BMC Software CHANGE RECORDING FACILITY and DATABASE INTEGRITY PLUS components.

If you use the CRG software, after you upgrade PowerExchange, run the CRGUMOD or CRGCLINK job in the *hlq.SAMPLIB* library again to install DBRC modifications. Otherwise, events such as abends might cause change capture to fail in the DLIODDCx module when the IMS synchronous ECCR tries to capture changes for a source segment. After you run the CRGUMOD or CRGCLINK job, restart the IMS control region.

Important: If you have a supported version of the BMC Software CHANGE RECORDING FACILITY, DATABASE INTEGRITY PLUS, or Fast Path Online Restructure/EP product, use the BMC Software product instead of the CRG software. In this case, you do not need to run the CRGUMOD or CRGCLINK job. Ensure that the BMC Software product version matches or is later than the minimum BMC version that PowerExchange 10.2 HotFix 1 supports for your IMS version.

New SAMPLIB Member for ECCR Programs That Support CICS/VSAM 5.4

PowerExchange 10.2 HotFix 1 adds the SAMPLIB member #CICSV71 for defining the CICS/VSAM ECCR programs and transaction for the newly supported CICS Transaction Server 5.4.

Because the definition of the CICS/VSAM ECCR programs and transaction changed, you must restart the CICS region after upgrading to PowerExchange 10.2 HotFix 1.

Enhancements

The following table describes closed enhancement requests:

Enhancement	Description
PWX-7221	In the CAPX CAPI_CONNECTION statement in the DBMOVER configuration file, you can add the new VALIDATEREGS parameter to control whether the PowerExchange Logger for Linux, UNIX, and Windows ends or continues when it detects a source entry in the CDC interest list for which it is not capturing change data. In this situation, the PowerExchange Logger issues message PWX-36947, either as an error message or informational message.
PWX-7098	In the AS4J CAPI_CONNECTION statement in the DBMOVER configuration member, you can set the LIBASUSER parameter to P to write the name of the program that made a DML change to the DTL__CAPXUSER field in each change record.
PWX-7023	The performance of PowerExchange Express CDC for Oracle queries to the Oracle data dictionary has been significantly improved for CDC sessions that have a large number of source tables.
PWX-7004	PowerExchange Express CDC for Oracle now supports change data capture from online and archived redo logs for a cloud-based source database instance in an Amazon Relational Database Service (RDS) for Oracle environment.
PWX-6983	On z/OS, the new PowerExchange DTLSMFRP program can generate reports of PowerExchange activity based on SMF statistics records in SMF archived data sets. In the STATS statement in the DBMOVER member, you must specify the SMF option and record type.
PWX-6955	For the Adabas, IDMS, and IMS log-based ECCRs or for the Datacom table-based ECCR, the PWX-00607 message has been enhanced to identify the ECCR module version and build. At ECCR initialization, the message is written in the JESMSG output and DTLLOG message log.
PWX-6914	PowerExchange now supports Adabas multiple-value fields in search criteria and SELECT statements. Use the ADABAS_MU_SEARCH statement in the DBMOVER configuration to include Adabas multiple-value fields in searches.
PWX-6835	The new PWXUCGRP utility allows you to create a report of the capture registration records in the CCT file. You can set the report level of detail and filter or sort the report information. This utility runs on Linux, Unix, and Windows.
PWX-6825	PowerExchange now supports Adabas version 8.4.x for bulk data movement and CDC processing.
PWX-6810	The following enhancements improve the way that PowerExchange handles SSL configuration issues: <ul style="list-style-type: none">- Error messages have been added and improved to help troubleshoot issues that might occur when establishing a secure connection between a PowerExchange Listener and a client.- The PWXUSSL utility has been updated. The PING command can be used to verify access to certificate and key files. Reports for error codes, return codes, and DBMOVER security configuration have also been added.- The PWXUGSK utility has been added to provide SSL configuration reports for PowerExchange Listeners on z/OS. The PING command can be used to verify access to certificates and the validity of AT-TLS rules on the z/OS system. Reports to identify cipher suites, error codes, and return code reports are also available.
PWX-6777	The DTLUCBRG utility can now generate before-image and change-indicator columns in extraction maps. Use the CREATEBICI parameter to enable this feature and to define the columns for which to generate before-image and change-indicator columns.

Enhancement	Description
PWX-6766	<p>If you use the PowerExchange Logger for Linux, UNIX, and Windows, you can specify a date and time as the restart point for PowerCenter CDC sessions that extract change data from the Logger log files. Set the date and time in an explicit override statement in the restart token file.</p> <p>Important: Please see the known limitation for this enhancement in the "Known Limitations" topic.</p>
PWX-2764	<p>You can now use the pwxcmd program to issue commands from a Linux, UNIX, or Windows machine to one of the following types of ECCRs on z/OS: Adabas, IDMS log-based, IMS log-based, or Datacom table-based. Supported commands include close, displaystats, displaytrace, traceon, and traceoff.</p>
PWX-2745	<p>PowerExchange now supports change data capture from MySQL Enterprise Edition 5.7 source tables on Linux or Windows operating systems. You can use the PowerExchange Navigator or DTLUCBRG utility to create MySQL capture registrations.</p>
PWX-2733	<p>To help you diagnose issues related to PowerExchange Logger for z/OS configuration settings or runtime options, the following messages have been added to the Logger output:</p> <pre>PWXEDM172558I Logger configuration parameters PWXEDM172852I Options in effect</pre> <p>Other new and improved messages clarify command processing errors.</p>
PWX-2526	<p>You can use the new FUZZYRSTART parameter in the LRAP CAPI_CONNECTION statement to allow extraction processing to restart from any position in the PowerExchange Logger for z/OS logged data. Previously, extraction processing could restart only from a begin-uow record. The default behavior now allows restarting from any position.</p>
PWX-2418	<p>PowerExchange now supports IMS 15 sources for IMS log-based CDC, synchronous CDC, and bulk data movement sessions.</p>
PWX-2067	<p>For bulk data movement sessions with a DB2 for z/OS target, you no longer need to grant the SELECT privilege on the target table to get the metadata that is required for creating the DB2 load statement for the target. Instead, you can set the new USE_CATALOG_METADATA=Y option in the PWX Override attribute of the PWXPC DB2 relational connection to read metadata from the DB2 catalog.</p>
PWX-1995	<p>PowerExchange now supports CICS Transaction Server (CICS TS) version 5.4. PowerExchange can capture changes that CICS TS 5.4 transactions make to VSAM data sets.</p>
PWX-1884	<p>PowerExchange now includes file allocation parameters when writing to an IMS unload file.</p>
PWX-1374	<p>The Data Map Creation Utility, createdatamaps, can now filter columns in data maps based on column name.</p>

Fixes

The following table describes fixed limitations:

