

# Earlier Release Notes

## Release Notes

### DataSync for ServiceNow

Date Released	Release	Change	Product(s) Affected
March 10, 2021	Bismuth patch1 hotfix3	Enhancement: Added the number of messages contained in the payload to the header for messages that are being sent from ServiceNow to the Perspectium Integration Mesh.	Core
December 10, 2020	Dubnium patch1 hotfix2	Bug Fix: Fixed an issue where certain records are not being sent out correctly from ServiceNow.	Core
June 26, 2020	Carbon hotfix4	Enhancement: Added message count header to retrieve message counts posted using DataSync File Solution.	Core
May 4, 2020	Europium patch1 hotfix5	Enhancement: Minimized unnecessary debug logging statements	Core
November 22, 2019	Bismuth_3.31 patch2 hotfix1	Enhancement: Security enhancements for field validation and ACLs	Core
November 18, 2019	Europium patch1 hotfix4	Bug Fix: Fixed an issue for outbound messages being created with an empty value when an error occurs while accessing a field.	Core
November 1, 2019	Europium hotfix3	Enhancement: Better exception handling of parsing fields in outbound xml record.	Core
October 21, 2019	Europium patch1 hotfix3	Enhancement: Better exception handling of parsing fields in outbound xml record.	Core
October 21, 2019	Europium hotfix2	Bug Fix: Fixes an issue where Conditional Shares were not querying the domain field correctly in domain separated instances	Core
September 30, 2019	Europium patch1 hotfix2	Bug Fix: Fixed an issue where Delete on Class Change was not being honored when select column updates to share on/ignore is set	Core
September 27, 2019	Europium hotfix1	Enhancement: Enhanced performance issue when using conditional shares	Core
September 20, 2019	Bismuth_3.31 patch2	Enhancement: Security enhancements for field sanitization and ACL privileges	Core
April 18, 2019	Europium patch1 hotfix1	enhancement: Optimized the initialization of the encryption module when subscribing.	Core
January 23, 2019	Europium patch1 (4.4.1)	fixed: The UI Action <b>Execute Now</b> in the Scheduled Jobs table can now be properly accessed for users with specific roles	Core
		fixed: <a href="#">SIAM integrations</a> will now honor the correct encryption method after toggling from base64 to other configured encryptions for <a href="#">table map</a>	Core
		fixed: Multiple <a href="#">conditional shares</a> set up within a <a href="#">dynamic share</a> will now properly be shared out with the proper configurations	Core
November 29, 2018	<a href="#">Europium</a> (4.4.0)	new feature: <a href="#">Group shares</a> feature allows for the creation of bulk and dynamic shares for a group of tables as well as the creation of custom grouped table templates	Core
		new feature: A notification message will now appear indicating that individual configuration changes made to bulk/dynamic shares and table compare records will not affect other configurations for the associated <a href="#">group share</a>	Core
		new feature: Bulk shares can now be executed via scripting with the <a href="#">executeNow()</a> method	Core
		new feature: For <a href="#">domain-separated ServiceNow instances</a> , dynamic shares can now be <a href="#">executed within a specified domain</a>	Replicator
		new feature: <b>perspectium_readonly</b> role added so that <a href="#">a read-only role access can be granted for the Perspectium application</a>	Replicator
		new feature: <a href="#">Load test</a> option is now available for Shared Queues which creates a load test queue that can be monitored to gauge the impact and duration of shares on an instance	Core
		new feature: <a href="#">Historical data can now be dynamic shared out</a> for <a href="#">journal fields</a> , <a href="#">audit logs</a> , and attachments	Core
		removed: <b>Database Views</b> module has been removed	Core
		enhancement: The order in which individual bulk shares run within a <a href="#">scheduled bulk share</a> can now be modified	Core
		enhancement: Improved efficiency for fetching <a href="#">Perspectium Properties</a> when running shares	Core

		enhancement: Improved performance of <a href="#">bulk shares</a> without filter conditions by removing processing for a Perspectium feature that is no longer supported	Core
		enhancement: <a href="#">AES-256 encryption</a> can now be configured for <a href="#">dynamic shares</a> and <a href="#">bulk shares</a>	Core
		enhancement: <a href="#">no_audit_delete</a> attribute added to <a href="#">Inbound and Outbound Message</a> tables to alleviate performance issues when deleting large volumes of message table data	Core
		enhancement: Errors will now be logged in <b>Perspectium Logs</b> with details about shared records and corresponding fields that exceed ServiceNow's message size limits	Replicator
		enhancement: An error popup message will appear when <a href="#">bulk shares</a> or <a href="#">conditional shares</a> are created without filter conditions	Replicator
		enhancement: Replicator performance has been optimized when the <a href="#">Get Display Values</a> box is checked in <a href="#">Perspectium Properties</a>	Replicator
		fixed: Checking the <a href="#">Get Display Values</a> box within the <b>Table Maps</b> module will now update the <b>Source Script</b> with the appropriate <b>Source Field</b>	Core
		fixed: The <b>Table Maps</b> module's <b>Source Script</b> box will now be read-only when the <a href="#">Get Display Value</a> box is checked, editable when the <b>Use Script</b> box is checked, and hidden when neither box is checked	Core
		fixed: The <a href="#">Reset Dynamic Share Rules</a> module will now successfully reset the business rule created by the <a href="#">dynamic share</a> with respect to multiple domains	Core
		fixed: AES-128 and AES-256 ciphers will now properly encrypt ServiceNow-supported multibyte characters	Core
		fixed: <a href="#">Table field map</a> scripts can now be properly displayed in form view	Core
		fixed: Dynamic share's <a href="#">Scheduled Sync Up</a> no longer rebuilds <a href="#">Business Rules</a> at each interval	Core
		fixed: Google Chrome password manager will no longer appear when <a href="#">Perspectium Properties</a> is accessed prior to running the <a href="#">Finish Install</a> scripts	Core
		fixed: <a href="#">Special characters</a> can no longer be entered in the <b>Source Field</b> for <a href="#">table field maps</a>	Core
		fixed: <a href="#">Receipt</a> processing can now be properly disabled	Core
		fixed: <a href="#">Shared/subscribed queue record encryption keys</a> with AES-128/AES-256 ciphers will now be honored over encryption keys entered in Perspectium Replicator Properties	Replicator
		fixed: Shared queues created with <a href="#">Ready to Run</a> will now contain the record encryption key in form and XML views	Replicator
		fixed: Schema will now be properly generated for <a href="#">table maps</a> in ServiceNow Kingston and newer when table maps have source fields <a href="#">dot walking</a> to a reference record's fields	Replicator
		fixed: Boolean and number source script values for JSON <a href="#">table field maps</a> will now be converted to strings	Replicator
		fixed: <a href="#">Ready to Run</a> Create Share form will now properly validate the format of the MBS Server URL ( <a href="#">http://...</a> or <a href="#">https://...</a> )	Replicator
December 30, 2018	<a href="#">Dubnium patch2</a>	fixed: Dynamic share's <a href="#">Scheduled Sync Up</a> no longer rebuilds <a href="#">Business Rules</a> at each interval	Core
		fixed: <a href="#">Audit Delete Listener Business Rule</a> is now created properly	Core
November 13, 2018	<a href="#">Dubnium patch1 hotfix1</a>	fixed: disabling receipts in the psp properties table correctly turn off receipts	Replicator
September 7, 2018	<a href="#">Dubnium patch1</a>	enhancement: require Source Table field be populated on outbound <a href="#">table map</a> form	Replicator
		enhancement: parent field referencing table map set to read only on <a href="#">field map</a> form	Replicator
		fixed: data cleaners now delete only old messages from Replicator message tables	Core
		fixed: records not being shared with old queues created that do not have the <a href="#">instance created on</a> field	Replicator
		fixed: Source Script field on <a href="#">field map</a> form being hidden incorrectly when Use Script is selected	Replicator
August 23, 2018	<a href="#">Dubnium</a> (4.2.0)	feature: added "Masking Type" and "Masking Character" fields under PSP Data Obfuscation so that masking statements can be added for obfuscated data	Replicator
		feature: added configurations for <a href="#">Data Guarantee</a> feature so that acknowledgment and error message batch sizes can be customized	Replicator
		feature: added <a href="#">Include Referenced Field Records</a> for Bulk Shares to select reference columns on the base table and share out the respective referenced records	Replicator
		feature: added an <a href="#">after subscribe script</a> to run after a record has been subscribed with an insert, update, or delete	Replicator
		feature: added "Test With" field and "Test Record" button <a href="#">to validate if a Dynamic Share record will be shared out</a> .	Replicator

feature: added "View Business Rules Before This Share" link to help users determine which business rules might impact a dynamic share with respect to the order of execution	Replicator
feature: added the ability for users to now filter off company and domain in <a href="#">Conditional Shares</a> and improved Conditional Share performance	Replicator
enhancement: enhancement: improved performance of all Perspectium data cleaners to take advantage of ServiceNow table cleaning api	Core
enhancement: added <a href="#">Share Pending Attachments</a> checkbox to Share out attachments which were uploaded prior to a record fulfilling the Dynamic Share filter conditions	Replicator
enhancement: display a warning message when creating a <a href="#">Bulk Share</a> when a table map is selected that does not have generate schemas option selected and the target queue is not a SIAM queue	Replicator
enhancement: <a href="#">Records Processed</a> in Bulk Shares now updates total number of records shared per table every 1000 records instead of just at the end	Replicator
enhancement: enhancement: added a Force to Update Set action (Related Link) to Bulk Shares, Scheduled Bulk Shares, Dynamic Shares, and Queues as an option to transfer Share configurations between instances	Replicator
enhancement: added option to <a href="#">enable debug logging</a> for an individual Bulk Share or Dynamic Share	Replicator
enhancement: enhancement: added access to the Subscribe record in the Before Subscribe Script through the global variable "subscribe_gr"	Replicator
enhancement: modified Replicator Configurations Client Scripts to improve load time on forms	Replicator
enhancement: <a href="#">ready to run</a> module now provides <a href="#">configuration type</a> option to choose between creating share configuration and downloading agent zip file	Replicator
enhancement: enhancement: Shared Queues now retain the "Instance Created On" to prevent sharing messages against this queue to prevent unexpectedly sharing data to the wrong queue from a cloned instance	Replicator
enhancement: Comparison data in <a href="#">Table Compare</a> feature now respects shares with conditions	Replicator
enhancement: <a href="#">Receipts</a> will now alert the sending instance in the case of the record not being properly mapped/processed	Replicator
enhancement: enhancement: Situations and Situations Templates are now available to use in the core Replicator Update Set to aggregate Perspectium alerts to improve visibility and notifications	Replicator
enhancement: condition is no longer a mandatory field for <a href="#">conditional shares</a> , making it easier for users to target Table Map, Domain, or Company	Replicator
enhancement: enhancement: Table Map logs now include the Table Map's name and sys id, to improve troubleshooting table maps	Replicator
enhancement: task name field has been added in <a href="#">Ready to Run</a> for creation of custom names for multiple agents	Replicator
enhancement: <a href="#">Message Performance Stats</a> now also show total processing time for each table.	Replicator
enhancement: <b>Instance Created On</b> field added to the Perspectium Properties to prevent properties from being duplicated when cloning an instance.	Replicator
fixed: stopped auditing the deletion of sent Outbound Messages when using the option to delete messages immediately after they are posted to MBS	Core
fixed: using Scheduled Sync Up for a table that doesn't have the column [sys_updated_on] will now default to [sys_created_on] rather than sharing the whole table, if neither exist it will just abort the Sync Up process	Core
fixed: Dynamic Share interactions (updating/deleting/creating Business Rules/Audit Listeners, Reset Dynamic Share module) are now domain-agnostic to prevent creating duplicate Business Rules. The Business Rules will still be created and applied in the current domain of your session.	Core
fixed: changed the access controls for the u_psp_conditional_share table to be for the role perspectium and not for u_psp_conditional_share_user, and removed this unnecessary role from the Update Set	Core
fixed: created a query to exclude labels with ampersands; the Ready to Run page will now load without any text escape errors	Core
fixed: Updated "Test Connection" module to no longer test connections against depreciated features like the datasources servlets	Core
fixed: going back to shared queue from view history now shows monitor section	Core
fixed: jobs to Dynamically Share related records (Journal Fields, Audit, Attachments) asynchronously given job label names instead of defaulting to "Schedule"	Replicator

		fixed: encryption keys under 24 characters on the Perspectium Replicator Properties, Shared Queues, and Subscribed Queues forms will no longer be saved and the page will display an alert describing the error	Replicator
		fixed: deleting records in the <a href="#">messages</a> tables will no longer display an unnecessary error	Replicator
		fixed: display info message for default Subscribe queue now shows only for default queue	Replicator
		fixed: <a href="#">ready to run</a> database type in agent.xml updated to proper name (sqlserver) for mssql	Replicator
		fixed: removed nonexistent "Run As" users from all Perspectium scheduled jobs	Replicator
Oct 29, 2018	<a href="#">Carbon patch3</a> (4.0.3)	fixed: Table compares can no longer be run on records with empty <b>Value</b> fields.	Replicator
		fixed: Outbound messages now being created correctly for conditional bulk shares with domain filters	Replicator
		fixed: Duplicate records no longer created when running Dynamic Shares for multiple domains within the same instance	Replicator
		fixed: <b>sys_audit_delete</b> records no longer being created when the <b>Delete immediately</b> option is selected for Outbound Messages	Replicator
		fixed: <a href="#">Scheduled Sync Up</a> no longer syncing all table data when <b>sys_updated_on</b> and <b>sys_created_on</b> fields are empty	Replicator
June 19, 2018	<a href="#">Carbon patch2</a> (4.0.2)	fixed: <a href="#">audit delete listener</a> business rules not being updated/deleted properly when dynamic share updated	Replicator
June 8, 2018	<a href="#">Carbon patch1</a> (4.0.1)	feature: bulk shares support <a href="#">conditional sharing</a> including sharing records based on domain	Replicator
May 18, 2018	<a href="#">Carbon</a> (4.0.0)	feature: added the ability to <a href="#">delete the "orphaned" records when changing the class of a record</a>	Core
		enhancement: optimized how we <a href="#">limit messages in outbound tables</a> to improve throughput and decrease load on the database	Core
		enhancement: enabled table maps for sharing records in additional settings in <a href="#">dynamic share</a>	Replicator
		enhancement: support for 'Before Subscribe Script' to run with records processed using <a href="#">inbound table maps</a>	Replicator
		enhancement: include new global psp_key in 'Before Share Script' to allow custom outbound message key fields	Replicator
		enhancement: Added the ability to <a href="#">"Copy Transform Map"</a> on any out-of-box Perspectium Transform Map, to provide better protections against upgrading	Replicator
		fixed: Logic for Dynamic Sharing based on specific field changes will no longer apply to inserting or deleting records	Replicator
		fixed: modifications to "current" in a "Before Share Script" on a Dynamic Share with Business Rule When set to "before", will no longer modify the resulting record in ServiceNow	Replicator
		fixed: Bulk Sharing with "Include Child Table Only" no longer failing when encountering a record with a corrupt/invalid class	Replicator
		fixed: special characters like tab (\t), double quotes and single quotes not encrypted/decrypted properly when using AES128	Replicator
September 20, 2019	<a href="#">Bismuth patch2</a> (3.31.2)	enhancement: upgrade security with field sanitizing and ACL updates	Replicator
April 27, 2018	<a href="#">Bismuth</a> (3.31.1)	feature: <a href="#">data obfuscation</a> support for masking data in shared records	Replicator
		fixed: default <a href="#">subscribed queue</a> not created on first time install of Perspectium update set on an instance	Replicator
		fixed: dynamic share configures correctly on Ready to Run form	Replicator
April 1, 2018	<a href="#">Bismuth</a> (3.31.0)	feature: added <a href="#">"Share only updated fields"</a> options to Dynamic Share, allowing users to share only updated fields in a record as well as choose an ID field other than <b>sys_id</b>	Replicator
		feature: user can limit the number of audit records bulk shared with each record of the shared table	Replicator
		feature: added name field in Dynamic Share to help organize shares	Replicator
		feature: access to table map record in <a href="#">use script</a>	Replicator
		feature: <a href="#">Preview functionality</a> added into Outbound Table Map to see expected Outbound Message per record	Replicator
		enhancement: added <a href="#">"Allow Concurrent Jobs"</a> field to Scheduled Bulk Shares	Replicator
		enhancement: updated message when user selects "Get Queue Status" on a shared or subscribed queue which does not yet exist	Replicator

