

Service Pack 07 Release Notes (build 6.5.0.674)

These release notes provide details on the resolved issues and/or enhancements included in SP07. All service packs are cumulative, meaning that they include the fixes and enhancements provided in previous packs.

Note Customers who wish to continue working with AEM after installing this Service Pack, need to install AEM 6.5 Service Pack 02 or above.

SP07 (build 6.5.0.674)

This section describes the enhancements and/or resolved issues in this service pack.

Resolved Issues

Component/Process	Description	Internal Issue #	Customer Case #
Microsoft SQL Server Source	When the endpoint was defined to use direct read mode, the task would sometimes stop unexpectedly when reading a table that contained numeric data from a compressed log.	RPT-24474	1757012
Kafka Target Microsoft Azure Event Hubs Amazon Kinesis Data Streams MapR Streams	When the source contained an empty string, messages loaded to the endpoint would sometimes fail with the following error (excerpt): NULL value was unexpectedly encountered	RPT-24341	1927270

Component/Process	Description	Internal Issue #	Customer Case #
SAP HANA Source	<p>The select statement would fail with a timeout error when it would take more than 60 seconds (the default statement timeout limit) to select a transaction.</p> <p>The issue was resolved by adding an internal parameter to configure the timeout.</p>	RPT-24495	1800214
Notifications	When a notification was defined for Full Load completion, notifications would also be sent when dummy Full Load completed.	RPT-24502	1931817
Kafka Target Microsoft Azure Event Hubs Amazon Kinesis Data Streams MapR Streams	<p>When the source contained an empty string, messages loaded to the endpoint would sometimes fail with the following error (excerpt):</p> <pre>Got unexpected null value in column <name></pre>	RPT-24345	1928194
Sybase ASE Source	When the Automatically enable Sybase replication option in the endpoint's Advanced tab was selected, changes would not be captured from tables matching the table selection pattern that were added during the task.	RPT-24455	N/A

Component/Process	Description	Internal Issue #	Customer Case #
License	Resolved an issue with license validation checks that sometimes resulted in tasks stopping unexpectedly.	RPT-24419	N/A
Oracle Source	The task would enter an infinite loop when processing changes from a Physical Standby Oracle.	RPT-24453	1931093
Oracle Target	<p>The following error would sometimes be encountered when checking the uniqueness of the index name in the attrep_changes table (excerpt):</p> <pre data-bbox="651 919 1032 1077">Failed checking if index name (attrep_ changes3925BA3077f820) is unique</pre>	RPT-24621	1902540

Component/Process	Description	Internal Issue #	Customer Case #
Amazon Kinesis Data Streams Target	<p>When using the endpoint [Browse] button to browse for a specific stream, if more than 100 streams were present on Amazon Kinesis Data Streams, no streams would be listed in the pop-up window and the following error would be returned (excerpt):</p> <pre>Failed to list the available streams on Amazon Kinesis Data Streams</pre> <p>When the stream name was entered manually (instead of using the Browse button), the task would fail.</p>	RPT-24011	1907700
Amazon Kinesis Target	<p>Due to the time spent checking for new messages, batches would take several seconds to close, resulting in performance issues.</p> <p>The issue was resolved by streamlining the procedure used to check for new message.</p>	RPT-23891	1871866
Salesforce Source	The Full Load task could not be stopped manually when an error was encountered.	RPT-24606	1940105

Component/Process	Description	Internal Issue #	Customer Case #
File-Based Endpoints	An empty string in the source table would be replicated as a NULL to the target.	RPT-24608	1783567
Tasks Logging	The Full Load start time for a table was missing from the task log.	RPT-24616	N/A
Oracle Target Bulk Apply	<p>When applying changes in Batch Optimized Apply mode, missing INSERTs would occur in the following (very rare) scenario:</p> <ul style="list-style-type: none"> » An error would occur during Batch Optimized Apply while capturing changes from two or more tables. » In an attempt to resolve the error, the task was switched to One-by-One apply mode. » In One-by-One mode, errors would also occur, one of which was a table error. 	RPT-24671	1920711

