Informatica® PowerExchange
10.5.6

Release Guide

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Preface

Read the *Informatica® PowerExchange® Release Guide* to get a cumulative summary of product changes across recent PowerExchange releases. The guide covers new features, new and changed commands and parameters, and behavior changes, by component or source type. The guide also covers changes to supported data sources and operating systems and any removed functionality.

For lists of fixes, enhancements, and known limitations, see the *PowerExchange Release Notes*.

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

Summary of PowerExchange New Features and Changes

This chapter includes the following topics:

About This Summary

This chapter summarizes the new features and changes in recent PowerExchange releases and hotfixes.

For each release or hotfix, the following types of changes are described:

- New features
- New, changed, and deleted commands
- New, changed, and deleted parameters and options
- Changes to supported versions of operating systems and data sources
- Significant behavior changes
- Significant documentation changes

For more information about these changes, see the chapters for specific components and data sources.

The following releases and hotfixes are covered:

Version	Release Date
10.5.6	May 2024
10.5.5	January 2024

Version	Release Date
10.5.4	May 2023
10.5.3	November 2022
10.5.2	April 2022
10.5.1	September 2021
10.5	March 2021

PowerExchange 10.5.6

This section lists the new features and changes in PowerExchange 10.5.6.

Parameter and Option Changes in 10.5.6

PowerExchange 10.5.6 includes parameter and option changes.

SAP HANA CDC Parameter File

The parameter file for SAP HANA CDC has been updated.

For more information, see "Parameter File Changes for SAP HANA CDC" on page 111.

PWXHanaCDC.jar File Renamed

The PWXHanaCDC.jar file for SAP HANA CDC has been renamed.

For more information, see "PWXHanaCDC.jar File Renamed" on page 112.

DBMOVER Configuration File Statements

The following table identifies a new or changed statements in the DBMOVER configuration file:

Statement	New, Changed, or Deprecated
DB2CODEPAGE	Changed - DB2TRANS and MIXED parameters
FIX_DB2_COLUMN_WITH_CCSID_ZERO	New

For more information, see "DBMOVER Configuration File Statements" on page 81.

Command Changes in 10.5.6

PowerExchange 10.5.6 includes the following command change.

PWXUMAP Utility Command

PowerExchange 10.5.6 introduces a new PWXUMAP uitlity command.

The following table identifies the new command:

Command	New, Changed, or Deprecated
UPLOADMAPS	New

For more information, see "PWXUMAP Utility Command" on page 60.

Behavior Changes in 10.5.6

The following table lists PowerExchange 10.5.6 behavior changes by PowerExchange component or data source:

Component or Data Source	Feature Reference
SAP HANA CDC	" SAP HANA CDC java.class.path" on page 112

Changes to Supported Operating Systems and Data Sources in 10.5.6

PowerExchange 10.5.6 introduces the following changes to the operating systems and data sources that PowerExchange supports.

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Data Sources

The following table identifies added, dropped, or deferred data source or target versions in PowerExchange 10.5.6:

Data Source	Version	Operating System	Bulk	CDC	Added, Dropped, or Deferred
Adabas	8.3 and 8.4	z/OS	X	X (sources only)	Dropped
Amazon RDS for Oracle	18*c* and 12*c* R2	Amazon RDS for Oracle in the cloud	-	X (sources only)	Dropped
CA IDMS (source only)	18.5	z/OS	X (sources only)	X (sources only)	Dropped
Db2 for Linux, UNIX, and Windows	10.5	AIX, Red Hat Linux, SUSE Linux, and Windows	X	X (sources only)	Dropped

Data Source	Version	Operating System	Bulk	CDC	Added, Dropped, or Deferred
Db2 for z/OS	11	z/OS	X	X (sources only)	Dropped
IMS	14.*x*	z/OS	X	X (sources only)	Dropped
Oracle	18*c* and 12*c* R2	HP-UX and Solaris	-	X (sources only)	Dropped
Oracle	18*c* and 12*c* R2	AIX, Red Hat Linux, SUSE Linux, and Windows	X	X (sources only)	Dropped
Microsoft SQL Server	2014 SP2 and 2012 SP4	Red Hat Linux, SUSE Linux, and Windows	X	X (sources only)	Dropped
PostgreSQL	16.*x*	Red Hat Linux, SUSE Linux, and Windows	-	X (sources only)	Added
PostgreSQL	12.*x* 13.*x*	Red Hat Linux, SUSE Linux, and Windows	-	X (sources only)	Dropped

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Operating Systems

The following table identifies changes to supported operating system versions in PowerExchange 10.5.6:

Operating System	Version	Added or Dropped
Red Hat Enterprise Linux	6.5 and 7.4	Dropped
Red Hat Enterprise Linux	9	Added
SUSE Linux	12 SP2	Dropped
SUSE Linux	12 SP5	Added
z/OS	2.2 and 2.3	Dropped

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange Navigator

The following table identifies changes to supported Windows operating system versions for the PowerExchange Navigator in PowerExchange 10.5.6:

Version	Added or Dropped
Windows 2022	Added
Windows 11	Added

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange 10.5.5

This section lists the new features and changes in PowerExchange 10.5.5.

New Features in 10.5.5

The following table lists PowerExchange 10.5.5 features by PowerExchange component or data source:

Component or Data Source	Feature Reference
PowerExchange Navigator	"Row Table Option for SAP HANA Source Tables" on page 56
PowerExchange utilities	"DTLINFOX Utility" on page 61 "ZOSTOUCH Utility" on page 61
IMS	"IMS 15.3 and 15.4 Support" on page 86 "Updated Components in the PowerExchange ECCR CRG.LOAD Library" on page 86
SAP HANA	"Row Table Option for SAP HANA Source Tables" on page 56

Support Changes

Effective in version 10.5.5, Informatica announces the following support change:

CDEP File Deprecation

The PowerExchange CDEP file is deprecated.

Informatica recommends that you switch to running CDC workflows under the PowerExchange Interfaces for PowerCenter (PWXPC) plug-in, which has the following advantages:

- The CDC extract position is recorded on the target database so recovery is automatic after a failure.
- PWXPC CDC workflows can process multiple CDC tables, whereas PowerExchange ODBC workflows can process only one table.
- PWXPC workflows support offloading and threading for faster processing of z/OS data and reduced cost.

The CDEP file will still continue to work for backward compatibility in this release.

Parameter and Option Changes in 10.5.5

PowerExchange 10.5.5 includes parameter and option changes.

DBMOVER Configuration File Statements

The following table identifies a new or changed statements in the DBMOVER configuration file:

Statement	New, Changed, or Deprecated
DL1_INITIAL_CHKP	New
HANA CAPI_CONNECTION	Changed - PARMFILE parameter
PG CAPI_CONNECTION	Changed - New REPLSLOTNAME parameter
SUPPRESS_IBMI_SPLF	New

For more information, see .

PowerExchange Express CDC for Oracle Configuration File

The following table identifies a changed statement in the PowerExchange Express CDC for Oracle configuration file, pwxorad.cfg:

Statement	New, Changed, or Deprecated
ASMSTAGING	Changed - New BFILEDIR= parameter Changed - New LOCALDIR=BFILE parameter
OPTIONS	Changed - New LOB_MAX_SIZE parameter Changed - New SUPPORT_LOB_OPERATIONS parameter Changed - New SUPPORT_LOB_OUT_OF_ROW parameter
READER	Changed - New ASM_CONNECTION_THREADS parameter

For more information, see .

Db2 for z/OS ECCR Statements in the REPL2OPT DD Data Set

The following table identifies changes to configuration statements in the data set or RUNLIB member that is allocated by the REPL2OPT DD statement in the Db2 for z/OS ECCR JCL:

Statement	New, Changed, or Deprecated
IFIMEMLOC	New

For more information, see .

Behavior Changes in 10.5.5

The following table lists PowerExchange 10.5.5 behavior changes by PowerExchange component or data source:

Component or Data Source	Feature Reference
Db2 for i	"Support for IBM i Journals with more than 345K files" on page 73
Db2 for Linux, UNIX, and Windows	"Support for BINARY and VARBINARY Datatypes" on page 79
DTLURDMO utility	"DTLURDMO Utility" on page 62
Oracle	"Handling of Invalid Logs in ARCHIVECOPY Mode" on page 94
PowerExchange Navigator	"Database Row Test Default Value Changes" on page 56

Command Changes in 10.5.5

PowerExchange 10.5.5 includes the following command change.

PowerExchange Commands

PowerExchange 10.5.5 introduces the following change for PowerExchange commands.

The following table identifies the changed command:

Command	New, Changed, or Deprecated
DISPLAYSTATS (PowerExchange Listener)	Changed

For more information, see "Command Changes in 10.5.5" on page 43.

Changes to Supported Operating Systems and Data Sources in 10.5.5

PowerExchange 10.5.5 introduces the following changes to the operating systems and data sources that PowerExchange supports.

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Data Sources

The following table identifies added, dropped, or deferred data source or target versions in PowerExchange 10.5.5:

Data Source	Version	Operating System	Bulk	CDC	Added, Dropped, or Deferred
Amazon RDS for SQL Server	2022; 2019	Amazon RDS	Not supported	X (sources only)	Added
Db2 for IBM i	7.2	IBM i	X	X (sources only)	Dropped
IMS	15.3, 15.4	z/OS	X	X (sources only)	Added
IMS	13	z/OS	X	X (sources only)	Dropped

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Operating Systems

The following table identifies changes to supported operating system versions in PowerExchange 10.5.5:

Operating System	Version	Added or Dropped
AIX	7.3	Added
AIX	7.1	Dropped
z/OS	3.1	Added
z/OS	2.1	Dropped

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange 10.5.4

This section lists the new features and changes in PowerExchange 10.5.4.

New Features in 10.5.4

The following table lists PowerExchange 10.5.4 features by PowerExchange component or data source:

Component or Data Source	Feature Reference
Db2 for i	"Ability to Use a Secure Connection to the IBM i Server During Installation" on page 74
Microsoft SQL Server	"Support for Microsoft SQL Server 2022" on page 90
PostgreSQL	"Support for PostgreSQL version 15" on page 108 "Additional Datatypes Supported for PostgreSQL CDC Sources" on page 108

Parameter and Option Changes in 10.5.4

PowerExchange 10.5.4 includes parameter and option changes.

DBMOVER Configuration File Statements

The following table identifies new, changed, or deprecated statements in the DBMOVER configuration file:

Statement	New, Changed, or Deprecated
TRACING_BLOCK_RELEASE_SECONDS	New
TRACING_PARENT_CHECK_SECONDS	New
TRACING_TRY_LOCK_SECONDS	New

For more information, see "DBMOVER Configuration File Statements" on page 43.

PowerExchange Logger for LUW Configuration File

The following table identifies a new parameter in the PowerExchange Logger for Linux, UNIX, and Windows configuration file:

Statement	New, Changed, or Deprecated
FILE_CHECKSUM	New

For more information, see "PowerExchange Logger for LUW Configuration File" on page 52.

PowerExchange ODBC

The following table identifies a new option in PowerExchange ODBC:

Option	New, Changed, or Deprecated
Allow Insert Into 0 Rows	New

For more information, see "PowerExchange Data Source Wizard" on page 92.

Behavior Changes in 10.5.4

The following table lists PowerExchange 10.5.4 behavior changes by PowerExchange component or data source:

Component or Data Source	Feature Reference
Db2 for i	"Support for the BOOLEAN Datatype" on page 74
Db2 for Linux, UNIX, and Windows	"Support for the BOOLEAN Datatype" on page 80
MySQL	"PowerExchange Replicates the CHAR type as VARCHAR" on page 91

Changes to Supported Operating Systems and Data Sources in 10.5.4

PowerExchange 10.5.4 introduces the following changes to the operating systems and data sources that PowerExchange supports.

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Data Sources

The following table identifies added, dropped, or deferred data source or target versions in PowerExchange 10.5.4:

Data Source	Version	Operating System	Bulk	CDC	Added, Dropped, or Deferred
Microsoft SQL Server	2022	Red Hat Linux 8, SUSE Linux 15,Windows	X	X	Added
Oracle	21c[1]	AIX, HP-UX[2], SUSE Linux, Solaris[2]	X	X (sources only)	Added
PostgreSQL	15	Red Hat Linux, SUSE Linux, and Windows	-	X (sources only)	Added
PostgreSQL	10.x, 11.x	Red Hat Linux, SUSE Linux, and Windows	-	X (sources only)	Dropped

1. Oracle 21c is certified only on AWS RDS, Redhat Enterprise Linux, and Windows.

2. For CDC support for Oracle 21c on HP-UX and Solaris, the PowerExchange Logger and PowerExchange Listener must be running on a remote system that has another supported platform and PowerExchange is able to access the Oracle log files on that system.

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Operating Systems

The following table identifies a change to supported operating system versions in PowerExchange 10.5.4:

Operating System	Version	Added or Dropped
Windows Server	2016	Dropped

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange Navigator

The following table identifies changes to supported Windows operating system versions for the PowerExchange Navigator in PowerExchange 10.5.4:

Version	Added or Dropped
Windows 2022	Dropped
Windows Server 2016	Dropped
Windows 11 Client	Dropped

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange 10.5.3

This section lists the new features and changes in PowerExchange 10.5.3.

New Features in 10.5.3

The following table lists PowerExchange 10.5.3 features by PowerExchange component or data source:

Component or Data Source	Feature Reference
Db2 for i	"Db2 for i5/OS Version 7.5 Support" on page 75
Db2 for z/OS	"Db2 for z/OS Version 13 Support" on page 83
IBM i	"IBM i Installation Enhancement" on page 36
Oracle	"Support for Oracle 21c in Amazon RDS Environments" on page 95
PowerExchange Listener	"Non-relational Optimized Read Process" on page 45

Component or Data Source	Feature Reference
PowerExchange Navigator	"New Functions for User-Defined Fields" on page 57
PowerExchange utilities	"DTLINFOX Utility" on page 62

Parameter and Option Changes in 10.5.3

PowerExchange 10.5.3 includes parameter and option changes.

DBMOVER Configuration File Statements

The following table identifies new, changed, or deprecated statements in the DBMOVER configuration file:

Statement	New, Changed, or Deprecated
JOB_START_MINIMUM_BELOWLINE_MEMORY_KB	New
CAPI_CONNECTION - AS4J Statement > JOURNAL	Changed
FILEMAPPED_MEMORY_DIR	Changed
IBMI_USE_DB2_SYSTEM_OBJECT_NAMES	New
LRECL	Changed
REPORT_UNUSED_OPT_READING_CONDITIONS	New

For more information, see "DBMOVER Configuration File Statements" on page 44.

PowerExchange Express CDC for Oracle Configuration File

The following table identifies a changed statement in the PowerExchange Express CDC for Oracle configuration file, pwxorad.cfg:

Statement	New, Changed, or Deprecated
DATABASE	Changed - New RDSARCHIVEDIR and RDSONLINEDIR parameters

For more information, see "PowerExchange Express CDC for Oracle Configuration File" on page 96.

PowerExchange Logger for LUW Configuration File

The following table identifies a changed parameter in the PowerExchange Logger for Linux, UNIX, and Windows configuration file:

Statement	New, Changed, or Deprecated
IBMIJRNLOVRD	Changed

For more information, see "PowerExchange Logger for LUW Configuration File" on page 53.

Changes to Supported Operating Systems and Data Sources in 10.5.3

PowerExchange 10.5.3 introduces the following changes to the operating systems and data sources that PowerExchange supports.

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Data Sources

The following table identifies added, dropped, or deferred data source or target versions in PowerExchange 10.5.3:

Data Source	Version	Operating System	Bulk	CDC	Added, Dropped, or Deferred
Amazon RDS for Oracle	21*c*	Amazon RDS for Oracle environments	-	X	Added
CICS Transaction Server	6.1	z/OS	Not applicable - Use VSAM bulk data movement instead.	X (sources only)	Added
Db2 for IBM i	7.5	IBM i	X	X (sources only)	Added
Db2 for z/OS	13	z/OS	X	X (sources only)	Added

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Operating Systems

The following table identifies a change to supported operating system versions in PowerExchange 10.5.3:

Operating System	Version	Added or Dropped
Windows Server	2022	Added
IBM i	7.5	Added

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange Navigator client operating systems

The following table identifies changes to supported Windows operating system versions for the PowerExchange Navigator in PowerExchange 10.5.3:

Version	Added or Dropped
Windows Server 2022	Added
Windows 11 Client	Added

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange 10.5.2

This section lists the new features and changes in PowerExchange 10.5.2.

New Features in 10.5.2

The following table lists PowerExchange 10.5.2 features by PowerExchange component or data source:

Component or Data Source	Feature Reference
Oracle	"Support for Oracle 21c Sources" on page 96 "Support for Oracle Data Guard Far Sync Databases as Sources" on page 96 "Support for Oracle Column-Level Encryption" on page 97
PowerExchange Listener	"Improved Memory Management for Listeners on z/OS" on page 46
PowerExchange utilities	"PWXUCREG Utility Enhancements " on page 63 "PWXCATMY Utility Support for Encrypted Passwords" on page 63

Parameter and Option Changes in 10.5.2

PowerExchange 10.5.2 includes parameter and option changes.

DBMOVER Configuration File Statements

The following table identifies new, changed, or deprecated statements in the DBMOVER configuration file:

Statement	New, Changed, or Deprecated
AS4J CAPI_CONNECTION	Changed - New RTNBUFFSIZE parameter
CONVERT_CODEPAGES_WITH_ICONV	New

Statement	New, Changed, or Deprecated
FILEMAPPED_MEMORY_DIR	Changed
IMSID	Changed
JOB_START_MINIMUM_MEMORY_MB	New
LISTENER	Changed
PG CAPI_CONNECTION	Changed - New CAPTUREALL parameter
UNLOGGED_ERROR_MESSAGES_DEST	New

For more information, see "DBMOVER Configuration File Statements" on page 46.

PowerExchange Express CDC for Oracle Configuration File

The following table identifies a changed statement in the PowerExchange Express CDC for Oracle configuration file, pwxorad.cfg:

Statement	New, Changed, or Deprecated
ASMSTAGING	Changed - New ASYNC parameter
DIRSUB	Changed
OPTIONS	Changed - SUPPORT_DIRECT_PATH_OPS parameter New - CAPIEVENTS parameter New - MEMOPS_MEMORY parameter New - PERFORMANCESTATS parameter Changed - SPILLMAX parameter Changed - SPILLFILEBUFFSZ parameter
READER	Changed - READBUFFSIZE parameter Changed - MODE parameter > ARCHIVECOPY option

For more information, see "PowerExchange Express CDC for Oracle Configuration File" on page 97.

PowerExchange Logger for LUW Configuration File

The following table identifies a new parameter in the PowerExchange Logger for Linux, UNIX, and Windows configuration file:

Statement	New, Changed, or Deprecated
IBMIJRNLOVRD	New

For more information, see "PowerExchange Logger for LUW Configuration File" on page 53.

PWXPC Connection Attributes

The following table identifies changed PWXPC connection attributes:

Attribute	New, Changed, or Deprecated
PWX Override	Changed

For more information, see "PWXPC Connection Attributes" on page 39.

DB2 for z/OS ECCR Statements in the REPL2OPT DD Data Set

The following table identifies changes to configuration statements in the data set or RUNLIB member that is allocated by the REPL2OPT DD statement in the DB2 for z/OS ECCR JCL:

Statement	New, Changed, or Deprecated
DB2ROWPROMOTION	Changed - New default
IFI306 OPT	Changed - New default

For more information, see "DB2 ECCR Configuration Statements in the REPL2OPT DD Data Set" on page 83.

Command Changes in 10.5.2

PowerExchange 10.5.2 includes command changes.

PowerExchange Commands

PowerExchange 10.5.2 introduces the following change for PowerExchange commands.

The following table identifies the changed command:

Command	New, Changed, or Deprecated
CRTLIB	Changed

For more information, see "Manual Installation on IBM i" on page 37.

PowerExchange Interfaces for PowerCenter Commands

PowerExchange 10.5.2 introduces the following change for PWXPC commands.

The following table identifies the changed command:

Command	New, Changed, or Deprecated
CREATEFILE	Changed

For more information, see "CREATEFILE Large Format Physical Sequential (PS) Data Set Support" on page 39.

Behavior Changes in 10.5.2

The following table lists PowerExchange 10.5.2 behavior changes by PowerExchange component or data source or target:

Component or Data Source/ Target Type	Reference
PostgreSQL CDC	"Replication of UUID Column Data in Character Format" on page 110
PowerExchange Logger for Linux, Unix, and Windows	"Ability to Access the CCT file in Read Mode" on page 54
PowerExchange Navigator	"Capture Registration CCT File Enhancement" on page 57 "Longer Registration Names for IBM i and z/OS CDC Sources" on page 57 "Restricting Who Can Send a Data Map to a Remote Node for a Row Test" on page 58 "Data Map Preferences Enhancement" on page 58
PowerExchange utilities	"DTLUCBRG Permits Longer Registration Names for IBM i and z/OS CDC Sources" on page 64
PowerExchange for DB2 for i	"PowerExchange Journal Exit" on page 76
PowerExchange for SAP HANA	"Changing Registrations from and to Full Audit" on page 113 "Full Audit for Tables with 16-column Primary Keys" on page 113 "Nullable Field Settings for SAP HANA Sources" on page 113

Changes to Supported Operating Systems and Data Sources in 10.5.2

PowerExchange 10.5.2 introduces the following changes to the operating systems and data sources that PowerExchange supports.