		enhancement: added error message if user did not set encryption key for when trying to create Dynamic or Bulk share	Replicator
		enhancement: moved UI Page module from Observer to Control and Configuration	Replicator
		enhancement: reorganized Bulk Share form	Replicator
		enhancement: improved measures to prevent user from editing default subscribe queue fields	Replicator
		enhancement: added platform version to heartbeat message	Core
		enhancement: <a href="#">Uninstall Update Set</a> to remove Perspectium application from an instance	Uninstall
		fixed: outbound attachment and audit messages will not be sent if target queue is inactive	Replicator
		fixed: outbound messages with value fields too large to send to MBS not being marked as error	Replicator
		fixed: removed use of Packages call for refreshing history set	Replicator
		fixed: show create, update, delete as required on subscribe configurations	Replicator
		fixed: have Dynamic Share show right popup message when it is being configured	Replicator
		fixed: run a bulk share on dynamic share handles sharing base table only and include all child tables	Replicator
		fixed: NaN (Not-A-Number) will be replaced by 0 when previewing an empty bulk share with additional tables	Replicator
		fixed: Source column of Outbound Message is now populated to reference share configuration	Replicator
		fixed: "Error Notification" module now links to Notification table [sysevent_email_action] instead of the Alert [u_psp_alerts] table	Replicator
		fixed: enable max outbound messages security now checks only once per regular outbound message	Replicator
		fixed: Updated formatting of "Performance Stats" logs to improve readability and performance	Replicator
		fixed: Handling to append "/" to endpoint URL is fixed during Subscribe processing	Replicator
		fixed: Schema Processor returning improper schemas under certain configurations	Replicator
		fixed: "Base Table Only" and "Include All Child Table Only" Dynamic Sharing for records which do not exist yet or no longer exist due to order of execution	Replicator
		fixed: Bulk Sharing for all child tables failing when a record was deleted mid bulk share	Replicator
February 8, 2018	<a href="#">Bismuth (3.30.0)</a>	feature: ability to <a href="#">copy a table map</a> and its field maps in one step	Replicator
		enhancement: added a job which monitors the status of the Dynamic Share's Scheduled Sync Up in case it gets stuck and automatically addresses it	Replicator
		enhancement: disable auditing on data cleaner job to optimize performance	Core
		enhancement: "unencrypted" encryption mode has been removed from properties and is now available as a Cipher option for Dynamic and Bulk Shares	Replicator
		enhancement: <a href="#">database indexes</a> added to Audit and Attachment Outbound Messages tables	Replicator
		enhancement: added sequence to list view of outbound tables to provide more accurate way to view message created order	Replicator
		enhancement: modified filter of Replicator's "Scheduled Jobs" module to support listing multiple multioutput jobs	Replicator
		feature: <a href="#">specify node</a> for bulk share to run on	Replicator
		fixed: multibyte encryption not properly encrypting foreign characters when using AES128	Replicator
		fixed: errors when handling messages in the Observer, Audit, and Attachment Outbound Table in Jakarta Instances	Replicator
		fixed: encryption of Audit and Attachment Outbound Messages when the Shared Queue has a unique encryption key defined	Replicator
		fixed: unable to read replicator messages shared by Replicator Agent from Oracle	Replicator
		fixed: unable to submit a new dynamic share with only "update" selected	Replicator
		fixed: unable to update records in tables that have sys_class_path field on Jakarta+ domain-separated instances	Replicator
		fixed: default subscribed queues are editable if the user edits the endpoint url	Replicator
		fixed: error message displayed when doing <a href="#">get queue status</a> on default subscribed queue	Replicator
		fixed: outbound messages with the wrong key are marked as skipped so they won't be re-processed	Replicator
		fixed: "Properties Saved" message doesn't always display when successfully saving <a href="#">properties</a>	Core

December 21, 2017	3.29.0	feature: tour of the ServiceNow application	Replicator
		feature: <a href="#">Sharing on specific field changes</a> - users can activate the checkbox "Select column updates to share on" to share a record only when one of any number of chosen fields are updated.	Replicator
		feature: <a href="#">Restrict shared fields on referenced field records</a> - users can configure which reference fields records to be dynamically shared	Replicator
		feature: ability to download schemas for tables that have been shared	Core
		feature: ability to download replicator configurations	Core
		enhancement: deletion of deprecated jobs, those which start with XPerspectium or XXPerspectium in <a href="#">Observer</a> , following the installation	Core
		enhancement: honor when the Dynamic Share's Before Share Script <a href="#">ignores</a> record with respect to dynamic sharing of <a href="#">attachments</a>	Replicator
		enhancement: access to the executing dynamic share configuration in its <a href="#">after share script</a>	Replicator
		enhancement: show "Base64 Encode Only" option in bulk share <a href="#">cipher</a> option	Replicator
		enhancement: Replicator > Business Rules module filters on Name starts with "Perspectium" instead of "Perspectium Replicat"	Replicator
		enhancement: can now set the target queue of a share to an inactive queue, a warning will be displayed when this is done	Replicator
		enhancement: <a href="#">Receipts</a> will now notify if they have not been received within a certain defined period.	Receipts
		enhancement: added confirmation pages for Finish Install, Start All Jobs, and Stop All Jobs modules	Replicator
		fixed: the count for Shared Records in dynamic share will now update every 5 minutes to honor asynchronous Dynamic Sharing	Replicator
		fixed: disallowed negative numbers in specific <a href="#">properties</a> page inputs	Core
		fixed: subscribed queues no longer allow empty names or URLs	Replicator
		fixed: replication of unencrypted data not correctly processing in outbound.	Replicator
		fixed: UI actions "Run another bulk share like this" and "Execute Again" action names have been changed to "run_another_bs" and "execute_bs_again" to prevent duplicate UI action naming	Replicator
		fixed: <a href="#">AES Encryption</a> will now properly encrypt with the correct cipher.	Replicator
		fixed: handling for JavaLangException thrown when Refresh History Set is enabled and Auditing is disabled for target table.	Replicator
		fixed: when creating a new target queue via the Bulk or Dynamic share form, it now defaults the queue direction to "Share" instead of "Subscribe".	Replicator
October 25, 2017	3.28.0	enhancement: <a href="#">bulk share monitoring</a> long running bulk shares are now tracked and logged when they exceed 12 hours (threshold can be modified)	Replicator
		fixed: added error handling for null characters appended to fields in a table	Replicator
		fixed: dynamic shares will now only update the updated by field when a user makes changes on the dynamic share record itself	Replicator
		fixed: <a href="#">include attachments</a> on a dynamic share will share attachments out to <a href="#">conditional shares</a>	Replicator
		feature: add all source table fields option on <a href="#">outbound table maps</a>	Replicator
		enhancement: don't display <a href="#">reset dynamic share rule</a> message or related list link on an inactive dynamic share	Replicator
March 30, 2018	<a href="#">Argon patch3</a> Includes fixes from Argon hotfix2	fixed: unable to update records in tables that have sys_class_path field on Jakarta+ domain-separated instances	Replicator
		fixed: journal field entries not displaying on records in pre-Kingston instances when replicated from Kingston+ instances	Replicator
February 6, 2018	<a href="#">Argon hotfix2</a> Must be applied on top of Argon patch2	fixed: unable to update records in tables that have sys_class_path field on Jakarta+ domain-separated instances	Replicator
		fixed: journal field entries not displaying on records in pre-Kingston instances when replicated from Kingston+ instances	Replicator
January 11, 2018	<a href="#">Argon hotfix1</a>	fixed: unable to read replicator messages shared by Replicator Agent from Oracle	Replicator
January 17, 2018	<a href="#">Argon patch2</a>	fixed: attachments and audit records not properly encrypted for target queues with unique encryption keys	Replicator
		fixed: messages routing through Perspectium Outbound not properly posted out under Jakarta Memory Issue	Replicator
October 17, 2017	<a href="#">Argon patch1</a>	fixed: shareRecord error invalid table name u_psp_siam_audit	Replicator

October 5, 2017	Argon (3.27.0)	enhancement: warn when saving a dynamic share in a domain that is neither global nor top	Replicator
		enhancement: default <a href="#">display values</a> to false	Replicator
		enhancement: optimized performance of outbound replication when using <a href="#">share only selected fields</a> feature	Replicator
		fixed: added a parameter so Dynamic Shares will no longer run when the record transaction came in through Subscribing - this is the new default behavior to prevent looping between instances	Replicator
		fixed: <a href="#">JSON table maps</a> error when creating outbound message when record contains ' character	Replicator
		fixed: <a href="#">ignore update fields</a> feature not properly ignoring changes	Replicator
		fixed: default <a href="#">message set</a> outbound processing to false	Replicator
September 1, 2017	3.26.0	enhancement: replicator messages with XML will be better formatted for viewing when selecting "Decrypt Value"	Core
		enhancement: <a href="#">prompt</a> before <a href="#">running a bulk share</a> from a dynamic share	Replicator
		enhancement: update endpoint url to https	Replicator
		feature: Alerts table module added under Control and Configuration	Replicator
		enhancement: Include journal fields will be grayed out when user selects business rule when to before on Dynamic Share	Replicator
		enhancement: Schedule Sync up will send out two counter records for each sync up job on a table in Dynamic Share, one record for total record count and one for total bytes count	Replicator
		enhancement: When toggled on and off scheduled sync up on Dynamic Share will display last sync time and next sync time to users via a dialog message	Replicator
		feature: Bulk share history will calculate and display records per second	Replicator
August 11, 2017	3.25.0	feature: <a href="#">custom target database schema</a>	Replicator
		feature: <a href="#">Instance Created On Field</a> added to subscribed queues as a protection against mis-cloned queues	Replicator
		feature: The ability to <a href="#">delete messages from the Outbound queue as soon as they are posted</a> to MBS	Replicator
		enhancement: target field is now mandatory in table map field, when "use script" is false, source field is also mandatory	Replicator
		enhancement: changed the Bulk Share <a href="#">Preview</a> sample size from 10 to 50 to provide a more accurate sampling	Replicator
		enhancement: when <a href="#">share updates since then</a> is checked in Bulk Share, it will prompt users to verify a bulk share with a large number of records	Replicator
		enhancement: audit records are now processed into their own outbound queue and can be sent at a lower priority.	Replicator
		enhancement: preview now considers and runs before share script if script is filled.	Replicator
		enhancement: notes tab added to both dynamic and bulk share.	Replicator
		enhancement: new Table maps will now also subscribe to a table if subscription does not already exist for that given table	Replicator
		enhancement: added a property to data cleaner to delete records individually for less impact on the instance	Core
		enhancement: dynamic Share "share base table" and "include child tables" displays help message	Replicator
		enhancement: bulk Share "include all child tables" displays help message	Replicator
		enhancement: added the ability to <a href="#">track the history</a> of a queue's count through the queue monitoring utility	Replicator
		fixed: <a href="#">execute again</a> will <a href="#">prompt</a> when <a href="#">share updates since then</a> is selected	Replicator
		fixed: Scheduled Sync Up modified to support "Include All Child Tables"	Replicator
		fixed: canceling a bulk share while state is Running now proceeds to Cancelled state	Replicator
		fixed: process again within inbound messages now properly marks messages as skipped	Replicator
		feature: <a href="#">Multi Team Administration</a> added to enable the use of multi team administration groups	Replicator
July 19 2017	3.24.0	feature: added "Delete error messages" button on the Outbound Messages table.	Replicator
		fixed: messages routed through a JSON Table Map will now properly decrypt when selecting "Decrypt Value"	Core

		fixed: addressed issue where database IO timeout can prevent Schedule Sync Up from re-scheduling	Core
		enhancement: attachments are now processed in their own <a href="#">outbound queue</a> and can be sent at a lower priority.	Replicator
		enhancement: properties page can be saved without a decryption key.	Replicator
		feature: the user can no longer purge a queue containing more than 1 million records.	Replicator
		enhancement: encode json messages and attributes fields to prevent MBS decoding issues.	Core
		enhancement: dynamic share includes the option to share all child tables.	Replicator
		enhancement: ability to delete cancelled <a href="#">bulk shares</a>	Replicator
		feature: share <a href="#">display values</a> for duration fields	Replicator
		feature: optimized performance by using <a href="#">GlideRecord.get('sys_id', value)</a> in <a href="#">refresh history set</a>	Replicator
		feature: <a href="#">distribute bulk share workload</a>	Replicator
		fixed: attachments added before record inserted sharing out to all dynamic shares and bypassing any <a href="#">conditions</a>	Replicator
		feature: ability to define alert and warning thresholds for queue connectivity issues and backlog of records to <a href="#">monitor queues</a>	Core
		feature: <a href="#">after share script</a> in dynamic shares	Replicator
		fixed: added handling for Refresh History Set on tables which throw exceptions	Replicator
		feature: <a href="#">run a bulk share</a> in dynamic shares	Replicator
		enhancement: added a table for users to see <a href="#">replicator performance stats</a>	Replicator
		fixed: values from subscribed SalesForce messages were blank when no cipher attribute or going into <a href="#">inbound table maps</a>	Replicator
		enhancement: don't rename <a href="#">finish install</a> module after install to avoid confusion when running on next update set install	Core
		feature: users can <a href="#">select column updates that will be ignored</a> by dynamic share	Core
		feature: table to <a href="#">compare record counts</a> between database and servicenow instance counts	Core
		enhancement: include <a href="#">update_synch attribute</a> for u_psp_table_map and u_psp_table_field_map tables to allow saving changes for table maps and take new SIAM updates	Core
		enhancement: require at least one action (create, insert, delete or activate sync) when saving a <a href="#">dynamic share</a> or <a href="#">subscribe</a> configuration	Replicator
		enhancement: "Reset Dynamic Share Rules" module will reset Delete Audit Listeners	Replicator
		feature: added the ability to pass in encoded queries into MultiOutput Processing to specify a subset of messages to send, allowing the use of <a href="#">multiple posting jobs</a>	Replicator
		feature: display <a href="#">total records processed</a> by a bulk share	Replicator
		feature: a specific user can now be set to run a <a href="#">schedule sync up dynamic share</a>	Replicator
		fixed: Scheduled Sync Up now honors the sharing the child vs base table	Replicator
		fixed: error instantiating <a href="#">PerspectiumBulkShare</a> with psp_bulk_share GlideRecord	Replicator
		fixed: deleting a Dynamic Share will now delete the Delete Audit Listener Business Rule as necessary	Replicator
		fixed: "Delete Monitor Messages" button on the Outbound Messages table modified to "Delete Non Replicator Messages"	Replicator
		fixed: Handling for the column "u_limit_number_of_records_shared" when the column name is truncated	Replicator
October 25th 2017	3.21.3	enhancement: honor before share script <a href="#">ignore</a> for dynamic sharing of <a href="#">attachments</a>	Replicator
		fixed: disabled <a href="#">message set</a> outbound processing to prevent <a href="#">jakarta</a> memory issues	Replicator
June 15th 2017	3.21.2	fixed: attachments not sharing out on dynamic shares with <a href="#">conditions</a>	Replicator
		fixed: added handling for Refresh History Set on tables which throw exceptions	Replicator
May 22nd 2017	3.21.1	fixed: PerspectiumMessage script include moved back to the core update set	Core
May 11th 2017	3.21.0	feature: set bulk share's <a href="#">scheduled job priority</a>	Replicator
		enhancement: PPSchemaProcessor supports returning output as a string	Replicator
		enhancement: moved <a href="#">finish install</a> to its own script include	Core
		enhancement: improved performance of Bulk Share's "Include All Child Tables"	Replicator



		fixed: stopped GlideDuration and GlideDateTime columns being nulled out when incoming payload does not contain those columns	Replicator
		fixed: stopped the creation of blank journal field entries when copy empty fields selected	Replicator
April 18th 2017	3.20.0	enhancement: added the ability to run a <a href="#">before subscribe script</a> before the processing of a delete	Replicator
		enhancement: when deleting a Shared Queue warn the user of any existing messages which would get deleted due to <a href="#">cascade delete rules</a>	Replicator
		fixed: duplicate sys_audit_delete business rules being created when selecting <a href="#">use audit delete listener</a> on dynamic share	Replicator
		fixed: replicator inbound processor scheduled job set inactive	Replicator
		enhancement: <a href="#">refresh history set</a> will run as one scheduled job instead of one job for each refresh	Replicator
		fixed: Scheduled Sync Up to stop spawning duplicate jobs if the Scheduler does not launch the first one in time	Replicator
		fixed: hide the <a href="#">reset dynamic share rules</a> UI Action on subscribe configurations	Replicator
		fixed: removed <a href="#">update_synch attribute</a> from psp_replicate_conf, u_psp_table_map and u_psp_dynamic_share referenced tables	Core
		feature: ability to set conditions for a dynamic share to share records, using different table maps, to different target queues by using <a href="#">conditional shares</a>	Replicator
		enhancement: removed unused "instance" field from queue forms	Replicator
March 27th 2017	3.19.0	enhancement: clearer <a href="#">scheduled sync up</a> info messages to avoid user confusion when activated/deactivated	Replicator
		enhancement: check outbound table is <a href="#">indexed</a> and display message if not in <a href="#">finish install</a> and <a href="#">bulk share preview</a>	Replicator
		fixed: output processing of default queues not querying correctly	Core
		enhancement: default <a href="#">refresh history set</a> option to not selected when creating a new subscribe configuration	Replicator
		feature: <a href="#">purge queue</a> for shared and subscribed queues	Replicator
		feature: users can enable a <a href="#">prompt</a> to appear before a large bulk	Replicator
		feature: include recommended <a href="#">indexes</a>	Replicator
		enhancement: users can share <a href="#">sys_audit records</a> without selecting sys_journal records with their parent table	Replicator
		enhancement: share and subscribe queues default to queue definitions from Perspectium Properties	Replicator
		enhancement: scheduled bulk shares now keep track of previous executions using the related list Bulk Share History	Replicator
		enhancement: default subscribe queue is now visible as non-configurable queue in the Subscribed Queues list	Replicator
		enhancement: log error and prevent <a href="#">resolved table map fields</a> with data larger than ServiceNow 16mb string limit	Replicator
		enhancement: left align <a href="#">properties</a> UI page's header	Core
		enhancement: include u_psp_alert and u_psp_imp_alert tables in update set to prevent logging errors	Core
		fixed: modified how the conditions of the Dynamic Share's Business Rule are created to account for recursive Business Rule execution and avoid the error message popup	Replicator
February 16th 2017	3.18.0	enhancement: display if queue doesn't exist when checking <a href="#">queue status</a>	Replicator
		feature: display queue statuses on <a href="#">replicator overview homepage</a>	Replicator
		fixed: incorrect preview count for bulk share when sharing by sys ids	Replicator
		fixed: <a href="#">display values</a> for choice list fields have incorrect max length	Replicator
		enhancement: display <a href="#">properties</a> page using jQuery instead of Jelly to avoid compatibility issues with some instances	Core
		enhancement: updated read/write roles for <a href="#">homepage</a> to be perspectium user	Replicator
		enhancement: <a href="#">acl update set</a> created for read roles for Perspectium UI pages to be perspectium user	Core
February 7th 2017	3.17.2	fixed: Perspectium tables created with empty labels on Geneva+ instances during <a href="#">first time install</a>	Core