Component/Process	Description	Internal Issue #	Customer Case #
Google Cloud Storage Target	<p>Due to network restrictions that prevented connections to accounts.google.com, the endpoint would fail to connect to Google Cloud Storage.</p> <p>The issue was resolved by integrating the endpoint with a newer version of Google API.</p>	RPT-24623	1939009
SAP HANA Source	Resuming a task would sometimes result in duplicate and/or missing data on the target.	RPT-24701	1925193
Salesforce Source	<p>Unloading of very large tables would sometimes fail. The issue was resolved using an internal parameter to enable automatic primary key chunking for a bulk query job.</p> <p>Supported with the following tables only:</p> <p>Account, Asset, Campaign, CampaignMember, Case, CaseArticle, Contact, Event, EventRelation, Lead, LoginHistory, Opportunity, Task, User, WorkOrder, and WorkOrderLineItem.</p>	RPT-24589 RPT-24630 RPT-24475	1939002 1942090 1927908

Component/Process	Description	Internal Issue #	Customer Case #
Salesforce Source	<p>When a table failed to unload during Full Load, Replicate would erroneously report that Full Load had completed successfully.</p> <p>The issue was resolved by suspending the relevant table(s) and marking the Full Load status as Failed.</p>	RPT-24604	1940101

Enhancements

Component/Process	Description	Internal Issue #	Customer Case #
Amazon Redshift Target	Added the Frankfurt and Bahrain regions.	RPT-24418	1926589
SAP Transports	Added additional logging to facilitate troubleshooting of SAP Transport failures.	RPT-24186	1817375

SP06 (build 6.5.0.581)

This section describes the enhancements and/or resolved issues in this service pack.

Resolved Issues

Component/Process	Description	Internal Issue #	Customer Case #
IBM DB2 for z/OS Source	<p>When starting a task from a timestamp, changes would sometimes not be captured. Additionally, no error would be reported.</p>	RPT-23974	1886444

Component/Process	Description	Internal Issue #	Customer Case #
Microsoft SQL Server Target	Changes to DATETIME columns would sometimes not be applied when the task was set to Transactional Apply Change Processing mode.	RPT-24136	1811990
SAP Application (DB) Source	Capturing changes from STXL tables would not work when the STXL record was split into several subrecords.	RPT-22931	N/A
Amazon Redshift Target	Full Load replication in Parallel Load mode would sometimes fail with the following error: The specified S3 prefix XXXXXX does not exist	RPT-24205	1912124
SAP Application (DB) Source and SAP Application Source	Changes that were cached during Full Load would sometimes not be recovered after a recoverable error.	RPT-23813	N/A
SAP Application Source with SAP HANA Trigger-Based Backend	When a DDL for an uncaptured table occurred on the SAP HANA backend, the task would stop abnormally.	RPT-24268	1918587
License	A license error would sometimes be encountered with a valid license, resulting in all tasks being stopped.	RPT-24299	1914566
Bidirectional	When replicating to MySQL target, the loopback prevention mechanism would sometimes fail when several transactions per second occurred in the source database.	RPT-24187	1916814

Component/Process	Description	Internal Issue #	Customer Case #
Google Dataproc Target	Data would sometimes be missing from HIVE when the Target storage format was set to Sequence and gzip compression was enabled.	RPT-24227	1910511
Custom Endpoint SDK	The NULL values sent by the SDK to prevent a connection timeout (when processing large tables) would impact target data accuracy. The issue was resolved by sending "dummy events" to keep the connection open.	RPT-24256	N/A

Enhancements

Component/Process	Description	Internal Issue #	Customer Case #
Hadoop target endpoint	Added a new internal parameter that allows the ODBC statement timeout length to be extended during periods of heavy load.	RPT-23977	1900365
Replicate General	Added support for catching signal types in order to generate a core dump. Supported signals include: SIGSEGV, SIGABRT, SIGALRM, SIGBUS, SIGFPE, SIGHUP, SIGILL, SIGINT, SIGIO, and so on.	RPT-23632	1833777

SP05 (build 6.5.0.553)

This section describes the enhancements and/or resolved issues in this service pack.

