



RAYVENTORY[®]

Technology Asset Inventory

Release Notes RayVentry Scan Engine
12.4



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Release Notes RayVentory Scan Engine

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Introduction

RayVentory Scan Engine provides a complete set of products for operating system inventory, as well as Oracle database, VMware vSphere / ESX, Hyper-V and SNMP inventory. The data can be processed, visualized, and analyzed with DataHub component, and additionally enriched with help of the Catalog services. The Server component ensures, that complex architectures can be effectively scanned, using our "decentralized scanning" concept.

This software set includes components which have the following core functions:

- RayVentory Scan Engine Scan Engine
- RayVentory Scan Engine Server
- RayVentory Scan Engine Data Hub
- RayVentory Scan Engine Catalog

With the intelligence and many automation possibilities, creating documentation has never been so easy and fast.

This new release 12.4 is a major service upgrade to the previous release. It contains several new features, major product improvements and resolved issues.

Hardware Requirements

This section lists the minimal hardware requirements for devices running RayVentory Scan Engine.

Minimal

- Screen resolution: 1024 x 768 pixels
- Color settings: 16 bit
- RAM: 2GB
- Disk space: 100MB

Recommended

- Screen resolution: 1280 x 1024 pixels
- Color settings: 32 bit
- RAM: 4GB or higher

- Disk space: 1GB or more

**Note:**

The installation of the RayVentory Scan Engine framework itself requires about 400MB of disk space. The amount of additional space needed depends on the size and number of incoming inventory results.

Software Requirements

General Prerequisites

The following operating systems are supported for the installation and running of RayVentory Scan Engine at the time of release.

- Windows 7
- Windows 8
- Windows 8.1
- Windows 10
- Windows 11
- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019
- Windows Server 2022

Required Software

- .NET Framework 4.7.2
- Visual C++ Redistributable for Visual Studio 2015-2022

Operating System Inventory

The following tables shows which versions of the different operating systems and which architectures are supported for the different inventory methods.

Windows (client)

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
Windows XP !	x86	✓*	✓	⊖
	x86-64	✓*	✓	⊖
Windows Vista !	x86	✓*	✓	⊖
	x86-64	✓*	✓	⊖
Windows 7 !	x86	✓*	✓	✓*
	x86-64	✓*	✓	✓*
Windows 8 !	x86	✓*	✓	✓*
	x86-64	✓*	✓	✓*
Windows 8.1 !	x86	✓*	✓	✓*
	x86-64	✓*	✓	✓*
Windows 10	x86	✓*	✓	✓*
	x86-64	✓*	✓	✓*
	ARM64	✓*	✓	✓*
Windows 11	x86	✓*	✓	✓*

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
	x86-64	✓*	✓	✓*
	ARM64	✓*	✓	✓*

* - requires Microsoft Visual C++ Redistributable for Visual Studio 2015-2022

! - the system is not supported by Microsoft anymore

Windows Server












































Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
2003 !	x86	✓*	✓*	⊖
	x86-64	✓*	✓*	⊖
2003 R2 !	x86	✓*	✓*	⊖
	x86-64	✓*	✓*	⊖
2008 !	x86	✓*	✓*	✓*
	x86-64	✓*	✓*	✓*
2008 R2 !	x86-64	✓*	✓*	✓*
2012	x86-64	✓*	✓*	✓*
2012 R2	x86-64	✓*	✓*	✓*
2016	x86-64	✓*	✓*	✓*

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
2019	x86-64	✓*	✓*	✓*
2022	x86-64	✓*	✓*	✓*

* - requires Microsoft Visual C++ Redistributable for Visual Studio 2015-2022

! - the system is not supported by Microsoft anymore

RedHat Enterprise Linux (RHEL)

































Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
6 	x86	 *	 *	 **
	x86-64	 *	 *	 **
	PPC64		 *	
	PPC64le		 *	
7	x86	 *	 *	 **
	x86-64	 *	 *	 **
	PPC64	 *	 *	
	PPC64le		 *	
	ARM64		 *	
8	x86	 *	 *	 **
	x86-64	 *	 *	 **
	PPC64	 *	 *	
	PPC64le	 *	 *	
	ARM64		 *	

* - requires `sudo`

** - requires `sudo` and `curl >= 7.19`

 - the system is not supported by RedHat anymore

SUSE Professional / Open SUSE
































Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
11 	x86	 *	 *	 **
	x86-64	 *	 *	 **
	PPC64	 *	 *	
	PPC64le	 *	 *	
	ARM64		 *	
12 	x86-64	 *	 *	 **
	PPC64le	 *	 *	
15	x86-64	 *	 *	 **
	PPC64le	 *	 *	
	ARM64		 *	

