



## **JDisc Discovery 5.0**

### **Release Notes**

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## Release 5.0 - Build 5194 (Apr 12 2024)

### **New Devices:**

- Hikvision Video Recorder
- Another variant for Riello UPS scan via SNMP added

### **Improved: F5 rSeries Model Detection (JDSD-4263)**

We have improved the rSeries model detection for f5 big ip.

### **Improved: Oracle Database Discovery (JDSD-4259)**

We leverage TCP/IP port information to determine the Oracle database ports and IP addresses that the process is listening on.

### **Bugfix: Cisco Switches merged (JDSD-4264)**

Cisco switches have been merged due to a mac address that is comon to all switches: 00:22:bd:f8:19:ff

## Release 5.0 - Build 5193 (Apr 06 2024)

### **New Devices:**

- TP-Link EAP Access Point

### **Improved: Java Detection (JDSD-4250)**

We did not detect all Java installations because the Java application name in Add/Remove programs followed a pattern that we didn't see before. We have extended our pattern list for Java installations with "Java Development Kit".

### **Improved: Timestamps and Durations in Reports (JDSD-4215)**

Users can define how to display durations and timestamps when exporting data to CSV or Excel (either in a readable format or in raw format).

The raw format is often better for further processing.

### **Improved: Filter Detection**

When scanning a device or IP that is excluded by a filter, we got the message "Not added to queue" which is misleading. I changed the error message to "Blocked by a filter".

### **Bugfix: Not all LUNs added for Linux Servers (JDSD-4245)**

When storage uses the device name "/dev/sdab" or "/dev/sdbc" (4 letter disk name instead of 3 letter disk names like "/dev/sda", then they did not appear in the physical disk list.

## Release 5.0 - Build 5192 (Mar 30 2024)

### **New Devices:**

- Ubiquiti UniFi U6+ Access Point
- HID Omnikey XXXX Card Reader (PnP)

### **Improved: Java Detection – Amazon Corretto JVM (JDSD-**

We detect the Amazon Corretto JVM (based on OpenJDK) correctly.

### **Important Bugfix: Windows Domain relationship deleted**

The windows computer network neighborhood name / Windows domain name for virtual machines was deleted when it was scanned via its physical host.

### **Bugfix: Clear Discovered Data also Deleted Discovery Job Schedule**

Even when deleting discovered information only, the clear operation was deleting the discovery job schedule.

### **Bugfix: Custom Report Filter Conditions ignored**

Filter conditions for physical disks and processors are ignored when used in a custom report.

### **Bugfix: Duplicate Laptops when scanned via VPN and directly (JDSD-4244)**

There could be duplicate device entries when a laptop gets scanned via VPN or directly.

### **Bugfix: Workaround for Cisco Stacked Access Point Controller implemented (JDSD-4240)**

Some Cisco access point controller falsely report a stack even though it is just a single non stacked access point controller. We have added a workaround to detect this issue.

## Release 5.0 - Build 5191 (Mar 15 2024)

### **New Devices:**

- Diebold Nixdorf ACO KIOSK Box POS
- F5 rSeries F5OS Web Application Firewalls
- Avocent Cyclades ACS XXXX Console Server

### **Bugfix: Web UI – Tokens acquired via GraphQL API live until expiration date**

Avoided premature logout of sessions with tokens acquired via GraphQL API.

### **Bugfix: Web UI – Excel export of Device Details was incomplete**

Fixed NPE preventing export of device details.

**Bugfix: Custom Reports IP Filter did not show up in the list of filters**

The IP filter strings were empty in the custom report definition for IP4 transport addresses.

## Release 5.0 - Build 5190 (Mar 09 2024)

**New Devices:**

- Rutenbeck TCR IP 4 industrial controller (HTTP)
- More Lenovo part number mappings added
- Aures JUNO point of sales
- InsydeBroadwell point of sales
- Aukey PC-Wx WebCams (PNP)
- Dymo LabelPrinter (PNP)

**New: Invert Search in Table Reports**

A new checkbox can invert the search in the Swing and WEB UI. That let's you search for rows in a table that do *not* match the search string.

**Bugfix: Lenovo V330 still identified as Tower PC**

The Lenovo V330 was still identified as Tower PC although it is a Laptop.

**Bugfix: Custom Array Attributes (JDSD-4218)**

The last update timestamp was not updated when updating a custom array attribute.

## Release 5.0 - Build 5189 (Mar 01 2024)

**New Devices:**

- Rutenbeck TCR IP 4 industrial controller (HTTP)
- Phoenix Contact AXC F PLCs (SNMP)
- Schleifenbauer PDU (SNMP)
- AudioCodes Mediant XXX MSBR (SNMP)

**Improved: Delinea (Thychotic) SecretServer Integration**

JDisc Discovery has integrations with several password managers including Delinea SecretServer. Up to now, the integration only allowed the manual assignment of password manager accounts to default or device accounts. However, many password managers allow to set a machine or hostname field to link specific credentials to a server. JDisc Discovery has extended its SecretServer integration in a way that it checks whether SecretServer has credentials defined for a specific hostname or IP address. If yes, then it can use this account without any manual assignment.

**Bugfix: Mini PC computers not identified when running Linux (JDSD-4192)**

The device type "Mini PC" was not properly decoded from the dmidecode output when running Linux.

**Bugfix: User and User Group related Issues**

There have been multiple user and user group related issues when writing the devices to the database (e.g. users not removed from groups although they are not part of the group anymore).

**Bugfix: System Name not collected for Kyocera Printers**

The system name is usually stored within the standard SNMP system group. However, Kyocera does not use the standard field, but implements the system name in a private MIB variable. We already implemented to use this field in previous versions. However, a firmware issue in their printer FW caused that this code was not executed (they used the SNMP system oid 0.0 instead of their proper  
OID).

We added a workaround to get around this issue.

**New: Web UI – Added scheduling of Database Archive**

Implemented scheduling of database archive in database management. Also changed dialog to wizard for parameters of database archive in native client.

## Release 5.0 - Build 5188 (Feb 23 2024)

**New Devices:**

- More Lenovo part number mappings added
- Edgecore Switches
- Phoenix Contact CAPAROC Power Module
- Westermo DDW Ethernet Extender
- Westermo Switches
- Yeahlink WH66 Headset (via PNP)
- Extreme-Networks VSxxxx virtual access point controller appliance

**Bugfix: Wrong Foreign Key Relation in Database**

A wrong foreign key relationship definition in our relation table that connects users to user groups could lead to missing or fake entries when listing members of local user groups.

## Release 5.0 - Build 5187 (Feb 16 2024)

**New Devices:**

- More Lenovo part number mappings added

**New: Apple M1 E-Core and P-Core Detection (JDSD-4177)**

We detect the number of e-cores (efficiency cores) and p-cores (performance cores) for Apple's latest M1, M2, M3 processors.

**New: Device Properties ZIP File (JDSD-4165)**

A new context menu item "Create Device Properties ZIP" creates a ZIP file that includes the device properties export as Excel file for each selected device.

**New: Config File Collection for Ruckus IronWare Switches (JDSD-4183)**

We can collect configuration files from Ruckus IronWare switches.

**Improved: Duration for Scheduled Tasks (JDSD-4129)**

When the Task Scheduler operational event logging is enabled, then we can collect the last duration of scheduled tasks based on started and finished events from the event log.

**Improved: Intune Data overwrites Scan Data (JDSD-4133)**

Scanning devices via the Intune API gets data about a device's operating system. However, a direct scan gets more details (like edition etc.). A bug in the Intune discovery caused that the device's operating system gets overwritten by information from Intune. And thus previously details info disappears because it is not available via Intune.

**Improved: Performen when reading Windows Event Logs**

While implementing JDSD-4129 (line above), we experienced that reading the event log is very slow when using WMI or powershell. Therefore, we have extended our sysinfo collection binary to use the native Windows APIs locally to read the event log. That is in many cases factor 30 faster!

**Improved: Adjust Intel E-Core and P-Core After Restore/Update**

Intel has introduced E-Cores (efficiency cores) and P-Cores (performance cores).

JDisc Discovery maintains a lookup table to obtain the correct e-core and p-core count for specific processor models. However, when you update or restore an older database, those fields are not populated yet. We extended our restore process to calculate the number of e-cores and p-cores after importing a database based on the current data. This affects the import of older databases and also the update process.

**Improved: Intel E-Core and P-Core Handling (JDSD-4174)**

Intel has introduced E-Cores (efficiency cores) and P-Cores (performance cores). In one of our recent releases, we added support for the E-Core, but we recognized, that it would be better to have the number of p-cores and e-cores in separate fields and not use the total number of cores for that.

**Improved: Kyocera Software and Firmware Version (JDSD-4172)**

We are getting firmware and software version for Linux based Kyocera printers.

**Improved: Software Usage Metering Status Tracking (JDSD-4179 | JDSD-4180)**

Each time software metering templates are transferred and activated on monitored computers, the Last Provisioned date is tracked in the database. The Status calculation (column) of the Software Metering Deployments report also takes the Last Provisioned date into account and has been improved.

**Bugfix: Web UI – Custom Reports editor fields selection**

Step 2, selected fields were shown under wrong group when added to the report: fixed.

**Bugfix: Software Usage Metering Process/Agent hangs**

If the SoftwareUsageQuery process terminated unexpectedly, restarting this process repeatedly could fail and prevented the JDisc Discovery Zero-Footprint Agent Service from stopping regularly.

**Bugfix: Duplicated computer mouse devices on Windows computer**

Mouse devices may have been duplicated as directly attached devices on Windows computers. This is because mouse devices appear as USB and HID devices at the same time.

**Bugfix: Manufacturer missing for Cisco Stack Switch Members (JDSD-4184)**

The manufacturer string was missing in the SNMP MIB for some Cisco stacked switches. We are setting the manufacturer now explicitly when we know the vendor.

**Bugfix: Expiration Date for Vcenter Licenses not Properly written (JDSD-4181)**

The license table for Vmware did not include the correct timestamp value for license expiration dates.

## Release 5.0 - Build 5186 (Feb 03 2024)

**New Devices:**

- Kyocera Linux based Printers (JDSD-4172)

**Bugfix: Computers from "TQ-Group" were merged because of identical serial numbers (JDSD-4166)**

Due to a bug in the SMBIOS implementation of "TQ-Group" computers the discovery constantly merged them because all of them are returning the identical same serial number.

**Bugfix: Custom Reports using Regular Expressions (JDSD-4167)**

A bug introduced in build 5184 caused the creation of faulty SQL queries when using regular expression matching on string fields.



**Bugfix: Exclusion Filtering did not work for DNS and DHCP server without a named assigned (JDSD-4173).**

The exclusion filtering failed for DNS and DHCP servers that have been detected during a device discovery when no hostname has been assigned.

## Release 5.0 - Build 5185 (Jan 26 2024)

**New Devices:**

- Molex Optical Switch (JDSD-4152)
- AudioCodes IP Phones (JDSD-4157)
- More Lenovo part number mappings added

**New: Web UI – Delete clusters action implemented**

The action to delete clusters in the *All Clusters* report has been implemented.

**New: Web UI – Delete datacenters action implemented**

The action to delete datacenters in the *All Datacenters* report has been implemented.

**New: Web UI – Delete discovery queues actions implemented**

The actions to delete device, ping, domain and directory queues in the respective reports have been implemented.

**New: Web UI – Delete VLAN and WLAN actions implemented**

The actions to delete VLANs and WLANs in the *VLANs & WLANs* reports have been implemented.

**Bugfix: Group Assignment (JDSD-4155)**

When a network group uses files with IP addresses or device lists, then a device was not assigned to the group even if it was on the list.

## Release 5.0 - Build 5184 (Jan 19 2024)

**New Devices:**

- Synology Sxxxxx NAS devices (JDSD-4144)
- Some more Siemens SINAMICS G120 Frequency Converter (JDSD-4146)
- Euchner PROFINET Electronic Key Systems (JDSD-4146)
- B&R Powerlink Interface Module (JDSD-4146)
- Murr Elektronik IO Device (JDSD-4146)
- Cognex Is-Vision Camera Systems (JDSD-4146)

**New: Web UI – Delete discovered user groups action implemented**

The action to delete discovered user groups in *All User Groups* report has been implemented.

**New: Web UI – Delete discovered users action implemented**

The action to delete discovered users in both *All Users* and *All Cloud Users* reports has been implemented.

**New: Web UI – Delete applications action implemented**

The action to delete applications in the *All Applications* report has been implemented.

**New: Web UI – Delete history snapshots action implemented**

The action to delete history snapshots in *History Snapshots* report has been implemented.

**New: Web UI – Delete certificates action implemented**

The action to delete certificates in *Certificates* report has been implemented.

**New: Web UI – Delete drivers action implemented**

The action to delete drivers in *All Drivers* report has been implemented.

**New: Web UI – Delete executable files action implemented**

The action to delete executable files in *All Executables Files* report has been implemented.

**Improved: New discovered devices added to Device Age Statistics report**

The Device Age Statistics report now also displays new discovered devices in addition to the last discovered devices by age category.

**Improved: Regular Expressions for IP Address filtering in Custom Reports**

We have added regular expression filtering for the IP Address field of the Device Attributes category. This allows reporting of devices that share a common IP address scheme that any companies use for the switches or routers in IP subnets. For example: The filter 'IP Address matches regexp '[0-9]+\.[0-9]+\.[0-9]+\.[0-9]+' reports all devices having IP addresses that end with 1 in the last IP address digit/octet. Of course, IPv6 addresses can also be filtered.

**Improved: Discovery Status displays the Number of blocked Devices**

Within JDisc Discovery, users can define a blackout period where a scan should not happen. In that case discovery tasks change their state to “blocked” and wait until the blackout period is over. In some cases, this caused confusion because the discovery made no progress in that case. We have added the number of blocked devices to the status message to make that more obvious.

**Bugfix: Logged on user discovery creating devices with ::0 IPv6 addresses**

If you have turned on the 'Create new devices for user connections from remote clients' option in the Discovery Configuration, the discovery might have created new devices with ::0 IPv6 addresses that were reported as the remote client IP address of a user connection.

**Bugfix: Starter Edition restricted to 25 devices only**

Due to a bug, the free starter edition was limited to only 25 devices. We have removed this device limit and now any number of devices can be discovered again.

**Bugfix: Slow Query**

A slow query added unnecessary load on the Postgres database server and caused an unnecessary high CPU load.

## Release 5.0 - Build 5183 (Jan 12 2024)

**New Devices:**

- New Lenovo part-number to model mappings added.
- Phoenix Contact THERMOMARK ROLL

**New: Web UI – Device Group filter implemented**

Similar to the native client, report results can be limited to selected device groups. The filter view can be activated on the report toolbar by selecting the “Toggle group tree visibility” button. For reports that do not support this kind of filtering, the button is disabled.

**New: Web UI - Context Menus “Connect with → Microsoft Terminal Services” implemented**

The context menu action to connect to a windows device with Microsoft Terminal Services has been implemented.

**Bugfix: Client Connection not possible (JDSD-4102)**

Due to an error in our code, the server ports could have been shut down by the Java GC. From then on, a connection from a client was not possible anymore.

**Bugfix: Sole IPv6 address of devices not displayed in custom reports**

The IP address of devices having only an IPv6 address assigned as discovery transport was not displayed at all.

**Bugfix: Postgres Discovery on Unix**

An error in a regular expression pattern caused that the Postgres software version was not complete. Instead of getting version "11.21", we were getting only "11.2".

**Bugfix: Edit Custom Attributes (JDSD-4136)**

Editing Custom Attributes of type "Multiline Text" could fail.

**Bugfix: Group Assignment (JDSD-4140)**

Devices with IP addresses on network interfaces where we could not determine the interface type were ignored when assigning devices to network groups.

**Bugfix: Lenovo V520 and V530 identified as Laptop (JDSD-4139)**

Lenovo V520 and V530 have been identified as Laptop, but are actually desktops.

## Release 5.0 - Build 5182 (Jan 05 2024)

**New Devices:**

- ZebraNet ZCxxx Card Printer (JDSD-4120)
- Hirschmann Rail Switches
- Hirschmann Greyhound Switches
- Siemens Simatic HMI Comfort Panels

**Improved: Device Naming Strategy**

JDisc Discovery has a pretty complex algorithm to determine a proper device name. Sources for names are reverse DNS, hostname, Windows computer names, and SNMP system names.

We always try to determine the name with the best match. However, this is not always possible. In the past, we then searched for a reverse DNS name and used this one as name for the device. However, some customers would prefer to use the SNMP system name or the hostname. Therefore, we have created an option to define the user preferences (General tab within the discovery configuration).

Note that the preference is only used when it was not possible to determine the proper name based on reverse DNS names, hostnames, and SNMP system names.

**Improved: New Report: Device Age Statistics**

The new report Device Age Statistics (Troubleshooting > Devices > Device Age Statistics) provides an overview of how current your discovered data is. It creates categories together with the number of devices for devices which have been successfully scanned the last 24 hours, the last week, the last month etc... With this report, you can get quickly an impression of how current your data is.

**Improved: Support ZIP Creation**

JDisc Discovery extends its SNMP device detection capabilities nearly every week. In order to implement new devices, we usually ask for a SNMP walk. In order to minimize the effort for user users, JDisc Discovery can create a SNMP walk while creating the Support ZIP for one or multiple devices. When you create a support ZIP for one or multiple devices of type "Unknown SNMP Device" then JDisc Discovery asks whether to include the SNMP walks in the support ZIP and creates them when the users decides to include it.

This helps to reduce the roundtrips in the ticketing and speeds up the development when added support for new SNMP based devices.

**Improved: Reboot Events**

JDisc Discovery detects since quite a while shutdown and reboot events for Windows computers. In order to get this data, it was running WMI queries to obtain the events from the Windows event system. However, when older entries got deleted from the Windows events, then they were also deleted from the JDisc Discovery database. This has been changed. We aggregate now all events and use an aging out to delete older events (default is after 365 days after creation).

**Improved: Custom Reports including Scheduled Tasks**

A custom report using scheduled tasks with filters could be slow. We have improved the query for this case.

**Improved: Scan Duration for Windows Computers**

We have improved the scan duration for Windows computers when we have access to the remote computer using our zero-footprint agent. We are using a powershell command instead of a WMI query to obtain the Windows update last checked timestamp.

The powershell script runs usually faster than a second whereas the WMI query took often longer than 30 seconds.

**Bugfix: Lancom DSL Router identified as Access Point**

Due to an error within a regular expression, Lancom DSL routers have been identified as access points.

**Bugfix: MSDN Cloud Users for VS 2022 not identified (JDSD-4126)**

Due to change from Microsoft within the registry structure, we were not able to identify MSDN cloud users for VS 2022.

**Bugfix: Cisco AP Controller identified as Access Point (JDSD-4127)**

Due to an error, some Cisco AP controllers were identified as access points.

## Release 5.0 - Build 5181 (Dec 22 2023)

**New Devices:**

- ZebraNet ZCxxx Card Printer (JDSD-4120)
- Hirschmann Rail Switches
- Hirschmann Greyhound Switches
- Siemens Simatic HMI Comfort Panels

**New: Web UI - Context Menus "Software Metering Templates" implemented**

The context menu action to assign and reset device's software metering templates have been implemented.

**Improved: More Intel ECore/PCore Mappings added**

We have added more mappings for Intel processors to the mapping table. This

way more processors are detected with their proper number of efficiency cores.

**Updated: Upgraded to PostgreSQL 16.1 due to a Vulnerability**

Due to a vulnerability, we have updated the Postgres version to 16.1. For more details check out the following CVEs:

- [CVE-2023-5868](#)

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[CVE-2023-5869](#)

- [CVE-2023-5870](#)

**Improved: Performance of Device Group Assignments**

Assigning devices to groups was written in an inefficient way issuing too many SQL queries. We have changed the coded to run more efficiently.

**Bugfix: Kubernetes API Settings not stored correctly (JDSD-4120)**

The Kubernetes API settings were not stored correctly when changed in the discovery configuration dialog.

**Bugfix: Supported Device Report caused an Error**

The supported device report did return with an error.

## Release 5.0 - Build 5180 (Dec 19 2023)

**Bugfix: SSH Vulnerability CVE-2023-48795**

The SSH protocol has a severe vulnerability. Most clients and servers are affected. JDisc Discovery has updated its embedded putty version and the SSH client library used for discovery.

However, you also need to check and update your SSH servers! Read our [blog entry](#) for more details!

## Release 5.0 - Build 5179 (Dec 15 2023)

**New Devices:**

- Weidmueller Switches
- Some more Mobotix Surveillance Cameras
- Some Alcatel-Lucent OmniSwitches (JDSD-4108)
- Silex SD-XXX Port Server (JDSD-4109)

**New: Web UI - Context Menu “Support Entitlements” implemented**

The context menu action to refresh device's support entitlements has been implemented. Open the “All Devices” report, select one or more devices, open the context menu, and select “Discover → Support Entitlements...”.

**New: Web UI - Context Menu “History” implemented**

The context menu actions to create and manage device history snapshots have been implemented. Open the “All Devices” report, open the context menu, and select “History → Create Snapshot...” or “History → Manage Snapshots...”.

#### **New: Lenovo Unmapped Part Number Report**

The troubleshooting report section includes a new report which lists all unknown Lenovo part numbers. JDisc Discovery maps Lenovo part numbers to readable model names (e.g. ThinkPad X1). This is an ongoing task and this report helps us to identify part numbers which are not yet mapped to proper model names. Feel free to submit your report to our ticketing in order to let us implement the missing mappings.

#### **New: Builtin Software Metering Templates (Measurement Add-On)**

Thanks to our partner SHI International Corp., the Measurement Add-On now includes a set of built-in software metering templates for Adobe, Microsoft and Cisco applications. We will continually expand the built-in software metering templates and are also happy to integrate templates from our customers and partners, as well.

#### **Improved: Docker Discovery (JDSD-4101)**

We are running some docker commands to obtain the list of containers and their images. So far, we used sudo or a root account to get that information. However, some users install docker in a way that ordinary users can run docker commands.

We changed our code to run docker as an ordinary user when no root access is possible.

#### **Improved: Web UI – Device Context Menu “Connect with...” Actions**

Connect with SSH and Telnet actions are removed from the Web UI interface. 'Connect with' context menu actions are enable only when a device's hostname and/or an IP Address is available.

#### **Improved: Web UI – Table Report Buttons**

Important actions on table reports are now available also as table buttons right before the search input field.

#### **Improved: Web UI – Trigger Device Discovery**

The Trigger Device Discovery dialog is enhanced. In addition to manually typing the hostnames or IPs, it is possible now to copy paste them or import them from a file.

#### **Improved: Lenovo Part Number Mappings**

We have added new entries to the Lenovo part-number to model mapping.

#### **Updated: Upgraded to OpenJDK 21**

We have updated the OpenJDK version to the latest long time support version (JDK 21).

#### **Updated: Angular 16**

We have updated the Angular framework used for our WEB UI to Angular version 16.

**Bugfix: Wrong Serial Number for QNAP NAS Devices (JDSD-4105)**

On some models, the serial number detection was wrong when a QNAP device could be reached via SNMP and SSH.

**Bugfix: Azure VMs not deleted (JDSD-3790)**

Azure virtual machines have not been deleted from the JDisc Discovery database when the VM is removed from the Azure cloud.

**Bugfix: Microsoft Intune Discovery (JDSD-3790)**

Information such as processors or operating system information could be removed when writing information for Intune managed devices.

## Release 5.0 - Build 5178 (Dec 08 2023)

**Improved: ARP Cache Lookup**

JDisc Discovery determines MAC addresses for devices in remote networks (connected via routers) using ARP Proxies. We connect to one of the computers within the target network and then run there an ARP request to determine the MAC address for the target device. The old implementation was a bit inefficient and using more resources than needed and therefore we changed it.

**Improved: Encrypted native/built-in LAPS support**

Now, all user accounts configured for LAPS lookup are tested to decode the Windows computer's local administrator password.

Furthermore, the memory consumption (including the number of active threads) is optimized. Now, only a maximum of 5 threads per Active Directory domain are started for the LAPS lookup.

**Improved: Microsoft SQL Server 2022 Discovery**

Full support for SQL Server 2022 detection.

**Improved: Microsoft SQL Server Discovery**

Normalized naming for Data Quality Services and Master Data Services.

**Bugfix: Kubernetes Cluster Scan**

An error prevented in some cases the Kubernetes scan.



## Release 5.0 - Build 5177 (Dec 1 2023)

### **New Devices:**

- Logitech ConferenceCam Connect (PnP - JDSD-4088)
- Logitech BIO 4K Stream Edition (PnP - JDSD-4088)
- Logitech V10 Portable Speaker (PnP - JDSD-4088)
- Logitech V20 Portable Speaker (PnP - JDSD-4088)
- Logitech Z305 Portable Speaker (PnP - JDSD-4088)
- Logitech H340 Headset (PnP – JDSD-4088)
- Logitech K280e Keyboard (PnP – JDSD-4088)
- Logitech R700 Remote Presenter (PnP – JDSD-4088)
- Logitech MK260 Keyboard (PnP – JDSD-4088)
- Logitech Unifying Receiver (PnP – JDSD-4088)
- Logitech BOLT Receiver (PnP - JDSD-4088)

### **Improved: SQL Server 2022 Reporting Services**

We have added code to detect SQL Server 2022 Reporting Service installations properly.

### **Improved: HWgroup Temperature Sensor (JDSD-4091)**

We are getting the serial number and the firmware version for STE2 PLUS sensors.

### **Bugfix: Wrong Device Diagnostic Entries**

We have created a lot of wrong "Device not written to database" events.

## Release 5.0 - Build 5176 (Nov 12 2023)

### **New Devices:**

- Canon Pro Series Printer (UPnP)
- Dormakaba Wireless Gateway (UPnP)
- EFI Fiery Print Server (mDNS)
- National Instruments Compact DAQ-Chassis Series (mDNS)
- National Instruments Compact Vision System Series (mDNS)
- Silex SX Series USB Port Server (UPnP)
- TP-Link WAXxxx Series Access Point (UpnP)
- Some Alcatel-Lucent OS Switches (JDSD-4067)
- Guntermann & Drunck KVM Switches (JDSD-4047)

### **New: Shutdown and Reboot Events on Windows (JDSD-3050)**

JDisc Discovery collects now shutdown and reboot events on Windows by reading the eventlog.

### **Improved: Custom Attribute Collection**

Custom attributes have not been deleted when the data collection fails because

they do not exist anymore (e.g. a Windows registry value has been deleted on the scanned computer).

**Improved: VMware License Key Discovery**

In addition to the changes within the last build, we added the feature list and the expiration date to the custom attribute data collection for VMware licenses on VCenter installations.

**Improved: IBM AIX Disk Discovery**

In addition to the serial number, we are also collecting the so called PVID for a disk as unique id.

**Bugfix: HP Printer Anomalies (JDSD-4062)**

We have found some HP printers which report corrupt MAC addresses (5 bytes instead of 6) via SNMP. This was causing a confusion when writing the data to the database.

**Bugfix: Cisco HyperFlex Server Detection (JDSD-4039)**

Cisco HyperFlex servers have been assigned the type Computer. We added a proper detection to add them as Rack Server.

**Bugfix: OutOfMemory Error (JDSD-4061)**

We are reading the /var/log/Xorg.0.log file to determine the attached monitors for a Linux computer and transfer the whole file to the discovery server. At some customers, the log file was extremely large (>30GB) and this caused the discovery server to crash with an OutOfMemory error. We fixed the issue by not transferring the whole file (which is bad practice anyway :-), but only the relevant part.

## Release 5.0 - Build 5175 (Nov 05 2023)

**Improved: Memory Consumption**

We have experienced several OutOfMemory errors in support ZIPs received by customers. We have one suspect and that is the Activity Log that we maintain during the discovery. So far, those logs have been stored in memory while the device is being scanned. The longer the log gets, the more memory gets used. We have changed that behavior to store the logs in temporary files and for security reasons, we encrypt the files with AES and then compress it. With this change, the log is no longer completely in memory during the discovery process. This is especially important when scanning a lot of devices in parallel. We hope to reduce with this change the number of OutOfMemory errors in your installations and save some memory during the discovery.

**Improved: VMware License Key Discovery**

We are collecting all VMware license keys when we scan a VCenter server. The license table will be stored as a custom attribute within the VMware/License

section.

**Improved: Ascom/Swyx OEM DectStations**

We get additional information such as serial number and production date for dect stations.

## Release 5.0 - Build 5174 (Oct 28 2023)

**New Devices:**

- Schneider/APC UPS Devices
- Phoenix Contact MGUARD Security Appliances
- BeyondTrust SRA virtual Appliance (JDSD-4030)

**Improved: Device Diagnostics Report**

We improved the device diagnostics report that you get when clicking on the "how to improve" links by adding the discovery issues and events as a list for each device.

**Improved: File System Totals Calculation**

We do not use the file system type "overlay" to calculate totals since they are special file systems for docker containers.

**Bugfix: Data collection failures on multibyte-Windows versions**

Due to a character conversion error that only occurred on multibyte Windows versions, some data elements such as users, user groups, and processes may have been negatively affected.

**Bugfix: Software Metering failed to track running processes on reboot**

Processes that were still running before a reboot were not processed as terminated after the reboot. This could lead to gaps in the software metering.

## Release 5.0 - Build 5173 (Oct 20 2023)

**Bugfix: Sending Reports via Email (JDSD-4031)**

Sending reports via SMTP on port 25 failed when no authentication and encryption protocol was chosen.

**Bugfix: ESX Server without Hardware Data (JDSD-4039)**

When an ESX server had only IP addresses on vmk interfaces, then there could have been duplicate devices.

**Bugfix: Clear Database (JDSD-4038)**

Deleting the discovered information only also deleted the configuration.

# Release 5.0 - Build 5172 (Oct 17 2023)

## **New Devices:**

- LG NANO Smart TVs (via MDNS)
- TechnoTrend KATHREIN Media Server (via UPNP)
- Loytec LIOB Bacnet IO Devices (via UPNP)
- Loytec LINX Automation Controller (via UPNP)
- Lupus LExxx Surveillance Camera (via UPNP)
- Skyworth Digital TV Receiver (via UPNP)
- LANCOM OW-602 Access Point (SNMP)
- Some more Jabra Headsets (PNP)
- Cisco Business 250 Series Smart Switches (mDNS)
- Levelone IP Camera (UPnP)

## **New: WMI Query for Custom Attribute Collection**

Run any WMI query to collect data for your custom attribute. WMI has been added in addition to SNMP collections, script, Windows registry access, and command execution.

## **Updated: Postgres updated to Version 16.**

We updated the embedded PostgreSQL database to version 16.

## **Improved: Discovery Configuration Importing IPv4 and IPv6 networks**

The Discovery Configuration > Scope > IPv4 Networks and IPv6 Networks import now support also the CSV output of the IPv4 Networks and IPv6 Networks reports. Just make sure you choose "," as column separator and blank out the "Null value sequence" default value when exporting to CSV format.

## **Improved: ECore Processors added to Lookup**

We have added some more Intel processors with E-Cores to our lookup table.

## **Improved: SUDO on Unix**

JDisc Discovery can use sudo to obtain root access for commands that require elevated permissions. We have improved our code to check whether sudo is actually configured for a user. This avoids a lot of unnecessary errors within the discovery log when a user is not configured within the sudoers file. We have also added a new discovery event to indicate that a user has no sudo permissions on a specific device.

## **Improved: Support ZIP includes Invalid Command Outputs**

JDisc Discovery stores all console command outputs that can't be parsed for some reason. We included this information now also in the support ZIP to facilitate bugfing and improvements in case vendors change the output format for their commands.

## **Improved: IP Exclusion Filter Export IP Ranges (JDSD-4010)**

You can now export IP ranges from IP exclusion filters to CSV files.

**Improved: TAROX ECO Small Factor Desktop Detection**

We have normalized the data for TAROX's ECO small factor desktops and we adjusted the device type (previously was detected as "Computer", now as "Mini Desktop").

**Improved: Micro Computer Tech Small Factor Desktop Detection**

We have normalized the data for Micro Computer Tech's UMxxx small factor desktops and we adjusted the device type (previously was detected as "Computer" or "Desktop", now as "Mini Desktop").

**Improved: Intel NUC Small Factor Desktop Detection**

We have normalized the data for Intel's NUC small factor desktops and we adjusted the device type (previously was detected as "Computer", now as "Mini Desktop").

**Improved: Web UI – let it start even if port 80 is occupied by some other software**

Made connector to redirect from HTTP to HTTPS port optional. If HTTP port is occupied then Web UI will bootstrap without redirect connector.

**Bugfix: Unix Switch User Failed (4025)**

A switch user (su) failure was not detected in all cases. Therefore, we called an "exit" too much which caused a SSH console logout.

**Bugfix: SIM cards not collected (JDSD-4012)**

SIM cards are now collected using the WMI protocol instead of running netsh command on the console.

**Bugfix: LANCOM Wlan Controller detected as Access Points**

LANCOM WLC-30 and WLC-1000 Wlan Controller have been incorrectly identified as Access Point.

## Release 5.0 - Build 5171 (Oct 06 2023)

**New Devices:**

- Some FS.COM FSOS switches (SNMP)
- Some more recent HP Color Laser printers (SNMP)
- Star Micronics Label Printer (SNMP)
- Hirschmann BOBCAT Switches (SNMP)
- Benning UPS (SNMP)
- Extreme Networks Switches (Synoptics based) (SNMP)
- Jabra Link XXX Headset (PNP)

**New: Timezone and UTC Offset**

We are collecting now the timezone name and the UTC offset value and store this information within the operating system object.

