



RayVentry Data Hub 12.5

12.5.5195.87 [Update 04] [↗](#)

Released on 26. Juni 2023

Expanded Cloud Connectors Library and Features [RR-3723](#) [↗](#)

Cloud connectors have been updated (internal version [2023.1.1](#)). In this release, we added the following new cloud connectors:

- BMC Discovery [KOT-233](#)
- Coda [KOT-224](#)
- Confluence [KOT-246](#)
- LeanIX SMP [KOT-268](#)
- Tanium Asset [KOT-172](#)
- USU Oracle Optimization [KOT-181](#)

Additionally, the following improvements have been implemented:

- Asana: Extended user and event data. [KOT-209](#)
- Azure Compute Inventory: Adjusted default parameters. [KOT-237](#)
- Box: Correct spelling of parameters. [KOT-278](#)
- CrowdStrike Falcon: Upgraded deprecated device details endpoint. [KOT-334](#)
- Google Cloud Compute: Adjusted IP output, region and project separation. [KOT-165](#)
- IBM ILMT: new date parameter and dynamic date calculation. [KOT-261](#)
- Kubernetes: Add Environment information for Containers. [KOT-210](#)
- Okta: Added support for `logs` endpoint. [KOT-223](#)
- Improved display names in several Microsoft, ServiceNow and VMware connectors. [KOT-222](#)
- Microsoft Azure connectors now receive `subscriptionId` for all targets. [KOT-212](#)
- Microsoft Azure Active Directory now supports `SignInActivity`. [KOT-269](#)
- Microsoft Azure Compute Inventory: Parameter workspace id has been changed to a list. [KOT-221](#)
- Microsoft Office 365: Request period for `AppUserDetail` has been increased from 30 to 90 days. [KOT-240](#)
- Proxmox: Server table has been renamed to `Metric`. [KOT-241](#)
- SAP BTP: Endpoint `cloudCreditsDetails` now returns all phases. [KOT-242](#)
- Zoom: Support for OAuth. [KOT-250](#)

Furthermore, there are various internal stability, performance, and miscellaneous improvements. [KOT-247](#) [KOT-76](#) [KOT-201](#) [KOT-203](#) [KOT-86](#)

Performance Optimizations of the Transform Engine [↗](#)

In this release, we improved the performance and resource consumption of the transformation process. Additionally, some data-related issues have been fixed:

- Joining on `null` values now returns results which are consistent with typical SQL joining. This also eliminates an issue with “ghost” entries, which could be produced in case of some specific combinations of `null` values in the joined tables. As a result, this version fixes an important regression introduced in the previous version (12.5 Update 3), where some joining and deduplication operations could lead to timeouts and exhaustion of free disk space. [RR-3737](#) [ZEN-23196](#)
- The deduplication step now returns correct values for column-based deduplication if the benchmark column contains `null` values and either the *Min* or the *Max* strategy is used. [RR-3640](#) [ZEN-22707](#)
- It is now possible to enrich a table with a fallback value only. Additionally, if the enriched column already contains a value, it is not going to be enriched anymore. This makes it possible to use enrichment steps as a placeholder and later easily add more table look-ups once they are available and needed. In previous versions, this behavior had to be simulated with a combination of specially crafted map and enrichment steps. [RR-3733](#) [ZEN-23270](#)

Other Improvements [↗](#)

- Based on user feedback, we extended and/or clarified several sections of the product documentation, plus provided more background information for specific use cases. [RR-1908](#) [RR-3654](#) [RR-3492](#) [RR-3491](#) [RR-3697](#) [RVS-121](#) [RVS-142](#) [RVP-2083](#) [RVP-2064](#) [RVP-2068](#) [RR-3246](#) [RR-3604](#) [RVP-2022](#) [RR-3501](#) [RR-3727](#)
- The selection of the default tenants has been improved (KeyCloak managed sign-in). There is now a new setting `InitialTenant` which can route new users upon creation to a specific tenant. [RR-3699](#)

Security Improvements [↗](#)

- Updated vulnerable libraries of transitive dependencies in Cloud connectors. [KOT-338](#) [RR-3723](#)

Resolved Issues [↗](#)