* - requires `sudo`

** - requires `sudo` and `curl >= 7.19`

 - the system is not supported by SUSE anymore

SUSE Enterprise Server (SLES)






























Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
11 	x86	 *	 *	 **
	x86-64	 *	 *	 **
	PPC64	 *	 *	
	PPC64le	 *	 *	
	ARM64		 *	
12	x86-64	 *	 *	 **
	PPC64le	 *	 *	
15	x86-64	 *	 *	 **
	PPC64le	 *	 *	
	ARM64		 *	

* - requires `sudo`


** - requires `sudo` and `curl >= 7.19`

 - the system is not supported by SUSE anymore



















































CentOS

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
6 	x86	 *	 *	
	x86-64	 *	 *	
7	x86-x64	 *	 *	
	PPC64	 *	 *	
	PPC64le		 *	
	ARM64		 *	
8 	x86-x64	 *	 *	
	PPC64le	 *	 *	
	ARM64		 *	

* - requires `sudo`

 - the system is not supported by the CentOS Project anymore

Debian

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
8 	x86	 *	 *	 **
	x86-64	 *	 *	 **
	PPC64le	 *	 *	
	ARM64		 *	
9 	x86-x64	 *	 *	 **
	PPC64	 *	 *	 **
	PPC64le	 *	 *	
	ARM64		 *	
10	x86-x64	 *	 *	 **
	PPC64	 *	 *	 **
	PPC64le	 *	 *	
	ARM64		 *	
11	x86-x64	 *	 *	 **
	PPC64	 *	 *	 **
	PPC64le	 *	 *	
	ARM64		 *	

* - requires `sudo`

** - requires `sudo` and `curl >= 7.19`

! - the system is not supported by Debian anymore

Ubuntu

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
14.04 !	x86	✓*	✓*	✓**
	x86-x64	✓*	✓*	✓**
	PPC64le	✓*	✓*	⊘
16.04 !	x86	✓*	✓*	✓**
	x86-x64	✓*	✓*	✓**
	PPC64le	✓*	✓*	⊘
18.04	x86	✓*	✓*	✓**
	x86-x64	✓*	✓*	✓**
	PPC64le	✓*	✓*	⊘
20.04	x86-x64	✓*	✓*	✓**
	PPC64le	✓*	✓*	⊘
	ARM64	⊘	✓*	⊘
21.10	x86-x64	✓*	✓*	✓**
	PPC64le	✓*	✓*	⊘

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
	ARM64	⊘	✓*	⊘
22.04	x86-x64	✓*	✓*	✓**
	PPC64le	✓*	✓*	⊘
	ARM64	⊘	✓*	⊘

* - requires `sudo`

** - requires `sudo` and `curl >= 7.19`

⊘ - the system is not supported by Canonical anymore

Fedora

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
21 !	x86	✓*	✓*	⊘
	x86-x64	✓*	✓*	⊘
	ARM64	⊘	✓*	⊘
22 !	x86	✓*	✓*	⊘
	x86-x64	✓*	✓*	⊘
	ARM64	⊘	✓*	⊘
23 !	x86	✓*	✓*	⊘
	x86-x64	✓*	✓*	⊘

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
	ARM64	⊖	✓*	⊖
24 !	x86	✓*	✓*	⊖
	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖
25 !	x86	✓*	✓*	⊖
	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖
26 !	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖
27 !	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖
28 !	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖
29 !	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖
30 !	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖
31 !	x86-x64	✓*	✓*	⊖

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
	ARM64	⊖	✓*	⊖
32 !	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖
33 !	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖
34 !	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖
35	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖
36	x86-x64	✓*	✓*	⊖
	ARM64	⊖	✓*	⊖

* - requires `sudo`

! - the system is not supported by the Fedora Project anymore

macOS

macOS

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
10.12 !	x86-x64	✓*	✓*	✓**
10.13 !	x86-x64	✓*	✓*	✓**
10.14 !	x86-x64	✓*	✓*	✓**
10.15	x86-x64	✓*	✓*	✓**
11	x86-x64	✓*	✓*	✓**
	ARM64 (Rosetta 2) M1	✓*	✓*	✓**
12	x86-x64	✓*	✓*	✓**
	ARM64 (Rosetta 2) M1	✓*	✓*	✓**