Bug	Description
PWX-7369	PowerExchange change capture processing of a DB2 for Linux, UNIX, and Window source table in a multi-partition database might hang because of an internal PowerExchange fault that is caused by a specific and problematic sequence of transaction log records.
PWX-7346	<p>During DB2 for z/OS bulk load processing, PowerExchange fails with the following error:</p> <p>Data set <dataset name> not allocated. File in use.</p> <p>This fix improves file allocation and the way that concurrent tasks are managed during DB2 bulk load processing.</p>
PWX-7334	<p>During PowerExchange PWXPC processing, a database read fails for a DB2 for z/OS image copy with multiple partitions. The following message is issued:</p> <p>PWX-00271 DBAPI Error. DB_READ failed for file <i>file_name</i>.</p>
PWX-7311	During a PowerExchange install or upgrade operation on an IBM i (i5/OS) system, the PowerExchange CRTDTLENVF program might receive an unmonitored SQL9010 error and end. This error can occur when the RUNSQLSTM program tries to process a SQL source file that contains a comma that is not followed by a space and the system is defined to use a comma to represent the decimal point.
PWX-7291	<p>The DTLUCBRG utility cannot create capture registrations for Microsoft SQL Server sources on a Linux server. The utility fails with the following error message:</p> <p>PWX-10653 DTLUCBRG: MSSQL Registrations cannot be created from this platform.</p>
PWX-7265	<p>If you use PowerExchange Express CDC for Oracle with a remote PowerExchange Logger for Linux, UNIX, and Windows, PowerExchange capture processing might end when processing an update operation on a column that is defined with the NOT NULL constraint and DEFAULT option. The following error message is issued:</p> <p>PWX-36000 ORAD: Internal error Unexpected nColNum sequence: Null into not null data, unchained. type=Undo, idx=n col=n Op=0x25 (URP) SUP_OP=UPDATE, kdogspare1=0x1000 in module PwxOrlRdtCV:620.</p>
PWX-7259	<p>If you configured PowerExchange Express CDC for Oracle to capture direct-path insert and load operations for Oracle source tables, capture processing might end with the following error message:</p> <p>PWX-36000 ORAD: Internal error Expected FIRST flag not set for row chained = false in module PwxOrlRdtDlr:626.</p>
PWX-7255	In the PowerExchange Navigator, if you import a COBOL copybook that contains a FILLER REDEFINES statement when creating a data map for a z/OS data source, the Navigator does not correctly pad the redefining field to the maximum length of the redefined field.
PWX-7249	<p>The PowerExchange Logger for Linux, UNIX, and Windows fails when it receives DB2 for Linux, UNIX, and Windows log records that have the same the same virtual time stamp (VTS) value. The following message is issued:</p> <p>PWX-20036 Internal error, prog=DTECAPDG, line=8701, desc=Partition 0 VTS <lsn1> not greater than <lsn2>.</p>

Bug	Description
PWX-7247	<p>The PowerExchange Logger for Linux, UNIX, and Windows fails when receiving an ABORT instruction for a record in an MPPPREPARE state. The following message is issued:</p> <p>PWX-20053 Record at LLSN <i>hex_logical_LSN</i> is Abort, not expected in state MPPPrepare.</p>
PWX-7229	<p>If you use PowerExchange Express CDC for Oracle with the PowerExchange Logger for Linux, UNIX, and Windows to capture change data in an Oracle RAC environment, capture processing might end with the following error message:</p> <p>PWX-36000 ORAD Mbr n: Internal error KDOSUP is invalid. Operation: 1 supplemental index: n] bMultiBlock: 0 in module PwxOrlCmnCV:4425.</p>
PWX-7214	<p>When the DTLURDMO utility runs on Linux with the REG_COPY and TARGET control statements set to LOCAL, DTLAMCPR reports a failure with return code 80020. This problem occurs because two global variables have the same name.</p>
PWX-7201	<p>During DB2 for z/OS CDC processing, if one or more columns that have a varying-length datatype are added to a source table, the following error message might be issued:</p> <p>PWXEDM177460E Table '<i>owner.table_name</i>' unexpected row length in before image</p>
PWX-7193	<p>PowerExchange CDC processing for a Microsoft SQL Server source ends abnormally if the article entry in the distribution database for the source table has a null value in the source_owner or source_object column.</p>
PWX-7154, PWX-2752	<p>Power Exchange Express CDC for Oracle might encounter an error if you capture change data from Oracle index organized tables (IOTs) on a big endian machine and the PowerExchange capture process runs remotely on a little endian machine.</p>
PWX-7145	<p>During CICS/VSAM ECCR processing, a S0C4 might occur in the EDMKIRnn module at the global exit point XFCFROUT.</p>
PWX-7083	<p>If the Write Mode attribute is set to Asynchronous with Fault Tolerance in a bulk relational connection for a DB2 for z/OS target, batch sessions that use the connection might encounter unstable conditions and hang. This problem occurs if the target table contains some unmapped columns that have no corresponding columns in the Source Definition. When the session tries to load data to the target, unpredictable results can occur because of buffer overflows.</p>
PWX-7061	<p>When PowerExchange Express for Oracle and the Oracle server run on different operating systems, one of which is Windows and the other is Linux or UNIX, PowerExchange fails to find the redo logs. PowerExchange does not translate the forward or backward slash in the path to the redo logs to the correct form for the system where PowerExchange runs.</p>
PWX-7055	<p>When CCERR=ABEND is specified in the EDMSDIR options module and the PowerExchange Logger for z/OS ends abnormally, all of the transactions that are accessing an IMS database end with abend code U0035 or U4094, including transactions that affect segments that are not registered for CDC.</p> <p>With this fix, all read-only transactions are allowed to complete. For update transactions, you can use the IAUPABND option in EDMSDIR module to control whether all update transactions abend or only the transactions that update a registered segment abend.</p>
PWX-7042	<p>During PowerExchange Express CDC for Oracle processing of an Oracle 12c R2 source on an Exadata Database machine, the PowerExchange Logger for Linux, UNIX, and Windows ends with the following error message:</p> <p>PWX-36000 ORAD Mbr 3: Internal error Invalid change vector length: 1472 max len: 80 in module PwxOrlCmnCV:280.</p>

Bug	Description
PWX-7039	<p>During DB2 for Linux, UNIX, and Windows CDC processing, the PowerExchange Logger for Linux, UNIX, and Windows ends with the following error message:</p> <pre>PWX-20210 CAPDL: UDB Log Read Error: LSNs do not ascend: last good lsn=0000000052C35B29; next lsn=1.5F0A1DE.52C356E2</pre> <p>Attempts to restart the PowerExchange Logger fail.</p>
PWX-6984	<p>After a column is added with the NOT NULL constraint and DEFAULT option to a PowerExchange Express CDC for Oracle source table, the PowerExchange Logger for Linux, UNIX, and Windows might end with the following error message:</p> <pre>PWX-36000 ORAD: Internal error Unexpected nColNum sequence: Null into not null data, unchained. type=Supplemental, idx=n col=n Op=0x25 (URP) SUP_OP=UPDATE, kdogspare1=0x1000 in module PwxOrlRdtKdoCV:613.</pre>
PWX-6980	<p>A PowerExchange Logger for Linux, UNIX, and Windows instance that runs on AIX might end with a core dump while change data is being captured from DB2 for Linux, UNIX, and Windows source tables. Also, the DTLUCUDB utility might end with a core dump when generating diagnostic information or creating a DB2 catalog snapshot.</p>
PWX-6974	<p>The PowerExchange Agent might not process the message override file at startup.</p>
PWX-6952	<p>If you import a multi-record data map for an IMS source to create an IMS PHIDAM unload file, when you use the unload file to load data to a partition in another IMS database, the load operation might fail with an error message that reports an invalid partition prefix or prefix length.</p>
PWX-6912	<p>If you change the Condense option in a capture registration and the associated extraction map includes the DTL__BI and DTL__CI columns, the DTL__BI and DTL__CI columns are removed from the extraction map without warning.</p>
PWX-6907	<p>The PowerExchange Logger for Linux, UNIX, and Windows writes extraneous dump messages to the message log when it is configured to read copies of the archived redo logs from a specific directory and then encounters a file that is not an archived log in that directory.</p>
PWX-6883	<p>If a capture registration for a DB2 for z/OS source contains a column name that includes one or more spaces, the DB2 ECCR ends abnormally with the following error message:</p> <pre>PWXEDM177412E *** ERROR: INVALID EMBEDDED BLANK</pre>
PWX-6869	<p>During PowerExchange Express CDC for Oracle processing of a table that uses Oracle Advanced Compression, the PowerExchange Logger for Linux, UNIX, and Windows ends abnormally with the following message:</p> <pre>PWX-36465 ORAD Info Mbr 1: DML sequence error: multi-block sequence in process and not kDE_DML_MULTIBLK.</pre> <p>Attempts to warm start the PowerExchange Logger fail.</p>
PWX-6868	<p>When you cold start the PowerExchange Logger for Linux, UNIX, and Windows after a PowerExchange upgrade, PowerExchange Logger initialization fails with the following error:</p> <pre>PWX-00999 Program logic error. Prog="PwxOrlCtxSMgr". Line=492. P1="SignalFatalErrorWithMsg called without messages". P2=</pre>
PWX-6859	<p>The PowerExchange Listener does not close TCP sockets when a connection request from a client fails after a subtask is launched but before the connection is complete.</p>

