



// Release Notes

RayVentory Data Hub 12.6



RAYVENTORY[®]



Discover to Manage

**Copyright © Raynet GmbH (Germany, Paderborn HRB 3524). All rights reserved.
Complete or partial reproduction, adaptation, or translation without prior written permission is prohibited.**

Release Notes for release 12.6

Raynet and RayFlow are trademarks or registered trademarks of Raynet GmbH protected by patents in European Union, USA and Australia, other patents pending. Other company names and product names are trademarks of their respective owners and are used to their credit.

The content of this document is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by Raynet GmbH. Raynet GmbH assumes no responsibility or liability for any errors or inaccuracies that may appear in this document. All names and data used in examples are fictitious unless otherwise noted.

Any type of software or data file can be packaged for software management using packaging tools from Raynet or those publicly purchasable in the market. The resulting package is referred to as a Raynet package. Copyright for any third party software and/or data described in a Raynet package remains the property of the relevant software vendor and/or developer. Raynet GmbH does not accept any liability arising from the distribution and/or use of third party software and/or data described in Raynet packages. Please refer to your Raynet license agreement for complete warranty and liability information.

Raynet GmbH Germany
See our website for locations.

www.raynet.de

Contents

Introduction	4
What's new	5
Other Improvements and Changes	14
Security Improvements	16
Resolved Issues	18
Breaking Changes	22
Known Issues	23
Migration from Previous Versions	24
Prerequisites	26
Hardware Requirements	26
Software Requirements	27
Additional Information	29

Introduction

This new release 12.6 is a major upgrade to the previous release. It contains several new features, major product improvements and resolves reported issues. This document describes important changes and feature highlights using the base 12.5 version for comparison. When migrating from an older release, refer to corresponding Release Notes for more information about changes and migration paths.

What's new

More Cloud Connectors for Expanded Visibility and More Reliable Insights RR-3461 RR-3676

Even more cloud connectors – Not only have we added more connectors, we've made our existing connectors even better. Expand your cloud data gathering to include SAP Business Technology Platform, BMC Discovery, Coda, Confluence, LeanIX SMP, Tanium Asset, and USU Oracle optimization to get even more visibility, and with additional data gathering, including user and event data, deprecated device details, dynamic date calculation, updated IP output, region and project separation, you can improve the reliability and accuracy of your data and insights.



Furthermore, there are various internal stability, performance, and miscellaneous improvements. KOT-247 KOT-76 KOT-201 KOT-203 KOT-86 12.5 UPDATE 4

A New View to See Executed and Upcoming Tasks RR-2957

The list of tasks has now additional views, so that the users can get a quick overview of tasks, that have been shortly executed, and also to see a list of tasks, that are going to be executed next.

HISTORY

Tasks History Upcoming

Status	Task	Trigger	Last run	Duration	Progress
●	Get JIRA List	root	Jul 27, 2023, 11:46:28 AM	00:00:02	<div style="width: 100%;"></div>
●	Get JIRA List	root	Jul 27, 2023, 9:56:44 AM	00:00:04	<div style="width: 100%;"></div>
●	Get JIRA List	root	Jul 27, 2023, 9:10:00 AM	00:00:00	<div style="width: 100%;"></div>
●	Convert Dates	root	Jun 26, 2023, 11:07:46 AM	00:00:00	<div style="width: 100%;"></div>
●	Convert Dates	root	Jun 26, 2023, 10:48:47 AM	00:00:00	<div style="width: 100%;"></div>
●	Convert Dates	root	Jun 26, 2023, 10:47:14 AM	00:00:00	<div style="width: 100%;"></div>

First 1 2 3 Last

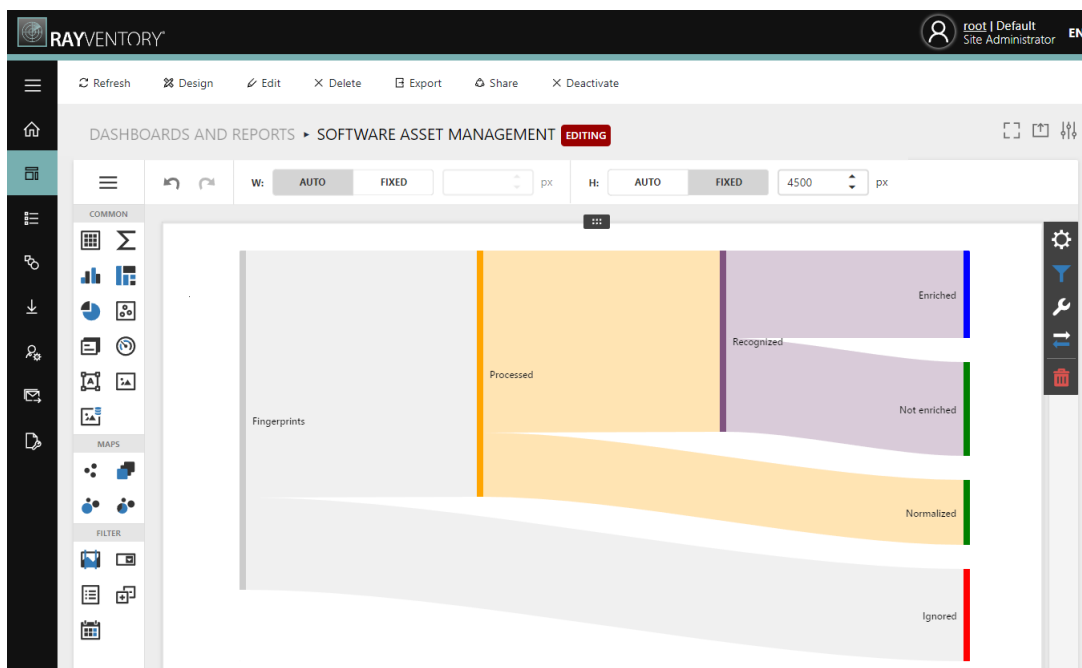
- The History section presents a list of tasks that have been recently completed. This feature is particularly useful for users who need to perform quick checks on recently completed tasks, and review them based on past performance.
 - As for the tasks currently in progress, they are included in the History results section, allowing users to promptly view and comprehend all active tasks, regardless of the agent on which they were initiated.
- The Upcoming section displays a list of tasks along with their next scheduled execution date and time. It exclusively showcases tasks that are scheduled for future execution, helping users stay ahead of upcoming tasks and schedules, and anticipate upcoming actions.