* - requires `sudo`

** - requires `sudo` and `curl >= 7.19`

! - the system is not supported by Apple anymore

Solaris

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
10	SPARC	✓*	✓*	✓**

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
	x86-x64	✓*	✓*	✓**
11	SPARC	✓*	✓*	✓**
	x86-x64	✓*	✓*	✓**

* - requires `sudo`

** - requires `sudo` and `curl >= 7.19`

AIX




















Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
6.1 !	PPC64	✓*	✓*	✓**
7.1	PPC64	✓*	✓*	✓**
7.2	PPC64	✓*	✓*	✓**
7.3	PPC64	✓*	✓*	✓**

* - requires `sudo`


** - requires `sudo` and `curl >= 7.19`

! - the system is not supported by IBM anymore

HP-UX

Version	Architecture	Portable / standalone / remote-execution	Zero-Touch (using WMI)	Inventory Agent (RVIA)
11i 	PARISC	 *	 *	
	Itanium	 *	 *	
11i v2	PARISC	 *	 *	
	Itanium	 *	 *	
11i v3	PARISC	 *	 *	
	Itanium	 *	 *	

* - requires `sudo`

 - the system is not supported by HP anymore

VMware ESX/ESXi Inventory

The following platforms are supported:

- VMware ESX Server 3.0 and higher
- VMware ESXi Server
- VMware vCenter Server

Oracle Inventory

The following database components are supported:

- Oracle Database 9i
- Oracle Database 10g
- Oracle Database 11g
- Oracle Database 12c
- Oracle Database 18c Enterprise
- Oracle Database 18c Standard
- Oracle Database 19c Enterprise
- Oracle Database 21c Enterprise
- Oracle Database 19c Standard
- Oracle Database 21c Standard
- Oracle Database 18c Standard Edition 2
- Oracle Database 19c Standard Edition 2

Required Software

An installation of Java on the host of the Oracle database is needed. In the following the supported Java versions are listed:

Oracle Java

- Oracle Java 17
- Oracle Java 11
- Oracle Java 8
- Oracle Java 7

- Oracle Java 6
- Sun Java 5
- Sun Java 4

The inventory of Oracle databases using OraTrack uses the Java version that is installed on the hosting machine. In case of remote execution (RVIA) this is the Java Runtime from OracleDB server. In case of Zero-Touch, this would be the Java Runtime from the originating server.

Zero-Touch:

In order to use Oracle Java on the Scan Engine server, it needs to be licensed.

Oracle offers newer Oracle Java versions via Oracle No-Fee Terms and Conditions (NFTC). Please see <https://www.oracle.com/downloads/licenses/no-fee-license.html>.

Alternatively, Open JDK can be used which is currently licensed via GPLv2+CPE. Please see <https://www.oracle.com/de/java/technologies/javase/jdk-faqs.html>.

All other methods (Remote Execution, Portable, RVIA):

If a Java SE subscription for Oracle is needed when using OraTrack, depends on the Java version that is installed on the database server. OraTrack does not require a license for Oracle Java for versions as follows:

- Java SE 1.4: all versions up to Update 30 (including Update 30)
- Java SE 5: all versions up to Update 22 (including Update 22)
- Java SE 6: all versions up to Update 45 (including Update 45)
- Java SE 7: all versions up to Update 80 (including Update 80)
- Java SE 8: all versions up to Update 202 (including Update 202)

Due to changes in the Oracle license conditions all newer versions respectively patch levels have to be licensed by the customer.

Oracle offers newer Oracle Java versions via Oracle No-Fee Terms and Conditions (NFTC). Please see <https://www.oracle.com/downloads/licenses/no-fee-license.html>.

Alternatively, Open JDK can be used which is currently licensed via GPLv2+CPE. Please see <https://www.oracle.com/de/java/technologies/javase/jdk-faqs.html>.

Microsoft JDK (Open JDK)

- Microsoft JDK 17
- Microsoft JDK 16
- Microsoft JDK 11

Amazon Coretto (Open JDK)

- Amazon Coretto 17
- Amazon Coretto 11
- Amazon Coretto 8

Oracle OpenJDK

- Not supported

Requirements RVIA

The following table represents the minimum requirements that are necessary for using the RayVentory Scan Engine Inventory Agent.