Bug	Description
PWX-6857	If you perform a security check by using a port scanner such as Nessus, the PowerExchange Listener might hang indefinitely on the main Listener port or ignore commands, if a Listener port for a netport job is also defined.
PWX-6822	<p>During PowerExchange Express CDC for Oracle processing of tables that use Oracle Advanced Compression and contain LOB columns, the PowerExchange Logger for Linux, UNIX, and Windows ends with the following error message:</p> <pre>PWX-36200 ORAD: Column conversion error: [36202] NULL value found for column that is not nullable for Table name=table_name, column[n] segment[n] column_name. Detail Type = pwx_type, Oracle Type = Oracle_datatype.</pre>
PWX-6820	<p>If you KILL an ALTER TABLE ... SHRINK SPACE operation on an Oracle source table during PowerExchange Express CDC for Oracle processing, the PowerExchange Logger for Linux, UNIX, and Windows ends with the following message when encountering the backout record for the operation:</p> <pre>PWX-36488 ORAD Info: DML sequence warning: kDE_DML_OP and 1 backout sequence(s) in process.</pre> <p>With the fix, the PowerExchange Logger can continue processing.</p>
PWX-6809	The PowerExchange Navigator and DTLUCBRG utility allow you to create Microsoft SQL Server capture registrations that contain computed columns even though these columns are not eligible for change data capture. If you use the corresponding extraction map in a CDC session, the session fails. If you use the extraction map for a database row test, the row test returns no rows.
PWX-6802	<p>During PowerExchange CDC on z/OS, if a large number of concurrent transactions contain no data of CDC interest, PowerExchange might create an excessive number of spill files and then issue the following allocation error:</p> <pre>PWX-10790 QSTD: MVS spill file allocation failure, error code=0x0238, info code=0x0000</pre>
PWX-6789	During group source processing of a PWXPC connection in a PowerCenter workflow, PWXPC can fail to release data from cache for an IMS unload file that contains only root segments that have multiple overlays or redefinitions. This situation occurs when a redefinition has zero or few occurrences, and one or more redefinition instances are not in cache when a flush occurs. Cache processing stalls, even though the PowerCenter session continues to read the source file and the writer caches the records. Records are never written to the output file on z/OS.
PWX-6764	On z/OS, if you specify both USESUP=Y and PC_AUTH=Y in the DBMOVER configuration member, the PowerExchange Listener will terminate with an S047 abend code. The Listener terminates because the PowerExchange-provided MVS Program Call services routine is not compatible with zIIP processing of zIIP-enabled PowerExchange Listener functions.
PWX-6752	<p>If you use the DBMS_REDEFINITION.REDEF_TABLE package to perform an online redefinition of an Oracle 12c source table during PowerExchange Express for Oracle processing, the PowerExchange Logger for Linux, UNIX, and Windows ends with a core dump, even if the redefined table is not in the CDC interest list. Data loss or duplication can occur.</p> <p>Note: With this fix, the PowerExchange Logger continues processing if the table is not of CDC interest or shuts down to prevent data loss if the table is of CDC interest. However, simultaneous redefinitions of multiple tables can still result in data loss.</p>

Bug	Description
PWX-6751	<p>After an ALTER COLUMN operation on a column in a DB2 for Linux, UNIX, or Windows source table, the PowerExchange Logger for Linux, UNIX, and Windows ends abnormally with the following message:</p> <pre>PWX-20068 CAPD Info: PWX-20060 API call CAPD_InMemCat::ColumnAlter returned 5</pre> <p>This problem occurs when the altered column has a datatype of GRAPHIC or VARGRAPHIC. The record for the ALTER COLUMN operation expresses the column length in bytes but the DB2 catalog records the column length in characters. PowerExchange does not correctly recognize this situation and convert the bytes to double-byte character set (DBCS) characters.</p>
PWX-6749	<p>After you issue an EDMC XPGM command, error message PWXEDM176408E incorrectly reports that a display request was rejected because CICS/VSAM change capture has not initialized. However, if you then issue an EDMC INIT command, error message PWXEDM176407E correctly reports that change capture has already initialized.</p>
PWX-6746	<p>If you capture change data for a Microsoft SQL Server source table when MULTIPUB=Y is set in the MSQL CAPI_CONNECTION statement, the PowerExchange Logger for Linux, UNIX, and Windows and the CDC session might end abnormally, resulting in change data loss. This problem is caused by a change in the ODBC datetime format handling in SQL Server 2016.</p>
PWX-6735	<p>If the PowerExchange Logger for Linux, UNIX, and Windows runs on a system that is remote from the CDC source system, the number of registrations that the PowerExchange Logger can use is limited by the APPBUFSIZE value in the dbmover configuration file. If the APPBUFSIZE value is not large enough to accommodate all of the registrations, attempts to cold start the PowerExchange Logger will fail.</p>
PWX-6704	<p>A workflow that applies updates and deletes to a DB2 for z/OS target table using generated SQL that includes predicates with NULL values might fail. The update and delete records are either not applied or result in memory errors.</p>
PWX-2769	<p>After PowerExchange is upgraded, PowerExchange Condense on z/OS might take longer to process change records that are written to partial condense files.</p>
PWX-2752, PWX-7154	<p>PowerExchange Express CDC for Oracle might encounter an error if you capture data from Oracle index organized tables (IOTs) on a big endian machine and the PowerExchange capture process runs remotely on a little endian machine.</p>
PWX-2723	<p>The DTLUCBRG utility fails if the path and file name that is specified for the OUTPUT parameter is too long.</p>
PWX-2706	<p>Records that are written to a sequential file target based on a COBOL copybook with multidimensional arrays have count fields incorrectly zeroized. This fix addresses the validation and successful output of the records in this scenario.</p>
PWX-2704	<p>If you perform a security check by using a port scanner such as Nessus, the PowerExchange Listener might hang indefinitely on the main Listener port or ignore commands, if a Listener port for a netport job is also defined.</p>
PWX-2549	<p>When the DB2 for z/OS ECCR encountered a lock on the TCAPTABLESPACE capture directory table, it rolled back to previous position in the DB2 log and recaptured change data that had already been processed.</p>
PWX-2343	<p>When migrating PowerExchange to a new server, if you use the DERIVE_CDCT_BACKUP command of the PWXUCDCT utility to rebuild the PowerExchange Logger for Linux, UNIX, and Windows CDCT file on the new server, the rebuilt CDCT file might specify in a greater number of log files than expected.</p>
PWX-2067	<p>PowerExchange requires SELECT access to tables that do not need to be read during bulk data movement. This fix removes the requirement to grant the SELECT privilege for these tables.</p>

Bug	Description
PWX-2060, PWX-7054	<p>PowerExchange Express CDC for Oracle might encounter an internal error related to the endianness of the Oracle compression dictionary when capturing data for compressed Oracle tables. Capture processing ends with the following error message:</p> <pre>PWX-36000 ORAD: Internal error Direct Path parse failed for compression dictionary: Unexpected symbol entry 0x00(entry: 1, leaf @ pos 2 in module PwxOrlRdtDlr:446.</pre> <p>This problem occurs when the database runs on a big-endian system and the redo log files are processed on a little-endian system.</p>
PWX-2044	In the z/OS Installation Assistant, if you select the Upgrade by Using Existing Data Set Names option for a DB2 for z/OS CDC source database, the installation SETDB2UE job does not use the latest DB2BINDB member in the staging RUNLIB to bind DB2 plans and packages. Instead, you must manually update the old DB2BIND member in the RUNLIB library.
PWX-1937	A Developer mapping with an expression transformation and a DB2 for i (i5/OS) source results in incorrect output. The expression returns hexadecimal values instead of text.
PWX-1886	An error occurs in date-mask validation if a date using the short-month format includes lower-case letters in the month name.
PWX-1668	If the Worker Threads connection attribute for a DB2UNLD source type has a value greater than 0, PowerCenter workflows that use the connection fail with error message DTL-02555. This error occurs even in workflows that ran without error in previous releases of PowerExchange.

Review the Release Notes of previous releases for information about previous fixed limitations.