January 27th 2017	3.17.1	fixed: removed queues module and duplicate entries in update set causing errors when <a href="#">upgrading</a>	Core
January 20th 2017	3.17.0	enhancement: check parent global object is accessible in <a href="#">delete this share's messages</a>	Replicator
		enhancement: check <a href="#">bulk share</a> exists before updating records processed to prevent inserting new bulk share records	Replicator
		enhancement: prevent deleting of <a href="#">bulk share</a> configurations unless status is empty or completed so new bulk share records are not inserted on update	Replicator
		fixed: attachments not sharing out on dynamic shares with <a href="#">conditions</a>	Replicator
		feature: <a href="#">replicator overview homepage</a>	Replicator
		feature: users can <a href="#">limit number of records shared</a> on a bulk share	Replicator
		fixed: no longer able to publish to the default subscribe queue	Replicator
June 13th 2017	3.16.3	fixed: attachments added before record inserted sharing out to all dynamic shares and bypassing any <a href="#">conditions</a>	Replicator
February 1st 2017	3.16.2	fixed: attachments not sharing out on dynamic shares with <a href="#">conditions</a>	Replicator
January 27th 2017	3.16.1	fixed: removed u_psp_alerts.u_value and duplicate entries in update set causing errors when <a href="#">upgrading</a>	Core
December 14th 2016	3.16.0	enhancement: all Perspectium properties stored in custom Perspectium properties table and not system properties table	Core
		enhancement: replicator properties moved to its own <a href="#">properties page</a>	Replicator
		enhancement: data cleaner job now only deletes outbound messages older than 15 minutes	Core
		enhancement: script fields modified to field type script which accepts JavaScript code input for easier editing, syntax checking, and formatting	Replicator
		feature: <a href="#">finish install</a> module to finish installing update set	Core
		feature: added ability to "Run another bulk share like this" on bulk shares that have already been completed	Replicator
		feature: added ability to "Execute Again" on bulk shares that have already been completed	Replicator
		fixed: dynamic share records as ".bulk" when <a href="#">business rule when</a> set to async	Replicator
		enhancement: dynamic share displays a warning message at the top of the form when <a href="#">business rule when</a> set to async	Replicator
		feature: <a href="#">property</a> to limit number of messages put into <a href="#">outbound</a>	Core
		feature: display update set version number on <a href="#">properties page</a>	Core
		removed zero configuration	Core
		enhancement: ability to create multiple <a href="#">dynamic shares</a> on the same table and queue	Replicator
		feature: multiple queues cannot have matching names and endpoint urls	Replicator
		enhancement: check and warn if application is not in global scope in <a href="#">finish install</a>	Core
		enhancement: access the inbound message in subscribe's <a href="#">condition script</a> using "qcurrent"	Replicator
		feature: run bulk shares and scheduled bulk shares relative to a previous share	Replicator
		enhancement: <a href="#">message set</a> messages placed into outbound queue instead of directly sending to MBS	Replicator
February 1st 2017	3.15.1	fixed: attachments not sharing out on dynamic shares with <a href="#">conditions</a>	Replicator
October 28th 2016	3.15.0	fixed: removed "delete" ui actions that may cause conflicts as noted in ServiceNow's ACE report	Core
		feature: "add all referenced fields" option on dynamic share when "Include referenced field records" is selected	Replicator
		enhancement: updated list of Perspectium tables in the <a href="#">clone exclusion list</a>	Replicator
		feature: observer disabled by default and installs with its own <a href="#">update set</a>	Observer
		enhancement: shares now display a message at the top of the form if there are no log or outbound messages	Replicator
		fixed: wrong <a href="#">display value</a> when choice field is <a href="#">dependent</a> on another field	Replicator
		fixed: attachments not replicating when attached before new record submitted	Replicator
		enhancement: prevent duplicate <a href="#">share fields</a> from being selected	Replicator
		enhancement: ability to filter records on subscribe using a <a href="#">before subscribe script</a>	Replicator

		fixed: make <a href="#">business rule order</a> mandatory on saving dynamic share configs to avoid errors creating/updating share business rules	Replicator
		fixed: saving a bulk share redirects to <a href="#">bulk share preview</a> page	Replicator
		fixed: Replicator Configurations default to 'share' now to fix issue with creating Shares in related lists	Replicator
		fixed: now able to add <a href="#">referenced fields</a> to different dynamic shares of the same table name	Replicator
September 30th 2016	3.14.0	fixed: <a href="#">use audit delete listener</a> not sharing deleted records for child tables of a base table dynamic share	Replicator
		enhancement: <a href="#">delete this share messages</a> option for delete a bulk/dynamic share's messages in the outbound queue	Replicator
		fixed: display of related lists for share only selected fields for dynamic share	Replicator
		fixed: "Update or Insert" button sets the fields "Update" and "Create" to true and read-only	Replicator
		enhancement: Component types in <a href="#">message set activity</a> now use a more understandable label	Replicator
		feature: "Run as" option in bulk shares	Replicator
		fixed: NullPointerException when <a href="#">refresh history set</a> selected for tables that do not need it	Replicator
		enhancement: "Create a new bulk share like this one" option will copy fields specified in <a href="#">share fields</a> over to new bulk share	Replicator
		feature: <a href="#">bulk share preview</a>	Replicator
September 2nd 2016	3.13.0	feature: <a href="#">specify table fields</a> to share for a dynamic or bulk share	Replicator
		enhancement: log url on outbound message processing errors	Core
		enhancement: <a href="#">message set activity</a> no longer loads on form load to decrease load time and clicking "View message set activity" now loads in a pop up window	Replicator
		fixed: ServiceNow subscribers not receiving journal fields when shared records from another ServiceNow instance were sent with <a href="#">business rule when</a>	Replicator
		fixed: inactive fields are not shared when <a href="#">sharing display values</a> is active	Replicator
		enhancement: option added to <a href="#">test connection</a> and <a href="#">shared/subscribed queues</a> to test queue connection and get number of messages in queue	Replicator
		enhancement: turned on <a href="#">auditing</a> by default for psp_replicate_conf (share/subscribe configurations) and u_psp_queues (shared/subscribed queues) tables	Core
		feature: <a href="#">troubleshooting report</a> to send Support	Core
August 15th 2016	3.12.0	fixed: access issues on system event and script tables (such as sysevent_email_action ) for other users when installing the update set	Core
		fixed: copy empty fields clears out a table field in the subscribing instance when incoming record does not contain the field	Replicator
		feature: Perspectium update set version number saved for support	Core
		enhancement: copy empty fields selected by default when creating a new subscribe configuration	Replicator
July 15th 2016	3.11.0 This version will no longer share audit log records by default when selecting the <a href="#">include journal fields</a> option as you will need to manually select "Include audit log" to share these records. See <a href="#">here</a> for more info	fixed: <a href="#">bulk sharing database views</a> only sharing 1001 records	Replicator
		enhancement: separate include audit log option when selecting to <a href="#">include journal fields</a>	Replicator
		enhancement: during <a href="#">Dynamic Share</a> , limit the number of journal entries and audit log entries that get shared. <a href="#">See here for detail</a>	Replicator
		enhancement: enable dynamically shared journal field records to be shared in background to mitigate performance of insert/updates	Replicator
		fixed: unable to receive records when the table specified in <a href="#">source table name</a> doesn't exist and there is a <a href="#">before subscribe script</a>	Replicator
		fixed: installing <a href="#">table compare</a> causes Observer UI link to not work	Table Compare
		fixed: access issues on sysauto_script table for other users when installing the update set	Core
June 17th 2016	3.10.0 For installing 3.10.0+ over a version of the Perspectium Update Set prior to 3.10.0, please run <a href="#">Reset Dynamic Share Rules</a>	feature: added the ability to run dynamic share as async	Replicator
		fixed: <a href="#">use audit delete listener</a> not sending out delete messages	Replicator
		enhancement: <a href="#">separate encryption and decryption keys</a> can now be specified on the shared queue and subscribed queue level	Replicator
		fixed: <a href="#">table compare</a> script include not importing correctly due to duplicate entries in update set	Table Compare
		fixed: installing <a href="#">table compare</a> causes "Script Include" to be listed under "Replicator"	Table Compare
May 27th 2016	3.9.0	fixed: <a href="#">share only sys ids listed</a> not sending any records in <a href="#">scheduled bulk shares</a>	Replicator

		fixed: <a href="#">message set activity</a> not always showing a finished time for other components in <a href="#">bulk shares</a>	Replicator
		fixed: source table property on <a href="#">subscribe</a> configuration not being honored when incoming record has sys_class_name field	Replicator
		feature: <a href="#">message set activity</a> shows records shared and subscribed by ServiceNow instances	Replicator
		fixed: <a href="#">subscribed queues</a> not being processed when default Perspectium endpoint not available	Replicator
April 22nd 2016	3.8.0	feature: <a href="#">business rule when</a> option to specify when dynamic share business rule will run	Replicator
		fixed: multiple <a href="#">dynamic shares</a> for the same table were using the same replication business rule	Replicator
		fixed: unable to add a new dynamic share without a target queue if a dynamic share already exists for the table with a target queue	Replicator
		enhancement: display records agent skipped in <a href="#">message set activity</a>	Replicator
		enhancement: display cipher warning message for AES128 in dynamic and bulk shares	Replicator
		feature: support resolving a field in a <a href="#">table map</a> as another table map	Replicator
April 11th 2016	3.7.1	fixed: <a href="#">ignoring a share in the before share script</a> not honoring ignore variable	Replicator
March 30th 2016	3.7.0	enhancement: moved com.perspectium.follow.last_read_time and com.perspectium.outbound.last_past_sent_time properties to custom table to avoid team development collisions	Core
		fixed: <a href="#">message set activity</a> displays how many records instance has processed ("snc-processed") and only displays one record for each set of unique component name and component type combination	Replicator
		fixed: missing com.perspectium.replicator.add_display_values property when installing update set	Replicator
		fixed: empty or blank dv fields not being captured	Replicator
		enhancement: encodeMessageJSON() function in <a href="#">PerspectiumMessage</a> API	Core
		fixed: null "action" in update message set activity business rule	Replicator
March 14th 2016	3.6.1	fixed: corrected failures related to update set installation	Core
March 10th 2016	3.6.0	enhancement: scheduled bulk shares will clear out the <a href="#">Share only Sys IDs listed</a> related list each time they run	Replicator
		feature: <a href="#">ignoring a share in the before share script</a> allows programmatic canceling of the current record being dynamically or bulk shared	Replicator
		feature: <a href="#">before/after bulk share script</a> to cancel bulk share and run script before it runs and after it completes	Replicator
		feature: <a href="#">PerspectiumBulkShare</a> API to reference a bulk share configuration's glide record	Core
		fixed: <a href="#">message set activity</a> table access not setup for perspectium role	Replicator
		feature: <a href="#">PerspectiumMessage</a> API to queue messages in outbound messages	Core
		enhancement: <a href="#">message set activity</a> refreshed on dynamic/bulk share form load	Replicator
		fixed: <a href="#">message set activity</a> started, finished and updated date/times showing incorrect value ("1970-01-01 00:00:00" UTC) when they don't have a value	Replicator
		enhancement: outbound messages and log messages related lists will not be shown on dynamic or bulk shares if they don't have any records	Replicator
		enhancement: display error message on bulk/dynamic share load when <a href="#">message set activity</a> has failures	Replicator
		enhancement: <a href="#">message set activity</a> duration, successes and failures are summed to provide total values for each	Replicator
		enhancement: use <a href="#">queryNoDomain()</a> instead of get() for better performance with querying large (>100k records) tables	Replicator
		enhancement: support setting attributes in <a href="#">table field maps</a>	Replicator
February 15th 2016	3.5.0	enhancement: new property to <a href="#">restrict replicated fields to selected table only</a>	Replicator
January 28th 2016	3.4.1	fixed: state info field not created on outbound messages table causing update set installation error	Core
		fixed: observeNodes not running to send out all Observer metrics	Observer
		fixed: include history set not sending to a bulk share's target queue	Replicator
January 25th 2016	3.4.0	feature: <a href="#">message set activity</a> on dynamic and bulk share configurations	Replicator
January 28th 2016	3.3.0-patch4	fixed: observeNodes not running to send out all Observer metrics	Observer

		fixed: include history set not sending to a bulk share's target queue	Replicator
January 27th 2016	3.3.0-patch3	fixed: state info field not created on outbound messages table causing update set installation error	Core
January 19th 2016	3.3.0-patch2	fixed: remove extraneous field from dynamic share form	Replicator
January 12th 2016	3.3.0-patch1	fixed: <a href="#">include all child tables</a> sharing base table's records instead of sharing child records	Replicator
January 5th 2016	3.3.0	fixed: dynamic sharing of attachments did not account for filter conditions	Replicator
		fixed: <a href="#">scheduled bulk share</a> not executing its bulk shares	Replicator
		feature: <a href="#">bulk share</a> and <a href="#">dynamic share</a> configurations will now have related lists of related log messages and related outbound or inbound messages	Replicator
		fixed: emitting sys_translated_text and html field records is working again (broken in 3.2.7)	Replicator
		fixed: Source Table value was not honored in Subscribe configuration	Replicator
		enhancement: <a href="#">ServiceNow Data Preservers</a> created for Dynamic and Bulk Share configurations as well as Shared and Subscribed Queues	Replicator
		fixed: <a href="#">include referenced field records</a> functionality will no longer send empty records when there is no referenced record (INC-348)	Replicator
		enhancement: attributes field in outbound messages for sending <a href="#">on-demand messages</a>	Replicator
		enhancement: support for <a href="#">class name changes</a> when replicating between ServiceNow instances	Replicator
		fixed: <a href="#">include referenced field records</a> not working on ServiceNow instances with Eureka	Replicator
		fixed: error updating records in tables that have a column with the name "update" when replicating between ServiceNow instances	Replicator
		enhancement: AES encryption/decryption	Replicator
		enhancement: all Perspectium script includes are listed in a <a href="#">link</a> under the <a href="#">Control and Configuration</a> section	Core
		enhancement: warning will display for an inactive target queue when creating a new bulk share with the "Create a new bulk share like this one" option	Replicator
November 6th 2015	3.2.9	fixed: shared queues not showing up in replicator dashboard	Dashboard
		fixed: NullPointerException during History Set refresh	Replicator
		enhancement: enable queueing large records (more than 10MB) for Outbound	Replicator
		enhancement: updateWhere support in DBCommandAPI	Replicator
		enhancement: log error for <a href="#">Error Notifications</a> when MultiOutput Processing job tries to send outbound messages older than 10 minutes	Core
		fixed: subscriber job not processing remaining subscribed queues when error occurs processing one subscribed queue	Replicator
		enhancement: added "Semaphore wait time", "Session wait time", "Transaction processing time", and "Total wait time" to <a href="#">Follow Transactions</a>	Replicator
October 14th 2015	3.2.8	enhancement: support for domain separated querying (queryNoDomain) is now supported and triggered by the ServiceNow property "glide.sys.restrict_global_domain_processes" set to true. <a href="#">Domains Visible to Users in the Global Domain</a>	Replicator
		enhancement: access to the local glide record in <a href="#">Before subscribe script</a> before updating with replicated message	Replicator
		fixed: observer UI module now correctly directs to the <a href="#">perspectium.net</a> domain	Observer
		feature: <a href="#">follow transactions</a> can now follow any transaction specified by a condition on the <a href="#">Transaction Log</a> table	Observer
		enhancement: <a href="#">follow transactions</a> now can specify a time range of 1 week. This allows for a longer analysis window to be created yet safe guards against forgotten configurations that may degrade performance over time	Observer
		feature: <a href="#">delete outbound messages</a> allows an administrator to selectively delete all, monitor, or replicator outbound messages	Replicator
		feature: <a href="#">bulk share only specific sys IDs</a> from a table	Replicator
		feature: <a href="#">create bulk share</a> on target instance with missing locally records	Table Compare
		feature: <a href="#">import set tables</a> for vSphere Replicator Share Agent	Replicator
		fixed: first subscribe configuration being used when multiple subscribe configurations for the same table/source table name with different conditions exist	Replicator
		feature: <a href="#">create table compare</a> from subscribe configurations list view	Table Compare
		feature: <a href="#">share embedded images and videos</a>	Replicator