Operating System	Minimum Version	Architecture	Additional Dependencies
Microsoft Windows	7	x86, x86_64	Visual C++ Redistributable for Visual Studio 2015-2022
RedHat Enterprise Linux (and compatible distributions)	6	x86, x86_64	sudo, curl >= 7.19
Debian GNU/Linux	8	x86, x86_64	sudo, curl >= 7.19
Ubuntu Linux	14.04	x86, x86_64	sudo, curl >= 7.19
SUSE Linux Enterprise	11	x86, x86_64	sudo, curl >= 7.19
IBM AIX	6.1	ppc64	sudo, curl >= 7.19
Oracle Solaris	10	x86, x86_64	sudo, curl >= 7.19

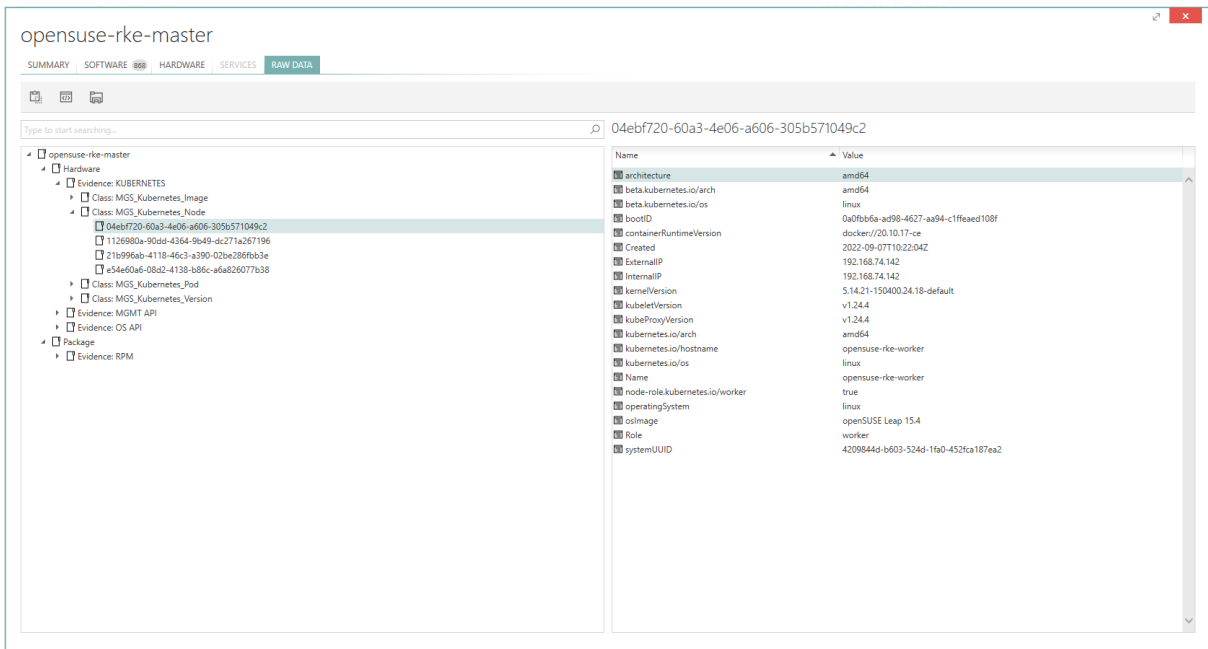
Operating System	Minimum Version	Architecture	Additional Dependencies
Apple macOS	10.12	x86_64, arm64	sudo, curl >= 7.19

Dependencies on Linux systems are set as package dependencies. The package management systems on UNIX systems do not offer setting package dependencies, but sudo is still required for first time configuration of RVIA and curl is required for uploading inventories and downloading schedules.

What's New?

Scanning of OpenShift / Kubernetes **RVP-1951** **RVP-1735**

With this release, the ability to scan OpenShift and Kubernetes has been added. The scanner works with different syntaxes and a built in check will avoid to create information on duplicated server nodes.



Support for Windows Certificate Store on Windows

RVP-1374 ZEN-18859 ZEN-18262 ZEN-16154

In this build, we updated the redistributable version of CURL on Windows with `schannel` support. This change allows the agent to use Windows Certificate store for trusted HTTP connections.

Whitelisting for SaaS Usage Discovery RVP-1717 RVP-1856 ZEN-18213 ZEN-18396

It is now possible to define a white list of domains / expressions that can be used to filter data that will be imported by the SaaS discovery module.