Known Limitations

Note: The current bug tracking system uses bug IDs that begin with the "PWX-" prefix. The previous tracking system used bug IDs that consist of six numbers. For known limitations that carried over from an earlier release and now have a new PWX-*nnnn* bug ID, you can find the previous bug ID at the end of the description in parentheses.

The following table describes known limitations:

Bug	Description
PWX-7670	When MySQL source DECIMAL data that includes the maximum number of significant digits is sent to target DECIMAL and NUMERIC fields, the scale on the target is truncated by a single digit for positive numbers or by two digits for negative numbers.
PWX-7406	If you use the DTLUCBRG utility to create capture registrations and extraction maps for IMS synchronous or log-based CDC sources and specify the CREATEBICI parameter, the utility job will fail to generate the additional before-image and change-indicator columns.

Bug	Description
PWX-7388	<p>After PowerExchange has captured change data for a MySQL source table, if you drop the table and then re-create it with the same table structure, any attempt to warm start the PowerExchange Logger for Linux, UNIX, and Windows fails.</p> <p>Workaround: Before you drop and re-create a source table, stop the PowerExchange Logger and all CDC sessions that process data from that table. After you drop and re-create the table, cold start the PowerExchange Logger.</p>
PWX-7303	<p>A fatal error might occur when a PowerCenter session attempts to truncate a target table using a PowerExchange connection and the truncation fails.</p> <p>Workaround: Correct the truncation problem.</p>
PWX-7144	<p>For PowerExchange Listeners that process Adabas and IDMS data on z/OS, S0C4 system abends occur if you issue a <code>/F listener_name,STOPTASK</code> command from the z/OS console or <code>pwxcmd stoptask</code> command from a remote system and any task is in an ECB wait state and reported as "dormant."</p> <p>Workaround: Use the DTLUTSK utility to stop the task, or perform a PowerExchange Navigator database row test using the DB Type of TASK_CNTL to issue a Stop Task command.</p>
PWX-7104	<p>If you issue a <code>pwxcmd</code> command such <code>displaystats</code> to an ECCR on a z/OS system, the <code>pwxcmd</code> command handler might hang. This problem occurs when the amount of command output is greater than 4 KB.</p>
PWX-7021	<p>If you use PowerExchange Express CDC for Oracle to capture change data from compressed tables in an Oracle 12c R2 database and the compressed tables include LOB columns, capture processing ends with the following error message:</p> <p>PWX-36000 ORAD: Internal error Unexpected nColNum sequence: Mis-matched data, unchained. type=Supplemental, idx=0 col=1</p> <p>Workaround: Do register compressed Oracle 12c R2 tables that contain LOB columns for change data capture.</p>
PWX-6954	<p>If you use PowerExchange Express CDC for Oracle to capture change data from index-organized tables (IOTs) in an Oracle 12c RAC environment, capture processing might end with the following error message:</p> <p>PWX-36475 ORAD Mbr 1: PowerExchange encountered a redo log assembly error in a committed transaction</p> <p>Workaround: Do not register Oracle 12c IOT tables in a RAC environment for change data capture.</p>
PWX-6766	<p>If you to specify a date and time as the restart point for PowerCenter CDC sessions that extract change data from PowerExchange Logger for Linux, UNIX, and Windows log files, the time-based restart of the CDC session might fail. You set the restart date and time in Explicit override statements in the restart token file for the session.</p> <p>Workaround: On the Integration Service machine, remove all <code>CAPL_CONNECTION</code> statements from the <code>DBMOVER</code> configuration file that is used by the local PowerExchange Listener. Perform this workaround only if the statements are not required by other PowerCenter tasks that run on the Integration Service machine. If you cannot use this workaround, check with Informatica Global Customer Support to determine if an emergency bug fix (EBF) is available.</p>
PWX-2160	<p>If you create an alias for an i5/OS physical file and import the object into Informatica Developer, the Developer tool does not successfully import the metadata for the object.</p> <p>Workaround: Import the physical file and then rename it to match the alias. (277298)</p>

Bug	Description
PWX-2031	<p>If you include hidden columns in capture registrations for DB2 for i5/OS tables, PowerExchange extraction processing ends abnormally with the following error message for each hidden column:</p> <pre>PWX-06714 Table schema.table_name Field field_name missing (DB2 for i5/OS CDC)</pre> <p>This error occurs because PowerExchange cannot detect the hidden columns.</p> <p>Workaround: Register tables that contain hidden columns in the PowerExchange Navigator so that you can selectively omit the hidden columns from the capture registrations. (463305)</p>
PWX-2017	<p>If a PowerCenter bulk data movement session uses a PWX DB2zOS relational connection and the DB2 for z/OS LOAD utility to load data to a DB2 for z/OS target and you specified RETLOGINFOMSG=Y in the PWX Override connection attribute, the message output for the utility step is not copied to the session log when the load operation ends successfully. If the load operation ends unsuccessfully and the utility message output is large, the output might be truncated. (462651)</p>
PWX-1971	<p>If the file permissions on the directory path that is defined in the LOGPATH statement in the DBMOVER configuration file on the Linux Data Integration Service machine are not set correctly, a core dump occurs and a Java Runtime Environment fatal error is reported.</p> <p>Workaround: Ensure that the file permissions are not too restrictive. Permissions of 755 are sufficient. (459102)</p>
PWX-1926	<p>A PowerCenter bulk data movement session with a PowerExchange nonrelational source ends immediately when it cannot establish a connection to the PowerExchange Listener, even though the Connection Retry Timeout attribute in the PWXPC NRDB Batch application connection is set to a value greater than 0. The session fails to retry the connection for the retry interval specified in the connection attribute.</p> <p>Workaround: Restart the session. (451634)</p>
PWX-1922	<p>PowerExchange Express CDC for Oracle ends abnormally when trying to capture direct-path load operations for tables that use Exadata Hybrid Columnar Compression (EHCC).</p> <p>Workaround: If you have a source table that uses EHCC, do not enable the capture of direct-path load operations. Use the default setting of N for the SUPPORT_DIRECT_PATH_OPS parameter in the OPTIONS statement of the PowerExchange Express CDC for Oracle configuration file. (451128)</p>
PWX-1827	<p>PowerExchange Express CDC for Oracle capture processing ends with the following error message when a source index-organized table (IOT) is altered to add an overflow tablespace, a mapping table, or an INCLUDING <i>column_name</i> clause:</p> <pre>PWX-36000 ORAD: Internal error TableImpl::UpdateTAB unexpected condition: m_ObjId (object_id) !=rB.obj (object_id) in module PwxOrlDictImpl:10116.</pre> <p>In this situation, loss of column data in a row might occur.</p> <p>Workaround: Rematerialize the target table. Then cold start the CDC session to recover the lost column data. (438982)</p>
PWX-1799	<p>When you create a PowerExchange Listener Service by using the Administrator tool, if you do not select a license on the first page of the Create Service wizard, the Finish button on the second page is not active.</p> <p>Workaround: Select a license on the first page of the wizard. (435047)</p>

