



Informatica® PowerExchange® 10.4.1 Release Notes June 2020

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Read the *Informatica® PowerExchange® Release Notes* to get important information about enhancements, fixes, and known limitations in PowerExchange 10.4.1. The release notes also includes upgrade considerations, if applicable.

To access the PowerExchange 10.4.1 documentation set, browse the Informatica Documentation Portal at <https://docs.informatica.com>.

Enhancements

The following table describes closed enhancement requests:

Enhancement	Description
PWX-8725	On a z/OS system, PowerExchange can now scan all of the defined processors to report the existence of System z Integrated Information Processors (zIIPs). Previously, PowerExchange scanned up to 64 processors.
PWX-8620	The PWXUMAP utility runs the DTLDESCRIBE report faster and with less CPU time while providing improved output. New parameters let you specify whether the elapsed CPU time appears in the report and control the report progress display.
PWX-8616	You can use the CheckNumData function with user-defined fields to validate numeric data in a data map. If invalid data is found, you can replace the data with a valid value, skip the field, or end map processing. Validation is also done on data maps that include user-defined fields with the Concat, LTrim, RTrim, or Split function. This additional validation prevents copying data from source datatypes to target datatypes when different results would occur on a PowerExchange Listener z/OS or IBM i system than would occur on Linux, Unix, or Windows.
PWX-8553	For Microsoft SQL Server sources, message PWX-33264 now includes the article ID for the registration in the PowerExchange Logger for LUW log.

Enhancement	Description
PWX-8496	For the PowerExchange Listener on IBM i, the DTLLIST job description now specifies the SPLFACN(*DETACH) parameter. This parameter prevents the system job table from filling up with completed task entries. To use the new parameter, specify SPLFACN(*JOBDB) in the SBMJOB command.
PWX-8495	When you start the PowerExchange Listener on IBM i, you can now use the IBMI_SUPPRESS_OUTPUT statement in the DBMTOVER configuration file to suppress the creation of spool files.
PWX-7175	If the Oracle active and archived redo logs from which you capture change data are in an Oracle ASM environment, you can optionally write chunks of Oracle redo log to a staging file. This feature improves CDC performance, significantly increases data throughput, and reduces ASM CPU usage, without having to implement dual logging outside of ASM.
PWX-2176	When the PowerExchange Logger for z/OS runs in batch mode, you can now increase the number of archive log data sets. The number of archives that you can add is based on the available free space in the emergency restart data set (ERDS). Messages have been added to identify the number of archives that PowerExchange Logger supports and the number of archives that you can add.
PWX-730	If a PowerExchange task encounters an error while reading data from or writing data to a record in a table, PowerExchange now issues new and improved messages to provide additional diagnostic information, such as the error description.

Fixes

The following table describes fixed limitations:

Bug	Description
PWX-9078	During PowerExchange Express CDC for Oracle capture processing, the PowerExchange Logger for Linux, UNIX, and Windows might end with the following internal OCI error: PWX-36075 OCI Error: ORA-01000: maximum open cursors exceeded
PWX-9020	When a PowerCenter CDC session tries to insert a null value into a target field that is defined as not null, the session loops instead of failing with an appropriate error message.
PWX-9012	During PowerExchange Express CDC for Oracle capture processing, the PowerExchange Logger for Linux, UNIX, and Windows might end with the following DML sequence error: PWX-36465 ORAD Info Mbr 3: DML sequence error: Unsupported operation ERROR: KDO_FLAG_F not on and no DML sequence in process.
PWX-8920	An i5/OS session might end with the following error message: SQL0332 - Character conversion between CCSID 1200 and CCSID 65535 not valid.
PWX-8904	On IBM i, when you try to extract change data from a table that contains a column name with an N tilde character (Ñ), PowerExchange CDC fails with the following message: PWX-06714 Table <i>schema_name.table_name</i> Field <i>column_name</i> missing (DB2 for i5/OS CDC)