**Improved: OutOfMemory Handling**

We improved the OutOfMemory handling by extending our logging in this case and also by restarting the process when an OutOfMemory is detected.

**Bugfix: Operating System Last Update incorrect on Windows (JDSD-4016)**

The operating system Last Update date field was set incorrectly when a patch (non-Microsoft, i.e. Adobe Acrobat) has been more recently installed than the actual (correct) Last Update date of the operating system.

**Bugfix: Device Filter not applied to LLDP Devices**

When we were detecting devices based on the LLDP information, then the device filters were not applied.

**Bugfix: GraphQL API devices > findByIPAddress failed**

The GraphQL query to find devices by IP address failed with a query syntax error.

## Release 5.0 - Build 5170 (Sep 29 2023)

**New Devices:**

- AXIS Video Encoder (UPnP)
- Eaton UPS (mDNS)
- Exacq Video Recorder (UPnP)
- Northern Video Recorder (UPnP)
- LG Smart TV (mDNS)
- Roku Streaming Player from TCL (mDNS)
- ExtremeNetworks Wing Access Point Controller (JDSD-4009)
- JUMO DICON touch
- Some more Riello UPS Devices
- InduSol PROFINET Inspektor NT
- PhoenixContact Inline Controller IL PN BK DI8 D04 2TX
- Siemens SINAMICS S Industrial Controller workaround added
- W&T Web Thermometer NTC (JDSD-4018)

**New: Web UI – Custom Reports Editor**

Configuration of custom reports is now added to the Web UI. On the reporting section, the Custom Reports dashboard item now provides the opportunity to **add, edit, clone, import, export and delete** custom reports. The options can be found when placing the cursor over the desired custom report or folder, so the relevant menu is shown. Add and Edit operations are implemented through a wizard, which allows the user to specify the type and all rest items describing the custom report. In case of standard custom reports, the user may add fields and filters in one step, where he may see a small preview of the

outcome.

**Improved: Support for encrypted native/built-in LAPS**

Encrypted LAPS is also supported. This augments the already existing native/built-in LAPS support (started with build 5155).

Please note: Configured LAPS accounts must also hold privileges to run processes on domain controllers for decrypting local administrator account/password ciphertext from Active Directory computer accounts.

**Improved: HT Enabled Flag for Processors**

For convenience, we have added a "HT Enabled" flag to the processor list.

**Bugfix: 12<sup>th</sup> Gen Intel Processor ECores and Pcores (JDSD-4004)**

The current implementation for detecting the correct number of P-Cores and E-Cores for 12<sup>th</sup> gen Intel processors did not work in all cases.

**Bugfix: Not all certificates collected on Windows**

In rare cases, due to a formatting issue with a Powershell script, some certificates were not saved in the database and displayed in the reports.

**Bugfix: SIM cards not collected (JDSD-4012)**

SIM cards connected to Windows computers were no longer recorded. The reason for this was that command execution with the LOCALSYSTEM user no longer returned the necessary information. Therefore the command is now executed interactively with the configured user.

**Bugfix: LAPS account configuration ignored (JDSD-3942)**

LAPS accounts have been ignored if assigned to directory objects higher in the hierarchy which have not been enabled for LAPS.

**Bugfix: Docker Discovery**

There was an error when reading network ports from the "docker inspect" output for docker containers.

**Bugfix: Cisco Stacked Switch Discovery (JDSD-3998)**

The manufacturer field was empty for the stack members of Cisco stacked switches.

**Bugfix: Scan Issue for Igel Thin Clients with embedded Monitor (JDSD-3999)**

Some Igel ThinClients have an embedded monitor. Igel returns for the embedded monitor the same serial number as for the ThinClient itself. That was confusing our discovery and we remove the embedded monitors (as we do for laptops as well).

**Bugfix: Non-Printable Characters in Cisco Serial Numbers (JDSD-3988)**

Some Cisco switches return non printable characters within a module's serial

number. We remove those characters and keep only printable characters.

**Bugfix: Password State Integration**

Due to internal changes within Java 17, the PasswordState integration failed in some situations.

**Bugfix: Report export to CSV ignored DOS line ending option (JDSD-4008)**

When exporting table data to CSV format, the DOS line ending option was ignored and always formatted with Unix line ending.

## Release 5.0 - Build 5169 (Sep 01 2023)

**New Devices**

- Huawei OceanStor Disk Arrays (JDSD-3975)
- Huawei iBMC Server Management Boards (JDSD-3977)

**Improved: Support ZIP**

We have added the client log files to the support ZIP in order to improve troubleshooting capabilities for our native client application.

**Improved: Adva DWDM Stacked Switches (JDSD-3948)**

Adva DWDM Stacked switches have been modeled differently. Before, the stack members were created with the type "Shelf". That has been changed. We introduced a new type "Stacked DWDM Switch" and "DWDM Switch".

**Improved: Lancom LCOS Access Points**

We are getting the extended os version, os compile timestamp, and serial number for Lancom LCOS access points.

**Bugfix: Wrong format for double values in Excel report**

Double values in Excel report sheets were wrong handled.

**Bugfix: CSV Export (JDSD-3971)**

The CSV export for tables containing lists of strings in a cell didn't work properly.

**Bugfix: NetApp Appliances (JDSD-3278)**

In some cases, NetApp virtual appliances are not detected correctly with the model, type, and manufacturer.

**Bugfix: Sending Reports via Mail**

When there is no password configured for the mail server, then sending the mail failed internally with an exception.

**Bugfix: Intel 12<sup>th</sup> Gen Processors on Microsoft Surface Laptops (JDSD-3961)**



We have seen Microsoft Surface laptops with Intel's 12<sup>th</sup> Gen processors where we did not collect processor information because the processor state was "Unknown" instead of "Enabled". We have implemented a workaround to cover this situation.

## Release 5.0 - Build 5168 (Aug 26 2023)

### **New Devices**

- Siemens SINAMICS Frequency Controller (JDSD-3964)
- Lancom LW-600 Access Point (JDSD-3937)
- Lancom LX-6400 Access Point (JDSD-3937)
- Fujitsu FI-XXXX Scanner
- Polatis Optical Switches (JDSD-3962)
- Perle SDS Console Servers

### **New: Web UI – Schedule Report Exports**

It is possible now to schedule report exports to a local/network storage or have them sent to a list of email recipients. On the report toolbar, select the schedule report export button (clock) to start the scheduling wizard.

### **New: Web UI – Table Report Troubleshooting Options**

Table reports have been extended with troubleshooting functionality. Under the device table report context menu, troubleshooting options "Ping IP Range..." and "Ping selected Devices..." are now implemented.

### **Improved: Certificate Discovery**

We are getting the template name for a certificate (when set) while scanning the certificate store on a Windows computer.

### **Improved: Windows Edition Detection**

We were missing the edition information for Windows 10 and 11 Business.

### **Improved: Extended Logging for Kubernetes Scans**

For troubleshooting issues, we have extended our extended logging with an option to log the Kubernetes API communication.

### **Bugfix: Enabling Extended Logging**

Enabling extended logging did not work in all cases.

### **Bugfix: Linux Network Interfaces**

We were not getting all subinterfaces for an ethernet interface when parsing the "ip addr" command output.

### **Bugfix: Duplicates when Vmware Virtual Machines change their MAC Addresses (JDSD-3968)**

JDisc Discovery was creating duplicates when the network adapter for a VM

changes, but still has the same serial number

## Release 5.0 - Build 5167 (Aug 18 2023)

### **New Devices**

- Perle Console Servers (JDSD-3953)
- Siemens SIMOCODE Engine Controller (JDSD-3958)
- Clavister NetWall Firewalls
- PhoenixContact Access Points (JDSD-3959)

### **Bugfix: Stacked Switches**

A bug caused issues when scanning stacked switches (introduced in build 5164).

### **Bugfix: Logging when checking Remote Login**

The log for remote login was not complete and that made it a bit more difficult to troubleshoot remote login issues.

## Release 5.0 - Build 5166 (Aug 06 2023)

### **New Devices**

- DAHUA Eyeball and Bullet surveillance camera devices (JDSD-3951)
- HIKVISION surveillance camera devices (JDSD-3951)
- ABUS surveillance camera devices (UPnP)
- BECKHOFF Embedded-PC devices (UPnP)
- GIRA G1, X1 and S1 home automation devices (UPnP)
- Lexmark Printers with incomplete SNMP info (JDSD-3950)

### **Improved: Adva DWDM Switch Discovery (JDSD-3948)**

We are getting the list of shelves and modules for Adva DWDM switches.

### **Improved: Fujitsu iRMC Management Boards (JDSD-3949)**

Some Fujitsu iRMC management boards were not returning a SNMP system description and were therefore not identified correctly.

### **Bugfix: Setup Procedure**

A bug within the setup procedure for the WEB UI port checking prevented the installation if the port 443 is not available, even when the WEB UI will not be installed.

## Release 5.0 - Build 5165 (July 31 2023)

### **Bugfix: Kubernetes Cluster Discovery**

A bug within the Kuberne<sup>t</sup>e scan could lead to totally discarding the so far scanned Kubernetes information.

### **Bugfix: Setup Procedure**

A bug within the setup procedure for the WEB UI (bug introduced in 5164) prevented the installation in some cases.

## Release 5.0 - Build 5164 (July 28 2023)

### **New Devices**

- Glimmerglass Optical Switch (JDSD-3936)
- 3COM IntelliJack Switch (JDSD-3937)

### **New: Get Application Pools for Microsoft's IIS WEB Server**

We are getting the list of application pools for Microsoft's IIS web server and create them as application instances.

### **New: Stacked Access Point Controllers (JDSD-3941)**

Cisco is able to stack its C9800 access point controllers in a similar way as they are stacking switches. Therefore, we introduced a new type "Stacked Access Point Controller" which then has the physical access point controllers (stack members) as related devices (similar to the stacked switches).

### **New: Web UI – Export Reports to Microsoft's Excel, CSV**

It is possible now to export report content to Microsoft Excel and CSV files. From the report toolbar select the export button to initiate an export and download the report content.

### **Updated: SNMP4J Library**

The internal SNMP library (SNMP4j) has been updated to its latest release 3.7.7.

### **Bugfix: Virtualization Tab is missing Items for Virtualization Management Servers (JDSD-3940)**

Missing items are now visible for the respective devices

### **Bugfix: Parsing Issues on Windows computers**

When executing some commands, parsing problems were displayed on Windows computers that do not represent real problems, e.g. no WLAN adapter detected or no Windows license OEM key present in the BIOS.

# Release 5.0 - Build 5163 (July 21 2023)

## **New Devices**

- TSC Label Printer TTPxxx (JDSD-3931)
- Effekta USV (JDSD-3931)

## **New: Web UI – Export Reports to Microsoft Excel file**

It is possible now to export report content to Microsoft Excel files. From the report toolbar select the export button to initiate an export and download the report content.

## **Improved: Siemens/Unify OpenStage Phone Discovery (JDSD-3920)**

We are getting the phone number and the DNS name for OpenStage IP Phones using the HTTP protocol.

## **Improved: Getting Firmware Version for Zebra Printers (JDSD-3925)**

We are getting the firmware version for some Zebra printers where we didn't collect it before.

## **Improved: Ruckus Switch Discovery (JDSD-3933)**

We have not been collecting the serial number for Ruckus ICX switches and we also didn't detect Ruckus stacked switches. Both has been implemented in build 5163.

## **Improved: Security on RMI Connection (JDSD-3917)**

The JDisc client and server community via Java's RMI technology via SSL sockets. The client socket were still offering ciphers from TLS 1.2 which are not considered secure anymore.

Now, the JDisc client only uses TLS 1.3 ciphers.

## **Improved: Windows diagnostic events**

- SMB / WMI port blocked by firewalls diagnostic events
- No more "Windows Computers without logon credentials" events when SMB/WMI ports are blocked

## **Updated: Internal Postgres Database updated to 15.3**

We have updated the internal Postgres database to the current version 15.3.

## **Bugfix: Software usage metering file sharing conflicts**

In rare cases, multiple processes running SoftwareUsageQuery32.exe or SoftwareUsageQuery64.exe in the same shared session directory caused file sharing conflicts if the JDisc Discovery Zero Footprint agent was terminated unexpectedly.

## **Bugfix: Zebra Printer Warranty Lookup**

Zebra has changed their warranty page. We have adjusted our code to get

warranty information from the new page.

## Release 5.0 - Build 5162 (July 11 2023)

### **New Devices**

- Barracuda WEB Application Firewall
- Zyxel NWAxxxx Access Points (JDSD-3921)
- DTRI Medical PCs (JDSD-3923)
- Arris NVGxxxx DSL Router (UPnP)
- PEAQ PDRxxxx Internet Radion (UPnP)

### **New: Web UI - Ping IP v4 Ranges**

It is possible now to ping IP v4 ranges and eventually trigger discovery for these IPs. Navigate to scanner dashboard and select the ping ranges icon from the dashboard toolbar.

### **Bugfix: Cisco AP acting as AP Controller (JDSD-3885)**

Some Cisco Aironet access points can act as a controller. This caused a loop in our code and storing the device failed.

### **Improved: A10 Load Balancer Discovery (JDSD-3917)**

We are collecting the A10 load balancer pools, vServers, and pool members.

### **Improved: Avoid Antivirus Alerts when Querying AV Software**

Antivirus software does not always remove its WMI data when it gets uninstalled. Therefore, we check whether the Antivirus binary exists on the harddrive to verify the installation. We check this with a WMI query checking CIM\_DataFile instances.

However, WMI seems to open the file in write mode and this can trigger the Antivirus Software itself. We try to avoid this by checking the file using our remote login agent when it could be deployed. This should avoid opening the .exe in writing mode.

### **Improved: Software usage metering network utilization**

The software usage metering collector executable is pushed from the JDisc Discovery Server to remote Windows computers only if it doesn't already exist or if an update is required.

### **Bugfix: Software usage metering dropouts**

Communication problems between the Discovery Server and the JDisc Discovery Zero-Footprint Agent caused sporadic disruptions of the software usage measurement process.

### **Bugfix: Model Detection for some HPE Switches**

We are often parsing model information from SNMP descriptions. In the case, we got an error for some very old HP switches (HP V1910-25G-PoE and

possibly others).

**Bugfix: Network Topology for very old HPE Switches**

The network topology was not working for very old HPE switches because they are using an SNMP interface type that is obsolete and which was taken into account when creating the topology.

**Bugfix: Processor Information overwritten (JDSD-3922)**

Hardware information such as processors, memory modules and physical disks were overwritten with null values. This happened when a server was detected via its management module and the management module didn't provide any hardware information about the server.

## Release 5.0 - Build 5161 (June 30 2023)

**New Devices**

- Extreme Networks FabricEngine Switches

**Improved: Azure Endpoint Manager Discovery**

We are getting now physical memory and total disk sizes for Azure Endpoint Manager (Intune).

**Improved: Intel/AMD Processor Information**

Intel and AMD have recently added a separate type of processor core. They call the traditional cores P-Cores (Performance Cores) and the new type of core is called E-Core (Efficiency Core). For licensing purposes, it is necessary to determine the number of P-Cores and E-Cores in separate fields. That's why we have extended our processor data model with a new column "numbeOfECores".

**Improved: Nutanix AVH Instances**

We added a new type for Nutanix virtual instances

**Bugfix: SQL Query fixed (JDSD-3911)**

A wrong SQL query caused issues when storing IBM Flex Servers in our database.

**Bugfix: Java SDK Detected twice (JDSD-3907)**

The Java SDK was detected twice when the binary was started using a symbolic link.

**Bugfix: Device History failed sporadically (JDSD-3905)**

Checking old device history snapshots could fail sporadically.

# Release 5.0 - Build 5160 (June 23 2023)

## **New Devices**

- Ultimaco CryptoServer (JDSD-3898)

## **New: Improved LAPS Diagnostics**

In build 5157, we have refactored our diagnostic events that highlight issues that you might have during the discovery.

With this build, we have added additional diagnostic entries for LAPS related issues (e.g. domain controller connection issues or permission errors when reading the LAPS password).

## **New: Diagnostic Events added to Custom Reports (JDSD-3902)**

In build 5157, we have refactored our diagnostic events that highlight issues that you might have during the discovery.

We have added the diagnostic events to our custom reports. So from now on, you can create a custom report that lists all diagnostic events for each device!

You find the diagnostic events item within the *Troubleshooting* section.

## **Improved: Online Help**

Our goal is to have a self-explanatory application. Therefore, we are adding for each and every dialog/page help texts that explain the details for a specific dialog or function.

We also extended the *Help* page with a knowledge base which will be enhanced over time and the manuals. The manuals often reuse chapters from our context sensitive help.

## **Improved: Kubernetes/OpenShift Scan (JDSD-3903)**

We were scanning Kubernetes and OpenShift clusters only when we had access to the SSH console. However, in some cases, customers are using appliances where SSH is disabled.

Therefore, we change the behavior a little. When you provide an API key for Kubernetes, then we will try to connect to the cluster regardless of having SSH access or not.

## **Bugfix: Yealink IP Phone Detection**

Some more recent Yealink IP phones were not detected properly because their HTML source code changed.

## **Bugfix: Cisco IE3x00 series rugged switch devices identified as switches (JDSD-3886)**

Now device type of the devices is set to switches for IE3x00 models.

## **Bugfix: Ubiquiti U6-Mesh devices detected as access points (JDSD-3887)**

Now devices type of the devices is set to access point for U6-Mesh models.

**Bugfix: Removed older Ciphers for RMI Connections**

JDisc Discovery uses Java RMI via SSL internally for communication between processes. The WEB UI offered still some older ciphers for the SSL encryption. We have changed that and removed the old ciphers.

**Bugfix: Redfish Accounts Not Stored (JDSD-3897)**

Redfish default accounts that were created in the Discovery Configuration dialog were not stored in the database.

## Release 5.0 - Build 5159 (Jun 02 2023)

**New: Add an entry for the WEB UI in the Start Menu**

We have added an entry to open the JDisc Discovery WEB UI within the Windows Start menu.

**New: ManageEngine Password Manager Pro Support added**

JDisc Discovery can now get passwords from ManageEngine PMP via its REST API.

**New: Web UI User Management extended with Password Manager Support**

It is possible now to select a managed account for a device. The managed account can be selected from a list of secrets loaded from configured supported password managers.

**Improved: Juniper Router Module Data**

We are collecting additional fields for modules on Juniper routers:

- CLEI code
- part number
- FRU number

**Bugfix: HP EliteDesk detected as Laptop (JDSD-3865)**

HP EliteDesk desktops have been identified as laptop. The fix in 5157 did not work in all cases.

**Bugfix: LAPS Config not stored when changed**

The LAPS configuration was not stored the first time it is changed. You needed to change it twice to get stored.

**Bugfix: Measurement Add-On: LAPS**

Collecting Windows Perfmon counters fails for devices using LAPS.



## Release 5.0 - Build 5158 (May 19 2023)

### **New: Delete Drivers**

We have added a delete action to the drivers report in order to manually delete driver entries.

### **Bugfix: HP EliteDesk detected as Laptop (JDSD-3865)**

HP EliteDesk desktops have been identified as laptop.

## Release 5.0 - Build 5157 (May 16 2023)

### **New Devices**

- IKEA TRADFRI gateway Home Lighting Controller (mDNS)
- Distech Controls Ecylpse Automation Controller (mDNS)
- DLink WLAN Repeater (mDNS)
- Devolo Magic 2 LAN triple power line adapter (mDNS)
- Ecobee temperature sensor device (mDNS)
- Homewizard WIFI P1-Meter device (mDNS)

### **New: Software Metering and Usage**

We have added a new major feature in our Measurement Add-On. With our new software metering functionality, users can track how often specific software is being used by users. This helps to identify costly software installations for users who are actually not using the software at all.

Read more (including a video) in our blog:

<https://jdisc.com/2023/05/12/software-metering>

If you are interested in specifics, you might also drop a message to [info@jdisc.com](mailto:info@jdisc.com).

### **New: WEB-UI: added database archive/restore**

Added database archive generation and download via Web UI as well as upload and restore.

### **New: WEB-UI: added change application start mode**

Added application start mode switch via Web UI.

### **New: Delete Drivers**

We have added a delete action to the drivers report in order to manually delete driver entries.

### **New: GraphQL API extended for Diagnostic Events**

The GraphQL API has extended the device entity to provide information about diagnostic events that help to find discovery issues caused by misconfiguration

or issues of the device itself.

#### **Improved: Diagnostic Entries**

We were using a rule engine for diagnostic entries which try to find the most common discovery issues and provide recommendations how to solve them. The implementation was a complete overkill and we simplified it a lot by storing the diagnostic entries within our database. That makes evaluation very efficient and easy to do.

You find the diagnostic entries within the troubleshooting section in the device details. Or you can find an overview in the menu *Troubleshooting > Devices > Diagnostics*.

#### **Improved: OVirt Discovery/Oracle Virtualization Manager**

We added some code to obtain the IP addresses for virtual machines. Up to now, we just got the network interfaces with their mac addresses. Thanks to a customer who notified us about the additional call to make, we could add the IPs too.

#### **Improved: Provisioned Disk Space for VMware Data Stores**

We have added the data collection for provisioned disk space for VMware datastores.

#### **Bugfix: Fujitsu FUTRO ThinClient (JDSD-3855)**

Fujitsu FUTRO thin clients have been identified as desktop.

#### **Bugfix: Remote login created roaming Profile (JDSD-3689)**

The remote login on Windows could create unnecessary roaming profiles for the local user.

#### **Bugfix: WEB-UI: fixed certificate import when a certificate generated outside JDisc**

Fixed an issue when supplied certificate constraint do not match default constraints (signature size SHA256).

## Release 5.0 - Build 5156 (Apr 28 2023)

#### **New Devices**

- Some Fortigate Firewalls (JDSD-3840)

#### **Improved: New Ciphers added for SNMPv3 Auth Protocol**

We have added the following ciphers to SNMPv3's authentication protocol:

- HMAC128SHA224
- HMAC256SHA384
- HMAC192SHA256
- HMAC384SHA512

**New: Enter Network Name when adding a new Network**

We have added a field to enter a network name directly when creating a new network. That has been a two step task before.

## Release 5.0 - Build 5155 (Apr 21 2023)

**New Devices**

- Axis Txxxx Video Encoders (UPnP)
- Axis Video Server (UPnP)
- Lantronix XPort AR (JDSD-3833)

**New: Web UI Support Zip generation**

Implemented actions to generate Support Zip from Troubleshooting page as well as devices' reports.

**Improved: Native LAPS Support**

Microsoft has integrated LAPS (Local Administrator Password Solution) into its operating system (see <https://learn.microsoft.com/en-us/windows-server/identity/laps/laps-overview>).

JDisc Discovery was already supporting the old LAPS version since quite a while. With build 5155, we have added support for the new built-in LAPS. The difference is on how LAPS stores the password in LDAP. The new LAPS version also supports as an option to encrypt the password in LDAP properties. The encrypted version is not yet supported, but we are investigating on how to support this option too. However the unencrypted version is already supported starting with this build.

**Improved: Microsoft Windows Defender Detection (JDSD-3828)**

Microsoft Windows Defender Antivirus is now also detected on Windows Server systems and the configuration of signature versions and updates are determined.

**Bugfix: MongoDB Version on Unix (JDSD-3795)**

We were not getting the MongoDB version when "mongod -version" could not be executed due to permission issues. We changed the code to try running the mongod -version via sudo or su.

## Release 5.0 - Build 5154 (Apr 14 2023)

**New Devices**

- Mikrotik D53G Router
- Extreme Networks ISW Industrial Switches (JDSD-3831)

**Improved: Microsoft Azure Discovery (JDSD-3790)**

Azure resources like storage accounts or databases have not been removed from the database when deleted in the Azure portal.

## Release 5.0 - Build 5154 (Apr 14 2023)

**New Devices**

- Atlona AT-OME-MSxx Video Conferencing Devices (JDSD-3561)
- Axis Dome Cameras (UPnP)
- Axis Video Encoder (UPnP)
- American Dynamics Dome Cameras (UPnP)
- American Dynamics Video Recorder (UPnP)
- Belkin REXXXX WLAN Repeater (UPnP)
- Crestron WAP-XXXX Access Points (UPnP)
- Dahua IPC Dome Camera (UPnP)
- Ricoh Printers (labeled as Gestetner) (UPnP)

**New: Get Revision Number for Windows**

We were already collecting the kernel version for Windows computers. The kernel version is something like "10.0.22621" where 22621 is the build number. However, one build can have multiple revisions which Windows calls "revision number". We are now collecting the revision number as well and append it to the kernel version. So we will get the full kernel version including revision like "10.0.22621.1555" where 22621 is the build number and 1555 is the revision number.

**New: Taglist for XCP-NG and XenServer Hosts and VMs**

Users can provide a list of tags for XenServer/XCP-NG hosts and virtual machines. We are collecting those tags and store them within a custom attribute.

**New: Delete Certificate**

It is now possible to delete certificates from the certificate report.

**Improved: AWS EC2 Instance Discovery (JDSD-3724)**

We are getting the memory for an EC2 instance via the AWS API.

**Improved: Lenovo Model Mapping**

Many new entries for the Lenovo pat number to model mappings added.

**Improved: Disk Serial Number on AIX (JDSD-3798)**

We are getting the disk serial number on AIX with the lsattr command when lsmPIO is not installed or working.

**Bugfix: LAPS User not used (JDSD-3810)**

The discovery did not use the configured local administration account name in all cases. It was missing the local admin account when it was configured (not only) on a higher level in the hierarchy and then in subtree mode in a lower level.

**Bugfix: Device overwrites other Device (JDSD-3824)**

JDisc Discovery uses the serial number in some cases to find devices within our database. We are already ignoring a lot of standard serial numbers like "0123456789". Now, we found several desktops which return "\_" as serial number. We have added "\_" as serial number to ignore.

## Release 5.0 - Build 5153 (Mar 31 2023)

**New Devices**

- Zyxel Zywall VPNxx (JDSD-3797)
- Brocade Connectrix Fibre Channel Switches (JDSD-3801)

**New: VMware Fusion License Keys**

We detect the VMware fusion license keys on MAC OS.

**Improved: VMware Licenses for VCenter and ESX Servers (JDSD-3793)**

VMware has changed its licensing to subscriptions. Therefore, we have enhanced our discovery capability to detect the license type (subscription, perpetual or trial) and we are also collecting license attributes and the licensed features as custom attributes.

**Bugfix: ESX Server Discovery Date not Updated (JDSD-3787)**

When a standalone ESX servers offers only SNMP and no VMware API access, then the ESX server's discovery time was not updated.

## Release 5.0 - Build 5152 (Mar 21 2023)

**Updated: Postgres Version**

We have updated Postgres to 15.2-1.

**Bugfix: Kubernetes Discovery**

The Kubernetes discovery had an issue when there are multiple deployments with the same name, but different unique ids.

## Release 5.0 - Build 5151 (Mar 19 2023)

### **New Devices**

- Zyxel NXC Access Point Controllers (JDSD-3785)
- Zyxel WAC Access Points (JDSD-3785)

### **Improved: Kubernetes Discovery**

We were only checking the Kubernetes APIs for servers where we had access to the SSH console. We have changed that a little so that when there is an API token directly assigned to the device, then we will try the Kubernetes API regardless of whether we have access to the SSH console or not. When there is no account assigned to the device, then it'll work as before.

### **Bugfix: Ignore inactive Aruba Access Points (JDSD-3768)**

We were not taking the status field for Aruba access points into account when scanning their access point controllers. Therefore, we created entries for access points which were not active and possibly not existing anymore.

### **Bugfix: Wrong Serial Number and Type for Aruba Gateways (JDSD-3789)**

Some Aruba Gateways A9xxx were detected by using the wrong type (Access Point Controller) and we were querying the wrong SNMP variable for the device's serial number.

## Release 5.0 - Build 5150 (Mar 03 2023)

### **New: Kubernetes Discovery**

JDisc Discovery can scan Kubernetes clusters and get detailed information about pods, containers, namespaces etc.

### **New: Added again: Docker and Containerd**

The Docker discovery has been disabled for a while. We have completely reimplemented the Docker discovery and added the Containerd detection as well.

### **New: Web UI User Management page**

A new option, User Management, is added under Administration dashboard. It shows the structure and details regarding the application's user groups and users and allows the user to add, edit or remove users and groups.

### **Improved: Cisco Access Point Controller Discovery**

We are able to distinguish between a physical access point controller and an access point controller appliance.

### **Bugfix: Don't use fuse.bindfs for calculating the totals**

Don't use the fuse.bindfs file system when calculating the totals for logical drives.

## Release 5.0 - Build 5149 (Mar 03 2023)

### **Improvement: DNS Protocol can be disabled for a single Device**

The DNS protocol can also be disabled for a specific device.

### **Improvement: WEB-UI: changing handling complex object relation for GraphQL API (JDSD-3718)**

OutOfMemory exception was thrown while doing complex GraphQL queries caused by joining multiple tables due to high memory consumption. The implementation has been refactored to perform requests in batches.

### **Bugfix: Apple MAC OS Discovery**

Apple slightly changed the "system\_profiler" output. We had to adjust our parser for the output.

### **Bugfix: Authentication for GraphiQL to check GraphQL API**

Under various conditions the GraphiQL interface has been reporting 401 error while executing query and there were no way to get it working without logout the application. Now if you make refresh of the page with GraphiQL you will get a new authentication token applied or a login dialog would appear to get let you re-authenticate.

### **Bugfix: WEB-UI: Navigate to attached Device Properties is not working (JDSD-3765)**

Due to improper handling it was not possible to navigate to attached device properties. You can now see these properties by double clicking on the attached device row or by selecting the context menu item "Properties".

### **Breaking change: GraphQL API: there was ambiguous Property for Discovery Log**

Removed ambiguous property 'deviceDiscoveryLog' for device discovery log. There are discoveryLog to get discovery log as a XML-formatted string and discoveryLogObject to get log parsed as JSON object.

## Release 5.0 - Build 5148 (Feb 24 2023)

### **New Devices**

- Kemp LoadBalancer Virtual Appliance
- Fast LTA Silent Cube (JDSD-3752)

- FibreZone AFM-360 (JDSD-3763)
- IQInVision IQeye Camera (JDSD-3759)
- Kaba Benzig Access Manager (JDSD-3727)
- Panasonic KV-xxxx Scanner (PNP)
- PreSens Fibox Oxymeter (PNP)
- Canon CanoScan LiDE Scanner (PNP)
- Olympus Dpox Microscope Camera (PNP)

### **New: License Type and Keys for VMware Player and Workstation (JDSD-3567)**

We are collecting the license keys and types for VMware Player and Workstations.

### **Improved: Cisco Meraki Discovery**

We are collecting and storing the tags and notes for devices managed by the Cisco Meraki cloud.

### **Improved: Delete Cloud User (JDSD-3764)**

The could user report has been extended with an action to manually delete cloud users.

### **Improved: Microsoft Intune Discovery**

We have introduced a delay configuration for the Microsoft Intune discovery in order to avoid issues with Microsoft's limitations on how many calls you can run. While the solution in 4147 works, it is not efficient because it takes longer than needed. We have changed our code in a way that it only adds a delay when we run into the call limitations. After the delay, we continue as quickly as possible. The delay configuration has been deleted again since it is not necessary anymore.

### **Bugfix: HP EliteBook Type**

Some HP EliteBook notebooks have been identified as MiniTower when the chassis type was not correctly flashed by the manufacturer into the device's BIOS.

### **Bugfix: GraphQL API had some values missing (JDSD-3760)**

Some computed values were not delivered via GraphQL API. The fix has been implemented to apply proper types in GraphQL API.

**Important: A new GraphQL Scalar types were added. IP4Address, IP6Address, and IP4SubnetMask.** Those types are defined as aliases to GraphQL string with proper format of IP addresses.

## Release 5.0 - Build 5147 (Feb 17 2023)

### **Improved: Microsoft Intune Discovery**

Microsoft has a request limit in place that creates an error when too many MS



Graph API requests are being made. We have added a configurable delay between two requests to not exceed the limits. The default is 200ms between two API requests. The value is configurable within the Azure Cloud API key configuration.

**Improved: .NET Framework Version Number**

Microsoft has changed how it stores and maps version numbers for the .NET Framework starting with 4.5. Therefore, we added a mapping to get the proper “marketing” version numbers for the .NET Framework.

**Bugfix: Sending report mails**

When upgrading the Version to Java 17 (build 5141) sending emails does not work anymore. We bundled a new Java mail library, so this should be fixed now.

**Bugfix: MySQL Internal Directories treated as Databases (JDSD-3746)**

We treated some internal directories within a MySQL installation as database names and tried to connect to them. We added them to the list of internal names that we do not use for database names.

**Bugfix: Dell EliteDesk Type**

JDisc Discovery determines the device type for Windows computers from the information stored in the system BIOS. In some cases, vendors use laptop boards in their desktop computers and don't flash the new chassis type into the BIOS. So they appear to be laptops instead of desktops. In those cases, we extend our discovery to determine the type based on well known models (like the Dell EliteDesk).