Visualize Dependencies to Get Better Insights into How Changes or Vulnerabilities Affect Your Entire Infrastructure RR-3715

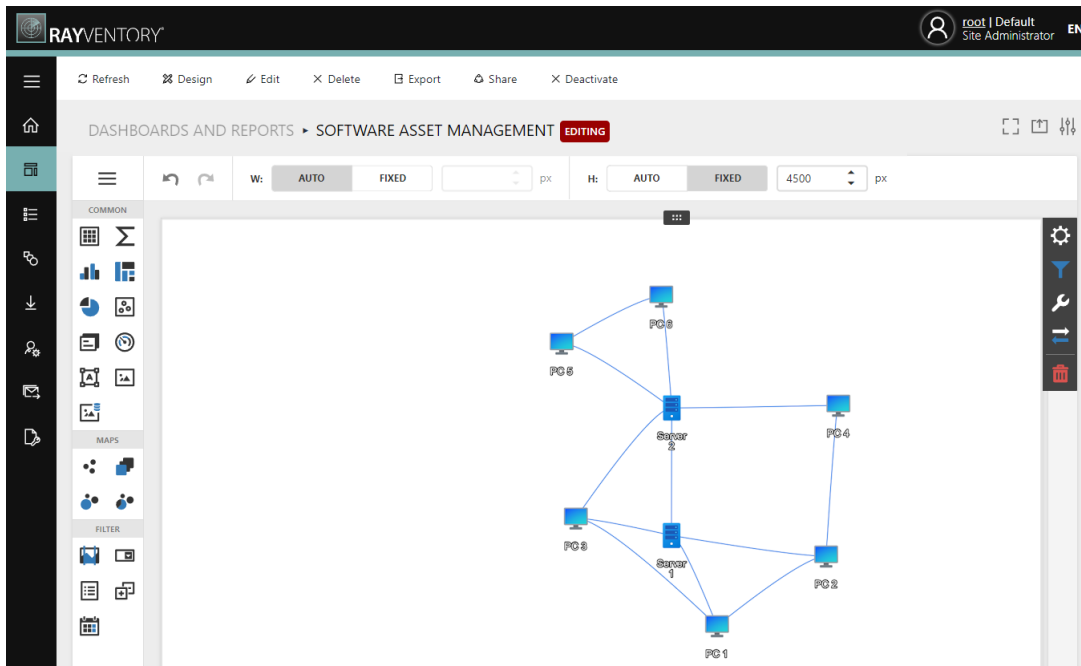
In this release, two new visualisations types were added:

- Sankey diagram
- Network diagram

Sankey diagrams empower you to visualize complex data flows and relationships with ease. Whether you're tracking resource allocation, customer journeys, or any interconnected data, the Sankey Diagram simplifies the process, providing valuable insights and enhancing your reporting capabilities.



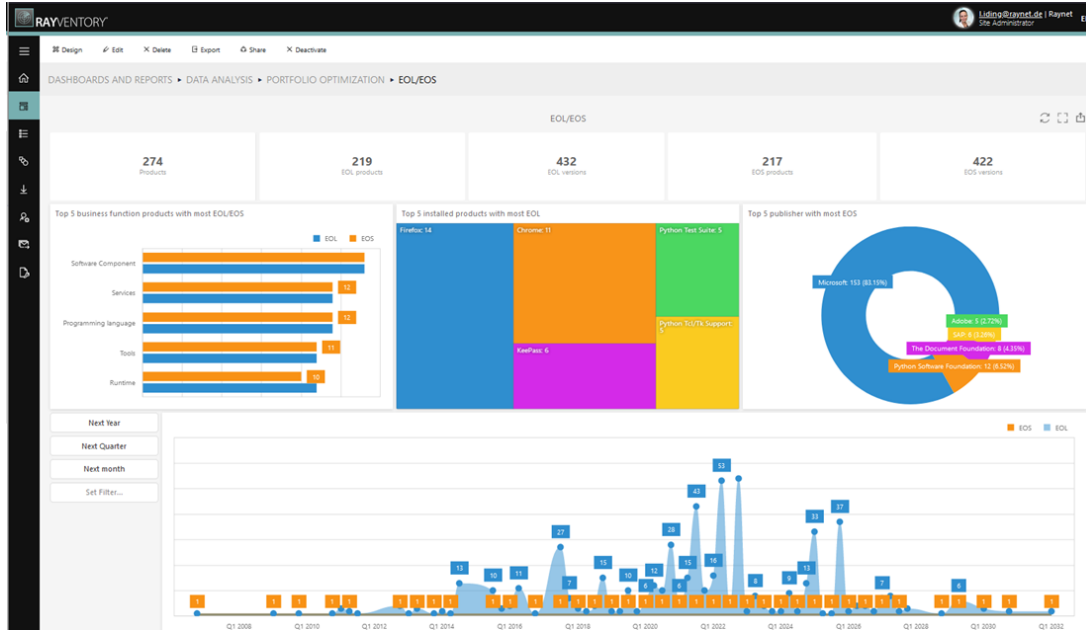
You can also visualize important structures, such as network dependencies, to get better insights into your digital infrastructure. The dashboards are fully customizable and scale to visualize infrastructures of any size and complexity. Individual structures can be represented as smaller nodes within larger structures, and you can easily scroll in to focus on specific nodes or scroll out to get the big picture.