Resolved Issues

Component/Process	Description	Internal Issue #	Customer Case #
Microsoft SQL Server source	In rare situations, when changes were applied to the target slower than they were captured from the source, some of the changes would not be applied to the target.	RPT-23835	1901789
SAP Application source	Replicate could not identify Primary Keys in the selected source tables, resulting in inconsistent data on the target.	RPT-23812	1878725
Log Stream	Unusually high memory consumption would sometimes be encountered when starting from timestamp in the Log Stream Replication task.	RPT-23958	1859491
SAP Application (DB)	When a table contained two columns with the string <code>MANDT</code> in the column names (e.g. <code>MANDT</code> and <code>/SAPSMOSS/MANDT</code>), the Full Load of that table would always load the last column with <code>MANDT</code> in its name.	RPT-23670	1887447
Bidirectional	When a bidirectional task was defined, Google Cloud SQL for MySQL target would not be available for selection, even though it is supported.	RPT-23834	1903426

Component/Process	Description	Internal Issue #	Customer Case #
SAP HANA Source	<p>When DELETE operations were performed on Primary Key columns, the Primary Keys values would be applied to the target as a UTF16 string instead of the original Hexadecimal value. This would result in a tasks error due to the character limit being exceeded on the target.</p>	RPT-23895	1836892
Microsoft SQL Server	<p>The following warning would sometimes appeared in the log, even though the task was running without issues:</p> <p>Possible corrupted buffer after truncation</p> <p>The warning has been rephrased to provide more information and will only be displayed once per table, and only if the specific issue is encountered.</p>	RPT-23979	1896527
Microsoft SQL Server	<p>Instead of the task exiting with a fatal error when the LSN could not be found in the transaction or backup logs, the following (incorrect) error would be written to the log (excerpt):</p> <pre>SQL Server]Invalid parameter passed to OpenRowset(DBLog, ...)</pre>	RPT-24005	1868410

Component/Process	Description	Internal Issue #	Customer Case #
Google Dataproc Target	After upgrade, Full Load would sometimes fail with the following error: Failed to find descriptor for '114'	RPT-24040	1910952
License	Introduced additional logging to troubleshoot the issue of tasks sometimes stopping unexpectedly with an invalid license error.	RPT-24030	1906840

SP04 (build 6.5.0.529)

This section describes the enhancements and/or resolved issues in this service pack.

Resolved Issues

Component/Process	Description	Internal Issue #	Customer Case #
Salesforce Source	Transactions would sometimes be lost after a task was stopped and resumed.	RPT-23537	N/A
SAP Application Source with an IBM DB2 for iSeries or a Microsoft SQL Server backend	The task would stop unexpectedly when capturing DD02L events in the CAPTURE TRACE mode.	RPT-23482	1817375
IBM DB2 for iSeries Source	If a schema was dropped while the task was stopped, the task would fail instead of continuing with a warning.	RPT-23398	1866217

Component/Process	Description	Internal Issue #	Customer Case #
Microsoft SQL Server Source	Primary Key columns containing square brackets in their names could not be identified, resulting in data inconsistencies on the target.	RPT-23715	1861908
License	Added logging to troubleshoot the issue of tasks sometimes stopping unexpectedly with an invalid license error.	RPT-23406	1878666
Upgrade	<p>A change in the way <i>Windows</i> implements the COM interface for <i>X509Enrollment.CX509PrivateKey</i>, resulted in the Replicate UI Server failing to start after upgrading to Replicate 6.5 GA, SP01 or SP02.</p> <p>Note that the fix for this issue provided in SP03 only applied to specific upgrade scenarios whereas this fix applies to ALL scenarios.</p>	RPT-23251	1873721
IBM DB2 for LUW Source	<p>In rare cases, stopping the task while updates are being applied to the target and then resuming the task would result in the following error (excerpt):</p> <pre>Deferred event: BEFORE_ UPDATE arrived but prev oper is '0' instead of AFTER_ UPDATE</pre>	RPT-23686	1885649
Replicate Sorter	In very rare cases (e.g. if the task started and then stopped immediately), changes would sometimes not be captured.	RPT-23491	1871235