**Bugfix: Web UI API Performance Improvements (JDSD-3718)**

Web UI optimized when asked device data for disk, SNMP and scheduled tasks to reduce amount of database queries.

## Release 5.0 - Build 5146 (Feb 11 2023)

**New Devices**

- Sharp BP-xxxx multifunctional printers (SNMP)
- Buffalo TeraStation (SNMP)

**Improved: Web UI now displays more precise description for missing permission**

A user friendly description is generated instead of generic Access Denied exception if caused by missing permissions.

**Improved: Extreme Networks Switch Interface Description**

Extreme Networks is using very long interface description full of marketing bla bla and the actually useful information is right at the end.

```
"Extreme Networks Ethernet Routing Switch 4950GTS-PWR+  
Module - Unit 1 Port 1 "
```

The important information is here “Unit 1 Port 1”. We changed our code to that it strips the marketing information and finally, the interface description includes the useful information (“Unit 1 Port 1”) only.

### **Bugfix: Sending report mails**

When upgrading the Version to Java 17 (build 5141) sending emails does not work anymore. We bundled a new Java mail library, so this should be fixed now.

### **Bugfix: Getting Oracle Schemas**

Getting schemas from Oracle databases uses a query which contains the column “oracle\_maintained”. This column is not present for older Oracle database servers and therefore, our query failed. For older Oracle database servers, we are running a query without this column.

### **Bugfix: Web UI was not started due to failure in Help database restoration due to special characters in passwords (JDSD-3733)**

Implemented alternative approach for backup/restore inventory help database to allow special characters in password (avoid using command line tools from PostgreSQL distribution).

## Release 5.0 - Build 5145 (Feb 03 2023)

### **New Devices**

- More Denon AVR Audio Receiver (UPnP)
- Bose SoundTouch and Wave SoundTouch Speaker (UpnP)
- Barox Industrial Switch KN-xxx (SNMP)
- Xovix Sensor Device (HTTP)
- Axis Dome Camera (SNMP)

### **New: Web UI Scanner widget**

Listening to your valuable feedback, we have implemented a scanner widget which is visible in the reporting and overview sections toolbar. Through the scanner widget, scanner status as well as common scanner functionality is exposed. It is possible, for example, to trigger a device IP or hostname discovery directly from your report view.

### **Improved: GraphQL API Performance Improvement**

Optimizing JPA layer to build more efficient SQL queries for mentioned requests. Instead of using multiple queries a single query with JOIN will be executed depending on the fields specified in GraphQL request.

This applies to devices queries:

- findAll
- findByIds

- findByTypes
- findByTypes
- findByTypes

**Improved: Collect Tape Drives for IBM TS Tape Libs (JDSD-3723)**

We are collecting the tape drives for IBM TS tape libraries.

**Improved: We show the Slot Name for Physical Disks**

We extended the disk report to display the socket name for the disk drive (useful in disk arrays or larger servers).

**Bugfix: CheckPoint VPN Adapter**

When scanning devices using mDNS or UpnP multicasts, we check whether a device is connected from home via VPN or whether it is connected to the corporate network. We do not execute mDNS or UpnP queries when the device is connected from the homeoffice in order not to add the employee's private network devices to the database.

**Bugfix: VCenter Software and License Detection (JDSD-3719)**

When upgrading a VMware vcenter from version 6 to 7 for instance, both license records stay in the VCenter's database. This caused an issue when we were getting the vcenter license keys and software via the VMware API. We have changed the code to get the "right" software entry.

## Release 5.0 - Build 5144 (Jan 27 2023)

**New Devices**

- More Lenovo Docking Stations Appliances
- More Plantronics Bluetooth Headsets

**Improved: Detect 22H2 Patch Level**

We have added the mapping of the Windows build number to the patch level naming for build 19045.

**Bugfix: Database Queries could cause an OutOfMemory**

Very long SQL queries could create an out of memory error on the database server.

**Bugfix: Microsoft Visio 2010 not detected**

Microsoft Visio 2010 was not detected using remote registry and remote login.

**Bugfix: Dell Precision T1700 was identified as Laptop**

In some cases, we match model names to device types. In this case we assumed that Dell Precision computers are all laptops. However, there are also Tower computer. For instance, the Dell Precision T1700 is a tower computer.

## Release 5.0 - Build 5143 (Jan 18 2023)

### **Bugfix: WebService doesn't work with Java 17 (JDS-3709, JDS-3710)**

Due to the changes in JAXB packages the WebService stopped working after migration to Java 17.

## Release 5.0 - Build 5142 (Jan 15 2023)

### **Improved: Microsoft Endpoint Manager (Intune) Discovery**

We are collecting the list of detected applications for Microsoft Endpoint Manager managed devices.

### **Improved: Confusing Error Message**

There was a confusing error message when testing domain controller access within the discovery configuration wizard and dialog when using wrong credentials.

### **Bugfix: Juniper MX Router Model Detection**

In some cases, the Juniper MX routers were identified as switches with their part number as model.

## Release 5.0 - Build 5141 (Jan 05 2023)

### **New Devices**

- Gigamon AT-XXXX Monitoring Appliances
- Ubiquiti Long Range Access Points
- Siemens SIPROTEC4
- Indu-Sol Modular INspector

### **New: GraphQL Queries**

We have added new GraphQL queries to obtain the network neighborhood objects (Windows domains or workgroups) and their associate devices.

### **New: Web UI Overview - Chart Filters**

We have added the possibility to create charts out of a subset of the report data by defining report filters.

### **Updated: Java 15 migrated to Java 17**

We have updated the underlying Java VM from Java 15 to Java 17. For that purpose, we had to update also some third party libraries.

### **Improved: Discover Device Button added to the Toolbar**

The main Window's toolbar has a new icon to allow quick access to the discover now functionality for single devices.

**Improved: UPS Battery Installation Date + FW Version**

We have added a generic way to get the battery installation date and the fw version for UPS devices supporting the USV MIB.

**Bugfix: Memory Leak**

Since a while (Build 5140), we are using Java's "String Deduplication" option. The goal is to reduce the Java Heap memory usage. However, a but in the OpenJDK resulted in exact the opposite. A memory leak in this option permantly increased the heap memory usage.  
This build removes the option again and uses Java's defaults.

**Bugfix: Nexans Switches**

We were reading the wrong SNMP variable for the serial number. This has been corrected. In addition, we collect manufacturing date, fw version, and hardware version for those switches.

## Release 5.0 - Build 5140 (Dec 12 2022)

**New Devices**

- Cab SQUIX Label Printers
- Kyocera FS- Printer / MFP
- A10 Networks Thunder Load Balancer
- IBM TS4300 Tape Library
- Some Siemens Scalance Switches
- Phonix Contact RS232 to Ethernet Gateway Basic
- Schneider Electric Modbus Ethernet Module
- Schneider Electric NWM-xxx industrial Device
- Datamax Label Printers
- Some more Lenovo Laptop Part Number → Model Mappings

**Improved: Networking Add-On: VLAN Discovery**

Most switches support the Bridge-MIB in order to provide information about VLANs and their assignment to ports. However, some switches support only the Q-Bridge MIB which provides the same kind of information in a different MIB tree.

We have enhanced our network discovery to read VLAN information from the Q-Bridge MIB when the Bridge MIB is not available.

**Bugfix: User action after Creating Support Zip**

Fixed command window after creating support Zip to simplify navigation to the generated Zip file.

# Release 5.0 - Build 5139 (Dec 02 2022)

## **New: Services for IBM AIX Servers**

We collect the list of services for IBM AIX servers.

## **New: Web UI: Added Certificate Request Generation**

Certificate request generation added to simplify submitting request to the certificate authorities. This CSR is used to create a valid certificate for the JDisc Discovery WEB server (which generates a self-signed certificate at startup).

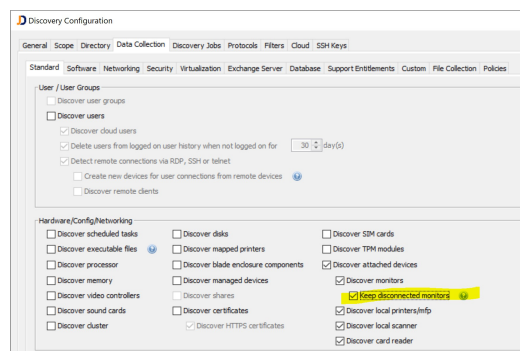
## **Improved: Adobe Software Discovery**

We were using the Adobe Swidtag files when scanning applications. However, it turned out that the swidtag files are not a reliable source of information. This could create some fake installations. Therefore, we ignore the swidtag files and use it only when we are sure that an application is installed.

## **Improved: Monitor Discovery**

In the past, we were deleting monitors from the database when they were no longer attached to a laptop. However, this can cause – for instance - confusion in shared desk environments where monitors are attached to different laptops on a daily basis.

Therefore, we have added a new option (which is enabled by default) to keep monitors in the database even when they are currently not connected to any device.



A custom attribute for the monitor indicates to what device it was connected when it was seen the last time. That might improve troubleshooting to see where it is coming from.

## **Bugfix: Docker Discovery disabled**

We have disabled our docker discovery because it was causing more issues than it helped. We have currently revisiting the topic of container based virtualization by implementing Kubernetes support and with that, we will also revisit the docker container topic again.

## **Bugfix: AWS EC2 Instance Model overwritten (JDSD-3672)**

The model for AWS instances was overwritten with the string “Amazon” when a cloud scan followed a direct device scan.

**Bugfix: Issue opening the Networking tab on Switches (JDSD-3673)**

Build 5138 introduced a new feature to collect the VLAN mode (tagged or untagged). This caused an issue in the report listing the network interfaces on switches.

**Bugfix: Possible Duplicate AIX LPARs (JDSD-3632)**

There was the possibility to have duplicate AIX hosts when scanned via two different IP addresses with different protocol settings (e.g. SSH allowed on one interface, but not on the other).

## Release 5.0 - Build 5138 (27-11 2022)

**New Devices**

- DelliEMC ML Tape Library
- Ericsson MINI-LINK Microwave Transmitter Node
- SEH Dongleserver Pro (JDSD-3670)

**New: Redfish protocol support for servers and storage devices**

Redfish is a networking standard and application programming interface (API) for managing servers, storage devices, etc. Redfish will replace the Intelligent Platform Management Interface (IPMI) for over-the-network hardware management.

JDisc Discovery's initial implementation of the Redfish protocol queries processors, memory modules, physical disk drives from servers and storage arrays that support the Redfish protocol.

**New: VLAN Tagged/Untagged mode**

For Switch ports, we collect whether a VLAN is configured in tagged or untagged mode.

**Improved: Certificate Discovery**

We are collecting now the OIDs for the certificate extended key usage.

**Improved: Linux Service Discovery**

We are running now the “service” command in order to obtain the list of services on SysV based Linux services.

**Improved: Invalid Serial Number Detection extended**

Intel uses “.....” as serial number when a technician changes the board and forgets to flash the original serial number into the BIOS. We added that string to the list of serial number patterns to ignore.

**Bugfix: PowerShell scripts timed out (JDSD-3634)**

The built-in PowerShell scripts ran into an execution timeout (depending on PowerShell and Windows version). Now the built-in scripts evaluate the PowerShell version on-the-fly and execute the appropriate exit() statement to prevent the scripts from hanging and timing out.

**Bugfix: Custom report failed when filtering for network (JDSD-3660)**

When a custom report was filtered for an IP4 network address it failed with a duplicated column SQL exception.

**Bugfix: SSH Key Import**

The SSH Key Import dialog was not always asking for the passphrase when an SSH key is protected with a passphrase.

## Release 5.0 - Build 5137 (18-11 2022)

**New Devices**

- Apple iPhone 14 Pro/Max (mDNS)
- AXIS Network Door Controller (UPnP)
- Beward Network Door Station (UPnP)
- Eaton UPS (UPnP)
- i3 International Surveillance Camera (UPnP)
- Linksys Wireless Router (UPnP)
- Meinberg LANTIME Timeserver (mDNS)
- neat bar Video Conferencing device (mDNS)
- Netgear Wireless DSL Router (UPnP)
- Seagate BlackArmor NAS (mDNS)
- Xiaomi Redmi Smartphone (mDNS)
- Plantronix Voyager Headsets (PnP)

**New: GraphQL API: New Lookup Methods for Enums**

We have added a new object called “lookup” to get the internal integer code for enumerations. Many enumeration values are stored in the database as integers and in some situations, you might need the internal representation.

**Improved:**

Identification of Linux computer with MiniDLNA installed (UPnP)

**Improved: Certificate Extended Key Usage**

More Certificate Extended Key Usage constants added.

**Improved: Invalid Serial Number Detection extended**

Intel uses “\*\*\*\*\*” as serial number when a technician changes the board and forgets to flash the original serial number into the BIOS. We added that string to the list of serial number patterns to ignore.



**Improved: Amazon AWS Discovery (JDS-3539)**

Amazon seems to have changed the emulated BIOS for their virtual servers and workstations. The new BIOS does not contain the Amazon model anymore. Therefore, we need access to the Amazon cloud to obtain that data. However, once it was obtained by the cloud APIs, it was overwritten again when scanned directly.

This has been changed.

**Bugfix: PowerShell scripts failed in constrained language mode**

Some of the built-in PowerShell scripts failed on computers with PowerShell Constrained Language Mode enabled.

**Bugfix: Number of handles was steadily increasing**

Connections to the remote registry service on remote Windows computers were closed late. As a result, the number of open handles has steadily increased, slowing down the computer and the discovery process.

**Bugfix: Not all Networks created for Cisco Routers/Switches (JDS-3629)**

When scanning Cisco switches or routers, JDisc Discovery did not create all networks configured on the interfaces. When the mac addresses had specific mac address prefixes, the networks were ignored.

**Bugfix: DLink FW moved from Software to Firmware**

For DLink DGS switches, we stored the fw version in the software version field which is wrong. We moved the fw version to the correct fw version field.

**Bugfix: Network Topology CDP/LLDP (JDS-3637)**

The topology algorithm was using CDP and LLDP entries for network interfaces from switches which were down. That created fake topology entries for switches that don't age out their inactive LLDP or CDP entries.

**Bugfix: Last Seen At incorrectly updated (Logged On User History)**

The "Last Seen At" field was incorrectly updated for users who were previously logged in from a remote computer but not logged in during the last discovery process from the same remote computer but either locally or from another remote computer.

## Release 5.0 - Build 5136 (05-11 2022)

**New: Dependency Mapping Add-On + Security: SSL Infos**

When the dependency mapping add-on is installed, then we can obtain certificates for all open SSL ports! This improves the certificate discovery which was limited to certificates in the global certificate store only.

Furthermore, it obtains SSL ciphers and protocols when the Security Add-On is installed in addition!

Check out our blog at: <https://blog.jdisc.com/2022/11/04/ssl-ports-ciphers-protocols-and-certificates/>

**New: GraphQL API: New Service Find Methods (JDSD-3608)**

We've added new service find methods to the GraphQL API operating system object. You can now search for services by their display name or internal name.

**Improved: DNS query timeout**

The configured timeout value was not taken into account for DNS queries. This could delay the discovery process when querying host names without a domain.

**Improved: WebUI report tables**

Performance improvements have been made on report tables with a better scrolling experience.

**Bugfix: Cisco Meraki Discovery**

There were duplicate entries for Cisco Meraki access points and switches. The reason was that devices are identified by their MAC address in the database. In some cases the Cisco Meraki API does not return all MAC addresses via SNMP and therefore the MAC addresses provided by the Meraki Cloud API could not be matched. We have adjusted the identification of Cisco Meraki devices.

**Bugfix: Discovery server service start with an invalid license**

Due to a change in recent builds the discovery server did not start properly if the license has been invalid / expired.

**Bugfix: Discover executables**

Scanning executable files on Windows computers did not work due to a problem parsing the result format.

**Bugfix: Shuttle PC Discovery (JDSD-3595)**

There were still issues with Shuttle PCs creating duplicates.

**Bugfix: Linux Pending Updates (JDSD-3623)**

The yum command hangs when another yum command is being executed. Therefore, the call to obtain the pending updates could take a lot of time until it is stopped by the discovery due to a timeout.

## Release 5.0 - Build 5135 (28-10 2022)

**New Devices**

- Some new Eaton UPS (JDSD-3609)
- BDT MULTISTAK Tape Libraries (JDSD-3607)
- Lenovo Hybrid USB C AND A Docking Station (PnP)
- Lenovo Thunderbolt 3 Docking Station (PnP)
- Metrohm Titrande XXX Lab Device (PnP)

- Metrohm Robotic Tirtrosampler Lab Device (PnP)
- Metrohm Professional Biodiesel Rancimat (PnP)
- Agilent Cary-XX Spectrometer (PnP)
- Agilent Micro FTIR Spectrometer (PnP)
- BMG Microplate Reader (PnP)
- Canon PowerShot Cameras (PnP)
- Dino-Light Microscope (PnP)
- Elgato Wave Microphone (PnP)
- ThermoFischer Dionex Corona Veo (PnP)
- ThermoFischer Column Compartment Device (PnP)
- ThermoFischer Diode Array Detector (PnP)
- ThermoFischer Pump (PnP)
- ThermoFischer Sampler Device (PnP)
- ThermoFischer Variable Length Detector (PnP)
- ThermoFischer FTIR Spectrometer (PnP)
- Epson Network Projectors (JDSD-3563)
- Some older Extreme Networks Alpine Switches (JDSD-3612)
- Brocade Foundry IronWare Switch (JDSD-3612)

#### **New: Custom Attributes as Links (JDSD-3531)**

When a custom attribute contains a URL, then it will be clickable to open the URL.

#### **Updated: Postgres updated to Version 15**

We have updated the postgres database to version 15. We have also updated the JDBC driver to the latest version.

#### **Bugfix: Attribute device filter rules (for mDNS and UPnP devices)**

Attribute-based device exclusion filtering was not working correctly for mDNS and UPnP devices.

#### **Bugfix: Shuttle PC Identification (JDSD-3595)**

Shuttle PCs often use the same serial number in its BIOS. Since we are identifying devices also by their serial numbers, we merged two physical devices that don't match.

## Release 5.0 - Build 5134 (21-10 2022)

#### **New Devices**

- Pelco Surveillance Camera (UPnP)
- Bosch FlexiDome Surveillance Camera (UPnP)
- Toshiba Surveillance Camera (UPnP)
- Ruckus Wireless ZoneDirector WLAN Controller (UPnP)
- Brainboxes Ethernet to Serial Port Server (UPnP)
- VIVOTEK Surveillance Camera (UPnP)
- Xiaomi 11T Smartphone (mDNS)
- POCO X3 NFC Smartphone (mDNS)

- Roku Streaming Players (mDNS)
- Xerox Print Server (mDNS)
- Dell Printer (mDNS)
- Humax Smart TV Receiver (mDNS)
- Sonos Smart Speaker (mDNS | UPnP)
- Sony KD-Series Smart TV (mDNS)
- Western Digital My Cloud Mirror NAS Device (mDNS)
- Harman Kardon Smart Speaker (mDNS)
- AMI MegaRAC SP Management Device (UPnP)
- Brocade (former FoundryNetwork) Edgeline Switches (JDS-3597)
- Plantronics BT Headsets
- More Lenovo USB-C Docking Stations
- Logitech WebCams
- Barracuda Email Security Appliance
- Barracuda Web Security Appliance

### **New: WebUI – Overview Dashboard**

A new dashboard is introduced, where charts can be created and viewed based on the data of the reports. For now, pie and sunburst charts are supported. More chart types and features will come in the future. For more information, just visit <https://blog.jdisc.com/2022/10/21/understand-your-it-landscape-better/>

### **New: GraphQL API: Java Risks (JDS-3579)**

The list of Java license risks for a computer can be queried via the GraphQL API.

### **Improved: JDisc Discovery installation (JDS-3579)**

During installation, the versions of the add-ons to be installed are compared with the version of the JDisc Discovery Server version.

### **Improved: No WLAN Discovery when connected via VPN**

We are not collecting WLAN information when a laptop is connected via VPN to the network. Otherwise, we are at risk getting other (unrelated) WLAN networks into the JDisc Discovery database.

### **Improved: SAP MaxDB Discovery**

We are detecting SAP MaxDB installations on IBM AIX servers.

### **Bugfix: Usage of WMI Query with Win32\_Product**

Querying the Win32\_Product WMI class can have side effects (such as changing the install date for an application in the installer). The reason is that the query not only queries the installed software installations, but also runs some installer scripts which might have side effects.

We have removed this call and rely now only on the remote registry (which should basically get the same data).

## Release 5.0 - Build 5133 (14-10 2022)

### **New Devices**

- Panasonic DMR Series Smart TV Receiver (UPnP)
- Adder Technology Adderview Console Server (UPnP)
- Deva Broadcast Audio Recorder (UPnP)
- Sony POV HDC-Series Camera (mDNS)
- AXIS Smart Network Horn Speaker (mDNS)
- Sharp MFC/Printer (mDNS)
- Netgear ReadyNAS Storage (mDNS)
- Brother ADS Document Scanner (mDNS)
- Phoenix Contact Thermomark Roll Label Printer (mDNS)
- Google OnHub Wireless Router (UPnP)
- Interlogix Surveillance Camera (UPnP)

### **New: Cisco NX-OS File Collection (JDSD-3553)**

We can collect configuration files from Cisco NX-OS devices.

### **Improved: JDisc Discovery installation (JDSD-3579)**

During installation, the versions of the add-ons to be installed are compared with the version of the JDisc Discovery Server version.

### **Bugfix: oVirt Discovery**

An error was causing an issue when getting the physical hosts in an oVir environment.

### **Bugfix: Oracle Database Discovery (JDSD-3575)**

When using softlinks on Unix for Oracle homes and at the same time the the directory to which the link links to, then we could end up in duplicate Oracle database instances.

This has been fixed.

### **Bugfix: WebUI – Device Type incorrect rendering**

An error was preventing proper rendering of a device's type in device details view. The device type is now rendered correctly.

## Release 5.0 - Build 5132 (07-10 2022)

### **New Devices**

- Dell VPLEX Storage Devices (JDSD-3558)
- Dell ECS Storage Devices (JDSD-3558)
- Oki Printers (mDNS)
- Zebra Technologies Label Printers (mDNS)
- Rimage Disk Writer Stations (UPnP)
- Dell EMC MExxxx Disk Array

- Teleste Luminato Sat Receiver (JDSD-3585)
- SICK MLG-2 ProNet Light Grids (JDSD-3589)
- WAGO BACnet/IP (JDSD-3588)

### **New: Full Windows computer discovery with non-admin users**

The JDisc Discovery Zero-Footprint agent can be permanently installed on Windows computers. This way you can configure non-admin users to run processes with elevated privileges. This feature provides a Linux/Unix SU or SUDO like functionality on Windows. See the Security Guide ([https://www.jdisc.com/fileadmin/user\\_upload/downloads/documents/whitepaper/SecurityGuide.pdf](https://www.jdisc.com/fileadmin/user_upload/downloads/documents/whitepaper/SecurityGuide.pdf)) for more information.

### **New: GraphQL API**

You can query now the protocol status for the discovery protocols including the values for the port, identifiers, cipher, mac, or key-exchange algorithms.

### **New: GraphQL API**

You can query certificates by issuer regular expression patterns instead of getting all certificates for a device.

### **Improved: Windows Service Name Normalization (JDSD-3582)**

Microsoft has introduced a new feature to append a random suffix to the service name. A service like "AarSvc" becomes now "AarSvc\_3d7de306". The suffix is specific for each Windows computer. With that, our service table ended up with thousands of entries for the same service.

Therefore, we have introduced a normalization step to remove the suffix from the name and we have introduced a new field "Internal Name" to store the raw value in case we need it.

### **Improved: Software Normalization (JDSD-3583)**

We added more rules to normalize software.

### **Improved: Sort VMware Tags**

VMware tags are sorted by name for each device.

### **Bugfix: Cisco IOS EX OS Version (JDSD-3559) mangled**

Support URL and copyright information are now removed in Cisco IOS EX OS versions.

### **Bugfix: Oracle Database Discovery on Solaris (JDSD-3575)**

The Oracle database discovery failed on Solaris when the process discovery was disabled. In this case, we run a "grep -E" command to find the Oracle processes, but the standard "grep" command does not support the -E option. Therefore, we needed to use another grep command.

### **Bugfix: Cisco NX-OS Family missing for APIC devices(JDSD-3569)**

Now the operating system family is set to Cisco NX-OS for Cisco Application Policy Infrastructure Controller (APIC) devices.

**Bugfix: ADVA DWDM Switches missing OS Family (JDSD-3570)**

Now the operating system family is set to ADVA OS.

**Bugfix: Computer Active Directory Membership reset (JDSD-3557)**

The Active Directory membership of computers was reset when the hostname (determined by DNS reverse lookup) differed from the computer name. Now the Active Directory membership is determined first by the computer name and only then by the hostname (determined by DNS reverse lookup).

**Bugfix: SysInfo32/64 crash when performing mDNS Discovery**

When comparing two sets of IP addresses, an endless recursion in SysInfo32.exe or SysInfo64.exe could be triggered during mDNS discovery.

**Bugfix: Blue screen on JDisc Discovery agent shutdown (JDSD-3568)**

In rare cases, the JDisc Discovery zero-footprint agent could cause a Windows computer to crash with a blue screen.

## Release 5.0 - Build 5131 (15-09 2022)

**New: License Key Discovery for TechSmith SnagIT and Camtasia**

We are collecting the license keys for TechSmith's SnagIT and Camtasia Software.

**New: License Key Discovery for Nitro Pro**

We are collecting the license keys for Nitro Pro installations.

**New: Last Logged On User Login Count (JDSD-3547)**

JDisc Discovery gets the list of logged on users and also keeps a history of logged on users. In addition, we are also counting how often we have seen a user being logged on. When there are multiple users on a device, then this might indicate who the "main" user is.

**New: Security Add-On: Collect SSH Encryption Algorithms**

Our security add-on has been enhanced to collect the list of available SSH Cipher, MAC, and key-exchange algorithms for each SSH server. We also store the actually used algorithm when doing connections.

This information provides insides on SSH servers still offering obsolete or weak algorithms.

Check out our blog for more information:

<https://blog.jdisc.com/2022/09/13/security-add-on-ssh-cipher-mac-and-key-exchange-algorithms/>

**New: New Report "Logged Errors"**

We have added a new report to enhance our troubleshooting operations. The new report “Logged Errors” provides some statistics and overview of the errors logged in the current log files. It is accessible via “Troubleshooting > Logging > Logged Errors” and displays the found logged exceptions and their number of occurrences. Double click on an exception type shall show details of the actual related logged errors, including the stack trace. The report is also added to the Web UI under the Troubleshooting section on the reporting dashboard.

#### **Bugfix: Appliance Discovery**

In some cases, software vendors package their software in Linux appliances which come up with an initial menu. One of the menu items is usually to get on the shell.

We have enhanced our discovery process to be able to cope with those situations.

#### **Bugfix: Clear Database**

Clear database (without deleting the configuration) was dropping the network configuration although it should survive the database delete.

## Release 5.0 - Build 5130 (09-09 2022)

#### **New Devices**

- KTI Networks KGD Switches (JDSD-3540)
- MGE UPS Pulsar UPS Devices (JDSD-3541)
- Eaton UPS EX xxxx Devices (JDSD-3542)
- Alcatel IP Phones (JDSD-3543)
- Dell Docking Station WD15 (JDSD-3548)
- Jabra Engage 75 Headset (JDSD-3548)
- Zebra Bluetooth Scanner (JDSD-3548)
- Plantronics Voyager Headset (JDSD-3548)

#### **New: Managed Access Points for Sonicwall Firewalls**

We are getting the managed access points for Sonicwall Firewalls.

#### **New: oVirt Virtualization and Oracle Virtualization Manager**

Similar to VMware, we are using now the oVirt 4.x API to gather information about an oVirt virtualization environment consisting of datacenters, clusters, servers and VMs.

This will also cover Oracle's Virtualization Manager since it is based on oVirt.

Check out more details here: <https://blog.jdisc.com/2022/09/07/ovirt-support-added/>

#### **Bugfix: Lenovo XClarity Server Management Module (JDSD-3430)**



Lenovo uses in some configurations placeholder mac addresses (strangely enough with the mac prefix from Seagate) on their management controllers. This lead to merging the devices due to common mac addresses. We have implemented a workaround to ignore those special mac addresses on XClarity management modules.

**Bugfix: Amazon EC2 Instance Type and Model (JDSD-3439)**

We have seen Amazon EC2 instances where the model was not properly stored in the instance's virtual BIOS.

## Release 5.0 - Build 5129 (09-02 2022)

**New Devices**

- KTI Networks KGS Switches (JDSD-3530)
- Repeatit Antenna (JDSD-3529)
- NetworkTechnologies temperature sensors

**Bugfix: Switch Data could be overwritten**

Switch information could be overwritten with incomplete information when a switch was scanned directly via SNMP and after that identified via CDP/LLDP identification.

## Release 5.0 - Build 5128 (Aug-25 2022)

**New Devices**

- Intertech Switched PDUs (JDSD-3521)
- Heurikon HK<xx> Optical Switches (JDSD-3521)
- Lancom LX 2600 Access Point
- Huawei UPS 2000

**Improved: VPN Interface Detection**

In order to prevent home office devices being added to the database when scanning home office users via VPN, we have improved the VPN detection by adding Fortinet VPN interfaces.

**Improved: GraphQL Interface: iSCSI Ports and Connections**

We have extended our GraphQL interface to retrieve the iSCSI ports and connections.

**Improved: GraphQL Interface: Databases, Schemas and Tables**

We have extended our GraphQL interface to the databases, schemas and tables for database instances.

**Improved: Scheduled tasks on a Windows Computer**

The scheduled tasks data contains now how often and when a scheduled task is triggered.

**Bugfix: GraphQL Interface: Operating Systems Query fixed**

A typo caused an SQL error while getting the list of available operating system families.

## Release 5.0 - Build 5127 (Aug-19 2022)

**New Devices**

- OpenSystems Firewall (JDSD-3505)
- CipherLab 1564A Barcode Scanner (JDSD-3508)
- Lenovo USB-C Dock Gen2 (JDSD-3508)
- Kern&Sohn USB Microscope (JDSD-3508)
- Cisco SX Switches (JDSD-3500)

**New: WebUI – Device Custom Attributes**

It is possible now to view a device's custom attributes. Just navigate to the device details and then select the “Custom Attributes” menu item on the left.

**New: Sophos XG Firewall Cluster**

We detect the active and passive firewalls in a Sophos XG firewall cluster and we also create the cluster object referring to the two members.

**Updated: SSH Library**

The maverick SSH library has been updated to version 1.7.45.

**Improved: VPN Interface Detection (JDSD-3503)**

In order to prevent home office devices being added to the database when scanning home office users via VPN, we have improved the VPN detection by adding Cisco AnyConnect.

**Bugfix: Powershell Process Termination (JDSD-3506, JDSD-3509)**

Build 5126 introduced a change to use `[Environment]::Exit` in order to assure that the powershell process terminates. However, this command does not work when powershell runs in constrained language mode.

We adjusted the code to first determine the language mode and if it is “constrained”, then we use `exit(0)` otherwise `[Environment]::Exit(0)`.

**Bugfix: Linux Disk Discovery (JDSD-3507)**

We were running the `smartctl` command with some wrong parameters. Therefore, the scan of disks could take extremely long in some cases.

## Release 5.0 - Build 5126 (Aug-10 2022)

### **New Devices**

- OpenSystems Firewall (JDSD-3505)

### **Improved: WebUI – Logging Preferences page**

Logging Preferences page UI improvements and addition of the ability to edit the list of custom loggers, as well as to add loggers from a csv file.

### **Bugfix: Discovery Stuck (JDSD-3506)**

We have seen an error in our log files which could lead to a stuck discovery.

### **Bugfix: Powershell Process did not exit (JDSD-3506)**

We were using the exit command to make sure that the powershell process terminates. However, we found out that it does not stop in all cases. Now, we are using `[Environment]::Exit` which should assure that the process terminates.

### **Bugfix: File Systems on Linux**

Due to missing pattern matching, we were missing some remote file systems which are mounted via IPv6 addresses.

## Release 5.0 - Build 5125 (Aug-08 2022)

### **New Devices**

- Extreme Networks Gigabit Ethernet Switches (JDSD-3504)
- Some Ubiquiti Access Points

### **New: CDP based Device Identification**

We were already using CDP (Cisco Discovery Protocol) to determine the network topology. However, in many cases, CDP also returns a device description for the remote device. We have added some matching algorithms to identify the most common devices (Cisco switches, Cisco access points etc.) based on the CDP description.

### **New: LLDP based Device Identification**

We were already using LLDP (Link Layer Discovery Protocol) to determine the network topology. However, in many cases, LLDP also returns a device description for the remote device. We have added some matching algorithms to identify the most common devices (IP Phones, Access Points) based on the LLDP description.

### **New: JDisc API: WebUI – New Call to find Devices**

We have implemented a new call to find devices within the JDisc Discovery database. You can provide the device's serial number, mac addresses or IP addresses to check whether a device is already within the JDisc Discovery

database.

This call facilitates integrations.

**Improved: New Part Number Mappings for Lenovo added**

We have added several new part number mappings for Lenovo laptops and desktops.

**Bugfix: Possible duplicate Devices when scanning via Intune**

When devices have been scanned via Intune and we did not get any mac addresses for their network interfaces, then there could be duplicate entries.