A simple XML file can be used to define which websites are processed, for example:

```
<?xml version="1.0"?>
<Whitelist>
  <Saas Url="microsoft.com" Regex="false" />
  <Saas Url=".raynet\." Regex="true" />
</Whitelist>
```

The XML file needs to be located in the following location for the RayVentory Inventory Agent to use it:

```
C:\ProgramData\Raynet\RayVentoryInventoryAgent\SaaSwhitelisted.xml
```

Alternatively, when using the SaaS discovery command line tool directly, the whitelist can be configured by providing a new parameter `--whitelist` (shorthand `-w`):

```
UrlDiscoveryConsole.exe --whitelist saaswhitelist.xml
```

Security Improvements

- **[INVENTORY AGENT]** Fixed a security issue where Inventory Agent could write sensitive information in event log when getting the configuration from Scan Engine. **RVP-1854 ZEN-19308**
- **[INVENTORY AGENT]** Fixed a security issue in Inventory Agent (non-Windows) in which the libraries were referenced by relative, not absolute paths. **RVP-1826 ZEN-19064**
- **[INVENTORY AGENT]** Fixed a security issues in Inventory Agent (rvia) non-Windows shell script, which was using relative paths to binary files. In the new version, all paths are absolute. **RVP-1826 ZEN-19064**
- OracleDB scanner (oratrack) no longer uses log4j library. Due to security concerns, the tool has been rewritten by replacing the library with a secure implementation. **RVP-1772 RVP-1781 RVP-1782 RVP-1774**
- macOS packages for the Inventory Agent are now digitally signed. **RVP-1330 ZEN-18681**

Other Improvements and Changes

- **[NDTRACK]** Improved scanning for various co-existing versions of MS SQL server by `ndtrack`. **RVP-1246 ZEN-19105**
- **[INVENTORY AGENT]** The RAM consumption in RVIA has been improved by optimizing code and places where memory leaks could happen. **RVP-1729 ZEN-18529**
- Improved descriptions of configuration of remote execution and Hyper-V properties. **RVP-1772 RVP-1781 RVP-1782 RVP-1774 RVP-1775**
- Improved recognition and display of operating system logos on the sidebar (Windows Server 2019, 2022 and macOS). **RVP-1760 RVP-1642**
- If a DNS name cannot be resolved, the `hostname` property from VMware API is now used in vSphere scans. **RVP-1758**
- **[ORATRACK]** Improved timeout management for long-running `java.exe` processes, which may happen occasionally when running `oratrack` in combination with `DFUS`. **RVP-1869 ZEN-19289**
- Improved performance of the device list with large number of computers for subsequent operations. **RVP-1859 ZEN-19575**
- Windows 11 and Windows Server 2022 are now recognized during the AD discovery. **RVP-1884**
- Many internal improvements to Zero-Touch scanner, optimized usage of commands and improved process handling on certain distributions. This should also resolve sporadic issues on some systems, including but not limited to CentOS 5.4. **RVP-1833 ZEN-18939**
- **[NDTRACK]** Added plugins and additional auxiliary files to the standard NDTRACK Agent installation sources. **RVP-1787 ZEN-18858**
- Improved performance of RayVentory Scan Engine UI when loading large number of devices. **RVP-1859**
- Improved stability and performance of the built-in HTTP server for incoming upload files. **RVP-1925 RVP-1847 ZEN-18905 RVP-1807 RVP-1925**
- Improved handling of Cyberark-related errors. **RVP-1708 RVP-1655**
- Scanning for OracleDB now supports custom SSH ports. **RVP-1701**
- Improved scanning and recognition of video controllers on non-Windows systems. **RVP-1747**

Resolved Issues

The following issues have been resolved in RayVentory Scan Engine in 12.4.