Component/Process	Description	Internal Issue #	Customer Case #
Google Dataproc Target	The wrong string size would sometimes be passed to the function when converting from utf16 to utf8, causing the task to crash during Full Load.	RPT-23760	1881498
Amazon Redshift Target	The Primary Key columns would not be recognized as such, which resulted in the endpoint attempting to update a row with the predicate on all the columns. The issue was resolved by using the Primary Key from the source database.	RPT-23669	1886464
SAP HANA Source	After upgrading to the new version, when resuming a stopped task in Trigger-based CDC mode, some of the changes applied while the task was stopped would sometimes not be captured.	RPT-23710	N/A
SAP HANA Source	When resuming a stopped task with complex transactions in Trigger-based CDC mode, some of the changes applied while the task was stopped would sometimes not be captured.	RPT-23771	N/A
SAP Application Source with SAP HANA backend	The CLUSTR and CLUSTD columns were missing from the Transform tab in the Table Settings window.	RPT-23712	N/A

Component/Process	Description	Internal Issue #	Customer Case #
Microsoft SQL Server Source	During Change Processing, if the endpoint was set with Replicate has file-level access to the backup log files , the task would fail when parsing a rare log operation.	RPT-23838	1900340
Bidirectional	When a bidirectional task was defined, Google Cloud SQL for MySQL would not be available for selection, even though it is supported.	RPT-23834	1903246
Google Cloud Storage Target	Tables would sometimes not be loaded to the target during Full Load. To resolve this issue, the recovery mechanism was improved to handle connection errors more efficiently, and logging was enhanced to provide more details when set to "Trace".	RPT-23596	1872237
Notifications	When the Use SSL option was selected, Replicate would fail to send email notifications.	RPT-23762	1896572

SP03 (build 6.5.0.481)

This section describes the enhancements and resolved issues in this service pack.

Resolved Issues

Component/Process	Description	Internal Issue #	Customer Case #
Kafka Target	Primary Keys set using a Replicate column transformation would be missing from the metadata topic on the target.	RPT-23239	1873208
AEM - Google Cloud SQL for MySQL endpoint	When working with Replicate 6.4, the UI would expose options that were only introduced in Replicate 6.5.	RPT-23524	N/A
Endpoints	The IMS (Preview) endpoint has been removed from the source endpoints drop-down list, after being mistakenly included.	RPT-23419	N/A
Upgrade	A change in the way <i>Windows</i> implements the COM interface for X509Enrollment.CX509PrivateKey, resulted in the Replicate UI Server failing to start after upgrading to Replicate 6.5 GA, SP01 or SP02.	RPT-23267	1876784
Google Cloud BigQuery Target	When working with Google SDK version 274, attempting to create datasets on the target would fail with the following error: <pre>Command failed to load data with exit error code 1, Command output: FATAL Flags parsing error: Unknown command line flag 'dataset'. Did you mean: dataset_id</pre>	RPT-23498	1885575

Component/Process	Description	Internal Issue #	Customer Case #
SAP Application (DB) with SAP ECC on HANA backend	Date fields with empty/NULL values would be replicated as 0101-01-01 to the target. The issue was resolved by adding an internal parameter that allows customers to specify the desired target date (in YYYY-MM-DD format).	RPT-23007	195621
Replicate Server	High memory usage was encountered when repeatedly connecting to Replicate Server on Linux.	RPT-23389	1755802
Snowflake Targets	The task would fail when trying to create the schema on the target, unless the schema name was defined in the task settings.	RPT-23572	N/A
Microsoft Azure SQL Data Warehouse	When encountering an error resulting from a DDL change, the task would enter a recoverable error loop, instead of suspending the table.	RPT-23589	N/A

SP02 (build 6.5.0.452)

This section describes the enhancements and resolved issues in this service pack.