September 15th 2015	3.2.7 patch3	feature: cancel running Compare Rows job	Table Compare
		feature: <a href="#">use audit delete listener</a> option on dynamic share now allows you to capture record deletes that are missed because an upstream business rule had setWorkflow set to false	Replicator
		feature: <a href="#">scheduled sync up</a> section allows setting up a scheduled interval to continuously sync up or send bulk shares during that interval of records that have been added or changed. This allows to capture records that have been missed because business rules are not triggered due to customizations.	Replicator
		enhancement: import records missing locally will also import a record's audit records, journal field entries and attachments	Table Compare
		enhancement: Interactive Only support for dynamic shares to allow limiting replication to records changed via the UI. Also allows specifying the order of the replication business rule.	Replicator
		enhancement: background job to clean up row discrepancy table of old records to improve performance	Table Compare
August 24th 2015	3.2.6	fixed: cyrillic characters (such as Russian) were not replicating properly on updated records	Replicator
		feature: <a href="#">dynamic share</a> now has the ability to include reference field records	Replicator
		feature: <a href="#">import records missing locally</a>	Table Compare
August 7th 2015	3.2.5	fixed: connection leak when gathering stats for Observer using self post URL to <a href="#">stats.do</a>	Observer
		feature: support for a <a href="#">Global Subscribe</a> definition that subscribes to all tables.	Replicator
August 3rd 2015	3.2.4 patch2	fixed: decrypt value returning undefined on Replicator messages in Messages > Inbound	Replicator
July 29th 2015	3.2.4 patch1	fixed: observer UI link incorrectly set	Observer
		fixed: base table subscribe configurations being referenced when receiving child table messages even though child table has its own subscribe configuration.	Replicator
July 21st 2015	3.2.4	fixed: cyrillic characters (such as Russian) were not replicating properly.	Replicator
		enhancement: added field level ACL rules for Perspectium objects.	Replicator
		fixed: connection leak related to HTTPS POST of outbound data that caused hourly pauses of data transmission observed in Fuji release.	Replicator
		fixed: duplicate records were shared when both the base and child tables were defined in dynamic shares with option <a href="#">Share base table only</a> for create, update, delete actions	Replicator
July 12th 2015	3.2.3 patch1	fixed: performance degradation was introduced in the automated translated text feature, it is fixed in this patch.	Replicator
July 9 2015	3.2.3	fixed: dynamic post size calculation that limits the size of each data post by bytes in addition to the maximum number of records. This prevents errors when max records exceed a String maximum of 16MB. Defaults to 5MB, see Perspectium Properties.	Replicator
		feature: <a href="#">Error Notification</a> allows you to configure an email to be sent when an error occurs	Core
		feature: <a href="#">Multiple Encryption Modes</a> are now supported. More importantly, the new <i>encrypted_multibyte</i> encryption mode supports sharing of multi-byte foreign language characters. requires Replicator Agent v3.2.3 or later	Replicator
		feature: <a href="#">Translated Text</a> fields will now generate their own separate <i>sys_translated_text</i> or <i>sys_translated_html</i> records during sharing, if you want to subscribe to the translated text values, you will have to subscribe to these tables separately.	Replicator
		fixed: attachments were being shared all the time whether or not it has been selected in Dynamic or Bulk Sharing	Replicator
		feature: <a href="#">Outbound Table Map</a> supports field level mapping for outbound replication.	Replicator
		fixed: missing slash (/) at the end of a <a href="#">Shared Queues</a> Endpoint URL caused errors during data sharing/posting	Replicator
		fixed: the ability to <a href="#">Share Display Values</a> has now been extended to include fields of type <a href="#">Glide Lists</a>	Replicator
May 21 2015	3.2.1 Fuji compatibility starts with this version	fixed: subscriber message counts will not be sent on skipped messages	Replicator
		enhancement: Subscriber message byte counts will now be sent	Replicator
		feature: <a href="#">Zero Configuration</a>	Replicator/Observer
Apr 29 2015	3.1.14	enhancement: removed table rotation on psp_out_message (Outbound messages) and psp_in_message (Inbound messages) due to query delays as a result of inefficient unions across shards	Replicator
		fixed: Replicator Configurations are no longer part of this update set to avoid collisions during upgrade	Replicator
		enhancement: output processing is optimized for a single "Perspectium MultiOutput Processing" scheduled job, its is no longer necessary nor valid to have more than 1	Core

		enhancement: logging is now done using a Perspectium specific table <code>u_psp_log_message</code> that is rotated and contains separation for debug, warning, and error types as well as for performance measuring	Core
		fixed: when encrypting records of data to be shared, security is no longer applied to restrict the fields that are shared based on the role of the user that triggers the sharing. Instead, customers should use <a href="#">Field Restriction using UI Views</a>	Replicator
		fixed: when cleaning up the PSP Outbound Message queue, do not delete records of state <i>processing</i> which are still being sent	Replicator
		fixed: when <code>glide.invalid_query.returns_no_rows</code> property was set to <code>true</code> , <a href="#">Dynamic Share</a> no longer worked. It is now fixed.	Replicator
Apr 2nd 2015	3.1.13	enhancement: Perspectium tables and properties are now defined in the clone exclusion list so that they will not be overwritten by the ServiceNow instance cloning process. See <a href="#">ServiceNow system cloning</a>	Replicator
		feature: <a href="#">Field Restriction using Views</a> is now available to control the fields you want to dynamic or bulk share	Replicator
		feature: <a href="#">Dynamic Share</a> has a new option to share only the base table record, <a href="#">Share base table only</a>	Replicator
		fixed: During subscribing of <i>bulk</i> input, the <a href="#">Before Script</a> did not define the variable for <i>qcurrent</i> and would result in an error	Replicator
		fixed: Multiple <a href="#">Dynamic Share</a> can be defined as long as they each target a different target queue	Replicator
Mar 31st 2015	3.1.12	fixed: <a href="#">Dynamic Share</a> business rules now runs with order of "50" to avoid collision with other business rules that might be in place.	Replicator
		feature: <a href="#">Cancel bulk</a> share now supported	Replicator
		fixed: <a href="#">Scheduled Bulk Share</a> now runs bulk shares in parallel using scheduled jobs	Replicator
		changed: <a href="#">Dynamic Share</a> list now shows the list filter	Replicator
Mar 25th 2015	3.1.11	fixed: When <a href="#">display values</a> are disabled or set to false, an error is generated and record is not shared	Replicator
		enhancement: <a href="#">Before Scripts</a> in the subscribe direction now includes a <code>repl_gr</code> variable representing the incoming record	Replicator
		fixed: <a href="#">Dynamic Share</a> now supports updates from users who belong to a different <a href="#">Domain</a>	Replicator
		changed: You can only create one <a href="#">Dynamic Share</a> per table name	Replicator
		changed: <a href="#">Dynamic Share</a> will only work for User modified records, previously, programmatic updates will trigger sharing which is incorrect	Replicator
		fixed: When bulk sharing entire tables, the total number of records count was doubled erroneously	Replicator
		fixed: Inbound messages with "label" type were not being inserted into Alert Import Set table	Observer
Mar 14th 2015	3.1.10	fixed: <a href="#">Include child tables</a> for <a href="#">Bulk Share</a> would fail if if table does not have any extensions	Replicator
		changed: <a href="#">Schedule to run</a> is now called <a href="#">Execute now</a> on Bulk Share	Replicator
		new: <a href="#">Share child class only</a> for Bulk Share	Replicator
Mar 6th 2015	3.1.9	fixed: attachments are not dynamically shared	Replicator
		fixed: event subscriptions not functioning or sending, requires <a href="#">Stop All Jobs</a> and <a href="#">Start All Jobs</a> after updating	Observer
		fixed: output XML not encoded causing parsing errors at agents	Replicator
		fixed: when dynamic sharing with <a href="#">Update or Insert</a> option selected, deletes were not sent	Replicator
Mar 1st 2015	3.1.8	new feature: <a href="#">Before Share Script</a>	Replicator
		new feature: <a href="#">Update or Insert for Dynamic Share</a>	Replicator
		new feature: <a href="#">Sharing Display Values for Reference Fields</a>	Replicator
Feb 10th 2015	3.1.7	new feature: <a href="#">Scheduled Bulk Share</a>	Replicator

## Common Document

Date Released	Version	Type	Change	Product(s) Affected
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August 23, 2018	Dubnium (4.2.0)	Enhancement	Updated Form View to display fields in the following organized groups: Core Fields, User/Group References, Time/Dates, System Fields, and Other	All
		Bug Fix	Scripts added to Common Transform field maps so User Reference fields map properly	All
		Bug Fix	All Common Document import set table field lengths match corresponding tables to prevent truncation during mappings	All
May 30, 2018	Carbon (4.1.0)	Bug Fix	PSP Common Incident import set table's close_notes field length changed from 40 to 4000 to match incident table	Common Incident
April 1, 2018		Bug Fix	Use gs.generateGUID() to generate new sys_id instead of -1 as instances may save record with -1 sys_id instead of generating new one	All
February 8, 2018	Bismuth	Enhancement	Transform map coalesce on sys_id or correlation_id script to better support bi-directional insert and updates	All
December 21, 2017	3.29.0	Bug Fix	Check for blank email when adding approvers in PerspectiumApprover script include	Common Endpoint
		Bug Fix	Number format exception when adding number fields in PerspectiumRecurringPrice and PerspectiumRequestedItem script includes	Common Endpoint
		Bug Fix	Correct field name, problem_id, called in incident PSP Common Problem to Problem transform script	Common Problem
		New Feature	Common attachment for large attachments	All
		Bug Fix	Tagging embedded record in PerspectiumIncident script include	Common Endpoint
		Enhancement	Coalesce on sys_id in import set transform map	All
		Enhancement	Change module name to Perspectium Common Documents	Common Endpoint
October 5, 2017	Argon		Initial Release	AI

## Observer / Dashboard

Date Released	Release	Change
November 29, 2018	Europium	Enhancement: <a href="#">no_audit_delete attribute</a> added to Observer <b>Outbound Messages</b> table to alleviate performance issues when deleting large volumes of data
		Enhancement: Trend charts will now default to displaying the trend group as a percentage of the y-axis when there are more than five attributes in a chart
		Fixed: Follow transaction messages are now put in Observer Outbound table rather than the Replicator Outbound table
Sept 25th, 2018	Dubnium patch1	Fixed: observer data cleaner not properly cleaning out certain status types messages
		Fixed: user is unable to add medium and low alert events
		Fixed: disabling of certain predefined alerts not disabling properly
		Fixed: alerts notifications are sending out while feature is disabled
August 23, 2018	Dubnium	Feature: enabled testing of custom events
		Feature: added functionality for creation and deletion of custom trend groups on the "Settings" page
		Enhancement: created pop-up messages to prevent creation of empty rows on the Settings page
		Enhancement: attributed dropdown menu on the "Problems" page now displays all nodes that make up an "averaged" attribute
		Fixed: observer logo now loads on Internet Explorer 11
		Fixed: observer now loads general settings on Internet Explorer 11
		Fixed: UI now refreshes every time a new value is entered
May 18, 2018	Carbon	Feature: added new "Overview" page
		Enhancement: renamed the "Trend" page to "Problems"



		Enhancement: alerts are now set up by default
		Enhancement: alert configuration values can now be entered manually
		Enhancement: alerts now have a unique ID to make them easy to identify
April 19, 2018		Fixed: unable to delete custom trend groups
		Fixed: import alert definitions display errors even on success
		Fixed: monitor calendar doesn't allow you to select current date
		Enhancement: input values for alert configurations can now be entered manually
		Enhancement: optimized default trigger alert values so not all triggers without a time window or velocity prevent excess alerts
		Enhancement: disabled alternating row colors in grids to make it easier to see which row is selected
April 1, 2018		Enhancement: trend charts will now generate with all flags
		Enhancement: Top Ten grids can now be sorted by name and value
		Enhancement: alerts are set to trigger by default without a time window or velocity evaluation period
		Enhancement: Trend page has been renamed to Problem and trend groups have been renamed for easier identification of problems with an instance
		Enhancement: created Execute Hourly Interval option for actions
		Fixed: removed use of Packages call for detect situations business rules
February 8, 2018	<a href="#">Bismuth</a>	Fixed: Top Ten next day button disabled for the same day of each month
December 21, 2017		Fixed: Top Ten New Slow SQL Statements no longer shows "undefined undefined"
October 25, 2017		Fixed: alert configurations fails to load alerts
October 5, 2017	<a href="#">Argon</a>	Feature: tour of the Observer application
		Fixed: all alerts in alert lists can now be cleared
		Fixed: scheduled data cleaner job not deleting messages
		Fixed: Observer logo not showing up in Firefox and Microsoft Edge
		Fixed: Calendar will be empty when switching between Trend and Top Ten pages
August 11, 2017	3.25.0	Fixed: images of graphs can now be downloaded from the Monitor page
		Fixed: instance dropdown list will now adjust accordingly when window is resized
		Fixed: newly created users now able to login
		Fixed: changed password options to authenticate correctly
July 19, 2017	3.24.0	Fixed: log out button in Observer is now consistent with Dashboard's log out button.
		Fixed: support of single sign-on
		Enhancement: disabled External User Accounts and Local User Accounts <a href="#">actions</a> by default so as not to affect instance performance
		Enhancement: moved Reset Zoom Button to the bottom-right corner of the Trends graph
June 27, 2017	3.23.0	Feature: added compare feature on the Top Ten page
June 5, 2017	3.22.0	Feature: added wiki help link on the bottom of page
		Feature: added the ability to drag windows in Top Ten
		Fixed: minor graphical bug fix
May 11, 2017	3.21.0	Enhancement: included user indexes for external user accounts and inactive users actions
		Feature: added Properties page for Observer
		Enhancement: Observer URL can now be overwritten on the Observer Properties page
		Enhancement: outbound Observer messages can now be limited via the Observer Properties page