Bug	Description
PWX-8821	During change capture processing of a Microsoft SQL Server distribution database with the ENABLELWM parameter set to Y in the MSQL CAPI_CONNECTION statement, an SQL call to delete the processed rows of data from the distribution database as a result of a low watermark action fails. Some or all of the processed rows in the dbo.MSrepl_commands table cannot be deleted.
PWX-8806	<p>A Db2 for z/OS bulk data movement session might fail if PowerExchange encounters the Db2 SQLCODE value of 445, which indicates a value has been truncated. In this case, the following messages are issued:</p> <pre>PWX-02004 Cursor open error. SQLCODE = 445. DSNT404I SQLCODE = 445, WARNING: VALUE value HAS BEEN TRUNCATED</pre> <p>This problem occurs in earlier PowerExchange versions, beginning with 10.2 HotFix 2.</p>
PWX-8783	<p>If PowerExchange cannot locate a license key string when you upgrade PowerExchange, the PowerExchange client session fails to connect with the following error message:</p> <pre>PWX-00000 Requested fixed text was not found.</pre>
PWX-8667	If you use Informatica Data Quality or Informatica Developer to access PowerExchange nonrelational sources by using an SQL query with conditions on the key column, the translation from Informatica Data Quality or Developer to PowerExchange does not properly parse the range of key values.
PWX-8638	During Db2 for z/OS processing, PowerExchange fails to detect that the TCAPWORK capture directory table contains columns with an incorrect length.
PWX-8637	On z/OS, an SQL PREPARE operation failed because a module BIND operation assumed subsystem encoding instead of EBCDIC encoding.
PWX-8591	PowerExchange incorrectly parses Windows network paths that are specified in DBMOVER and PowerExchange Logger for Linux, UNIX, and Windows configuration files, which results in errors.
PWX-8578	DTLUCBRG skips Db2 LONGVAR columns and does not allow the LONGVAR columns to be registered.
PWX-8002	PowerExchange on IBM i limits the number of files that can be processed from a journal to 250,000. This release increases the limit to 345,000.
PWX-7717	For client sessions to write data maps for nonrelational sources to a target, the Nullable Field property in the data map must be set in a manner that is consistent with the output record. Padding problems can occur if you select the Nullable Field property, have fixed-length output records, and offload processing to a Linux, UNIX, or Windows machine.
PWX-7610	The Db2 for z/OS ECCR might misinterpret a Db2 log record as change data, causing error message PWXEDM177461E to be issued. The problem log record, if printed with DSN1LOGP, presents as SUBTYPE(NOOB LOG RECORD).
PWX-2160	If you create an alias for an IBM i physical file and import the object into Informatica Developer, the Developer tool does not successfully import the metadata for the object.
PWX-1790	Multiple issues with the PowerExchange SNDLSTCMD command can occur on IBM i. The IP address of the client is truncated and the job number in the DISPLAY ACTIVE output is not correct.

PowerExchange 10.4.1 Installation and Upgrades

Follow the procedures in the *PowerExchange 10.4.1 Installation and Upgrade Guide* for a full or upgrade installation.

Known Limitations

The following table describes known limitations:

Bug	Description
PWX-9084	<p>During PowerExchange Express CDC for Oracle capture processing, rollbacks of DML changes to tables with inline LOBs might fail with the following error message:</p> <pre>PWX-36145 ORAD Info: + Low SABORT forced by PwxOrlTMgrUowDataEvents function @ line 1652 ASSERT expression: !NextEndOfList(</pre> <p>In this case, the PowerExchange Logger ends. Workaround: Contact Informatica Global Customer Support to determine if an emergency bug fix (EBF) is available.</p>
PWX-9052	<p>When PowerExchange IMS Synchronous CDC generates RBA values for data in IMS Fast Path databases, it uses a deprecated field to find the database area number that is used to create unique RBA values. This behavior causes the generated RBA values to be incorrect for data in areas that have area numbers greater than 255. This limitation applies under the following conditions:</p> <ul style="list-style-type: none">- You capture data from IMS Fast Path databases with more than 255 areas.- One or both of the following conditions are true:<ul style="list-style-type: none">- You capture data from a non-keyed or non-unique-keyed segment or a segment beneath a non-keyed or non-unique-keyed segment in the database hierarchy.- You use the GetDatabaseKey or GetIMSRBAbyLevel functions in any of the IMS data maps defined for the database. <p>Workaround: Do not try to capture data from IMS Fast Path databases with more than 255 areas when one or both of the listed conditions are true.</p>
PWX-9015	<p>When you run the DTLUCBRG utility to create an IDMS capture registration, DTLUCBRG does not create a correct capture registration even though the job ends with RC=00.</p>
PWX-9014	<p>You cannot view paths for an IDMS capture registration in the PowerExchange Navigator.</p>
PWX-8956	<p>If you create a Datacom capture registration by using the DTLUCBRG utility, the corresponding extraction map has a null Tag value. When you run the CDC session, the session ends with multiple read errors. Workaround: Manually create the capture registration.</p>
PWX-8930	<p>The IMS log-based ECCR REFRESH command causes the ECCR to end abnormally.</p>
PWX-8733	<p>PowerExchange Express CDC for Oracle processing of Oracle 19c indexed-organized tables (IOTs) in 4 KB tablespaces might result in change data loss or corruption. Workaround: Do not try to capture change data from Oracle 19c tables that are IOTs in 4 KB tablespaces.</p>