Bug	Description
PWX-1796	<p>PowerExchange Express CDC for Oracle does not properly process Quick Multi Insert (QMI) operations for IOTs. The PowerExchange Logger for Linux, UNIX, and Windows might end abnormally with a return code of 9980 if you perform the following types of actions that produce QMIs:</p> <ul style="list-style-type: none"> - Issue SQL statements such as INSERT ALL, MERGE, and INSERT AS SELECT with the APPEND hint. - Use SQL*Loader to load a source IOT. - Run the Oracle Data Pump Import utility (impdp command) to load an IOT. <p>Workaround: Do not run SQL statements that cause Oracle to produce QMIs and do not use SQL*Loader or the Oracle Data Pump Import utility to load an IOT. (434494, 426791)</p>
PWX-1763	<p>If a PowerCenter session tries to connect to a PowerExchange Listener that is not available, the session does not fail gracefully with appropriate error messages. On Linux and UNIX, a core dump might occur. On Windows, the session might continue to run as if no error had occurred and then terminate correctly, or it might run indefinitely and need to be stopped manually. (428654)</p>
PWX-1715	<p>If the LOGPATH statement in the DBMOVER configuration file on a PowerCenter system specifies a directory other than the default directory for the detail.log file, the user under which the PowerCenter Integration Service runs might not have write permissions on the detail.log file. In this case, PowerExchange writes error message PWX-07501 to the PowerCenter session log. However, this message is not useful for diagnosing the error.</p> <p>Workaround: Do not specify the LOGPATH statement. The detail.log is then located in the PowerCenter <code>server/bin</code> directory by default. The user under which the PowerCenter Integration Service runs usually has write permissions on files in this directory. (417340)</p>
PWX-1672	<p>A CAPXRT database row test in the PowerExchange Navigator for an IMS complex table source returns no changes even though the PowerExchange Logger for z/OS contains data for the source. This problem occurs when a capture registration is re-created for the source with the same tag name as the previous registration and the new registration includes an additional IMS segment. As a result, PowerExchange cannot map the new registration to the data in the PowerExchange Logger log files.</p> <p>Workaround: None available. Contact Informatica Global Customer Support. (409991)</p>
PWX-1637	<p>When a PowerCenter workflow with a DB2 for i5/OS source or target connection fails, error message PWX-31211 reports incomplete information. (404217)</p>
PWX-1521	<p>If you capture change data from a DB2 for Linux, UNIX, and Windows source table that uses range partitioning and a DDL operation that adds, attaches, or detaches a partition is performed on the table, data loss might occur and cause data corruption on the target.</p> <p>Workaround: Do not issue DDL statements that add, attach, or detach a partition for a source table. Alternatively, if you must perform these DDL operations on a source, before you start CDC processing, synchronize the source and target tables by using PowerExchange bulk data movement or another tool. (395055)</p>
PWX-1494	<p>If a distribution key that has multiple columns was used to partition a source table that is included in a PowerCenter session, the session log shows an incorrect number of requested and applied Update operations. (392219)</p>
PWX-1493	<p>A PowerCenter session that uses a PWX DB2LUW connection to write data to a DB2 target fails if the target table metadata contains non-ASCII characters. (392218)</p>
PWX-1480	<p>If you import a source or target table that contains columns with the datatype of graphic, vargraphic, or long vargraphic from PowerExchange into PowerCenter Designer, the columns are imported with a character datatype.</p> <p>Workaround: After you import the table definition, edit the column datatypes in PowerCenter Designer. However, if you imported a CDC extraction map, you cannot edit the datatypes. (390778)</p>

Bug	Description
PWX-1479	<p>If you specify UTF-8 as the PowerExchange code page and create a capture registration in the PowerExchange Navigator for a DB2 for Linux, UNIX, and Windows source table that has a table name, schema name, or column name with non-ASCII characters, the Navigator fails to identify the primary key columns for the table.</p> <p>Workaround: Do not use non-ASCII characters in the table metadata if you use the UTF-8 code page. (390724)</p>
PWX-1412	<p>If you run the LISTTASK command of the DTLUTSK utility, tasks that use pooled connections do not display the correct access method or mode. (379283)</p>
PWX-1387	<p>If you use PowerCenter to write Updates to a PowerExchange target and an Update fails, the PowerCenter session log displays an incorrect counts of Update rows in the Load Summary. An Update might fail, for example, because the target record does not exist. (375568)</p>
PWX-1271	<p>When you import a copybook that contains certain German-language characters, such as 'ß' or vowels with umlauts, into a PowerExchange data map, the lines that contain these characters are not imported.</p> <p>Workaround: If these German-language characters appear within comments, edit the comments to remove or replace the characters. (350646)</p>
PWX-1184	<p>When you create a data map in the PowerExchange Navigator, if you import a PL/I copybook and enter Start and End values that define a column range that includes line sequence numbers, the PowerExchange Navigator might add an extraneous "NEW_RECORD__" record and then either fail or produce unpredictable results.</p> <p>Workaround: When importing a PL/I copybook, do not define a column range or accept a default column range that includes line sequence numbers. (331003)</p>
PWX-825	<p>When you run a CDC session that includes a password-protected Adabas data source and uses the CAPXRT access method and offload processing, the session fails. (257540)</p>

CHAPTER 3

PowerExchange 10.2.0 Base Release

This chapter includes the following topics:

- [PowerExchange 10.2 Installation and Upgrades, 20](#)
- [Upgrade Considerations, 20](#)
- [Enhancements, 21](#)
- [Fixes, 22](#)
- [Known Limitations, 26](#)

PowerExchange 10.2 Installation and Upgrades

Follow the procedures in the *PowerExchange 10.2 Installation and Upgrade Guide* for a full or upgrade installation.

Upgrade Considerations

Consideration for Upgrading to PowerExchange on i5/OS

If you are upgrading an existing PowerExchange installation on i5/OS to the 10.2 version, after you upgrade the product and before you start the PowerExchange Listener, issue the following commands to rebuild the metadata objects that PowerExchange uses:

```
ADDLIB LIB(DTLLIB) POSITION(*FIRST)  
CRTDTLENVF DTLLIB(DTLLIB) DATALIB(DATALIB)
```

Where:

- *DTLLIB* is the PowerExchange software library.
- *DATALIB* is the PowerExchange library that contains data files such as the CCT file, PowerExchange configuration parameters file, and the LISTENER and DTLOS_MSQG message queues.

If you need to access a remote DB2 for i5/OS database, you must specify additional parameters in the CRTDTLENV command, as follows:

```
CRTDTLENV DTLIB(DTLIB) DATALIB(DATALIB) RMTRDBDIRE(DATABASE_NAME)
RMTSYSNAME(HOST_NAME) RMTASPDEV(*) OSLEVEL(OS_LEVEL)
```

Updated Components in the PowerExchange ECCR CRG.LOAD Library for IMS Synchronous CDC

The PowerExchange 10.2 version includes patch P802235, which updates the PowerExchange CRG.LOAD library for IMS synchronous CDC to provide the latest available version of the BMC Software CHANGE RECORDING FACILITY and DATABASE INTEGRITY PLUS components.

If you use the CRG software, after you upgrade PowerExchange, run the CRGUMOD or CRGCLINK job in the *hlq.SAMPLIB* library again to install DBRC modifications. Otherwise, events such as abends might cause change capture to fail in the DLIODDCx module when the IMS synchronous ECCR tries to capture changes for a source segment. After you run the CRGUMOD or CRGCLINK job, restart the IMS control region.

Important: If you have a supported version of the BMC Software CHANGE RECORDING FACILITY, DATABASE INTEGRITY PLUS, or Fast Path Online Restructure/EP product, use the BMC Software product instead of the CRG software. In this case, you do not need to run the CRGUMOD or CRGCLINK job. Ensure that the BMC Software product version matches or is later than the minimum BMC version that PowerExchange 10.2 supports for your IMS version.

Enhancements

The following table describes closed enhancement requests:

Enhancement	Description
PLAT-16789	You can now install PowerExchange silently on Linux, UNIX, and Windows.
PWX-2385, PWX-2175	PowerExchange now provides 128-bit, 192-bit, and 256-bit AES encryption as an alternative to Secure Socket Layer (SSL) network security. AES encryption replaces the DES and RC2 encryption types. To enable alternative network security, define the ENCRYPT statement in the DBMOVER configuration file on the system where the data movement process runs. If you define ENCRYPT=AES, also define the ENCRYPTLEVEL statement.
PWX-2238	PowerExchange now supports Adabas 8.3.4 for CDC sources and for bulk data movement sources and targets.
PWX-2235	The PowerExchange CRG.LOAD library for IMS synchronous CDC now provides a newer version (5.0.00 RSL 1701) of the BMC Software CHANGE RECORDING FACILITY and DATABASE INTEGRITY PLUS components. (Patch 802235)
PWX-2230	PowerExchange now reports cumulative zIIP times in the PWXGTCP, PWXGTOT, and PWXGTOF fields of the General section of System Management Facilities (SMF) statistics records. Also, the documentation on SMF statistics has been enhanced to add more details on the SMF record format and describe how to view statistics written to SMF.