April 18, 2017	3.20.0	Enhancement: users can now swap between instances in a family in observer through a dropdown menu
March 27, 2017	3.19.0	Enhancement: moved event subscription messages to Observer outbound queue
		Enhancement: added new action to check for kb articles with inactive categories
		Feature: included recommended indexes
		Fixed: issue where de-activating an Action would not stop running from the "On Alert" Interval
February 16, 2017	3.18.0	Feature: added the ability to publish to a chart to Dashboard
		Enhancement: acl update set created for read roles for Observer UI pages to be a Perspectium user
January 20, 2017	3.17.0	Enhancement: made it easier to log out similar to Dashboard
		Enhancement: Observer messages processed in their own outbound queue
		Fixed: hamburger menu not opening in Dashboard
December 14, 2016	3.16.0	Fixed: encoding errors preventing trend page from loading
		Fixed: finish install situations instead of including as part of Update Set
October 28, 2016	3.15.0	Feature: health check
		Enhancement: actions to run Observer jobs
August 23, 2018	Dubnium	Bug Fix: Observer, Replicator Share, and Replicator Subscribe's dropdowns are now sorted alphabetically in Dashboard
		Bug Fix: Dashboard now works on Internet Explorer 11
		Bug Fix: Perspectium logo appears when loading Dashboard on Internet Explorer 11
May 18, 2018	Carbon	Enhancement: added scrolling to submenus so that they are always visible and don't disappear from the screen
Feb 8, 2018	Bismuth	Bug Fix: broken pie charts
December 21, 2017	3.29.0	Bug Fix: dates in the future Download Reports Calendar are accessible
		Bug Fix: enlarged logo appears when loading Dashboard
		Bug Fix: Report Category removed from Toolbox
		Bug Fix: Add Toolbox button does not appear on pages where it serves no functionality
October 25, 2017	3.28.0	New Feature: range selector for downloading reports
October 5, 2017	Argon	New Feature: tour of the dashboard application
August 11, 2017	3.25.0	Enhancement: dashboard to be consistent with Observer's text fields on the bottom of the page
		Bug Fix: Dashboard navigates to the incorrect Observer page when accessed through the Replicator Subscribe/Share pages
		Bug Fix: newly created users now able to log in
		Bug Fix: default windows will now populate the <a href="#">home page</a> if empty.
		Bug Fix: change password options no longer fail
July 19, 2017	3.24.0	Bug Fix: default windows will now populate the <a href="#">home page</a> if empty
		Enhancement: added <a href="#">link to Observer</a> on Dashboard with list of Observer instances
		Enhancement: dropdown menus in Dashboard are now in alphabetical order
		Bug Fix: "Unable to load Users" error when loading <a href="#">settings</a> page
		Bug Fix: sign-on error for users with one instance in their family
June 27, 2017	3.23.0	Enhancement: added Replicator window as default window to <a href="#">home page</a>
		Bug Fix: made menu and refresh page options have the same appearance and animation style
June 5, 2017	3.22.0	Enhancement: disabled <a href="#">home page</a> tutorial from loading each time upon login

		Enhancement: support closing Toolbox on <a href="#">home page</a> when opened
		New Feature: added wiki help link on bottom of Dashboard's homepage
May 11, 2017	3.21.0	Bug Fix: an issue with records and months not showing in correct order
		Bug Fix: pie charts are displaying bytes and not records for weekly/monthly
		Bug Fix: the button "Go to instance" on each dashboard window now goes to the correct page
		Bug Fix: heading displaying incorrectly when in light theme
February 16, 2017	3.18.0	New Feature: <a href="#">report</a> page to download Replicator data
		Bug Fix: gauges now display correctly in Dashboard windows
		Bug Fix: the button "Go to instance" on each Dashboard window now goes to the correct page
		Bug Fix: missing Perspective from the dropdown menu now appears correctly
January 20, 2017	3.17.0	Bug Fix: windows not resizing properly on expanding browser window
		Enhancement: Dashboard Settings dropdown stays displayed on the page when scrolling up/down
December 14, 2016	3.16.0	Bug Fix: encoding errors preventing charts from displaying
October 28, 2016	3.15.0	Bug Fix: monthly Subscribe/Share data is now sorted by month and year to prevent chart errors
		New Feature: added a tutorial to the <a href="#">home page</a>
September 30, 2016	3.14.0	Enhancement: added default windows to the <a href="#">dashboard home page</a>
September 2, 2016	3.13.0	New Feature: support a logout option
		New Feature: show which user is logged in
		New Feature: customizable landing page that allows users to create their own <a href="#">home page</a>
August 15, 2016	3.12.0	Bug Fix: authentication no longer repeatedly fails when loading "records by type"
		Enhancement: Record type errors separated by type for <a href="#">Replicator Share</a> and <a href="#">Replicator Subscribe</a> pages
June 17, 2016	3.10.0	New Feature: Support for changing <a href="#">themes</a>
April 22, 2016	3.8.0	New Feature: Support <a href="#">login</a> and <a href="#">changing password</a>
January 5, 2016	3.3.0	Enhancement: Dashboard automatically refreshes all windows every five minutes by default
		Enhancement: Button provides automatic refresh options and displays the refresh interval
September 30th 2016	3.14.0	fixed: trend attributes dropdown stays on screen when changing to different page
		fixed: observer page menu stays at current location when resizing page
September 2nd 2016	3.13.0	fixed: unable to login after an unsuccessful login
		fixed: resizing issues with alert count charts on Monitor page when trend charts expanded
		enhancement: added new requirements for user passwords
		feature: <a href="#">custom alerts</a> can now be tested
		fixed: changing Observer password causes issues with ServiceNow connecting to MBS
August 15th 2016	3.12.0	fixed: events no longer return flag as "undefined" and now display "Extra" field
		feature: added the <a href="#">email digest</a> feature
		fixed: the menu will no longer open until the page is refreshed
		fixed: page resizing issue after accessing the Options menu in the Monitor page
July 15th 2016	3.11.0	enhancement: <a href="#">new navigation menu</a> for accessing Observer pages
		enhancement: removed Server, User Experience, Queues, Sessions and Customer Updates pages not currently being used

June 17th 2016	3.10.0	fixed: <a href="#">custom alerts</a> description not showing in <a href="#">monitor</a> page's Alert Lists
		fixed: <a href="#">custom alert</a> names not restricted to strictly letters, numbers and “_”
		fixed: <a href="#">monitor</a> showing “null” for extra field in alert lists
		feature: support for changing themes in <a href="#">settings</a>
		fixed: alert emails showing instance URLs as “ <a href="#">perspectium.com</a> ” instead of “ <a href="#">perspectium.net</a> ”
May 27th 2016	3.9.0	change: error messages now appear in red
		change: required columns are now followed by “**”
		enhancement: display “extra” field in high, medium and low alert lists on <a href="#">monitor</a> page
April 22nd 2016	3.8.0	fixed: trend page selected calendar date now loads properly with correct error messages
		fixed: in trend tab, wide date ranges now display correctly
		fixed: new records can no longer be created with empty fields
		fixed: the “please select option from the list” message is now displayed correctly
		fixed: login issue after changing password
March 30th 2016	3.7.0	enhancement: faster loading of trend chart when selecting <a href="#">1 month</a> or <a href="#">1 week</a> date range
		fixed: in alert configurations, custom events now have required name and type fields
March 8th 2016	3.6.0	fixed: server page graphs not showing data
February 15th 2016	3.5.0	fixed: double quotes and backslashes in alert descriptions
January 25th 2016	3.4.0	change: removed the Login Required feature
		feature: right-click context menu to edit or delete <a href="#">alert configurations</a> descriptions
January 5th 2016	3.3.0	enhancement: support <a href="#">downloading</a> trend chart data as CSV and XLS
		feature: added the ability to assign links to flags on the Trend Chart
		enhancement: time zone is now displayed on all pages of the Observer
		enhancement: customized trend groups and combo box selection in alphabetic order
		enhancement: a pop-up confirmation window appears when attempting to delete a record
		fixed: login only accepts alphanumeric and email formats
		enhancement: right click to edit descriptions in <a href="#">alert configurations</a>
		enhancement: “Release History” link at bottom of Observer pages to link to <a href="#">Observer Releases</a>
October 19th 2015	3.2.5	enhancement: moved Revert Trend Groups to <a href="#">Trend Groups Settings</a> page
		enhancement: trend chart <a href="#">auto refresh</a> off by default when loading page
		fixed: check for valid username or email address when logging in
August 13th 2015	3.2.4	feature: <a href="#">export alert configurations in CSV format</a>
June 30th 2015	3.2.3	minor bug fixes
June 3rd 2015	3.2.2	fixed: alert flags placed at wrong timestamp on trend charts
		enhancement: flags selected in trend chart will be maintained for the same session
May 8th 2015	3.2.1	enhancement: by default when navigating to the Trend chart, only H, M, L alert flags will be selected, this is to reduce clutter
		enhancement: out of semaphore alert has been de-sensitized to occur only when 2 or more times detected over 5 minutes per node
		fixed: data point timestamp was incorrectly set as time arrived at Observer, vs. time detected
April 29th 2015	3.2.0	feature: <a href="#">custom alerts</a>
February 11th 2015	3.1.7	feature: <a href="#">requiring login</a>
January 15th 2015	2.0g	feature: <a href="#">authentication required for Settings</a>

## DataSync (Replicator) Agent

Date Released	Release	Change	Product (s) Affected
May 22, 2020	Argon patch7	Enhancement: Added a configuration in the Agent.xml to <a href="#">enable upsert</a> for performance enhancements for SAP Hana	DataSync Agent
October 2, 2019	Argon patch6	Enhancement: Updated supporting drivers for SAP Hana 2.0	
April 24, 2019	<a href="#">Europium Patch 3</a>	new feature: For MS SQL Server integrations, you can now <a href="#">configure dynamic database ports</a>	Replicator Agent
November 29, 2018	<a href="#">Europium</a>	new feature: Replicator Agent can now be run in test mode for testing purposes	Replicator Agent
		new feature: Replicator Agent can now be run within the Linux Terminal without superuser (sudo) access	Replicator Agent
		new feature: <a href="#">Command File Sharer</a> configuration option added for records from .csv files being shared to ServiceNow from the Replicator Agent via ServiceNow command queries	Replicator Agent
		new feature: <a href="#">Data Guarantee</a> can now be enabled for better tracking of shared Replicator Agent data messages via <a href="#">receipts</a>	Replicator Agent
		new feature: Replicator Agent can now be configured to send out <a href="#">receipts</a> at <a href="#">regular intervals and upon shutdown</a>	Replicator Agent
		enhancement: MySQL 8 is now supported as a database for the Replicator Agent	Replicator Agent
		enhancement: File Replicator for Replicator Agent will now create headings in the topmost row of .csv files	Replicator Agent
		enhancement: Support added for the sharing of CLOB data types	Replicator Agent
		enhancement: Support added for data sharing with <a href="#">AES-256 encryption</a>	Replicator Agent
		fixed: The validateConfiguration tool now only validates queues with a valid AMQPS connection	Replicator Agent
		fixed: Foreign character (4-byte UTF character) support can now be enabled for replication with MySQL 8	Replicator Agent
November 12, 2018	<a href="#">Dubnium patch2</a>	fixed: Replication of foreign languages from Database to ServiceNow	Replicator Agent
August 23, 2018	<a href="#">Dubnium</a>	fixed: The validateConfiguration tool can now be run as an admin on Windows devices	Replicator Agent
		fixed: batching of records when multiple tasks running	Replicator Agent
		fixed: password encryption works with the following special characters: ! @ # % ( ) - + < > & [ ]	Replicator Agent
		fixed: Agent can now reconnect automatically to a queue after connection to the queue is dropped	Replicator Agent
		fixed: 302 redirect error when using a proxy for <message_connection> or <instance_connection>	Replicator Agent
		fixed: an issue where the Validate Configuration Tool was consuming all messages when ran	Replicator Agent
		fixed: database port numbers were cached when navigating in between panels	Replicator Installer
		fixed: the formatting of the agent.xml after running the agent installer	Replicator Installer
August 2, 2018	<a href="#">Carbon</a>	feature: agent now supports <a href="#">highly availability mode</a> to enhance recovery of the agent	Replicator Agent
		enhancement: on agent startup, remove files that start with "psp" in the bin directory to prevent corrupted files from stopping agent <a href="#">system requirements</a>	Replicator Agent
		enhancement: agent now supports Java 9 and 10 as illustrated in the <a href="#">system requirements</a>	Replicator Agent

		enhancement: provide more helpful error message handling when connecting using the HTTP protocol	Replicator Agent
		fixed: agent stops on startup if the system does not meet minimum <a href="#">system requirements</a>	Replicator Agent
		fixed: issue where the agent is not consuming if the queue does not exist	Replicator Agent
		enhancement: support setting queue that ServiceNow Direct agent will read messages from the outbound table in an instance	Replicator Agent
		fixed: a connection issue when the agent is configured with ServiceNow Direct	Replicator Agent
		feature: added the support of the Perspectium File Subscriber Replicator Agent to <a href="#">replicate to Amazon S3</a>	Replicator Agent
		enhancement: added a queue name field in Replicator Agent installer	Replicator Installer
		enhancement: reduced the package size of the Agent installer	Replicator Installer
		fixed: validation tool not correctly validating HTTP(s) connection with specified queue	Replicator Agent
		fixed: agent not properly truncating the column data for the first record after increasing the column length	Replicator Agent
November 1, 2018	<a href="#">Bismuth patch3</a>	fixed: Replication of foreign languages from Database to ServiceNow	Replicator Agent
February 8, 2018	<a href="#">Bismuth</a>	fixed: wrapper logs not being rotated properly	Replicator Agent
		fixed: improve URL validation on agent startup	Replicator Agent
		feature: Ready to Run agent installation	Replicator Installer
October 5, 2017	<a href="#">Argon</a>	enhancement: log database and table names when warning about truncating a column	Replicator Agent
		enhancement: default message_connection to have basic consume attribute set to true	Replicator Installer
September 1, 2017	3.26.0	enhancement: Validate Configuration Tool will no longer report duplicates when multiple tasks are configured	Replicator Agent
		enhancement: made data cache directory configurable	Repeater and Service Manager Agent
		fixed: when perspectium.log reaches at least 20 MB, it will now save older logs and roll over to the new logs correctly	Replicator Agent
		enhancement: create large fields as nvarchar(max) in MSSQL to support distinct queries	SQL Subscriber
		enhancement: handle numeric fields with NaN value by setting it to null and not throwing an exception	SQL Subscriber
		feature: support of PostgreSQL Database	Replicator Agent
August 11, 2017	3.25.0	fixed: an issue where the Validate Configuration Tool was consuming messages.	Replicator Agent
		fixed: message set count incorrect for HTTPS connections	Replicator Agent
		enhancement: message set processing every 1000 messages instead of every message	Replicator Agent
		feature: agent now supports with Solaris OS Platform	Replicator Agent
July 19, 2017	3.24.0	fixed: display proper queue not found error message for when a queue does not exist	Replicator Agent
		enhancement: no longer write alerts to the error directory when unable to connect to MBS	Directory Sharer
		feature: replicator agent now supports 64-bit wrapper and available for <a href="#">upgrade</a>	Replicator Agent
July 19, 2017	3.23.1	fixed: performance degradation when the agent is consuming a large amount of records Replicator Agent	Replicator Agent