Resolved Issues

Component/ Process	Description	Internal Issue #	Customer Case #
AEM UI	When working with Replicate 6.4, AEM would show UI options that were only introduced in Replicate 6.5.	RPT-23364	N/A
Amazon Redshift Target	An internal property that was exposed in the Advanced tab as Maximum number of files to copy from Amazon S3 in a single batch was not visible. For a description of this option, see RPT-23162 in SP01 .	RPT-23394	N/A
File Target	When code page conversion failed the task would enter recovery resulting in duplicate rows being written to the file target. Now, when code conversion fails, an appropriate warning will be issued.	RPT-23253	1851234
Google Cloud BigQuery	Merge statements with UPDATE/DELETE changes on the target would only succeed at the second attempt.	RPT-23316	N/A
MemSQL Target	The Browse button was missing from the Database filed in the General tab.	RPT-23387	N/A
Google Cloud BigQuery Target	Updated the Help with the permissions required for creating datasets on the target.	RPT-23428	N/A

Component/ Process	Description	Internal Issue #	Customer Case #
Amazon Kinesis Target	Incorrect record sequence numbers and transaction counters on the target would result in failure of the consuming application.	RPT-23401	1878784

Enhancements

Component/ Process	Description	Internal Issue #	Customer Case #
SAP HANA Source	<p>Added a mechanism for reducing latency when the duration of transactions on the source is longer than the default (60 seconds).</p> <p>The mechanism is enabled through an internal parameter.</p>	RPT-23284	N/A

SP01 (build 6.5.0.423)

This section describes the enhancements and resolved issues in this service pack.

Resolved Issues

Component/ Process	Description	Internal Issue #	Customer Case #
SAP Application (DB) Source	<p>The Replicate Gold Client dictionary name referred to the old SAP tables, resulting in the following error:</p> <pre>Could not find table/view /HTG/GC_TABLES1</pre> <p>The issue was resolved by updating the dictionary table name to refer to the new tables.</p>	RPT-22934	1863227
DB2 LUW SOURCE, SAP (DB)	Out-of-row LOB values would not be recognized when the LONG IN clause was defined in the TABLE CREATE statement.	RPT-21412	193522
Microsoft Azure Data Warehouse Target	Sometimes, when an error was encountered on the target, the external table would not be cleaned up. This would cause the task to fail on recovery as it could not create an external table (due to the previously created table already existing).	RPT-22881	1757013
SAP HANA Source	Tasks with a ":" (colon) in the table name would fail to run.	RPT-23016	195742
IBM DB2 for iSeries Source	In rare cases, the metadata connection would time out during Full Load (after a large table was loaded). This would result in the suspension of all tables that had not been loaded to the target.	RPT-22973	1830470

Component/ Process	Description	Internal Issue #	Customer Case #
IBM DB2 for LUW Source	Due to an issue with the DB2LUW Deferred Constructor, records with out-of-row LOBs would sometimes be ignored.	RPT- 22982	1853736
SAP Application (DB) with Microsoft SQL Server backend	During Full Load, a "Tables not found" error would be encountered when trying to replicate the dictionary tables DD02L/DD03L, even though the tables were present.	RPT- 23006	196469
Hadoop target	Using NFS storage would sometimes fail with the following error: Failed to get stats on file '/path/to/table'. No such file or directory (aprstatus = 2, location = at_file.c(725))	RPT- 22826	196737
Google Cloud BigQuery Target	When the task was configured to use a schema whose name contained the Google Cloud BigQuery project name, the Drop and Recreate task option would not work during Full Load, resulting in task failure.	RPT- 23028	1868451
Kafka target	A NULL value being replicated to a non-nullable column would result in task failure instead of a data error.	RPT- 22996	1867042