Bug	Description
PWX-8563	<p>In the PowerExchange Navigator, if you open a Microsoft SQL Server capture registration and click Save, the PowerExchange Navigator creates a new Microsoft SQL Server article and deletes the previous one even if no changes were made to the registration. The data associated with the previous SQL Server article is deleted.</p> <p>Workaround: Do not click Save unless you are making changes to the capture registration.</p>
PWX-8527	<p>After a PowerExchange IMS ECCR REFRESH operation, CDC processing might fail with an SVC99 error because of an IMS log deletion.</p> <p>Workaround: Stop and restart the IMS ECCR and the PowerExchange Listener on the system where change capture occurs.</p>
PWX-8333	<p>During PowerExchange Express CDC for Oracle, a transaction assembler error might occur for indexed-organized tables (IOTs) that contain OVERFLOW tables with chained rows. The following error message is issued:</p> <p>PWX-36465 ORAD Info: DML sequence error: Subordinate DML sequence and active DML sequence is not only kdolkr/kdolmn/kdollb.</p>
PWX-8328	<p>During PowerExchange Express CDC for Oracle, the following internal error might occur:</p> <p>PWX-36000 Error Unexpected chain sequence: unchained into chained during large row chains for compressed tables</p>
PWX-8323	<p>To access MySQL 8.0 CDC sources, you cannot use passwords that are encrypted with the SHA256 algorithm because the currently installed DataDirect ODBC driver does not support this authentication type.</p>
PWX-8186	<p>For PowerExchange for Adabas, when the mapping includes a spanned file with before-image or change indicator columns, an update can be mistakenly marked as a delete.</p>
PWX-8097	<p>The PWXUCDCT utility fails with a segmentation fault when running a derive_cdct_backup command and trying to process corrupted PowerExchange Logger log records. The messages that the utility issues do not contain useful diagnostic information.</p> <p>Workaround: Ensure that the EXT_CAPT_MASK parameter value in the PowerExchange Logger configuration file is correct and that the Logger log files exist.</p>
PWX-7917	<p>If you select the Pre SQL run once per Connection check box in a PWXPC connection definition for a nonrelational target, any SQL statements that you specify in the Pre SQL connection attribute will not be executed.</p> <p>Workaround: Clear the Pre SQL run once per Connection check box to allow the SQL to run one or more times for the connection.</p>
PWX-7202	<p>If you define a PowerCenter session that uses a PWX NRDB Lookup relational connection and set the TCPIP_OP_TIMEOUT and TCPIP_CON_TIMEOUT overrides in the PWX Override connection attribute, the session fails.</p> <p>Workaround: Use the connection string to specify the overrides.</p>
PWX-7104	<p>If you issue a pwxcmd command such as displaystats to an ECCR on a z/OS system, the pwxcmd command handler might hang. This problem occurs when the amount of command output is greater than 4 KB.</p>

Bug	Description
PWX-7033	<p>If the PowerExchange Agent encounters an error in the DBMOVER configuration file, it does not end processing as expected. As a result, the Agent cannot successfully connect to the PowerExchange Listener for change data capture.</p> <p>Workaround: Shut down the PowerExchange Agent by using the SHUTDOWN COMPLETELY command. Edit the DBMOVER configuration file to correct the error and then restart the PowerExchange Agent.</p>
PWX-6917	<p>For PowerExchange on z/OS, if you use the IPV6 protocol for a TCP/IP connection, the IP address is truncated in SMF reports. The connection is not affected, but the IP address is not complete in SMF.</p>
PWX-2031	<p>If you include hidden columns in capture registrations for Db2 for i 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-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-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: Re-materialize the target table. Then cold start the CDC session to recover the lost column data. (438982)</p>
PWX-1752	<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"> - Use SQL*Loader to load a source IOT. - Run the Oracle Data Pump Import utility (impdp command) to load an IOT.

Bug	Description
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-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-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-1143	<p>When you import a PL/1 copybook for a z/OS source into a data map from the PowerExchange Navigator, the import succeeds, but the import record is not created.</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>

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 PWX-*nnnn* bug ID, you can find the previous bug ID at the end of the description in parentheses.

Informatica Global Customer Support

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To find online support resources on the Informatica Network, visit <https://network.informatica.com> and select the eSupport option.