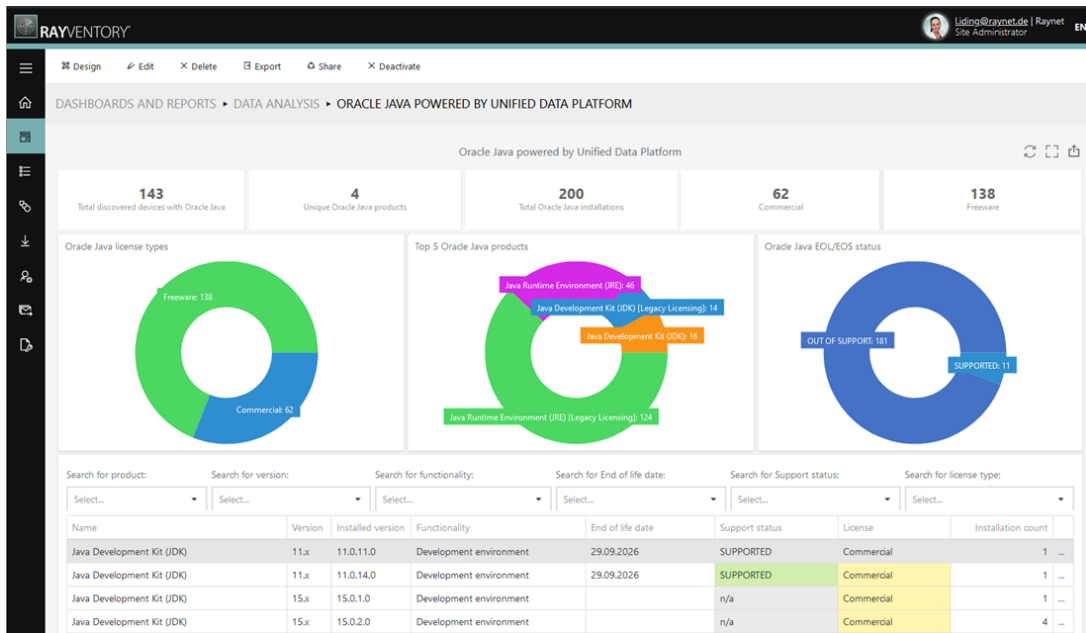
New and Updated Dashboards for Better Visibility and Faster Insights RR-3756

Updated dashboards for End-of-Life and End-of-Support insights, Oracle Java, and Data Enrichment, provide better and more reliable insights about your digital landscape, including individual machines where Oracle Java is installed, recognition rates, fingerprints, products, and vendors. With these dashboards you're better armed for audits, to rationalize and optimize your software portfolio, and to keep it up to date and secure.

End-of-Life and End-of-Support

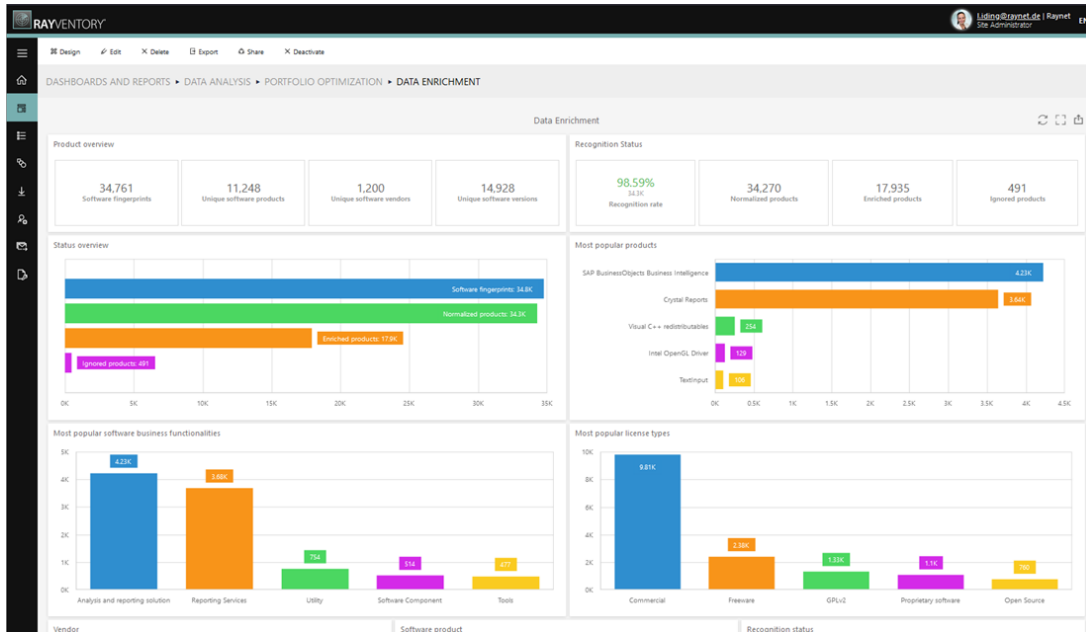


Oracle Java



Data Enrichment powered by RayVentory Catalog





Improve Data Reliability with Validation Checks RR-3680

Customizable validation checks let you decide whether a task was successful. This gives you more control over your data outcomes, and gives you another option for ensuring the reliability of your data insights.