- Fixed the creation of AD users under KeyCloak control. [RR-3595](#) [ZEN-22238](#)
- Fixed possible timeouts when writing large chunks of data to the SQL Server database. [RR-3769](#) [RR-3640](#)
- Added missing language texts for French and Russian languages. [RR-3647](#)
- Fixed rare issues, where a duplication of indexes would be reported when running complex transformations. [RR-3725](#) [ZEN-23193](#)
- Fixed various issues in Cloud connectors: [RR-3723](#)
 - Atlassian Cloud: Deserialization issue. [KOT-282](#)
 - Atlassian Jira: Missing e-mail address. [KOT-281](#)
 - Azure Active Directory: Missing parameter employee ID. [KOT-280](#)
 - Azure Compute: Exception when fetching a missing resource. [KOT-185](#)
 - CrowdStrike Falcon: Error `HTTP 400 Bad Request` when fetching multiple pages. [KOT-290](#)
 - GitHub: Issues with the parameter `minutes_used_breakdown`. [KOT-231](#)
 - Qualys: Timeout issues. [KOT-276](#)
 - SAP BTP: Fixed issues with ignoring of certificates. [KOT-242](#)
 - SAP Concur: Resolved naming issues. [KOT-189](#)
 - Sophos Central: Error `HTTP 415 Unsupported Media Type`. [KOT-308](#)
 - Tableau: Issues with refresh tokens. [KOT-289](#)
 - VMware Vcenter: Fixed issues with ignoring of certificates. [KOT-275](#)
 - VMware vROps: Fixed incorrect descriptions of the authentication parameters. [KOT-259](#)

12.5.5182.85 [Update 03] [↗](#)

Released on [27. Apr. 2023](#)

Improvements [↗](#)

- **CONNECTORS** Cloud connectors (Kotlin) received a feature update to version 2022.4 patch 2. [RR-3676](#)
- **REPORTING** Adjusted the "Hardware overview" and added a navigation link, making it easier for users to access important information. [RR-3659](#)
- **RAYVENTORY CATALOG** Added the ability to retrieve the value of a custom attribute set on a product/publisher from the RayVentory Catalog. Additionally, there are several other minor changes and internal improvements. [RR-3660](#) [RR-3653](#)
- **REPORTING** Changed the navigation links in the Software Asset Management, making it easier for users to access important information. [RR-3668](#)

Security Improvements [↗](#)

- Added a password check to ensure that users choose strong passwords that meet password security requirements. [RR-3629](#) [ZEN-21156](#)
 - This feature can be activated by editing the property `passwordFormat` in the `appsettings.json` file.

For a secure password requirement, including the minimum length, the presence of uppercase and lowercase letters, numbers, and special characters you can use the sample value: `"^(?=.*?[#?!@$%^&-])(?=.*[0-9])(?=.*[a-z])(?=.*[A-Z])[a-zA-Z0-9\\#?!@$%^&-]{8,}$"`.

Please note, that values in JSON files may not contain unescaped backslash (`\`) or quotation marks (`"`) characters; they have to be encoded as `\\` (like in the above example) and `\"` respectively.

Resolved Issues [↗](#)

- **TRANSFORMATION** Fixed issues with join statements not supporting null columns and wrong conversion to date for columns during the transformation process. [RR-3640](#) [ZEN-22707](#)
- **KEYCLOAK** Added missing `LogoutUrl` placeholder in the configuration file. [RR-3634](#)
- **REPORTING** Fixed various issues in the default reports:
 - Fixed an issue with the "Software portfolio overview redundant software" task and dashboard, ensuring that all data is displayed accurately. [RR-3649](#)
 - Adjusted the detailed vulnerability report to ensure that it is displaying the correct information. [RR-3607](#) [ZEN-22076](#)
- **KEYCLOAK** Fixed an issue, where emails were not being sent to users authenticated by external identity providers. [RR-3636](#)
- Fixed an error "*The size (8000) given to the parameter 'Type' exceeds the maximum allowed (4000)*" reported by MariaDB / MySQL tasks. [RR-3608](#) [ZEN-21753](#)
- Fixed possible `NullPointerException` when running the RayVentory Catalog task. [RR-3631](#)
- Fixed minor issues with localized texts. [RR-3632](#) [RR-3518](#)
- Fixed an issue, where task description and task owner were incorrectly represented in the UI. This change fixes the previously introduced functional update in version 12.5 Update 3. [RR-3633](#)
- Added missing owner and description fields and generated migration for MySQL. [RR-3638](#) [ZEN-22666](#)
- Fixed an issue, where certain task types were not showing a configuration UI if a multi-value (array) parameter was used by their authentication sections. This change affects several connectors, mostly AWS-related. [RR-3639](#) [ZEN-22683](#)
- Improved the performance of OUTER JOIN queries in the transformation process. [RR-3637](#) [ZEN-22658](#)
- Added missing relations to VMWare cluster names. [RR-3650](#) [ZEN-22370](#)