Component/ Process	Description	Internal Issue #	Customer Case #
SAP HANA Source - Trigger-based CDC	The INDX column in the Replicate <code>cdc_changes</code> table was defined as LONG instead of BIGINT. This would cause Replicate to stop capturing changes when it reached the limit allowed by the LONG data type. To resolve this issue, the INDX column data type has been changed to BIGINT.	RPT- 23102	192159
IBM DB2 for Z/OS Source	DDL changes would not be captured after a Metadata Manager connection timeout.	RPT- 22192	1835804
Linux Installation - Licenses	Some of the required Java and JavaScript licenses were missing from the Attunity Replicate Linux installation. The missing licenses will be installed with this Service Pack.	RPT- 23249	N/A
Snowflake on Azure/AWS Target	Optimized performance by removing redundant queries.	RPT- 23258	N/A
Google Cloud BigQuery	Added a limitation to the Help about Google Cloud BigQuery load limitations as well as an explanation of how to work around these limitations.	RPT- 23046	N/A

Component/ Process	Description	Internal Issue #	Customer Case #
Microsoft SQL Server Non Sysadmin Help	Fixed syntax issues with the [attrep]. [rtm_position_1st_timestamp] procedure described in Setting up a Non-Sysadmin User when Working with AlwaysOn Availability Groups and added the procedure to Setting up a Non- Sysadmin User in a Standalone Environment.	RPT- 23075	1838738
Server - Scheduler	After upgrading to 6.5, the Scheduled Job "type" would be missing, resulting in the desired action not being performed and the following error: Global replication task encountered the following error: Unable to lock (write lock) pJobsRwLock.	RPT- 23207	1863806
Microsoft SQL Server Target	Changes to DATETIME fields would sometimes not be applied to the target when the Batch Optimized Apply mode was set to Transactional Apply.	RPT- 21655	181190 192793

Enhancements

Component/Process	Description	Internal Issue #	Customer Case #
Microsoft Azure SQL Data Warehouse	Added support for Replicate on Linux when using ADLS Gen2.	RPT-22664	N/A
SAP HANA Source	<p>The following changes were made to the SAP HANA source endpoint:</p> <ul style="list-style-type: none"> » To ensure data consistency in the event of unusually long transactions (longer than 60 seconds), a Transactional consistency (sec) field was added to the Advanced tab. » Log-based CDC was deprecated 	RPT-23096	N/A
Kafka Target	<p>Added an option to use Kerberos authentication when publishing data schemas to the Hortonworks Schema Registry</p> <p>Supported with Replicate on Linux only.</p>	RPT-23163	N/A
SAP Database	Improved handling of large LOB data types.	RPT-22830	193522
Snowflake on Azure Target	<p>Added an option to use Snowflake as the staging storage type. This option is supported both on Windows and on Linux.</p> <p>Previously, only Blob storage (Windows) was available.</p>	RPT-23126	N/A

Component/Process	Description	Internal Issue #	Customer Case #
Amazon Redshift Target	<p>Added a Maximum number of files to copy from Amazon S3 in a single batch to the Advanced tab of the endpoint settings.</p> <p>Customers who encounter performance issues may be able to improve performance by adjusting this number.</p>	RPT-23162	N/A
Google Cloud BigQuery Target	Added support for creating new datasets on the target.	RPT-23128	N/A
IBM DB2 for z/OS Source	Added support for replication of Views in Full Load only.	RPT-23125	N/A
PostgreSQL Version Support	<p>Added support for the following PostgreSQL versions:</p> <p>Source:</p> <p>Amazon RDS for PostgreSQL: 11.2-11.5</p> <p>PostgreSQL: 11.4 and 11.5</p> <p>Target:</p> <p>PostgreSQL: 11.4 and 11.5</p> <p>Amazon RDS for PostgreSQL: 11.3-11.5</p>	RPT-23109	N/A
Hadoop Cloudera Target Version Support	Added support for Hadoop Cloudera versions 6.2 and 6.3.	RPT-22910	N/A
Platform Support	Added support for installing Attunity Replicate on Windows Server 2019 (64-bit).	RPT-23304	N/A
Microsoft Azure SQL Data Warehouse Target	Added support for connecting to Microsoft Azure SQL Data Warehouse via a proxy server.	RPT-23127	193858