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Data Sources

The following table identifies added, dropped, or deferred data source or target versions in PowerExchange 10.5.2:

Data Source	Version	Operating System	Bulk	CDC	Added, Dropped, or Deferred
Oracle	21*c*	Red Hat Linux and Windows	N/A	X	Added

Operating Systems

The following table identifies a change to supported operating system versions in PowerExchange 10.5.2:

Operating System	Version	Added or Dropped
z/OS	2.5	Added

PowerExchange 10.5.1

This section lists the new features and changes in PowerExchange 10.5.1.

New Features in 10.5.1

The following table lists PowerExchange 10.5.1 features by PowerExchange component or data source:

Component or Data Source	Feature Reference
Db2 for z/OS	"DB2 Loader and IMS Netport Passphrase Support" on page 84 "%PWD Substitution Variable for Netport Jobs" on page 84
IMS	"Passphrase Support for IMS Netport Jobs" on page 88
Oracle	"Oracle LOB Support" on page 99 "Dynamic Dictionary for Oracle Sources" on page 100
SAP HANA sources	"Support for SAP HANA CDC Sources" on page 114

Parameter and Option Changes in 10.5.1

PowerExchange 10.5.1 includes parameter and option changes.

DBMOVER Configuration File Statements

The following table identifies new, changed, or deprecated statements in the DBMOVER configuration file:

Statement	New, Changed, or Deprecated
IBMI_USE_DB2_SYSTEM_COLUMN_NAMES	New
OPENPOLL	New
UPDATE_USER_ACTIVITY	New
HANA CAPI_CONNECTION	New
TEMP_FILE_DIRECTORY	New

For more information, see "DBMOVER Configuration File Statements" on page 48.

PowerExchange Express CDC for Oracle Configuration File

The following new and changed parameters can be specified in the PowerExchange Express CDC for Oracle configuration file, pwxorad.cfg:

Statement	New, Changed, or Deprecated
DICTIONARY	Changed - Now used by the dynamic dictionary feature. - Changed - MODE parameter - New - RETENTIONPERIOD, SNAPSHOTONCOLDSTART, and UPDATEINTERVAL parameters
OPTIONS	Changed - New SPILLFILEBUFFSZ parameter Changed - Changed MEMOPS parameter
STATESTORAGE	Changed - Now used for the Oracle dynamic dictionary feature.

For more information, see .

Changes to Supported Operating Systems and Data Sources in 10.5.1

PowerExchange 10.5.1 introduces the following changes to the operating systems and data sources that PowerExchange supports.

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Data Sources

The following table identifies added, dropped, or deferred data source or target versions in PowerExchange 10.5.1:

Data Source	Version	Operating System	Bulk	CDC	Added, Dropped, or Deferred
PostgreSQL	13.*x*	Linux and Windows	N/A	X	Added
PostgreSQL	13.*x* 12.1 11.4 10.*x*	SUSE Linux	N/A	X	Added
SAP HANA	2.*x*	Linux and Windows	N/A	X	Added

PowerExchange 10.5

This section lists the new features and changes in PowerExchange 10.5.

New Features in 10.5

The following table lists PowerExchange 10.5 features by PowerExchange component or data source:

Component or Data Source	Feature Reference
CICS Transaction Server	"Support for CICS Transaction Server Version 5.6" on page 118
Db2 for Linux, UNIX, and Windows	"Support for DB2 for Linux, UNIX, and Windows Version 11.5" on page 80
IBM i	"TLS Security in a PowerExchange Network" on page 77 "PWXUGSK Utility Enhancements" on page 65 "WRKJRNLCKE - Journal Lock Table Utility" on page 66
IMS	"Updated Components in the PowerExchange ECCR CRG.LOAD Library for IMS Synchronous CDC" on page 88 "Ability to View IMS Unload Files From the DL/1 Batch Access Method Tab" on page 59 "Ability to Skip Data Rows for IMS Unload Data Sets During a Row Test" on page 58
Linux, UNIX, and Windows	"PWXUSSL Utility Enhancements" on page 65
Oracle	"Checkpointing In-flight Transactions" on page 102

Parameter and Option Changes in 10.5

PowerExchange 10.5 includes parameter and option changes.

Adabas ECCR Parameter

The following table identifies a parameter in the Adabas ECCR RUNLIB(ADAECRP1) member that has a changed default value:

Parameter	New, Changed, or Deprecated
ETID_DATE	Changed

For more information, see "Adabas ECCR Parameter" on page 71.

DBMOVER Configuration File Statements

The following table identifies new, changed, or deprecated statements in the DBMOVER configuration file:

Statement	New, Changed, or Deprecated
ABEND_SW	Changed - Change for z/OS
CREDENTIALS_CASE	Changed
IBMI_2ND_LEVEL_HELP	New

Statement	New, Changed, or Deprecated
QAQQINILIB	New - New for IBM i
LISTENER	Changed - Change for IBM i
SSL_CIPHER_LIST	Changed - Change for IBM i
SSL_CONTEXT_METHOD	Changed - Change for IBM i
SSL_REQ_CLNT_CERT	Changed - Change for IBM i
SSL_TOLERATE_UNTRUSTED_ISSUER	New - New for IBM i
SVCDUMP	New - New for z/OS

For more information, see "DBMOVER Configuration File Statements" on page 50 and "DBMOVER Configuration File Statements" on page 77.

DTLREXE Utility Parameters

The following table identifies new parameters for the DTLREXE utility:

Parameter	New, Changed, or Deprecated
SSLINFO	New

For more information, see "DTLREXE Utility Parameters" on page 68.

DTLUCBRG Utility Parameters

The following table identifies new parameters for the DTLUCBRG utility:

Parameter	New, Changed, or Deprecated
EXCLUDE_COL	New
EXCLUDE_TYPE	New
INCLUDE_COL	New

For more information, see "DTLUCBRG Utility Parameters" on page 68.

DTLURDMO Utility Parameters

The following table identifies new parameters for the DTLURDMO utility:

Parameter	New, Changed, or Deprecated
GETREGTAG	New

For more information, see "DTLURDMO Utility Parameters" on page 69.

PWXUGSK Utility Parameters

The following table identifies new and changed parameters for the PWXUGSK utility:

Parameter	New, Changed, or Deprecated
PING_SSLINFO	New
PING_EPWD	Changed
PING_PWD	Changed
PING_UID	Changed

For more information, see "PWXUGSK Utility Parameters" on page 69.

PWXUSSL Utility Parameters

The following table identifies new and changed parameters for the PWXUSSL utility:

Parameter	New, Changed, or Deprecated
PING_SSLINFO	New
PING_EPWD	Changed
PING_PWD	Changed
PING_UID	Changed

For more information, see "PWXUSSL Utility Parameters" on page 70.

PowerExchange Express CDC for Oracle Configuration File

The following new statements can be specified in the PowerExchange Express CDC for Oracle configuration file, pwxorad.cfg:

Statement	New, Changed, or Deprecated
CHECKPOINT	New
STATESTORAGE	New

The DATABASE statement has the following new and deprecated parameters:

Parameter	New, Changed, or Deprecated
TDEKEYSTORE	New
TDEWALLETDIR	Deprecated
TDEWALLETEPWD	Deprecated
TDEWALLETPWD	Deprecated

Note: Deprecated parameters continue to be supported for backward compatibility.

The OPTIONS statement has the following new parameters:

Parameter	New, Changed, or Deprecated
BCE_SUBSTITUTE_YEAR	New
BCE_YEAR_HANDLING	New
SPILLENCRYPTEPASS	New
SPILLENCRYPTPASS	New

For more information, see "PowerExchange Express CDC for Oracle Configuration File" on page 102.

Command Changes in 10.5

PowerExchange 10.5 includes command changes.

PWXUGSK Utility Commands

PowerExchange 10.5 introduces new PWXUGSK utility commands.

The following table identifies the new commands:

Command	New, Changed, or Deprecated
REPORT_ZOS_ATTLS_POLICY	New
PING_SSLINFO	New

For more information, see "PWXUGSK Utility Commands" on page 66.

PWXUMAP Utility Commands

PowerExchange 10.5 introduces a new PWXUMAP uitlity command.

The following table identifies the new command:

Command	New, Changed, or Deprecated
MDDTLDESCRIBE	New

For more information, see "PWXUMAP Utility Commands" on page 66.

PWXUSSL Utility Commands

PowerExchange 10.5 introduces new PWXUSSL commands.

The following table identifies the new commands:

Command	New, Changed, or Deprecated
REPORT_ZOS_ATTLS_POLICY	New
PING_SSLINFO	New

For more information, see "PWXUSSL Utility Commands" on page 67.

LISTTASK Command

The PowerExchange LISTTASK command changed in PowerExchange 10.5 to display allocated resources for each active task, including the client system, database name, and the file name or table name.

Changes to Supported Operating Systems and Data Sources in 10.5

PowerExchange 10.5 introduces the following changes to the operating systems and data sources that PowerExchange supports.

For more information about version and maintenance requirements for operating systems and data sources, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

AIX Deferment

Effective in version 10.5, AIX support is deferred and is unavailable.

Deferred functionality is either not available or not supported in the current release. Informatica intends to reinstate it in an upcoming release, but might choose not to in accordance with changing market or technical circumstances.

Data Sources

The following table identifies added or dropped data source or target versions in PowerExchange 10.5:

Data Source	Version	Operating System	Bulk	CDC	Added or Dropped
CICS Transaction Server	5.6	z/OS	Not applicable - Use VSAM bulk data movement instead.	Supported - sources	Added
CICS Transaction Server	4.2	z/OS	-	-	Dropped
Db2 for Linux, UNIX, and Windows	11.5	LUW	Supported - sources and targets	Supported - sources	Added
Microsoft SQL Server	2016 2014	Windows	-	-	Dropped

Operating Systems

The following table identifies a change to supported operating system versions in PowerExchange 10.5:

Operating System	Version	Added or Dropped
Red Hat Linux	8	Added
Red Hat Linux	6.7	Dropped
SUSE Linux	15	Added
SUSE Linux	11	Dropped
Windows Server	2012 R2	Dropped

Security Change in 10.5

As of PowerExchange 10.5, Informatica recommends that you use TLS network security on IBM i machines in preference to PowerExchange alternate network security.

Alternate network security, which is described in the *PowerExchange Reference Manual*, is still supported but should be used only in exceptional circumstances. Informatica recommends that you to transition to TLS network security.

C H A P T E R 2

PowerExchange Installation and Upgrade

This chapter includes the following topics:

PowerExchange 10.5.5 - New Features and Changes for Installation and Upgrade

This section describes the PowerExchange 10.5.5 new features and changes that are related to PowerExchange installation and upgrade.

IBM i Installer Improvement

When you run PowerExchange on IBM i installer, you can now use the new optional **Port Number** field to specify a port number other than the default FTP port number of 21 for the IBM i connection.

PowerExchange 10.5.3 - New Features and Changes for Installation and Upgrade

This section describes the PowerExchange 10.5.3 new features and changes that are related to PowerExchange installation and upgrade.

IBM i Installation Enhancement

PowerExchange 10.5.3 adds the default value of /tmp for the FILEMAPPED_MEMORY_DIR parameter in the IBM i installer. If you select the **Configure PowerExchange DBMOVER file** check box in the installer, PowerExchange adds `FILEMAPPED_MEMORY_DIR=/tmp` to the DBMOVER configuration file.

If you manually install PowerExchange for IBM i, PowerExchange also uses the default value of /tmp.

For more information, see "Chapter 2: DBMOVER Configuration File" in the *PowerExchange Reference Manual* and "Appendix C: Manual Installation on IBM i" in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange 10.5.2 - New Features and Changes for Installation and Upgrade

This section describes the PowerExchange 10.5.2 new features and changes that are related to PowerExchange installation and upgrade.

IBM i Installation

PowerExchange 10.5.2 introduces the following changes to the IBM i installation:

- PowerExchange for IBM i now allows for multiple listeners to run concurrently from the same environment. By default, a PowerExchange listener communicates with the server through a message queue called LISTENER, which you create during the installation process. Additional listeners require a message queue to be created before you start the listener.

  For more information, see the "Installing and Upgrading PowerExchange on IBM i" chapter and "Appendix C: Manual Installation on IBM i" in the *PowerExchange Installation and Upgrade Guide*.

- The FILEMAPPED_MEMORY_DIR statement in the DBMOVER configuration file is now required for PowerExchange on IBM i. The statement points to an existing directory on the IBM i system that you create with a QShell command.

Manual Installation on IBM i

PowerExchange 10.5.2 introduces the following changes to PowerExchange manual installation on IBM i.

As of PowerExchange 10.5.2, you issue the following command to create the dtllib library:

```
CRTLIB LIB(dtllib) AUT(*CHANGE)CRTAUT(*CHANGE)
```

If you plan to run PowerExchange within an independent auxiliary storage pool (IASP), issue the following command:

```
CRTLIB LIB(dtllib) AUT(*CHANGE) CRTAUT(*CHANGE) ASP(*ASPDEV) ASPDEV(asp_device)
```

When you install a HotFix on IBM i, run the CHGALLOBJ program to change object owner, review the WRKREGINF output and use the ADDEXITPGM command to specify the same user profile in the exit program as specified on the CHGALLOBJ call.

For more information, see "Appendix C: Manual Installation on IBM i" in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange 10.5.1 - New Features and Changes for Installation and Upgrade

This section describes the PowerExchange 10.5.1 new features and changes that are related to PowerExchange installation and upgrade.

Upgrade Consideration for IBM i

After you upgrade PowerExchange on IBM i but before you start the PowerExchange Listener, you must update objects such as the configuration source file and data files for compatibility with the current release.

Issue the following command to update the objects for compatibility with the current release:

```
CRTDTLENVF DTLLIB(DTLLIB) DATALIB(DATALIB)
```

For more information, see the "Upgrade Considerations" appendix in the *PowerExchange Installation and Upgrade Guide*.

CHAPTER 3

PowerExchange Client for PowerCenter

This chapter includes the following topics:

PowerCenter 10.5.2 - New Features and Changes for the PowerExchange Client for PowerCenter

New Features in 10.5.2

PowerExchange 10.5.2 introduces the following new features for PWXPC:

CREATEFILE Large Format Physical Sequential (PS) Data Set Support

As of PowerExchange 10.5.2, the CREATEFILE command adds the DSNTYPE keyword.

The new DSNTYPE keyword specifies the data set type. To allocate a large format physical sequential (PS) data set, you can now specify DSNTYPE=LARGE.

For more information, see Appendix A in *PowerExchange Interfaces for PowerCenter*.

Parameter and Option Changes in 10.5.2

The PowerCenter 10.5.2 version introduces a changed PowerCenter connection attribute.

PWXPC Connection Attributes

In PowerCenter, you can configure new override options in the **PWX Override** connection attribute.

PWX Override

> *Changed*. You can configure the following new options in the **PWX Override** attribute:

DSNTYPE=*dataset_type*

> *New*. For an NRDB application connection for a sequential file target, specify the data set type. To allocate a large format physical sequential (PS) data set, specify DSNTYPE=LARGE.

RTNBUFFSIZE={*kilobytes*|960}

> *New*. For a Db2 relational connection, specify the size of the buffer, in kilobytes, that is used to collect Db2 for i journal entries for CDC as a result of PowerExchange calls to the IBM QjoRetrieveJournalEntries API. Adjust this parameter to tune performance for your environment. Valid values are 128 through 12288. Default is 960 KB.
>
> Overrides the RTNBUFFSIZE parameter in the PowerExchange AS4J CAPI_CONNECTION statement, if specified.

For more information, see the "Connections" chapter in *PowerExchange Interfaces for PowerCenter*.

PowerCenter 10.5.1 - New Features and Changes for the PowerExchange Client for PowerCenter

New Features in 10.5.1

PowerExchange 10.5.1 introduces the following new features for PWXPC:

Sample Template for the PM_RECOVERY Table

The recovery_template.sql file is a template for creating target PM_RECOVERY recovery tables for relational databases. It contains general requirements for target support for CDC transactions when writing to relational databases.

You can configure the template for target support for PowerCenter, Informatica Intelligent Cloud Services (IICS), and PowerExchange Cloud Data Integration (CDI).

The installation process copies the recovery_template.sql file to the root installation directory for the Linux, UNIX, and Windows installers. Review and customize the SQL syntax to ensure support for the target database.

For more information, see the *PowerExchange Interfaces for PowerCenter* publication.

Recovery Table Scripts

You can run the following scripts to create the recovery tables in the target database.

Script	Database
create_schema_inf.sql	Informix
create_schema_neoview.sql	Neoview
create_schema_netz.sql	Netezza
create_schema_syb.sql	Sybase

Script	Database
create_schema_ter.sql	Teradata
create_schema_tpt.sql	Teradata PT

For more information, see *PowerExchange Interfaces for PowerCenter*.

C H A P T E R 4

PowerExchange Listener

This chapter includes the following topics:

PowerExchange 10.5.5 - New Features and Changes for the PowerExchange Listener

PowerExchange 10.5.5 introduces the following features and changes for the PowerExchange Listener.

Parameter and Option Changes in 10.5.5

The DBMOVER configuration file contains the following new statement.

DBMOVER Configuration File Statements

The DBMOVER configuration file contains the following new and changed statements:

DL1_INITIAL_CHKP={Y|N}

New. Optional. Controls whether PowerExchange sets an initial checkpoint for an IMS netport job. You can use an initial checkpoint ID to perform a ROLLBACK to the beginning of a job. Default is N, which causes the initial checkpoint to not be set.

HANA CAPI_CONNECTION

Changed. For PowerExchange 10.5.5, the behavior of the PARMFILE parameter has changed.
PARMFILE=*path\filename*

If you use version 10.5.5, you can either specify the full path and file name for the parameter file or not specify a value. If you do not specify a full path, PowerExchange looks for the file in the PWX_HOME directory. If PWX_HOME does not exist, PowerExchange looks for the file in the current PowerExchange directory. Prior PowerExchange versions retain their previous behaviors.

PG CAPI_CONNECTION

Changed. A new parameter is available to specify in the PG CAPI_CONNECTION statement:

REPLSLOTNAME={slot_name|pwx_repl}

New. Optional. Specifies the name of the replication slot to use. A replication slot name can only contain lowercase letters, numbers, and the underscore (_) character.

If the replication slot does not exist, it is created with the name you specify for this parameter.

If you do not specify a name, the default name of pwx_repl is used.

Note: If Azure Database for PostgreSQL or Amazon RDS for PostgreSQL is detected, PowerExchange will create a wal2json slot.

This parameter also allows you to use multiple replication slots. For example, you can define a slot for the PowerExchange plugin and a wal2json plugin for comparison testing purposes.

SUPPRESS_IBMI_SPLF={Y|N}

New. Optional. Suppress output written to the IBM i QPRINT queue. Use this statement if you do not periodically clear the output queue of spooled files.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

Command Changes in 10.5.5

The PowerExchange Listener DISPLAYSTATS command has a new parameter:

DISPLAYSTATS Command

The new MEMORYPOOLS parameter was added to the PowerExchange Listener DISPLAYSTATS command and pwxcmd displaystats command to report the number of bytes in z/OS memory pools that PowerExchange Listener on z/OS uses.

For more information, see the "PowerExchange Listener Commands" chapter in the *PowerExchange Command Reference* publication.

PowerExchange 10.5.4 - New Features and Changes for the PowerExchange Listener

PowerExchange 10.5.4 introduces the following features and changes for the PowerExchange Listener.

Parameter and Option Changes in 10.5.4

The DBMOVER configuration file contains the following new and changed statements:

DBMOVER Configuration File Statements

The DBMOVER configuration file contains the following new statements. These statements should be used only if PowerExchange alternative logging is enabled by the TRACING statement. Specify these statements only at the direction of Informatica Global Customer Support:

TRACING_BLOCK_RELEASE_SECONDS

New. Optional. Defines how frequently wake-up events are posted to the wait-empty queue to prevent stalls when all message buffers become full.

TRACING_PARENT_CHECK_SECONDS

New. Optional. Defines how frequently the existence of the parent is checked through the getppid() function.

TRACING_TRY_LOCK_SECONDS

New.Optional. Defines the number of seconds to poll the wait-full event queue before returning control to the tracing subtask DTLTRTSK.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

PowerExchange 10.5.3 - New Features and Changes for the PowerExchange Listener

PowerExchange 10.5.3 introduces the following features and changes for the PowerExchange Listener.

Parameter and Option Changes in 10.5.3

The DBMOVER configuration file contains the following new and changed statements:

DBMOVER Configuration File Statements

The DBMOVER configuration file contains the following new and changed parameters:

FILEMAPPED_MEMORY_DIR=*path/directory*

Changed. Required for AIX and IBM i. On IBM i, the default is /tmp. When you install PowerExchange on IBM i and you select the **Configure PowerExchange DBMOVER file** check box, or you manually install PowerExchange on IBM i, the installer adds FILEMAPPED_MEMORY_DIR=/tmp to the DBMOVER configuration file.