12.5.5136.79 [Update 02] [↗](#)

Released on [9. März 2023](#)

Feature Update of Cloud Connectors RR-3587 [↗](#)

This version adds and improves many cloud connectors (internal version 2022.4.1).

The following changes are included:

- Added the parameter `account_list` in the `aws.ec2` and `aws.rds` connectors. KOT-126
- In the connectors `aws.ec2`, `aws.rds` and `aws.s3`, AWS China is now available. KOT-110
- JAMF Pro can now report the application usage and extension attributes. Additionally, the description and the in-app help texts have been updated. KOT-176 KOT-204 KOT-171
- The `microsoft.azure.computeinventory` connector can now fetch data from multiple workspaces. KOT-124
- It is possible to ignore certificate errors in the `nutanix` connector. KOT-162
- The `kubernetes` connector now reports information about worker or master node. KOT-202
- The `microsoft.azure.compute` connector now reports dedicated hosts and host groups in the `virtual_machines` table. KOT-177
- The performance of the Microsoft Azure Computer connector has been improved. KOT-188 KOT-193 KOT-200 205
- Various improvements in the Microsoft Office 365, Microsoft Azure AQL, and Microsoft Intune connectors. KOT-169 KOT-150 KOT-178
- Updated the connector description of the `qualys` connector. KOT-187
- The `SAP.BTP` connector now reports month and year for the usage data. KOT-215
- Various improvements of the schema and descriptions of fields in the `servicenow.licensedata` and `servicenow.table` connectors. KOT-180 KOT-175

New Metadata Fields for Tasks RR-3459 RR-3460 ZEN-20947 [↗](#)

Tasks now have two extra fields, that contain a textual description and the user who is the owner of the transformation.

Edit task ×

General Configuration Connection Agent settings Schedule Info

NAME *

Inventory device

DESCRIPTION

This is a task to collect data about the devices that RayVentry has inventoried.

OWNER

John Smith

Updated UI of the task editor.

Significant Performance Improvements of Transformations and SQL-Server Operations RR-3600 [↗](#)

RR-3600 [↗](#)

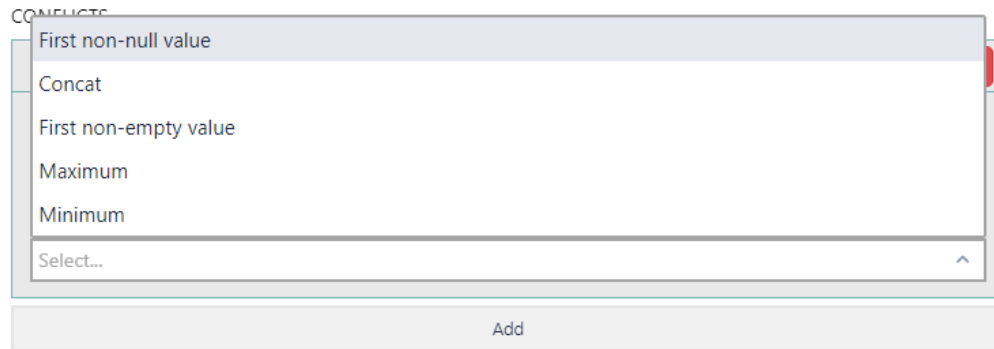
DATA TRANSFORMATION In this build we vastly improved the performance of the SQL-Server reader/writer and transformation components. With plenty of backend changes, RayVentry Data Hub can now achieve much better throughput, faster execution times, and less CPU and RAM usage.

Generic changes in the SQL-Server related logic positively impact the transformation (both server- and agent-based) but also generic operations on the tenant database. As a result, inserting of data is much faster when using SQL-Server database driver.