June 27, 2017	3.23.0	enhancement: users can now dynamically change the logging level to debug using the set logging script	Replicator Agent
		fixed: when using edge encryption, the agent cannot find the keystore.jceks file	Replicator Agent
June 5, 2017	3.22.0	enhancement: improved Redshift data throughput by utilizing S3 buckets as a staging area where replicated data are stored then populated to Redshift tables.	Replicator Agent
May 11, 2017	3.21.0	feature: agent now uses Basic Consume by default	Replicator Agent
April 18, 2017	3.20.0	enhancement: added the ability to use a TNS string for connections to Oracle	Replicator Agent
		enhancement: modified Agent reporting mechanism to improve stability and volume	Replicator Agent
		enhancement: modified Agent retry capabilities to prevent primary key errors when running multiple tasks	Replicator Agent
March 27, 2017	3.19.0	fix: log an error when attempting to replicate a table that's unknown by ServiceNow	Replicator Agent
		enhancement: updated packaged sqlserver JDBC driver to 6.1 as Microsoft is <a href="#">ending support lifecycle</a> for JDBC 4.0	Replicator Agent
		enhancement: replicator agent logging now includes the thread name in each message	Replicator Agent
		feature: save each record as its own file	File Subscriber
March 14, 2017	3.18.2	enhancement: improved handling of connection failures to the database	Replicator Agent
		enhancement: improved retry ability for committing records to the database within unstable environments	Replicator Agent
March 2, 2017	3.18.1	enhancement: optimized prefetch size to reduce memory usage	Replicator Agent
		enhancement: queueing consumer is now only allocated once per task	Replicator Agent
		enhancement: optimized the handling of channels per a connection	Replicator Agent
February 16, 2017	3.18.0	fix: improved handling of failed connections to prevent individual threads from terminating	Replicator Agent
		fix: an incorrect path for wrapper configuration which caused a StatusLogger error on startup for agent running in Windows environment	Replicator Agent
		enhancement: create Report that supports double-clicking to launch in Windows	Replicator Agent
January 20, 2017	3.17.0	enhancement: added support for type attribute in <instance_connection>	Replicator Agent
		enhancement: validateConfiguration.bat supports double-clicking to launch in Windows	Replicator Installer
		enhancement: updated default values for task instances=4, max_reads_per_connect=4000, and polling_interval=1 to optimize subscribing configuration	Replicator Installer
		enhancement: replicator installer now supports user entering a database type	Replicator Installer
		enhancement: enhanced validate configuration to be user friendly and provide more suggestions	Replicator Agent
		enhancement: default to using <message_connection> at task level in agent configuration	Replicator Agent
		enhancement: log more useful information when starting up the agent	Replicator Agent
		feature: report table counts every 30 minutes	Replicator Agent
		fixed: handling of trailing "Z" in ISO 8601 time format	Replicator Agent
December 14, 2016	3.16.0	enhancement: added optional Database SID field for Oracle	Replicator Installer
		enhancement: added message and reporting connection to default to the same server configured during the Agent installation process	Replicator Installer

		enhancement: subscriber record errors will be sent back to ServiceNow instance	Replicator Agent
		feature: vertica database support	Replicator Agent
October 28, 2016	3.15.0	enhancement: add additional logging entry for errors	SQL Subscriber
		fixed: An issue where dynamic columns were not processed properly	SQL Subscriber
September 30, 2016	3.14.0	fixed: TableAction error after adding a new column field name that is larger than 60 characters	SQL Subscriber
		enhancement: default to the same server as message_connection for reporting connection	Replicator Agent
		removed: deprecated file subscriber option from the installer	Replicator Agent
		enhancement: provide support of 64 bit fixed and floating-point values	SQL Subscriber
September 2, 2016	3.13.0	enhancement: support a subset of columns from a table	SQL Subscriber
		fixed: Table Action error when replicating an Account Table from Salesforce to a DB	SQL Subscriber
		fixed: null values are displayed as a string for empty fields	SQL Subscriber
		enhancement: see the output from stderr and stdout in the agent log files	SQL Subscriber
August 15, 2016	3.12.0	enhancement: component_type set for heartbeat sent in for support	Replicator Agent
July 15, 2016	3.11.0	fixed: unable to share records after connection idles	vSphere Sharer
		fixed: SQLTableStructure runtime error with a format specifier	SQL Subscriber
		fixed: replication of ServiceNow Table views returns the SQL Errors	SQL Subscriber
		fixed: XML encoded field values from ServiceNow incorrectly contain XML encoding when inserted/updated into table	SQL Subscriber
		feature: Added the ability to Create Report which packages the agent config and log files into a zip file	Replicator Agent
June 24, 2016	3.10.1	fixed: issue with replication of CR and LF in ServiceNow fields to Database	SQL Subscriber
		fixed: issue with replication of ServiceNow database view tables to Database	SQL Subscriber
		fixed: hanging of the Agent when replicating to a Database that contains an extremely large number of rows	Replicator Agent
June 17, 2016	3.10.0	fixed: SQLShareByLastUpdateQuery not properly working	SQL Sharer
		enhancement: simplify the handling of column name mappings	Replicator Agent
May 27, 2016	3.9.0	Fixed: issue with column type mismatch upon replication to Database	Replicator Agent
		Enhancement: proper handling of long Table and Column names for <a href="#">replication to Oracle DB</a>	Replicator Agent
		Enhancement: increased security of information in the logs	Replicator Agent
		Enhancement: simplified the handling of column name mappings to make maintenance and availability easier	Replicator Agent
April 22, 2016	3.8.0	Enhancement: provide support for creating tables which contain the 'long' data type added in the ServiceNow version Geneva	SQL Subscriber
		Fixed: ensure that all resources are released when shutting down the agent.	Replicator Agent
		Enhancement: added the validate_certificate attribute to all connection directives to disable validation of the X509 Certificate when using the https scheme.	Replicator Agent
		Enhancement: Enabled additional configuration of the connection and other HttpClient timers and controls.	Replicator Agent



		Enhancement: Implemented initial support of the new 'long' data type introduced in the ServiceNow Geneva release.	SQL Subscriber
		Enhancement: support for <a href="#">installing third-party libraries</a>	Replicator Agent
		Enhancement: support for subscribing to messages with a specific <a href="#">key</a>	Replicator Agent
March 30, 2016	3.7.0	Enhancement: security is enhanced for <a href="#">configuration file encryption feature</a> by <a href="#">Specifying encryption key for encrypting configuration fields</a>	Replicator Agent
		Enhancement: handling of daemon threads has been improved to ensure proper termination when the stop method is called.	Replicator Agent
		Enhancement: added the ability to encrypt the contents of the agent.xml configuration file on Windows using 'dpapi'. <a href="#">Specifying encryption key for encrypting dpapi configuration fields</a>	Replicator Agent
		Enhancement: added support for authenticating to a proxy using either basic authentication or NTLM. <a href="#">Configuring Replicator to leverage a Proxy</a>	Replicator Agent
		Fixed: replication of a table row when the size of a column has been increased.	SQLSubscriber
March 15, 2016	3.6.1	Fixed: Agent returns a SQLSubscriber error when replicating a larger dictionary value of a ServiceNow field	SQLSubscriber
		Fixed: Agent returns a SQLTableStructure error when replicating a larger dictionary from two different ServiceNow instances	SQLSubscriber
March 8, 2016	3.6.0	Fixed: ensure proper processing of both service now and salesforce source data against multiple target database servers	Replicator Agent
		Enhancement: duplicate named tasks will continue to run instead of throwing an error	Replicator Agent
		Fixed: table action invalid identifier error when adding a column to source table	SQLSubscriber
		Fixed: SQL statement errors when multiple agent tasks are running against same table using plugins	SQLSubscriber
February 15, 2016	3.5.0	Fixed: heartbeat thread now runs as a daemon to facilitate shutdown	Replicator Agent
		Fixed: ensure proper replication of a ServiceNow view when only a single pseudo primary key exists.	SQLSubscriber
		Enhancement: Agent now provides the command setLogging which provides the ability to dynamically enable or disable detailed logging without needing to restart the agent.	Replicator Agent
		Enhancement: Performance and management messages are now sent asynchronously instead of serially with payload (replication) messages which are the priority.	Replicator Agent
		Fixed: ensure proper state after closing of a connection.	Replicator Agent
		Fixed: ensure wrapper library does not start when the Replicator is started via the SDK.	SDK
		Enhancement: eliminated use of the conf/config.xml configuration file.	Replicator Agent
		Fixed: ensure default type of non-schema defined columns is string with a length of 250.	SQLSubscriber
		Fixed: removed public access to the Replicator class to prevent accidental use by SDK users who should be using ReplicatorAgent	SDK
February 9, 2016	3.4.0	Enhancement: optimized connection timeout handling when connecting to the Message Bus.	Replicator Agent
		Fixed: SetFetchSize to work with all DB drivers	SQL Agent
		Fixed: test for primary key > 0 to handle views with multiple keys that have pseudo sys_ids with no value	SQL Agent
		Fixed: SQL Server specific method of limiting rows returned for a select causing slow data processing	SQL Agent
		Fixed: columns created in Oracle are the same case as created in ServiceNow.	SQL Agent
		Fixed: unknown column issue in Oracle when adding new columns to table in ServiceNow.	SQL Agent
		Fixed: data error when agent unable to obtain table schema	Replicator Agent
		Fixed: agent configuration file set to "http:" rather than "https:" for ServiceNow URL in instance_connection	Replicator Installer

		Enhancement: validate input of "https:" in Perspectium Cloud Server and ServiceNow instance fields to prevent duplicates	Replicator Installer
		Enhancement: default to " <a href="https://perspectium.net">perspectium.net</a> " in the Perspectium Cloud Server field	Replicator Installer
January 5, 2016	3.3.0	Fixed: dynamic creation of columns.	SQLSubscriber
		Fixed: Corrected consistency problem with the SQLSubscriberIODateTimePlugin setting the date and time properly based upon the SQL action against the target table.	SQLSubscriber Agent Plugin
		Enhancement: Unknown source data types will default to a character type instead of being omitted	SQL Agent
		Enhancement: support for excluding columns from being replicated	SQL Agent
		Enhancement: support for replicating database views from ServiceNow	SQL Agent
		Enhancement: <a href="#">Subscriber Task Message Level Filter</a> filters all messages subscribed to by an agent's subscriber task based on values in topic, type, or key	Replicator Agent
		Enhancement: string fields larger than 251 characters will be created as CLOB fields	SQL Agent
		Enhancement: for string values less than 252 characters, if the value is larger what is defined by its schema, they will be truncated instead of generating an error	SQL Agent
		Enhancement: floating point and integer values that contain commas (,) will be corrected to remove the comma before updating the field	SQL Agent
		Fixed: name and key fields not showing the correct values when agent shares records	SQL Agent
October 19, 2015	3.2.5	feature: support the overriding of date and time format using the date_format and date_time_format <task> configuration directives.	SQL Agent
		feature: share <a href="#">VMware vSphere objects</a> to ServiceNow	vSphere Replicator
		feature: share to RabbitMQ	RabbitMQ Replicator
August 13, 2015	3.2.4	feature: all password fields are masked for security	Replicator Installer
		feature: passwords entered require matching to prevent user input error	Replicator Installer
		feature: support for replicator plugin framework <a href="#">The Replicator Plugin Framework</a>	File Agent
		Enhancement: support for saving records as XML <a href="#">File Replicator</a>	File Agent
July 15, 2015	3.2.3	Enhancement: support for <a href="#">Multiple Encryption Modes</a>	SQL Agent
		Fixed: ignore SQL column values that contain a JSON Array	SQL Agent
		Fixed: modified processing of table existence validation to ensure minimal connections to the database are required	SQL Agent
		Enhancement: added configuration directive <skip_column_expansion> to disable the now default behaviour of growing a column to it's max size if it's great than 1000 bytes in length	Agent Configuration
		Enhancement: added support for the new ServiceNow internal type SCHEDULE_DATE_TIME	SQL Agent
		Enhancement: added <ensure_table_exists> configuration directive to ensure the table exists explicitly	SQL Agent Configuration
		Enhancement: modified SQL Agent to catch the failure of a call to get the database meta data and then create the table if the proper table missing code and state as defined in databases.xml is true.	SQL Agent
		Fixed: SQL Share only configurations do not require <skip_database_creation> directive anymore	Agent Configuration
April 29, 2015	3.1.15	Enhancement: SQLShare support for Epoc last modified datetime	SQL Agent
		Enhancement: SQLShare support for timezone offset in last modified datetime	SQL Agent
		Fixed: clob field replication in SQLShare	SQL Agent
April 13, 2015	3.1.14	fix: agent name added to <a href="#">wrapper.name</a> in wrapper.conf	Replicator Installer
		Enhancement: remove include/exclude section in agent.xml for SQL Replicator	Replicator Installer
		Fixed: dynamic table creation if table dropped since agent started	SQL Agent
April 2, 2015	3.1.13	Enhancement: installer supports configuration of file sharer and subscriber	Replicator Installer
		Fixed: installer missing configuration element for Solarwinds directory share	Aggregator Installer

		Fixed: interval counts in wrapper.log for bytes processed and number of records.	Replicator Agent
		Fixed: connection time-out issue on MySQL create table.	Replicator
October 19, 2015	3.1.12	Enhancement: installer removes previous /jars directory and performs field validations, pre-acknowledge EULA	Replicator Installer
		Enhancement: agent configuration file cleanup. Defaults values instead of requiring most configuration settings.	Agent Configuration
		Enhancement: added support for the <database_sid> configuration directive which provides SID based access to an Oracle database versus the default support of a Service Name.	SQL Agent
March 10, 2015	3.1.9	Fixed: determining the preexistence of a table.	SQL Agent
		Enhancement: added <lowercase_columns> and <uppercase_columns> configuraton directives within databases.xml which enable forcing of the column to a configured case. See: <a href="#">Column Case</a>	SQL Agent
		Enhancement: added the ability to define Java plugins which are called prior to a row being replicated to the destination table. See: <a href="#">Agent Plugins</a>	SQL Agent
		Enhancement: added the ability to define additional columns that will be dynamically added to all target tables. See: <a href="#">Dynamic Columns</a>	SQL Agent

## SIAM Agent

Date Released	Release	Change	Product(s) Affected
TBD	<a href="#">Fluorine</a> 4.5.0	enhancement: Support added for Java versions 9 and 10	Java Repeater Agent
November 29, 2018	<a href="#">Europium</a> (4.4.0)	new feature: <a href="#">Data Guarantee</a> is now available for SIAM agent integrations	All SIAM Agents
		new feature: Jira attachments can now be shared to ServiceNow with the Repeater Agent	Jira Repeater Agent
		enhancement: The Java Repeater Agent's <a href="#">service_type</a> can now be found in the PSP Logs module for troubleshooting purposes.	Java Repeater Agent
May 30, 2018	<a href="#">Carbon</a> (4.0.0)	Prevent advancing the timestamp if the Agent receives an HTTP Exception from Service Manager	SM Sharer Agent
		Set logging level for attachment data output to FINEST	
		Implement date range during a ServiceManager query call to avoid duplication of records	SM Sharer Agent
		Configure separate sleep time on a retry scenario	RepeaterJ Agent
		Log current retry counter	
		Configure separate sleep time on a retry scenario	RepeaterJ Agent
		enhancement: users may now specify whether to use the <code>siam_endpoint_url</code> or <code>service_url</code> by setting "use_message_url" to true or false	RepeaterJ Agent

Date Released	Release	Change	Product (s) Affected
November 29, 2018	<a href="#">Europium</a> (4.4.0)	new feature: <a href="#">Freshservice</a> and <a href="#">Freshdesk</a> are now available as SIAM endpoints for multidirectional integrations with ServiceNow	Freshservice SIAM
		new feature: <a href="#">Historical data can now be dynamic shared out</a> for <a href="#">journal fields</a> and attachments	SIAM integrations
		enhancement: <a href="#">Data Guarantee</a> can now be enabled for ServiceNow-SIAM endpoint integrations.	SIAM integrations
August 23, 2018	<a href="#">Dubnium</a> (4.2.0)	feature: <a href="#">import</a> mapping from XML/JSON file, <a href="#">export</a> mapping to XML/JSON file	SIAM Mapping UI
		enhancement: updated Common Document modules (Common Problem, Common Change, Common Incident) so that Table Form View displays records in the following categories: Core Fields, User/Group References, Time/Dates, System Fields, and Other	SIAM Mapping UI
August 2, 2018	<a href="#">Carbon Patch 1</a> (4.1.0)	fixed: Perspectium Remedy Incident Replicator Subscriber now creates receipt status with proper value	Remedy SIAM
		fixed: have correct URL displayed in text area for list items	SharePoint SIAM
May 18, 2018	<a href="#">Carbon</a> (4.0.0)	fixed: have Sharepoint Lists displays their item's title correctly	SharePoint SIAM

		feature: support of bidirectional attachments replication for ServiceNow and CA Rally	Rally SIAM
April 1, 2018	Bismuth (3.31.0)	fixed: unable to access lists for / site	SharePoint SIAM
		enhancement: support multiple clients in same family	Rally SIAM
		enhancement: use standard common document formats	Rally SIAM
February 8, 2017	Bismuth (3.30.0)	fixed: unable to access "Discover sites and list" menu option with perspectium role	SharePoint SIAM
October 5, 2017	Argon (3.27.0)	fixed: display all Jira outbound table maps in Outbound Maps module	Jira SIAM
September 1, 2017	3.26.0	enhancement: enable options for user to set a cache location to store logging and a file for last update value	HP Service Manager SIAM
August 11, 2017	3.25.0	feature: support for affected_cis in common_incident	Base
July 19, 2017	3.24.0	enhancement: <a href="#">audit summary</a> for SIAM audits	Base
June 27, 2017	3.23.0	feature: <a href="#">audit</a> of SIAM messages through MBS	SIAM integrations
		feature: support of bidirectional attachments replication for ServiceNow and Service Manager	HP Service Manager SIAM
		feature: support of bidirectional replication for ServiceNow's change requests to Jira's epics and stories	Jira SIAM
June 5, 2017	3.22.0	enhancement: include <a href="#">update_synch attribute</a> for u_psp_table_map and u_psp_table_field_map tables to allow saving changes for table maps and take new SIAM updates	SIAM integrations
		enhancement: default to standard Jira priorities for priority outbound table field map	Jira SIAM
		feature: support sending out historical comments for incident being sent to Jira	Jira SIAM
May 11, 2017	3.21.0	enhancement: support sending attachments to Jira on incident create in ServiceNow	Jira SIAM
April 18, 2017	3.20.0	fix: psp_replicate_conf commit error for sys_script	SIAM for ServiceNow
		feature: support sending deferred state messages	Jira SIAM