Enhancement	Description
PWX-2221	You can use Microsoft SQL Server NTLM and Active Directory authentication to control PowerExchange access to a SQL Server source database for CDC and database row tests. You must enter the user ID in the format <i>domain\user_name</i> when you create the registration group or run a row test.
PWX-2200	PowerExchange provides the ability to override the default locations of the DBMOVER configuration file and PowerExchange license key file that the PowerExchange Navigator uses. When you add or edit a PowerExchange resource configuration, you can specify the location of the files for the resource configuration. You can also override the default locations by using the command line or environment variables.
PWX-2191	When you use the Developer tool to search for a nonrelational physical data object to import, PowerExchange now returns the message "No Results Found" if the search returns no results.
PWX-2128	The DB2 for z/OS ECCR can now capture BLOB, CLOB, and DBCLOB data that is stored fully inline in the base table space up to the inline length, provided that this length does not exceed the 32-KB page size limit minus the size of the DB2 control fields and columns. If CLOB or DBCLOB data is stored in an auxiliary table space, you can use the new generated DTL__ST column with PowerCenter Expression and Lookup transformations to retrieve all of the data. If BLOB data is stored in an auxiliary table space, a custom solution is required.
PWX-2029	To control the impact of long outstanding transactions on the restart of PowerExchange CDC processing for DB2 for Linux, UNIX, and Windows sources, you can specify the new AGEOUTPERIOD parameter in the UDB CAPI_CONNECTION statement in the dbmover.cfg file. This parameter specifies the number of minutes at which an outstanding UOW that has no change records of CDC interest will be removed from the calculation of the CDC restart point.
PWX-2001	CICS/VSAM ECCR processing of change data is now more efficient and reliable because it uses the local work area (LWA) for each task that invokes a global user exit (GLUE) or the CICS task-related user exit (TRUE) instead of issuing repetitive GETMAIN and FREEMAIN requests to acquire and release working storage. The LWA is an extension of the Task Interface Element (TIE) that CICS allocates for exclusive use by the CICS/VSAM ECCR whenever a CICS task causes an ECCR exit program to be invoked.
PWX-1973	PowerExchange now supports DB2 12 for z/OS for bulk data movement and CDC sessions.
PWX-1969	You can now use the Developer Tool to import multiple nonrelational data objects at a time.
PWX-1873	PowerExchange Express CDC for Oracle can now report the DDL operations that it detects in the Oracle redo logs for Oracle source tables with active capture registrations. To enable reporting, specify the new REPORTDDL=Y parameter in the OPTIONS statement of the Express CDC configuration file, pwxorad.cfg.
PWX-1520	In the statistics records that PowerExchange logs to SMF, the header now contains triplet fields that define occurrences, lengths, and offsets for all record sections.
PWX-70	PowerExchange now supports AIX 7.2 for CDC sources and for bulk data movement sources and targets.

Fixes

The following table describes fixed limitations:

Note: Informatica migrated to a different bug tracking system. The new tracking system uses bug IDs that begin with the "PWX-" prefix. The previous tracking system used bug IDs that consist of six numbers. The bug IDs in the older format are listed last.

Bug	Description
PWX-2699	PowerExchange Express CDC for Oracle can lose data if Oracle has an Undo tablespace with a defined block size of 2 KB and the user tablespace has a block size greater than 2 KB.
PWX-2659	<p>If you run an ALTER DATABASE BEGIN BACKUP statement against an Oracle database when Transparent Data Encryption (TDE) tablespace encryption is enabled, PowerExchange Express CDC for Oracle can fail with the following error message:</p> <pre>PWX-36000 ORAD: Internal error Invalid change vector length: 40 max len: 40 in module PwxOrlCmnCV:96</pre>
PWX-2625	If a PowerCenter session calls a stored procedure on i5/OS that accepts parameters and returns a result set, the session fails.
PWX-2574	<p>If you run the DTLUCBRG utility to create capture registrations for a Microsoft SQL Server source and the source server is listening on a nonstandard port, the utility might fail to create the registrations with the following error message:</p> <pre>PWX-15790 ODBC driver for Microsoft SQL Server returned error [08001] [Informatica][ODBC SQL Server Wire Protocol driver] Connection refused. Verify Host Name and Port Number.</pre>
PWX-2570	If you include the PC_AUTH=Y statement in the DBMOVER configuration file on a z/OS system where the PowerExchange 10.1.1 Listener is running, the Listener task might end abnormally.
PWX-2560	If the z/OS Cryptographic Services Integrated Cryptographic Service Facility (ICSF) is not active, the PowerExchange Listener on z/OS might fail with an unexpected return code and reason code.
PWX-2544	If you use the data preview function in the Developer tool to view extended timestamp data in an i5/OS data source, the data is returned correctly only if the scale of the extended timestamp is 6.
PWX-2533	If you enable complete constraint-based loading for a PowerCenter CDC session by specifying FullCBLOSupport=Yes in the Custom Properties attribute on the Config Object tab, the session might ignore the FullCBLOSupport property. In this case, when the session tries to load the target primary-key table and foreign-key tables, it might encounter foreign-key issues that cause change records to be rejected.
PWX-2519	During a bulk data movement session in which PowerExchange performs a multiple-record write of z/OS EBCDIC files to Linux, UNIX or Windows using a variable record format type of VBP2 , the record length is incorrectly set.
PWX-2483	When the PowerExchange Navigator and PowerExchange utilities send data across the network, they ignore the values in the ENCRYPT and ENCRYPTLEVEL statements in the DBMOVER configuration file.
PWX-2466	When you add table spaces to or remove table spaces from a DB2 for Linux, UNIX, or Windows table, memory might become corrupted, causing change capture to shut down.
PWX-2442	The sample SQL statements in the ora_orad.sql file for PowerExchange Express CDC for Oracle is missing the required GRANT SELECT ON "PUBLIC"."V\$VERSION" statement for the ORACAPTL1 user.
PWX-2430	During Microsoft SQL Server CDC, PowerExchange SELECT queries that use the NOLOCK hint fail to retrieve some Insert and Update records for source tables. As a result, these changes are missing from the PowerExchange Logger for Linux, UNIX, and Windows log files and data corruption might occur.

Bug	Description
PWX-2427	<p>When processing the MID record of a TAIL/MID/HEAD sequence for Multi-Block Undo (MBU) records, PowerExchange Express CDC for Oracle might fail with the following error message:</p> <pre>PWX-36000 ORAD: Internal error Assertion Failed for Value! pKTUBU->Get_opcode().IsUndo() on MULTI-Block UNDO (MBU)</pre>
PWX-2421	<p>During PowerExchange Express CDC for Oracle processing, the PowerExchange Logger for Linux, UNIX, and Windows might end abnormally with the following message:</p> <pre>PWX-36112 ORAD: Failed to find any active logs for THREAD# 1, GROUP# 0 matching the supplied parameters</pre>
PWX-2416	<p>PowerCenter CDC sessions fail when using PowerExchange ODBC connections to extract data and the VSAM CDEP control file to hold restart information. The expected restart position is not read from the CDEP file when the session starts, and the data that was already processed is extracted again. When the session closes, the PowerExchange Listener logs a duplicate key error message:</p> <pre>PWX-00776 AMVSM PUT failed RC=0x00000008 RSN=0x00000008 for file=IS09P.PWX.V1011.V1.CDEP.</pre>
PWX-2297	<p>The PowerExchange Navigator might fail to delete a capture registration for a Microsoft SQL Server table with the following error:</p> <pre>PWX-15700 SQL-SMO interface returned error -1 with text: Failed to connect to server</pre> <p>The registration entry in the CCT file could not be deleted.</p>
PWX-2248	<p>If you set the i5/OS environment variable QIBM_USE_DESCRIPTOR_STDIO to Y or I, the output from PowerExchange executables is suppressed.</p>
PWX-2241	<p>If the i5/OS QDECFMT system value is set and you use the Developer tool to import a physical data object from DB2 for i5/OS on that system, PowerExchange issues error message PWX-16453.</p>
PWX-2222	<p>If a PowerCenter session performs an uncached lookup on a DB2 for z/OS sequence object, the following error message might be issued:</p> <pre>PWX-02005 Cursor close error. SQLCODE = -501</pre>
PWX-2211	<p>When network security performs an NMAP security scan, the PowerExchange Listener on the client machine might hang.</p>
PWX-2166	<p>During CICS/VSAM CDC, CICS might generate an AETA abend and third-party programs that use the task-related user exit point (TRUE) might incur a related S0C4 abend.</p>
PWX-2165	<p>When PowerExchange Express CDC for Oracle runs in ARCHIVEONLY mode in a RAC, a timing error might occur. In this case, the following error is reported:</p> <pre>ABORT forced by PwxOrlTMgrUow function @ line 1417 ASSERT expression: uNumberOfDataEventsAfter < uNumberOfDataEventsBefore</pre> <p>This error occurs when one or more instances in the RAC creates archive logs more slowly than the other instances.</p>
PWX-2116	<p>If the Source Qualifier transformation for a PowerExchange DB2 for i5/OS source in a PowerCenter session calls a stored procedure on i5/OS to return data, the PowerCenter session fails unless the stored procedure was created with the following options in the CREATE PROCEDURE statement:</p> <pre>SET OPTION DATFMT = *ISO ,TIMFMT = *ISO (404017)</pre>