New Transformation Type - Aggregation “First Not Empty” RR-3557 ZEN-20984 [🔗](#)

DATA TRANSFORMATION In previous versions, there were several ways of aggregating the data, one of them being “first not null” also known as “coalesce”. This mode ensured, that the first value not being NULL is taken. Based on the feedback, we introduced another, similar mode, called “first not empty”. In this mode, whitespace-only strings are also ignored, so that a chain of values `NULL`, `<empty-string>`, `"A"` gives the following results:

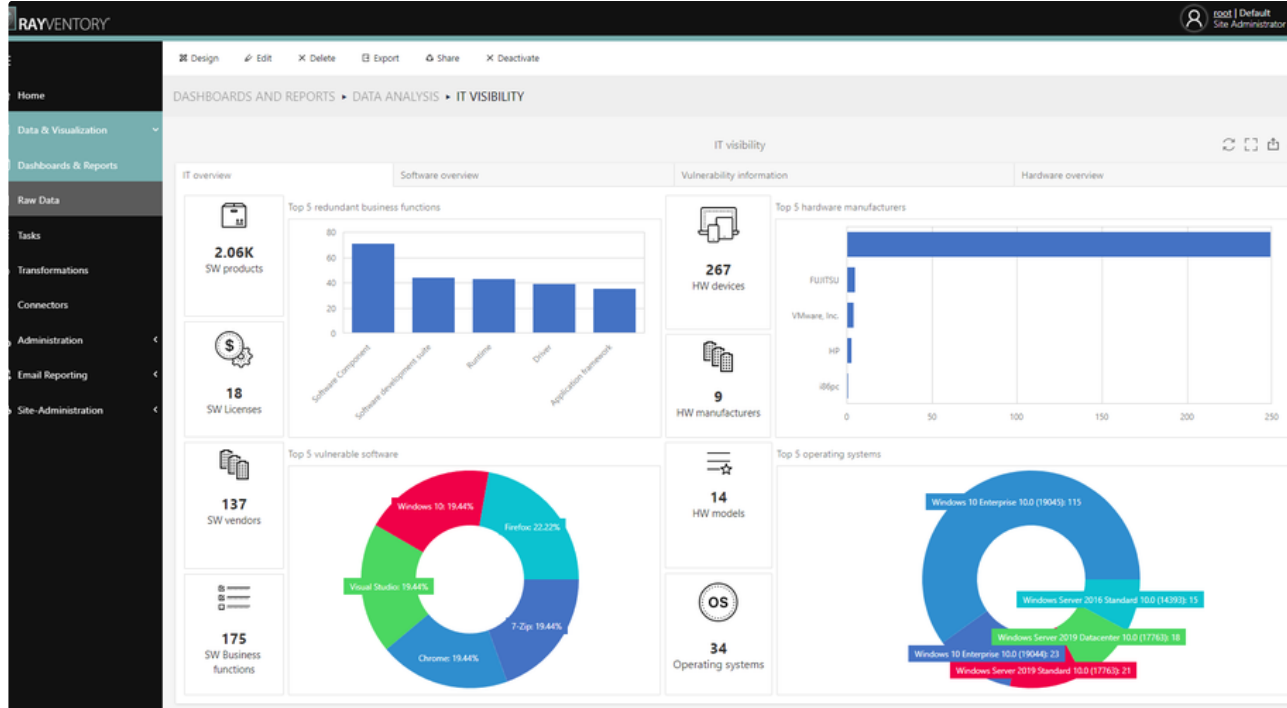
- First not null: `<empty-string>`
- First not empty: `A`



New option in the aggregation selector. This works for both join operations, as well as for column-based aggregations.

New Default Color Schema RR-3538 [🔗](#)

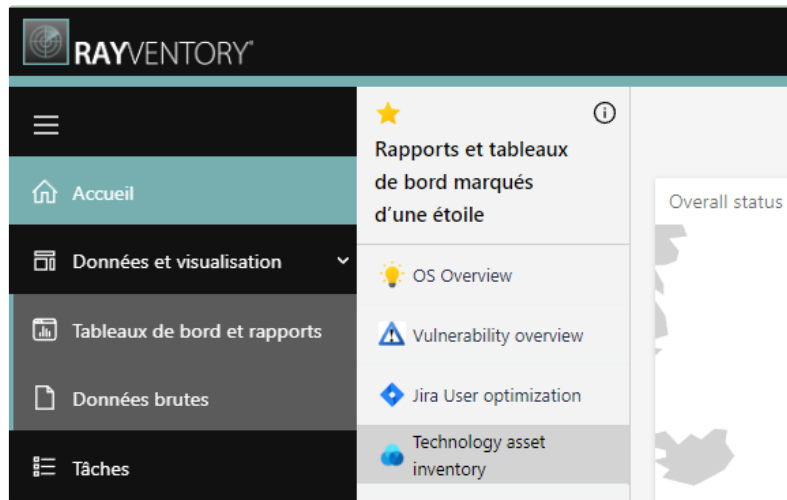
In this build, we changed the default color scheme to make bar and pie chart elements more distinguishable.