FROMRCVR=*library/from_receiver*

New. Optional. Specifies the beginning of a valid sequence of override journal receivers associated with the journal specified in the JOURNAL JRN parameter. If you specify this parameter, you must also specify the TORCVR parameter.

TORCVR=*library/to_receiver*

New. Optional. Specifies the end of a valid sequence of journal receivers associated with the journal receiver specified in the JOURNAL JRN parameter.

IBMI_USE_DB2_SYSTEM_OBJECT_NAMES={Y|N}

New. Optional. Controls whether PowerExchange searches both IBM i system object names and SQL object names or only SQL object names for Db2 for i source objects when you create PowerExchange capture registrations in the PowerExchange Navigator or with the DTLUCBRG utility or perform database row tests in the PowerExchange Navigator. Default is N, which reflects the previous behavior of searching SQL object names only.

JOB_START_MINIMUM_BELOWLINE_MEMORY_KB=*kilobytes*

New. Optional. The minimum z/OS memory below the 16 MB line that must be present before the PowerExchange Listener on z/OS allows an incoming connection request to start a task.

JOURNAL=(JRN=*library/journal_name*, [FROMRCVR=*library/from_receiver*], [TORCVR=*library/to_receiver*])

Changed. Required. Defines the name of the Db2 for i journal associated with the CAPI_CONNECTION instance for registrations. The JRN parameter specifies the library name and journal name and is required.

If you need to process changes from a range of journal receivers outside of default processing, you can optionally specify a range of journal receivers using the FROMRCVR and TORCVR parameters on the JOURNAL JRN parameter.

LRECL

Changed. Optional. Specifies the logical record length that PowerExchange uses when dynamically allocating target data sets on z/OS, if you do not provide LRECL information For the *record_length* value, enter a number from 1 through 32756.

REPORT_UNUSED_OPT_READING_CONDITIONS={Y|N}

New. Optional. Controls whether PowerExchange records conditions in a SQL WHERE clause that are skipped by the NRDB optimized read process. Set this option to N to suppress messages about skipped conditions in the SQL WHERE clause.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

Behavior Changes in 10.5.3

PowerExchange 10.5.3 introduces the following behavior changes for PowerExchange Listeners on z/OS:

Non-relational Optimized Read Process

PowerExchange 10.5.3 adds support for negative numbers in the non-relational (NRDB) optimized read process.

The negative numbers must occur in primary key fields. The WHERE clause that includes the fields must use an equals (=) condition or a comparative condition such less than (<) or greater than (>). WHERE clause conditions that specify a range of numbers cannot include both negative and positive numbers. For more information, see " Optimized Read Process for Nonrelational Data Sources," in Chapter 9 of the *PowerExchange Reference Manual*.

PowerExchange 10.5.2 - New Features and Changes for the PowerExchange Listener

PowerExchange 10.5.2 introduces the following features and changes for the PowerExchange Listener.

New Features in 10.5.2

PowerExchange 10.5.2 introduces the following new feature for PowerExchange Listeners on z/OS:

Improved Memory Management for Listeners on z/OS

PowerExchange introduces improved messaging and control of the PowerExchange Listener response to memory issues on z/OS.

When the PowerExchange Listener on z/OS starts, new messages display the available memory in the JCL control region and whether the size of the control region is adequate for the workload. Additional messages provide information about memory usage when a job completes.

The Listener accepts incoming connections and starts tasks if 50 MB of extended memory is available. Otherwise, incoming work is suspended until the memory becomes available.

Two new DBMOVER configuration statements let you specify a minimum amount of available extended memory for PowerExchange jobs, and an alternate method for complex code page conversion. For more information about the new statements, see "DBMOVER Configuration File Statements" on page 46.

Parameter and Option Changes in 10.5.2

The DBMOVER configuration file contains the following new and changed statements:

DBMOVER Configuration File Statements

PowerExchange 10.5.2 introduces the following changes in the DBMOVER configuration file:

AS4J CAPI_CONNECTION

Changed. This statement includes the new optional RTNBUFFSIZE parameter.

CONVERT_CODEPAGES_WITH_ICONV=[N|Y]

New. Determines whether PowerExchange uses the ICONV functions to covert code pages, or ICU. Using ICONV can reduce memory requirements for complex code pages, such as Chinese or Turkish

Valid values are Y or N. Default is N.

FILEMAPPED_MEMORY_DIR

Changed. Specifies the directory that stores temporary file-mapped memory files for PowerExchange Listener statistics on AIX PPC64, IBM i (i5/OS), and Solaris SP64 systems. This statement is now required for AIX and IBM i systems.

JOB_START_MINIMUM_MEMORY_MB=*megabytes*

New. Prevents PowerExchange Listener from accepting incoming connections or tasks if the available extended memory in the JCL control region is less than the specified value in the statement.

Valid values are 50 through 1520. Default is 50.

RTNBUFFSIZE={*kilobytes*|960}

New. Adjusts the buffer size, in kilobytes, that is used to collect journal entries for CDC as a result of PowerExchange calls to the IBM QjoRetrieveJournalEntries API. You can use this parameter to tune performance based on your environment.

Valid values are 128 through 12288. Default is 960 KB, which is the IBM default size.

Note: If you also specify the RTNBUFFSIZE in the **PWX Overrides** field of the PowerCenter PWX DB2i5OS CDC application connection, the override takes precedence.

IMSID

Changed. This statement contains a change to the *dbdlib* parameter.

dbdlib or DD:*XXXXXXXX*

Provides PowerExchange access to the IMS DBD which is required for activities such as reading IMS unload files, registering IMS sources for CDC, and running utilities, including DTLURDMO and DTLUCBRG. In this parameter, you can either specify the IMS DBD library dataset name in line or specify a DD name for PowerExchange to search. By specifying DD:*XXXXXXXX*, where *XXXXXXXX* is the DD name coded in the JCL for the component requiring access, you can have one or more DBD libraries for a system allocated to the specified DD name.

Note: If you use the DD:*XXXXXXXX*, PowerExchange uses the first DBDLIB it finds in the concatenated list and continues processing. Ensure that you place this DD with the one or more DBD libraries in the appropriate JCL or started task.

LISTENER

Changed. This statement has the new optional *message_queue* parameter for IBM i.

IBM i can run multiple PowerExchange Listeners from the same PowerExchange environment by specifying a different message queue for each Listener. For example:

```
/* Listener using default message queue (LISTENER)
LISTENER=(node1,TCPIP,2480,262144,262144,262144,262144)
/* Listener using user defined message queue (LISTENER2)
LISTENER=(node2,TCPIP,12480,262144,262144,262144,262144,,,,LISTENER2)
```

PG CAPI_CONNECTION

Changed. This statement can includes the new optional CAPTUREALL parameter.
CAPTUREALL={N|Y}

New. Controls whether PowerExchange captures and stores change data for all tables in the source database or only for the tables registered for CDC. Use this parameter to limit the amount of data that is stored in the replication store table to only the data from registered source tables.

Options are:

- **N**. Capture DML changes and store the changes in the replication store table, only for registered source tables. This option limits the amount of data that is collected and stored in the store table.

- **Y**. Capture DML changes and store the changes in the replication store table, for all tables in the source database, including unregistered tables. This setting is not recommended because it can cause more data than is needed for CDC processing to be stored in the replication store table.

Default is N.

UNLOGGED_ERROR_MESSAGES_DEST=[STDERR,STDOUT,ERRFILE,NONE]

New. Specifies a location to write error messages that might not be logged to the detail.log file because of limits on the file.

Options are:

- STDERR. Enter this value to write the messages to the standard error file. Informatica recommends you use STDERR for z/OS and Windows systems.

- STDOUT. Enter this value to write the messages to the standard output file.

- ERRFILE. Enter this value to write the messages to an error file. PowerExchange creates the error file with the prefix **errorfile**. Informatica recommends you use ERRFILE for IBM i, Linux, and UNIX systems, in conjunction with the FILEMAPPED_MEMORY_DIR.

- NONE. Enter this value if you do not want to record unlogged error messages.

Usage Notes:

- On IBM i systems, the STDERR and STDOUT options write the messages to QPRINT spools. Using the ERRFILE option with the FILEMAPPED_MEMORY_DIR statement makes the messages easier to locate.

- You can specify multiple options, separated by commas. If you specify NONE with any other option, NONE takes precedence, and no unlogged errors are recorded.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

PowerExchange 10.5.1 - New Features and Changes for the PowerExchange Listener

This section describes the PowerExchange 10.5.1 new features and changes that are related to the PowerExchange Listener.

Parameter and Option Changes in 10.5.1

PowerExchange 10.5.1 introduces the following changes to DBMOVER configuration statements:

DBMOVER Configuration File Statements

The DBMOVER configuration file contains the following new and changed statements:

HANA CAPI_CONNECTION

New. Connects to an SAP HANA source for CDC processing. Syntax is:

```
CAPI_CONNECTION=(NAME=capi_connection_name
  [,DLLTRACE=trace_id]
  ,TYPE=(HANA
    ,SERVER=[server_name|ip_address]:port
    ,DATABASE=database_name
    [,BUFFERSIZE=bytes]
    [,FETCHSIZE=records]
    [,LOGCLEAR=days]
    [,ONDATATRUNC=[WARN|FAIL]]
    [,SSL=[Y|N]]
    [,TIMEOUT=milliseconds]
    [,VMOPTS=options]
    [,VMOPTSDEL=delimiter_character])
  )
```

IBMI_USE_DB2_SYSTEM_COLUMN_NAMES={Y|N}

New. Controls whether to use Db2 system column names when performing PowerExchange database row tests and PowerExchange CDC registrations.

This statement pertains to PowerExchange Navigator personal metadata, CDC database row tests, and PowerExchange CDC registrations in the PowerExchange Navigator and the DTLUCBRG utility. It also pertains to PowerCenter Db2 for i, CDC source and target imports, and PowerCenter CDC workflows.

Valid values are:

- **Y**. Use Db2 system column names. When you specify Y, the system column name is displayed for CDC row tests and PowerExchange capture registrations in the PowerExchange Navigator and DTLUCBRG utility.

- **N**. Use long column names. Do not use Db2 system column names.

Default is N.

OPENPOLL=*number*

New. Adjusts the wait time when the PowerExchange Listener encounters tape mount delays on z/OS. Use this statement to relieve constraints on other workflows when the availability of tape data sets or devices cannot be guaranteed.

PowerExchange uses this value in conjunction with the POLLTIME value to calculate a time limit that determines how long the PowerExchange Listener waits for an open request on a tape data set before canceling the request and ending the task.

The value represents the number of passes through the PowerExchange Listener polling loop. To calculate the time limit, the OPENPOLL value is multiplied by the POLLTIME value. For example, if you set OPENPOLL to 60 and POLLTIME to 1000 milliseconds, the time limit is approximately 60000 milliseconds, or 1 minute.

The range for the OPENPOLL value is 5 through 10000.

Default is 0, which causes no requests to be canceled.

SVCNODE=(*service_name* , *listen_port*)

Changed. The SVCNODE statement specifies the TCP/IP port on which a PowerExchange process listens for commands. You can now include up to 30 SVCNODE statements in a DBMOVER configuration file.

TEMP_FILE_DIRECTORY=*directory*

New. Specifies an alternate location for the temporary files that PowerExchange creates if the TMP or TMPDIR environment variables on Windows, UNIX, or Linux are not specified. Valid values are a path and directory name on the server where the dbmover.cfg file resides.

UPDATE_USER_ACTIVITY={Y|N}

New. Controls whether the LAST-ACCESS date in RACF is updated when a user connects to a PowerExchange Listener on z/OS. For the LAST-ACCESS dates to be updated, you must configure the SECURITY=(2,*x*) and UPDATE_USER_ACTIVITY=Y statements in the DBMOVER configuration file.

Valid values are:

- **Y**. Update the LAST-ACCESS date in the RACF database when a connection is made to a PowerExchange Listener on z/OS. You can view the LAST-ACCESS date in RACF LISTUSER output.

- **N**. Do not update the LAST-ACCESS date in RACF for PowerExchange Listener connections.

Default is N.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

PowerExchange 10.5 - New Features and Changes for the PowerExchange Listener

This section describes the PowerExchange 10.5 new features and changes that are related to the PowerExchange Listener.

Parameter and Option Changes in 10.5

PowerExchange 10.5 introduces the following changes to DBMOVER configuration statements:

DBMOVER Configuration File Statements

The DBMOVER configuration file contains the following new, changed, and dropped statements:

ABEND_SW={N|Y}

Changed. Option Y was changed to print the PowerExchange call stack by using CEE3DMP and the control areas at the time of the abend. Use this option to bypass IBM or third-party abend diagnostic tools. This option is for z/OS only.

CREDENTIALS_CASE={A|D|S]

Changed. PowerExchange handling of mixed-case passwords under option A changed. On IBM i or z/OS, PowerExchange now processes and passes user IDs and passwords to the operating system for authentication, as follows:

1. PowerExchange converts the user ID to uppercase.

2. PowerExchange checks whether the operating system is configured to handle mixed-case passwords.

    - If the operating system is configured to handle mixed-case passwords, PowerExchange keeps the password case as is.

    - If the operating system is not configured to handle mixed-case passwords, PowerExchange converts the password to uppercase. On z/OS, if the password is longer than eight characters, which indicates it is a passphrase, PowerExchange keeps the case in which the password was entered.

IBMI_2ND_LEVEL_HELP={Y|N}

New. Controls whether IBM i second-level help information is included in PowerExchange messages that report operating system or API errors. The second-level help provides additional information, such as a reason or reason code, to help diagnose the error.

LISTENER

Changed. To use TLS networking for IBM i, you can specify SSL in tenth comma position. When you use TLS networking, the send and receive sizes in the sixth and seventh comma positions of the LISTENER statement must be set to a value that does not exceed 16384.

QQAQINILIB=*library_name*

New. Specify the library name that contains the QQAQINI query options file. If you do not specify this statement, PowerExchange uses the default library specified for the IBM i system.

Note: In PowerCenter, you can override the QAQQINILIB setting in the DBMOVER configuration file by entering QAQQINILIB=*library_name* in the **PWX Override** connection attribute for the Db2 for i connection.

SSL_CIPHER_LIST=*cipher_list*

Changed. On IBM i, you can specify ciphers by using four hexadecimal digits.

SSL_CONTEXT_METHOD=*context_method*

Changed. You can now use this statement to enable TLS networking for IBM i.

Note: The TLSV1_3 protocol is not currently supported by PowerExchange. Informatica recommends that you use the TLSV1_2 protocol on all machine types, including IBM i. Avoid using TLSV1_1 and TLSV1.

On IBM i:

- **TLSV1** is allowed on IBM i 5.2.
- **TLSV1_1** is allowed on IBM i 5.2.
- **TLSV1_2** is allowed on IBM i 5.2, 5.3, and 5.4 and is the recommended choice.

If you do not specify SSL_CONTEXT_METHOD, the default is that the system accepts connection requests for all protocols that the IBM i release supports.

Note: Informatica recommends specifying protocol TLSV1_2 on all machine types. The TLSV1_3 protocol is currently not supported by PowerExchange.

SSL_REQ_CLNT_CERT={N|Y}

Changed. The SSL_REQ_CLNT_CERT statement controls whether a PowerExchange server uses an SSL certificate to authenticate the identity of a PowerExchange client. You can now use this statement on IBM i. Valid values are:

- **Y**. Use the GSK session type of SERVER SESSION WITH CLIENT AUTHORITY. The X509 subject certificate from the client machine is validated against the trusted Certificate Authorities (CAs) on the IBM i server.
- **N**. Use GSK session type of SERVER SESSION. The client machine subject certificates are not requested or validated.

Default is Y for PowerExchange servers on IBM i.

SSL_TOLERATE_UNTRUSTED_ISSUER={N|Y}

New. For use on IBM i systems, to control whether to continue or stop processing after a certificate error 6000 has been reported. Valid values are:

- **Y**. Continue processing after a certificate error 6000 has been reported. A certificate error 6000 occurs when the SSL_REQ_CLNT_CERT statement is set to Y and the partner CA is not present among the trusted CAs on the IBM i machine.
- **N**. Stop processing and do not accept the connection after certificate error 6000 has been reported.

SVCDUMP={N|Y}

New. On z/OS, controls whether PowerExchange generates an SVCDUMP at the point of an abend.

The following statements can no longer appear in the DBMOVER configuration file:

- REPOS_CONNECT
- REPOS_DEFAULT_CONNECTION
- REPOS_ENABLE
- RPX_DIR

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

CHAPTER 5

PowerExchange Logger for Linux, UNIX, and Windows

This chapter includes the following topics:

PowerExchange 10.5.4 - New Features and Changes for the PowerExchange Logger

This section describes the PowerExchange 10.5.4 changes that are related to the PowerExchange Logger for Linux, UNIX, and Windows.

Parameter and Option Changes in 10.5.4

PowerExchange 10.5.4 adds a new parameter for the PowerExchange Logger for Linux, UNIX, and Windows.

PowerExchange Logger for LUW Configuration File

The following parameter was added in the PowerExchange Logger configuration file, pwxccl.cfg:

FILE_CHECKSUM={Y|N}

New. Optional. Controls whether PowerExchange generates a checksum of the change data as the PowerExchange Logger writes the data to log files and as the data is read from the log files and validated. Specify Y to help make sure the integrity of the data is preserved as it is read from the log files and to allow for the detection of and recovery from network or file-cache read errors.

PowerExchange 10.5.3 - New Features and Changes for the PowerExchange Logger

This section describes the PowerExchange 10.5.3 changes that are related to the PowerExchange Logger for Linux, UNIX, and Windows.

Parameter and Option Changes in 10.5.3

PowerExchange 10.5.3 adds parameters for the PowerExchange Logger for Linux, UNIX, and Windows.

PowerExchange Logger for LUW Configuration File

The following parameter was changed in the PowerExchange Logger configuration file, pwxccl.cfg:

IBMIJRNLOVRD=(JRN=*library/journal_name*, [FROMRCVR=*library/from_receiver*,] [TORCVR=*library/to_receiver*])

Changed. An override Db2 for i library/journal value that is used when remote logging of Db2 for i source data to the PowerExchange Logger is configured. This parameter overrides the JOURNAL parameter value in the AS4J CAPI_CONNECTION statement for PowerExchange Logger processing only. To specify a range of override journal receivers, use both the FROMRCVR and TORCVR keywords.

Specify the restart and sequence tokens in the PWXCCL.CFG file for the override receivers.

FROMRCVR=*library/from_receiver*

New. Optional. Specifies the beginning of a valid sequence of override journal receivers associated with the journal receiver specified in the IBMIJRNLOVRD JRN parameter. If you specify the FROMRCVR parameter, you must also specify the TORCVR parameter.

TORCVR=*library/to_receiver*

New. Optional. Specifies the end of the range of a valid sequence of override journal receivers associated with the journal receiver specified in the IBMIJRNLOVRD JRN parameter.

PowerExchange 10.5.2 - New Features and Changes for the PowerExchange Logger

This section describes the PowerExchange 10.5.2 changes that are related to the PowerExchange Logger for Linux, UNIX, and Windows.

Parameter and Option Changes in 10.5.2

PowerExchange 10.5.2 adds a parameter for the PowerExchange Logger for Linux, UNIX, and Windows.

PowerExchange Logger for LUW Configuration File

PowerExchange 10.5.2 adds the following new parameter in the PowerExchange Logger configuration file, pwxccl.cfg:

IBMIJRNLOVRD=*library***/***journal*

An override Db2 for i library/journal value that is used when remote logging of Db2 for i source data to the PowerExchange Logger is configured. The library name can be up to 128 characters in length, and the journal name can be up to ten characters in length. This parameter overrides the JOURNAL parameter value in the AS4J CAPI_CONNECTION statement, for PowerExchange Logger processing only.

Behavior Change in 10.5.2

PowerExchange 10.5.2 introduces the following behavior change for the PowerExchange Logger for Linux, UNIX, and Windows.

Ability to Access the CCT file in Read Mode

PowerExchange reads registrations from the CCT file in read mode. The user ID that accesses the CCT file no longer needs update permission, which enables you to implement a more granular security model.

As of Version 10.5.2, PowerExchange no longer retains information about columns when processing partial condense registrations, resulting in reduced run-time memory.

For more information, see the *PowerExchange Navigator User Guide*.

CHAPTER 6

PowerExchange Logger for z/OS

This chapter includes the following topic:

PowerExchange 10.5.5 - New Features and Changes for the PowerExchange Logger for z/OS

This section describes the PowerExchange 10.5.5 changes that are related to the PowerExchange Logger for z/OS.

Behavior Change in 10.5.5

PowerExchange 10.5.5 introduces the following behavior change for the PowerExchange Logger for z/OS.

PowerExchange Logger Warns When the Current Active Log RBA Is Near the Maximum RBA

The PowerExchange Logger for z/OS now writes new messages PWXEDM172600W and PWXEDM172601I to the EDMMSG message data set and the SYSLOG to warn you when the current RBA position in the active log is reaching the maximum value of FFFFFFFFFFFF in the RBA range. With these messages, you can implement automation monitoring so that you're warned well before the active log runs out of RBAs and you can plan for a reset of the active log.