**Bugfix: Custom Report including VM State Filtering**

A custom report which included the VM state as a criteria did not take cloud instances into account.

## Release 5.0 - Build 5124 (Jul-29 2022)

**New Devices**

- Lancom 800+ ISDN Router (JDSD-3493)
- Some Konica Minolta MF black and white printers (JDSD-3491)
- Danfoss Frequency Converter (JDSD-3490)
- Wago Controllers (JDSD-3489)
- Alcor Micro USB Smart Card Reader (JDSD-3488)
- Asix USB Ethernet Adapter (JDSD-3488)
- Homoth Audiometer – Medical Device (JDSD-3488)
- Boso BPM – Medical Device (JDSD-3488)
- Canon DR-XXXX Scanners (JDSD-3488)
- Cherry Keyboards (JDSD-3488)
- Cisco USB to Serial Adapters (JDSD-3488)
- Ebro IF xxx (JDSD-3488)
- Garmin Fenix Smartwatch (JDSD-3488)
- Fossil Smartwatch (JDSD-3488)
- Genesys Card Reader (JDSD-3488)
- Kodak ixxxx Scanner (JDSD-3488)
- Lenovo USB Ethernet Adapter (JDSD-3488)
- MAICO touchTymp (JDSD-3488)
- MAICO Audiometer (JDSD-3488)
- Motorola Moto Z2 (JDSD-3488)
- Medatixx ORGA Smartcard Reader (JDSD-3488)
- Realtek Card Reader (JDSD-3488)
- Realtek Ethernet Adapter (JDSD-3488)
- SafeNet USB Dongle (JDSD-3488)
- Silicon Labs Transmitter (JDSD-3488)
- SOMNOmedics HD (JDSD-3488)
- SOMNOtouch (JDSD-3488)
- 1<sup>st</sup> Vision uEye Camera (JDSD-3488)

- Validity Sensors (JDSD-3488)
- Vitalograph Pneumotrac (JDSD-3488)

### **New: WebUI – Troubleshooting Dashboard**

A new Troubleshooting menu item is added on the application's main menu. This brings up a dashboard which contains one item: Logging Preferences. In the Logging Preferences page the user can set the logging level for the WebUI and enable or disable extended logging items for discovery, meaning custom loggers, which may be used for troubleshooting sessions.

### **Improved: Device Naming for Windows**

When reverse DNS was not correctly configured, then the name for a device could be wrong due to the wrong reverse DNS name. For Windows computers that we have access to via SMB or WMI, we can gather now the correct name using those protocols. Wrong names due to wrong reverse DNS entries should not happen anymore for Windows computers.

### **Improved: Detection of more recent Kyocera Printers**

More recent Kyocera printers are based on the Linux operating system and also reflect this in their SNMP System Description.

### **Improved: Application Naming Normalization**

We normalized PA File Sight and Sallis software entries.

### **Bugfix: Fixed handling special characters like € in passwords**

Some characters were decoded using wrong encoding. Thus user was not able to use € in passwords for discovery and logins from Web UI.

### **Bugfix: Scanning multiple devices with IP6 addresses (JDSD-3495)**

When scanning multiple devices with only IP6 addresses via their IP addresses on demand (select devices and then use the context menu to scan the devices) did not add all IP6 addresses to the queue.

### **Bugfix: Incorrect Production Date for HP Computers**

The production date was erroneously set in the future if the actual production date was in a different decade than the last BIOS update.

## Release 5.0 - Build 5123 (Jul-13 2022)

### **New Devices**

- Astro EdgeQAM converters (JDSD-3477)
- Netscout PFS 7xxx switches (JDSD-3477)
- WISI Group Transmitter (JDSD-3477)

### **Bugfix: Applications not written (JDSD-3476)**

The antivirus discovery caused an issue that the software data was not written

to the database even if it was scanned.

## Release 5.0 - Build 5122 (Jul-08 2022)

### **New Devices**

- Some unmanaged Netgear Switches using HTTP

### **New: NGINX Instance Detection on Unix and Windows (JDSD-3454)**

We have added the code to detect nginx web server instances on Unix and Windows.

### **Improved: Process List on Linux**

In some cases, the ps command returns strange process binary names decorated with a description. In this case, we did not obtain the correct binary name, but the description. We changed our code to obtain the correct binary name in this case via another command.

### **Bugfix: Wrong VLAN Assignment on older Avaya Switches (JDSD-3474)**

We were assigning the VLANs to the wrong switch ports (offset 1) on older Avaya switches.

### **Bugfix: GraphQL Event Queries not working**

The event queries within the graphql API were not working.

### **Bugfix: Total disk size in device details dialog (JDSD-3449)**

The device details dialog did wrongly add the CD rom disks (total disk space, free space, ...) to the totals. The totals should only include the sizes of "real" disks.

### **Bugfix: Directory discovery fails for only manually configured DCs (JDSD-3475)**

The discovery discovery failed to discover recently logged on member computers if there were only manually domain controllers (DCs).

## Release 5.0 - Build 5121 (Jul-04 2022)

### **Bugfix: Duplicate Access Point Creation when scanning Sophos Firewalls**

The discovery created duplicate access points when scanning Sophos firewalls acting as access point manager.

### **Improved: Identify Devices by Bridge Base Address**

In some cases, ARP requests return a switch's base address and if that base address is not used in the SNMP interface table, then we could create duplicate

devices (where once device has the switch base mac address and the other one has the “normal” mac addresses coming from the SNMP interface table). This happens only rarely for some vendors and the current build fixes this issue.

**Improved: Added Sophos VPN Mac Addresses**

VPN adapter often have the same mac address on all devices. Therefore, we should not use them to uniquely identify a device. We have added the Sophos VPN mac address to the exclusion list.

## Release 5.0 - Build 5120 (Jul-01 2022)

**New Devices**

- D-Link MFP/USB Print Servers (UPnP)
- NETGEAR Switches (UPnP)
- Samsung Smart Monitors (UPnP)
- Siemens Building Automation Communication Controllers (UPnP)
- Canon Printers (mDNS)
- Dymo Label Printers (mDNS)
- LANCOM vRouter Appliances
- SMA Data Manager M Management Device (mDNS)
- Sony Network Cameras (UPnP)
- Honeywell MB-Secure Alarm Control Panels (mDNS)
- Eaton UPS 9PX 3000i (JDSD-3468)
- Eaton UPS ATS (JDSD-3469)
- Network Technologies Inc. Sensor Device (JDSD-3470)
- Supermicro IPMI Management Device (UPnP)
- cab Label Printers (mDNS)
- Barco ClickShare Presentation Gateways (mDNS)

**New: Managed Access Points for Sophos Firewalls (JDSD-3447)**

Sophos XG Firewalls can manage WLAN access points and we are collecting the list of managed access points together with their relation to the firewall.

**New: UEFI Secure Boot for Windows and Linux systems (JDSD-3461)**

For Windows and Linux computers, the discovery determines whether UEFI Secure Boot is enabled or disabled.

**Improved: Apache HTTPD Discovery (JDSD-3452)**

We did not get in all cases the HTTPD instance name. This has been fixed. In addition, we added the code to detect the port that the server is listening on.

**Improved: Allnet OEM Detection (JDSD-3446)**

Allnet sells its cameras to other vendors who sell them under their brand. In this case, Hikvision cameras were identified as Allnet. We have adjusted the OEM detection for the Allnet cameras.

**Improved: Certificate Scanning (JDSD-3292)**

We are getting Subject Alternative Names, key usage, and extended key usage for certificates. The GraphQL API has also been extended to expose this data.

**Improved: Remote Registry Tunnel Roundtrips (JDSD-3389)**

Slow, high-latency network connections have also slowed the tunnel-based remote login access to the Windows registry due to the many round trips. This is why we now prefetch and cache registry keys and values to minimize the number of round trips and reduce the discovery duration.

**Bugfix: CD Rom File System size was added to totals (JDSD-3449)**

We added the sizes for cdrom file systems when calculating the totals for logical disk space values.

**Bugfix: DNS Lookup could create endless recursion (JDSD-3429)**

A DNS lookup could create an endless recursion including a server restart when a hostname as an alias entry with the same name as the hostname.

**Bugfix: Installation/Update progress goes above 100% (JDSD-3448)**

Percent value for the installation was wrong calculated.

**Bugfix: LANCOM VoIP Router detected as Access Point (JDSD-3459)**

LANCOM 884 VoIP routers are now detected properly as device type router.

**Bugfix: License activation from WebUI ignored by discovery**

When a new license has been activated through the WebUI the discovery ignored it and continued using the license from the time when the JDisc Discovery Server service has started.

**Bugfix: Windows remote login agent install hang**

This might have happened when target Windows computers were running out of disk space while installing or initiating a new session from the discovery server.

## Release 5.0 - Build 5119 (Jun-10 2022)

**New Devices**

- Lenovo XClarity Management Controller (JDSD-3430)

**Improved: Processor Information on Apple M1/M2 (JDSD-3229)**

Due to the output format change in Apple's command line tools, we were not able to get processor information for the latest Apple computers using the M1 and M2 processors.

**Improved: File System Type for AIX Servers (JDSD-3437)**

We were not collecting the file system type for AIX servers.



**Improved: File System Type for HP-UX Servers (JDSD-3437)**

We were not collecting the file system type for HP-UX servers.

**Bugfix: Windows Defender Firewall Settings (JDSD-3372)**

The Windows Defender firewall settings discovery did not take GPOs into account and therefore, the state of the firewall could be wrong.

**Bugfix: Ignoring LOFS on Solaris when calculating Totals (JDSD-3438)**

We were not ignoring lofs file systems on Solaris when calculating totals for disk space. The lofs file system is just a link to an existing file system (similar to links on the file system).

**Bugfix: Network Assignment not updated (JDSD-3425)**

The network assignment for virtual machines was only updated when the device was created and scanned for the first time when no direct access to the VM is granted (e.g. via SSH, WMI, or other protocols).

**Bugfix: Fake Endpoint Security Entries (JDSD-3439)**

Many antivirus software vendors do not have a proper uninstall or update procedure. This can lead to fake entries in the WMI's antivirus software list or duplicate entries (when old entry not removed during the update). Therefore, we have implemented a detection whether the antivirus binary is actually installed on the hard drive. If not, then we ignore the entry.

**Bugfix: Do not use VPN connected devices for ARP resolving (JDSD-3436)**

We are resolving MAC addresses from devices in remote networks using the ARP cache. When using a laptop that is connected via VPN as ARP jump host, then we might be getting MAC addresses of his private devices. In order to avoid that, we have changed the code not to use devices connected via VPN as ARP jump hosts.

## Release 5.0 - Build 5118 (Jun-03 2022)

**New Devices**

- Fortinet FortiWeb Firewall (JDSD-3424)
- Fortinet FortiWeb Analyzer (JDSD-3424)
- Extreme Networks VSP 7400 Switches

**New: Google Cloud Platform Discovery**

We have added support for the Google Cloud Platform discovery and we are collecting information about the Google Cloud structure (folder, projects, regions, and zones) as well as for virtual machines hosted in the Google Cloud.

**New: WebUI – Table Columns hide/unhide**

It is possible to hide columns on certain tables of the application, and, therefore,

customize in more detail the UI. This setting is persistent and user specific.

**Bugfix: Editing Custom Attributes failed (JDSD-3422)**

Manually editing custom attributes was broken.

**Bugfix: Wyse ThinClients detected as Computer/Desktop (JDSD-3426)**

Sometimes, Wyse ThinClients were detected as computer or desktop when running IgelOS.

**Bugfix: Supermicro Server IPMI Board not detected (JDSD-3431)**

Some Supermicro Management Boards are not detected correctly.

**Bugfix: Missing Serial Number on F5 Virtual Edition (JDSD-3432)**

In some cases, we were not getting the serial number for F5 Virtual Edition.

**Bugfix: Not all Oracle Databases detected (JDSD-3417)**

We were not collecting database and table information for Oracle database installations using version > 12..

## Release 5.0 - Build 5117 (May-22 2022)

**New Devices**

- Samsung Network Cameras (UPnP)
- Xerox Printers (mDNS)

**New: Azure Storage Accounts (JDSD-3386)**

We are collecting now the storage accounts for the Azure Cloud.

**New: WebUI - Persistent table preferences**

The application remembers user specific table preferences, like the table width, column sizes, ordering etc. It is possible also to reset the table preferences via the Preferences section of the UI, under Table settings.

**Improved: Virtualization Explorer**

The virtualization explorer now shows Proxmox clusters within the KVM/Proxmox subtree.

**Improved: Linux Swap Partitions**

We were not getting Linux swap partitions for Linux. We have enhanced the discovery to get this data.

**Improved: Azure Discovery**

We are getting now the tags for virtual machines on the Azure cloud.

**Improved: KVM Virtualization Linux**

We are getting now also stopped KVM virtual machines.

**Improved: KVM Virtualization Linux**

We are getting snapshot information for KVM virtual machines.

**Improved: System Name for Utax Printer**

Some UTAX (Kyocera based OEM) printers do not store the system name in the standard sysName SNMP variable. They have a separate value where they store the name.

**Improved: Running Powershell Scripts**

We are running some powershell scripts to gather information like certificates etc. Those scripts always used [Environment]::Exit (retvalue). However, when the scripts are running in *constrained language mode*, then this leads to a syntax error since that command doesn't seem to be supported by this mode. We are using now *exit retvalue* instead.

**Bugfix: Proxmox VM assigned to wrong Host (JDSD-3384)**

We were using the Proxmox VM id as a unique identifier for the VM. However, this id is only locally unique on the host, but not globally in the network. We changed that unique id to a globally unique id.

**Bugfix: Filter not applied**

The device filter was not applied for devices which have been detected via UPNP or MDNS.

**Bugfix: Disk Array deleted and recreated (JDSD-3420)**

With missing serial numbers, managed HPE P2000 disk array devices got deleted and recreated after each scan. This was confusing some CMDB integrations.

**Bugfix: Network Topology (JDSD-3421)**

Some CDP based connections could be wrong due to a missing query parameter.

## Release 5.0 - Build 5116 (May-13 2022)

**New Devices**

- Arcadyan Routers (UPnP)
- Cisco Small Business Switches (mDNS)
- Lanier Printers (UPnP)
- Netgear ReadyNAS Storage Devices (UPnP)
- Nokia Fiber To The Home Routers (UPnP)
- Osmosys Smart TV Receivers (UPnP)
- Palo Alto ION SD Wan Appliance (JDSD-3367)
- Panasonic Network Cameras (UPnP)

- Ricoh Printers (UPnP)
- Rockwell Automation PanelView Devices (UPnP)
- Sercon Wireless DSL Routers (UPnP)
- Technicolor Wireless DSL Routers (UPnP)
- Western Digital NAS Devices (UPnP)
- ZTE Wireless Fiber To The Home Routers (UPnP)
- Cambium Networks Xirrus Access Points
- Some more Lenovo Part Number Mappings added (JDS-3405)

#### **Improved: Avoid Duplicate Windows Computers (JDS-3401)**

We are using the Active Directory Computer Account SID as a unique identifier for a device in addition to other identifying attributes such as serial number, mac addresses etc.

#### **Improved: Memory Discovery on Linux (JDS-3404)**

In most cases, JDisc Discovery gets the list of memory modules via the dmidecode command. Dmidecode reads the device's SMBIOS and collects information about the memory modules, their manufacturer, model and size. However - in virtualized environments – administrators can increase the RAM size without forcing a reboot. In this case, the SMBIOS information is not updated and the dmidecode command reports wrong data. However, other Linux commands like free return the proper values (+/- a percentage). Therefore, we added a heuristic that we use the RAM size from the free command when the dmidecode and free memory size differs by more than 15%.

#### **Improved: Windows Defender Antivirus Discovery (JDS-3399)**

We have added a new feature to get the antivirus signature version and last update timestamps for Windows Defender. This also enables the detection of Windows Defender status and installations on Windows Servers.

Up to now, we were not able to get information about the Windows Defender antivirus configuration on Windows.

#### **Bugfix: Custom Report with Application Instances**

The generated query was not correct when creating a custom report having application instances and filters on one of the fields.

## Release 5.0 - Build 5115 (May-06 2022)

#### **New Devices**

- Airties Wireless DSL Routers (UPnP)
- Airties Access Points (UPnP)
- Arris Cable Routers (UPnP)
- Bosch Security Divar Series Video Recorders (UPnP)
- Netgear Cable Routers (UPnP)
- Netgear Wireless Routers (UPnP)
- Altice Fibe To Home Routers (UPnP)

- Kaon Wireless Cable Routers (UPnP)
- Sagemcom Wireless Cable Routers (UPnP)
- Technicolor Wireless Cable Routers (UPnP)
- D-Link DES Switches (JDSD-3397)
- Ctera Edge Filer NAS Devices (UPnP)
- Linksys Wireless Routers (UPnP)
- Sagemcom Wireless Fiber To The Home Routers (UPnP)

#### **New: Firewall Configuration (JDSD-3372)**

We are collecting the firewall zones and whether they are enabled or not for Windows and Linux computers.

You find the new information within the device details *Configuration* tab.

#### **Improved: IBM AIX Disk Serial Number (JDSD-3344)**

Get the disk serial number when the disk is mapped via the AIX VIO-server.

#### **Improved: McAfee Web Gateway Model Detection (JDSD-3392)**

The McAfee web gateway model detection has been improved.

#### **Bugfix: Windows Kernel Version / Buildnr duplicated (JDSD-3398)**

The Windows OS buildnumber was prepend to the Windows OS kernel version, which already contains the buildnumber.

## Release 5.0 - Build 5114 (Apr-29 2022)

#### **New Devices**

- Samsung Printers (mDNS)
- REA Label Printers (mDNS)
- TSC Label Printers (mDNS)
- Epson Printers (mDNS)
- Bose Home Speakers (UPnP)
- Bose Smart Soundbars (UPnP)
- Bose Sound Touch Smart Speakers (mDNS)
- Buffalo LinkStation NAS Devices (UPnP)
- Gira FacilityServer Automation Controllers (UPnP)
- Kostal Smart Energy Meters (UPnP)
- Hitron Wireless Cable Routers (UPnP)
- Hama Internet Radios (UPnP)
- Roku Streaming Players (UPnP)
- Shelly Plug PDU Devices (mDNS)
- Asustor NAS Devices (mDNS)
- Arlo Smart Hub Home Automation Controllers (mDNS)
- Cisco Small Business Series Access Points (mDNS)
- Konica Minolta Printers (mDNS)
- Fuji Xerox Printers (mDNS)
- Ricoh Printers (mDNS)
- Kyocera Printer (JDSD-3377)

- AVtech Surveillance Cameras (UPnP)

### **New: Cisco AP Controller Cluster (JDSD-3192)**

Cisco's access point controller can be clustered. Typically there is an active and passive node which starts operating when the active node fails for some reason. The passive node can not be accessed since it is not replying to any protocols (not even ping). However, we can get its configuration from the active node's SNMP information.

We create a new cluster for such a configuration and assign both nodes to the cluster.

### **New: WebUI Scan Credentials reports**

Configured scan credentials reports can be seen now also in WebUI. Navigate to Troubleshooting > Scan Credentials and select the appropriate report (Login, SSH or SNMPv1-2-3).

### **Improved: Allow Solaris Jumphost (JDSD-3375)**

The export of IP4 networks from within the configuration dialog also exports now the ping flag. That makes it easier to import the same configuration into other groups.

### **Improved: Allow Solaris Jumphost**

We support now Solaris jump hosts in addition to Linux jump-hosts.

### **Improved: F5 Big IP Discovery**

We added the correct OS family and the build number to the OS version.

### **Improved: UPnP/mDNS device detection**

- Apple iPad and iPhone detection
- Apple MAC OS X computers
- Dell SC Series Disk Arrays
- Devolo dLAN WiFi Powerline Adapters
- HP Printers
- Kyocera Printers
- Loxone Homeautomation Miniserver (now also getting the S/N)
- Synology NAS devices

### **Bugfix: Aruba Switch Model (JDSD-3370)**

Due to different SNMP information, some Aruba Switches have been scanned as model "Chassis". We have corrected this.

### **Bugfix: Some Dell Disk Array Controller merged (JDSD-3369)**

Some Dell Disk Array Controller have been merged since they shared the same mac address. We added the special mac address pattern to the list of mac addresses which are ignored when searching for devices within our database.

### **Bugfix: Active Directory user logout (JDSD-3368)**

After the Discovery Server crashed, several logon attempts were made (even if

the user had entered an incorrect password). This could lead to user lockouts. Now all parallel sessions for such users will be closed.

## Release 5.0 - Build 5113 (Apr-22 2022)

### **New Devices**

- Telekom Speedport DSL Routers (UPnP)
- Asus Wireless Routers (UPnP)
- DLink Wireless Routers (UPnP)
- TPLink Wireless Routers (UPnP)
- AXIS Network Cameras (UPnP)
- Fuji Xerox DocuCentre MFCs (UPnP)
- Hikvision IP Cameras (UPnP)
- Hikvision Video Recorders (UPnP)
- Intelbras IP Cameras (UPnP)
- Silex USB Port Servers (UPnP)
- Huawei EchoLife Series Fiber To The Home Routers (UPnP)
- Dahua Thermal Cameras (UPnP)
- Lenovo/EMC Network Storage Devices (UPnP)
- Samsung Smart TV QLED Series (mDNS)
- Devolo Magic WiFi next Powerline Adapters (mDNS)
- Lexmark Printers/MFCs (mDNS)
- Lenovo Rack Switch (JDSD-3366)

### **New: WebUI Mapped Printers report**

Mapped Printers on a device can be seen now also in WebUI. Navigate to device details hardware reports and select the *Mapped Printers* report.

### **New: WebUI Ink/Toner Cartridges report**

Ink/Toner Cartridges level for print devices can be seen now also in WebUI. Navigate to device details hardware reports and select the *Ink/Toner Cartridges* report.

### **New: WebUI Pending Updates report**

Pending Updates report can be seen now also in WebUI. For *All Pending Updates* report navigate to Reporting → Software → Pending Updates. Additionally, for a specific device, navigate to device details software reports and select the *Pending Updates* report.

### **New: WebUI Windows Features report**

*Windows Features* report can be seen now also in WebUI. For *All Windows Features* report navigate to Reporting → Software → Windows Features. Additionally, for a specific windows device, navigate to device details software reports and select the *Windows Features* report.

### **New: WebUI Certificates report**

*Certificates* report can be seen now also in WebUI. For *All Certificates* report

navigate to Reporting → Software → Certificates. Additionally, for a specific device, navigate to device details software reports and select the *Certificates* report.

**Improved: Synology NAS device detection**

We have improved the detection of Synology NAS devices using the mDNS protocol.

**Improved: WebUI Reports Help**

Missing report help text were added. For custom reports, the help text is the custom report description. Consider adding a report description every time you add a custom report as a best practice.

**Bugfix: Report Navigation caused an Error**

A SQL error occurred when navigating from a device's certificate report to the devices which have the selected certificate installed.

**Bugfix: Some internal Exceptions fixed**

Some internal exceptions which we have seen in customer logs have been fixed.

**Bugfix: Progress Dialog didn't close in some situations**

The progress dialog when exporting a file to CSV was not closing in all circumstances.

**Bugfix: WebUI Reporting > Device Details > Software > Java**

Navigating to Java report were destroying the top level menu.

**Bugfix: WebUI Reporting > Networking > IP Configuration**

Navigating to iSCSI Endpoints report were destroying the top level menu.

**Bugfix: WebUI Reset dashboard**

Resetting a dashboard was leading sometimes to hidden elements on a dashboard.

## Release 5.0 - Build 5112 (Apr-14 2022)

**New Devices**

- Xiaomi Mi Smartphones (mDNS)
- Dlink SmartPlug PDUs (mDNS)
- Hager Domvea Server Automation Controller (mDNS)
- Amazon TV and Fire TV Stick Devices (mDNS)
- Didactum Environment Monitor (JDSD-3354)
- Google Home Smart Speaker (mDNS)
- Some more Dell Printers (JDSD-3353)
- Compal Broadband Networks Cable Routers (mDNS)



- Loxone Homeautomation Miniserver (UPnP)
- Netgear Access Points (UPnP)
- Panasonic VIERA TV Devices (UPnP)
- Devolo Magic WiFi Powerline Adapters (UPnP)
- Dlink Wireless Routers (mDNS)
- Dlink Wi-Fi Cameras (mDNS)
- SMA Sunny Home Manager (mDNS)
- Dell SC Series Disk Array (mDNS)
- Meross SmartPlug PDUs (mDNS)
- Google Nest Mini Smart Speaker (mDNS)
- Nanoleaf                      Homelighting                      Controller                      (mDNS)

### **New: New Option to disable the Scan of Related Devices**

JDisc Discovery's mission is to scan the network as well as possible. Therefore, it adds related devices to the discovery queue whenever it finds some. Related devices can be virtual machines hosted on a physical server. During the scan of a physical server, JDisc Discovery finds the list of virtual machines and their IP addresses and adds them finally to the queue. In some cases, you only want to scan dedicated devices and you don't want the scan to be extended to related devices. A new option "*Also add related devices to the discovery queue*" within the discovery job settings can disable this behavior. When you disable this option, the scan only scans what has been found via AD scan or the ping sweep.

### **Improved: DHCP Detection**

In addition to the existing config files, we have added the `/etc/network/interfaces` file to detect whether an interface supports DHCP or not.

### **Improved: Java License Check**

As you might know Oracle has changed a while ago its licensing for Java again. Starting with Java 17, Oracle Java is free again. We added code to reflect that in our checks.

### **Improved: VPN Detection (to ignore directly attached devices)**

We also added PPP adapters for VPN detection.

### **Bugfix: Java License Custom Report**

The custom report creation failed when using a filter on the Java installation risk status.

### **Bugfix: Adapter DHCP mode incorrect on Windows computers**

Due to a programming bug the DHCP mode (enabled/disabled) was incorrect on Windows computers using Remote Login.

### **Bugfix: Adobe DC Discovery**

The Adobe DC discovery is removing duplicates and the algorithm was a bit too simple. So it deleted more Adobe DC entries than necessary.

# Release 5.0 - Build 5111 (Apr-08 2022)

## **New Devices**

- Didactum Environment Monitor (JDSD-3330)
- Some more Dell MFPs (JDSD-3328)
- Dell SmartPrinter
- Dell Mono Laser Printer (JDSD-3326)
- Hewlett Packard Enterprise iLO (UPnP)
- Dell DMPU Keyboard Switches (JDSD-3324)
- Linux based Ubiquiti EdgeSwitches (JDSD-3332)
- Sony Bravia Smart TV (UPnP / mDNS)
- Xerox WorkCentre Printer (mDNS)
- Brother QL Series Label Printer (mDNS)

## **New: SIM Card Information Report in WebUI**

The report for SIM Card information for Windows computers with network interfaces connecting to the mobile network is now available also in Web UI. Navigate to Device Details > Networking > SIM Cards to discover this report.

## **New: Docking Stations for Microsoft Surface Laptops (JDSD-3310)**

We have added some code to detect Microsoft Surface docking stations.

## **New: Folder path for VMware Instances (JDSD-3281, JDSD-2914)**

We have added some code to detect Microsoft Surface docking stations.

## **New: Adobe Creative Cloud User**

We detect Adobe Creative Cloud users and can relate them to the AD accounts. With this feature, it is possible to detect license misuse by different AD users sharing the same Creative Cloud account.

## **Improved: Adobe Acrobat Discovery**

Adobe has changed how to specify how to specify the edition for Adobe Acrobat DC. Older versions rely on so called SWIDTAG files. More recent versions (starting with 21.x.x.x) use the registry on Windows. We have also implemented some code to remove duplicate entries with different versions that result from Adobe not cleaning up the registry on updates.

## **Improved: Citrix NetScaler Load Balancer Discovery**

We have extended the NetScaler discovery and we are getting now the vServers, the load balancer pools and the associated servers.

## **Improved: UPnP / mDNS Device Detection**

- Windows computers
- QNAP NAS
- Apple MacBook and Mac mini
- Apple TV

**Bugfix: Custom report sorting of installed applications (JDSD-3299)**

Installed applications were only sorted by application name in custom reports. However, this could lead to unstable outputs when an application was installed multiple times with different versions, installation dates and product keys.

**Bugfix: Duplicate DNS servers in the IP configuration for interfaces (JDSD-3279)**

There were duplicate DNS servers when a device has more than one DNS server configured for an interface.

## Release 5.0 - Build 5110 (Apr-04 2022)

**New Devices**

- TP-Link JetStream Switches
- AMI Mega RAC SPX mangement device (UPnP / JDSD-3313)
- Kyocera ECOSYS printers (mDNS / JDSD-3314)
- Samsung Galaxy A3 smartphones (mDNS / JDSD-3314)

**Improvement: Thycotic Password Manager Integration**

The REST API endpoint for endpoint for Thycotic SecretServer on-premises and cloud installations is different. Therefore, the current implementation succeeded only for cloud installations (as it was implemented with that as a test installation). We added an option to choose between cloud and on-premises installation to reflect the different.

**Improvement: mDNS /UPnP device discovery throttling**

Multicast mDNS and UPnP device discovery is throttled for each IPv4 and IPv6 network to avoid unnecessary multicast network traffic. While no mDNS or UPnP capable devices were discovered on a network, three consecutive discovery processes are possible - spaced 15 seconds apart. If mDNS or UPnP capable devices have been discovered on a network, discovery is carried out at most every 15 minutes.

**Bugfix: Infinite Timeout (JDSD-3061)**

We have seen that the port check for SSH does not return on some firewalls and thus the device never completes. We have added a hard limit of 5 minutes for SSH port checks.

**Bugfix: Custom Reporting Age\* attribute not working correctly (JDSD-3322)**

In the custom reports, filtering for Age\* attributes did not work correctly due to a conversion error (time span).

**New: Troubleshooting UPnP & mDNS discovery issues in Web UI**

Unknown UPnP & mDNS devices can be seen now also in WebUI. Navigate to Reporting > Troubleshooting > Device Issues to discover the added reports.

## Release 5.0 - Build 5109 (Mar-26 2022)

### **New Devices**

- devolo dLAN Powerline Wifi Adapter (mDNS)
- Xiaomi Redmi Note Smartphones (mDNS)
- HP Photosmart MFC/Printers (mDNS)
- Ubiquiti U6 Lite Access Point (JDSD-3293)
- Ubiquiti UAP AC-LR Access Point (JDSD-3293)
- Aruba ClearPass Virtual Appliance (JDSD-3295)
- TSC TCxxxx barcode printers (JDSD-3297)
- Dialogic BDN200 Multimedia Gateway added (JDSD-3291)

### **Improved: VLAN Discovery for Avaya Switches (JDSD-3287)**

Avaya switches with older OS versions do not properly support the bridge MIB, but have a proprietary MIB for the VLAN assignment. We have added some code to read the proprietary MIB.

### **Improved: Adobe Acrobat DC Scan (JDSD-3284)**

Adobe has stopped deploying the Swidtag files with the more recent Adobe DC versions. Instead, it stores the edition information within the registry. We have adjusted our code in order to obtain the edition correctly also for more recent versions.

### **Bugfix: SSDs missing**

In some cases, we did not detect SSDs on physical servers running Linux.

### **Bugfix: Apple iPhone detected as iPad**

Some Apple iPhones were detected as iPad when discovered via mDNS protocol.

## Release 5.0 - Build 5108 (Mar-20 2022)

### **Bugfix: Support ZIP Creation created an Exception**

A bug in in build 5107 resulted in an exception while creating the support ZIP.

## Release 5.0 - Build 5107 (Mar-18 2022)

### **New Devices**

- Apple iPhone (mDNS)

- AVM Fritz!Powerline Adapter (UPnP)
- devolo dLAN Powerline Wifi Adapter (UPnP)
- Google Chromecast Stick (UPnP | mDNS)
- Google Nest Hub (mDNS)
- Multitech Modems (JDSD-3066)
- Ciena Switch (JDSD-3283)

### **Improved: WebUI – Save some customer settings during update**

Application.properties in the WebUI folder contains settings for the WebUI server. Some of these settings are changeable by the customer. Until now these changes are lost after an update. The following settings are saved and restored after an update:

- server.port
- tier.api.cache.report.age
- tier.api.access\_token\_validity
  - tier.api.refresh\_token\_validity
  - tier.api.session\_alive\_interval
  - tier.api.http.server.port

### **Bugfix: mDNS Discovery could fail if the IPv6 protocol is disabled**

The mDNS discovery could fail for computers with disabled IPv6 protocol stack when also receiving mDNS records containing IPv6 addresses.

### **Bugfix: OS Version for QNAP NAS could be Windows 7**

The operating system version was not correctly discovered when scanning a QNAP NAS via SNMP.

## Release 5.0 - Build 5106 (Mar-11 2022)

### **Important: New Discovery Protocols mDNS and UPnP**

JDisc Discovery has got a new discovery method to identify IoT devices such as SmartTVs, home automation controllers and others. While some of those devices are typically used at home, other devices such as SmartTVs also appear in office environments. Even typical office devices such as NAS or printers reply to those protocols.

JDisc Discovery uses mDNS and UPnP multicast discovery messages to identify devices. We recommend reading our blog article:

<https://blog.jdisc.com/2022/03/10/do-you-know-all-your-dishwashers/>

to fully understand how this works and its implications.