- Fixed a security issue where user and password could be logged open-text in the task runner log file in case of a failed job. **RVP-1876**
- Fixed a concurrency issue in which scheduled tasks could overwrite each other's data. **RVP-1888 ZEN-19663**
- Fixed minor inconsistencies in the documentation part about supported platforms. **RVP-1894**
- **[NDTRACK]** Fixed an issue with different data reported by Zero-Touch and Remote-Execution on the same machine. **RVP-1459 ZEN-16625**
- Fixed issues with loading of Hyper-V data once the underlying device is removed from the Devices view. **RVP-1763**
- **[INVENTORY AGENT]** Fixed an issue where scheduler on macOS could create incorrect jobs. **RVP-1822**
- Fixed concurrency issues which could prevent the next run date from being properly calculated. **RVP-1838 ZEN-19231**
- Fixed non-working SharePoint and Exchange scans with use of Zero-Touch methods. **RVP-864 ZEN-13993 ZEN-15127 ZEN-19081**
- **[NDTRACK]** Fixed incomplete WMI scans for SQL Server related classes. **RVP-1744 ZEN-18702**
- **[POWERSHELL]** Fixed broken call to `Get-DeviceConnections` with OS type set to `Unix` in the PowerShell automation module. **RVP-1766 ZEN-18793**
- Fixed a vague statement about encryption key and security of the configuration in RayVentory Scan Engine User Guide. **RVP-1901**
- Added missing `MGS_Process` in the list of default classes used by Zero-Touch scanner on UNIX. **RVP-1802 ZEN-18985**
- Fixed an issue with wrong day calculation in the Inventory results UI. **RVP-1867**
- Fixed issues with missing texts in log files. **RVP-1755 ZEN-18624 ZEN-18749 ZEN-19183**
- Fixed migration from RayVentory Scan Engine 12.2, where the information about target filtered by list could be lost in the schedule configuration. **RVP-1757**
- **[INVENTORY AGENT]** Fixed an issue where the Inventory Agent could not run on supported systems where the required libraries (`libstdc+`, `libgcc_s`) were missing. This change affects many systems, including but not limited to AIX and Solaris. **RVP-1777 RVP-1851 ZEN-19130**
- Fixed issues with importing of inventory files from Windows machines, where the results coming from remote execution / portable scan (`ndtrack`) were incompatible with the same

results delivered by the Zero-Touch (RWI) counterpart. [RVP-1792](#) [ZEN-18857](#)

- **[INVENTORY AGENT]** Fixed broken upload of inventory files from OracleDB scanner `oratrack`. [RVP-1757](#)
- Fixed a timing issue in which the schedules could be in an inconsistent state. [RVP-1809](#) [ZEN-19140](#) [ZEN-19162](#)
- **[ORATRACK]** Fixed an issue where certain queries were not executed on OracleDB 12.1. [RVP-1852](#) [ZEN-19260](#)
- **[INVENTORY AGENT]** Fixed an infinite loop in search routine which was executing on Solaris 10 when looking for cURL by the Inventory Agent. [RVP-1846](#)
- Fixed a `NullPointerException` which could be thrown under certain conditions during the inventory upload in RayVentory Scan Engine. [RVP-1848](#) [ZEN-19277](#) [ZEN-19183](#)
- **[ORATRACK]** Fixed a regression in the logging module introduced in version 12.3.3429.24 (Update 02), where an exception could be thrown when running `oratrack` on JRE < 1.6 (due to missing `isEmpty()` method). [RVP-1862](#) [ZEN-19462](#)
- **[INVENTORY AGENT]** Fixed binary of the Inventory Agent (`rvia`) which, due to faulty linking, could not be properly run on some environments. [RVP-1777](#) [ZEN-18463](#)
- Fixed zero-touch scanning of file content on non-Windows platforms (RIU). The issue caused general time-outs of hashing of special or device files (`/dev/*`), rendering the inventory results partially incomplete. The issue has been confirmed on some earlier version of CentOS, but could also affect other platforms. [RVP-1833](#) [ZEN-18939](#)
- Fixed a critical issue where incoming NDI files were stored in the installation folder after being accepted by the HTTP upload service. [RVP-1753](#) [ZEN-18737](#)
- Fixed an issue with RVIA ignoring compression and deleting local NDI files. [RVP-1288](#) [ZEN-15896](#)
- Fixed an issue with schedule times not changed properly on macOS. [RVP-1733](#)
- Fixed a regression in version 12.3 in which it was not possible to put the files in the `Results\RemoteExection` folder to add them to the connection list. [RVP-1754](#) [ZEN-18710](#)
- Fixed an issue with vSphere inventory not showing FQDN in scope. [RVP-1758](#) [ZEN-18488](#)
- Fixed an issue where logs files could be written directly in `INSTALLDIR`. [RVP-1776](#)
- Fixed an issue where a failure during reading of vSphere tag would leave the complete scan process as failed. In this version, failure of reading a tag does not break the inventory scan of vSphere devices. [RVP-1681](#) [ZEN-17336](#)
- Fixed an issue with missing `Name` property of an operating system on macOS devices. [RVP-1742](#)
- Fixed detection of Java 1.5 and older by RayVentory Inventory Agent (non-Windows). [RVP-1725](#)

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- Fixed application logs for `curl` uploads which previously could contain a clear-text sensitive data. **RVP-1666**
 - Look-up for `curl` on non-Windows system has been improved. In this version, if `curl` is not found in the `PATH` variable, the agent performs a one-time file scan for it, and stores the result of the look-up for subsequent usage. **RVP-1724**
 - Filtering devices in scheduled inventory operation now also respects the host name (previously only IP addresses were considered). **RVP-1728**