CHAPTER 7

PowerExchange Navigator

This chapter includes the following topics:

PowerExchange 10.5.5 - New Features and Changes for the PowerExchange Navigator

PowerExchange 10.5.5 includes the following new features and changes that are related to the PowerExchange Navigator.

Parameter and Option Changes for 10.5.5

PowerExchange 10.5.5 adds a new option for capture registrations defined in the PowerExchange Navigator.

Row Table Option for SAP HANA Source Tables

The PowerExchange Navigator now supports a **Row Table** option for SAP HANA data sources in the **Add Capture Registration - Type** dialog box and in the **Capture Registration** tab in the **Resource Inspector**. Select the **Row Table** option to indicate that a SAP HANA source table uses row-based data storage.

Behavior Changes for 10.5.5

PowerExchange 10.5.5 introduces the following changed behavior for the PowerExchange Navigator.

Database Row Test Default Value Changes

For a PowerExchange Navigator database row test the default values for some CAPXRT advanced parameters have changed. On the **General** tab of the **CAPXRT Advanced Parameters** dialog box, the **Extract Type** parameter now defaults to CC and the **Restart Token 1** and **Restart Token 2** parameters default to 00. With these default settings, the row test tries to extract CDC data from the earliest available point in time instead of opening the CDEP file to get extract tokens.

PowerExchange 10.5.3 - New Features and Changes for the PowerExchange Navigator

PowerExchange 10.5.3 includes the following new features and changes that are related to the PowerExchange Navigator.

New Features for 10.5.3

PowerExchange 10.5.3 introduces the following new features for the PowerExchange Navigator.

New Functions for User-Defined Fields

The following new functions provide access to statistics for nonrelational read processing:

- GetOptimizationPositionCount
- GetOptimizationReadCount
- GetUnoptimizedReadCount

You can associate the functions with expressions in user-defined fields to enable a calling program to display the statistics for a PowerExchange read cycle for nonrelational sources.

For more information, see the "PowerExchange Functions for User-Defined Fields" appendix in the *PowerExchange Navigator User Guide*.

PowerExchange 10.5.2 - New Features and Changes for the PowerExchange Navigator

PowerExchange 10.5.2 includes the following new features and changes that are related to the PowerExchange Navigator.

Behavior Changes in 10.5.2

PowerExchange 10.5.2 introduces the following changed behavior for the PowerExchange Navigator.

Capture Registration CCT File Enhancement

In version 10.5.2, PowerExchange can open the CCT file in read or update mode according to the function it performs.

Longer Registration Names for IBM i and z/OS CDC Sources

When you add capture registrations in the PowerExchange Navigator, you can now specify a registration name up to 10 characters in length in the NAME field for a CDC source on IBM i or z/OS. Previously, the maximum registration name length for these platforms was eight characters.

Restricting Who Can Send a Data Map to a Remote Node for a Row Test

Previously, to perform a database row test on a data map in the PowerExchange Navigator, you had to first send the data map to the remote node. If a later version of the data map resided on the remote node, the version sent would overlay it, which could cause problems.

Now, you can select the new **Developer Mode** option in the data map **Preferences** dialog box in the PowerExchange Navigator to allow only developer users, who maintain the data maps, to choose whether to send the executable form of the data map to the remote node before performing the row test. When this option is not selected, no users can send the data map to the remote node, and the data map must already exist at the Listener location for the row test.

For more information, see the *PowerExchange Navigator User Guide*.

Data Map Preferences Enhancement

In version 10.5.2 PowerExchange Navigator, you can specify the row test font height on the **Data Map** tab of the **Preferences** dialog box.

If you see message PWX-01936 when you run a row test from the PowerExchange Navigator, no suitable Unicode font is available. In this case, install the unifont-13-0.06.ttf font file delivered in the PowerExchange install directory and copy it to the Windows Fonts folder.

For more information, see the *PowerExchange Navigator User Guide*.

PowerExchange 10.5 - New Features and Changes for the PowerExchange Navigator

PowerExchange 10.5 includes the following new features and changes that are related to the PowerExchange Navigator.

New Features for 10.5

PowerExchange 10.5 introduces the following new features for the PowerExchange Navigator.

Ability to Skip Data Rows for IMS Unload Data Sets During a Row Test

You can now specify the number of initial rows of data to skip when performing a row test that fetches data for IMS unload data sets.

Use the following field in the **Database Row Test** dialog box:

Skip First *n* Rows

> *New for IMSUNLD* . Indicates the number of initial rows of data to skip when the row test fetches data for display. If you are performing a row test on a large file, you can use this option to have the row test skip to a specific point in the file before displaying data. This option can help you diagnose problems in large files faster because only the data of potential interest is returned for analysis.

> For this existing option to be available for IMS unload files, select **IMSUNLD** in the **DB Type** list when you configure the row test.

> Valid values are 0 to 99999. Default is 0, which causes no rows to be skipped.

For more information, see the "Database Row Test Dialog Box" chapter in the *PowerExchange Navigator User Guide*.

Ability to View IMS Unload Files From the DL/1 Batch Access Method Tab

From the Data Map Properties **DL/1 Batch Access Method** tab, you can view an IMS unload file by specifying the IMS unload file name in the **IMS Unload Dataset** field and clicking **View File**. If the **Skip First *n* Records** field contains a value, PowerExchange skips the specified initial number of records.

For more information, see the "Data Map Properties" chapter in the *PowerExchange Navigator User Guide*.

Parameter and Option Changes for 10.5

PowerExchange 10.5 changes the length of the NAME parameter on capture registrations defined in the PowerExchange Navigator.

Capture Registration Name Lengths

The PowerExchange Navigator now supports an extended length for capture registration names for Linux, UNIX, and Windows sources.

You can specify a user-defined name for the capture registration, with the following format:

- For z/OS and IBM i sources, the name must be from one to eight lowercase alphanumeric characters long and must begin with a letter.

- For Linux, UNIX, and Windows sources, the name must be from one to 13 lowercase alphanumeric characters long and must begin with a letter.

CHAPTER 8

PowerExchange Utilities

This chapter includes the following topics:

PowerExchange 10.5.6 - New Features and Changes for PowerExchange Utilities

This section describes PowerExchange 10.5.6 new features and changes that are related to PowerExchange utilities.

Command Changes in 10.5.6

PowerExchange 10.5.6 introduces the following new command for a PowerExchange utility:

PWXUMAP Utility Command

The PWXUMAP utility adds the new UPLOADMAPS command to convert source .dmp data map files into runtime .dmx map files on either the local system or a remote PowerExchange Listener node. The data maps to convert are based on the schema and map masks you provide.

The command runs on Windows.

Syntax:

```
PWXUMAP COMMAND=UPLOADMAPS
TYPE=DMX
DMPDIRECTORY=path/dmp_list_directory
OUTPUT_FILE=log_file_name
LOCATION={node_name|local}
[UID=user_name]
[PWD=password|EPWD=encrypted_password]
[SCHEMAMASK=schema_mask]
[MAPMASK=data_map_mask]
```

The syntax includes both global parameters and a command-specific parameter.

New command-specific parameter:

DMPDIRECTORY=c:\temp\MyDmpMaps

> The directory to which the generated list of .dmp data maps to process is written. These data maps are the ones that match the schema and map name masks you specify.

For more information, see the "PWXUMAP - Map List Utility" chapter in the *PowerExchange Utilities Guide*.

PowerExchange 10.5.5 - New Features and Changes for PowerExchange Utilities

This section describes PowerExchange 10.5.5 new features and changes that are related to PowerExchange utilities.

New Features in 10.5.5

PowerExchange 10.5.5 introduces the following new features for PowerExchange utilities:

DTLINFOX Utility

The DTLINFOX utility provides the following new features:

- The DTLINFOX report now includes version information for z/OS ASM files.
- If you do not specify a library, all of the libraries that the PowerExchange Listener uses are included in the report.
- On z/OS, the EDM load modules used by the ECCRs, the PowerExchange Logger, and the agent are included in the report. Patch numbers are reported in the Build Version column.
- Where multiple libraries are included in the same report, each library is underlined and accompanied by a sequence number that is assigned to indicate the order in which they are processed.
- If the same program is present in multiple libraries, duplicates have the comment "Also in library *number*" where *number* indicates the earlier library from which the program is loaded.

For more information, see the "DTLINFOX - Enhanced Release Information Utility" chapter in the *PowerExchange Utilities Guide*.

ZOSTOUCH Utility

You can run the new ZOSTOUCH utility on a z/OS system where PowerExchange is installed to update the Last Referenced Date (LRD) of selected PowerExchange data sets.

Use the utility when an incorrect management class was specified for PowerExchange data sets that the PowerExchange Listener uses. ZOSTOUCH updates the LRD of the data sets instead of manually changing the data sets to use a correct management class.

For more information, see the "ZOSTOUCH - Set Last Referenced Date Utility for z/OS" chapter in the *PowerExchange Utilities Guide*.

Behavior Change in 10.5.5

PowerExchange 10.5.5 introduces the following behavior change for the DTLURDMO utility.

DTLURDMO Utility

The DTLURDMO utility contains the following changes:

- You can now use the REG_COPY CREATEXMAPS statement to copy registrations and refresh the associated extraction maps in a manner that retains any generated before image (BI) and change indicator (CI) columns that you previously added to the extraction maps.
- Informatica recommends that you use the REG_COPY CREATEXMAPS statement instead of the XM_COPY statement to keep the registrations and extraction maps in sync.

For more information, see the "DTLURDMO - Data Map Utility" chapter in the *PowerExchange Utilities Guide*.

PowerExchange 10.5.3 - New Features and Changes for PowerExchange Utilities

This section describes PowerExchange 10.5.3 new features and changes that are related to PowerExchange utilities.

New Features in 10.5.3

PowerExchange 10.5.3 introduces the following new features for PowerExchange utilities:

DTLINFOX Utility

The new DTLINFOX utility reports the version, release, and release level for each PowerExchange program in a PowerExchange library or directory. You can also use it to report information about a single program file on a remote system if a PowerExchange Listener runs on that system. program files by using a PowerExchange Listener on one or more remote machines.

Use the DTLINFOX utility to verify the installation of the product, a service pack, or a hotfix. You can also use it to determine the maintenance level of your PowerExchange software if Informatica Global Customer Support requests that information.

The DTLINFOX utility runs on Windows. However, you can also use it to report information about program files on a remote IBM i, Linux, UNIX, Windows, or z/OS system by connecting to a PowerExchange Listener that is running on that remote system.

For more information, see the "DTLINFOX - Enhanced Release Information Utility" chapter in the *PowerExchange Utilities Guide*.

Parameter and Option Changes for 10.5.3

PowerExchange 10.5.3 includes the following changes to parameters and options:

DDLFILE Option for HANOPTS Parameter

In the DTLUCBRG utility, the HANOPTS parameter now supports the DDLFILE option. You can use the HANOPTS DDLFILE option along with the TESTRUN parameter to generate a DDL file that contains SQL statements for creating the triggers and full-audit shadow _CDC tables for registered SAP HANA tables. Execute the SQL statements to create the triggers and shadow _CDC tables.

PowerExchange 10.5.2 - New Features and Changes for PowerExchange Utilities

This section describes PowerExchange 10.5.2 new features and changes that are related to PowerExchange utilities.

New Features in 10.5.2

PowerExchange 10.5.2 introduces the following new features for PowerExchange utilities:

PWXUCREG Utility Enhancements

The PWXUCREG utility includes the following enhancements:

- The CCT file is opened in read mode when retrieving registrations.
- The new status of N, for Not Live, can be specified in the PWXUCREG commands DELETE_INACTIVE_REGISTRATION and DISPLAY_REGISTRATION to retrieve and process registrations that have the statuses of H (History) and I (Inactive).
- You can delete registrations that have the status of History, Inactive, or Non-Live from the capture environment, by using the DELETE_INACTIVE_REGISTRATION command.
- The new HELP command displays help on all PWXUCREG commands.
- New keywords were added to the SET_CONTROL_VALUE statement: NO_MESSAGES_TO_DETAIL_LOG, DISPLAY_PROGRESS_TO_STDERR, and OVERRIDE_CCT_FILE_NAME.

For more information, see the "PWXUCREG - Capture Registration Suspend Utility" chapter in the *PowerExchange Utilities Guide*.

PWXCATMY Utility Support for Encrypted Passwords

You can now enter an encrypted password for the user who accesses catalog tables for MySQL sources and for the user who connects to the host where the source tables reside. You can create an encrypted password in the PowerExchange Navigator.

For more information, see the "PWXCATMY - MySQL Catalog Utility" chapter in the *PowerExchange Utilities Guide*.

Parameter and Option Changes in 10.5.2

PowerExchange 10.5.2 introduces new parameters for the PWXCATMY utility.

PWXCATMY Utility Parameters

PowerExchange 10.5.2 adds the following new optional parameters for the PWXCATMY utility:

CATEPASSWORD=*encrypted_catalog_host_password*

   The encrypted password that is associated with the user who accesses the catalog tables for MySQL sources. Do not also specify CATPASSWORD.

EPASSWORD=*encrypted_source_host_password*

   The encrypted password that is associated with the user who connects to the source system. Do not also specify PASSWORD.

For more information, see the "PWXCATMY - MySQL Catalog Utility" chapter in the *PowerExchange Utilities Guide*.

Behavior Changes in 10.5.2

PowerExchange 10.5.2 introduces the following behavior change for the DTLUCBRG utility.

DTLUCBRG Permits Longer Registration Names for IBM i and z/OS CDC Sources

When you use the DTLUCBRG utility to add capture registrations, you can now specify registration names up to 10 characters in length in the CRGNAME parameter for CDC sources on IBM i or z/OS. Previously, the maximum registration name length for these platforms was eight characters.

PowerExchange 10.5.1 - New Features and Changes for PowerExchange Utilities

This section describes PowerExchange 10.5.1 new features and changes that are related to PowerExchange utilities.

Parameter and Option Changes in 10.5.1

PowerExchange 10.5.1 introduces new parameters for the DTLUCBRG utility.

DTLUCBRG Utility Parameters

PowerExchange 10.5.1 includes the following new parameters for the DTLUCBRG utility:

HANOPTS

Parameters for SAP HANA sources. To use these parameters, the DBTYPE parameter must be set to HAN in the input parameter file. Otherwise, the DTLUCBRG utility issues an error message.

Syntax:

```
HANOPTS=(DBSERVER=database_server,[FULLAUDIT={Y|N}])
```

Subparameters:

DBSERVER

Required. The name of the database server. You can optionally include a port number for the server in the following format:

```
DBSERVER="database_server,port_number"
```

In this case, the double-quotation marks are required.

No default is provided.

DBNAME

Required. The name of the database that contains the tables from which changes are captured. Default is From Datamap.

FULLAUDIT

Optional. indicates whether the utility processes the change data with full audit enabled. The full audit feature creates a shadow table for changes to the SAP HANA table for which it is enabled.

- If STATUS is set to Y, full audit is enabled.
- If STATUS is set to N, full audit is disabled.

Default is N.

PowerExchange 10.5 - New Features and Changes for PowerExchange Utilities

This section describes PowerExchange 10.5 new features and changes that are related to PowerExchange utilities.

New Features in 10.5

PowerExchange 10.5 introduces the following new features for PowerExchange utilities:

PWXUGSK Utility Enhancements

The PWXUGSK utility includes the following reporting enhancements:

- You can now specify the REPORT_ZOS_ATTLS_POLICY command to generate a report of the z/OS AT-TLS rules.
- The error codes report was expanded to include more error codes.
- The ciphers report now distinguishes which ciphers belong to each protocol and clarifies how IBM i and z/OS cipher names match to equivalent OpenSSL cipher names.

For more information, see the "PWXUGSK - SSL Reporting Utility for z/OS" chapter in the *PowerExchange Utilities Guide*.

PWXUSSL Utility Enhancements

The PWXUSSL utility includes the following reporting enhancements:

- You can now specify the REPORT_ZOS_ATTLS_POLICY command on Windows to generate a report of the z/OS AT-TLS rules. You must perform an ASCII FTP of the relevant policy file to Windows before using it as input to the PWXUSSL utility.
- The ciphers report now distinguishes which ciphers belong to each protocol and clarifies how IBM i and z/OS cipher names match to equivalent OpenSSL cipher names.
- The cipher strength attribute is no longer reported because it was withdrawn by OpenSSL.
- You can now specify the PING command ping_sslinfo parameter to generate a report of secure connection attributes from both the client side and server side of the connection.

For more information, see the PWXUSSL - PowerExchange SSL Reporting Utility" chapter in the *PowerExchange Utilities Guide*.

WRKJRNLCKE - Journal Lock Table Utility

You can use the WRKJRNLCKE utility on an IBM i system where PowerExchange is installed to list journal entries that PowerExchange has locked.

When a PowerExchange task on IBM i ends abnormally or if a task is forced to end before it completes, locked journal entries might not be released. This utility allows you to view orphaned journal entries and optionally delete those entries that are no longer associated with active PowerExchange jobs.

The utility runs on IBM i systems. The user who runs the utility must have *JOBCTL special authority on the IBM i system where the journal entries reside.

For more information, see the "WRKJRNLCKE - Journal Lock Table Utility" chapter in the *PowerExchange Utilities Guide*.

Command Changes in 10.5

PowerExchange 10.5 introduces new commands for the PWXUGSK utility and the PWXUSSL utility.

PWXUGSK Utility Commands

The PWXUGSK utility adds the new REPORT_ZOS_ATTLS_POLICY command for generating a formatted report of the z/OS AT-TLS rules.

The new command is supported on z/OS.

REPORT_ZOS_ATTLS_POLICY

New. Produces a formatted report of the z/OS AT-TLS rules. The utility ignores statements in the policy file if it does not recognize the syntax. The utility also limits the input from the policy file to the following types:

- TTLSCipherParms
- TTLSConnectionAction
- TTLSConnectionAdvancedParms
- TTLSEnvironmentAction
- TTLSEnvironmentAdvancedParms
- TTLSGroupAction
- TTLSKeyringParms
- TTLSRule
- PortRange

For more information, see the "PWXUGSK - SSL Reporting Utility" chapter in the *PowerExchange Utilities Guide*.

PWXUMAP Utility Commands

The PWXUMAP utility adds the new MDDTLDESCRIBE command to report metadata, similar to DTLDESCRIBE metadata, for data maps, schemas, tables, columns, or files. If the report output is large, you can filter it by access method and by one or more schema, map, table, or file name masks. The report output is written to a text file on Windows, which is useful for diagnosing problems.

The command runs on Windows.

Syntax:

```
PWXUMAP COMMAND=MDDTLDESCRIBE
TYPE={MD}
OUTPUT_FILE=file_name
LOCATION={node_name|local}
MDDESCRIBETYPE=metadata_type
[UID=user_name]
[PWD=password|EPWD=encrypted_password]
[AMLIST=access_method_code]
[FILEMASK=file_name_mask**]
[MAPMASK=map_name_mask]
[PACESIZE=n]
[RETLOGINFOMSG={Y|N}]
[SCHEMAMASK=schema__name_mask]
[TABLEMASK=table_name_mask]
```

The syntax includes both global parameters and command-specific parameters.

New command-specific parameters:

FILEMASK=*file-name mask***

New. Use a file-name mask, or pattern, to filter files or partitioned data set members when the MDDESCRIBETYPE value is set to MDFILES or MDMEMBERS. In the pattern, use the asterisk (*) wildcard to represent last part of the file names. For files on z/OS, end the pattern with two asterisk (**) wildcards.

MDDESCRIBETYPE=*metadata_type*

New. The type of metadata to include in the report. Select one of the following options:

- **ALL**. Include all types of metadata except the MDFILES and MDMEMBERS types.
- **MDFILES**. Include metadata for files.
- **MDIMPORT**. Include metadata for schemas, data maps, tables or records, and columns containing additional map information.
- **MDMAPS**. Include metadata for schemas and data maps, in two-level hierarchical format.
- **MDMEMBERS**. Include metadata for members of partitioned data sets on z/OS.
- **MDOBJECTINFO**. Include metadata for schemas, data maps, tables, and columns, in four-level hierarchical format.
- **MDSCHEMAS**. Include metadata for schemas in a list.
- **MDSCHEMAINFO**. Include metadata for schemas, data maps, and tables, in three-level hierarchical format.

No default is provided.

For more information, see the "PWXUMAP - Map List Utility" chapter in the *PowerExchange Utilities Guide*.

PWXUSSL Utility Commands

The PWXUSSL utility adds the new REPORT_ZOS_ATTLS_POLICY command for generating formatted report of the z/OS AT-TLS rules.

The new command is supported on Windows.

REPORT_ZOS_ATTLS_POLICY

New. The command produces a formatted report of the z/OS AT-TLS rules. You must perform an ASCII FTP of the relevant policy file to download it to Windows before using it as input to the PWXUSSL utility.

The utility ignores statements in the policy file if it does not recognize the syntax. The utility also limits the input from the policy file to the following types:

- TTLSCipherParms
- TTLSConnectionAction
- TTLSConnectionAdvancedParms
- TTLSEnvironmentAction
- TTLSEnvironmentAdvancedParms
- TTLSGroupAction
- TTLSKeyringParms
- TTLSRule
- PortRange

For more information, see the "PWXUSSL - SSL Reporting Utility" chapter in the *PowerExchange Utilities Guide*.