✕

Edit task

General Configuration Connection Agent settings Schedule Validators

^ In between validation rule → [All tables](#) ✕

TABLE NAMES (DEFAULT: ALL TABLES)

Comma separated list of tables that will be validated. Leave empty to validate all tables.

TYPE * ?

Within range → New data must have a specific number of rows ▼

Between % and % of the previous run.

Add

Setting up a validation rule to only accepts incoming data, if it produces between 80 to 120% number of the rows as compared to the previous run.

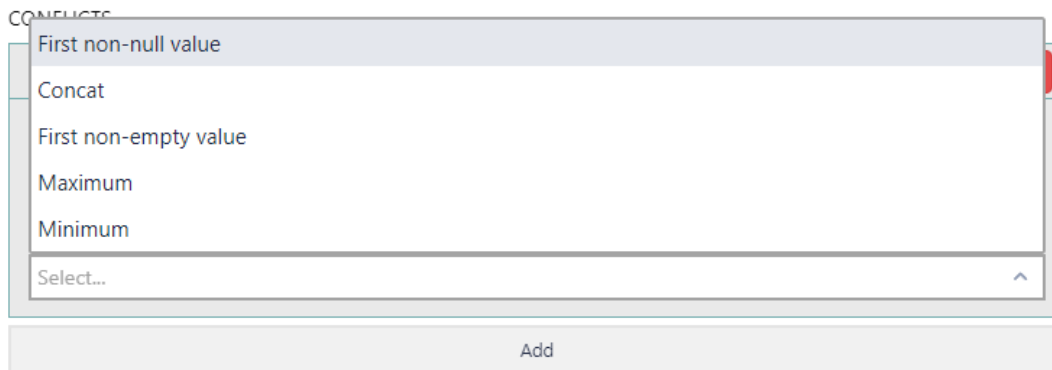
More Options For Transformation Steps RR-3557 ZEN-20984

12.5 UPDATE 1

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.

In version 12.6, we have introduced an additional property for steps, allowing you to provide more detailed descriptions. This new feature simplifies the process of including longer texts, offering helpful hints and context for each step. Users can now easily grasp the purpose and context of each step, enhancing the overall user experience. RR-3297

Improved Reports and Dashboard Link Sharing RR-3568

Sharing reports and dashboards has never been more secure and flexible. In previous versions, shared links lacked built-in controls to prevent users from altering critical parameters, potentially compromising data integrity. With this release, we've introduced an array of additional sharing options, including the ability to lock parameters within the report, ensuring data remains within the defined boundaries set by the report owner. Furthermore, users can now establish programmatic access to report parameters, guaranteeing both security and the safe transfer of values. These enhancements empower users with versatile and secure sharing options for their reporting objects.

Share

Share
✕

LIFETIME

1 hour

ACCESS TYPE

Public

SECURED MODE

ALLOW TO SEE WITHOUT PARAMETERS

The share link was successfully generated:

<http://localhost:81/external/dashboard/a5867f55-1bf6-4bd1>

Copy shared link

Public key

MIIBJjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAE0iz

i Use this public RSA PKCS#1 key to encrypt parameters. You can append the encrypted parameters to the shared link to apply these parameters. Example URL: "https://sharedlink?accessToken=accddddd¶ms=MIIBJjANBgkqh...". The "params" parameter contains your encrypted parameters.

Copy public key

Close

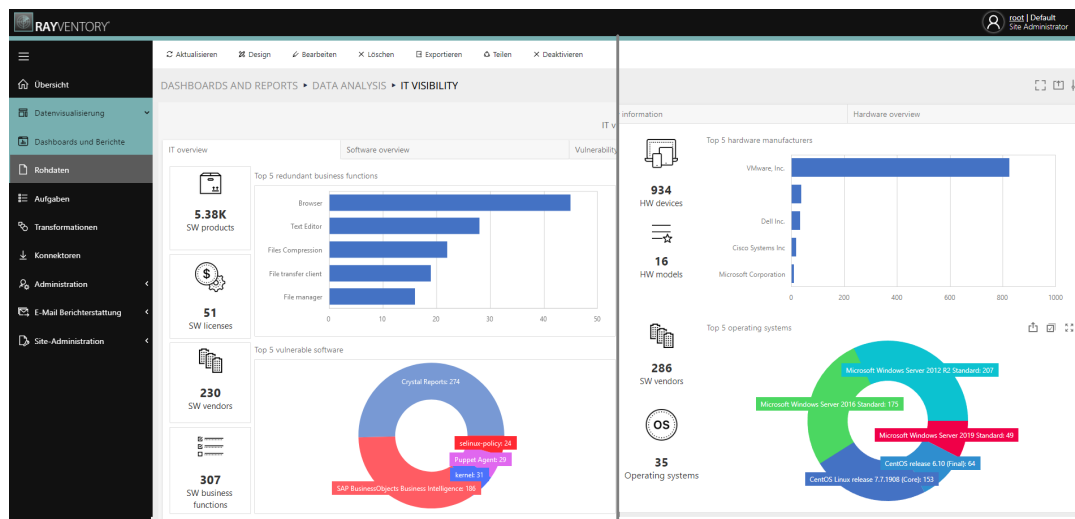
Once a link to a reporting object is shared, the user has access to number of options, including secured access and programmatic way of encrypting secured parameters.

Once a link to a reporting object is shared, the user has access to number of options, including secured access and programmatic way of encrypting secured parameters.