## Perspectium (Replicator) for Salesforce

Date Released	Version	Change	Product
February 1, 2019	Europium (4.5.0)	new feature: AES256 encryption is now supported	Salesforce Replicator
		enhancement: user queue passwords fields are now masked and hidden upon saving of the form	Salesforce Replicator
		enhancement: canceled bulk shares can now be executed again	Salesforce Replicator
		fixed: resolved the creation of a dynamic share trigger for User tables	Salesforce Replicator
		fixed: an issue where bulk shares were not correctly canceling	Salesforce Replicator
		fixed: once a Perspectium Job is created, the job is now a read-only field	Salesforce Replicator
		fixed: salesforce replication may fail when updating a column which doesn't exist	Salesforce Replicator
November 29, 2018	Europium	new feature: <a href="#">Salesforce case records can now be shared out to ServiceNow</a> via a ServiceNow-Salesforce SIAM integration	Salesforce Replicator

		new feature: <a href="#">Job intervals can now be specified</a> for both share and subscribe jobs within Salesforce	Salesforce Replicator
		new feature: get queue status is now available for Queues	Salesforce Replicator
		enhancement: job intervals are now configurable for Perspectium jobs	Salesforce Replicator
		enhancement: error outbound messages will now be in a ready state and will attempt to resend messages	Salesforce Replicator
		enhancement: <a href="#">The Perspectium application</a> can now be run in the Salesforce Lightning UI	Salesforce Replicator
		enhancement: running Perspectium jobs will now have lower priority if all available system jobs are being used	Salesforce Replicator
August 23, 2018	<a href="#">Dubnium</a>	fixed: issue with inbound not processing bulk shares correctly from ServiceNow	Salesforce Replicator
		fixed: minor graphical issue in the Perspectium properties page	Salesforce Replicator
July 11, 2018	<a href="#">Carbon</a>	enhancement: "delete all" button has been added to the inbound and outbound messages	Salesforce Replicator
		enhancement: direction for queue creation is now mandatory	Salesforce Replicator
		enhancement: <a href="#">file uploads</a> on Salesforce can now be shared to ServiceNow	Salesforce Replicator
		enhancement: properties will now properly display a confirmation message whenever settings have been saved	Salesforce Replicator
		enhancement: name fields for bulk and dynamic share are now mandatory	Salesforce Replicator
		fixed: The Salesforce <b>Queue Alias</b> field (or <b>Queue ID field</b> , if <b>Queue Alias</b> is blank) will now be referenced when moving dynamic share triggers from sandbox to production instances	Salesforce Replicator
		fixed: <a href="#">scheduled jobs</a> will now properly retain custom descriptions	Salesforce Replicator
May 18, 2018	<a href="#">Carbon</a> (4.0.0)	fixed: <a href="#">dynamic share form</a> not loading ("invalid conversion from runtime type" error) when trigger properties not setup properly	Salesforce Replicator
		enhancement: display more details on success of <a href="#">testing trigger</a> and add <a href="#">test MBS connection</a> option	Salesforce Replicator
		fixed: special characters like tab (\t), double quotes and single quotes not encrypted/decrypted properly when using AES128	ServiceNow Update Set
April 1, 2018	<a href="#">Bismuth</a> (3.31.0)	fixed: preview error with missing field u_lastmodifiedid	ServiceNow Update Set
		fixed: bulk share not sharing out all records (too many DML statements error) when executing a large bulk share	Salesforce Replicator
		fixed: apex trigger not created for dynamic share on custom tables with names ending in (underscore "c")	Salesforce Replicator
		fixed: Apex trigger not sharing out records due to "Too many SOQL queries: 101" error	Salesforce Replicator
		fixed: Apex trigger not sharing out records due to "Before Insert or Upsert list must not have two identically equal elements" error	Salesforce Replicator
		feature: support reading attachments between Salesforce from ServiceNow	Salesforce Replicator
February 8, 2018	<a href="#">Bismuth</a> (3.30.0)	enhancement: only list tables in <a href="#">dynamic share</a> that support creating <a href="#">Apex triggers</a>	Salesforce Replicator
		feature: <a href="#">include child records</a> option added to share out child records with a dynamic share	Salesforce Replicator
		fixed: error finding parent table when reading <a href="#">Salesforce attachments</a> into ServiceNow	ServiceNow Update Set
		fixed: unable to read Salesforce custom field names with "__c" into ServiceNow import set tables with field names with "_c"	ServiceNow Update Set
		fixed: unable to read true/false values in JSON messages received from Salesforce	ServiceNow Update Set
		fixed: id fields like ParentId are being removed causing subscribe to not work properly for some tables like FeedItem	Salesforce Replicator

December 21, 2017	3.29.0	fixed: unable to load page to <a href="#">create a new dynamic or bulk share</a> when more than 1000 tables in the system	Salesforce Replicator
October 5, 2017	Argon	enhancement: <a href="#">save standard settings</a> option on Perspectium properties page for updating fields without having to re-enter all secure settings	Salesforce Replicator
		feature: added "Alias" field on <a href="#">shared queues</a> for moving Apex triggers from sandbox/dev to production	Salesforce Replicator
		feature: support reading <a href="#">attachments</a> into ServiceNow	ServiceNow Update Set
August 11, 2017	3.25.0	enhancement: updating <a href="#">dynamic share</a> will update the attachment trigger instead of deleting and recreating	Salesforce Replicator
		enhancement: "Active" field added to <a href="#">dynamic share</a> to enable/disable dynamic shares	Salesforce Replicator
		enhancement: to secure sensitive data, Perspectium properties page will not display encryption or decryption keys	Salesforce Replicator
July 19, 2017	3.24.0	fixed: all fields being selected when user selects only some fields in creating <a href="#">dynamic share</a> .	Salesforce Replicator
		fixed: deleting a dynamic share does not delete the dynamic share attachment trigger.	Salesforce Replicator
		enhancement: Perspectium properties page will no longer display sensitive data.	Salesforce Replicator
		enhancement: attachments on a bulk share will share content in Body field.	Salesforce Replicator
		enhancement: update <a href="#">dynamic share</a> trigger instead of deleting and recreating trigger when updating a dynamic share.	Salesforce Replicator
		enhancement: "Create Trigger" now says "Save Trigger" with support for updating trigger instead of deleting and recreating.	Salesforce Replicator
June 27, 2017	3.23.0	feature: support of sharing the User table when the Salesforce user is set to active or inactive.	Salesforce Replicator
June 5, 2017	3.22.0	fixed: dynamic sharing of large attachments that will return a blob error in outbound.	Salesforce Replicator
		enhancement: preserve the Perspectium Replicator properties settings page	Salesforce Replicator.
		feature: added a <a href="#">bypass users</a> feature to exclude users from initiating a Dynamic Share Apex trigger.	Salesforce Replicator
April 25, 2017	3.20.0	fixed: minor bug fixes	Salesforce Replicator
		enhancement: support sharing attachments	Salesforce Replicator
February 16, 2017	3.18.0	Initial release: Official release of Salesforce replicator managed package	Salesforce Replicator

## Known Issues

### DataSync for ServiceNow

Date Detected	Releases Affected	Issue	Fixed in Release
05/06/2018	Bismuth	ServiceNow is decrypting Salesforce messages incorrectly : special characters like tab (\t), double quotes and single quotes not encrypted/decrypted properly when using AES128	Carbon
04/26/2018	Bismuth	Bulk Sharing with "Include Child Table Only" failed when encountering a record with a corrupt/invalid class	Carbon
09/29/2017	3.26.0	ServiceNow Dynamic Sharing when Business Rule When = Before - Any modifications to current are committed to the SN database	Carbon
04/05/2018	3.31.0	Dynamic share does not configure correctly on Ready to Run form.	3.31.1
03/05/2018	Bismuth	Default subscribed queue not created on first time install of Perspectium update set on an instance	3.31.1
03/05/2018	Bismuth	Handling to append / to endpoint URL is failing during Subscribe fetch	3.31.0

03/02/2018	Bismuth	"Error Notification" module is linking to the PSP Alerts Table [u_psp_alerts] table	3.31.0
03/01/2018	Bismuth	When previewing with additional tables that do not have any values, it shows NaN(Not-A-Number)	3.31.0
02/20/2018	3.29.0	The "Source" column of Outbound Messages is no longer populated	3.31.0
02/20/2018	3.29.0	Outbound messages with value fields too large to send to MBS not being marked as error	3.31.0
02/20/2018	3.29.0	The enable max outbound messages security check is checking twice per regular outbound message	3.31.0
02/20/2018	3.29.0	ServiceNow Bulk Share Include All Child Tables fails when table has no parent/child relationship (no sys_class_name)	3.31.0
02/08/2018	3.29.0	Schema Processor returning improper schemas under certain configurations	3.31.0
02/07/2018	Bismuth	Deletion of multiple messages in inbound or outbound with all checkboxes checked might cause multiple errors to display	4.1.0
02/06/2018	3.29.0	Outbound attachment and audit messages will not be sent if target queue is inactive	3.31.0
01/24/2018	3.29.0	Default URL for the subscribed queue is not editable from the UI page, however, it is editable in list view	3.30.0
01/24/2018	3.29.0	Unable to submit a new dynamic share with only "update" selected	3.30.0
01/20/2018	3.29.0	Create, update, delete are not shown as required on subscribe configurations	3.31.0
01/10/2018	3.29.0	Run a bulk share on dynamic share does not handle sharing base table only and include all child tables	3.31.0
01/10/2018	3.29.0	Dynamic Share "Run a Bulk Share" does not have handling for "Sharing Base Table Only" or "Include All Child Tables"	3.31.0
01/19/2018	3.28.0	Errors when handling messages in the Observer, Audit, and Attachment Outbound Table in Jakarta Instances	3.30.0
01/19/2018	3.28.0	Outbound messages with the wrong key are not processed properly	3.30.0
01/15/2018	3.28.0	ServiceNow does not replicate correctly when using the Cipher AES128 and encrypted_multibyte	3.30.0
01/15/2018	3.28.0	"Properties Saved" message doesn't always display when successfully saving properties	3.30.0
11/10/2017	3.26.0	Dynamic Journal, Audit, and Attachment Outbound Sharing do not honor the shared queue's encryption key	3.30.0
12/05/2017	3.26.0	ServiceNow is decrypting/encrypting AES128 encryption incorrectly	3.29.0
09/27/2017	3.26.0	Negative numbers were allowed in specific properties page inputs	3.29.0
08/12/2016	3.22.0	Replication of unencrypted data not correctly processing in outbound	3.29.0
11/16/2017	3.26.0	Duplicate the UI Action names: "Run another bulk share like this" and "Execute Again"	3.29.0
11/10/2017	3.26.0	Subscribed queues allow empty names or URLs	3.29.0
11/10/2017	3.26.0	When creating a new target queue via the Bulk or Dynamic share form, it defaults the queue direction to "Subscribe"	3.29.0
10/15/2017	3.26.0	Null characters appended to fields in a table are not handled properly	3.28.0
10/15/2017	3.26.0	Include attachments on a dynamic share will not share attachments out to conditional shares	3.28.0
10/10/2017	3.26.0	Journal field entries not displaying on records in pre-Kingston instances when replicated from Kingston+ instances	Argon Patch3
10/10/2017	3.26.0	Unable to update records in tables that have sys_class_path field on Jakarta+ domain-separated instances	Argon Patch3
10/10/2017	3.26.0	Jakarta Memory issue with posting to the remaining Outbound tables (Observer, Attachment, Audit)	Argon Patch2
11/10/2017	3.26.0	Dynamic Journal, Audit, and Attachment Outbound Sharing do not honor the shared queue's encryption key	Argon Patch2
09/14/2017	3.26.0	ShareRecord error invalid table name u_psp_siam_audit	Argon Patch1
09/14/2017	3.26.0	ServiceNow Table Map Replication to JSON fails when replicating ' character	Argon 3.27.0
09/12/2017	3.26.0	Dynamic Shares will run when the record transaction came in through Subscribing - it will loop between instances	Argon 3.27.0
09/12/2017	3.26.0	The ignore update fields feature is not functioning properly	Argon 3.27.0
08/28/2017	3.26.0	Message Set Activity is not correctly displaying in ServiceNow	Argon
06/28/2017	3.24.0	ServiceNow "Process Again" action on inbound messages does not properly mark "skipped" when setting ignore=true in the Before Subscribe Script	3.25.0
02/28/2017	3.24.0	Scheduled Sync Up do not support "Include All Child Tables"	3.25.0
02/28/2017	3.24.0	Canceling a bulk share while state is Running needs to proceed to Cancelled state	3.25.0
05/22/2017	3.21.0	The Observer update set is needed for PerspectiumMessage to be present on new core update set installations	3.21.1
06/10/2017	3.16.0	attachments not sharing out on dynamic shares with conditions	3.16.3 3.21.2 3.23.0

10/26/2016	3.14.0	Unable to add new reference fields to the same table for Dynamic share if the reference field of that specific table has already been added for a Dynamic Share config	3.15.0
10/21/2016	3.14.0	When a Bulk Share is updated after previewing the Bulk Share, the user will be taken back to the Preview page due to ServiceNow caching	3.15.0
09/26/2016	3.14.0	Message Set activity for component type Shared-ServiceNow might be counted incorrectly on larger bulk shares	3.15.0
09/09/2016	3.13.0	Related Lists might not display for Share only selected fields feature for Dynamic Share	3.14.0
09/06/2016	3.1.13+	Selecting Share Base Table Only in Dynamic Share will cause non-saved modifications in the Before Share Script to be ignored	Not Fixed
06/27/2016	3.11.0	Unable to replicate messages using unencrypted	3.29.0
06/27/2016	3.8.0+	The Observer UI in ServiceNow might link to (instance). <a href="http://perspectium.com">perspectium.com</a> instead of <a href="http://perspectium.net">perspectium.net</a>	3.11.0
06/27/2016	3.8.0, 3.15.0	Replication of a table using the combination of AES128 and Table Maps configuration is not compatible	3.16.0
06/17/2016	3.8.0	Unable to read replicator messages shared by Replicator Agent from Oracle	Argon hotfix1
04/21/2016	3.8.0	When Bulk sharing records from SN to DB that ends increments of 1,000, the message set Finished time stamp for MBS and Replicator will be displayed as (empty)	3.9.0
04/15/2016	3.8.0	Replication of ServiceNow table views are not compatible	3.11.0
04/15/2016	3.8.0	Upon performing a Dynamic share, the Message Set Finished time stamp will be displayed as (empty) for MBS and Replicator Agent.	3.9.0
04/15/2016	3.8.0	The Finished time stamp of the message set is displayed as (empty) for MBS and Replicator Agent when a Bulk Share of 1 Record is ran.	3.9.0
04/20/2016	3.7.0	Unable to process records when using scheduled bulk share for Sys ID records.	3.9.0
04/04/2016	3.7.0	Share queue groups doesn't synchronize upon update and targeted group queue does not create.	Not Fixed
03/11/2016	3.6.0+	When upgrading the Update Set on Geneva instance, the commit error "Version loading was stopped by DictionaryUpdateLoader for sys_dictionary_u_psp_alerts_u_value" and "Version loading was stopped by DictionaryUpdateLoader for sys_dictionary_u_psp_table_map_u_script" might be present. The script and value fields however do get created in the two tables.	Not Fixed
02/10/2016	3.4.0, 3.4.1	Notifications on the subscribing instance that depend on activity log fields (such as comments or work_notes) will not occur in the subscribing instance because the XML received will have no value for these fields.	3.8.0
01/27/2016	3.4.0	History set does not replicate if no targeted queue is specified during replication.	3.4.1
01/12/2016	3.3.0-PATCH1	Messages with "" in one of the fields will cause JSON Exception and not be read by MBS.	Not Fixed
02/18/2016	3.3.0-PATCH1 - 3.4.0	Observer not fully running and sending all metrics.	3.3.0-PATCH4, 3.4.1
01/27/2016	3.3.0-PATCH1	Installing Update Set on a clean instance returned the preview error "Could not find a table field (psp_out_message.u_state_info) referenced in this update."	3.3.0-PATCH4, 3.4.1
01/18/2016	3.3.0	When user creates 2 dynamic shares on one table with different target queues, the user might receive an error when trying to add a reference field.	Not Fixed
01/11/2016	3.3.0	Bulk share "include all child tables" not working properly.	3.3.1
12/28/2015	3.2.9	If a user's instance has rules that also have the same name as ours (sysauto_script.*), our rules may override their rules which forces the customer to disable our rules in order for theirs to work.	Not Fixed
09/25/2015	3.2.9	First subscribe configuration being used when user has multiple subscribe configurations with the same "source table name".	3.3.0
12/10/2015	3.2.9	Empty XML generated from update set.	3.3.0
12/10/2015	3.2.9	Include Referenced Field Record related list always show even if the checkbox for Include Referenced Record is not checked.	3.3.0
01/12/2015	3.2.9	Error on inbound subscribe where sys_history_line table having a column named "update" causing an error when calling GlideRecord update().	3.3.0
11/13/2015	3.2.9	Scheduled Bulk Share not functioning	3.3.0
10/1/2015	3.2.7	Unable to access to the local glide record in Before subscribe script before updating with replicated message	3.2.8
09/28/2015	3.2.7	Endpoint URL for subscribe queue error without the "/".	3.2.8
08/05/2015	3.2.4	When MBS is down, ServiceNow scheduled job for multi output processing stops forever.	3.2.8
07/28/2015	3.2.4	Replicator subscribe configuration not used if base table subscribe configuration also exists.	3.2.4-PATCH2
10/10/2015	3.2.4	Users is not alerted when the application generates an error, particularly when MultiOutput processor fails to post.	3.2.5
06/24/2015	3.2.3	JavaScriptException: java.lang.NullPointerException Errors on ServiceNow.	3.2.8