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- Fixed an issue with frequent timeouts of file scans on AIX machines with network shares. In this build, if network scan is disabled, command line switch `-xdev` will be used for `find` command. **RVP-1716**
 - Fixed an issue with basic authentication on RayVentory Scan Engine HTTP service. **RVP-1490 RVP-1585 ZEN-17438 ZEN-19459**
 - Fixed various minor localized texts. **RVP-1828**
 - Fixed incorrect look-up paths when calling PowerShell command `let Start-SnmpInventory`. **RVP-1843**
 - Log file for `oratrack` is now saved in the `%PROGRAMDATA%\Raynet\RayVentoryPortal\Results\Logs` instead of the installation folder. **RVP-1873**
 - Fixed unhandled COM exception `0x800706BF` when invoking WMI scans. **RVP-1950**
 - Fixed or improved non-English UI messages. **RVP-1712**
 - Fixed scanning methods involving remote execution of `ndtrack` and dedicated HTTP upload server, which were occasionally failing when device FQDN was long. **RVP-1821**

Migrating from previous versions

Migrating from Scan Engine versions 12.2.2784 and newer

Perform upgrade using standard MSI installation (both Scan Engine and Inventory Agent must be updated separately).

Migrating from Scan Engine versions 12.2.2783 and lower

1. Perform upgrade using standard MSI installation (both Scan Engine and Inventory Agent must be updated separately).
2. Stop the RayVentory Scan Engine Scheduler service
 - a. Make sure to close the app and all its processes.
 - b. Using any text editor, open the file `C:\ProgramData\Raynet\RayVentoryPortal\Config\schedule.xml`.
 - c. Replace all occurrences of `<HostAndIpOperatorAnd>true</HostAndIpOperatorAnd>` with `<HostAndIpOperatorAnd>>false</HostAndIpOperatorAnd>`
 - d. Start the RayVentory Scan Engine Scheduler service again

Migrating from RayVentory Portal

Preconditions

- The user must be an administrator
- Powershell version 3.0 or newer must be installed (information about the current version is contained within the `$PSVersionTable` variable)

Steps

1. Install RayVentory Scan Engine Scan Engine 12.4
2. Copy the migration script (see below) to a location where it can be started from a local system.
3. Open Windows PowerShell or Windows Terminal as administrator
4. Navigate to the folder where a local copy of migration script exists.
 - In case the execution of PowerShell scripts is restricted on the current system, execute additionally the following command to allow it temporarily:
`Set-ExecutionPolicy -ExecutionPolicy RemoteSigned -Scope Process`
 - In case the script is blocked by your system, unblock it with the following command:
`Unblock-File -Path .\MigrateRVPtoRVSE.ps1`
5. Execute the script
`.\MigrateRVPtoRVSE.ps1`
6. [Optional] Check if hard-coded values in configuration nodes of `config.xml` file are set to relative paths:
 - OracleTrackerFolderPath
 - NdtrackExecutablePath
 - RIWClassesFile

Migration script

The following migration script is also available online:

<https://raynetgmbh.zendesk.com/hc/en-us/articles/360045755511-RVY200601-Migrating-RayVentory-Portal-to-RayVentory-Scan-Engine-12-0->

```
<#
@Title = A script to migrate from RayVentory Portal to RayVentory Scan
Engine
@Author = Raynet GmbH
@Version = 0.1
@Description = This script is supposed to adjust Config.xml files to fix
obsolete hardcoded paths
#>

# Setting up logging
Write-Host "Starting migration script"
$tempFilePath = [System.IO.Path]::Combine($env:TEMP,
"RVPtoRVSEmigration.log")
Start-Transcript -Path $tempFilePath -NoClobber -Append
```

```
Write-Host "PowerShell information"
$PSVersionTable
Write-Host ""

try {
    # Extraction of RVP appdata storage from Registry
    $appdataPath = [string]::Empty;
    $programFilePath = [string]::Empty;
    if ([Environment]::Is64BitProcess) {
        $appdataPath = Get-ItemProperty -Path "HKLM:\SOFTWARE\WOW6432Node\Raynet\RayventoryPortal" -Name "AppDataPath" | Select-Object -ExpandProperty "AppDataPath"
        $programFilePath = [Environment]::ExpandEnvironmentVariables("%ProgramFiles(x86)%")
    }
    else {
        $appdataPath = Get-ItemProperty -Path "HKLM:\SOFTWARE\Raynet\RayventoryPortal" -Name "AppDataPath" | Select-Object -ExpandProperty "AppDataPath"
        $programFilePath = [Environment]::ExpandEnvironmentVariables("%ProgramFiles%")
    }

    # Checking if configuration values are in place
    if ([string]::IsNullOrEmpty($appdataPath)) {
        Write-Warning -Message "Rayventory Portal configuration registry is missing. No migration will be done."
        [System.Environment]::Exit(1)
    }

    $configFilePath = [System.IO.Path]::Combine($appdataPath, "Raynet", "RayventoryPortal", "Config", "Config.xml");
    if (!(Test-Path($configFilePath))) {
        Write-Warning -Message "Configuration file not found. No migration will be done."
        [System.Environment]::Exit(1)
    }
    else {
        # Updating hardcoded paths
        Write-Host "Updating hardcoded paths"

        [xml]$configContent = Get-Content -Path $configFilePath -Encoding UTF8
        $oratrackPath =
        $configContent.Configuration.OracleTrackerFolderPath;
        $ndtrackPath = $configContent.Configuration.NdtrackExecutablePath;

        $isRiwClassesEmpty = $false;
        $riwClassesPath = $configContent.Configuration.RIWClassesFile;
        if ([string]::IsNullOrEmpty($riwClassesPath)) {
            $isRiwClassesEmpty = $true;
        }
    }
}
```

```
$isContentChanged = $false

if (!(Test-Path $oratrackPath) -and !($oratrackPath -eq ".\Contrib\Oratrack")) {
    Write-Warning "OraTrack configuration is invalid : $oratrackPath. Will be reset to default: .\Contrib\Oratrack"
    $oratrackPath = ".\Contrib\Oratrack";
    $configContent.Configuration.OracleTrackerFolderPath = $oratrackPath;
    $isContentChanged = $true;
}

if (!(Test-Path $ndtrackPath) -and !($ndtrackPath -eq ".\Contrib\Ndtrack\ndtrack.exe")) {
    Write-Warning "NdTrack configuration is invalid : $ndtrackPath. Will be reset to default: .\Contrib\Ndtrack\ndtrack.exe"
    $ndtrackPath = ".\Contrib\Ndtrack\ndtrack.exe";
    $configContent.Configuration.NdtrackExecutablePath = $ndtrackPath;
    $isContentChanged = $true;
}

if (!$isRiwClassesEmpty -and !(Test-Path $riwClassesPath) -and !($riwClassesPath -eq ".\example.xml")) {
    $riwFileName = [System.IO.Path]::GetFileName($riwClassesPath);
    if ([string]::Equals($riwFileName, "example.xml")) {
        Write-Warning "Zero-Touch custom inventory configuration file path is invalid: $riwClassesPath. It will be reset to default: .\example.xml"
        $riwClassesPath = ".\example.xml";
        $configContent.Configuration.RIWClassesFile = $riwClassesPath;
        $isContentChanged = $true;
    }
    else {
        Write-Warning "Zero-Touch custom inventory configuration file path is invalid. Please manually adjust the configuration."
    }
}

if ($isContentChanged) {
    # Making a backup of configuration file
    $configBackupPath = $configFilePath + ".old";
    $nameNum = 1;
    $fullConfigBackupPath = $configBackupPath
    while (Test-Path $fullConfigBackupPath) {
        $fullConfigBackupPath = $configBackupPath + $nameNum;
        $nameNum += 1;
    }

    Write-Host "Making a backup of Config.xml: $fullConfigBackupPath"
    Copy-Item -Path $configFilePath -Destination $fullConfigBackupPath
}
```

```
        Write-Host "Writing changes back to Config.xml:
$configFilePath";
        Remove-Item -Path $configFilePath -Force
        $configContent.Save($configFilePath)
        Write-Host "Migration process was performed successfully"
    }
    else {
        Write-Host "No changes made to a configuration. Nothing will be
written."
    }
}
}
catch {
    Write-Warning "Migration failed. Check the log file."
    Write-Warning $_
}
finally {
    Stop-Transcript
}
```

Additional Information

Visit www.raynet.de for further information on RayVentory Scan Engine, 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 Scan Engine experience. Please contact your Raynet service partner or use our [Support Panel](#) to add your ideas or requirements to the RayVentory Scan Engine development roadmap!

RayVentory Scan
Engine
is part of the
RaySuite

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