Parameter and Option Changes in 10.5

PowerExchange 10.5 introduces new parameters for the DTLUCBRG utility.

DTLREXE Utility Parameters

PowerExchange 10.5 includes the following new parameter for the DTLREXE utility:

SSLINFO

New. Generate a report of secure connection attributes from both the client side and server side of the connection.

For more information, see the "DTLREXE - Remote Execution Utility" chapter in the *PowerExchange Utilities Guide*.

DTLUCBRG Utility Parameters

PowerExchange 10.5 includes the following new parameters for the DTLUCBRG utility:

EXCLUDE_COL=*column_name*

A column name or name pattern for excluding columns from the capture registrations you are creating for source tables. To define a name pattern that can identify multiple columns, include the asterisk (*) wildcard anywhere within the name, for example, tx*custid. This value is matched against column names in a case-insensitive manner.

You can repeat this parameter multiple times to specify multiple name values. If you specify the EXCLUDE_COL parameter, do not also define the INCLUDE_COL parameter. These parameters are mutually exclusive.

EXCLUDE_TYPE=*data_type*

A column data type to use for excluding columns from the capture registrations you are creating for source tables. All columns that have the specified data type will be excluded from the registrations. You might want to use this parameter to exclude data types that PowerExchange does not support or to satisfy certain site-specific requirements.

This value is matched against column date types in a case-insensitive manner. For example, the values *clob* and *CLOB* would have the same result. You can repeat this parameter multiple times to specify multiple data types.

INCLUDE_COL=*column_name*

A column name or name pattern for including columns in the capture registrations you are creating for source tables. To define a name pattern that can identify multiple columns, include the asterisk (*) wildcard anywhere within the name, for example, tx*custid. This value is matched against column names in a case-insensitive manner.

You can repeat this parameter multiple times to specify multiple name values. If you specify the INCLUDE_COL parameter, do not also define the EXCLUDE_COL parameter. These parameters are mutually exclusive.

For more information, see the "DTLUCBRG - Batch Registration Utility" chapter in the *PowerExchange Utilities Guide*.

DTLURDMO Utility Parameters

PowerExchange 10.5 includes the following new parameter for the DTLURDMO utility:

GETREGTAG

New. The GETREGTAG statement for XM_COPY specifies the target registration from which to get the registration tag. If you defined BI/CI fields in extraction maps and do not want to re-create them manually after using REG_COPY with CREATEXMAP=Y, you can get the correct registration tag from the registration that was copied to the target.

For more information, see the "DTLURDMO - Data Map Utility" chapter in the *PowerExchange Utilities Guide*.

PWXUGSK Utility Parameters

PowerExchange 10.5 includes the following new and changed parameters for the PWXUGSK utility:

PING_SSLINFO=Y|N

New for IBM i. Specify Y to generate a report of secure connection attributes from both the client side and server side of the connection. Default is PING_SSLINFO=N.

PING_EPWD=encrypted_password

Changed. An encrypted password associated with the user name specified by PING_UID. Specify either a password or an encrypted password to decrypt the certificate files on the remote node.

PING_PWD=password

Changed. The password associated with the user name specified by PING_UID. Specify either a password or an encrypted password to decrypt the certificate files on the remote node.

PING_UID=*user_name*

Changed. A user name that can be used to establish the secure connection.

For more information, see the PWXUGSK - SSL Reporting Utility" chapter in the *PowerExchange Utilities Guide*.

PWXUSSL Utility Parameters

PowerExchange 10.5 includes the following new and changed parameters for the PWXUSSL utility:

PING_SSLINFO=Y|N

> *New for Linux, UNIX, and Windows*. Specify Y to generate a report of secure connection attributes from both the client side and server side of the connection. Default is PING_SSLINFO=N.

PING_EPWD=encrypted_password

> *Changed*. An encrypted password associated ith the user name specified by PING_UID. Specify either a password or an encrypted password to decrypt the certificate files on the remote node.

PING_PWD=password

> *Changed*. The password associated with the user name specified by PING_UID. Specify either a password or an encrypted password to decrypt the certificate files on the remote node.

PING_UID=*user_name*

> *Changed*. A user name that can be used to establish the secure connection. The user must have the authority to view SSL certificates on the remote node specified by PING_LOCATION.

For more information, see the PWXUSSL - PowerExchange SSL Reporting Utility" chapter in the *PowerExchange Utilities Guide*.

CHAPTER 9

PowerExchange for Adabas

This chapter includes the following topics:

PowerExchange 10.5 - New Features and Changes for Adabas

This section describes PowerExchange 10.5 new features and changes that are related to Adabas sources.

Parameter and Option Changes in 10.5

PowerExchange 10.5 changes an Adabas configuration parameter in the RUNLIB(ADAECRP1) member.

Adabas ECCR Parameter

The default value for the the following Adabas ECCR parameter in the RUNLIB(ADAECRP1) member has changed:

ETID_DATE={Y|N}

The default value for this parameter changed from N to Y.

Options:

- **Y**. The ECCR does not replace ETID values that begin with x'40' entirely with x'40' values when writing these ETID values to the temporary PowerExchange commit file. The ECCR writes the values exactly as read from the expanded PLOG files to the commit file. If the ADASEL utility writes ETID values in hexadecimal timestamp format or in the ADASEL-generated internal format to the PLOG files, use this option to prevent a large number of outstanding UOWs, spill file allocation errors, and session failures.
- **N**. The ECCR replaces ETID values that begin with x'40' entirely with x'40' values when writing ETID values to the temporary PowerExchange commit file. If the ADASEL utility produces ETID timestamp values as all x'40' values in the expanded PLOG files, this behavior is acceptable because the ECCR can still match the change records in PLOG files with the commit records in the PowerExchange commit file to determine where UOW commits occur. However, if the ADASEL-expanded PLOG files contain ETID values in hexadecimal timestamp format or in ADASEL-generated internal format, UOWs might remain open, causing numerous spill files, spill file allocation errors, and CDC session failures.

For more information, see the "Adabas Change Data Capture" chapter of the *PowerExchange CDC Guide for z/OS*.

PowerExchange 10.4.1 - New Features and Changes for Adabas

This section describes PowerExchange 10.4.1 new features and changes that are related to Adabas sources or targets.

New Features in 10.4.1

PowerExchange 10.4.1 introduces the following new feature for Adabas data sources:

Support for Adabas Version 8.5.*x*

PowerExchange 10.4.1 adds support for Adabas 8.5.*x* on z/OS for CDC and bulk data movement sessions. The PowerExchange Adabas ECCR has been certified with the Adabas 8.5.*x* PLOG format.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

CHAPTER 10

PowerExchange for DB2 for i

This chapter includes the following topics:

PowerExchange 10.5.5 - New Features and Changes for Db2 for i

This section describes PowerExchange 10.5.5 changes that are related to Db2 for i data sources or targets.

Parameter and Option Changes in 10.5.5

PowerExchange 10.5.5 introduces a new parameter for the following statement in the DBMOVER configuration file.

DBMOVER Configuration File Statement

PowerExchange 10.5.5 introduces a new parameter in the following statement in the DBMOVER configuration file.

SUPPRESS_IBMI_SPLF={Y|N}

> *New*. Optional. Suppress output written to the IBM i QPRINT queue. Use this statement if you do not periodically clear the output queue of spooled files.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

Behavior Changes in 10.5.5

PowerExchange 10.5.5 introduces the following behavior change.

Support for IBM i Journals with more than 345K files

PowerExchange CDC processing now supports IBM i journals that have more than 345K files.

PowerExchange 10.5.4 - New Features and Changes for Db2 for i

This section describes PowerExchange 10.5.4 changes that are related to Db2 for i data sources or targets.

New Features in 10.5.4

PowerExchange 10.5.4 introduces the following new feature for Db2 for i sources:

Ability to Use a Secure Connection to the IBM i Server During Installation

When you run the IBM i Installer, you now have the option to use a secure connection to the IBM i server. This feature provides for more security for information that is FTP-transferred from the installer to the server.

Behavior Changes in 10.5.4

PowerExchange 10.5.4 introduces the following behavior change.

Support for the BOOLEAN Datatype

PowerExchange bulk data movement and CDC now support Db2 for i source columns that have the BOOLEAN datatype.

Note: This data type was introduced in Db2 for i version V7R5M0.

For more information, see the supported Db2 for i datatypes topic in the *CDC Guide for i5/OS* and in the *Bulk Data Movement Guide*.

PowerExchange 10.5.3 - New Features and Changes for Db2 for i

This section describes PowerExchange 10.5.3 changes that are related to Db2 for i (formerly i5/OS) data sources or targets.

New Features in 10.5.3

PowerExchange 10.5.3 introduces the following new feature for Db2 for i sources:

Process Changes from Journal Receivers Outside of Default Processing

With PowerExchange 10.5.3, Db2 for i CDC processing allows you to process changes from a range of journal receivers outside of default processing.

You can specify a journal receiver range for PowerExchange Navigator row tests, IBM i Condense, remote logging to a PowerExchange Logger for LUW, and PowerCenter CDC sessions.

- PowerExchange Navigator and IBM i Condense use the FROMRCVR and TORCVR parameters in the AS4J CAPI_CONNECTION statement in the DBMOVER configuration file.

- Remote Logging uses the the FROMRCVR and TORCVR values in the IBMIJRNLOVRD parameter in the PowerExchange Logger configuration file, pwxccl.cfg. If not specified, remote logging uses the the FROMRCVR and TORCVR values specified in the AS4J CAPI_CONNECTION statement in the local DBMOVER configuration file.
- PowerCenter session overrides use the override specified in the **Journal Name** attribute of the PWX DB2i5OS application connection and the receiver overrides specified in the **PWX Override** attribute, and the FROMRCVR and TORCVR parameters in the AS4J CAPI_CONNECTION statement.

For more information, see "CAPI_CONNECTION - AS4J Statement" in the *PowerExchange CDC Guide for i5/OS*, "Customizing the PowerExchange Logger Configuration File" in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*, and "DB2 CDC Application Connections" in the *PowerExchange Interfaces for PowerCenter*.

Db2 for i5/OS Version 7.5 Support

PowerExchange 10.5.3 adds support for DB2 for i Version 7.5. For bulk data movement, PowerExchange supports DB2 for i 7.5 sources and targets. For CDC, PowerExchange supports Db2 for i 7.5 sources.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Parameter and Option Changes in 10.5.3

PowerExchange 10.5.3 introduces a new parameter for the following statement in the DBMOVER configuration file.

DBMOVER Configuration File Statement

PowerExchange 10.5.3 introduces a new parameter in the following statement in the DBMOVER configuration file.

IBMI_USE_DB2_SYSTEM_OBJECT_NAMES={Y|N}

> *New*. Optional. Controls whether PowerExchange searches both IBM i system object names and SQL object names or only SQL object names for Db2 for i source objects when you create PowerExchange capture registrations in the PowerExchange Navigator or DTLUCBRG utility or when you perform database row tests in the PowerExchange Navigator. Default is N, which reflects the previous behavior of searching SQL object names only.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

PowerExchange 10.5.2 - New Features and Changes for Db2 for i

This section describes PowerExchange 10.5.2 changes that are related to Db2 for i (formerly i5/OS) data sources or targets.

Parameter and Option Changes in 10.5.2

PowerExchange 10.5.2 introduces a new parameter for the following statement in the DBMOVER configuration file.

DBMOVER Configuration File Statement

PowerExchange 10.5.2 introduces a new parameter in the following statement in the DBMOVER configuration file.

AS4J CAPI_CONNECTION

> Changed. PowerExchange 10.5.2 adds the optional RTNBUFFSIZE parameter to the AS4J CAPI_CONNECTION statement.
> **RTNBUFFSIZE={*kilobytes*|960}**
>
> > *New*. Adjusts the size of the buffer, in kilobytes, that is used to collect journal entries for CDC as a result of PowerExchange calls to the IBM QjoRetrieveJournalEntries API. You can use this parameter to tune performance based on your environment.
> >
> > Valid values are 128 through 12288. Default is 960 KB, which is the IBM default size.
> >
> > **Note:** If you also specify the RTNBUFFSIZE in the **PWX Overrides** field of the PowerCenter PWX DB2i5OS CDC application connection, the override takes precedence.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

Behavior Changes in 10.5.2

PowerExchange 10.5.2 introduces the following behavior change.

PowerExchange Journal Exit

PowerExchange 10.5.2 uses the PGMDTA parameter on the ADDEXITPGM command to control the user profile used when running the PowerExchange Journal exit program (DTLRCVRX). Previously the job ran as an IBM default profile, QUSER.

During the installation process, PowerExchange retrieves the current user profile and specifies it in the PGMDTA parameter on the ADDEXITPGM command. By default, this is the profile that is used to install PowerExchange. You can specify a different user profile in the PGMDTA command parameter of the ADDEXITPGM command.

For more information, see "PowerExchange Journal Exit" in the *PowerExchange CDC Guide for i5/OS*.

PowerExchange 10.5 - New Features and Changes for Db2 for i

This section describes PowerExchange 10.5 changes that are related to Db2 for i (formerly i5/OS) data sources or targets.

New Features in 10.5

PowerExchange 10.5 introduces the following new feature for Db2 for i sources:

Support for Extended Relative Record Number Values

To store extended relative record number (RRN) values, PowerExchange 10.5 generates column DTL__CAPXEXRRN instead of DTL__CAPXRRN when creating extract maps for Db2 for i tables. The large RRN values can then be propagated to the target tables.

If you are upgrading to PowerExchange 10.5 and you want to use the new DTL_CAPXEXRRN column, you must create a new extraction map and import it into PowerCenter. Existing extraction maps that have the DTL__CAPXRRN column name are still supported.

If you run the DTLUCBRG or DTLURDMO utility, you might need to import the new extraction map to get the correct definition:

- DTLUCBRG creates an extraction map by using the new DTL__CAPXEXRRN column name.
- DTLURDMO uses the new DTL__CAPXEXRRN column name if CREATEXMAPS is specified on the REG_COPY statement. If XM_COPY is used to copy an extraction map, the RRN column in the existing extraction map is copied. For an extraction map created with a release of PowerExchange before 10.5, this the DTL__CAPXRRN column. For an extraction map created with PowerExchange 10.5, this is the DTL__CAPXEXRRN column.

For more information, see the "Introduction to Change Data Extraction" chapter in the *PowerExchange CDC Guide for i5/OS*.

TLS Security in a PowerExchange Network

You can configure a PowerExchange listener to use TLS network security when accepting connections from Linux, UNIX, and Windows client processes by using TLS protocol TLSV1_2, which is the default.

Network packets are encrypted using the IBM i GSK functions. Optionally, the listener can validate the x509 subject certificate on the client process.

Informatica recommends that you use TLS security instead of the PowerExchange Alternate Network.

Parameter and Option Changes in 10.5

PowerExchange 10.5 introduces a new statement in the DBMOVER configuration file.

DBMOVER Configuration File Statements

PowerExchange 10.5 introduces new and changed statements in the DBMOVER configuration file.

The following statement is for optional use:

QQAQINILIB=*library_name*

> *New*. Specify the library name that contains the QQAQINI query options file. If you do not specify this statement, PowerExchange uses the default library specified for the IBM i system.
>
> **Note:** In PowerCenter, you can override the QAQQINILIB setting in the DBMOVER configuration file by entering QAQQINILIB=*library_name* in the **PWX Override** connection attribute for the Db2 for i connection.

The following new and changed statements are for enabling TLS networking for IBM i:

LISTENER

*Changed.*To use TLS networking for IBM i, you can specify SSL in tenth comma position. When you use TLS networking, the send and receive sizes in the sixth and seventh comma positions of the LISTENER statement must be set to a value that does not exceed 16384.

SSL_CONTEXT_METHOD

*Changed.*As of PowerExchange 10.5, you can use the SSL_CONTEXT_METHOD statement to enable TLS networking for IBM i.

Note: Informatica recommends avoiding the use of protocols TLSV1_1 and TLSV1, and specifying protocol TLSV1_2 on all machine types. The TLSV1_3 protocol is not currently supported by PowerExchange.

On IBM i:

- **TLSV1** is allowed on V5R2.
- **TLSV1_1** is allowed on V5R2.
- **TLSV1_2** is allowed on V5R2, V5R3, and V5R4 and is the recommended choice.

If SSL_CONTEXT_METHOD is not specified then the default is that the system will accept a connection request for all protocols supported by the IBM i release.

Note: Informatica recommends specifying protocol TLSV1_2 on all machine types. The TLSV1_3 protocol is currently not supported by PowerExchange.

SSL_CIPHER_LIST

Changed. As of PowerExchange 10.5 on IBM i, you can specify ciphers by using four hexadecimal digits.

SSL_REQ_CLNT_CERT

Changed. As of PowerExchange 10.5, you can use the SSL_REQ_CLNT_CERT statement on IBM i. Valid values are:

- **Y**. The GSK session type is SERVER SESSION WITH CLIENT AUTHORITY. The X509 subject certificate from the client machine is validated against the trusted Certificate Authorities (CAs) on the IBM i server.
- **N**. The GSK session type is SERVER SESSION. The client machine subject certificates are not requested or validated.

SSL_TOLERATE_UNTRUSTED_ISSUER

New. PowerExchange 10.5 introduces the SSL_TOLERATE_UNTRUSTED_ISSUER statement for use on IBM i only. Valid values are:

- **Y**. Continue processing after a certificate error 6000 has been reported. A certificate error 6000 occurs when SSL_REQ_CLNT_CERT=Y and the partner CA is not present among the trusted CAs on the IBM i machine.
- **N**. After certificate error 6000 has been reported, the connection is not accepted.

Default is N.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

CHAPTER 11

PowerExchange for DB2 for Linux, UNIX, and Windows

This chapter includes the following topics:

PowerExchange 10.5.5 - Features and Changes for Db2 for Linux, UNIX, and Windows

This section describes PowerExchange 10.5.5 new features and changes that are related to Db2 for Linux, UNIX, and Windows data sources or targets.

Behavior Changes in 10.5.5

PowerExchange 10.5.5 introduces the following change for Db2 for Linux, UNIX, and Windows sources.

Support for BINARY and VARBINARY Datatypes

PowerExchange CDC now supports Db2 for LUW source columns that have the BINARY or VARBINARY datatype.

Note: BINARY and VARBINARY datatypes are supported in Db2 for LUW version 11.1 and later.

For more information, see the supported Db2 for LUW datatypes topic in the *CDC Guide for Linux, UNIX, and Windows*.

PowerExchange 10.5.4 - Features and Changes for Db2 for Linux, UNIX, and Windows

This section describes PowerExchange 10.5.4 new features and changes that are related to Db2 for Linux, UNIX, and Windows data sources or targets.

Behavior Changes in 10.5.4

PowerExchange 10.5.4 introduces the following change for Db2 for Linux, UNIX, and Windows sources.

Support for the BOOLEAN Datatype

PowerExchange bulk data movement and CDC now support Db2 for LUW source columns that have the BOOLEAN datatype.

For more information, see the supported Db2 for LUW datatypes topic in the *CDC Guide for Linux, UNIX, and Windows* and in the *Bulk Data Movement Guide*.

PowerExchange 10.5 - New Features and Changes for DB2 for Linux, UNIX, and Windows

This section describes PowerExchange 10.5 new features and changes that are related to DB2 for Linux, UNIX, and Windows data sources or targets.

New Features in 10.5

PowerExchange 10.5 introduces the following new feature for DB2 for Linux, UNIX, and Windows sources:

Support for DB2 for Linux, UNIX, and Windows Version 11.5

PowerExchange 10.5 adds support for Db2 for Linux, UNIX, and Windows (LUW) Version 11.5 on supported AIX, Linux, and Windows operating systems. For bulk data movement, PowerExchange supports Db2 11.5 sources and targets. For CDC, PowerExchange supports Db2 11.5 sources.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Behavior Changes in 10.5

PowerExchange 10.5 introduces the following required user authority change for Db2 for Linux, UNIX, and Windows access.

Required User Authority

To read change data from Db2 logs, the user ID that you specify for database access must have SYSADM or DBADM authority.

As of PowerExchange 10.5, if the user has SYSADM authority, ensure that the user also has SELECT, INSERT, UPDATE, and DELETE permissions to the PowerExchange capture catalog in the source database. You can use the GRANT DATAACCESS statement to grant these permissions on the database to the user.

For more information, see the "Db2 CDC on Linux, UNIX, or Windows" chapter in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

CHAPTER 12

PowerExchange for DB2 for z/OS

This chapter includes the following topics:

PowerExchange 10.5.6 - Features and Changes for DB2 for z/OS

This section describes PowerExchange 10.5.6 new features and changes that are related to Db2 for z/OS data sources or targets.

Parameter and Option Changes in 10.5.6

The DBMOVER configuration file contains the following new and changed statements.

DBMOVER Configuration File Statements

The DBMOVER configuration file contains the following new and changed statements:

DB2CODEPAGE

Changed. You no longer need to configure the DB2CODEPAGE statement unless you want to perform one of the following actions:

- Remap CCSIDs because data has been loaded in a code page that differs from the Db2 metadata.
- Remap CCSIDs where a translator is not available.
- Enable the PowerExchange Agent to translate accented characters in the names of tables and columns included in registrations so that Db2 for z/OS ECCR capture processing functions correctly.