Better User Interface for Improved User Experiences

RR-3717

The improved design makes dashboards more compact and streamlined, eliminating unnecessary elements, and providing a more spacious viewing experience. By removing visual clutter, users can find what they're looking for faster and easier.



Enhanced Technology Catalog Connector **RR-3230**

New version of the RayVentory Catalog Connector has been rewritten ground-up, to offer better performance, additional options and streamlined experience. Part of this changes was improved data model, which is an improvement over the previous iteration, especially in terms of reporting and advanced data transformations.

Since the structure of the data has substantially changed, the current version of the Catalog connector is still there, and will continue to work like previously. For new projects and tasks, we recommend creating a copy of previously using reports and dashboards (the backup functionality) and switch to the new connector and reports.

Better Performance for Faster Insights **RR-3618 RR-3600 RR-**

3737 ZEN-23196 RR-3805 ZEN-21536 ZEN-24156

We've made our data transformation engine even faster! With changes in the performance of the SQL Server reader/writer and transformation components, RayVentory Data Hub can transform data faster while using less CPU and RAM.

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.

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 12.5 UPDATE 1**
- 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 12.5 UPDATE 1**
- 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 specifically crafted map and enrichment steps. **RR-3733 ZEN-23270 12.5 UPDATE 1**

New Metadata Fields for Tasks **RR-3459 RR-3460 ZEN-20947 12.5**

UPDATE 2

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 *

DESCRIPTION

OWNER

Updated UI of the task editor.

Microsoft SQL Server Collector Can Now Return More Than One Table RR-3895

We are excited to introduce a new feature in Version 12.6 of the SQL Server connector that enhances your data retrieval experience. In this release, users can now receive multiple tables from the SQL Server connector, a significant improvement over the previous limitation of only returning the last table.

To enable this functionality, we have introduced a special syntax that allows you to mark the beginning of a new, named table within your SQL Server connector queries. You can achieve this by using the following syntax:

```
PRINT 'Table=<name>'
```

Simply replace `<name>` with the desired name for your table. This marking mechanism enables Data Hub to identify and separate multiple named tables within your query results.

With this enhancement, Data Hub now seamlessly respects these markers, and as a result, you will receive named tables as part of your query results. This feature provides greater flexibility and organization in managing your data, making it easier than ever to work with multiple tables within your SQL Server connector queries.

Online browser-based product documentation **RR-3288**

Offline documentation in PDF format has been phased out in favor of a web-based online documentation system. You can access the documentation either directly from within the product or by following this link: <https://docs.raynet.de/rayventory/data-hub/latest/user-guide/>

Other documents and guides are also available:

- Dashboards and Reports Customization Guide
- Connectors
- Installation Guide

Other Improvements and Changes

- Connectors like Microsoft SQL Server and PowerShell can now hint Data Hub about the desired options for a column (for example whether it should be treated as a Primary Key, Unique or with an index). This can be achieved by returning a special suffix appended to the column name. **RR-3889**
- We changed the default color scheme to make bar and pie chart elements more distinguishable. **RR-3538 12.5 UPDATE 1**
- Adjusted the "Hardware overview" and added a navigation link, making it easier for users to access important information. **RR-3659 12.5 UPDATE 3**
- Added the ability to retrieve the value of a custom attribute set on a product/publisher from the legacy RayVentory Catalog. Additionally, there are several other minor changes and internal improvements. **RR-3660 RR-3653 12.5 UPDATE 3**
- Changed the navigation links in the Software Asset Management, making it easier for users to access important information. **RR-3668 12.5 UPDATE 3**
- 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 12.5 UPDATE 4**
- 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 12.5 UPDATE 4**
- Improved performance of joining the data during the transformation task. **12.5 UPDATE 5**
- The default logging level on Docker-based build is now warning. This means that by default only critical errors and warning will be logged, and the other messages (including info, debug or verbose texts) will be discarded. **RR-3778 12.5 UPDATE 5**

- A series of changes and improvements in the following connectors:
 - Asana: Extended user and event data. **KOT-209 12.5 UPDATE 4**
 - Azure Compute Inventory: Adjusted default parameters. **KOT-237 12.5 UPDATE 4**
 - Box: Correct spelling of parameters. **KOT-278 12.5 UPDATE 4**
 - CrowdStrike Falcon: Upgraded deprecated device details endpoint. **KOT-334 12.5 UPDATE 4**
 - Google Cloud Compute: Adjusted IP output, region and project separation. **KOT-165 12.5 UPDATE 4**
 - IBM ILMT: new date parameter and dynamic date calculation. **KOT-261 12.5 UPDATE 4**
 - Kubernetes: Add Environment information for Containers. **KOT-210 12.5 UPDATE 4**
 - Okta: Added support for logs endpoint. **KOT-223 12.5 UPDATE 4**
 - Improved display names in several Microsoft, ServiceNow and VMware connectors. **KOT-222 12.5 UPDATE 4**
 - Microsoft Azure connectors now receive `subscriptionId` for all targets. **KOT-212 12.5 UPDATE 4**
 - Microsoft Azure Active Directory now supports `SignInActivity`. **KOT-269 12.5 UPDATE 4**
 - Microsoft Azure Compute Inventory: Parameter `workspace id` has been changed to a list. **KOT-221 12.5 UPDATE 4**
 - Microsoft Office 365: Request periods for `AppUserDetail` has been increased from 30 to 90 days. **KOT-240 12.5 UPDATE 4**
 - Proxmox: Server table has been renamed to Metric. **KOT-241 12.5 UPDATE 4**
 - SAP BTP: Endpoint `cloudCreditsDetails` now returns all phases. **KOT-242 12.5 UPDATE 4**
 - Zoom: Support for OAuth. **KOT-250 12.5 UPDATE 4**
 - Added the parameter `account_list` in the `aws.ec2` and `aws.rds` connectors. **KOT-126 12.5 UPDATE 2**
 - In the connectors `aws.ec2`, `aws.rds` and `aws.s3`, AWS China is now available. **KOT-110 12.5 UPDATE 2**
 - 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 12.5**