Other Improvements [🔗](#)

- **DATA TRANSFORMATION** The name of the group column for the “group” step is now optional. When omitted, this extra column is not added anymore. In previous versions, the name was required and there was no way to opt-out from the extra count column. RR-3609 ZEN-20889

- **DATA API** In the Data Hub API, it is now possible to get the results in the JSON format (depending on the value of the `Accept` header). [RR-3584](#)
- **PREVIEW** In this build, we have added support for the French localization of the user interface. This is a preview feature. [RR-3476](#)



Security Improvements [↗](#)

- Updated library [datatables.net](#) to version 1.10.23+ to eliminate the potential software vulnerability [CVE-2020-28458](#). [RR-3466](#) [ZEN-21063](#) [ZEN-21397](#)
- Resolved various issues with the delegation of authentication to the external identity provider. This change should have a visible change in terms of less flickering and screen changes, when the user gets authenticated. [RR-3617](#) [ZEN-21156](#)

Resolved Issues [↗](#)

- **DATA TRANSFORMATION** Fixed issues with the LEFT and OUTER join logic of the join steps. [RR-3560](#) [ZEN-21502](#)
- **CATALOG** Fixed an issue with the data being partially ignored by the RayVentory Catalog connector task. [RR-3621](#) [ZEN-22464](#)
- Fixed wrong logging for tasks with timeout. [RR-3462](#)
- **DATA TRANSFORMATION** Transformation steps with aggregation of the type `concat` now properly return `null` when all values are `null`. Previously, an empty string was returned. [RR-3585](#)
- **KEYCLOAK** Fixed an issue with e-mail field getting an automated prefix `preferred_username` when using KeyCloak-based authentication. [RR-3542](#)
- The message shown when trying to delete a group with permissions has been reworded. [RR-2511](#)
- **DATA TRANSFORMATION** Fixed an issue where an incorrect source was created when switching between the `table` and `step` source. [RR-3590](#) [ZEN-22359](#) [ZEN-21741](#)
- **DATA TRANSFORMATION** Fixed minor UI issues with the default standard transformation. [RR-3558](#)
- **DATA TRANSFORMATION** Fixed an issue with macro handling, where in some cases the parameters could be wrongly resolved. [RR-3606](#) [ZEN-21871](#)
- **KEYCLOAK** Fixed issues where signing out directly from the home screen was not possible without triggering a navigation. [RR-3457](#) [ZEN-21156](#)
- Restored missing ITSM connector tasks and variables. [RR-3597](#) [RR-3596](#)
- Fixed various issues in cloud connectors:
 - Fixed wrong description in the Azure AD configuration. [RR-3546](#)
 - The `AWS.Athena` and `GCP.BigQuery` connectors could not fetch the data. [KOT-152](#)
 - Various issues with parameter relations: `hcl.bigfix.inventory`, `ibm.ilm`, `microsoft.azuread`, `microsoft.azure.compute`, `microsoft.azure.computeinventory`, `microsoft.azure.consumption`, `microsoft.azure.loganalytics`,

`microsoft.azure.sql`, `microsoft.graph.generic`, `microsoft.intune`, `microsoft.m365.signins`, `microsoft.office365`, `salesforce`, `salesforce.soql`). [KOT-195](#)

- Wrong serialization of the e-mail field in the JAMF Pro connector. [KOT-197](#)
- Duplicate items in the `microsoft.azure.compute` connector in the `vm_skus` table. The table has duplicates though it should only have unique entries. [KOT-168](#)
- Inconsistent list and comma-separated parameters in the `aws.ec2`, `aws.rds`, `aws.s3` connectors. [KOT-167](#)
- Various issues in the Microsoft Azure Computer connector. [KOT-198](#) [KOT-208](#)
- Wrong file handling and overriding resources in the `aws.s3` connector. [KOT-131](#)
- Wrong usage of format and limit parameters in the `microsoft.graph.generic` connector. [KOT-211](#)
- Long runtime of the VMware AirWatch connector. [KOT-199](#)