The default values for the following parameters in the DB2CODEPAGE statement have changed:

DB2TRANS={P|N|R}

Changed. Previously the default was Y. The default is now N so that Db2 provides the CCSID values.

MIXED={N|<u>Y</u>}

> *Changed*. Previously the default was N. The default is now Y to enable multibyte which enables processing of both multibyte names and multibyte data.

FIX_DB2_COLUMN_WITH_CCSID_ZERO={N|<u>Y</u>}

> *New*. z/OS only. This statement specifies whether to perform extra processing to retrieve code page information from z/OS systems migrated from old DB2 versions.

Previously, code page information was only returned from DTLDESCRIBE COLUMNS if the CCSID is non-zero in SYSIBM.SYSCOLUMNS. As of 10.5.6, PowerExchange attempts to always return code page information.

- If the CCSID is zero in the SYSIBM.SYSCOLUMNS system table on the z/OS system, which indicates the table was migrated from an earlier Db2 version, PowerExchange tries to retrieve the code page information from the SQLDA control block using a SELECT * FROM TABLE query.

- The SELECT * FROM TABLE query fails if the you do not have permission to read the table. In this case, set the FIX_DB2_COLUMN_WITH_CCSID_ZERO parameter to N so that processing can complete with no code page information being returned.

- If no code page information is returned when adding a capture registration, message PWX-02735 is logged in the PowerExchange Navigator or DTLUCBRG application. In this case, check that you specified the CODEPAGE statement in the DBMOVER configuration file correctly.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

PowerExchange 10.5.5 - Features and Changes for Db2 for z/OS

This section describes PowerExchange 10.5.5 new features and changes that are related to Db2 for z/OS data sources or targets.

New Features in 10.5.5

PowerExchange 10.5.5 introduces the following new feature for Db2 for z/OS data sources:

Db2 ECCR Configuration Statements in the REPL2OPT DD Data Set

PowerExchange 10.5.5 introduces the following new statement in the RUNLIB member that is allocated by the REPL2OPT DD statement in the Db2 for z/OS ECCR JCL:

IFIMEMLOC {<u>31</u>|64}]

> *New*. Specifies whether to use 64-bit memory or 31-bit ECSA memory for the IFI 306 return area. By specifying 64 for IFIMEMLOC, you can help reduce the Db2 ECCR's ECSA memory footprint in any given LPAR on which you run the Db2 ECCR.

For more information, see the "DB2 for z/OS Change Data Capture" chapter in the *PowerExchange CDC Guide for z/OS*.

PowerExchange 10.5.3 - Features and Changes for DB2 for z/OS

This section describes PowerExchange 10.5.3 new features and changes that are related to DB2 for z/OS data sources or targets.

New Features in 10.5.3

PowerExchange 10.5.3 introduces the following new feature for Db2 for z/OS data sources:

Db2 for z/OS Version 13 Support

PowerExchange 10.5.3 adds support for Db2 for z/OS Version 13. For bulk data movement, PowerExchange supports Db2 for z/OS 13 sources and targets. For CDC, PowerExchange supports Db2 for z/OS 13 sources.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange 10.5.2 - New Features and Changes for DB2 for z/OS

This section describes PowerExchange 10.5.2 changes that are related to DB2 for z/OS data sources.

Parameter and Option Changes in 10.5.2

PowerExchange 10.5.2 introduces the following changes to DB2 for z/OS parameters.

DB2 ECCR Configuration Statements in the REPL2OPT DD Data Set

PowerExchange 10.5.2 introduces changes to the default values of the following parameters in the RUNLIB member that is allocated by the REPL2OPT DD statement in the Db2 for z/OS ECCR JCL:

DB2ROWPROMOTION {ENABLE|DISABLE}

Changed. Enables the Db2 ECCR to update old images in DML rows to the current version to avoid problems in processing DELETEs and old images of UPDATEs when a DDL operation changes the fixed length of a column. The default value changed from DISABLE to ENABLE. The ENABLE option causes the ECCR to use the DB2 READS API to convert CDC row data to the version that is current at the time of the DML operation.

IFI306 [OPT={N|Y|F}] ...

Changed. Controls the Db2 ECCR interaction with the Db2 instrumentation facility interface (IFI). The default value for the OPT parameter changed from Y to F. The F option returns CDC records from the log and filters them by registered tables.

Note: For both parameters, do not change the default values unless Informatica Global Customer Support directs you to do so.

For more information, see the "DB2 for z/OS Change Data Capture" chapter in the *PowerExchange CDC Guide for z/OS.*

PowerExchange 10.5.1 - New Features and Changes for DB2 for z/OS

This section describes PowerExchange 10.5.1 changes that are related to DB2 for z/OS data sources.

New Features in 10.5.1

PowerExchange 10.5.1 introduces the following new feature for Db2 for z/OS data sources:

DB2 Loader and IMS Netport Passphrase Support

As of version 10.5.1, you can configure IMS netport jobs and PowerCenter Db2 Loader connections with a user ID and a long passphrase. Before this enhancement, PowerExchange restricted the password to eight bytes or less.

You must modify the JCL templates to adhere to the following rule:

The PASSWORD=%PWD specification must start at column 4 and it must be on a JCL line by itself within the JOB statement at the beginning of the template JCL.

Note: This rule applies to the JCL templates in the RUNLIB data set including DB2LDJCL, DB2LDJCP, IDMSMJCL, and IDMSMJCX.

Parameter and Option Changes in 10.5.1

PowerExchange 10.5.1 introduces the following changes to DB2 for z/OS parameters.

%PWD Substitution Variable for Netport Jobs

PowerExchange 10.5.1 introduces the following change to the substitution variables for netport jobs.

The %PWD substitution variable is the password of the user ID that connected to the PowerExchange Listener, which at security level 2 is different from the user ID and password credentials used to start the PowerExchange Listener job.

As of version 10.5.1, the maximum length of the password of the user that connected to the PowerExchange Listener has expanded from 8 characters to 68 characters to support passphrases. This change affects PowerExchange Listeners running at security level 2.

If the password is greater than eight bytes, it is a passphrase. To adhere to z/OS JCL restrictions, PowerExchange processes passphrases as follows:

- If the passphrase contains a space, it is enclosed with the single quote character.
- If the single quote character occurs inside the passphrase, it is repeated.

For more information, see the *PowerExchange Bulk Data Movement Guide*.

CHAPTER 13

PowerExchange for IMS

This chapter includes the following topics:

PowerExchange 10.5.6 - New Features and Changes for IMS

This section describes PowerExchange 10.5.6 new features and changes that are related to IMS data sources or targets.

IMS 14 Support

PowerExchange IMS synchronous CDC, log-based CDC, and bulk data movement have dropped support for IMS 14.

For more information, see the *PowerExchange CDC Guide for z/OS* and the *PowerExchange Installation and Upgrade Guide*.

PowerExchange 10.5.5 - New Features and Changes for IMS

This section describes PowerExchange 10.5.5 new features and changes that are related to IMS data sources or targets.

New Features in 10.5.5

PowerExchange 10.5.5 introduces the following new features and changes for IMS data sources:

IMS 15.3 and 15.4 Support

PowerExchange IMS synchronous CDC, log-based CDC, and bulk data movement now support IMS 15.3 and 15.4.

For more information, see the *PowerExchange CDC Guide for z/OS* and the *PowerExchange Installation and Upgrade Guide*.

Updated Components in the PowerExchange ECCR CRG.LOAD Library

PowerExchange contains components of the BMC Software BMC AMI Online Reorg for IMS and BMC AMI Database Integrity for IMS products. PowerExchange provides the latest available version of these components. PowerExchange 10.5.5 adds updated components in the PowerExchange ECCR CRG.LOAD Library for IMS Synchronous CDC.

Note: The IMS synchronous ECCR requires components from the BMC Software BMC AMI Online Reorg for IMS, BMC AMI Database Integrity for IMS, or BMC AMI Fast Path Online Restructure for IMS product. If you do not have any of these BMC Software products, you can use the hlq.CRG.LOAD library that PowerExchange supplies. The CRG software is based on version 5.1.00 level 2307 plus BMC fixes BQQ6601 and BQQ6695 of the BMC Software products.

Important: If you have a supported version of one of the BMC Software products, you must use the BMC Software product instead of the CRG software.

- If you use one of the BMC Software products, ensure that the product meets the minimum version that PowerExchange requires for IMS synchronous CDC, as described in the "IMS Synchronous Change Data Capture" chapter of the *PowerExchange CDC Guide for z/OS*.

  Also, note that the current PowerExchange version has been certified with the following BMC product versions, which provide the CRG code:

  - BMC AMI Online Reorg for IMS: Version 5.1.00 Level 2401 with BMC PTFs BQQ6601 and BQQ6695 for IMS Version 15 or greater

  - BMC AMI Database Integrity for IMS: Version 5.1.00 Level 2401 with BMC PTFs BQQ6601 and BQQ6695 for IMS Version 15 or greater

  - BMC AMI Fast Path Online Restructure for IMS: Version 4.1.00 Level 2307 with BMC PTF BQQ6106 for IMS Versions greater than Version 15.2

  If you use a product version earlier than the certified version, consider upgrading the product to the certified version.

- 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 DLIODDC*x* 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.

Parameter and Option Changes in 10.5.5

PowerExchange 10.5.5 provides new DBMOVER statements for IMS sources.

DBMOVER Configuration File Statements

The DBMOVER configuration file includes a new statement:

DL1_INITIAL_CHKP ={Y|<u>N</u>}

Controls whether PowerExchange sets an initial checkpoint for an IMS netport job. You can use an initial checkpoint ID to perform a ROLLBACK to the beginning of a job. Default is N, which causes the initial checkpoint to not be set.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

PowerExchange 10.5.2 - New Features and Changes for IMS

This section describes PowerExchange 10.5.2 new features and changes that are related to IMS data sources or targets.

Parameter and Option Changes in 10.5.2

PowerExchange 10.5.2 provides new DBMOVER statements for IMS sources.

DBMOVER Configuration File Statement

The DBMOVER configuration file includes a change to the following parameter in the IMSID statement:

dbdlib* or DD:*XXXXXXXX

Provides PowerExchange access to the IMS DBD which is required for activities such as reading IMS unload files, registering IMS sources for CDC, and running utilities, including DTLURDMO and DTLUCBRG. In this parameter, you can either specify the IMS DBD library dataset name in line or specify a DD name for PowerExchange to search. By specifying DD:*XXXXXXXX*, where *XXXXXXXX* is the DD name coded in the JCL for the component requiring access, you can have one or more DBD libraries for a system allocated to the specified DD name.

Note: If you use the DD:*XXXXXXXX*, PowerExchange uses the first DBDLIB it finds in the concatenated list and continues processing. Ensure that you place this DD with the one or more DBD libraries in the appropriate JCL or started task.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

PowerExchange 10.5.1 - New Features and Changes for IMS

This section describes PowerExchange 10.5.1 new features and changes that are related to IMS data sources or targets.

New Features in 10.5.1

PowerExchange 10.5.1 introduces the following new features for IMS data sources:

Passphrase Support for IMS Netport Jobs

You can configure IMS netport jobs with a user ID and a long passphrase up to 60 characters in length. Previously, PowerExchange restricted the password to 8 bytes or less.

Passphrases cannot contain apostrophes.

You must modify the JCL templates to ensure that the PASSWORD=%PWD specification starts at column four and is on a JCL line by itself within the JOB statement. The JOB statement is typically on line three of the template JCL.

Note: This rule applies to the JCL templates in the RUNLIB data set, including DB2LDJCL, DB2LDJCP, IDMSMJCL, and IDMSMJCX.

For more information, see the *PowerExchange Reference Manual*.

PowerExchange 10.5 - New Features and Changes for IMS

This section describes PowerExchange 10.5 new features and changes that are related to IMS data sources or targets.

New Features in 10.5

PowerExchange 10.5 introduces the following new features for IMS data sources:

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

PowerExchange 10.5 contains components of the BMC Software BMC AMI Online Reorg for IMS and BMC AMI Database Integrity for IMS products. PowerExchange provides the latest available version of these components.

Note: These components are also part of some other BMC Software products such as BMC AMI Fast Path Online Restructure for IMS (formerly Fast Path Online Restructure/EP), BMC AMI Online Reorg for IMS (formerly BMC MAXM Reorg/Online for IMS), and CONCURRENT REORG.

You can use either the CRG software that PowerExchange delivers or one of these BMC Software products, which include the CRG code.

Important: If you have a supported version of one of the BMC Software products, you must use the BMC Software product instead of the CRG software.

- If you use one of the BMC Software products, ensure that the product meets the minimum version that PowerExchange requires for IMS synchronous CDC, as described in the "IMS Synchronous Change Data Capture" chapter of the *PowerExchange CDC Guide for z/OS*.

Also, note that the current PowerExchange version has been certified with the following BMC product versions, which provide the CRG code:

- BMC AMI Online Reorg for IMS: Version 5.1.00 Level 2101

- BMC AMI Database Integrity for IMS: Version 5.1.00 Level 2101

- BMC AMI Fast Path Online Restructure for IMS: Version 4.1.00 Level 2101

If you use a product version earlier than the certified version, consider upgrading the product to the certified version.

- 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 DLIODDC*x* 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.

CHAPTER 14

PowerExchange for Microsoft SQL Server

This chapter includes the following topic:

PowerExchange 10.5.4 - New Features and Changes for SQL Server

This section describes PowerExchange 10.5.4 new features and changes that are related to Microsoft SQL Server data sources or targets.

New Features in 10.5.4

PowerExchange 10.5.4 introduces the following new feature for SQL Server CDC:

Support for Microsoft SQL Server 2022

PowerExchange 10.5.4 adds support for Microsoft SQL Server 2022 on Red Hat Linux 8, SUSE Linux 15, and Windows 2019 and 2022.

For bulk data movement, PowerExchange supports SQL Server 2022 sources and targets. For CDC, PowerExchange supports SQL Server 2022 sources.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide* and the Product Availability Matrix at https://network.informatica.com/community/informatica-network/product-availability-matrices.

CHAPTER 15

PowerExchange for MySQL

This chapter includes the following topic:

PowerExchange 10.5.4 - New Features and Changes for MySQL

This section describes PowerExchange 10.5.4 changes that are related to MySQL sources.

Behavior Changes in 10.5.4

PowerExchange 10.5.4 introduces the following behavior change for MySQL sources:

PowerExchange Replicates the CHAR type as VARCHAR

PowerExchange can now replicate change data from MySQL source columns that have the CHAR(x) datatype as the VARCHAR data type to avoid displaying different column lengths for MySQL CHAR columns.

To adopt the new behavior, you must re-register the source tables that include CHAR columns. If you retain the existing registrations that include CHAR columns, PowerExchange continues to treat those columns as CHAR columns for backward compatibility.

CHAPTER 16

PowerExchange ODBC

This chapter includes the following topic:

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PowerExchange 10.5.4 - New Features and Changes for ODBC

This section describes the PowerExchange 10.5.4 new features and changes that are related to PowerExchange ODBC.

Parameter and Option Changes in 10.5.4

PowerExchange 10.5.4 introduces a new option for the PowerExchange ODBC drivers.

PowerExchange Data Source Wizard

The following option was added to the **General** tab in the **PowerExchange Data Source** wizard:

Allow Insert Into 0 Rows

New. Optional. PowerExchange introduces this new option for a PowerExchange ODBC data source definition.

When this option is selected, PowerExchange suppresses the SQL transformation error that might occur when a SQL INSERT INTO schema.table operation on a source table results in 0 rows being inserted.

For more information, see the "Using the PowerExchange ODBC Drivers" chapter in the *PowerExchange Reference Manual*.

CHAPTER 17

PowerExchange for Oracle

This chapter includes the following topics:

PowerExchange 10.5.5 - New Features and Changes for Oracle

This section describes PowerExchange 10.5.5 new features and changes that are related to Oracle data sources or targets.

New Features in 10.5.5

PowerExchange 10.5.5 introduces new features for Oracle.

Parameter and Option Changes in 10.5.5

PowerExchange 10.5.5 introduces the following changes to PowerExchange for Oracle configuration parameters:

PowerExchange Express CDC for Oracle Configuration File

PowerExchange 10.5.5 includes the following new or changed parameters in the PowerExchange Express CDC for Oracle configuration file, pwxorad.cfg.

In the **ASMSTAGING** statement, you can enter the following optional parameters:

BFILEDIR=*directory*

> *New.* If you are using BFILE reads of redo log data from staging files and want to run multiple PowerExchange Logger instances against the same database, you can specify a directory object name to use for dynamically created directory objects. This name overrides the default directory name of

PWXSTAGINGDIR. For the directory to be created dynamically, you must have the CREATE ANY DIRECTORY privilege.

Note: On RAC systems, if you granted permissions for the directory object to be created dynamically, when the directory object is created, the member number is appended to the directory name to avoid contention between the reader threads. Therefore, you can create multiple directory objects. For example, in a three-node RAC system, three directory objects are created: ARCHIVELOG_DIR1, ARCHIVELOG_DIR2, and ARCHIVELOG_DIR3.

LOCALDIR="/localmountpoint/directory|BFILE"

Changed. If you want to use BFILE reads of redo log information stored in ASM staging files on the server, specify "BFILE" . By default, the Express CDC reader uses the PWXSTAGINGDIR directory object to locate the staging files. To override the PWXSTAGINGDIR directory object for BFILE reads, specify the BFILEDIR parameter.

In the **READER** statement, you can enter the following optional parameter:

ASM_CONNECTION_THREADS =*number_of_threads*

New. Enter the number of threads that a PowerExchange Express CDC reader can use to establish multiple connections to Oracle ASM to read data in parallel. This parallelism helps improve the read rate. In an Oracle ASM RAC environment, the reader for each RAC node can use the specified number of connection threads. Default is 3.

In the **OPTIONS** statement, you can enter the following optional parameters:

LOB_MAX_SIZE=*kilobytes*

New.The maximum size, in kilobytes, of LOB data that can be captured for a column selected for change capture. Default is 8192.

SUPPORT_LOB_OPERATIONS ={Y|N}

New. Controls whether LOB data stored in a row (inline) is captured for columns that are selected for change capture. Default is Y.

SUPPORT_LOB_OUT_OF_ROW={Y|N}

New.Controls whether LOB data that is stored either in a row (inline) or outside of a row (out-of-line) is captured for columns selected for change capture. Default is N. This parameter is ignored when SUPPORT_LOB_OPERATIONS=N.

For more information, see the "Express CDC for Oracle" chapter in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

Behavior Changes in 10.5.5

PowerExchange 10.5.5 introduces the following behavior change for Oracle CDC data sources.

Handling of Invalid Logs in ARCHIVECOPY Mode

If the Express CDC reader encounters a truncated or invalid archive log copy when running in ARCHIVECOPY mode and does not find an alternate log to read, it now issues the following message instead of failing:

```
PWX-36240 ORAD Warn Mbr 1: Archive copy E:\oracle\app\xxx\oradata\orcl\archivecopy
\ARC0000000958_1100087962.0001 for log sequence number invalid or truncated. Possible log
copy problems. Retrying.
```

In this situation, the reader continues to monitor the failing log and look for an alternate log until the wait interval specified in the LOGARCHIVEWAIT parameter of the OPTIONS statement in the PowerExchange Express CDC configuration file expires. During this interval, if the failing log is updated, the reader tries to

process it again, or if an alternate log for the same sequence becomes available, the reader tries to process it. This behavior change helps make capture processing more resilient to network or NFS disruptions.

PowerExchange 10.5.4 - New Features and Changes for Oracle

This section describes PowerExchange 10.5.4 new features and changes that are related to Oracle data sources or targets.

New Features in 10.5.4

PowerExchange 10.5.4 introduces new features for Oracle.

Support for Oracle 21c on Additional Linux Platforms

PowerExchange 10.5.4 adds support for Oracle 21*c* sources on Solaris and SUSE Linux. On AIX and HP-UX, Oracle 21*c* is supported for CDC only if you run the PowerExchange Logger and PowerExchange Listener on a remote system that has another supported platform and if PowerExchange is able to access the Oracle log files on that system.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange 10.5.3 - New Features and Changes for Oracle

This section describes PowerExchange 10.5.3 new features and changes that are related to Oracle data sources or targets.

New Features in 10.5.3

PowerExchange 10.5.3 introduces new features for Oracle.

Support for Oracle 21*c* in Amazon RDS Environments

PowerExchange 10.5.3 is certified with Oracle 21*c* sources in an Amazon RDS for Oracle environment for CDC processing.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Parameter and Option Changes in 10.5.3

PowerExchange 10.5.3 introduces the following changes to PowerExchange for Oracle configuration parameters:

PowerExchange Express CDC for Oracle Configuration File

PowerExchange 10.5.3 includes the following new or changed parameters in the PowerExchange Express CDC for Oracle configuration file, pwxorad.cfg.

In the **DATABASE** statement, you can enter the following optional parameters:

RDSARCHIVEDIR

If you set RDS to Y and use an Amazon RDS read replica of the primary database, use this parameter to specify the archive log directory name that is created on the replica. Amazon RDS creates online and archive log directory names on the replica that are different from the directory names on the primary database.