### **New Devices**

- Korenix JetNet Switches (JDSD-3267)
- Mikrotik Switch RBXXXX added (JDSD-3267)

**Improved: WebUI Reporting dashboard - Custom report details**

It is possible to see any defined filters of a custom report. At the moment in read only mode.

On the custom reports details dialog, it is possible to resize the reports list left menu. This setting is not persistent yet.

**Bugfix: Issues when scanning via Jumphost (JDSD-3232)**

There was an issue when scanning a Linux server via a jumphost when sudo was not used, but su.

**Bugfix: Registry Access via Remote Login Tunnel could fail**

Remote registry access via the remote login tunnel failed in some random cases.

**Bugfix: Blue screen during agent shutdown (JDSD-3242)**

In rare cases the agent could cause a Windows computer to blue screen when extra processes (customer specific/customized data collections) were started through the agent.

**Bugfix: Missing Juniper Switch Model (JDSD-3272)**

Some very old operating systems did return SNMP data differently. Therefore, we were not able to get the proper model.

**Bugfix: Missing license key for ESX 7 Enterprise and Desktop Host (JDSD-3159)**

Due to a change in the license description, our pattern to detect ESX 7 Enterprise and Desktop Host license keys failed. It only failed when you were scanning the ESX server directly with matching root credentials. When you scan the ESX servers via the vCenter, then everything worked fine.

**Bugfix: WebUI - Fix breadcrumb navigation on Reporting**

Breadcrumb follows the correct navigation path.

## Release 5.0 - Build 5105 (Mar-04 2022)

**New Devices**

- Sophos XG Firewalls
- Some Juniper Switches (JDSD-3258)
- Hirschmann MAR Rugged Switches

**New: New Report "Diagnostics by OS Family"**

The new report "Diagnostics by OS Family" accessible via "Troubleshooting > Devices > Diagnostics" displays the diagnostics statistics by operating system family.

**New: WebUI Reporting dashboard - Custom report details**

Its is possible to see some details of a custom report. At the moment in read only mode.

**Improved: Scheduled Database Archive**

The scheduled database archive has now an option to include or exclude passwords from the archive.

**Improved: Network Interfaces for TSC Label Printer (JDSD-3228)**

The TSC label printer is missing entries in the IP address table. This leads to a dummy interface being created. We have changed the code to remove this dummy interface when there are only two interfaces and one IP address.

**Bugfix: SUDO with Jumhost Configuration (JDSD-3232)**

Obtaining root permissions using sudo failed when used via a jumhost and sudo is configured so that the user needs to enter his password again.

**Bugfix: Devices falsely merged (JDSD-3258)**

Devices could be falsely merged when they were identified as unknown SNMP devices and had common IP addresses.

**Bugfix: Topology Custom Report (JDSD-3263)**

Filtering by type, remote model and remote manufacturer failed with a SQL error.

## Release 5.0 - Build 5104 (Feb-28 2022)

**New Devices**

- Multimatic UPS
- Avaya Videoconferencing Device

**Improved: SNMPv3 Context Configuration**

Some Ricoh printers require to configure a non-empty SNMPv3 context string when using SNMPv3. We have added the input fields to configure the SNMPv3 context strings.

**Improved: Amazon AWS Unique ID Data Collection**

We are collecting the AWS unique id and store it within a custom attribute.

**Bugfix: Password State Protocol Test**

Testing the Passwordstate connection using the *Test* button always returned an error even if it succeeded.

**Bugfix: Fortinet virtual Firewall Appliance**

The Fortinet virtual firewall appliance has been identified as VMware instance instead of firewall appliance when running on a VMware server.

# Release 5.0 - Build 5103 (Feb-21 2022)

## **New Devices**

- Kentix AlarmManager
- Extreme Networks HiveOS based Access Points
- Juniper Switches with buggy SNMP system description

## **New: WebUI Scanner dashboard: Detail dialogs size and position persistence**

The size and the position of all detail dialogs is persisted and is restored when you visit the same dialog again.

## **New: WebUI Scanner dashboard: Detail dialogs resizing**

All detail dialogs can be resized also from the left and top edge. There were also some visual improvements while a dialog is resized.

## **New: WebUI Scanner dashboard: Detail dialogs backdrop**

The darkened backdrop was removed in order to be able to read the operations easily.

## **Improved: Information for Integrations**

Finding the right device in a partner solution is always one of the most difficult tasks when integrating JDisc Discovery with other tools such as CMDB or software license management solutions.

One reliable piece of information to identify the devices is the network interface's mac address(es). However, there are a lot of mac addresses that should not be used for that purpose because they are the same on each and every device.

This can be VPN adapter interfaces, Microsoft virtual interfaces, cluster interfaces or others. Therefore, we mark the interfaces that should be taken into account with a new flag "useForIdentification" within the MAC database table.

## **Improved: GraphQL API**

There are new custom attribute methods to get custom attribute and custom attribute values by the custom attribute path.

## **Improved: Get Modules for Avaya Phone IP Office Controller**

We have added some code to get the module list for the Avaya IP Office phone controllers.

## **Bugfix: Device filter condition "is empty" not working (JDSD-3071)**

The filter condition "is empty" did not work for device filters.

## **Bugfix: SAP Hana Discovery**

The conditions for detecting HANA installations were not strict enough. We were identifying other SAP instances as HANA instances.



**Bugfix: Vcenter Application Entry not always written (JDSD-3239)**

The VCenter application entry was not written to the application list when the discovery has only VMware API access, but no SSH or WMI connection to the VCenter server.

**Bugfix: WebUI pop-up error while opening the reports dashboard (JDSD-3241)**

Due to an error during the check for available plugins, some users received an error while opening the reports dashboard. The error was allowing the users to see options that should not have been available to them. In worst case, the user would receive an additional error when he was trying to access data that he was not allowed to. The issue is resolved.

## Release 5.0 - Build 5102 (Feb-14 2022)

**New Devices**

- TSC TSxxx Label Printers (JDSD-3228)
- Some older D-Link DGS-xxxx Switches
- Cisco SG200-50 (JDSD-3233)

**New: Passwordstate Integration**

We have integrated the Passwordstate solution as fourth password management tool into JDisc Discovery. Password managers are getting more and more important as customer use them to store passwords in one secure place and often rotate passwords in short intervals.

JDisc Discovery reads the current password via Passwordstate's API when it is required to scan a device. It never stores the actual account or password in our database.

Read more on: <https://blog.jdisc.com/2022/02/09/jdisc-discovery-integrates-pam-solution-passwordstate>

**New: WebUI Reporting dashboard: Custom reports tree state**

The state of the custom reports tree is persistent, which improves the user experience.

**New: WebUI Scanner dashboard: Discovery job list**

The discovery job list in the discovery job details dialog can be collapsed/expanded.

**New: WebUI Scanner dashboard: Detail dialogs**

All detail-dialogs can be resized and repositioned. At the moment, the new size and position is not persisted yet, but it will come in one of the next releases.

# Release 5.0 - Build 5101 (Feb-04 2022)

## **New Devices**

- Axel Thin Clients
- Digi PortConnect TS <XX> Port Server (JDSD-3063)
- Netscout PFS Switches (JDSD-3223)
- Alcatel OneAccess Router

## **New: WebUI Custom Reports**

Custom reports are integrated in reporting dashboard. It is possible to view all configured custom reports and execute them. Further performance improvements for complex custom reports will follow.

## **Improved: SSH Remote Identifier**

I guess, everybody is familiar with the concept of SSH identifier. When you connect with a SSH server, both sides negotiate the encryption. During this process, both sides exchange the so called SSH remote identifier. The remote identifier usually identifies the SSH agent (e.g. OpenSSH). However, in some cases, it also returns information about the Linux or FreeBSD distribution!

Up to now, we have not collected that information for each device. We collected the SSH identifier only when we were able to authenticate. Starting with this release, we collect the SSH identifier in any case and we also use it to determine the operating system family if we can match it based on the identifier.

You can create a custom report with all SSH remote identifier by selecting the field *SSH Identifier*. You find this field within the custom report property tree in *Troubleshooting > Protocol Status > SSH Identifier* and in the *Analyze > Protocols* tab.

## **Improved: MariaDB Discovery**

We improved the mariadb discovery on Unix. In previous versions mariadb was not detected when the daemon process name was "mariabdb" instead of "mysqld".

## **Improved: API – New find Devices Method**

A new method has been added to the devices query to find devices based on a role (e.g. domain controller, databaser server etc.).

## **Improved: WebUI Dashboard Animation**

Minimize and restore animations have been added to the dashboard items where applicable.

## **Improved: WebUI Table Performance**

The table performance is significantly improved. Reports load faster and consume less resources.

**Bugfix: WebUI Change Date Format discard changes warning**

The “Confirm Discard Changes” warning dialog was appearing when leaving the preferences dialog page after changing and applying a new date format, even though the setting was successfully applied. With this fix, the dialog will not appear upon successful save of the new settings.

**Bugfix: Unix Discovery Logout Issues**

There is a bug in the Unix discovery which could lead to a disconnect/logout in the initial discovery phase. All subsequent command executions run into timeouts and results in long discovery durations.

The issue happens when a logon user (not “root”) is being used that is part of the root group

**Bugfix: Refreshing token before expiration of access token (JDSD-3221)**

If you call refreshAccessToken mutation via GraphQL API with valid access token an AccessDeniedException was returned.

**Bugfix: Unix Discovery using a Jumphost (JDSD-2935)**

The Unix discovery using a SSH Jumphost failed when the target server is not directly reachable via SSH (which is never is because otherwise, you would not use a Jumphost).

## Release 5.0 - Build 5099 (Jan-31 2022)

**New Devices**

- Mikrotik CHR Router Appliance (JDSD-3213)
- FortiGate Virtual Firewall Appliance (JDSD-3213)
- Silver Peak Systems SD-WAN Appliance (JDSD-3202)

**Improved: Custom Report using Process Modules**

The performance for custom reports using process modules has improved.

**Improved: Patch Level for Checkpoint Firewalls**

We collect the patch level for Checkpoint firewalls.

**Bugfix: SNMPv3 Issues on some Devices (JDSD-3208)**

On some device, we had issues reading data by SNMPv3. The issue was that the engine ID was not set for the authentication. Some devices then deny access.

**Bugfix: SSH / Remote Login failed on Linux systems with Samba**

On Linux systems with Samba installed SSH and Remote Login failed (in fact it

was not tested) because the OS Family was incorrectly set to Windows.

**Bugfix: Server could be merged**

Servers could be merged although two different devices when they share a common IP address and all their mac addresses are either virtual mac addresses (mac addresses belonging to a virtualization technology) or locally administrated.

**Bugfix: Filter field not cleared**

The filter field was not cleared when navigating from the IP4 network report to the list of devices within this network.

**Bugfix: Service Pack Level for SuSE Enterprise Server 15 (JDSD-3216)**

The service pack level was not collected for SUSE Enterprise Server 15 and upwards.

**Bugfix: SuSE Linux is recognized as ChromeOS (JDSD-3215)**

The SuSE Linux was wrongly recognized as a ChromeOS when uname failed to report Linux version.

## Release 5.0 - Build 5098 (Jan-22 2022)

**Improved: Support ZIP Creation**

The support ZIP can contain now the list of unknown SNMP and unknown PNP device signatures. That allows us to easier identify device that are not yet properly identified.

The Support ZIP dialog also allows to disable the export for those two reports when you don't want to provide this information.

**Improved: Microsoft Exchange 2019 Support (JDSD-3188)**

We have added Exchange 2019 to our version mapping for Exchange.

**Improved: Azure VM Discovery (JDSD-3195)**

We were attaching a VM's public IP to the device's network interfaces.

However, this is not quite correct. The public IP address is not configured on any of the VM's network interfaces (not visible in "ipconfig"). The public IP address is exposed to the internet and traffic is then forwarded to the VM.

Therefore, we do not store the public IP address in the VM's interfaces, but in a custom attribute within the "Cloud" folder.

**Bugfix: Possible Duplicate ESX Servers (JDSD-3193)**

In some cases, the VMware API is not returning any network interfaces for a ESX server. This could lead to duplicate entries for the server.

**Bugfix: Misconfigured Cisco IOS Stacked Switches (JDSD-3198)**

In some cases, network admins reconfigure a stacked switch into a standalone

switch and forget to remove the stack configuration. We have seen in a few cases that the SNMP MIB then still contains the second member, but with only partial information.

We have added code to detect this situation and identify the switch as standalone switch correctly.

**Bugfix: Changed Default Accounts were not saved**

The default accounts for groups within the discovery configuration were not stored when changed. You had to delete and insert the credentials.

**Bugfix: MS Azure Discovery using Proxy**

A missing library after the migration to Microsoft's Graph JAVA API caused issues when using Proxies to access the Azure cloud API.

**Bugfix: Cloud Users Deleted after Import (JDSD-3181)**

In some cases, cloud users were deleted after a database import.

**Bugfix: Filters were ignored when listing InTune devices (JDSD-3196)**

The filters were not applied when getting the list of InTune devices. Therefore, filters (like "No tables") were not applied..

**Bugfix: Possible Duplicate Oracle Database Instances (JDSD-3194)**

We have seen duplicate SID entries for some Oracle database instances.

**Bugfix: Slow discovery of Windows computers (JDSD-3145)**

The slow discovery could occur when Windows Remote Login has been turned on but the command *SysInfo64 /software* in some cases caused an internal date/time conversion exception and in turn this interrupted the *SysInfo64 /software* process.

As a consequence no application and patch were returned to the discovery server and this has triggered the WMI/Remote Registry based application and patch discovery, which is rather slow on WAN connections.

## Release 5.0 - Build 5097 (Jan-17 2022)

**Updated: CXF Library and embedded JETTY server (JDSD-3171)**

We have updated the CXF library (for soap web services) to version 3.5 because the previously used version used a vulnerable version of jetty (web server).

Now, the new CXF library uses jetty 9.4.44.

**Improved: Ignore IP Address 1.1.1.1 for device naming (JDSD-3178)**

Some Cisco WLAN controllers create a virtual IP address 1.1.1.1. In some DNS environments, this resolves to the DNS name "one.one.one.one". When there are no other reverse DNS lookups for the remaining IP addresses, then "one.one.one.one" was selected as device name.

We are ignoring now the IP address 1.1.1.1 when it comes to device naming and we use the SNMP system name as fallback when there are no other DNS names.

**Improved: Raspberry PI discovery (JDSD-3174)**

We were not getting the serial number for Raspberry PI computers running NoTouch OS.

**Improved: DB2 Discovery on Windows (JDSD-3163)**

We extended the DB2 discovery on Windows in order to get the proper edition.

**Bugfix: Missing APs when scanning Cisco WLC (JDSD-3175)**

We were not detecting all managed access points for a Cisco WLC when they were managing the IW Heavy Duty Access Points.

**Bugfix: IBM Tape Library Extension Module Issue (JDSD-3179)**

Some IBM tape libraries allow extension modules and we have experienced that the extension module list also contains the “main” device as extension module. This lead to the situation where we created the tape library and an additional extension module with the same serial number.

## Release 5.0 - Build 5096 (Jan-11 2022)

**New Devices**

- More Cisco C9800 AP Controller (JDSD-3166)

**Improved: .JAR File Usage on Linux**

In addition to the list of loaded shared libraries, we also collect the list of loaded .jar files for binaries on Linux.

**Improved: Cisco NX-OS Switches (JDSD-3172)**

Cisco NX-OS switches can use extenders (fex) which can be attached to multiple switches. The SNMP entity mib indicates them as stacked switches (which they aren't). So we added some special code to handle the fex chassis differently.

Now, the extenders are marked as managed device to the switch and they can be attached to two physical switches when they are managed by two switches.

**Bugfix: Possible Duplicate ESX Servers (JDSD-3153)**

There are possible duplicates for HPE blade servers running VMware ESX when using virtual connect virtual serial numbers.

**Bugfix: Empty Passwords allowed for Directory Access (JDSD-3157)**

We were allowing to enter empty password for Active Directory access and this could lead to errors when reading the directory structure. Now, the *Test* button returns an error when you try to access the directory with an empty password.

**Bugfix: Tomcat Discovery (JDSD-3115)**

We have not taken old web.xml file formats into account when parsing them. Now, we can handle both (dtd based and schema based) web.xml files.

**Bugfix: Multiline Custom Attribute Export to Excel**

A custom attribute which has multiple lines in its text was not properly formatted when the report got exported to Excel.

**Bugfix: Cloud Accounts Deleted When Clear Database**

The cloud accounts have been deleted when clearing the database with the option to delete only scanned information.

## Release 5.0 - Build 5095 (Jan-03 2022)

**Updated: Postgres Database**

We have updated the Postgres database to its latest release 14.1.

**Bugfix: Custom Attributes Rendering**

Custom attributes with multiple lines were not properly rendered in custom reports.

**Bugfix Reloaded: Serial Number for Cisco NX-OS Stack (JDSD-3152)**

We have been falsely assigned the physical switch serial number to the stack for Cisco NX-OS switches.

**Bugfix: Possible Duplicate ESX Server Entries (JDSD-5153)**

We created duplicate entries for ESX servers when the ESX server has been scanned before scanning the vcenter and when we were not able to determine any mac address for the ESX server.

**Bugfix: Amazon Workspaces Client detected as EC2 Instance (JDSD-5158)**

Amazon Workspace clients were detected as EC2 instances.

## Release 5.0 - Build 5094 (Dec-23 2021)

**New Devices**

- Geist IMD3 Power Sensor (JDSD-3147)

**Improved: Tomcat Discovery (JDSD-3115)**

We are scanning tomcat installations for the deployed applications and create application entries for the deployed applications.

**Improved: Version Mapping for MS SQL Server updated (JDSD-3139)**

We have updated the version mapping for MS SQL Server to support SQL Server 2019 properly.

**Bugfix: SQL Server Discovery on Linux (JDSD-3139)**

We were using too strict permission requirements to read Microsoft SQL Server log files. We have changed this to use the scan user first and only if access with this user fails, we are using the root user.

**Bugfix: AP names not changed**

Name changes for managed access points were not reflected in our database.

**Bugfix: Slow jumphost MAC address lookup (JDSD-3151)**

The SQL query / device filtering for the MAC address jumphost sporadically created exceptions. Because of that the discovery ran into a 15 minutes timeout period while discovering a device.

**Bugfix: Serial Number for Cisco NX-OS Stack (JDSD-3152)**

We have been falsely assigned the physical switch serial number to the stack for Cisco NX-OS switches.

## Release 5.0 - Build 5093 (Dec-18 2021)

**New Devices**

- Stulz aircondition (JDSD-3130)
- MasterGuard UPS (JDSD-3134)
- Nokia Service Router (JDSD-3136)
- Dell OpenManage controllers for MX Servers (JDSD-3113)

**Improved: IBM Tape Library 35xx Serial Number (JDSD-3131)**

We determine the serial number for IBM tape libraries 35xx series and we also collect the list of extension chassis for tape drives.

**Bugfix: Cisco Virtual Access Point Controller Data overwritten**

When scanning a virtual access point controller from Cisco using the vcenter that the appliance is hosted on changed the device type from "Access Point Controller Appliance" to "Virtual Machine". This has been fixed.

**Bugfix: SNMP Community Usage Report (JDSD-3125)**

The report that displays the SNMP communities and where it is used for the scans has been fixed.



## Web UI – Alpha Version

### **New: Past discovery job run times**

It is possible now to view the actual past runs of a discovery job in a chart, as well as the calculated duration median. Just navigate to the discovery job details and then to “General Info” tab.

### **New: Discovery job past runs available in Discovery job calendar**

It is possible now to view the actual past runs of a discovery job in the discovery job calendar. Just navigate to the discovery job schedule view.

### **New: Discovery job events available in Scanner**

It is possible now to access the discovery job events report. Just navigate to the discovery job details and then to the “Events” tab.

## Release 5.0 - Build 5092 (Dec-14 2021)

### **Important Change: LOG4J logging library replaced with SLF4J**

The LOG4J framework has been replaced with SLF4J redirect to further mitigate CVE-2021-44228. So we are not using the affected libraries at all anymore.

### **New Devices**

- ORing Industrial Switches (JDSD-3130)
- Some more Zyxel Switches (JDSD-3130)

### **Improved: Tomcat Discovery on Linux**

We determine the JMX port when part of the java command line and store the JMX port as instance port for the tomcat instance.

### **Bugfix: Entering Cisco Accounts within the Discovery Settings Failed**

Entering a Cisco account for the Cisco support entitlement access failed.

## Release 5.0 - Build 5091 (Dec-13 2021)

### **Important: LOG4J Version Update**

log4j version prior 2.14.1 are vulnerable (see CVE-2021-44228).

JDisc is not vulnerable to this issue as it is not using JNDI discovery nor JMS feature of log4j.

However, to mitigate possible risk of this vector of attack all logging libraries were updated to the latest version and the older version are excluded.

**Improved: SAP HANA Discovery (JDSD-3040)**

We are getting the instance port for the SystemDB when scanning the SAP HANA instances.

## Web UI – Alpha Version

**Bugfix: The new Web UI is not accessible.**

An internal dependency was not mapped correctly, which was preventing the UI server from starting.

With this fix, the dependency is now mapped correctly and the UI server starts again.

## Release 5.0 - Build 5090 (Dec-10 2021)

**New Devices**

- Ubiquiti USW-Flex Switches (JDSD-3112)
- Rittal LPC-DX Cooling Device

**New: SNMP Community Report (JDSD-3120)**

We have added a new report to the users menu to display the SNMP communities which succeeded during the discovery and the number of devices where they succeeded.

**New: SNMPV3 Account Report (JDSD-3120)**

We have added a new report to the users menu to display the SNMPv3 accounts which succeeded during the discovery and the number of devices where they succeeded.

**Improved: Use smartctl to obtain the disk serial number (JDSD-3098)**

When a physical disk was collected using the lsblk command on Linux, then we were not getting the serial number. We have added some code to call smartctl in order to obtain the serial number in that case.

**Bugfix: Additional DNS Server List not loaded after DB Restore**

The additional DNS servers were not refreshed when an archive was restored. Therefore, the additional DNS servers were not used until you restarted the JDisc Discovery service.

**Bugfix: Network Interfaces dropped (JDSD-3117)**

Due to a bug in the network interfaces joining/merging code in some cases (same IP address on different interface) network interface were dropped.

# Release 5.0 - Build 5089 (Dec-04 2021)

## **New Devices**

- Some buggy HP Photosmart Printers (SNMP data is pretty messed up, needed to implement some workarounds)
- Huawei Sxxxx Router

## **New: SAP HANA Discovery (JDSD-3040)**

We have implemented the detection of SAP HANA database installations and instances.

## **Improved: Netstat obsolete on more recent Linux Distro**

The netstat command is no longer supported on more recent Linux distributions. We use netstat to obtain the list of open ports and tcp/ip connections. When netstat is not available, then we use the ss command as a replacement.

## **Improved: Detect stacked Cisco Nexus Switches (JDSD-3099)**

We have enhanced our Cisco Nexus discovery in order to detect stacked switches and their physical stack members.

## **Bugfix: XenServer Account not tested (JDSD-3107)**

Citrix XenServer is based on Linux. With SNMP installed, it returns standard Linux information and thus it is first treated as ordinary Linux computer and thus the CitrixXen server accounts are not tested, but only the Linux accounts. We have changed this behavior in order to also check the configured CitrixAccounts default accounts.

## **Bugfix: Reboot Required Flag to strict**

We are no longer evaluating the Session Manager \ PendingFileRenameOperations registry value because it returned too many false positives.

## **Bugfix: Strange local Windows users having a SID as name**

When a computer has been disjointed from a domain, but still domain users and groups were included in security descriptors of local groups, the discovery accidentally created local users with a SID as their name.

## **Bugfix: JDisc Discovery Zero-Footprint Agent hang**

In rare cases (free disk space was less than 1MB or creating the agent session share failed) the JDisc Discovery Zero-Footprint Agent could hang in the starting or stopping service state.

## **Bugfix: DNS Domain Controller | Test Login accessed wrong ports**

The **Test Login** button from the **Discovery Configuration > Directory > DNS Domains** panel connected to Domain Controller standard LDAP ports (389 or 636) instead of connecting to the Global Catalog ports (3268 or 3269).

# Web UI – Alpha Version

## **New: GraphQL API Extension: Get VLANs for Interfaces (JDSD-3106)**

The GraphQL API has been extended to retrieve VLANs configured on the network interfaces.

## **New: GraphQL API Extension: Pending Updates**

Get the list of pending updates for devices via GraphQL.

## **New: Discovery job schedule available in Scanner**

It is possible now to access the discovery job schedule within the details of a discovery job. At the moment, only in read-only mode.

## **Improvement: Discover multiple devices at once**

Right from the “Discover Device” dialog of the Scanner panel, it is possible now to input multiple devices to be discovered. Hint: Each device is separated by hitting space, comma or enter.

## **Removed: Global discovery controls in the Scanner status panel removed**

Obsolete controls removed. Each discovery job can be controlled individually, right from the discovery jobs dashlet toolbar or context menu.

## **Bugfix: Discovery controls enabled only for users having the necessary rights**

Users that do not possess the necessary rights to control discovery jobs, will see the respective controls disabled.

## **Bugfix: Null Pointer Exception about discovery status in WebUI logs during startup of the service**

The discovery status will not be null anymore on startup and, therefore, no exception will be written in logs.

# Release 5.0 - Build 5088 (Nov-26 2021)

## **New Devices**

- Planet Web Smart Switches
- Neol ePowerSwitch PDUs (JDSD-3086)
- Some Ubiquiti UniFi AP (JDSD-3094)

## **New: Reboot Required Flag**

We are collecting the reboot required flag for Windows and Linux computers. The flag gets stored in the operating system section.

**New: Verify Password Feature**

The password dialog have now a Verify button. Use the verify button in order to check whether the configured password is correct without any typos.

Check out our blog: <https://blog.jdisc.com/2021/11/19/verify-passwords/>

**New: Dependency Mapping Add-On: TCP/IP Connection Count**

We added the established connection count to the list of open TCP/IP ports.

**Bugfix: Network Interfaces missing (JDSD-3081)**

Due to a bug in the network interfaces joining/merging code in some cases network interface were missing.

**Bugfix: Device Filter not working with Empty or Not Set Condition (JDSD-3071)**

The device filters were not working when a not set or is empty condition used on a string field.

**Bugfix: ESX Hosts not merged (JDSD-3083)**

When scanning a network without providing full access to the ESX servers via the VMware API, we could create multiple devices with different IP and mac addresses for the same physical server. When adding the access credentials to get full server details, some of the previously created devices were not merged (those with the mac addresses of some vmk interfaces on the server).

**Bugfix: Amazon AWS Instances not detected (JDSD-3078)**

In some cases (when the owner of the operating system is not EC2 or WS), then a Amazon AWS instance was classified as computer and not as AWS instance.

**Bugfix: Discovery server run out of memory (JDSD-3089)**

In (rare) cases in which a device had many network interfaces (hundreds) with identical assigned IP addresses, the merging of the network interfaces could lead to high CPU usage and a out-of-memory situation on the discovery server.

## Web UI – Alpha Version

**New: Discovery job logs available in Scanner**

It is possible now to access the discovery job logs within the details of a discovery job. The logs are available always at the end of a discovery job cycle.

## Release 5.0 - Build 5087 (Nov-15 2021)

### **Bugfix: Commit issues**

A commit issue in build 5086 resulted in a build which does not fix the issues mentioned in build 5086. This has been fixed in this build.

## Web UI – Alpha Version

**New: Scanner is now the landing page after login**

### **New: Scanner discovery job details**

It is possible now to view details of the discovery jobs directly from the Scanner panel.

### **New: Scanner device discovery details**

It is possible now to view details of the device discovery, like the device queue, directly from the Scanner panel.

### **New: Scanner ping discovery details**

It is possible now to view details of the ping discovery, like the scanned IP ranges, directly from the Scanner panel.

**Improved: A loading indicator is implemented when navigating the UI, while the pages are loading**

### **Improved: The navigation in scanner panel is improved**

It is possible now to view details of a specific discovery part, in a new browser window or in a new tab or in a new window within the current tab.

## Release 5.0 - Build 5086 (Nov-13 2021)

### **New Devices**

- TP Link Switches T2500G-10TS, T2600G-28MPS
- Mobotix Txx Cameras

### **New: Pending Updates for Windows**

Pending updates are now collected for Windows computers including device drivers from third party manufacturers.

### **Improved: Postgres Database Port Detection (JDSD-3017)**

We are using the postgres configuration files in order to determine the database port for a postgres instance. However, we learned that the configuration file can

have 'include' statements to include config file snippets and we missed any port configuration in those included files.  
Therefore, we have extended the Postgres config file scan to also scan included files for the database port.

**Improved: HPE ProLiant iLO Discovery (JDSD-3059)**

We did not collect information about the managed server when scanning old iLO 4 management boards via SNMP.

**Improved: FS.COM Stacked Switch Detection (JDSD-3028)**

We are going to detect stacked switches and their members for FS.COM switches.

**Improved: Windows 11 and Windows Server 2022 detection**

Windows 11 and Windows Server 2022 are now properly detected using these protocols: SMB (Remote Registry must be enabled), Windows Remote Login or SNMP.

**Improved: Windows application discovery**

Now the application discovery always queries WMI even when Windows Remote Login is enabled and working. This is because - in some cases - WMI returns applications that are not visible in the registry and were missing before.

**Bugfix: Remove trailing “.” in Hostname (JDSD-3055)**

The “hostname -f” command returns the system name appended with a “.” at the end as fqdn. When that happens, then we just remove the trailing “.”.

## Release 5.0 - Build 5085 (Nov-07 2021)

**New Devices**

- QNAP NAS TS-x31X
- Honeywell PX printers
- Some more Fortinet access points

**Changed: GraphQL API**

Device can be assigned multiple computer accounts.

**Improved: ARM Processor Naming**

We have improved the naming normalization ARM-based Annapurna Labs processors.

**Improved: Fujitsu Eternus Disk Array Discovery**

We didn't get the disks for some Eternus disk arrays because the information was stored in a different SNMP table.

**Changed: Linux Software Discovery**

When calling the rpm command, we get a version field and a release field. The version field refers to the vendors version number whereas the release field refers to the patch level of the application within the distribution. It is possible to have multiple patch levels for the same major version.

Therefore, we append the release field to the version in order to identify different patch levels.

**Changed: Serial Numbers for Monitors**

There might be monitors without a serial number when scanning attached monitors to PCs or laptops. In order to keep them unique, we are using in this situation a part of the PNP id to uniquely identify the monitor. This should make it easier dealing with integrations.

**Bugfix: Software Instance Ports**

A bug introduced in 5083 caused the ports of application instances (such as database instances) to be not stored in the database.

**Bugfix: Orphaned Stacked Switch Members**

When a stacked switch gets dropped and replaced again by a single non stacked switch, then the former stack members were not deleted from the database.

We have also added an action to the import post-processing to delete orphaned stack members.

**Bugfix: Discover WLAN Option not recognized**

The discover WLAN option has not been used when scanning access points through an access point controller. The WLANs have been created even when the discover WLAN option is disabled.

## Release 5.0 - Build 5084 (Nov-01 2021)

**New Devices**

- Dell WD19S Docking Station
- HP 2013 UltraSlim Docking Station
- Cisco WLAN Controller C9800 (hardware and appliance)
- Mikrotik SwOS-based Switch

**New: Microsoft LAPS Support**

JDisc Discovery has been extended to support Microsoft's solution for local administrator password management (LAPS).

Read our blog entry for more information:

<https://blog.jdisc.com/2021/10/29/microsoft-laps-support/>

**New: Global Report listing Pending Updates**



The new report “Pending Updates” within the software section displays an overview over all pending updates together with the device count where the update is pending.

**Changed: JDisc Licensing**

We changed the licensing and removed docker container from the types which are relevant for the license size calculation.

That basically means, that docker container are free and do not cost anything.

**Improved: Docker Discovery**

We collect now the image name for docker instances and store the image name as custom attribute on the docker instance.

**Bugfix: Zebra Printer**

Fixed Zebra Printer network configuration.

**Bugfix: Logged On User Custom Report Error**

Custom reports created an invalid query when the logged on user type was used together with a condition on the field.

**Bugfix: Broadcast Address assigned to Device**

We have recently added another table to obtain IP addresses configured on network interfaces. However this table also contains on some devices broadcast addresses which are marked as broadcast. We will filter them out in order to avoid adding them to the network interface.

**Bugfix: Pending Updates Overview Custom Report Error**

The custom report item for the number of pending updates returns a wrong number due to an error in the query.

## Release 5.0 - Build 5083 (Oct-22 2021)

**New Devices**

- D-Link DGS-1100-24 Gigabit Ethernet Switch
- radware Alteon Switches
- Ubiquity PowerBeam Antennas
- Zyxel ZyWALL 2 Plus

**New: Pending Updates for Linux and Solaris**

We are collecting now the list of pending updates. This is the list of updates that would be installed if you would update your operating system. You find the list of pending updates after a scan within the software section in the device details. This feature is implemented for Linux and Solaris first and will be extended to Windows in the next two weeks.

**New: Windows 11 added to custom Data Collection Script Config**

We have added a Windows 11 checkbox to the custom data collection configuration dialogs.

### **New: Networking Add-On: Fortinet File Collection**

We have added the configuration file collection for Fortinet devices running FortiOS.