Bug	Description
PWX-2114	If a DB2 for z/OS target database shuts down or stops abnormally during CDC processing, the CDC session continues running and the PowerExchange writer writes an excessive number of PWX-02011 error messages to the PowerExchange DTLLOG log on the z/OS system. The messages report a SQLCODE -924 error.
PWX-2110	If you use PowerExchange Express CDC for Oracle to capture change data from source tables in an Oracle RAC environment and interval partitioning causes a new partition to be created on a RAC member, PowerExchange might not capture some Insert operations for the source tables.
PWX-2092	<p>If you use PowerExchange Express CDC for Oracle to capture changes from Oracle 12c compressed tables and Oracle generates a malformed redo log record, the PowerExchange Logger for Linux, UNIX, and Windows ends abnormally and the following error message is issued:</p> <pre>PWX-36461 ABORT forced by PwxOrlCtxTMgr function @ line 169 ASSERT expression: 0 < m_uSubSequences</pre>
PWX-2084	If you add before image (BI) columns for timestamp columns with a precision other than timestamp(6) in an extraction map for a DB2 for i5/OS or DB2 for z/OS source, extraction processing fails when you perform a CAPXRT database row test on the extraction map in the PowerExchange Navigator or run a real-time CDC session that includes the source. This problem occurs because the column precision is not preserved when you save the extraction map.
PWX-2083	When you use the Developer tool to view the advanced properties for a sequential data object, an exception occurs.
PWX-2081	If you perform a cold start of a CDC session with the RESTART1 and RESTART2 special override statements in the restart token file, the session ends abnormally. In the session log, the PWXPC_12060 message indicates that the restart token values were truncated.
PWX-2035	Some z/OS Installation Assistant pages contain invalid field lengths or misleading text.
PWX-1939	<p>Microsoft Windows does not allow a network file beginning with "\\\" to be opened with a local user account. When PowerExchange tries to open such a file, it does not return a clear error message that explains the problem.</p> <p>With the fix, when you try to access a file on a shared network drive, PowerExchange reports the following error message:</p> <pre>errno = EINVAL (number). Network file cannot be accessed using local user "user_name".</pre>
PWX-1851	If a PowerExchange client application generates an SQL string that exceeds 32700 bytes, the client application fails with an error message. For example, profiling a PowerExchange source with a large number of columns might result in this error. (442126)
PWX-1742	If you use a netport job to access an IMS unload file and you include the WAITDSN=Y statement in the DBMOVER configuration file on the PowerExchange Listener z/OS machine, an 0C4 abend might occur. The abend occurs if the libraries in the STEPLIB DD statement of the PowerExchange Listener JCL are not APF-authorized. (424574)
PWX-1670	On an i5/OS system, the LOG_LINE_LIMIT setting in the DBMOVER file might cause the messages in PowerExchange Listener monitoring reports to be truncated or displayed illegibly. For example, if you specify a LOG_LINE_LIMIT value of 132 and use the default message log file, the monitoring message lines are truncated. Or if you omit the LOG_LINE_LIMIT statement and use a log file that is longer than the default file, the monitoring message lines are truncated at 80 characters. (409789)

Bug	Description
PWX-1065	In Informatica Developer, if you specify the Library List property for a DB2 for i5/OS connection and the table name in the SQL that is submitted on the connection is enclosed in quotation marks to escape special characters, PowerExchange does not find the i5/OS files to process. The quotation marks might have been generated as a result of the SQL Identifier Character and Support Mixed-case Identifiers connection properties or manually specified in the SQL. (306143)
370984, 324992	When a PowerCenter session that uses a PWX NRDB Batch application connection to an IMS target runs, IMS writes a checkpoint after each of the following events: a commit of an Update, a lookup, or another operation that requires IMS to reset its database position to the beginning. The session ignores the Commit Interval session property for the target-based commits. This excessive IMS checkpointing degrades session performance and increases overhead on the IMS system.

Review the Release Notes of previous releases for information about previous fixed limitations.

Known Limitations

Note: Informatica migrated to a different bug tracking system. The new tracking system uses bug IDs that begin with the "PWX-" prefix. The previous tracking system used bug IDs that consist of six numbers. In the known limitations list, the bug IDs in the new format are listed first, followed by the bug IDs in the older format. For known limitations that carried over from an earlier release and now have a new PWX-*nnnn* bug ID, you can find the previous bug ID at the end of the description in parentheses.

The following table describes known limitations:

Bug	Description
PWX-2752	Power Exchange Express CDC for Oracle might encounter an error if you capture data from Oracle index organized tables (IOTs) on a big endian machine and the PowerExchange capture process runs remotely on a little endian machine. Workaround: Ensure that the Oracle database that contains the source IOTs and the PowerExchange capture process run on machines that have the same endianness.
PWX-2704	If you perform a security check by using a port scanner such as Nessus, the PowerExchange Listener might hang indefinitely on the main Listener port or ignore commands, if a Listener port for a netport job is also defined. Workaround: Run the DTLREXE PING command against the netport port or ports that are defined for the Listener.
PWX-2160	If you create an alias for an i5/OS physical file and import the object into Informatica Developer, the Developer tool does not successfully import the metadata for the object. Workaround: Import the physical file and then rename it to match the alias. (277298)