RDSONLINEDIR

If you set RDS to Y and use an Amazon RDS read replica of the primary database, use this parameter to specify the alternative online log directory name that is created on the replica. Amazon RDS creates online and archive log directory names on the replica that are different from the directory names on the primary database.

For more information, see the "Express CDC for Oracle" chapter in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

PowerExchange 10.5.2 - New Features and Changes for Oracle

This section describes PowerExchange 10.5.2 new features and changes that are related to Oracle data sources or targets.

New Features in 10.5.2

PowerExchange 10.5.2 introduces new features for Oracle.

Support for Oracle 21*c* Sources

PowerExchange Express CDC for Oracle adds support for Oracle 21*c* sources on Red Hat Linux and Windows for bulk data movement and CDC.

Note: PowerExchange does not support version 21*c* for other Linux and UNIX platforms or for Amazon RDS for Oracle sources.

For more information, see the *PowerExchange Installation and Upgrade Guide*.

Support for Oracle Data Guard Far Sync Databases as Sources

PowerExchange Express CDC for Oracle adds support for Oracle Data Guard far sync databases as sources.

PowerExchange Express CDC for Oracle can capture change data from Oracle Data Guard far sync databases. You can enable CDC for far sync databases in the same manner as you would for physical standby databases. For more information, see the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

Note: To use Oracle Data Guard far sync databases as sources, contact Informatica Global Customer Support.

Support for Oracle Column-Level Encryption

PowerExchange Express CDC for Oracle now supports Oracle column-level encryption. When enabled, PowerExchange can decrypt data in encrypted Oracle source table columns that are selected for capture processing. To enable support of column-level encryption, use the in the SUPPORT_COL_ENCRYPTION parameter in the OPTIONS statement.

You must have the following Oracle privilege to use this feature:

```
GRANT SELECT ON "SYS"."ENC$" TO capture_user
```

For more information, see the "Express CDC for Oracle" chapter in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

Parameter and Option Changes in 10.5.2

PowerExchange 10.5.2 introduces the following changes to PowerExchange for Oracle configuration parameters:

PowerExchange Express CDC for Oracle Configuration File

PowerExchange 10.5.2 includes the following new or changed parameters in the PowerExchange Express CDC for Oracle configuration file, pwxorad.cfg.

ASMSTAGING statement

Changed. This statement contains the following new parameter:

ASYNC=*n*

New.Optional. Queue and send multiple non-blocking staging requests to ASM sequentially. Specify a value greater than 0 to optimize performance when the log reader thread spends long periods deprived of resources because of slow network writes to the PowerExchange Logger, or when delays occur when large UOWs are being processed.

DIRSUB statement

Changed. Use this statement to improve efficiency when ARCHIVECOPY mode is enabled in the READER statement. In ARCHIVECOPY mode, you can specify DIRSUB to substitute ASM directories. Do not use the DIRSUB statement if the reason the archive logs are being copied is because of an aggressive archive deletion policy on the database.

OPTIONS statement

Changed. The statement contains the following new or changed parameters:

CAPIEVENTS=*queue_size*

New. Controls the queue size between PowerExchange Express CDC and a consumer, such as the PowerExchange Logger or network. Increasing the queue size can help performance for intermittent data loads by allowing more data to be queued before PowerExchange Express CDC stalls waiting for resources.

MEMOPS_MEMORY=*megabytes*

New. Specifies a memory limit, in megabytes. When the maximum memory used during a monitor interval begins to decrease, the resources will begin to be released. The draw down stops when either the number of resource events reaches the value specified by MEMOPS, or its default value, or more memory resources are needed.

PERFORMANCESTATS={Y|N}

New. Controls whether statistics messages are included in monitor messages.

SPILLFILEBUFFSZ=*kilobytes*

Changed. Default is now 64 KB. Previously, the default was 0.

SPILLMAX=*kilobytes*

Changed. Default is now 1048576 KB. Previously, the default was 10240.

SUPPORT_DIRECT_PATH_OPS={Y|N}

Changed. Default is now Y. Previously, the default was N.

SUPPORT_COL_ENCRYPTION={Y|N}

New. Controls whether PowerExchange supports column-level encryption. When enabled, PowerExchange can decrypt encrypted data in Oracle source columns during CDC processing.

Options are:

- **Y**. Support column-level encryption of source columns. PowerExchange can decrypt data from encrypted source columns and continue CDC processing.
  The PowerExchange capture user must have the following Oracle privilege:

  ```
  GRANT SELECT ON "SYS"."ENC$" TO capture_user
  ```

  If the MODE parameter in the DICTIONARY statement is set to DYNAMIC, you must take a new snapshot of the dictionary after enabling column-level encryption.

  When capturing data from a PDB that is configured in isolated mode and that contains encrypted tablespaces and source tables with encrypted columns selected for change capture, you must specify both the CDB and PDB wallet information in the TDEKEYSTORE parameter of the DATABASE statement.

  If Express CDC is running in either dynamic or static dictionary mode, PowerExchange detects Oracle row updates made as a result of re-entering the encryption algorithm or integrity mode and then excludes them from capture processing. If Express CDC is not running and is configured for static dictionary mode, decryption failures can occur, causing CDC processing to terminate. To avoid this problem, remove the source tables from the list of source tables of CDC interest.

- **N**. Do not support column-level encryption of source columns. If PowerExchange encounters encrypted column data in source tables, it cannot decrypt the data. In this case, CDC processing ends abnormally with error message PWX-36335.

Default is N.

READER statement

Changed. This statement contains the following changed parameters:

MODE > ARCHIVECOPY

Changed. If you run the PowerExchange Logger in continuous mode, it now attempts to detect and recover from situations where it begins to read logs before they are fully copied. Previously, the PowerExchange Logger might fail if it read the archive copy before the copy was fully written. Directory scanning is now more efficient because it retains information about the files that it has scanned and validated and does not attempt to re-validate them unless they change.

READBUFFSIZE=*kilobytes*

Changed. The maximum value you can specify is now 1048576 KB. Previously, the maximum value was 262144 KB.

For more information, see the "Express CDC for Oracle" chapter in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

PowerExchange 10.5.1 - New Features and Changes for Oracle

This section describes PowerExchange 10.5.1 new features and changes that are related to Oracle data sources or targets.

New Features in 10.5.1

PowerExchange 10.5.1 introduces new features for Oracle.

Oracle LOB Support

For Oracle source tables, PowerExchange can process change data from BLOB, CLOB, and NCLOB columns. The maximum row size that PowerExchange can process is 8 MB.

For tables with BLOB or CLOB datatypes that are defined with the Oracle attribute ENABLE STORAGE IN ROW, PowerExchange delivers up to 3964 bytes of the data to PowerCenter workflows that use a PowerExchange CDC Oracle connection. In Oracle, when the ENABLE STORAGE IN ROW attribute is enabled, LOB data can be stored either fully inline in the row or out-of-line in the LOB file space. Oracle does not store partial LOB data in a row.

You can use the PowerExchange-generated DTL__ST_*lob_columnname* column with a PowerCenter Expression transformation and unconnected Lookup transformation to retrieve all of the LOB data from BLOB and CLOB columns. The session can then send all of the LOB data to a target.

Note: Oracle has a maximum column size of 4000 bytes. For LOBs stored in-row, the column contains a 20-byte LOB locator, a 16-byte LOB node, and data, for a maximum of 3694 bytes. For CLOB data, this data is stored using a double-byte character set, even if the column character set is single byte, which reduces the maximum size to 1847 characters.

For more information, see the "Express CDC for Oracle" chapter in the *PowerExchange CDC Guide for Linux, Unix, and Windows*.

PowerExchange Express CDC for Oracle Performance Considerations

PowerExchange Express CDC for Oracle processing of large transactions can degrade performance.

If CDC performance becomes degraded when the configured maximum redo log records in the MEMOPS parameter is exhausted and PowerExchange Express CDC for Oracle creates spill files to free up resources, perform the following steps:

1. Ensure that the storage used for spill files is not the root cause of the performance degradation. Performance might be severely degraded if slow network storage is used for the spill files.

2. Modify the SPILLMAX and SPILLFILEBUFFSZ parameters in the OPTIONS statement.

   - SPILLMAX=2097151. Reduce the number of spill files to improve efficiency.

   - SPILLFILEBUFFSZ=1024. Increase the file buffering for spill files to decrease physical I/O.

3. If the previous steps do not improve performance, consider increasing the MEMOPS parameter value in the OPTIONS statement of the PowerExchange Express CDC for Oracle configuration file to a level that is sufficient to process the change data volume in memory.

For more information, see the "Express CDC for Oracle" chapter in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

Dynamic Dictionary for Oracle Sources

PowerExchange Express CDC for Oracle supports a dynamic dictionary based on a snapshot of the Oracle catalog to accommodate DDL changes to source tables and table partitions for restart processing. With the dynamic dictionary, Express CDC can update dictionary information in memory for the source tables of CDC interest when DDL changes are committed. The changes, along with the SCN and sequence number, are persisted to an external stage table or file system that records all changes of interest.

Use a dynamic dictionary in environments where DDL changes to source tables are likely to occur. If you use a static dictionary in this type of environment, data loss or corruption can occur after a CDC restart if tables were reorganized or renamed, tables or partitions were dropped, or table columns were added, dropped, or altered. By using a dynamic dictionary, you can avoid data loss and corruption after a restart.

To use a dynamic dictionary use, perform the following high-level implementation steps:

1. Configure the PowerExchange Express CDC configuration file.
    You must define the DICTIONARY and STATESTORAGE statements. In the DICTIONARY statement, set the MODE parameter to DYNAMIC.

2. Ensure that an initial snapshot of the Oracle catalog populates the state table or file that will store the dynamic dictionary information.
    The initial snapshot is automatically created when PowerExchange Express CDC first initializes after dynamic dictionary configuration .

3. Warm start PowerExchange Express CDC or cold start the PowerExchange Logger. PowerExchange Express CDC loads the in-memory dictionary from the external state storage during initialization of the warm start or cold start.
    After initialization, when the latest commit SCN has caught up to the dictionary base SCN, all new DDL operations on tables of CDC interest are recorded in the state storage when they are committed

For more information about the dynamic dictionary, see the "Express CDC for Oracle" chapter in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

Parameter and Option Changes in 10.5.1

PowerExchange 10.5.1 introduces the following changes to PowerExchange for Oracle configuration parameters:

PowerExchange Express CDC for Oracle Configuration File

PowerExchange 10.5.1includes the following new or changed parameters in the PowerExchange Express CDC for Oracle configuration file, pwxorad.cfg.

DICTIONARY statement

Changed. The DICTIONARY statement contains the following changed and new parameters for the dynamic dictionary:

MODE={<u>STATIC</u>|DYNAMIC}

Changed. Specify the new DYNAMIC option to enable the dynamic dictionary feature. The dynamic dictionary can avoid data loss and corruption after a restart, which can otherwise occur when a static dictionary is used. For more information, see "Dynamic Dictionary for Oracle Sources" on page 100. The default value is STATIC.

RETENTIONPERIOD

New. When MODE=DYNAMIC, optionally specify the period, in hours, to retain data in the dynamic data dictionary. Operations are rolled up into the data dictionary base snapshot at Express CDC initialization and once every 24 hours thereafter until this retention period elapses. Valid values are 1 through 744. The default value is 168 hours (or 1 week).

SNAPSHOTONCOLDSTART

New. When MODE=DYNAMIC, optionally set this parameter to Y if you want to force a snapshot of the database to be taken of the current Oracle catalog when a PowerExchange Logger cold start is requested. The default value is N, which causes no snapshot to be taken.

Note: If you use the default value of N and cold start the PowerExchange Logger when data exists in the dynamic dictionary and the cold start restart point SCN is greater than the dynamic dictionary SCN, the cold start uses the dictionary SCN as the restart point. This behavior ensures that the dictionary contains any changes that occur in the gap between the restart points.

UPDATEINTERVAL

New. When MODE=DYNAMIC, optionally specify the interval, in minutes, that must elapse before PowerExchange Express CDC advances the SCN value in the data dictionary, during a period when no DDL changes of interest are occurring for a data source. When a restart occurs, PowerExchange Express CDC uses the data dictionary restart SCN when calculating how far back in the redo logs to start processing change records so that no DDL changes of interest are missed.

Valid values are 1 through 1440. The default value is 0, which causes the RSTRADV parameter value in the OPTIONS statement to be used.

OPTIONS statement

Changed. The OPTIONS statement contains the following new and changed parameters:

MEMOPS

Changed. Default is the greater of 5120 or the number of RAC members * 2 * 1024. For example, if you have three RAC members, the default is 6144. Previously, the default was 5120.

SPILLFILEBUFFSZ=*kilobytes*

New. The block buffer, in kilobytes, that is allocated for spill file I/O. Increase this value to reduce physical I/O and improve performance, if an increase in memory usage is acceptable.

Valid values are 0 through 1024. Default is 0, which causes the operating system to allocate the block buffer when the first write operation occurs. The size of the buffer then depends on the operating system.

STATESTORAGE statement

Changed. Configures state table or file system storage for DDL change information from the in-memory dynamic dictionary for tables of CDC interest. Previously, this statement covered state storage only for checkpoint information.

For more information, see the "Express CDC for Oracle" chapter in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

PowerExchange 10.5 - New Features and Changes for Oracle

This section describes PowerExchange 10.5 new features and changes that are related to Oracle data sources or targets.

New Features in 10.5

PowerExchange 10.5 introduces new features for Oracle.

Checkpointing In-flight Transactions

Checkpointing periodically persists the state of in-flight transactions to disk or tables.

Important: In PowerExchange 10.5, support for checkpointing requires EBF01.

If a PowerExchange Express capture process stops and is then warm started, PowerExchange Express CDC uses the checkpoint information to resume the processing of outstanding transactions from the last recorded checkpoint. By using a checkpoint, Express CDC avoids time-consuming reprocessing of large amounts of redo log to rebuild the state of all transactions that were active when the process stopped.

You can store state information for in-flight transactions in file-system files or in three Oracle tables. For file-based storage, ensure that the user ID under which Express CDC runs is granted the appropriate permissions to create the files. For table-based storage, ensure that the database user has the appropriate permissions to create and update the tables. You can manually create the tables or allow Express CDC to automatically create them. The first initialization of a CDC process after checkpointing is enabled causes Express CDC to automatically create the tables if they do not already exist. If you need to manually create the tables, use the DDL statements that are documented in the *PowerExchange CDC Guide for Linux, UNIX, and Windows* to ensure the schema is correct.

To configure checkpointing, you must specify the CHECKPOINT statement and STATESTORAGE statement in the PowerExchange Express CDC configuration file. Optionally, if you want to encrypt the spill files that contain checkpointed data, you can optionally set the SPILLENCRYPTPASS or SPILLENCRYPTEPASS parameter in the OPTIONS statement.

For more information, see the "Express CDC for Oracle" chapter in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

Parameter and Option Changes in 10.5

PowerExchange 10.5 introduces the following changes to PowerExchange for Oracle configuration parameters:

PowerExchange Express CDC for Oracle Configuration File

PowerExchange 10.5 introduces new statements and parameters in the PowerExchange Express CDC for Oracle configuration file, pwxorad.cfg.

CHECKPOINT statement

> *New*. Enables PowerExchange Express CDC for Oracle to write checkpoints for in-flight transactions during CDC processing. Then, if a CDC process terminates and you warm start it, PowerExchange can rebuild any long running transactions and resume processing from the last checkpoint, without having to reprocess large amounts of redo log.

Syntax is:

```
CHECKPOINT
   [CHKPTINTERVAL=minutes]
   [COMPLETEDEVENTSAGE=minutes]
   [COMPLETEDEVENTSDIR=directory]
   [MAXCHKPTSIZE=kilobytes]
   [RETENTIONPERIOD=minutes]
   [MINCHKPTSTOKEEP=number_of_checkpoints]
   [EXCEPTIONS=(REJECT|TOLERATE}]
   ;
```

Parameters are:

CHKPTINTERVAL

The interval, in minutes, that must elapse between taking checkpoints. Valid values are 1 through 1440. The default value is 5 minutes.

COMPLETEDEVENTSAGE

The interval, in minutes, that must elapse before a transaction with active operations can be forced to spill to disk. Only transactions that are spilled to disk can be checkpointed.

Valid values are 0 through 1440. A value of 0 means never force a transaction with active operations to spill to disk for checkpointing. The default value is 30.

COMPLETEDEVENTSDIR

The file system directory to which spilled active transaction data is copied during checkpoint processing.

If the COMPLETEDEVENTSAGE parameter value is greater than 0, you must specify either this COMPLETEDEVENTSDIR parameter or the BASEDIRECTORY parameter in the STATESTORAGE statement. The default value is the BASEDIRECTORY value.

EXCEPTIONS

Controls whether to tolerate missing spill file data or to reject this type of exception. Tolerate this exception only if you can allow some data loss rather than regress the restart point. Options are REJECT and TOLERATE. Default is REJECT.

MAXCHKPTSIZE

The maximum amount of data, in kilobytes, that can be forced to spill to disk during a single checkpoint. You can use this parameter to block very large transactions from forcibly spilling to disk, which might improve performance during large batch processing. Valid values are 1 through 1024*1024 (or 1 GB). The default value is 50*1024 (or 50 MB).

MINCHKPTSTOKEEP

The minimum number of checkpoints to keep. The default value is 3.

RETENTIONPERIOD

The period, in minutes, for which checkpoint data is retained. Valid values are 0 through 44640. The default value is 10080 (1 week).

DATABASE statement

Changed. The DATABASE statement contains the following new parameter:

TDEKEYSTORE

New. If the Oracle source uses Transparent Data Encryption (TDE) to encrypt source tablespaces, provide the location of the keystore that contains the encryption key required for the encryption and decryption of data. The keystore can be located in Automatic Storage Management (ASM), a file, or

a hardware security module (HSM). Depending on the type of store, enter this parameter in one of the following ways:

- For an ASM store, the syntax is:

```
TDEKEYSTORE=(TYPE=(ASM, WALLETDIR=path/directory,{PWD|EPWD}=wallet_password,
[ASM_CONNECT_STRING=string,ASM_PASSWORD=asm_password,ASM_USERID=asm_userid,ASM
_ASSYSASM=Y]))
```

Where:

- TYPE must be the store type of ASM.

- WALLETDIR is the fully qualified path to the ASM wallet.

- {PWD|EPWD} is the password or encrypted password that is required to access the ASM wallet.

- ASM_CONNECT_STRING is the Oracle connection string, defined in TNS, that the PowerExchange Express CDC log reader uses to connect to the ASM instance.

- ASM_PASSWORD is a password for the user specified in the ASM_USERID parameter, which is used to connect to the ASM instance.

- ASM_USERID is an Oracle user ID that the PowerExchange Express CDC log reader uses to connect to the ASM instance, which has SYSDBA or SYSASM authority.

- ASM_ASSYSASM must be set to Y to have the PowerExchange Express CDC log reader to use a user ID that has SYSASM authority to connect to the ASM instance.

Note: If you do not define ASM_CONNECT_STRING in the TDEKEYSTORE parameter, you must define the ASM connection parameters in the READER statement.

- For a file store, the syntax is:

```
TDEKEYSTORE=(TYPE=(FILE,WALLETDIR=path/directory,[PWD|EPWD]=password))
```

Where:

- TYPE must be the store type of FILE.

- WALLETDIR is the fully qualified path to the file system wallet. PowerExchange Express CDC will not attempt to extract the path from the database.

- {PWD|EPWD} is the password or encrypted password that is required to access the wallet.

- For an HSM store, the syntax is:

```
TDEKEYSTORE=(TYPE=(HSM,HSMCLIENTLIB=path\module,[PWD|EPWD]=password))
```

Where:

- HSMCLIENTLIB is the fully qualified path and module name of the HSM client library. For information about setting up access to an HSM device or server, see the HSM vendor documentation. PowerExchange Express CDC uses the standard PKCS #11 interface to access HSM keys.

- {PWD|EPWD} is the password or encrypted password that is required to access the HSM device.

If you define multiple TDEKEYSTORE parameters, PowerExchange Express CDC searches them for the master key in the order in which they are defined.

Note: The TDEWALLETDIR, TDEWALLETPWD, and TDEWALLETEPWD parameters are deprecated.

OPTIONS statement

Changed. The OPTIONS statement contains the following new parameters:

BCE_SUBSTITUTE_YEAR=*year*

New. Specifies the substitute year value to use when the BCE_YEAR_HANDLING parameter is set to SUBSTITUTE. Valid values are 1 to 9999.

BCE_YEAR_HANDLING ={<u>IGNORESIGN</u>|SUBSTITUTE|PRE1040|FAIL}

New. Indicates how to handle a negative year in Before the Common Era (BCE) dates. Options:

- IGNORESIGN. Capture the year as a positive value.

- SUBSTITUTE. Substitute the year with the value specified in the BCE_SUBSTITUTE_YEAR parameter. If you specify BCE_YEAR_HANDLING=SUBSTITUTE you must specify a value for BCE_SUBSTITUTE_YEAR.

- PRE1040. Revert to the old behavior of reporting a negative value (-CCYY) as a positive value (YY00).

- FAIL. Report BCE dates as errors in message PWX-36200 and shut down the PowerExchange Logger for Linux, UNIX, and Windows.