### **Improved Network Topology: Typical Workplace Detection**

We have improved the typical workplace topology detection. A typical workplace consists of a switch port, an IP phone and a PC/laptop connected to the IP phone's ethernet port.

Up to now, this situation could not be resolved since we needed a unique assignment for the switch port. In the situation above, we find the phone's mac address and the computer's mac address in the switches mac forwarding table. We have added a heuristics to create the typical topology: Switch port connected to IP phone and the IP phone has an ethernet connection to the computer.

### **Improved: Postgres Database Discovery**

We have improved the discovery of postgres databases. On previous releases, the database discovery was able to discover postgres databases when there was a database discovery user configured and a database with the same name existed on the postgres server. From now on, the database user used to access the postgres server and the database name can be different. The only remaining prerequisite is that a database with the name 'postgres' exists on the server and the database user configured in JDisc Discovery is able to access it.

### **Improved: IP Address Discovery for SNMP Devices**

We have seen some SNMP devices (mostly firewalls) which do not populate the IP address table within the mib2, but use the IP address table in the IP-MIB only.

Up to now, we were not reading the IP address table from the IP mib at all.

### **Bugfix: Offline KVM Instances were ignored**

The discovery did not detect KVM virtual machines which were not running.

### **Bugfix: Cisco Access Point Discovery**

Inconsistent SNMP data (mac addresses with 5 bytes) could lead to not scanning Cisco access points properly when scanning the access point controller. We made the code more fault tolerant.

## **Release 5.0 - Build 5082 (Oct-08 2021)**

### **New Devices**

- One Port terminal servers by Versalinx Corporation
- Perle STG<X> port servers added
- Cisco Webex Kit Mini

- Cisco IMC Mangement devices
- m5 Technologies Mediatrix VOIP adapters
- Impinj Speedway RFID readersnmp
- Cisco Secure Network Server added.

### **New: Thycotic SecretSever Integration**

JDisc Discovery integrated Thycotic's SecretServer as a second PAM product besides the recently added CyberArk solution. JDisc Discovery can now retrieve credentials from Thycotic's SecretServer while scanning devices. Credentials will not be stored locally in JDisc Discovery's database. This adds another layer of Security.

Read more in our blog on:

<https://blog.jdisc.com/2021/10/07/jdisc-discovery-integrates-with-thycotics-secretserver/>

### **Improved: Workaround for Cisco N9K Switch Detection**

We have seen some Cisco switches with an empty SNMP system description which is pretty unusual. Those devices have been identified as "Unknown SNMP Device". We have added a workaround to set the proper type "Switch".

### **Improved: Avocent KVM switches recognition**

Recognized system description with additional quoted.

### **Improved: Postgres Database Discovery**

Postgres database installations where not recognized when the postmaster process was used.

### **Improved: Juniper EX4550 stacked switches recognition**

Recognized system description with additional pattern.

### **Improved: Microsoft Office Installation**

In some cases, Microsoft adds some registry keys that indicate that a Microsoft Office with a specific edition is installed although it isn't. Therefore, we ignore system components with for the Microsoft Office installation and only relay on entries within the Add/Remove programs.

## Web UI – Alpha Version

### **New: New controls in Scanner panel**

It is possible now to control the discovery jobs directly from the Scanner panel. Additionally, it is possible to trigger a device discovery.

## Release 5.0 - Build 5081 (Sep-28 2021)

### **New: Security Add-On: Local User Password Information**

Our Security Add-On has been extended by a new feature to collect information about the password age for local users and the password policy.

Check out more in our blog:  
<https://blog.jdisc.com/2021/09/27/local-password-information/>

### **New: API Calls to get User Information**

The directory object within our API can list now all users which are assigned to it. A new user query can list all users and all AD users.

### **Improvement: VirtualBox Extensions**

We have improved our VirtualBox discovery code to identify determine the virtual box installation folder. The installation folder is essential when calling the virtual box command line tools.

### **Improvement: Executable Files**

We have the option to collect all binary files with meta information from Windows and Unix computers. We were also using the file's timestamp as a unique identifier. This caused a lot of duplicates on operating systems where the system files do not get the timestamp when they were created, but the timestamp when they have been copied to the machine. In this case, we got a lot of duplicates for the same executable file. Since the timestamp is not adding a lot of value, we dropped it and keep it empty.

### **Critical Bugfix: Binaries not correctly signed**

The JDisc Discovery binaries were not successfully signed since build 5079. We have enhanced our build process to check the validity of the certificate after signing the code. This should prevent this issue to come up again.

## Release 5.0 - Build 5080 (Sept-24 2021)

### **New Devices**

- Linksys LGS devices are now discovered as switch devices
- Cisco Integrated Management Controllers are now discovered as management devices.

### **New: Discovery Status API added**

Our GraphQL API has been extended with a new query (status → Discovery). The query can be used to retrieve information about the Discovery State.

### **New: Support Entitlement API Added**

Support entitlements of devices can be queried using GraphQL API now.

**Bugfix: Fujitsu Support Entitlement Updated**

Fujitsu support entitlement page had changed and therefore the tests were failing. It is now adjusted to new changes.

**Bugfix: Adding NetApp Default Accounts failed**

Due to the structural changes for CyberArk, the NetApp default credentials dialog failed to add new accounts.

**Bugfix: Account Column in Network Neighborhood Settings**

The account column within the network neighborhood discovery settings did not display the account name correctly when a CyberArk account was used.

## Release 5.0 - Build 5079 (Sept-17 2021)

**New: CyberArk Password Management Solution integrated**

JDisc has integrated CyberArk's solution for managing passwords. With this integration, logins and passwords are no longer stored within JDisc Discovery, but in CyberArk.

The discovery gets the current username and password from the CyberArk solution via API calls when needed.

**New: VirtualBox Extension Pack Discovery**

JDisc scans the list of VirtualBox extension packs when VirtualBox is installed on Linux, MAC OS X, and Windows.

**New: VirtualBox Extension Pack Discovery**

JDisc scans the list of VirtualBox extension packs when VirtualBox is installed on Linux, MAC OS X, and Windows.

**New: New API Calls added for local Users, logged-on Users and the History of Logged-on Users**

GraphQL API has been extended. Now local users, logged-on users and history of logged-on users can be retrieved using the API.

**New: New Operating System related API Calls**

There are new operating system related queries to get the list of all operating system families and operating system versions.

**New: New Device related API Calls**

There are new device related queries to get the list of all devices having a dedicated operating system version or family.

**Improved: FreeBSD Cores and Threads Discovery**

New commands have been added as second way of discovering the cores and

threads in FreeBSD OS.

**Bugfix: Wrong Windows Computer Name**

In rare cases, NetBIOS returns a wrong Windows computername and SMB returns the correct one. However, a bug in our code the SMB name was not used.

## Web UI – Alpha Version

**New: Scanner status dashboard items**

This feature allows the monitoring of the scanner processes directly from the Web UI.

## Release 5.0 - Build 5078 (Sept-10 2021)

**New Devices**

- F5 BIG-IP Virtual Edition
- Ruckus Wireless ICX Switches running IronWare

**Improved: GraphQL API**

The GraphQL API has been enhanced:

- ComputerAccount created for computer accounts within Microsoft's AD
- Property computerAccounts added to Directory object
- Property computerAccountAssignment added to Device.

**Improved: Lenovo Part Number Lookup**

Added new lookup entries for Lenovo laptops and desktops.

**Improved:**

**Measurment**

**Add-On:**

**Collect Page Counters for OKI Printers**

We collect separate counters for black&white and color pages.

**Improved: Serial Number for OKI Printers**

We added some code to collect serial numbers for OKI printers.

**Improved: Linux Physical Disk Discovery**

JDisc Discovery calls smartctl in order to get physical disk information In case of a RAID controller, we got only information about the virtual RAID drive. We have added some code to call the smartctl command with the -D megaraid,N option to obtain information about the physical drives when a RAID controller is used.

**Improved: SNMP Walk Export**

Whenever customers find a SNMP based device which is not already supported

by JDisc Discovery, we ask for a SNMP Walk sample. You can create a SNMP walk easily from our application using the SNMP Walk report within the troubleshooting context menu. Then you used to export that report to Excel and submit it to us. However, since Excel has a limited number of rows (actually ~1 million rows), that failed for large SNMP walks (e.g. walks from large routers or access point controllers). Starting with this release, you can also use the CSV export to create the SNMP walk in a format that our simulator reads out-of-the-box.

**Improved: Cisco CBS series**

CBS devices are now discovered as switch.

**Improved: Windows computer patch discovery accessing WSUS**

The Windows computer patch discovery now also accesses the Windows Server Update Services (WSUS) to get a more complete collection of installed patches (also from 3<sup>rd</sup> party software vendors).

**Bugfix: managing SSH keys of unknown format**

It is possible to open configuration dialog after user imports SSH key of unknown format.

**Bugfix: Device History: Timestamp not archived for Patches**

When creating a snapshot for a device, then the installdate timestamp for a patch was not part of the snapshot. That caused changes detected by the compare algorithm.

**Bugfix: Oki Printer Discovery**

Some Oki printers have been identified as Print Servers.

**Bugfix: GraphQL API**

Getting attached devices for a device always returned an empty set.

**Bugfix: SSH Connection open longer than needed**

When using a Unix Jumphost, then the SSH connection to the jumphost stayed open longer then needed. We are closing this connection now immediately when not needed anymore.

**Bugfix: Mitel Printer Discovery**

Support changes in HTML format for Mitel printers.

**Bugfix: Video Controller RAM size incorrect when RAM > 4GB**

Due to a design problem in Windows Management Instrumentation (WMI) - Win32\_VideoController class, the RAM size could not be correctly determined for video controllers larger than 4GB. The discovery now uses a workaround based on the "Plug and Play" device id of the video controller and the Windows registry to determine the correct size of the video RAM.

# Web UI – Alpha Version

## **New: Minimizing Reporting Dashboard Items**

Reporting dashboard items can now be minimized.

## Release 5.0 - Build 5077 (Aug-13 2021)

### **New Devices**

- Mobotix D14D-Secure Camera

### **Improved: Database Archive/Restore for large Databases**

At some customers, we have very large databases and our post processing takes a very long time deleting orphaned entries after the archive.

We have changed it in that way that orphaned executable files are not being exported to the archive in the first place because they are not referenced and thus not needed at all.

That makes the archive smaller, the import faster and makes the very expensive post processing obsolete.

However, there will be more steps to optimize the executable table in the future.

### **Improved: Troubleshooting / Windows Remote Logging Login**

To ease Windows Remote Login troubleshooting, we have added a new Troubleshooting > Logging menu item (Enable Windows Remote Login Logging).

### **Improved: Import GraphQL API extended**

The import device GraphQL interface has been extended to import multiple devices at once.

### **Updated: Dell API Support Entitlement Key**

The old API key for getting Dell warranty information expires in 60 days. We have requested and integrated a new key which expires in August 2022.

### **Bugfix: Discovery via JumpHost**

We had a problem with our script for pinging a network behind a JumpHost. The reason was changing the default interactive shell on some Unix-like operating systems. We now use explicit Bash.

### **Bugfix: Unnecessary DNS Lookup**

Unnecessary DNS lookup calls have been made for Unix devices when the dependency mapping add-on is installed and licensed. This could cause a long discovery duration and in extreme cases device discoveries being killed.

### **Bugfix: Custom Reports Filtering**



Adding conditions for IP address fields within custom reports could lead to a SQL error and a custom report which is not editable anymore.

**Bugfix: Interfaces for Aruba Managed Access Points not updated**

The interface list was not updated for Aruba managed access points when they changed and scanned through the AP controller.

**Bugfix: Domain/directory users not removed from local groups**

In some cases global (domain/directory) users were not removed from local user groups even though these users were no longer members of these local user groups on Windows computers.

## Release 5.0 - Build 5076 (Jul-23 2021)

**New Devices**

- Dell/EMC PowerSwitch S-Series
- Lenovo ThinkServer Management Modules
- Cisco Firepower Firewalls

**Improved: Cylance Endpoint Security Software Support**

We have improved the support and matching for Cylance endpoint security software.

**Improved Networking Add-On: WLANs for Unify APs**

We are collecting now the WLANs for Unify access points.

**Improved: Epson Printer Discovery**

We were not getting the model and serial number for all Epson WF-xxxx printers.

**Improved: Performance Improvement in Network Topology**

We had a performance issue in the data collection used for the network topology. When reading MAC forwarding entries, we were storing them in a balanced tree. While this is fine for smaller switches, we got a 100% CPU load when scanning 30-40 switches with many (> 6000) MAC forwarding entries. The high CPU load came from inserting new entries into the tree. We switched the used data structure to a HashSet and the performance increase by > 100 times.

**Improved: Network Assignment and new Report**

Within JDisc Discovery, users can define their networks with the base address and the subnet mask. Until now, devices were not assigned to any network when the ip address together with a subnet mask did not match any configured network.

This caused some issues on devices where the subnet mask is not configured correctly. Let's assume, you have a network 192.168.178.0 with the subnet

mask 255.255.255.0. One of your admins made a mistake and configured a printer with a correct IP address 192.168.178.30, but a wrong subnet mask 255.255.255.128. Up to now, the device was not assigned to a network. Starting from now on, the device will be assigned to the best matching network. A new report within “Networking > IP Configuration > Misconfigured Subnet Masks” lists all devices with their misconfigured subnet masks where the mask does not match the network.

**Bugfix: Buffalo TeraStation was detected as Computer**

The Buffalo TeraStation was identified as Computer, but should be defined as NAS device.

**Bugfix: Physical Disk Size Wrong for HPE Server when scanned with WBEM**

When the WBEM protocol is enabled on HPE servers then we did get the disk size wrong. A division by 1024 was missing at this place. This has been fixed.

**Bugfix: Amazon Workspace Clients were not assigned correctly**

The Amazon WS clients did not get the proper device type.

## Web UI – Alpha Version

**New Reports: We have added new Reports**

- Misconfigured Subnet Masks Report added (as described above in the release notes).

**License Management: We have added the possibility to manage the license**

- Import a new license
- Create a license request
- View installed license details
- View license usage

Also check out the blog entry: <https://blog.idisc.com/2021/07/23/new-license-management-ui/>

## Release 5.0 - Build 5075 (Jul-16 2021)

**New Devices**

- QNAP FreeBSD based TES-XXXX NAS devices

**Changed: Amazon AWS EC2 Discovery**

VMs hosted in Amazon's EC2 had been identified as Xen instances. However, Amazon is now using a variety of different technologies. Therefore, we have introduced a new type “Amazon EC2 Instance” for AWS VMs.

**Improved: Shell Command Line History Handling**

The bash shell usually adds all commands issued on the console to the history file. Some of our initial commands have been added to the history “polluting” the history with each scan. We have improved it so that we add a space in front of the commands in order to avoid being added to the history. Prerequisite is that the HISTCONTROL property is set to “ignorespace” in the user's profile.

**Improved: Visio and Project 2019 Standalone Installations**

We improved the detection of the edition for Visio 2019 and Project 2019 standalone installations.

**Updated: Third Party SNMP Library updated**

The third party SNMP library has been updated to the latest version (SNMP4j 3.5.1).

**Bugfix: Epson WF-XXXX Printer Discovery**

The Epson WF-XXXX multi-functional printers have been identified as simple printers.

**Bugfix: HPE USV R5500XR has been identified as PDU**

We had an issue scanning the HPE USV R5500XR. It was falsely identified as PDU.

**Bugfix: Lexmark Printer Discovery**

Lexmark CX multi-functional devices have been identified as printer .

## Release 5.0 - Build 5074 (Jul-08 2021)

**Improved: Renewed JDisc Discovery Client/Server SSL Certificate**

The SSL certificate for JDisc Discovery client-to-server communication has been renewed.

**Bugfix: JDisc Binaries not properly signed**

We had two problems signing our binaries. One was that the SHA1 was still used as the hashing algorithm. We have updated this to SHA256. We used a time server during the signing process, which made the signature invalid. We have therefore changed the time server for the signature process.

**Bugfix: Epson Printer Discovery**

We were reading the wrong SNMP variable to obtain the serial number and in some cases, we didn't get the model properly.

**Bugfix: Lexmark Printer Discovery**

Lexmark CX multifunctional devices have been identified as printer. This has

been corrected.

## Release 5.0 - Build 5073 (Jul-07 2021)

### **New: Zebra Handhelds**

We are detecting the correct type for Zebra handheld computers when they are managed by Intune.

### **New: Security Add-On – Collect Antivirus Information**

The Security Add-On has been extended to collect information about the installed antivirus software and its enabled and up-to-date state.

Check out our blog entry: <https://blog.jdisc.com/2021/07/06/new-feature-antivirus-software-discovery/>

### **Improved: Software Name Normalization**

We have normalized some more software items:

- Kaspersky Endpoint Security
- Kaspersky Security for Windows Server
- Kaspersky Security Center Network Agent
- MailStore Client
- Siemens NX
- LOGO!Soft Comfort
- Synccovery

### **Improved: HPE ProLiant Server discovery**

When SNMP is enabled:

- Physical disks connected to SmartArray controllers are detected including S/N and P/N
- Memory modules are detected better

### **Improved: Innovaphone IP Phone Detection**

Innovaphone IP phones detected via LLDP-MED on the switches have been identified with full model, serial number and manufacturer information, but as unidentified device. This has been improved. Now they are detected as IP phones.

### **Improved: SMB Identification**

We were using a Java library for basic identification using anonymous SMB queries to obtain the domain name and the mac address. This library supported only SMB1 and we got some complaints from customers that they see SMB1 traffic on the network.

We have replaced this library with another library which supports SMB2.

### **Improved: High CPU load on the discovery server**

If the discovery of users was activated, the CPU load of the discovery server

increased strongly if Windows computers with many parallel threads were scanned. We have therefore optimized the enumeration, loading and unloading of Windows user profiles in order to reduce the CPU load.

**Bugfix: Zyxel GS1900-48 switch identified as firewall**

Zyxel GS1900-48 switches (and potential others models) are no longer identified as device type firewall.

Zyxel is sharing the same SNMP sysObjectId for Zyxel GS1900-48 switches (and potential other switches as well) with Zyxel ZyWALL USG 20 firewalls (and potentially other models).

## Release 5.0 - Build 5072 (Jun-25 2021)

**New: Progress Indicator in Device Status**

The discovery performs more than 50 data collection steps while scanning a device. A new progress indicator within the device status panel informs about the progress for each individual device.

**Improved: Linux Kernel Version**

Linux has kernel Release and a kernel Version. This are two different versions. On Debian, we were getting the kernel release instead of the more specific kernel version which is important to check vulnerabilities.

**Improved: Connection Loss could cause long Discovery Durations**

When the telnet or SSH connection gets lost during the scan, then this had often caused a long discovery duration because all commands run into a timeout. We have modified the code to not run commands when we find out that the connection is lost while scanning the computer. This reduces the discovery duration and eliminates those long scan durations (partially more than one hour).

**Bugfix: Canon DR-Series Scanners were identified as Printers**

Due to a missing model mapping, we identified Canon DR-Series scanners as printers.

**Bugfix: Global Setting “Network Creation Policy” not stored**

When changing the discovery configuration for the “network creation policy”, then the value was not persistently stored. It was only stored until the discovery process gets restarted.

**Bugfix: Duplicate LPAR Entries**

When scanning the HMC, we could get duplicate entries for LPAR instances running OS/400. The reason is that the OS/400 does not return its IP address to the HMC. Therefore, we could not identify the device in our database. Now, we also take the serial number into account to find it.

# Release 5.0 - Build 5071 (Jun-18 2021)

## **New Reports: New External Dependencies Report**

For legal reasons, we need to provide the list of external libraries used in our software together with its license. We have changed our build process to dynamically update the dependency list based on our code. With this approach, the list is always current.

You find the complete list of all dependencies within the modified About dialog.

## **Improved: Bytes Sent/Received Statistics for SSH/Telnet**

In addition to writing this data to the logs, we also write the traffic information to a dedicated table without our database. Using custom reports, you can create a traffic overview for all devices.

Refer to our blog for more details: <https://blog.jdisc.com/2021/06/09/how-much-traffic-is-caused-by-the-discovery/>

## **Improved: Microsoft Intune Discovery**

We are collecting the "Ownership type" and the "compliance" level. We improved the model detection for Ubiquity switches.

We also assign the user as logged-on on user on smartphones, tablets, PCs and laptops unless the logged-on users have been identified by other protocols.

## **Improved: Ubiquity Switch Discovery**

We improved the model detection for Ubiquity switches.

## **Improved: Unix Physical Disk Discovery**

We also use the lsblk command to obtain the list of physical disks on Linux unless the proc file system already provided the data.

## **Bugfix: VMware Instance Data overwritten**

Hardware information which has been obtained by scanning the vcenter or the VMware physical host might have been deleted when the VM has been scanned directly via its IP and when we have only partial access to the VM (e.g. not having WMI, but only SMB access to a Windows VM).

## **Bugfix: Some Lenovo Laptops identified as Tablets**

Lenovo as the only vendor returns just the part number as model information via WMI. Therefore, we have an internal mapping that maps Lenovo part numbers to model descriptions (e.g. ThinkPad L570). Some entries in this mapping were incorrect and therefore some laptops have been identified as tablet computers.

## **Bugfix: Some Cisco IOS Routers identified as Switches**

The Cisco IOS operating system is used on Cisco's routers and switches. Therefore, it is not easy to identify whether a device is actually a router or a switch. Some of the routers have therefore been identified as switch. We added exceptions to our discovery to map them to the correct type.

# Web UI – Alpha Version

## **API Extended: Import Manager API extended**

The import manager API has been extended to import

- physical disks
- disk partitions
- logical disks

## **New Reports: We have added new Reports**

- Device Activity Log report completed.

## **About Dialog: We have added an About Dialog**

- Under the About Dialog → Application Dependencies, all 3<sup>rd</sup> party dependencies, along with their respective license can be found.

# Release 5.0 - Build 5070 (Jun-11 2021)

## **New Reports: We have added new Reports**

- Extreme Network Switches running VOSS operating system

## **Improved: Port Forwarding For Database Discovery**

As some databases do not have direct port open to connect to, we have added port forwarding using ssh tunnels to connect indirectly to the databases to scan them.

## **Improved: Microsoft 365 License Assignments**

JDisc Discovery failed to match the license to an existing Microsoft 365 Apps installation. We have improved the matching algorithm to Match “Microsoft 365 Apps for Business” and “Microsoft 365 Apps for Enterprise” installations.

## **Improved: Microsoft Endpoint Manager (Intune)**

We store the free and total memory of smartphones and tablets in the logical disk table (as they are similar to logical drives on computers). Furthermore, we store the IMEI, home provider and phone number in the SIM card information table (in addition to storing the data as custom attribute).

## **Improved: Extended Logging**

JDisc Discovery has the facility to enable extended logging. This is used to troubleshoot complicated discovery issues together with the JDisc support team.

In some cases, that was a bit tricky and the extended logging dialog did not display the loggers which are actually enabled. We have changed that so that the dialog always displays the logger that have previously been enabled.

Furthermore, we have added common logging scenarios as a shortcut as new

menu items. You can enable the ActivityLog and SSH/Telnet command line logging via a simple menu item.

#### **Improved: Bytes Sent/Received Statistics for SSH/Telnet**

You might be aware that JDisc Discovery already collects statistics for transferred bytes while scanning Windows computers. This has been extended to SSH and telnet based discoveries as well. You will find this information within JDisc Discovery's device discovery log right within the "Statistics" section.

Refer to our blog for more details: <https://blog.jdisc.com/2021/06/09/how-much-traffic-is-caused-by-the-discovery/>

#### **Improved: Bytes Sent/Received Statistics for SNMP**

You might be aware that JDisc Discovery already collects statistics for transferred bytes while scanning Windows computers. This has been extended to SNMP discoveries as well. You will find this information within JDisc Discovery's device discovery log right within the "Statistics" section.

Refer to our blog for more details: <https://blog.jdisc.com/2021/06/09/how-much-traffic-is-caused-by-the-discovery/>

#### **Bugfix: Ad-hoc discovery of Directory Objects failed**

The ad-hoc discovery of directory member computers failed when clicking the *Discover Directory* context-menu from the Directory Computer Accounts report (tree view).

## Web UI – Alpha Version

#### **New Reports: We have added new Reports**

- Device Activity Log report completed

#### **About Dialog: We have added an About Dialog**

Under the About Dialog, Application Information (Version, Build) and Add-On information (Available Add-Ons, Installed Add-Ons and Licensed Add-Ons) can be found.

## Release 5.0 - Build 5069 (Jun-01 2021)

#### **New Devices:**

- Fortinet FortiAP Access Points

#### **Improved: Avaya/Extreme Networks Switches**

Avaya has acquired the Extreme Network switches. JDisc Discovery added "Avaya" as manufacturer. However, this can be confusing when scanning old



switches are still labeled as “Extreme Networks”. We have changed our code to adjust the manufacturer to the label on the switch.

#### **Improved: Unix OS Detection**

We run the “uname” command to determine the Unix flavor once connected to the shell. Unfortunately, this pollutes the shell history entries.

We changed the code for SSH connections by running the “uname” command not from the shell, but as a SSH command execution (which is not starting a shell). We run the uname command from the shell only when the command execution fails for some reasons (e.g. because an interactive shell is required).

#### **Bugfix: IBM LPAR Discovery**

IBM LPARs have not been assigned to the physical host when scanning the HMC.

#### **Bugfix: Hostname assignment to interfaces**

Due to a bug in the merge code of the interface / IP configuration of different protocols, host names were sometimes not assigned to the respective interfaces.

As a result, it could happen that directory member computers were not assigned to their respective computer account in the directory.

## Release 5.0 - Build 5068 (May-28 2021)

#### **New Devices:**

- Aruba WLAN Controller Virtual Appliance
- ASRock Rack Servers and IPMI Management Boards

#### **Improved: VLAN Config on Barracuda Firewalls**

We get the VLAN configuration for Barracuda Firewalls.

#### **Improved: Troubleshooting > Discovery Jobs Report**

We have added some fields to the discovery jobs report:

- State: the current state
- Last finished: the time when the job finished the last time
- Duration: the last scan duration

#### **Bugfix: SSH Library issue**

We upgraded the SSH library that we use to its latest version. Unfortunately, they introduced an issue that impacts copying file to the discovered server. This is essential when running your own custom scripts to populate custom attributes.

# Web UI – Alpha Version

## **New Reports: We have added new Reports**

- Troubleshooting > Protocols
- Troubleshooting > Diagnostic
- Troubleshooting > Discovery Jobs
- Troubleshooting > Event Types
- Troubleshooting > Discovery Events
- Troubleshooting > Device Queue
- Troubleshooting > Ping Queue
- Troubleshooting > Network Neighborhood Queue
- Troubleshooting > Directory Queue

## Release 5.0 - Build 5067 (May-21 2021)

### **New Devices:**

- Comtime Router
- Cisco NSX Appliance
- Kramer DVI Amplifier

### **Bugfix: SNMPv3 failed when SHA or MD5 used**

We have upgraded the SNMP library in build 5065 to the latest version.

However, due to security reasons, the library provider removed SHA and MD5 as supported hashing algorithms from their default configuration. SHA and MD5 are not secure anymore. However many devices do not support more secure hashing algorithms due to their firmware and SNMPv3 requests failed for those devices.

We have enabled MD5 and SHA again to the list of valid hashing algorithms in order to support older devices and firmware versions.

### **Bugfix: Serial Number Detection on EYE (Vesa Name) Monitors**

Some monitors from the vendor EYE (vesa abbr.) return the same serial number for each and every monitor. We are ignoring the serial number in this case and set it to empty.

## Release 5.0 - Build 5066 (May-18 2021)

### **New Devices:**

- Some USB Canon Printers
- CardioPart 12
- EEG-9000
- Fujitsu fi-7460 printer
- OMNIKEY 5x21

- PillCam Recorder
- Prolific USB to Serial Adapter
- Sagem MorphoSmart fingerprint scanner
- SmartTerminal ST-2xxx
- ThinkPad OneLink Plus Docking Station
- Testo 175/177 Sensors
- Philips SpeechMike Microphones

### **New: Clear Binary and Data Directory Separation**

We have implemented a clear separation between binary and data files in the JDisc Discovery installation. In addition to the installation directory for the binaries, a user can now choose a different directory for data (e.g. logs, temp files, database files etc.). Previously the data directory was fixed to [c:\ProgramData](#) and could not be changed! This led to issues when the c: drive was a pure system drive for the OS only and not providing enough space for the database.

### **Changed: Cisco IOS Operating System Version**

In the past, we have splitted the Cisco IOS Software version into two parts. The major.minor version went to the version field and the remaining part into the patch level field. For instance, “15.2(4)M4” was splitted into os version “15.2” and patch level “(4)M4”. However, we learned that the whole string defines the operating system version!

So we removed the split into os version and patch level. From now on, the Cisco IOS devices appear with version “15.2(4)M4” and no patch level!

### **Improved: Xen Instance Detection on Linux**

We can detect Xen instances using the virt-what command on Linux.

### **Changed: Database varchar Defintions**

We have changed all our varchar definitions in our database. In the past, we used length limitations for all varchar database fields. However, this unnecessary according to Postgres and can even cause issues when – for instance an application name exceeds the maximum length.

Now, all text fields are defined as “varchar” without a length limitation which implies a variable length up to 65k.

### **Changed: Powershell scripts executing with interactive logon**

This is partially reverting the change introduced in build 5063. Without interactive logon, powershell scripts fail to access systems like Microsoft Exchange to get mailboxes, etc. Other executable, script or commands are still executed using network logon.

### **Updated: Third Party SSH Library Updated**

We have updated the external SSH client library to its latest version.

### **Updated: Postgres 13.3**

We have updated the Postgres database version to its latest version (13.3-1).

**Bugfix: Dell iDRAC identified as Monitor**

Some Dell servers running Windows include the iDRAC management card within the section that lists the displays connected to the server (the reason is unknown). This lead to false entries for monitors (model: "iDrac"). We are ignoring iDRAC entries when found in the display (monitor) section.

**Bugfix: SNMPv3 Account tested multiple times**

A SNMPv3 account has been tested multiple times when defined in a device group below the root.

**Bugfix: Monitor Dection on Wincomm Medical All-In-One PCs**

The built-in monitors in Wincomm's all-in-one medical PCs always return "880" as their serial number. Since the serial number is an identifying attribute for devices, all monitors were merged into one (since they have the same serial number).

We are dropping the serial number for those devices as a workaround.

## Web UI – Alpha Version

**Improved: Import GraphQL API extended**

The import device GraphQL interface has been extended to import mobile broadband devices (modems) and SIM cards.

## Release 5.0 - Build 5065 (May-07 2021)

**New Devices:**

- Adva Link Monitor
- Barracuda Firewalls (Fxxx – formerly Phion)
- HP USB-C G5 Docking Station

**Updated: Java updated to OpenJDK 15**

We migrated the Java VM to OpenJDK 15.

**Updated: SNMP4J Library Updated**

We migrated our application to the latest version of our SNMP library (snmp4j).

**Bugfix: Unix Jumphost Port Settings**

The Unix jumphost port settings were not displayed correctly after reopening the discovery configuration dialog.

# Web UI – Alpha Version

## **Improved: Icons added to the Virtualization Explorer**

We have added icons and a helptext for the virtualization explorer.

## **New: New Reports migrated to the WEB UI**

- Router/Switch Ports
- Device History Snapshots
- Shared Resources Report includes now icons for the permissions

# Release 5.0 - Build 5064 (Apr-30 2021)

## **Improved: Software Discovery on Linux**

In previous releases, we didn't call other package managers like dpkg or pacman when rpm returned some applications. However, there are – for instance – Ubuntu installations which use both (rpm and dpkg). In this case, the applications registered with dpkg were not listed.

## **Change: Windows SMB, Remote login and WMI auth. auditing**

Now, you can identify account lockout situations by enabling auditing (logging) of SMB, remote login, and WMI authentication. Account lockouts can occur when the discovery uses an invalid / incorrect password (as it may have been changed in the meantime) for existing domain accounts.

## **Bugfix: Sporadic SMB Connection Issues**

We fixed an issue where SMB connection requests were successful even though a connection could not be established. In this case, all subsequent SMB requests and queries have failed and caused exception entries in our logs.

# Release 5.0 - Build 5063 (Apr-23 2021)

## **New Devices:**

- Fujitsu Eternus ET105SBF Disk Array
- Fujitsu Eternus ET062DCFU Disk Array

## **Improved: Identify Dell VxRail Servers**

Dell VxRail servers have been identified as “Computer”. We have improved the detection and now they will be identified as “Rack Server”.

## **Improved: Display Slot Numbers for Physical Disks in Disk Arrays**

We display now the slot number for physical drives in disk arrays or NAS devices.

### **Change: Windows remote login - network vs. interactive login**

Windows remote login used the interactive login of the configured discovery user for some binaries / processes. This may have caused the configured discovery user to become the primary user for Windows 10 clients in Microsoft SCCM environments.

Now, Windows remote login uses network login for the configured discovery user. This should avoid triggering device affinity rules and exceeding thresholds.

### **Bugfix: Not all Intune Devices discovered**

Not all Apple devices have been scanned when managed by Microsoft Intune.

### **Bugfix: Error while writing VMware VCenter information**

There was an error that occurred in some cases when writing data for a vcenter. This error caused that the vcenter is missing information about the ESX servers and managed VMs.