Known Issues [↗](#)

- Standard reports are available in the SQL-Server flavor only.
- The installer uses the SQL-Server as the default database type. In order to use MariaDB, skip the database creation step during the installation and adjust the configuration before starting the product for the first time. This does not affect the Docker-based installation, where the selection of the database type is determined by using a specific environment variable.
- The import of Excel files into container tasks does not work in combination with the MariaDB-based setup.
- Previous KeyCloak configurations will not be preserved during the migration process in the MSI-based installation. It is recommended to backup and restore your `appsettings.json`.
- New users, created when using an external identity provider KeyCloak receive suffix `@datahub.com` in their e-mail field, regardless of their actual e-mail. This is cosmetic issue; if required, the e-mail address can be changed by in the user profile menu. [RR-3636](#)

12.5.5086.74 [Update 01] [↗](#)

Released on [26. Jan. 2023](#)

Resolved Issues [↗](#)

- Fixed an issue with incomplete results saved to the tenant results database when using SQL Server database. [RR-3529](#) [ZEN-21404](#)
- Fixed an issue with missing editor for standard de-duplication step with `maxValue` strategy. [RR-3558](#)
- Fixed an issue, where the priority of joined columns could be lost when saving changes in the Transformation editor. [RR-3516](#) [ZEN-21256](#)
- Fixed conversion of date (`InstallDate0`) in *ECM SQL SOFTWARE ARP* task. [RR-3558](#)
- Various fixes in cloud connectors (internal version 2022.3.2): [RR-3528](#)
 - Fixed connection issues with Microsoft Azure Computer and Microsoft Azure SQL connectors. [KOT-153](#) [KOT-194](#)
 - Fixed faulty parameter assertion on `apiKey`, `username` and `password` in the HCL BigFix connector. [KOT-186](#)
 - Fixed unknown fields `parentName` and `parentId` and turned the `businessunits` to be optional in the Salesforce Marketing Cloud. [KOT-153](#)

Breaking Changes [↗](#)

- In SAP BTP connector, `clientId` and `clientSecret` are now required. [KOT-166](#) [RR-3528](#)

Known Issues [↗](#)

- On Windows, when upgrading existing version of Data Hub server, previous settings like KeyCloak connection or database settings may be lost. It is recommended to back-up the file `appsettings.json` and restore it after the installation is finished.
-

12.5.5081.73 [RTM] [↗](#)

Released on 29. Dez. 2022

Support for MariaDB / MySQL Databases [RR-2091](#) [RR-3362](#) [RR-1087](#) [ZEN-17726](#) [↗](#)

From this version on, Data Hub supports dual database types. The user can choose between SQL Server (standard setting) and MariaDB / MySQL. The selected database engine is used for both, product tables and tenant data. More information about switching to MariaDB database can be found in the product Installation Guide.




New Dedicated Connector to Query MySQL / MariaDB Databases [RR-3471](#) [ZEN-20972](#) [SCON-217](#) [↗](#)

What previously was only available as a generic ODBC query is now accessible as a standard connector, working similarly to the already available SQL Server connector. Both connectors can be used regardless of the used database engine.

Edit connector settings ✕

[General](#) [Info](#)



NAME
MariaDB

VERSION
12.5.60.1457

LICENSE
This connector is licensed.

VISIBILITY [🔒](#)
 Show this connector

[Create a new task...](#)


[Save changes](#) [Discard](#)

New Kubernetes Connector [RR-3461](#) [↗](#)

The new Kubernetes connector has been added.

Edit connector settings ✕


[General](#) [Info](#)



NAME
Kubernetes

VERSION
12.4.202203.1

LICENSE
🔒 This connector is not licensed.

VISIBILITY 
 Show this connector


[Save changes](#) [Discard](#)

New SAP Business Technology Platform (BTP) Connector and Connector Improvements RR-3461

The SAP Business Technology Platform (BTP) connector has been added. Additionally, there have been further improvements and fixes regarding the connectors.