Default is IGNORESIGN.

SPILLENCRYPTEPASS=*encrypted_passphrase*

New. An encrypted passphrase that enables spill file encryption. PowerExchange writes transactions to spill files when it does not have sufficient memory to store them. You can optionally encrypt the spill files to protect sensitive data by setting either this parameter or the SPILLENCRYPTPASS parameter. The maximum passphrase length is 1024 bytes. No default value is provided.

SPILLENCRYPTPASS=*passphrase*

New. A passphrase that enables spill file encryption. PowerExchange writes transactions to spill files when it does not have sufficient memory to store them. You can optionally encrypt the spill files to protect sensitive data by setting either this parameter or the SPILLENCRYPTEPASS parameter. The maximum passphrase length is 1024 bytes. No default value is provided.

STATESTORAGE statement

New. Defines the type of storage for state information and the connection string and credentials used for accessing this storage. For PowerExchange Express CDC checkpointing, the state information consists of the state of in-flight transactions at the time a CDC process terminates. After a restart, this information is used to resume CDC processing from the last checkpoint, without having to reprocess lots of logs.

Syntax is:

```
STATESTORAGE
   STORETYPE={Directory|Table}
   BASEDIRECTORY="path\\directory"
  [CONNECT_STRING=connect_string]
  [PREFIX=collection_id]
  [TABLEOWNER=userid]
  [USERID=user_ID]
  [PASSWORD=password]
  [EPWD=encrypted_password]
  ;
```

Parameters are:

STORETYPE

Required. The type of storage for state information. You can use a relational table or a file system directory. Options are Directory or Table. No default value is provided.

BASEDIRECTORY

Required. The base directory under which subdirectories that contain files or tables with state information are generated. Specify this parameter if the STORETYPE parameter is set to **Directory** or if you plan to enable checkpointing.

Note: For table-based checkpoint storage, you must specify either this BASEDIRECTORY parameter or the COMPLETEDEVENTSDIR parameter in the CHECKPOINT statement. Express CDC will copy the checkpointed spill files to this directory.

CONNECT_STRING

A connect string that is used to connect to the Oracle database where the state tables are created. The default value is the CONNECT_STRING value in the DATABASE statement.

PREFIX

A unique prefix for the names of the files or tables where state information is stored. Specify this prefix only if you want to override the default value, which is the collection ID specified in the ORACOLL parameter in the ORAD CAPI_CONNECTION statement. The ORACOLL parameter supplies a unique value for each Express CDC instance that is running. If you use the optional PREFIX parameter, ensure that it also provides a unique value for the Oracle instance.

TABLEOWNER

The owner of the state tables. The default value is the USERID value in this statement, if specified, or the USERID value in the DATABASE statement.

USERID

A database user ID for accessing the state tables. The default value is the USERID value in the DATABASE statement.

PASSWORD

A password, which is used in conjunction with the user ID, to provide credentials for accessing the state tables. The default value is the PASSWORD value in the DATABASE statement.

EPWD

An encrypted password, which is used in conjunction with the user ID, to provide credentials for accessing the state tables. The default value is the EPWD value in the DATABASE statement.

For more information, see the "Express CDC for Oracle" chapter in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

CHAPTER 18

PowerExchange for PostgreSQL

This chapter includes the following topics:

PowerExchange 10.5.6 - New Features and Changes for PostgreSQL

This section describes PowerExchange 10.5.6 changes that are related to PostgreSQL sources.

Support for PostgreSQL 16

PowerExchange 10.5.6 adds CDC support for PostgreSQL 16 source tables on Red Hat Linux, SUSE Linux, and Windows.

Support for PostgreSQL 12.x and 13.x has been dropped.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

PowerExchange 10.5.5 - New Features and Changes for PostgreSQL

This section describes PowerExchange 10.5.5 changes that are related to PostgreSQL sources.

Parameter and Option Changes in 10.5.5

PowerExchange 10.5.5 introduces a new parameter for PostgreSQL CDC.

DBMOVER Configuration File

The DBMOVER configuration file contains the following new parameter:

PG CAPI_CONNECTION

New. PowerExchange 10.5.5 adds the REPLSLOTNAME parameter to the PG CAPI_CONNECTION statement.

REPLSLOTNAME={slot_name|pwx_repl}

New. Optional. Specifies the name of the replication slot to use. A replication slot name can only contain lowercase letters, numbers, and the underscore (_) character.

If the replication slot does not exist, it is created with the name you specify for this parameter.

If you do not specify a name, the default name of pwx_repl is used.

Note: If Azure Database for PostgreSQL or Amazon RDS for PostgreSQL is detected, PowerExchange will create a wal2json slot.

This parameter also allows you to use multiple replication slots. For example, you can define a slot for the PowerExchange plugin and a wal2json plugin for comparison testing purposes.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

PowerExchange 10.5.4 - New Features and Changes for PostgreSQL

This section describes PowerExchange 10.5.4 changes that are related to PostgreSQL sources.

New Features in 10.5.4

PowerExchange 10.5.4 introduces new features and changes for PostgreSQL sources.

Support for PostgreSQL version 15

PowerExchange 10.5.4 adds CDC support for PostgreSQL 15 source tables on Red Hat Linux, SUSE Linux, and Windows.

Support for PostgreSQL 10.*x* and 11.*x* has been dropped.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

Additional Datatypes Supported for PostgreSQL CDC Sources

PowerExchange 10.5.4 adds support for the following multirange datatypes with PostgreSQL sources: int4multirange, int8multirange, nummultirange, tsmultirange, tstzmultirange, and datemultirange.

These datatypes were introduced in PostgreSQL 14.

For more information, see "PostgreSQL Datatypes Supported for CDC" in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

PowerExchange 10.5.2 - New Features and Changes for PostgreSQL

This section describes PowerExchange 10.5.2 changes that are related to PostgreSQL sources.

New Features in 10.5.2

PowerExchange 10.5.2 introduces support for PostgreSQL sources.

Additional Datatypes Supported for PostgreSQL CDC Sources

PowerExchange 10.5.2 adds support for the PostgreSQL regcollation and xid8 datatypes.

For more information, see "PostgreSQL Datatypes Supported for CDC" in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

Parameter and Option Changes in 10.5.2

PowerExchange 10.5.2 introduces new parameters for PostgreSQL CDC.

DBMOVER Configuration File

The DBMOVER configuration file contains the following changed statement:

PG CAPI_CONNECTION

Changed. PowerExchange 10.5.2 adds the CAPTUREALL parameter to the PG CAPI_CONNECTION statement. Syntax is:

```
CAPI_CONNECTION=(NAME=capi_connection_name
                ,TYPE=(PG
                ,SERVER={database_server|localhost}[,port]
                [,CAPTUREALL={Y|N}]
                ,DATABASE=database_name
               )
```

CAPTUREALL={N|Y}

New. This optional parameter controls whether PowerExchange captures and stores change data for all tables in the source database or only for the tables that are registered for CDC. Use this parameter to limit the amount of data that is stored in the replication store table to only the data from registered source tables.

Options are:

- **N**. Store captured DML changes only for registered source tables in the replication store table. Use this option to limit the amount of data that is collected and stored in the store table.
- **Y**. Store all DML changes captured from the source database, including changes for unregistered tables, in the replication store table. This setting is not recommended because it can cause more data than is needed for CDC processing to be stored in the replication store table.

Default is N.

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

Behavior Changes in 10.5.2

PowerExchange 10.5.2 introduces the following behavior change for PostgreSQL CDC data sources.

Replication of UUID Column Data in Character Format

Previously, Universally Unique Identifiers (UUID) columns in PostgreSQL CDC source tables were registered and replicated in a binary format, which did not match the format of the values in the source table. Effective in 10.5.2 release, UUID values are registered with a character data type and replicated as strings. This change takes effect for sources for which you create new capture registrations. If you want the UUID values to be replicated as strings based on older capture registrations, you must re-create those capture registrations.

PowerExchange 10.5.1 - New Features and Changes for PostgreSQL

This section describes PowerExchange 10.5.1 changes that are related to PostgreSQL sources.

New Features in 10.5.1

PowerExchange 10.5.1 introduces support for PostgreSQL sources.

Support for PostgreSQL 13.*x*

PowerExchange 10.5.1 adds CDC support for PostgreSQL 13.*x* source tables on Red Hat Linux and Windows.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide*.

CHAPTER 19

PowerExchange for SAP HANA

This chapter includes the following topics:

PowerExchange 10.5.6 - New Features and Changes for SAP HANA

This section describes PowerExchange 10.5.6 changes that are related to SAP HANA sources.

Parameter and Option Changes in 10.5.6

PowerExchange 10.5.6 introduces parameter and option changes for SAP HANA CDC.

Parameter File Changes for SAP HANA CDC

PowerExchange 10.5.6 SAP HANA CDC has the following change to the parameter file that can be specified in the PARMFILE parameter of the HANA CAPI_CONNECTION statement.

Previously, for JDBCPROPS and SSL parameters were specified in the OPTIONS section of the parameter file. Now, these parameters are specified in the DATABASE section of the parameter file. If you previously specified JDBCPROPS or SSL parameters, update your parameter file to move those parameters under DATABASE.

For more information, see *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

Updated hana.cfg File

The hana.cfg configuration file has been renamed and the file format has changed.

The hana.cfg has been renamed to pwxhanatriggerbased.cfg.

If you have an existing hana.cfg file that you've been using, you must update it to use the format as the sample file pwxhanatriggerbased.cfg in the PowerExchange `<install>/config` directory.

PWXHanaCDC.jar File Renamed

In PowerExchange 10.5.6, the PWXHanaCDC.jar file was renamed to HanaAdapter.jar.

For more information, see *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

Behavior Changes in 10.5.6

PowerExchange 10.5.6 introduces the following behavior change for SAP HANA data sources:

SAP HANA CDC java.class.path

PowerExchange 10.5.6 SAP HANA CDC has the following changes related to the way that the java.class.path is set.

In PowerExchange 10.5.6, PowerExchange sets the java.class.path of the JVM that is created for HanaAdapter.jar using the following rules:

1. If the HANA_CLASSPATH statement is specified in the dbmover configuration file, PowerExchange uses that value.

2. If the HANA_CLASSPATH statement is not specified in the dbmover configuration file, PowerExchange fetches the list of jar files in the `<install>/jars` folder and uses those fully-qualified filenames to set the CLASSPATH passed to the Java JVM.

Note: If you did not install the jar files in the PowerExchange `<installation>/jars` directory, ensure that the HANA_CLASSPATH statement in the dbmover.cfg configuration file specifies all of the *.jar files with fully-qualified path names.

For more information, see *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

PowerExchange 10.5.5 - New Features and Changes for SAP HANA

This section describes PowerExchange 10.5.5 changes that are related to SAP HANA sources.

Parameter and Option Changes in 10.5.5

PowerExchange 10.5.5 introduces new parameters for SAP HANA CDC.

DBMOVER Configuration File

The DBMOVER configuration file has the following change to the HANA CAPI_CONNECTION statement PARMFILE parameter for SAP HANA CDC sources.

HANA CAPI_CONNECTION

Changed. In PowerExchange 10.5.5, the behavior of the PARMFILE parameter has changed.
PARMFILE=path\filename

For PowerExchange 10.5.5, you can specify the full path and file name for the parameter file or not specify a value. If you do not specify a full path, PowerExchange looks for the file in the PWX_HOME directory. If PWX_HOME does not exist, the path is the current PowerExchange directory. Prior PowerExchange versions retain their previous behaviors.

Row Table option in 10.5.5

The PowerExchange Navigator now supports a **Row Table** option for SAP HANA data sources in the **Add Capture Registration - Type** dialog box and in the **Capture Registration** tab in the **Resource Inspector**. Select the **Row Table** option to indicate that a SAP HANA source table uses row-based data storage.

PowerExchange 10.5.2 - New Features and Changes for SAP HANA

This section describes PowerExchange 10.5.2 changes that are related to SAP HANA sources.

Behavior Changes in 10.5.2

PowerExchange 10.5.2 introduces the following behavior changes for SAP HANA data sources:

Changing Registrations from and to Full Audit

When you change a SAP HANA source table registration from Full Audit to PKLOG only, or from PKLOG to Full Audit, you must drop the triggers for the changed registration. You can manually create the triggers by using the trigger function and exporting the script, by running a row test in PowerExchange Navigator, or by letting the PowerExchange Logger create the triggers automatically. If you change a registration from Full Audit to PKLOG, you can also drop the CDC shadow table or retain it for history purposes. The shadow table is required for capture registrations that use Full Audit.

Full Audit for Tables with 16-column Primary Keys

Previously, for SAP HANA source tables with 16-column primary keys, PowerExchange required the Full Audit option, and you could not clear this option in the PowerExchange Navigator. In PowerExchange 10.5.2, you can set or clear Full Audit for tables with 16-column primary keys.

Nullable Field Settings for SAP HANA Sources

Previously, PowerExchange set non-nullable fields to nullable for all SAP HANA source tables. In PowerExchange 10.5.2, tables registered with the Full Audit option allow non-nullable fields. For tables registered without Full Audit, PowerExchange continues to set all fields that are not primary keys to nullable. Since there is no before image of the source table without Full Audit, delete processing requires that each non-primary-key field can be null.

PowerExchange 10.5.1 - New Features and Changes for SAP HANA

This section describes PowerExchange 10.5.1 changes that are related to SAP HANA sources.

New Features in 10.5.1

PowerExchange 10.5.1 introduces support for SAP HANA sources.

Support for SAP HANA CDC Sources

PowerExchange 10.5.1 adds support for change data capture (CDC) from SAP HANA version 2.*x* source tables on Linux or Windows.

PowerExchange CDC for SAP HANA captures inserts, updates, and deletes from SAP HANA tables on Windows or Linux. Because SAP HANA does not provide direct access to its log files, the capture process uses triggers on source tables to determine when to capture change data. Most SAP HANA datatypes are supported.

The PowerExchange Navigator can optionally create scripts for the PKLOG and PROCESSED log tables and trigger DDL when you create capture registrations for the source tables. If you do not use the Navigator to create the tables, PowerExchange creates the log tables and triggers when the extraction process runs. Each registered SAP HANA source table must have a primary key.

The triggers write insert, update, and delete changes to the PKLOG transaction log table. These changes are read in table order and are then available for extraction to PowerCenter CDC sessions or PowerExchange CDC Publisher. PowerExchange provides only after-image records for SAP HANA CDC.

To prepare SAP HANA source for CDC, perform the following tasks:

- Create a SAP HANA user for CDC that can read the data dictionary views, including TABLES, and create objects in the user's own schema. .

- Grant the SAP HANA CDC user INSERT permission on their schema to the target database and SELECT permission to the user on the source database schema and tables.

- When PowerExchange for SAP HANA CDC starts, it uses the SAP HANA CDC user ID to connect to the source database and checks for the PKLOG and PROCESSED tables. If these tables do not exist, PowerExchange creates them using the SAP HANA user's schema. If you prefer, you can connect to the database with the SAP HANA CDC user ID and create the tables manually.

To configure PowerExchange for SAP HANA sources, specify the new HANA CAPI_CONNECTION statement in the dbmover.cfg configuration file. Also, create capture registrations and extraction maps for the source tables by using either the PowerExchange Navigator or DTLUCBRG utility. Both interfaces have been enhanced to support SAP HANA sources.

Also, PowerExchange requires an ODBC driver and a JDBC driver for SAP HANA to retrieve source metadata from the SAP HANA database server.

For more information, see the *PowerExchange CDC Guide for Linux, UNIX, and Windows*, the *PowerExchange Navigator User Guide*, and *PowerExchange Utilities Guide*.

Parameter and Option Changes in 10.5.1

PowerExchange 10.5.1 introduces new parameters for SAP HANA CDC.

DBMOVER Configuration File

The DBMOVER configuration file can now include the new HANA CAPI_CONNECTION statement for SAP HANA CDC sources.

Syntax:

```
CAPI_CONNECTION=(NAME=capi_connection_name
          [,DLLTRACE=trace_id]
```

```
          ,TYPE=(HANA
            ,SERVER=[server_name|ip_address]:port
            ,DATABASE=database_name
            [,BUFFERSIZE=bytes]
            [,FETCHSIZE=records]
            [,LOGCLEAR=days]
      [,ONDATATRUNC=[WARN|FAIL]]
            [,SSL=[Y|N]]
            [,TIMEOUT=milliseconds]
            [,VMOPTS=options]
      [,VMOPTSDEL=delimiter_character])
   )
```

Parameters:

NAME=*capi_connection_name*

Required. A unique user-defined name for this CAPI_CONNECTION statement.

Maximum length is eight alphanumeric characters.

DLLTRACE=*trace_ID*

Optional. The user-defined name of the TRACE statement that activates internal DLL tracing for this CAPI. Specify this parameter only at the direction of Informatica Global Customer Support.

TYPE=(HANA, …)

Required. The type of CAPI_CONNECTION statement. For SAP HANA sources, this value must be HANA.

SERVER=[*server_name|ip_address*]:*port*

Required. The server name or IP address of the database server that contains the source tables.

The default port is 39015. If you use a different port number, you must specify the port in the SERVER parameter.

DATABASE=*database_name*

Required. The name of the SAP HANA database that contains the source tables for change data capture.

BUFFERSIZE =*bytes*

Optional. The maximum size of the buffer for CDC records retrieved from the SAP HANA source. When the maximum buffer size is reached, PowerExchange flushes the buffer and commits changes to the log tables. Valid values are 64000 (64 KB) to 4000000 (4 MB).

Default is 64000.

FETCHSIZE=*records*

Optional. The maximum number of records that can be returned from the SAP HANA source to the buffer at a time. Valid values are 100 to 10000.

Default is 1000.

LOGCLEAR=*days*

Optional. The time interval in days after which PowerExchange purges the PKLOG table entries. Valid values are 0 to 366. A value of 0 means that the PKLOG table entries are not purged.

Default is 14.

ONDATATRUNC=[WARN|FAIL]

Optional. Indicates whether PowerExchange issues a warning message and continues processing or ends abnormally when it encounters a column where data would be truncated. Valid values are WARN or FAIL.

Default is FAIL.

SSL=[Y|N]

Optional. Whether the connection to the SAP HANA source uses the SSL/TLS protocol. This parameter only affects connections that use the JDBC driver. Connections that use an ODBC driver on must specify the secure connection in the odbc.ini file.

Default is N.

TIMEOUT=*milliseconds*

Optional. The time interval in milliseconds after which the change cycle ends if PowerExchange does not receive a response from the source table. Valid values are 1000 to 60000.

Default is 10000.

VMOPTS=*option;option;…*

Optional. A set of one or more Java Virtual Machine (JVM) options, separated by semicolons. You can specify up to 20 options.

Default is a placeholder semicolon (;).

VMOPTSDEL=*character*

Optional. Changes the separator character for the VMOPTS parameter. Valid values are any separator character on the system where the options will be overridden.

Default is a semicolon (;).

For more information, see the "DBMOVER Configuration File" chapter in the *PowerExchange Reference Manual*.

CHAPTER 20

PowerExchange for VSAM and Flat Files

This chapter includes the following topics:

PowerExchange 10.5.3 - New Features and Changes for VSAM and Flat Files

This section describes PowerExchange 10.5.3 new features and changes that are related to VSAM and sequential or flat file data sources or targets.

New Features in 10.5.3

PowerExchange 10.5.3 introduces the following new feature for CICS Transaction Server data sources:

Support for CICS Transaction Server Version 6.1

PowerExchange 10.5.3 adds CDC support for CICS Transaction Server (CICS TS) version 6.1. PowerExchange can capture changes that CICS TS 6.1 transactions make to VSAM data sets.

The PowerExchange SAMPLIB library contains the new member #CICSV74 for defining the CICS/VSAM ECCR programs and transaction to CICS TS. Because the definition of the CICS/VSAM ECCR programs and transaction changed, you must restart the CICS region after upgrading to PowerExchange 10.5.3.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide* and the "CICS/VSAM Change Data Capture" chapter in the *PowerExchange CDC Guide for z/OS*. Also see the Product Availability Matrix at
https://network.informatica.com/community/informatica-network/product-availability-matrices.

PowerExchange 10.5 - New Features and Changes for VSAM and Flat Files

This section describes PowerExchange 10.5 new features and changes that are related to VSAM and sequential or flat file data sources or targets.

New Features in 10.5

PowerExchange 10.5 introduces the following new feature for CICS Transaction Server data sources:

Support for CICS Transaction Server Version 5.6

PowerExchange 10.5 adds CDC support for CICS Transaction Server (CICS TS) version 5.6. PowerExchange can capture changes that CICS TS 5.6 transactions make to VSAM data sets.

The PowerExchange SAMPLIB library contains the new member #CICSV73 for defining the CICS/VSAM ECCR programs and transaction to CICS TS. Because the definition of the CICS/VSAM ECCR programs and transaction changed, you must restart the CICS region after upgrading to PowerExchange 10.5.

For more information, see the "Installation Planning" chapter in the *PowerExchange Installation and Upgrade Guide* and the "CICS/VSAM Change Data Capture" chapter in the *PowerExchange CDC Guide for z/OS*. Also see the Product Availability Matrix at
https://network.informatica.com/community/informatica-network/product-availability-matrices.

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