### **Bugfix: Wrong Credentials tested**

When you have defined multiple groups with individual devices or hostnames and if you configured SSH or other accounts in those groups, then the discovery was testing ALL accounts from ALL those device groups instead of only the “matching” device groups.

## Web UI – Alpha Version

### **New: Breadcrumbs added**

Added navigation bar with breadcrumbs.

### **New: New Reports migrated to the WEB UI**

- Network Neighborhood
- iSCSI Endpoints
- TCP/UDP Ports report
- TCP/IP Connection Statistics Report
- VLANs Report
- WLANs Report
- WLAN Access Points Report

## Release 5.0 - Build 5062 (Apr-16 2021)

### **New Devices:**

- Eizo Surveillance Camera
- Some Ricoh Aficio Printers
- Huawei Access Point Controllers

- Avocent ACS Console Servers

### **Improved: Fibre Channel Interfaces for IBM/Lenovo Storewize Disk Arrays**

We are getting now the fibre channel interfaces for the IBM/Lenovo disk arrays.

### **Bugfix: Stopping the JDisc Discovery services during the setup**

The JDisc Discovery services and processes are stopped during a re-installation. Sometimes this was not working properly. Now we are little bit more carefully.

### **Bugfix: Cisco Meraki Cloud Discovery**

When an intermediate network error occurs, then the Cisco Meraki discovery failed and no data was written. We have improved the error handling.

### **Bugfix: HTTP(s) Protocol Used although disabled**

The HTTP(s) protocol was tested even when the HTTP(s) protocol was disabled for a specific device.

### **Bugfix: MS SQL Server Integrated Windows Authentication incorrect**

Windows (local or domain) user database credentials have not been used to connect to a MS SQL Server using JDBC (even though its been displayed in the Discovery Log). Instead the discovery facilitated the Windows (local or domain) device account.

Please note: This has not affected SQL Server Authentication (i.e. "sa" user).

## Web UI – Alpha Version

### **New: Context report “Devices > Directory” added**

A report with the directory tree and the associated computer accounts has been added.

### **New: New “Supported Devices” report added**

The report displaying the list of supported devices has been added.

### **New: New “Cloud Explorer” report added**

The report displaying a tree with the discovered cloud resources.

## GraphQL API

### **New: New API Calls to query the Appliation Instances**

Some new API calls to query application instances (such as databases) have been implemented.

## Release 5.0 - Build 5061 (Apr-09 2021)

### **New Devices:**

- Zyxel ZyWALL USG 20
- Some more OKI Printers attached to the network using a OKILAN card.
- Some Lancom VPN routers

### **Bugfix: Custom data collection fails for users without home directory**

On Unix (AIX, Linux, HP-UX and Solaris) platforms the custom data collection failed for users without home directory.

### **Bugfix: Connection timeout for SSH and Telnet**

The discovery did not always use the connection timeout set in the Discovery Configuration for the initial setup of SSH / Telnet connections, but in some cases worked with built-in timeouts.

As a result, very slow and old Unix (AIX, Linux, HP-UX and Solaris) systems were not properly recognized.

### **Bugfix: MS SQL Server database tables discovered though disabled**

Database tables were collected and stored for Microsoft SQL Servers although the Data Collection option: "Discover tables within schema" was deactivated in the Discovery Configuration.

## Web UI – Alpha Version

### **New: Context menu "Change SNMP Credentials" implemented**

The context menu action to change the credentials has been implemented.

### **Improved: Context menu disabled state**

A context menu gets disabled when all children are disabled.

### **Bugfix: disabled old security protocols for accessing Web UI**

Web UI supports modern TLSv1.2 and TLSv1.3 only.

## Release 5.0 - Build 5060 (Mar-26 2021)

### **New Devices:**

- Cisco RVxxx VPN Router

### **Improvement: Cisco IP Phone Detection**

We have improved the Cisco IP Phone type detection when the IP phones get identified via LLDP-MED when scanning the switch attached to the IP phone.



**Bugfix: Installation stops with 1641 error**

During the setup sometimes the error code 1641 is raised. This means after the installer initiated a restart. This error code is actually not a real error, but is more an informative return code.

**Bugfix: Extreme Networks Virtual Access Point Controller**

Extreme Networks virtual access point controllers changed its type and lost the connection to the managed access points when scanned indirectly via a VMware Vcenter.

**Bugfix: FreeBSD Processor Discovery**

We didn't get the processor information in all cases on FreeBSD computers (especially when running as a VM on a physical host).

**Bugfix: HPE iLO2 devices not identified due to HTTP/S timeout**

HPE iLO2 management cards/devices sporadically have not been identified properly due to HTTP/s protocol timeout issues. Obviously, ILO2 devices respond extremely slow to HTTP/S requests. Because of that the discovery now uses a minimum timeout of 10 seconds to wait for pending HTTP/S requests.

## Release 5.0 - Build 5059 (Mar-23 2021)

**New Devices:**

- Konica Minolta Bizhub 282
- APC UPS Device
- Quantum Table Libraries
- Gude Expert Power Control PDUs

**New: Aruba Switch File Collection implemented**

The file collection for Aruba Switches has been implemented.

**Improvement: Discovery of recent HPE 3PAR/Primera disk arrays**

More recent HPE 3PAR/Primera disk arrays models are now correctly discovered (using the SSH protocol).

- The disk array serial number and OS version are detected.
- The physical disk size, type (HDD vs. SSD) and bus type (SAS, SATA, NVMe, etc.)
- Processors in each disk array controller are discovered.

**Improvement: Discovery of recent HPE MSA disk arrays**

More recent HPE MSA disk arrays models are now correctly discovered using the SNMP protocol.

**Improvement: MedialInfo and NVIDIA Name Normalization**

MedialInfo software and NVIDIA Driver names have been normalized.

**Bugfix: MongoDB OutOfBound Exception Fixed**

Linux MongoDB installations path was being accessed when it was empty.

**Bugfix: Installation stops with 3010 error**

During the setup sometimes the error code 3010 is raised. This means after the installation Windows wants a reboot. Unfortunately we handled this as an error.

**Bugfix: HTTPS connection failed**

The HTTPS connection failed for very old devices with outdated ciphers.

**Bugfix: Scheduled Database Archive on SMB Share failed**

The scheduled archive failed when the target directory is on a Windows shared drive (local drive and SFTP server worked fine).

**Bugfix: Scheduled Report Export and Mail**

Reports which have in some buttons in the right area of the UI could not be exported or sent by mail on a scheduled bases.

## Web UI – Alpha Version

**New: Context menu “Clear cached Accounts” implemented**

The context menu to clear the cached credentials has been implemented.

**New: Context menu “Change Accounts” implemented**

The context menu to configure the accounts for a device has been implemented.

**New: Context menu “Disable Protocols” implemented**

The context menu to disable discovery protocols for selected devices has been implemented.

**New: Context menu “Discover IP” implemented**

The context menu to discover the IP addresses of the selected devices has been implemented.

**New: Context menu “Reset Discovery Protocols” implemented**

The context menu to reset the disabled discovery protocol settings for selected devices has been implemented.

**New: Angular-Splitter is replaced with PrimeNG Splitter**

The splitter used in the tree component is using now the PrimeNG Splitter.

**New: Report Toolbar “Reload Button” implemented**

The reload button is now reloading the data when clicked.

**New: PrimeNG Library Updated**

Since the new release from PrimeNG had some major fixes. We updated the library to the latest version (11.3.1).

**New: Added Density To Tree Report**

Tree row height adapts also now to density changes made to preferences.

**New: Initial work on the help system**

We have started to integrate the first help pages in order to provide a preview and get feed back.

**Improvement: Tree Search Field Styled**

Tree search is now styled based on JDisc styles guidelines.

**Bugfix: Layout Issue in Database Page Fixed**

The table was not taking the whole empty area on the right side of the tree in Database page.

## Release 5.0 - Build 5058 (Mar-12 2021)

**New Devices:**

- Moxa Exxxx port server
- QLogic San Switch Module for IBM Blade Center
- Blue Coat ASG Security Appliances
- AudioCodec Mediant Session Border Controller
- Cisco APIC Servers
- Cisco APIC Server Management Modules
- Perle IOLAN Console Servers
- Eizo IP Monitor

**Improvement: Comnet Switch Topology**

The network topology was not as good as it could be due to an anomaly in the LLDP data for comnet switches. We have implemented a workaround for that.

**Improvement: Serial Number for IBM Tape Libraries**

We didn't get the serial numbers for all IBM tape libraries.

**Improvement: Fortigate Firewalls**

Some Fortigate Firewalls were not scanned correctly due to an incomplete entity mib table. We have implemented a workaround.

**Improvement: Mobotix WEB Cams**

We have added the identification for more Mobotix webcams and we are also getting the serial number and the firmware version.

**Improvement: Network Topology**

We have implemented a workaround for Siemens Simatic switches which do not properly populate the SNMP LLDP table. Therefore, we could not determine the topology for the switch.

Furthermore, we found some switch with a different mac address format in the LLDP mib. We also fixed the parsing for this variant of mac addresses.

**Bugfix: Application Report**

Then navigating from the application report to the application version report, then the query result was not correct and did not display all versions.

**Bugfix: Azure VMs change types**

AzureVMs could change its type to “Computer” when scanned directly. This has been fixed.

## Web UI – Alpha Version

**New: Report Navigation**

It is not possible to move from most reports to other reports using the context menu or a double-click on a row in a table.

**New: Context Menu Enabled State**

The context menu items are enabled or disabled based on the selection and the required permissions to execute an action.

**New: Context Menu Item “Change VMware Accounts”**

We have implemented the “Change VMware accounts” context menu item as a first example how change account operations look like. We will implement the remaining items as next steps.

**New: Context Menu Item “Change HTTP(s) Accounts”**

We have implemented the “Change HTTP(s) accounts” context menu item as a first example how change account operations look like. We will implement the remaining items as next steps.

**New: Context Menu Item “Connect with HTTP(s)”**

We have implemented the context menu action to connect via HTTP(s) to a selected device.

**New: New Collapsible Component Created**

In order to have more info at hand in places where there is much information to show, we have created a collapsible panel. Like the one under “device details => software => java” tab.

**New: The Tree Report Styled**

The tree report now shows the corresponding icon and reflects the right theme

applied.

**Improvement: Horizontal Bar for Tree Report**

Tree navigation is optimized with a horizontal bar.

**Improvement: Tree Report Has Its Text in One Line**

Tree nodes have now their texts in one line when resized. Node icon also stays and is not truncated.

**Bugfix: Fix for Table Layout in Old Chrome**

The report table was not showing the rows in old Chrome versions like 64.0.3282.186 (Official Build) (32-bit) because of a layout issue.

**Bugfix: Fix for “Java” Tab Table Rows**

Second tab's report in “Java” installations was not being shown because the table was being loaded without being shown. Now the table only first loads when the user actually switches to the tab.

**Bugfix: JDisc Avatar Icon Right Color For Dark Theme**

The JDisc avatar icon on the top-left of the main page now has the correct color also in the dark mode.

**Bugfix: Risky Java Installations Shown Correctly**

Java installations tab was always showing green even when there was a risky installation included. Now it reflects the right flag.

**Bugfix: Java Panel Was Not Propagating Device ID**

The Java panel was not setting the device id once it was clicked. Now it adds the device id so that other top menu items can use it.

## Release 5.0 - Build 5057 (Feb-26 2021)

**New Devices:**

- Fortinet FortiSwitch switches
- More Lenovo devices added to our model lookup table
- Dell Wyse 50XX ThinClients

**New: Azure Virtual Network Discovery**

In addition to the virtual machines and some services, we are also collecting now information about the virtual networks assigned to subscriptions and resource groups (including name and location). We can also delete networks which are being deleted in the Azure cloud automatically from our database. This option is enabled by default and can be changed in the cloud settings for the Azure cloud.

**Critical Bugfix: SSH fails on all Unix Computers**

A bug introduced in build 5056 lead to failures in SSH connections to Unix computers. This has been fixed with 5057.

**Bugfix: SNMPv2c was ignored**

When SNMPv2c was successful in addition to SNMPv1, then we were still using SNMPv1 for the queries. SNMPv1 is much more inefficient when it comes to large SNMP tables. SNMPv2c offers a bulk request to get larger chunks of data with one network request which is more efficient and faster.

## Web UI – Alpha Version

**Improvement: Logout & Hamburger Button Relocated**

For better usability the hamburger button on the home page has been added to the top-left and logout button has been moved to the top-right of the page.

**Improvement: Logout & Hamburger Button Relocated**

An avatar logo of JDisc is shown when the main menu shows only the icons of the items.

## Release 5.0 - Build 5056 (Feb-24 2021)

**New Devices:**

- Gigaset Nxxx IP PRO voice gateways

**New: Lenovo Mappings added**

More Lenovo part-number to model mappings have been added.

**New: Arista EOS Switch File Collection**

We have added the config file collection for Arista EOS Switches (show running-config, show startup-config, show version).

**Improvement: Aruba AP Controller**

We collect the list of WLAN SSIDs for Aruba access points managed by access point controller and connect the WLANs with the access points which expose a WLAN.

**Improvement: Vendor adjusted**

Pulse Secure has taken over the Juniper VPN appliances. Therefore, we have adjusted the vendor from Juniper to Pulse Secure.

**Improvement: Directory Login Scanning (DLS) optimization**

Directory member computers often roll their directory last logon date/time

unexpectedly (not just at the time of the last reboot). This has caused frequent rediscoveries even when the "Discover devices only once within <xxx> days" option in the Discovery Job settings was enabled.

Now directory member computers/devices are identified using their computer account name and are only rediscovered if the last discovery time is past the time designated by the "Discover devices only once within <xxx> days" value.

**Bugfix: Serial Number missing for IBM Tape Library**

We were not collecting the serial number for some IBM tape libraries.

## Web UI – Alpha Version

**New: Page title added for each page**

Each page (including reports) has now a page title.

**New: Links in Device Details added**

Some device details properties include links which navigate to other devices or information. Those links have been added to the device details page.

**New: Application Start Mode Feature Added**

Start mode like "reporting", "stopped" and "started" are available in the WEB UI code. This still needs to be added to different parts of the WEB UI.

**New: Device Details Java Licensing Page implemented**

The Java licensing page within the device details page has been implemented.

**Improvement: Responsive Top Menu Items**

Top menu items have now a container which make them responsive to window size changes.

**Started: Initial work on Tree based Reports**

We have started to implement tree based reports (such as Directory reports, or database reports, or cloud structure reports). This is still under development and not finalized yet.

**Bugfix: Table Layout Fix In Software → Java Tab**

The table was not showing the rows because of its height. Now it covers the remaining height of the area and shows the rows correctly.

**Bugfix: Help Panel Fix Under Software → Java Tab**

The regex match was returning null and therefore couldn't show the help panel. Now help panel shows properly in Software → Java tab.

**Bugfix: Context Menu Selection Fixed**

Table context menu used to select multiple rows as you hovered over one item. It only selects one as it should.

# Release 5.0 - Build 5055 (Feb-12 2021)

## **New Devices:**

- Axis Ethernet Switches
- Comnet Switches
- Siemens SCALANCE Switches
- Adva FSP... DWMS

## **Improvement: Stack Member Naming**

Switch stack members had no name in the past. In some cases, it is important to know which device is the first stack member and which one is the second. Therefore, we decided to adjust the name for the stack members to "<stack name> Stack Member 1, 2, ...".

## **Improvement: Arch Linux Application discovery**

We have added application discovery support for Arch Linux using the pacman command.

## **Improvement: Improved File Naming for exported Reports**

When scheduling a report export, the filenames were created by appending a large number which represents the elapsed milliseconds since a specific date. We have changed the format to be more readable to YYYY-MM-DD\_HH-MM-SS-MILLI.

## **Improvement: Assigning desktop device type to HP desktop computers**

In some cases WMI does not return enclosure information on HP ProDesk computers (maybe because the system management BIOS was not correctly flashed). As a result the device type was set to computer. Now the device type of HP desktop computers is also derived from the model name and set accordingly.

## **Updated: Postgres**

We have updated the embedded Postgres version from 13.0.1 to 13.2 due to issues at one customer.

## **Bugfix: Detection of Fujitsu iRMC server management devices**

Fujitsu iRMC server management devices have been incorrectly detected as Hewlett-Packard Lights-Out 100 Remote Management devices.

## **Bugfix: LLDP-MED Devices**

We did not use all LLDP-MED information to identify the model, serial number and manufacturer for devices within the LLDP-MED table of switches.



**Bugfix: Device Naming**

In some cases, we used the device's IP address as name although we have a SNMP system name.

**Bugfix: Cisco Catalyst 68xx Discovery**

Cisco Catalyst 68xx switches have been identified as router.

**Bugfix: Interfaces missing and incorrect network/switch topology**

Due to a bug in the interface joining algorithm that consolidates interface information from different sources and protocols in some cases interfaces were missing and thus the network/switch port topology was incomplete.

## Web UI – Alpha Version

**New: support of PFX import**

Many new device details reports added. Documentation for some of the new reports added.

**New: Date Format configurable in Preferences**

The date format can be configured in preferences dialog (short or long date format).

**New: Added Renderers to table columns**

We have added renderers to table columns for some cell which can have now icons instead of text. We use this for instance for columns having boolean values.

**New: Handle Table Cells with more than one row**

Some table cells can have multiple rows. We have implemented a cell renderer for the HTML table that is capable of displaying that correctly.

**New: User Rights Checker Added**

We can now add the user rights to different sections of the app in order to prevent unwanted access by unprivileged user. There is also a new permission denied page created where you can see the current user rights and the required rights to the that specific page.

**Bugfix: support of PFX import**

Files created by Windows certmgr.msc were not handled properly due to password protection. Now it is possible to import.

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**Bugfix: relaxant login via API interface**

The login operation format became too restrictive started since 5054. Made it more relaxant, as it was before build 5054.

**Bugfix: Scrollbar Resets Position After Sorting**

Now the vertical scrollbar gets back to the top of the table after sorting column changes. It used to stay in the middle of the table even after sort change.

**Bugfix: Correct Coloring for Empty Table in Dark Mode**

White row is fixed in empty table in dark mode. It used to be a white row shown if the table was empty.

**Bugfix: Alternating Coloring Fixed**

Now the table shows correct alternating coloring and doesn't change as the user scrolls.

## Release 5.0 - Build 5054 (Feb-03 2021)

## Discovery

**New Devices:**

- Gude Export Net Monitoring Device
- Mitel TA-xxxx VOIP Gateways
- Extreme Networks AP Controller Appliance

**New: Network Creation Policy**

Many customers mentioned, that the automatic network creation of JDisc Discovery might not always be a good idea. Until now, JDisc Discovery uses the device's IP address and configured sub-network mask to create a network and assign the device to the network. That is usually correct, but might create issues when the algorithm is creating networks for devices with misconfigured networks masks.

Therefore, we have introduced new options in the discovery's General Settings dialog:

	<i>Network</i>	<i>Creation</i>	<i>Policy.</i>
--	----------------	-----------------	----------------

There are three options:

1. *Never:*

Never create new networks based on the device configuration. With this option, you will only see the networks that you explicitly create!

2. *Always:*

Always create networks based on the device configuration (this is how the old implementation worked)

3. *Trusted Devices Only:*  
This is the new default and with this option, we only create networks from trusted device types such as router, switches, firewalls. We assume that the configuration on those devices is supposed to be correct. Otherwise, you will have other network issues.

Refer to our blog for more details:  
<https://blog.jdisc.com/2021/02/02/network-creation-policy/>

### **New: Delete Networks**

You can delete networks from the IP4 and IP6 network report using the context menu.

### **New: Get Sound Cards for Windows Computers**

We have added the data collection of sound cards for Windows computers.

### **New: Web UI: Table Footer Update**

Table footer now shows the number of remaining devices in the table after the search and also displays number of selected devices at the footer of the table.

### **Improved: Oki Printer Detection**

OKI printers have been detected as two separate devices: a print server and the actual printer. This has been changed. Now, we just get one single device for the printer.

### **Improved: LLDP Network Topology Detection**

We missed the situation, where the LLDP entry contained only a unique target mac address and did not create a connection in those cases.

### **Improved: Web UI: Disabled Icon Color for Dark Theme**

Button icons had indistinguishable color when they were disabled, but now they have a vivid difference in disabled mode.

### **Improved: Web UI: Same Color Added for Headers**

Table headers have now the same colors as the table background color in the dark mode for more readability.

### **Bugfix: Exclusion filters for device names were missing host names**

The exclusion filter did not take all hostnames into account. Because of that deleted devices ("Delete and exclude devices by name" option) were coming back – depending on the available hostname and the hostname set to exclude the device (name in the report).

### **Bugfix: SNMP Workaround for Moxa NPort Devices**

The SNMP agent on Moxa's NPort can be buggy with some versions. When querying the interface table, it simply returns the list of tables indefinitely and thus only finishes after reading a couple of hundred of thousand rows which can take a while.

We have added a workaround to detect the interface table repetitions.

**Bugfix: Very slow Windows Remote Registry access**

The Windows remote registry tunneling failed when the configured discovery user had not been granted interactive or network privileges on the target computer. In this case, remote registry access used WMI tunneling, but this works way slower than native or tunneling remote registry access. Therefore the discovery duration of computers significantly increased.

**Bugfix: Custom report (Virtual Computer\*) displayed only once**

Custom reports displaying any of the Virtual Computer\* attributes did only show one sub-row even if there are more in the database.

**Bugfix: Web UI: Fixed the Overflow Issue in Device Details**

In device details section, overflow was not set to auto and therefore the table window was going out of its bounds.

## Web UI – Alpha Version

**New: First Context Menu Action implemented**

The first context menu action from the devices menu has been implemented: Discover > Selected Devices.

**New: Device Properties Page integrated**

The device properties page has been integrated and a subset of all reports have been added. That should provide a preview on the look and feel. Simply double click on a device or select the *Properties* context menu to open the properties page.

**Improved: The “Open in New Window” icon relocated**

To make more room for “read more panel”, the “Open in New Window” is moved to another column in the layout of read more panel. It only appears in a separate row only if there is a title/subtitle/icon available.

**Improved: The “Open in New Window” icon relocated**

To make more room for “read more panel”, the “Open in New Window” is moved to another column in the layout of read more panel. It only appears in a separate row only if there is a title/subtitle/icon available.

**Improved: Color and Remove Extra Header**

The extra header for “rowld” has been removed and the color of extra space at the very end of the table has changed to have the same color as the rest of the table.

**Improved: Upgrade to PrimeNG**

PrimeNg version upgraded to version 11.2.0 for bug fixes.

**Improved: Increase in “very small” header width**

For more readability, the “verySmall” header width has been increased to make more room for the data inside the column.

**Improved: Table width Optimized**

Table width is now equal to sum of column header. This is good for tables with low number of columns where they don't need to take the whole width of the screen.

**Improved: Background Color for the row in Focus**

instead of outline color, we now have background color for the row in focus.

**Bugfix: Removed Overlapping Issue of Input Field and Error Message**

In login dialog, the error message was shown on the password input field which is now fixed.

**Bugfix: Web UI: Fix for Table Layout Issue**

Table components were based on some percentage to take up the required space, but now they are more responsive without the percentage.

## Release 5.0 - Build 5053 (Jan-22 2021)

**New Devices:**

- Some more Mikrotik router
- Konika Minolta Generic printer added

**WEB UI**

- Context menu creation added to the reports (but not functional yet).
- Row selection
- New: PKCS#1 format for private key during certificate import
- Context menu integrated as UI preview (non functional right now).
- User preferences dialog can reset the settings for hiding confirmation dialogs.
- A new dialog Administration > Server Health displays some key performance data for the discovery server (total memory, used memory by the discovery and web server process, available disk space).

**Bugfix: Powershell Version**

Powershell didn't appear in the application list. We added a new feature to detect the powershell version and store it as application with version in the application list.

**Bugfix: Cloud Discovery Job log not written**

Due to a bug when writing the device data, the discovery job log for the cloud discovery was not written.

**Bugfix: Azure VM Subnet Mask**

We didn't get the subnet mask for virtual machine network interfaces within virtual networks.

**Bugfix: Missing library on client-only Installation**

Due to a missing library in the client-only installation, custom SNMP table data collection could not be configured.

**Bugfix: SSH Key Import failed**

In some cases, the SSH key import failed because we had an issue in the decoding of the SSH key.

**Bugfix: Java startup flags wiped during setup**

If the Jdisc database is dropped during a reinstallation of Jdisc Discovery, the Java startup flags in the registry are not restored.

**Bugfix: Windows computer with duplicated computername deleted**

Windows computers sharing the same computername /domain or workgroup (potentially all cloned from the same VM) but different MAC addresses, IP addresses, serialnumber were deleted from the database (due to device merging). This happened when a Windows computer having the same computername / domain or workgroup was discovered without access credentials.

## Release 5.0 - Build 5052 (Jan-15 2021)

**New Devices:**

- HPE Console Switches

**New: Aruba Switch File Collection**

We have added the capability to collect configuration files from ArubaOS switches via SSH. By default, the command "show running-config" is configured. More commands can be added on by configuring the file collection settings for Aruba switches.

**New: WEB UI: Help Page**

A read more panel has been created in order to explain what a page or specific feature does or represents exactly. This panel can be opened by clicking on the question mark available in the page. You can open it with SHIFT + click to open in in a new window or with CTRL + click to open it in a new tab.

**Improved: WEB UI**

- new Administration > Server Health page illustrating the server memory,

- disk usage and cache sizes.
- added import of the certificate in PEM encoding
- added import of private key next to certificate

### **Improved: Raspberry Pi Discovery**

We have implemented new commands to retrieve the Raspberry Pi model and serial number information. We also added code to get the ARM processor information.

Furthermore, we classify Raspberry Pi computers running NoTouch OS as ThinClients.

### **Improved: WPA3 / WPA3-SAE support for Windows computers**

The WPA3 / WPA3-SAE protocols are not properly detected on Windows computers.

### **Improved: Delete Applications**

Applications can be deleted from the Software > Applications report.

### **Improved: Directory Service Account and Password change**

Directory Service Account and password changes

- in the *Discovery Configuration* dialog > *Directory | DNS Domain* tab
- or using the *All Login Credentials* report (*Change login & password | Change password*)

are now invalidating the LDAP connection cache and thus make the changes effective almost immediately. Release 5.0 - Build 5051 (Jan-07-2021)

### **Bugfix: WLAN with Unknown authentication method duplicated**

WLANs were duplicated when the discovery could not detect the WLAN authentication method (Unknown).

### **Bugfix: XenServer 6.5 and 5.6 Scan fixed**

XenServer 6.5 and 5.6 could not be scanned due to a wrong command being issued at the beginning of the SSH connection.

### **Bugfix: Name Change not Recognized**

Name changes of VMs in the VCenter have not always been recognized (when both – old and new value - are not FQDNs, but only simple names).

### **Bugfix: SNMP Workaround added for Sophos AP Controller**

We are reading some very large SNMP tables on Sophos AP controllers. We are calling now a workaround to get the information when we didn't get it in the first place.

### **Bugfix: Connection mode ignored**

The WLAN connection mode (per Computer attribute) was falsely ignored and not stored in the database.

### **Bugfix: Cloud discovery based devices not assigned to device groups**

Devices that were discovered by cloud detection (i.e. Microsoft Azure, Amazon AWS, Cisco Meraki, or Hetzner Cloud) were not automatically assigned to device groups.

## Release 5.0 - Build 5051 (Jan-06 2021)

### **Bugfix: Executable / binary signing**

Due to a bug service outage at Verisign JDisc Discovery binaries/executables have not been signed in Build 5050.

## Release 5.0 - Build 5050 (Jan-05 2021)

### **Improved: WEB UI**

- new GraphQL queries to list all certificates

### **Improved: Supermicro Model Matching**

JDisc Discovery uses a matching algorithm to get the type based on the model string for Supermicro servers. However, there have been a few exceptions to the naming rules which we have implemented now.

### **Bugfix: Custom Attribute Collection Editing**

A bug introduced in build 5049 prevented editing custom attribute custom data collections.

## Release 5.0 - Build 5049 (Jan-04 2021)

### **New Devices:**

- More recent Yealink IP phones
- More recent HPE StoreOnce Backup Systems

### **New: Sophos Security Appliance managing APs**

We detect the managed access points when a Sophos security appliance manages access points.

### **New: Custom SNMP Data Collection**

Starting with this build, you can create your own custom SNMP data collections and store them within our custom attributes.

Read more about this feature in our blog:

<https://blog.jdisc.com/2021/01/03/snmp-custom-data-collection/>



**New: Windows Service Logon As User information**

The Logon As User information is now discovered for all Windows services.

**Improved: Local User Groups discovery on Domain Controllers**

JDisc Discovery now discovers also local user groups and members on Windows domain controllers using Windows remote login.

**Improved: WEB UI**

- new GraphQL queries to list all custom attribute definitions.
- new GraphQL queries to obtain custom attributes from devices.
- new GraphQL queries to obtain table based custom attributes from devices.
- Allow empty passwords when importing HTTPS certificates.

**Bugfix: Client Remote Connection**

An issue introduced with build 5045 three weeks ago prevented the remote client to connect to a server. This has been fixed.

**Bugfix: Very slow Windows Remote Registry access**

The Windows remote registry tunneling failed when the configured discovery user had not been granted interactive or network privileges on the target computer. In this case, remote registry access used WMI tunneling, but this works way slower than native or tunneling remote registry access . Therefore the discovery duration of computers significantly increased.

## Release 5.0 - Build 5048 (Dec-20 2020)

**Bugfix: Scan fails**

When looking up the mac address for a device using a router's ARP cache, then the device discovery could fail when the router responded in a non standard manner.

We have changed the error handling here so that it does not ruin the complete device discovery.

**Bugfix: SSH Key Import**

Due to too restrictive tests, we were not able to import some SSH keys created on Ubuntu.

**Improved: WEB UI**

- Login now redirects to requested page after successful authentication
- The layout is now taking the needed space instead of whole available space and this makes the scrollable content possible.

## Release 5.0 - Build 5047 (Dec-15 2020)

### **New Devices:**

- GeoVision IP Cameras via SNMP
- Dell (Wyse) Thin Client 31xx
- Many new IBM desktops and laptops added to the IBM part-number to model mapping table.
- Synology FS Flash Stations

### **Improved: WEB UI**

- import your authorized certificate into JDisc Discovery WEB server
- the report toolbar SQL icon displays query
- dead session detection when user logging out
- when user logs out report cache gets cleaned
- new GraphQL query to obtain certificates installed on an operating system's certificate store.

### **Improved: IBM DB2 Discovery**

We can determine the DB2 instance port using some command line tools in addition to the ports from processes.

### **Bugfix: Juniper Ethernet Switch Discovery**

Some Juniper Ethernet Switches don't use the standard SNMP system description. We implemented a workaround in this case to scan them properly.

### **Bugfix: TCP/IP Connection ignored**

The Dependency Mapping Add-On ignored TCP/IP connections for process communication on the local server when using 127.0.0.1.

## Release 5.0 - Build 5046 (Dec-05 2020)

### **Bugfix: Custom Attributes written twice**

The custom attributes have been written twice to the database. This causes duplicate history entries for the custom attributes.

## Release 5.0 - Build 5045 (Dec-04 2020)

### **New Devices:**

- Some more Riello UPS devices
- Mobotix vXX Cameras
- Mobotix MXX Cameras
- TP-Link Ethernet Switches

- Some more WAGO field bus controller
- AKCP sensorProbe devices
- Priva Industrial Controller
- Rittal LCP Cooling Device

### **New: IP Phone discovery using LLDP-MED**

We have extended the discovery to use the LLDP-MED protocol to identify IP phones. LLDP-MED is often provided by modern switches and returns information about the attached media devices such as IP phones.

Refer to our blog entry for more details: <https://blog.jdisc.com/2020/12/03/lldp-med-improved-discovery/>

### **Improved: Mobotix Camera Detection**

Mobotix cameras have been identified by HTTP only. Now, we also added the HTTPS protocol.

### **Bugfix: Duplicate Devices**

When scanning Cisco UCS servers, there could duplicate device when a server gets scanned via the blade chassis and when scanned directly.

### **Bugfix: MAC Based Manufacturer Detection**

The MAC address based manufacturer detection was not called in every applicable situation. The manufacturer detection based on the device's mac address was not called when a device has two network interfaces, but only one single MAC address.

### **Bugfix: Custom Data Collection using Jumphost**

It was not possible to run custom data collection scripts on Unix devices when using a jumphost to connect to a Unix server.

### **Bugfix: Wrong IPv6 Mask**

The IPv6 network mask was wrong when read from the IP-MIB.

### **Bugfix: DB2 Discovery**

The DB2 discovery on Unix did not work when the db2inst user was not created.

### **Bugfix: XCP-NG/XenServer VM State Issue**

XenOrchestra can create backups of VMs. The backup VM receive the same mac address as the original VM, but always has the state *stopped*. When matching the VM with devices in the database, this could lead to VM being marked as stopped although they are running. Our parser ignores now the backup VMs.

# Release 5.0 - Build 5044 (Nov-27 2020)

## **New Devices:**

- QNAP TVS NAS Devices

## **New: Click To Run Detection**

On Windows computers, we detect whether an application is installed as Click To Run application.