06/22/2015	3.2.1	Dynamic Share is generating unwanted sys_attachments to be sent.	3.2.8
06/24/2015	3.2.1	sys_translated_text field not supported in update set.	3.2.8
06/24/2015	3.2.1	sys_choice entries not replicating.	3.2.8

## DataSync Agent

Date Detected	Releases Affected	Issue	Fixed in Release
06/01/2018	Argon +	Foreign characters not correctly sharing out from database to ServiceNow	Bismuth, Dubnium
06/01/2018	Carbon	The formatting for the agent.xml displays incorrectly	Dubnium
04/26/2018	Argon	If Agent is ran with a queue that doesn't exist, it will display "the [queue] you are subscribing to does not exist, it will be auto-created once data is shared to it...retrying." even after the queue gets created.	Dubnium
07/06/2017	3.16.0+	Running the Agent Validation Configuration will consume messages if message connection is set to HTTPS and specified queue	3.25.0
06/27/2017	3.23.0+	Agent message set activity count not displaying correctly in ServiceNow with AMQP(S) connections	Not Fixed
06/20/2017	3.23.0+	Empty MBS logs are generated in the Agent log folder	Carbon
05/07/2017	3.20.0	Agent might hang at times on performance reporting threads	3.21.0
02/15/2017	3.18.0	Agent returns a WARN message TableStatsReporter - Error: java.lang.NullPointerException for MySQL Agent.	3.25.0
01/12/2017	3.17.0	Agent returns a StatusLogger error on start up when ran on a Windows environment.	3.18.0
12/23/2016	3.14.0+	Oracle Agent will return the Error ORA-00955: name is already used by an existing object when replicating inserts to an Oracle DB running multiple subscribe tasks	3.17.0
10/26/2016	3.14.0+	Agent will receive a WARNING - Unable to load the Wrapper's native library 'wrapper.dll' when ran using a 64-Bit JVM instead of 32-Bit	Not Fixed
09/29/2016	3.13.0	Replication of database view tables returns a Table Action error	3.14.0
07/20/2016	3.11.0+	The message set activity reported by the Agent is incorrect for HTTPS connections	3.25.0
07/08/2016	3.11.0	The Agent will return an error if the name of the Agent created contains non-alphanumeric characters	3.12.0
06/17/2016	3.10.0+	Sharing of Uppercase columns from Database to ServiceNow is not compatible.	Not Fixed
06/07/2016	3.10.0+	The message set count might be incorrect if the Replicator Agent is interrupted and resumed during data replication.	Not Fixed
06/07/2016	3.10.0+	The missing of 1 record is possible if the Agent process is suspended or interrupted then resumed during data replication. (AMQP/S)	Not Fixed
06/20/2016	3.9.0	ServiceNow database view tables do not replicate to the Database correctly	3.10.1
05/25/2016	3.9.0	When replicating a long table with a similar name that gets truncated by default to Oracle DB, only one column will replicate since when truncated, the names will be the same.	Not Fixed
06/06/2016	3.8.0	issue which would cause a DB timeout when retrieving metadata for very large tables.	3.10.1
06/13/2016	3.8.0	Issue with Replicator Agent DB sharing which resulted in no shared records when a criteria of last updated date field was used	3.10.0
05/25/2016	3.8.0+	Dynamic columns feature in the Agent configuration is not functioning properly.	3.15.0
06/03/2016	3.2.5+	When replicating ServiceNow fields that contains CR and LF, the values "&#13" are replicated to the Database	3.10.1
04/28/2016	3.2.5+	Replicator will return a SQLException - identifier is too long error when a Table name with over 30 characters is replicated.	3.9.0
04/15/2016	3.7.0	Upon replicating a field that contains decimals from SN to a DB, the value listed in the DB after replication would contain extra decimals (5 places).	3.14.0
04/01/2016	3.7.0	Agent might display a Dpapi -decrypted value Error although user credentials are correct and protected although data successfully replicates to MSSQL DB	3.8.0
03/30/2016	3.7.0	Agent might encounter various SQLTableStructure errors during replication due to new Data Types for Geneva	3.8.0
03/29/2016	3.7.0	Agent returns a ERROR SQLTableStructure when the data type "Glide_date" is replicated.	3.9.0
03/16/2016	3.6.1	Agent returns a TableAction error String or binary data would be truncated when replicating a larger dictionary value of a ServiceNow field. (MSSQL only)	3.8.0
03/16/2016	3.6.1	Agent displays a WARN SQLTableStructure - Column: [custom_price_field] type error but can't modify the type! when replicating a custom price field (Oracle and MSSQL)	3.7.0
03/11/2016	3.6.0	Agent returns a SQLTableStructure error when replicating a larger dictionary from two different ServiceNow instances.	3.7.0

03/11/2016	3.6.0, 3.6.1	Agent returns a SQLSubscriber error when replicating a larger dictionary value of a ServiceNow field.	3.7.0
03/07/2016	3.6.0, 3.6.1	Agent receives a WARN SQLROW message when a non json array data is excluded as json array	3.7.0
02/18/2016	3.5.0	Replication of a custom price field that uses the currencies (Euro, Pound, Yen, and CHF) defaults to system currency of ServiceNow	Not an Agent Issue
02/18/2016	3.5.0	Korean Characters do not replicate correctly to Oracle DB.	Not Fixed
02/16/2016	3.5.0	Database mapping for MySQL is not mapping all types properly.	3.9.0
02/16/2016	3.5.0	Database_connection_timeout use error.	Not Fixed
02/16/2016	3.4.4+	Replicator agent does not start if one of the target databases is not accessible.	3.9.0
02/12/2016	3.4.2+	Agent returned a Table Action error after adding a new column field name that is larger than 60 characters.	3.8.0
12/11/2015	3.3.0 - 3.4.4	When replicating a table that contains the fx_price field, the agent will return an error if the fx_price column is not excluded using the <exclude_columns> directive.	3.5.0
01/27/2016	3.4.1, 3.4.2, 3.4.3	Sharing feature of Replicator agent does not function correctly, this is due to the set fetch size change.	3.4.4
02/08/2016	3.4.0	Replicated data that is too large to fit into the target column is not truncated.	Not Fixed
02/08/2016	3.4.0	When subscribing to MySQL, a failure might occur when the database is inactive for a long period of time	Not Fixed
01/25/2016	3.4.0, 3.4.1	Replicator agent would hang when replicating to a DB that has a large amount of rows for tables sys_journal_field and sys_audit.	3.4.2
01/12/2016	3.4.0	The connection closes when a queue that doesn't exist is queried.	3.5.0
12/15/2016	3.3.0-3.4.4	Replicator's default string size is not 250.	3.5.0
01/17/2016	3.3.0	Unknown column error when schema directory is not present and a new field is created on ServiceNow and replicated to Oracle DB.	3.3.1
01/19/2016	3.3.0	Replicator Agent throws error when connecting to a MySQL database with any username other than "root".	3.3.1
12/28/2015	3.3.0	A dynamic share that has update as its action will not be applied to a non-existent primary key, SQL will state no update and it's not reported as an error.	Not Fixed
01/17/2016	3.3.0	Upon running a bulk share of a table with new custom created fields to an Oracle DB, the newly created field would display in Uppercase.	3.3.1
01/19/2016	3.3.0-3.4.4	Replication of a ServiceNow view is failing when there's more than 1 pseduo sys_id field and one of them has no value.	3.5.0
01/11/2016	3.3.0	Data is lost when schema service is interrupted.	3.4.0
12/28/2015	3.3.0	Customer using SQLSubscriberIODateTimePlugin report inconsistencies up updating target table	3.4.0
11/13/2015	3.2.5	Name is displayed as "Will be overwritten" on ServiceNow after running a share task on agent from DB to Servicenow	3.3.0
12/14/2016	3.2.5	Upon sharing a table from an Agent to ServiceNow, an Error is returned with an invalid record state. The name field in ServiceNow is displayed as ticket.null.	3.3.0
12/09/2015	3.2.5	Customers are not able to share views since they don't have a sys_id which is required as the primary key.	3.3.0
12/03/2015	3.2.4, 3.2.5	Upper case columns replication for Oracle DB not functioning correctly.	3.3.0
10/20/2015	3.2.5	"File not found" error after selecting the option Exchange and did not get an option to enter in our exchange name.	3.2.9
08/07/2015	3.2.4	Agent not catching floating poin values for integers which caused a Numberformat exception.	3.2.5
08/03/2015	3.2.3	When PSP_SCHEMA is downloaded, both upper case and lower case files are created.	3.2.4
07/28/2015	3.2.3	Encrypted string values in config fields not working properly.	3.2.4
07/06/2015	3.1.15	When a queue is missing, replicator agent goes into loop repeatedly.	3.2.3
08/28/2015	3.1.14	Chinese and Japanese Characters does not properly replicate to DB	3.1.15

## Observer / Dashboard

Observer			
Date Detected	Versions Affected	Issue	Fixed Version
04/17/2018	Bismuth (3.30.1)	User can not create or delete custom trend groups	Bismuth 3.31.1
04/17/2018	Bismuth (3.30.1)	Import alert definitions display errors even on success	Bismuth 3.31.1
04/15/2018	Bismuth (3.30.1)	Monitor calendar doesn't allow you to select current date	Bismuth 3.31.1

02/12/2018	Bismuth (3.30.1)	Removed use of Packages call for detect situations business rule	Bismuth 3.31.1
02/03/2018	3.24.0	Top Ten next day button disabled for the same day of each month	Bismuth 3.30.0
12/10/2017	3.24.0	Top ten new slow SQL statements shows "undefined undefined"	3.29.0
09/28/2017	3.24.0	Alert configurations fails to load alerts	3.28.0
09/27/2017	3.24.0	User is unable to clear all alerts in alert lists	3.27.0
09/27/2017	3.24.0	Scheduled data cleaner job does not delete messages	3.27.0
09/25/2017	3.24.0	Observer logo not showing up in Firefox and Microsoft Edge	3.27.0
09/20/2017	3.24.0	Top Ten next day button disabled for the same day of each month	3.27.0
09/20/2107	3.24.0	Calendar will be empty when switching between Trend and Top Ten pages	3.27.0
08/20/2017	3.24.0	Minor UI issues	3.26.0
08/01/2017	3.24.0	User is unable to download images from the monitor	3.25.0
07/29/2017	3.24.0	Instance drop down list will not adjust accordingly when window is resized	3.25.0
07/21/2017	3.24.0	Minor graphical issues with the Top Ten UI page	Argon
07/15/2017	3.24.0	Newly created users were not able to login	3.25.0
07/15/2017	3.24.0	Change password options did not authenticate correctly	3.25.0
07/11/2017	3.23.0 +	User might not be able to login to Observer using new created password	3.25.0
06/30/2017	3.23.0	Not able to support of Single Sign On	3.24.0
06/20/2017	3.20.0	Minor UI issues	3.23.0
05/17/2017	3.20.0 +	There's a symbol ` on the Observer logo for all of our Observer pages	3.23.0
02/09/2017	3.18.0	Log out button on Observer is not consistent with dashboard's log out button.	3.24.0
02/07/2017	3.18.0	Minor graphical bugs	3.22.0
02/07/2017	3.18.0	De-activating an Action would not stop it running from for the "On Alert" Interval	3.19.0
02/01/2017	3.17.0	Change password link navigates user to the login screen	3.18.0
01/10/2017	3.11.0	Hamburger menu not opening in dashboard	3.17.0
11/10/2016	3.11.0	Encoding errors preventing trend page from loading	3.16.0
11/30/2016	3.11.0	Finish install situations instead of including as part of update set	3.16.0
07/27/2016	3.11.0	Observer's top right menu drop down might not resize on the web browser correctly	
07/27/2016	3.11.0	Page resizing issue after accessing the Options menu in the Monitor page	3.12.0
07/27/2016	3.11.0	Options menu of the Monitor page might become unresponsive	3.12.0
04/14/2016	3.3.0+	Observer password does not support non-alphanumeric characters	3.8.0
04/13/2016	3.4.4+	Unable to log in to Observer after inactive time out.	Not Fixed
03/23/2016	3.3.0+	The "Please select an option from the list" is displayed incorrectly in Observer upon canceling the creation of an event.	3.8.0
03/23/2016	3.3.0+	The Change password URL for Observer is truncated if the user name is too large, causing it to link to an incorrect login page.	3.9.0
12/21/2015	3.3.0	Observer alert config description field won't properly save updates with CR or double quote.	3.4.0
11/13/2015	3.3.0	Semaphores hour label is not readable in Observer trend chart.	3.6.0
11/13/2015	3.3.0	Server page graphs are not showing data in Observer.	3.6.0
11/13/2015	3.3.0+	Sessions is not showing values in Observer page.	3.8.0
11/13/2015	3.3.0	Transient, invalid graph showing up when clicking render chart on Observer.	3.6.0
11/13/2015	3.3.0+	From To date does not reflect selected calendar start date.	3.8.0
12/9/2015	3.3.0	Monitor alert counts showing "value.indexOf is not a function".	3.4.0
1/18/2016	3.2.5+	The "Carrot" symbol in Events alert configurations causes the Observer user to not receive alerts.	3.6.0
12/23/2015	3.2.5+	Trend Charts takes a long time to load for monthly and weekly data.	3.7.0
10/15/2015	3.2.5+	Drop down tables in Observer do not close when user navigates to a different screen within the Observer site.	3.14.0
9/15/2015	3.2.5	"Delete Selected" doesn't work for custom alerts on alert configurations page.	3.5.0
10/15/2015	3.2.5	Alert configuration is telling me it saved a record which had no input but subsequently the empty records are not reflected. Should state and edit for required fields.	3.7.0

9/4/2015	3.2.5	The "Order" column of psp_perspective does not function correctly. New entries created for example for Statsx, will always move to the end of Observer page.	3.3.0
<b>Dashboard</b>			
11/28/2017	[[argonArgon (3.27.0)	Pie charts data might not display correctly for Subscribe and Share	Argon (3.27.3)
02/12/2017	3.15.0+	Dashboard navigates to the incorrect Observer page when accessed through the Replicator Subscribe/Share pages	3.25.0
01/09/2017	3.17.0	Upon logging out of Dashboard, the user is required to enter login credentials twice	3.18.0
01/11/2017	3.17.0	The server response time data in the availability might not be displayed correctly on Dashboard	3.18.0
12/05/2016	3.14.0+	The Settings icon is not selectable when scrolling near the bottom of the Dashboard page	3.17.0
12/05/2016	3.14.0+	Upon resizing the Dashboard browser, the Dashboard windows do not properly expand back to original size	3.17.0

## Perspectium (Replicator) for Salesforce

Date Detected	Versions Affected	Issue	Fixed Version
02/11/2017	Carbon	Comments received from Salesforce to ServiceNow does	Not fixed
02/11/2017	3.18.0	If "Save" is clicked on a previously ran/running Bulk Share in Salesforce, the Bulk Share's status will display "Running" indefinitely	Carbon
02/11/2017	3.18.0	There's a preview error upon installing the Salesforce update set	Carbon
02/11/2017	3.18.0	Bulk Share cancel not functioning correctly on a large Bulk Share	Not fixed
09/22/2016	3.18.0	The user is able to execute a Bulk Share when the filter condition has an error, hence, it causes the Status of the Bulk Share to be displayed as "Running" indefinitely	Not Fixed
09/19/2016	3.18.0	When replicating a field with carriage returns from Salesforce to DB, the CR will be displayed as \r\n	Argon