Edit connector settings ✕


[General](#) [Info](#)



NAME
SAP Business Technology Platform (BTP)

VERSION
12.4.202203.1

LICENSE
This connector is licensed.

VISIBILITY 
 Show this connector

[Create a new task...](#)

[Save changes](#) [Discard](#)

Other Features and Improvements

- Improved KeyCloak integration. RR-3428 RR-3421
- The standard ETL script for Office 365 and Active Directory has been improved. RR-3468 ZEN-21074
- Improved fonts used by the Docker-based server. RR-3371

- **AZURE COMPUTE** Improved Azure Compute connector, which now can detect missing providers for subscription and uses an improved version of event logging. [RR-3461](#)

Security Improvements [↗](#)

- In this build, all OSS libraries which were previously not signed are now digitally signed. [RR-3257](#) [RR-3448](#) [ZEN-19870](#)

Resolved Issues [↗](#)

- Fixed an issue where Data Hub could not retrieve the data if the KeyCloak API has been configured as private. [RR-3465](#) [ZEN-20848](#)
[ZEN-20892](#)
- Fixed an issue with MSI installer creating unneeded resources. [RR-3419](#) [ZEN-20547](#)
- Fixed an issue where the look-up values in an *Enrich* step were not shown when editing the step again. [RR-3412](#) [ZEN-20501](#) [RR-3447](#)
- Fixed an issue where after a failed job various files remained in the temp directory. [RR-3423](#) [ZEN-20526](#)
- Fixed possible errors when executing merged transformations with SQL macros. [RR-3434](#) [ZEN-20457](#)
- Fixed an issue with hidden *OK* and *Cancel* buttons in the data source selection. [RR-3452](#) [ZEN-20734](#)
- Fixed an issue with the configuration of the maximum allowed timeout for *SQL Commands* in the *Tenant settings*. [RR-3444](#) [ZEN-20730](#)
- Fixed an issue with unnecessary capitalization and white spaces in column names, displayed by the Raw Data viewer. [RR-3409](#)
- Fixed an issue with signing in after unlinking a user from LDAP. [RR-3418](#)
- Minor fixes in various reports and dashboards. [RR-3375](#) [RR-3388](#) [RR-3376](#) [RR-3398](#) [RR-3416](#) [RR-3364](#) [RR-3424](#) [RR-3431](#) [RR-3438](#) [RR-3445](#) [RR-3446](#)
- Fixed an issue with broken headers in the task view after a reload. [RR-3410](#)
- Fixed an issue where the *select all* checkbox on the transformation page only selected the first transformation instead of all transformations. [RR-3422](#)
- Fixed an issue where transformation tasks with the name "transformation" were not displayed correctly. [RR-3440](#)
- Fixed handling of `NULL` values in numeric aggregations (MAX, MIN, etc.) [RR-2469](#)
- Fixed typos in various places. [RR-3437](#) [RR-3456](#) [RR-3379](#)
- Fixed an issue where changing the language on the *Home* page caused an unnecessary toast notification. [RR-3333](#)
- **JAMF PRO** Fixed wrong data handling. [RR-3461](#) [KOT-163](#)
- **IBM ILMT** Fixed wrong data handling. [RR-3461](#) [KOT-130](#)
- **MICROSOFT AZURE CONSUMPTION** Fixed unescaped URLs returned by the connector. [RR-3373](#) [KOT-134](#)
- **SAP QUALTRICS** Fixed HTTP 400 Bad Request exceptions. [RR-3373](#) [KOT-107](#)
- **GOOGLE CLOUD BIGQUERY** Fixed wrong inclusion of parameters marked for deletion. [RR-3373](#) [KOT-143](#)
- Internal performance and stability improvements of Cloud connectors. [RR-3461](#) [KOT-161](#) [KOT-139](#) [KOT-5](#) [KOT-121](#) [RR-3461](#) [RR-3373](#)

Known Issues [↗](#)

- Standard reports are available in SQL Server flavor only.
- The installer uses SQL Server as the default database type. In order to use MariaDB, skip the database creation step during the installation and adjust the configuration before starting the product for the first time. This does not affect Docker-based installation, where the selection of the database type is determined by using a specific environment variable.
- Importing of Excel files into container tasks does not work in combination with MariaDB-based setup.
- Previous KeyCloak configuration will not be preserved during the migration process in MSI-based installation.