UPDATE 2

- The `microsoft.azure.computeinventory` connector can now fetch data from multiple workspaces. **KOT-124 12.5 UPDATE 2**
- It is possible to ignore certificate errors in the `nutanix` connector. **KOT-162 12.5 UPDATE 2**
- The `kubernetes` connector now reports information about worker or master node. **KOT-202 12.5 UPDATE 2**
- The `microsoft.azure.compute` connector now reports dedicated hosts and host groups in the `virtual_machines` table. **KOT-177 12.5 UPDATE 2**
- The performance of the Microsoft Azure Computer connector has been improved. **KOT-188 KOT-193 KOT-200 KOT-205 12.5 UPDATE 2**
- Various improvements in the Microsoft Office 365, Microsoft Azure AQL, and Microsoft Intune connectors. **KOT-169 KOT-150 KOT-178 12.5 UPDATE 2**
- Updated the connector description of the `qualys` connector. **KOT-187 12.5 UPDATE 2**
- The `SAP.BTP` connector now reports month and year for the usage data. **KOT-215 12.5 UPDATE 2**
- Various improvements of the schema and descriptions of fields in the `servicenow.licensedata` and `servicenow.table` connectors. **KOT-180 KOT-175 12.5 UPDATE 2**
- 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 12.5 UPDATE 2**
- 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 12.5 UPDATE 2**
- In this build, we have added support for the French localization of the user interface. This is a preview feature. **RR-3476 12.5 UPDATE 2**

Security Improvements

- Updated vulnerable libraries of transitive dependencies in Cloud connectors. **KOT-338 RR-3723 12.5 UPDATE 4**
- Updated library `datatables.net` to version 1.10.23+ to eliminate the potential software vulnerability CVE-2020-28458. **RR-3466 ZEN-21063 ZEN-21397 12.5 UPDATE 2**
- 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 12.5 UPDATE 2**

- Fixed a problem with possible escalation of permissions in the REST API for e-mail templates. **RR-3214**
- Resolved a possible SQL injection in the RAW tables API. **RR-3916**
- Added a password check to ensure that users choose strong passwords that meet password security requirements. This feature can be activated by editing the property `passwordFormat` in the `appsettings.json` file. **RR-3629 ZEN-21156 12.5 UPDATE 3.**



Note:

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

- Fixed an issue, where the UI could freeze on the System Settings page. **RR-3134 12.5 UPDATE 5**
- Fixed an issue, where many irrelevant errors were logged in the console during the execution of agent-based transformation. **RR-3739 ZEN-23187 12.5 UPDATE 5**
- Fixed an issue, where an incorrect interval was displayed for tasks, that were not assigned a scheduled execution. In this version, a placeholder - will be shown for tasks, that are not scheduled. **RR-3602 ZEN-21846 12.5 UPDATE 5**
- Fixed an issue, where a message about disabled SSL certificate check would be printed in the log file each time a request is made and the SSL certificate check is disabled. From this version, the message is only shown once. **RR-3728 12.5 UPDATE 5**
- Fixed an issue with incomplete results saved to the tenant results database when using SQL Server database. **RR-3529 ZEN-21404 12.5 UPDATE 1**
- Fixed an issue with missing editor for standard de-duplication step with maxValue strategy. **RR-3558 12.5 UPDATE 1**
- Fixed an issue, where the priority of joined columns could be lost when saving changes in the Transformation editor. **RR-3516 ZEN-21256 12.5 UPDATE 1**
- Fixed conversion of date (InstallDate0) in ECM SQL SOFTWARE ARP task. **RR-3558 12.5 UPDATE 1**
- Fixed connection issues with Microsoft Azure Computer and Microsoft Azure SQL connectors. **KOT-153 RR-3528 KOT-194 12.5 UPDATE 1**
- Fixed faulty parameter assertion on apiKey, username and password in the HCL BigFix connector. **KOT-186 RR-3528 12.5 UPDATE 1**
- Fixed unknown fields `parentName` and `parentId` and turned the `businessUnits` to be optional in the Salesforce Marketing Cloud. **KOT-153 RR-3528 12.5 UPDATE 1**
- Fixed issues with join statements not supporting `null` columns and wrong conversion to date for columns during the transformation process. **RR-3640 ZEN-22707 12.5 UPDATE 3**
- Added missing `LogoutUrl` placeholder in the configuration file. **RR-3634 12.5 UPDATE 3**
- 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 12.5 UPDATE 3**
- Adjusted the detailed vulnerability report to ensure that it is displaying the correct information. **RR-3607 ZEN-22076 12.5 UPDATE 3**
- Fixed an issue, where emails were not being sent to users authenticated by external identity providers. **RR-3636 12.5 UPDATE 3**
- 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 12.5 UPDATE 3**
- Fixed possible `NullReferenceException` when running the RayVentory Catalog task. **RR-3631 12.5 UPDATE 3**
- Fixed minor issues with localized texts. **RR-3632 RR-3518 12.5 UPDATE 3**
- 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 12.5 UPDATE 3**
- Added missing owner and description fields and generated migration for MySQL. **RR-3638 ZEN-22666 12.5 UPDATE 3**
- 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 12.5 UPDATE 3**
- Improved the performance of OUTER JOIN queries in the transformation process. **RR-3637 ZEN-22658 12.5 UPDATE 3**
- Added missing relations to VMWare cluster names. **RR-3650 ZEN-22370 12.5 UPDATE 3**
- Fixed issues with join statements not supporting null columns and wrong conversion to date for columns during the transformation process. **RR-3640 ZEN-22707 ZEN-22658**
- Added missing relations to VMWare cluster names. **RR-3650 ZEN-22370**
- Fixed the creation of AD users under KeyCloak control. **RR-3595 ZEN-22238 12.5 UPDATE 4**
- Fixed possible timeouts when writing large chunks of data to the SQL Server database. **RR-3769 RR-3640 12.5 UPDATE 4**
- Added missing language texts for Russian languages. **RR-3647 12.5 UPDATE 4**