Bug	Description
PWX-2060	<p>PowerExchange Express CDC for Oracle might encounter an internal error related to the endianness of the Oracle compression dictionary when capturing data for compressed Oracle tables. Capture processing ends with the following error message:</p> <pre>PWX-36000 ORAD: Internal error Direct Path parse failed for compression dictionary: Unexpected symbol entry 0x00(entry: 1, leaf @ pos 2 in module PwxOrlRdtDlr:446.</pre> <p>This problem occurs when the database runs on a big-endian system and the redo log files are processed on a little-endian system.</p> <p>Workaround: Ensure that the compression dictionary and redo logs are located on systems with the same endianness. (464100)</p>
PWX-2031	<p>If you include hidden columns in capture registrations for DB2 for i5/OS tables, PowerExchange extraction processing ends abnormally with the following error message for each hidden column:</p> <pre>PWX-06714 Table schema.table_name Field field_name missing (DB2 for i5/OS CDC)</pre> <p>This error occurs because PowerExchange cannot detect the hidden columns.</p> <p>Workaround: Register tables that contain hidden columns in the PowerExchange Navigator so that you can selectively omit the hidden columns from the capture registrations. (463305)</p>
PWX-2017	<p>If a PowerCenter bulk data movement session uses a PWX DB2zOS relational connection and the DB2 for z/OS LOAD utility to load data to a DB2 for z/OS target and you specified RETLOGINFOMSG=Y in the PWX Override connection attribute, the message output for the utility step is not copied to the session log when the load operation completes successfully. In addition, if the load operation ends unsuccessfully and the utility message output is large, the message output might be truncated. (462651)</p>
PWX-1971	<p>If the file permissions on the directory path that is defined in the LOGPATH statement in the DBMOVER configuration file on the Linux Data Integration Service machine are not set correctly, a core dump occurs and a Java Runtime Environment fatal error is reported.</p> <p>Workaround: Ensure that the file permissions are not too restrictive. Permissions of 755 are sufficient. (459102)</p>
PWX-1926	<p>A PowerCenter bulk data movement session with a PowerExchange nonrelational source ends immediately when it cannot establish a connection to the PowerExchange Listener, even though the Connection Retry Timeout attribute in the PWXPC NRDB Batch application connection is set to a value greater than 0. The session fails to retry the connection for the retry interval specified in the connection attribute.</p> <p>Workaround: Restart the session. (451634)</p>
PWX-1922	<p>PowerExchange Express CDC for Oracle ends abnormally when trying to capture direct-path load operations for tables that use Exadata Hybrid Columnar Compression (EHCC).</p> <p>Workaround: If you have a source table that uses EHCC, do not enable the capture of direct-path load operations. Use the default setting of N for the SUPPORT_DIRECT_PATH_OPS parameter in the OPTIONS statement of the PowerExchange Express CDC for Oracle configuration file. (451128)</p>
PWX-1827	<p>PowerExchange Express CDC for Oracle capture processing ends with the following error message when a source index-organized table (IOT) is altered to add an overflow tablespace, a mapping table, or an INCLUDING <i>column_name</i> clause:</p> <pre>PWX-36000 ORAD: Internal error TableImpl::UpdateTAB unexpected condition: m_ObjId (object_id) !=rB.obj (object_id) in module PwxOrlDictImpl:10116.</pre> <p>In this situation, loss of column data in a row might occur.</p> <p>Workaround: Rematerialize the target table. Then cold start the CDC session to recover the lost column data. (438982)</p>

Bug	Description
PWX-1799	<p>When you create a PowerExchange Listener Service by using the Administrator tool, if you do not select a license on the first page of the Create Service wizard, the Finish button on the second page is not active.</p> <p>Workaround: Select a license on the first page of the wizard. (435047)</p>
PWX-1796	<p>PowerExchange Express CDC for Oracle does not properly process Quick Multi Insert (QMI) operations for IOTs. The PowerExchange Logger for Linux, UNIX, and Windows might end abnormally with a return code of 9980 if you perform the following types of actions that produce QMIs:</p> <ul style="list-style-type: none"> - Issue SQL statements such as INSERT ALL, MERGE, and INSERT AS SELECT with the APPEND hint. - Use SQL*Loader to load a source IOT. - Run the Oracle Data Pump Import utility (impdp command) to load an IOT. <p>Workaround: Do not run SQL statements that cause Oracle to produce QMIs and do not use SQL*Loader or the Oracle Data Pump Import utility to load an IOT. (434494, 426791)</p>
PWX-1763	<p>If a PowerCenter session tries to connect to a PowerExchange Listener that is not available, the session does not fail gracefully with appropriate error messages. On Linux and UNIX, a core dump might occur. On Windows, the session might continue to run as if no error had occurred and then terminate correctly, or it might run indefinitely and need to be stopped manually. (428654)</p>
PWX-1715	<p>If the LOGPATH statement in the DBMOVER configuration file on a PowerCenter system specifies a directory other than the default directory for the detail.log file, the user under which the PowerCenter Integration Service runs might not have write permissions on the detail.log file. In this case, PowerExchange writes error message PWX-07501 to the PowerCenter session log. However, this message is not useful for diagnosing the error.</p> <p>Workaround: Do not specify the LOGPATH statement. The detail.log is then located in the PowerCenter <code>server/bin</code> directory by default. The user under which the PowerCenter Integration Service runs usually has write permissions on files in this directory. (417340)</p>
PWX-1672	<p>A CAPXRT database row test in the PowerExchange Navigator for an IMS complex table source returns no changes even though the PowerExchange Logger for z/OS contains data for the source. This problem occurs when a capture registration is re-created for the source with the same tag name as the previous registration and the new registration includes an additional IMS segment. As a result, PowerExchange cannot map the new registration to the data in the PowerExchange Logger log files.</p> <p>Workaround: None available. Contact Informatica Global Customer Support. (409991)</p>
PWX-1668	<p>If the Worker Threads connection attribute for a DB2UNLD source type has a value greater than 0, PowerCenter workflows that use the connection fail with error message DTL-02555. This error occurs even in workflows that ran without error in previous releases of PowerExchange.</p> <p>Workaround: Set the Worker Threads attribute for the connection to 0. (409430)</p>
PWX-1637	<p>When a PowerCenter workflow with a DB2 for i5/OS source or target connection fails, error message PWX-31211 reports incomplete information. (404217)</p>
PWX-1521	<p>If you capture change data from a DB2 for Linux, UNIX, and Windows source table that uses range partitioning and a DDL operation that adds, attaches, or detaches a partition is performed on the table, data loss might occur and cause data corruption on the target.</p> <p>Workaround: Do not issue DDL statements that add, attach, or detach a partition for a source table. Alternatively, if you must perform these DDL operations on a source, before you start CDC processing, synchronize the source and target tables by using PowerExchange bulk data movement or another tool. (395055)</p>
PWX-1494	<p>If a distribution key that has multiple columns was used to partition a source table that is included in a PowerCenter session, the session log shows an incorrect number of requested and applied Update operations. (392219)</p>

Bug	Description
PWX-1493	A PowerCenter session that uses a PWX DB2LUW connection to write data to a DB2 target fails if the target table metadata contains non-ASCII characters. (392218)
PWX-1480	<p>If you import a source or target table that contains columns with the datatype of graphic, vargraphic, or long vargraphic from PowerExchange into PowerCenter Designer, the columns are imported with a character datatype.</p> <p>Workaround: After you import the table definition, edit the columnn datatypes in PowerCenter Designer. However, if you imported a CDC extraction map, you cannot edit the datatypes. (390778)</p>
PWX-1479	<p>If you specify UTF-8 as the PowerExchange code page and create a capture registration in the PowerExchange Navigator for a DB2 for Linux, UNIX, and Windows source table that has a table name, schema name, or column name with non-ASCII characters, the Navigator fails to identify the primary key columns for the table.</p> <p>Workaround: Do not use non-ASCII characters in the table metadata if you use the UTF-8 code page. (390724)</p>
PWX-1412	If you run the LISTTASK command of the DTLUTSK utility, tasks that use pooled connections do not display the correct access method or mode. (379283)
PWX-1387	If you use PowerCenter to write Updates to a PowerExchange target and an Update fails, the PowerCenter session log displays an incorrect counts of Update rows in the Load Summary. An Update might fail, for example, because the target record does not exist. (375568)
PWX-1271	<p>When you import a copybook that contains certain German-language characters, such as 'ß' or vowels with umlauts, into a PowerExchange data map, the lines that contain these characters are not imported.</p> <p>Workaround: If these German-language characters appear within comments, edit the comments to remove or replace the characters. (350646)</p>
PWX-1184	<p>When you create a data map in the PowerExchange Navigator, if you import a PL/I copybook and enter Start and End values that define a column range that includes line sequence numbers, the PowerExchange Navigator might add an extraneous "NEW_RECORD__" record and then either fail or produce unpredictable results.</p> <p>Workaround: When importing a PL/I copybook, do not define a column range or accept a default column range that includes line sequence numbers. (331003)</p>
PWX-825	When you run a CDC session that includes a password-protected Adabas data source and uses the CAPXRT access method and offload processing, the session fails. (257540)

CHAPTER 4

Informatica Global Customer Support

You can contact a Global Support Center by telephone or through Online Support on Informatica Network.

To find your local Informatica Global Customer Support telephone number, visit the Informatica website at the following link:

<http://www.informatica.com/us/services-and-training/support-services/global-support-centers>.

If you are an Informatica Network member, you can use Online Support at <http://network.informatica.com>.

INDEX

I

IMS synchronous CDC
CRG.LOAD library [7](#), [21](#)