- Fixed rare issues, where a duplication of indexes would be reported when running complex transformations. **RR-3725 ZEN-23193 12.5 UPDATE 4**
- Fixed various issues in Cloud connectors: **RR-3723 12.5 UPDATE 4**
 - 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**
 - Fixed wrong description in the Azure AD configuration. **RR-3546 12.5 UPDATE 2**
 - The `AWS.Athena` and `GCP.BigQuery` connectors could not fetch the data. **KOT-152 12.5 UPDATE 2**
 - Various issues with parameter relations: `hcl.bigfix.inventory`, `ibm.ilmt`, `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.sql`). **KOT-195 12.5 UPDATE 2**
 - Wrong serialization of the e-mail field in the JAMF Pro connector. **KOT-197 12.5 UPDATE 2**

- 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 12.5 UPDATE 2**
- Inconsistent list and comma-separated parameters in the `aws.ec2`, `aws.rds`, `aws.s3` connectors. **KOT-167 12.5 UPDATE 2**
- Various issues in the Microsoft Azure Computer connector. **KOT-198 KOT-208 12.5 UPDATE 2**
- Wrong file handling and overriding resources in the `aws.s3` connector. **KOT-131 12.5 UPDATE 2**
- Wrong usage of format and limit parameters in the `microsoft.graph.generic` connector. **KOT-211 12.5 UPDATE 2**
- Long runtime of the VMware AirWatch connector. **KOT-199 12.5 UPDATE 2**
- Fixed issues with the `LEFT` and `OUTER` join logic of the join steps. **RR-3560 ZEN-21502 12.5 UPDATE 2**
- Fixed an issue with the data being partially ignored by the Rayventory Catalog connector task. **RR-3621 ZEN-22464 12.5 UPDATE 2**
- Fixed wrong logging for tasks with timeout. **RR-3462 12.5 UPDATE 2**
- 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 12.5 UPDATE 2**
- Fixed an issue with e-mail field getting an automated prefix `preferred_username` when using KeyCloak-based authentication. **RR-3542 12.5 UPDATE 2**
- The message shown when trying to delete a group with permissions has been reworded. **RR-2511 12.5 UPDATE 2**
- Fixed an issue where an incorrect source was created when switching between the table and step source. **RR-3590 ZEN-22359 ZEN-21741 12.5 UPDATE 2**
- Fixed minor UI issues with the default standard transformation. **RR-3558 12.5 UPDATE 2**
- Fixed an issue with macro handling, where in some cases the parameters could be wrongly resolved. **RR-3606 ZEN-21871 12.5 UPDATE 2**
- Fixed issues where signing out directly from the home screen was not possible without triggering a navigation. **RR-3457 ZEN-21156 12.5 UPDATE 2**
- Restored missing ITSM connector tasks and variables. **RR-3597 RR-3596 12.5 UPDATE 2**
- Fixed an issue, where a deactivated tenant could be still considered for the execution queue of its tasks. **RR-3598 RR-3593**

Breaking Changes

When migrating from Data Hub 12.5 (RTM):

- In SAP BTP connector, `clientId` and `clientSecret` are now required. **KOT-166 RR-3528**

When migrating from any previous version:

- This release brings substantial changes to the Technology Catalog connector, resulting in its lack of backward compatibility with version 12.5. When importing new reports that reference catalog tasks, please be aware that this operation is potentially leading to the replacement of your existing tasks and reports with the new structure, making the the old tasks obsolete. To ensure both sets of reports coexist seamlessly, it is essential to adjust the data set of the old Catalog-related task and update all references to the tables it generates before commencing the import of the new reports.
- In this release, we have made the strategic decision to discontinue support for certain legacy platforms. Although the product may remain functional on these platforms, we will no longer conduct routine testing or provide official support for them. The affected platforms primarily encompass operating systems that have reached their End-of-Support status, such as Windows Vista, as well as various web browsers, which were released years ago. For a comprehensive and up-to-date list of supported systems, we encourage you to refer to the dedicated sections in the following chapter: Software Requirements.

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.
- 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`.

Migration from Previous Versions

- This version is backward incompatible with release 12.0.
- For versions 12.1, 12.2, 12.3, 12.4 and 12.4, there is automated migration, which ensures that both the server and the agent can be migrated, together with user data

For detailed information about the migration process, refer to the **Installation Guide**.

Getting Data for USU ITSM Overview

This chapter describes how to get the data for the newly added USU ITSM connector. These steps should be executed after the update of the server instance to the newest version.

1. Start the import wizards "Import > From template..." in the library view.
2. Select dashboard "USU-ITSM-Overview" under Connectors section and enter the necessary data for a new task:
 - `USUVALUEMATION_PNP_MATCHINGTABLE_URL = "http://www.linux-usb.org/usb.ids.gz"`
 - `USUVALUEMATION_INVENTORY_DATA_TABLESTART = "Inventory"`
 - `USUVALUEMATION_INVENTORY_DATA_CONNECTION = "Data Source=(local);Initial Catalog=[D`
 - `USUVALUEMATION_DISPLAYNAME_FQDN = 1`
 - `USUVALUEMATION_DEVICE_IMPORTID = 1`
3. Add the variable `USUVALUEMATION_PNP_MATCHINGTABLE_URL` with value `http://www.linux-usb.org/usb.ids.gz` manually, if it is not shown in Wizard
4. Run 5 tasks in "TASKS > USU > ITSM > IMPORT" folder to generate import data.
5. Run all 22 tasks in "TASKS > USU > ITSM > EXPORT" folder to generate export CMP data.

Breaking Changes and Important Notes

- Default RayVentory tasks have now dependency on stored procedures, installed with *AsperaConnector* version **12.2.0.11458** or later. The version may be installed as a part of RayVentory server installation or separately (as a SQL file). The new version of the connector is required to use the newly added USU ITSM connector tasks.
- Some tasks and reports might need to be re-imported to benefit from changes and fixes brought by this release. This is especially valid for SQL-based tasks, where the logic is encapsulated as a SQL script in the *Task Configuration*.
- The server should be always installed with the matching version of the agent. Mixing versions (for example 12.6 Data Hub and 12.1 Data Hub Agent) is not recommended and may lead to unexpected issues.

- Important changes for users migrating from version 12.2 (without Service Packs)
 - We have changed the way the report table name resolution works. The previously used separator (dot) is not used anymore in favor of a minus sign.
 - This means that the tables created by 12.2 extraction tasks followed the following naming convention `dataset.tablename`, whereas the new one puts out `dataset-tablename`. The migration script included in this build should be able to convert your existing reports to the new format, but the data will only be available once all tasks are restarted. You may also do the renaming on your own.

Prerequisites

Hardware Requirements

RayVentory Data Hub

Requirements when SQL Server and RayVentory Data Hub are installed on the same machine:

- Min. 4 CPU cores
- Min. 8 GB of RAM
- Min. 20 GB of disk space

Requirements when only RayVentory Data Hub is installed on the machine:

- Min. 4 CPU cores
- Min. 4 GB of RAM
- Min. 10 GB of disk space

RayVentory Data Hub Agent

- CPU: Intel Core i5
- RAM: 4GB
- Disk space: 500 MB

Software Requirements

In this chapter, you will find essential details regarding the prerequisites for installing and using RayVentory Data Hub. The following topics are covered:

- **Installation on Windows**

List of components required to install Data Hub / Data Hub Agent on Windows / Windows Server.

- **Installation using Docker**

Supported host systems when leveraging Docker.

- **Supported web browsers**

List of web browsers that are supported by RayVentory Data Hub

Installation on Windows

The following are the minimum software requirements for the installation and running of RayVentory Data Hub:

- Operating system:
 - Microsoft Windows Server 2016 or higher
 - Microsoft Windows 10 or newer
- IIS 8 or higher
- Microsoft .NET 6.0 – Windows Server Hosting Bundle (<https://dotnet.microsoft.com/en-us/download/dotnet/6.0>)
- One of the following database systems:
 - Microsoft SQL Server 2019 or newer
 - Microsoft SQL Server Express 2019 or newer
- If RayVentory Data Hub Agent is installed on the same machine as the server, then all requirements of Data Hub Agent also apply



Note:

In order to run hosting bundles, the “Universal C Runtime” is required. Modern Windows Servers should already have it, but it may be required to download for older ones. The oldest supported OS is currently Windows Server 2012 R2. More information can be found here: <https://support.microsoft.com/en-us/help/2999226/update-for-universal-cruntime-in-windows>,

Supported Database Servers and Versions for non-Microsoft SQL Server setups:

- MySQL 8.2
- MySQL 5.7
- MariaDB 10.9
- MariaDB 10.8

- MariaDB 10.7

Installation using Docker

In order to run this container you'll need docker installed.

- [Windows](#)
- [OS X](#)
- [Linux](#)

On Windows, make sure to use Linux Containers, WSL2 is recommended.

Supported Database Servers and Versions for non-Microsoft SQL Server setups:

- MySQL 8.2
- MySQL 5.7
- MariaDB 10.9
- MariaDB 10.8
- MariaDB 10.7

Supported web browsers

Given the widespread adoption of web standards, RayVentory Data Hub is designed to be compatible with virtually all modern web browsers. However, it's important to note that our regular testing and verification efforts are focused exclusively on the following browsers.

- Microsoft Edge version 102 and newer
- Mozilla Firefox version 102 and newer
- Google Chrome version 102 and newer

**Note:**

To ensure optimal performance and security while using our product, we strongly recommend adhering to best practices by keeping your web browser up-to-date and applying all available patches and updates.

Additional Information

Visit www.raynet.de for further information on RayVentory Data Hub, and take a look at the additional resources available at the Knowledge Base: <http://raynetgmbh.zendesk.com/>.

Raynet is looking forward to receiving your feedback from your RayVentory Data Hub experience. Please contact your Raynet service partner or use our [Support Panel](#) to add your ideas or requirements to the RayVentory Data Hub development roadmap!



WhyRaynet

As a global software vendor with market-leading solutions and complementary managed services, we make successful end-to-end management of IT projects and operations possible.

Following the mission "**Discover to Manage**", our vision is that all companies worldwide achieve transparency and security as well as optimization of their IT Investments by using our technologies.

Get in touch

For more Information, call our sales team at **+49 5251 /54009-0** or write to **sales@raynet.de**.