## **New: Application Source**

We introduced a new field that indicates where an application is coming from. On Windows, there are several possibilities (like Add/Remove Programs), Windows or system components or even an App from the Microsoft App Store. On Unix, we store whether the application comes from dpkg, rpm or any other packaging tool.

## **Improved: GraphQL API Functions**

- added the basic SNMP information object.

## **Improved: Windows Domain account and password configuration**

Windows Domain, DNS Domain Controller, and Active Directory Object accounts are now automatically synchronized with all referencing objects when changes are made in the user interface. The changed Windows Domain accounts and passwords are also automatically propagated to all associated devices and default accounts.

*Note: This improvement is designed to reduce the frequency of account lock-outs that can occur when a Windows domain account password has been changed. In this case, the old (cached) password for the devices in the database was not adjusted and then tested first during the next discovery run.*

## **Improved: VRRP Discovery**

We have used dummy network interfaces for VRRP virtual router IP addresses. We learned now how to assign the VRRP IP addresses to the correct existing network interfaces.

## **Improved: Database Custom Report**

You can choose the database instance name when listing the databases. With the new field, you can relate a database to its instance name.

## **Improved: Devices with MAC Addresses only**

JDisc Discovery uses ARP caches from routers and other devices to determine the MAC addresses for devices on the network where we could not determine the mac address in other ways. However, when a network interface has two configured IP addresses, then the device was flipping between the two IP addresses.

We modified the code to detect them all and assign all IP addresses to the

actual interface.

### **Bugfix: Unify OpenScape Business System Name**

The SNMP system name for Unify OpenScape Business devices contain non printable characters. Therefore, we ignore the SNMP system name when getting the device name.

### **Bugfix: Supermicro Server**

Some Supermicro servers have been identified as workstation. We fixed this issue.

## **Release 5.0 - Build 5043 (Nov-20 2020)**

### **New Devices:**

- IBM Integrated Management Module (HTTP(S) based detection)
- Sophos Security Appliance (HTTP(S) based detection)
- GeoVision Cameras (HTTP based detection)
- Lexmark CX printer
- PCS Intus 5300

### **Improved: WEB UI**

- New reports and dashboard items added to the reporting section
- User preferences are now persistent
- Report row sorting, filtering
- GraphQL getting started guide and GraphQL schema page added

### **Improved: GraphQL API Functions**

GraphQL API keep working after Discovery backend restarts.

### **Improved: Certificate Path in Custom Reports**

The certificate path has been missing in the custom report selection.

### **Improved: Naming for IGEL Thin Clients**

We improved the naming for IGEL thin clients and removed some unnecessary suffixes within the model name. Also some IGEL thin clients appear with the vendor DTV. Our code is going to fix this issue.

### **Improved: Detection of Dell notebooks / laptops**

Sometimes the device type for notebooks of the Vostro / Latitude / Inspiron and Studio families is set to computer. This is caused by incomplete / missing chassis information in the system management BIOS. The discovery now parses the model string and sets the device type to Laptop if it matches any of the above notebook families.

### **Improved: Configurable Temp Folder**

You can define the directory on the server for temporary files in the *Administration > Manage Storage Location* dialog. Up to now, we were using the Windows default temp folder which usually resides on c:\windows\temp. While that is not an issue for smaller files, it can become an issue during archiving and restoring large databases. Especially when the system partition is comparably small.

Related to this is also a new FAQ entry which explains how to migrate the database files from the default location c:\ProgramData\JDisc\... to any other drive.

Refer to <https://www.jdisc.com/en/support/faq.html#c2863> for more details.

We are also working on a new feature to let the user change the default location for data files (database + temp files) during the installation!

**Bugfix: Filtering ignored for Gateways, DNS Servers and DHCP server**

The discovery ignored IP and Attribute Exclusion Filters for default gateways (routers), DNS servers and DHCP servers that were detected on a device. Consequently, such devices were always created in the database no matter what IP and Attribute Exclusion Filters were configured.

## Release 5.0 - Build 5042 (Nov-06 2020)

**New Devices:**

- Hirschmann MACH Switches

**Improved: GraphQL API Functions**

- delete cluster from database
- delete events from database

**Improved: All Login Credentials Report**

The All Login Credentials report now also shows application instance accounts (i.e. for Databases etc.).

**Improved: HPE Comware Switch Model**

We have improved the model detection for HPE Comware switches.

**Improved: Protocol/Cipher config. for Client-Server Communication**

The new default protocol / cipher for the Java RMI Client - Server communication is now set to **TLSv1.3 / TLS\_AES\_256\_GCM\_SHA384**. The "Administration and Security Guide" explains in detail how to change the protocol and cipher configuration.

**Bugfix: Non-identifiable IP addresses fed into the discovery queue**

During the discovery of a device, JDisc Discovery also finds new IP addresses

of related / connected devices. Such IP addresses are fed into the discovery queue to also cover those devices. In rare cases non-identifiable IP addresses (i.e. loopback, link-local, etc. addresses) were fed into the discovery queue. This could cause the discovery to create devices having those non-identifiable IP addresses in the database.

## Release 5.0 - Build 5041 (Oct-29 2020)

### **New Devices: Oracle ODA Servers and ILOM**

We can scan the Oracle Database Appliances using SNMP. We also get the managing ILOM card and create the connection between the management board and the actual server.

### **New: Fujitsu Eternus Disk Array Discovery**

We can make use of SSH and command line tools to gather more detailed information for Fujitsu Eternus disk arrays.

### **New: SNMPv3 Engine ID**

We are collecting the SNMPv3 engine id for remote devices supporting SNMPv3. The SNMPv3 engine ID can be useful when configuring monitoring software.

### **New: Volumes for NetApp in Cluster Mode**

We are collecting now file system and volume information for NetApp disk arrays in cluster mode. The information will be stored on both disk array controllers.

### **Improved: Mapped Printers**

On Windows systems, the discovery now also gets the TCP/IP printer port including the name and IP address and relates them to printers on the network. In addition to that the discovery also interrogates the printer status (i.e. "Printer paused", "Paper jam", etc.).

### **Improved: OS Version for Checkpoint Firewalls**

We get the correct version (Gaia xxx) for checkpoint firewalls. Before, we were just getting the underlying Linux operating system version.

### **Updated: Postgres 13**

We have updated to version 13 of the postgres database server. The new version has performance improvements when managing indexes.

### **Improved: Cisco Access Point Controller Discovery**

We did not get the list of all access points due to an inconsistency in the SNMP mibs. The new build contains a workaround to get all connected access points.

### **Bugfix: Corrupt Database Archives**

Due to a bug in the Postgres JDBC driver, JDisc Discovery was creating corrupt database archives with duplicate and/or missing entries. Those archives could not be imported anymore and required manual fixing. Now, we have found a workaround and starting with build 5041, there should be no more corrupt archives.

**Bugfix: HPE Switch Model Detection**

We didn't get the proper model name for some HPE Comware and FlexFabric switches.

**Bugfix: Oracle Database Discovery on Windows**

We were getting SID names from the registry. However, we found out, that the information is not really reliable. So we just focus on services, processes and config files for getting SID names.

## Release 5.0 - Build 5040 (Oct-18 2020)

**Improved: GraphQL API Functions**

- delete datacenter from database.
- set ssh-, http-, databases-, snmp- and user accounts for discovering devices

**Improved: All Login Credentials Report**

The All Login Credentials report now shows all occurrences of login credentials for devices and Windows Domain Controller (DC) or Global Catalog (GC) servers.

In addition to that the All Login Credentials report also shows the number of different passwords for any login credential. Configuring more than one password for a global login credential can result in user lockout. This can happen when the discovery process repeatedly uses incorrect passwords to establish a connection to a device.

**Bugfix: Alcatel-Lucent Stack Switch Detection**

We had issues to identify some Alcatel-Lucent stacked switches. We have changed our code to improve this.

**Bugfix: Scheduled Custom Reports**

Custom reports could not be scheduled for export or mail transfer.

## Release 5.0 - Build 5039 (Oct-07 2020)

**New Devices:**

- Allnet Switches
- Axis Network Video Encoder



- Honeywell Dsxxxx Intruder Detection Device
- Unify OpenScape Desk Phone
- Barox Switches
- Alcatel-Lucent Stacked Switch Support added

### **Updated: API Keys to access the Dell Warranty API**

The access credentials that we get from Dell usually expires after one year. Now, we have integrated an updated access key to further obtain Dell warranty information.

### **Improved: HPE Comware Switches**

HPE has changed the SNMP description strings for their Comware switches. Therefore, we needed to adjust our discovery capabilities to detect them correctly.

### **Improved: HPE Comware Stacked Switches**

We didn't get the stack for some HPE Comware stacked switches.

### **Improved: Serial Number for Yealink Phones**

We are using the mac address as serial number for Yealink IP phones.

### **Improved - Web UI: Breadcrumb Shows Reports Id**

We defined types for different links in the application so that we can decide which link should appear where. Therefore, now the breadcrumb can only show the right items like "Reporting > By Model" and not "Reporting > Devices By > By Model".

### **Improved – Web UI: Right aligned numbers in the report**

Table now right-aligns the numeric columns.

### **Improved – Web UI: Report column resizing set to expand**

Columns headers can now be resized without compressing other headers and can be set to whatever width it is dragged to.

### **Bugfix: Topology assignment incorrect for multi-homed Windows systems**

In rare case when Windows systems servers have multiple NICs the network topology switch port assignment was incorrect.

### **Bugfix: Incredible high interface speed on Windows systems**

The Windows Management Instrumentation (WMI) sometimes returns an incredible high interface speed (9223372036,85 Gbit/s). This is now detected and the interface speed is cleared.

### **Bugfix: WMI protocol not always tested on Windows systems**

The WMI native protocol access was not tested when

- *WMI Tunneling* was set to "use native access when tunnel fails"
- The SMB and Windows remote login protocols failed
- The operating system family was unknown because all other protocols

also failed including NetBIOS anonymous, HTTP/HTTPS and SNMP

## Release 5.0 - Build 5038 (Sep-16 2020)

### **New Devices:**

- Some Rittal PDUs

### **New: Microsoft Intune Integration**

The latest JDisc Discovery build can read devices managed by Microsoft's Intune. With this approach, we can even get information about the managed smartphones and tablet computers.

Read more in our blog: <https://blog.jdisc.com/2020/09/14/jdisc-discovery-and-microsoft-intune/>

### **Improved: Teradici Thin Client Discovery**

We are getting the manually set description and general tag information from Teradici thin clients. This information will be stored as custom attribute.

### **Improved: Xen Server Discovery**

When you connect via SSH to a hardened Xen Server, then you are connected to a special console. You need to send xsconsole in order to get to the ordinary Unix shell.

### **Improved: Filter out built-in Modules**

Cisco NX-OS switches sometimes report the built-in switch module as separate module. The switch module has the same serial number as the chassis. We will ignore those modules in the future and don't list them in the modules report.

### **Improved: MongoDB File Parameter Parser improved**

MongoDB Linux File parameter parser now looks also for "-f" parameter to find the configuration file. If not successful, then it takes the default path which is "/etc/mongod.conf" in Linux systems.

### **Web UI**

- Report table row height has been reduced for compact mode
- Header color has been changed

### **Bugfix: Mitel IP Phone Serial Numbers**

The Mitel IP Phone devices usually use the mac address as serial number. We did not always detect the serial number even if the mac address was provided.

## Release 5.0 - Build 5037 (Sep-04 2020)

### **New Devices:**

- Mellanox Onyx Switches
- More Mobitix WebCams
- Mitel MiVoice Office xxx Controller
- Sophos GS xxx Security Appliances via SNMP
- Extreme Networks Access Points (former Symbol AP)
- Extreme Networks Access Point Controller Appliance (VX....)
- Janitza UMG Power Sensors (also added to Measurement Add-On)
- Brocade Turbolron Switches

### **New: Microsoft Network Load Balancer Cluster Detection added**

We are detecting now Microsoft's NLB clusters. Furthermore, we added the mac addresses used for the NLB interfaces to the MAC address list that is ignored for identifying devices. Those mac addresses appear on all NLB cluster members and therefore, the cluster members could have been merged falsely into one device.

### **New: Delete Executable Files**

You can delete executable files from the executable file report.

### **New - WEB UI: Global Table Search added**

You can now search within all columns of the table.

### **GraphQL API:**

New function: delete devices from database.

### **Bugfix: SSH Connectivity**

The external SSH library that we are using selected the [aes256-gcm@openssh.com](https://ciphersuite.org/docs/3.0.0/aes256-gcm@openssh.com) cipher as a default. However, it seems that this cipher causes issues on some SSH servers. The SSH library vendor has now added a workaround to successfully connect in this case.

### **Bugfix - WEB UI: Table Cache Issue**

When the table was once fully fetched from the server, the sorting was not working when you scroll down again. This issue has been fixed by removing the cache so that the new data could be fetched accordingly.

## Release 5.0 - Build 5036 (Aug-28 2020)

### **New Devices:**

- Kentix Sensors and Sensor Management Devices
- Extreme Networks Linux based Switches (e.g. ES 220 Series)
- Some older Alcatel-Lucent OmniSwitches

**New: ARP Cache Reading from Routers/Routing Switches**

We can make use of a router's or routing switch's ARP cache in order to determine the MAC address for a specific IP address. This is similar to the feature where we are using a jump host to determine the mac address feature which was introduced a couple of weeks ago. We experienced that we don't have an available jump host (e.g. when a network consists only of IP phones and no computers). In those cases, we were unable to determine the MAC addresses. With the new feature, we can determine the MAC addresses when we have access to the corresponding router/routing switch/firewall.

**WEB UI: Table headers are resizable**

The width of the columns can be adjusted by dragging the headers edge to left and right.

**WEB UI: Self-Signed Certificate Import**

One can now import his own self-signed certificate into the Windows certificate store. That avoids locally the prompt because of the self signed certificate that is initially being used.

**WEB UI: Notification Pop-up**

Errors, information and other messages are shown to the user using notification pop-up.

**WEB UI: GraphQL instead of REST API**

REST API has been removed and GraphQL has taken its place.

**Improved: Use virt-what to determine Linux virtualization**

We are using now the virt-what command in addition to the systemd-detect-virt command in order to determine the virtualization technology used.

**Improved: Symantec Backup Exec Naming Normalization**

Symantec/Veritas used many different naming conventions for their Backup Exec software. That makes reporting much more difficult. We normalize the software naming and also detect patches which will be added to the patches list.

**Improved: Single lsof Command splitted into multiple calls**

In some cases, we have experienced that the lsof command runs into a memory issue when it is being applied to all processes. Therefore, we split the list of processes in chunks of 10 processes and apply the lsof to only 10 processes at a time.

**Bugfix: Filtering All Devices by Patch Level did not work**

When filtering devices by **Operating System and Patch** (Level) the actual Patch Level filter value was ignored and all devices with the designated operating system were returned instead.

**Bugfix: Discovery Job Logs did not appear**

There was an issue that the discovery job logs did not appear in a new Window. We have fixed this issue.

**WEB UI – Known Issue: Table is unstable**

The table is still not stable and might not show the right data in different situations.

## Release 5.0 - Build 5035 (Aug-14 2020)

**WEB UI: New internal Component for Tables**

For performance and functionality reasons, we have replaced the previously used component for displaying tables with a more efficient and flexible implementation. This makes scrolling, sorting and filtering much easier to use (and for us to implement).

**WEB UI: Configure the UI Density**

Depending on your preferences, you might use a more dense or more comfortable way to display data in the WEB interface. The dense mode allows more rows on the screen whereas the comfortable mode might be easier to read.

Refer to our blog for more details: <https://blog.jdisc.com/2020/07/01/small-screen-no-problem-new-web-ui-got-you-covered/>

**WEB UI: Initial GraphQL Interface ready**

This build provides the first version for our GraphQL interface that can be used to obtain data from our database or configure the application, trigger discoveries and perform other administrative tasks.

**Bugfix: Compression used for SSH Connections**

We enabled compression for SSH connections in order to reduce the network overhead. However, not all devices support SSH connections with compression. Therefore, we disabled this option again.

**Bugfix: Custom Report “Topology > Switch Port Forwarding”**

The custom report “Switch Port Forwarding” failed with a SQL error when the user configures a filter on the interface description column.

## Release 5.0 - Build 5034 (Jul-31 2020)

**New: Media Type and Bus Type for Physical Disks on Windows**

We are getting the media type (SSD or HDD) and the bus type (SATA, ...) for

Windows computers.

**Improvement: Detect Avaya Switch Stacking**

We detect Avaya stacked switches and their stack members.

**Improvement: Database Instance Path List**

The database instance path has been added to the custom report fields for the database.

**Bugfix: ASEM Industrial PCs**

ASEM industrial PCs (terminals) have been identified as laptop or desktop since they were using desktop and laptop mainboards and did not flash another device type to the BIOS.

We have added some code to change their type to "Industrial PC" regardless of the type flashed to the BIOS.

**Bugfix: User Profile Loading**

We are loading user profiles on servers in order to read registry information for specific users. We have seen cases where loading the user profile fails after a couple of minutes. Depending on the number of user profiles, this can significantly increase the discovery duration. We have seen durations of more than 4 days for servers with hundreds of user profiles.

We have changed the behavior. When the first profile fails to load, then we assume that all others will also fail and abort the operation.

**Bugfix: VMware Instance identified as Computer**

Windows VMware instances have been identified as Computer when they are having WAN Miniport interfaces with mac addresses when they are scanned by SNMP only.

**Bugfix: Windows Update Timestamp**

In some cases, the timestamp for the Windows Update was not correctly identified.

**Bugfix: Networking Add-On: LLDP Topology Error**

In some cases, the LLDP entries have been assigned to the wrong interface on the switch. We are reading now an additional LLDP SNMP table to get the correct mapping in all cases.

**Improvement: JDisc Discovery Server service resiliency**

When the JDisc Discovery's Java Virtual Machine (JVM) did stop unexpectedly (e.g. due to lack of memory) the JDisc Discovery Server service tried to restart the JVM without any limit (time or number of restart attempts). However, when restarting of the JVM constantly failed the JDisc Discovery Server service seemed to be up and running fine and monitoring tools could not detect the issue on the system.

Now, the JDisc Discovery Server service attempts to restart the JDisc

Discovery's Java Virtual Machine (when stopped unexpectedly) only 5 times within a 5 minute interval. When the JVM stops more than 5 times within a 5 minutes interval, the JDisc Discovery Server service is automatically stopped allowing monitoring tools to detect the issue on the system.

**Change: Default JVM memory size of the JDisc Discovery Server**

Due to the “JDisc Discovery Server service resiliency” change, we have also simplified the configuration of the maximum JVM memory size. Now the “JDisc Discovery Server” JVM starts with default max. memory size (25% of the physically available memory of the system).

You can customize the maximum JVM memory size as described in the “Administration and Security Guide” - chapter “1.7.2.1 Configuring Maximum Memory Size”.

## Release 5.0 - Build 5033 (Jul-20 2020)

**New Devices:**

- FS.COM Limited Internet Operating System Switches
- FS.COM Switches running FSOS

**New: Support Entitlements for Zebra Technology Devices**

We have added support entitlement (warranty) for Zebra Technologies devices.

**New: Custom Report Field “Elapsed Time Since Last Update”**

The new custom report field within the operating system lets you filter devices using the elapsed time since the last Windows update.

**Improvement: Networking Add-On: Delete Topology Information**

In the past, it was not possible to delete topology information. Now, we have added a new context menu to the device report to delete the topology information (either the interface connections or interface connections together with the raw CDP, LLDP data).

**Bugfix: Networking Add-On: LLDP Topology Error**

A wrong query could cause wrong topology connections when using the LLDP protocol.

**Bugfix: Creating a credential file with long passwords**

Creating a credential file for external database commands (e.g. create a backup with the supplied batch files) could lead to an error because the created cipher contained newlines.

**Bugfix: Executable data collection on Windows**

The executable data collection on Windows failed due to date-time formatting / parsing mismatch.

## Release 5.0 - Build 5032 (Jul-10 2020)

### **New Devices:**

- Dell EMC S-Series, M-Series, Z-Series Switches
- Some more Mitel IP Phones
- pfSense Firewalls via SNMP
- TA Cockpit Printer Management Appliance

### **Improved: IBM LPAR HMC Appliance Discovery**

We are running the “Issyscfg” tool on IBM's HMC appliance using the absolute path. At some customer installations, you cannot run the command with an absolute path. In those cases, we also try to run the tool using the configured search path for binaries.

### **Improved: Collecting Subnet Mask for Managed Extreme Networks Access Points**

We have not been able to collect the subnet mask for the managed Extreme Networks access points. Therefore, the network assignment was not always correct. Now, we found a way to determine the subnet mask and the network assignment is correct in all cases.

### **Improved: IP4 Range Import**

You can use the CIDR notation when importing IP4 ranges from a text file. For instance:

```
192.168.178.0/24,This is our main network.
```

Where the first part defines the IP range and the optional description gets imported as description for the range.

### **Improved: Logging when checking SNMP Access**

We have improved logging for SNMP protocol checks. That makes it easier to identify the reason for failures.

### **Bugfix: Truncated Users on Linux**

The ps command truncates long user names and appends a “+” to the name. We have modified the ps command line in order to obtain the full username also for very long usernames.

## Release 5.0 - Build 5031 (Jun-29 2020)

### **New: WEB Based UI – Alpha Version**

Starting with this build, we add a new optional Add-On called “JDisc Discovery WEB UI Add-On”. This is an alpha version of our new WEB based user interface. This version is not fully tested and most of the functionality is still



missing. The goal for the early alpha version is to obtain early feedback from users.

Therefore, we have established discussion forum on <https://blog.jdisc.com/forum/>. You might use the forum to start discussions with our developers and other users regarding the new user interface.

Read more on about the new UI in our blog:

<https://blog.jdisc.com/2020/06/29/new-user-interface-alpha-version/>

#### **New Devices:**

- Huawei MA5800 MSAN
- Ruckus Access Points
- Eaton UPS 9PX 6000i (and other models supporting the same MIB)
- Some Mitel IP Phones via HTTP(s)

#### **New: Hetzner Cloud Support**

We have added support for the popular German Hetzner Cloud. Read more on this topic in our blog:

<https://blog.jdisc.com/2020/06/19/hetzner-cloud-support/>

#### **Improved: Speed Writing Scheduled Tasks to Database**

Writing the scheduled tasks to our database has been a bit slow in the past. The writing speed has been improved by up to 10 times faster.

#### **Bugfix: Scheduled Report Exports**

In some cases, scheduled report exports are not working. Some might be exported, and export jobs that have been created later didn't work anymore.

## Release 5.0 - Build 5030 (Jun-17 2020)

#### **New Devices:**

- ISGUS ZKZ.... Multifunction Terminals
- Kaba Benzig 92xx Multifunction Terminals
- Sony IP HD Cameras
- Mikrotik RB4011iGS+ Router

#### **New: Windows 10, version 2004**

Mapping to detect Windows 10, version 2004 added.

#### **Changed: Listing Devices using a specific Login Account**

JDisc Discovery did not open a new report window when listing the devices which use a specific account for the discovery.

**Improved: DB2 Discovery on Unix**

The IBM DB2 discovery only succeeded when the user discovery was enabled. We have relaxed this limitation.

**Improved: SQL Formatter Added**

We have added a SQL formatter to make the sql queries that make up a report more readable.

**Bugfix: Disable WMI/WBEM didn't disable WBEM**

When you disable the protocols WMI/WBEM for a particular device, then WMI was ignored, but WBEM was still tested.

**Bugfix: Duplicate Entries in Topology Table**

We stored duplicate entries in our topology table. This didn't cause any functional issues, but the database was growing unnecessarily large when scanning for a long time.

**Bugfix: Importing Devices could create Exception**

In some cases, JDisc Discovery was creating an error message when importing a file with unresolvable hostnames.

**Bugfix: DNS Library Issue**

A bug in the DNS library we are using could lead to canceled device discoveries. Note, that only applies if you have configured additional DNS servers within JDisc Discovery's configuration.

## Release 5.0 - Build 5029 (Jun-05 2020)

**New: Split Pane for most Reports added**

One of the drawbacks with JDisc Discovery's current user interface is that navigating between reports opens a lot of new windows. That can be confusing to many users. Therefore, we have added a split pane into most reports. In many cases, this avoids opening new windows and improves the usability.

Read more about this feature in our blog:

<https://blog.jdisc.com/2020/05/28/too-many-open-windows-error-split-windows/>

**New: SOAP WebService: New Method to change SNMPv3 Accounts**

We have extended our web service with a new method to change the SNMPv3 account for a particular device.

**New: Java Detection**

We have added the /opt/java folder to the default search folder for Java installations.

**New: Config File Collection for Cisco IOS XE Switches**

We have added the config file collection for Cisco IOS XE switches.

**Improved: Some more Lenovo Laptop/Desktop Model Mappings**

We have added some more mappings for the Lenovo product number to model name.

**Bugfix: Custom Report for Mapped Printers with Conditions**

The custom report with mapped printers using conditions failed.

**Bugfix: Memory during Amazon AWS Discovery fixed**

There was a small memory leak within our Amazon AWS discovery.

## Release 5.0 - Build 5028 (May-26 2020)

**New Devices:**

- Siemens SINAMICS S120 EBCxx Communication Controllers
- Some more SINAMICS S400 Automation Controllers
- Triumph-Adler Printer Management Appliance
- BARIX Barionet IO Modules

**Improved: Serial Number for Mitel IP Phones and DECT Gateway**

Mitel uses the device's mac address as serial number for their IP Phones and DECT gateways.

**Improved: Avoid Duplicate Office 365 Installations**

In some situations, we detect two Office 365 installations with different paths (one path is a prefix of the other). We have added some code to remove the duplicates.

**Updated: Java SSH Library**

We updated the SSH library to the latest version.

**Critical Bugfix: DNS library caused memory/port leak**

A bug in the library which we use for DNS lookups caused UDP ports to stay open forever when the DNS request failed. Since the number of ports is limited, this could lead to the situation where communication via UDP does not work anymore (since there are no more available ports). In an extreme situation, the JDisc Discovery server could become unresponsive.

We have fixed the issue in the version that we are using and also submitted a bug to the library owner (dnsjava).

**Bugfix: Topology Map: Device Type Filter Dialog**

The buttons "Enable Subitems" and "Disable Subitems" did not enable or disable all subitems in the device type hierarchy, but all of them.

# Release 5.0 - Build 5027 (May-19 2020)

## **New Devices:**

- Mitel RFP Dect Stations

## **New: SOAP Webservice: New Method to change SNMP communities**

We have extended our web service with a new method to change the SNMP community for a particular device.

## **New: Getting Manufacturing Date for Apple Computers**

You can derive the manufacturing date for Apple computers based on the serial number (at least for devices produced before 2019). The production date is a useful indicator for PC/Laptop refresh programs.

## **Improved: Subscription Mapping for Azure Subscriptions**

The Azure API just returns a UUID and a product id for subscriptions. We have an internal mapping to map the UUID to a readable name. For some of the Azure subscriptions, this mapping was missing.

## **Improved: Ubiquity Access Point Discovery**

Ubiquity uses the "br0" interface mac address as serial number.

## **Improved: Mitel IP Phone Discovery**

We are collecting the SIP account for Mitel IP phones when they provide this information on their homepage.

## **Improved: Yealink IP Phone Discovery**

We have added the mac address, duplex mode, dhcp flag, dns servers, default gateway to the discovery of some Yealink IP phones.

## **Improved: Software installed per-user / cloud-user detection**

We have improved the Windows discovery of per-user installed software and also better detect cloud-users associated with local user profiles. The discovery now loads local user profiles (if not yet loaded) on Windows computers when discovering applications and users and unloads them again when finished (if not loaded at the time of discovery).

## **Bugfix: Modules Custom Report**

JDisc Discovery created an invalid query when adding conditions to the module properties in custom reports.

## **Bugfix: Device type overwritten**

In some cases on Linux, the device type "Virtual Computer" could be overwritten with the more generic type "Computer".

## Release 5.0 - Build 5026 (May-10 2020)

### **New Devices:**

- some Mitel Aastra IP Phones

### **New: Detect Edition for Microsoft SQL Server Reporting Services**

We have improved the discovery for Microsoft SQL Server Reporting Services standalone installations. We are getting now the edition (which is relevant for licensing) and the list of instances for this kind of installations.

### **Bugfix: Java Process Check**

JDisc Discovery was using the command "jcmd" from the Java JDK to obtain the command line parameters and the main class from Java processes. The jcmd command attaches to the process and obtains the java command line parameters.

However it seems that jcmd from a particular openJDK version (in this case 1.8.0u242) crashes the target java process. Therefore we remove the jcmd call from our discovery. As a consequence, you will no longer be able to obtain the Java command line parameters for processes which embed a JVM (e.g. tomcat).

### **Bugfix: Debian DPKG Command changed**

Debian Linux has changed the behavior of their dpkg software management tool. Since dpkg version 1.19.2, the dpkg command introduced a paging and you need to press a key to get to the next page. JDisc Discovery was not expecting that and thus waited until the 15 minute timeout for the command to complete.

We modified the discovery so that we run dpkg with the "--no-pager" option for more recent versions to avoid paging.

## Release 5.0 - Build 5025 (Apr-29 2020)

### **New Devices:**

- Avaya Scopia Videoconferencing Device
- Mitel MCD

### **Improved: Device Naming for HP Printers**

Some HP printers return a NetBIOS protocol name for the printer. However, the NetBIOS name is built-in and cannot be changed. In some cases, JDisc Discovery preferred using this name instead of the SNMP system name. We have changed this behavior.

### **Improved: Unix Discovery**

JDisc Discovery creates a temporary folder (when needed) on target Unix computers to store temporary results or scripts to execute. This folder has been

located in the /tmp folder. However, in some cases, hardened computers do not allow running scripts or binaries from within the /tmp folder. Therefore, we changed our code to create a temporary folder in the user's home directory. We use the /tmp directory only as a fallback when a user does not have a home directory.

**Bugfix: Windows process modules discovery**

Windows process module details (version, description, modification date and size) were sometimes incorrectly assigned when running many parallel discovery threads.

## Release 5.0 - Build 5024 (Apr-21 2020)

**Improved: LLDP Topology**

Allied Telesis switches provide connection data via LLDP and in some cases in an form that was not recognized from JDisc Discovery.

**Bugfix: Conditions for User Groups in Custom Reports**

A wrong SQL query was created when setting conditions on member user or user groups.

**Bugfix: Wrong Subnet Mask for HSRP Cluster IPs on Cisco NX-OS**

Cisco's SNMP agent returns a wrong subnet mask for HSRP cluster IP addresses. The SNMP data differs from the data that is available via the show-xxx commands.

We have added some code to correct the subnet mask.

**Bugfix: LLDP and CDP Reports**

The LLDP and CDP device reports were not working.

**Bugfix: Creating a Device Support ZIP was broken**

Creating a Support ZIP for a device was broken since build 5021.

## Release 5.0 - Build 5023 (Apr-08 2020)

**Improved: User Specific Software Installations**

We have improved the user specific software discovery for Windows using our remote login agent. Up to now, when a user is not logged on, then the user's registry keys are not loaded into the registry tree (regedit). Therefore, we were not able to detect user specific software installations when the user was logged off.

We are loading now the user's registry keys even when the user is logged off.

**Improved: APC USV/PDU/ATS/Monitor Discovery**

We have improved the detection of the correct type for APC USV, PDU, ATS, and environment monitors.

**Improved: Cisco Switch Serial Numbers**

In some cases when using older Cisco switches within a stack, the SNMP agent did not return the proper serial number. We extended our code to get the serial number from the supervisor module unless we get it directly from the switch.

**Improved: Office 365 Discovery**

We have improved our Office 365 Discovery by checking whether the Office 365 is licensed for a user or for a device. This information will be shown in the license type.

**Improved: Last Update Timestamp**

JDisc Discovery was collecting the timestamp when the last Windows Update took place. However, we found out that the registry key and the WMI queries do not return that information in all cases. Therefore, we implemented a workaround which checks the latest timestamp of Windows patches and uses this as the last update timestamp unless we got the data with WMI or registry.

**Bugfix: Slow Queries 1**

A slow query caused delays when writing devices to the database.

**Bugfix: Slow Queries 2**

Navigating from the new IP config reports to the list of devices caused a high CPU load and the query was extremely slow. We fixed the query and it returns now within a few hundred milliseconds.

**Bugfix: HSRP Cluster not correctly discovered**

The HSRP cluster on Cisco devices have not been stored correctly in the database.

## Release 5.0 - Build 5022 (Mar-29 2020)

**Improved: IP Configuration**

We are creating now the devices for DNS servers etc. in the database when they do not exist.

**Bugfix: WEB Service Add-On didn't start**

The WEB Service Add-On did not install a Windows service to start the WEB Service automatically during startup.

**Bugfix: Writing IP Configuration**

In some cases, writing the IP configuration caused an error.

**Bugfix: IP Config Custom Reports**

We have fixed an issue within the IP configuration custom reports section.

## Release 5.0 - Build 5021 (Mar-25 2020)

### **New Devices**

- Mitel MiVoice IP Phones
- Some APC Sensors
- Some APC UPS
- Grandstream VOIP Adapter
- Some Psion Barcode Scanner

### **Improved: IP Configuration**

We are getting now IP configuration data for Windows, MAC OS X and Linux computers. The IP configuration includes DHCP information (DHCP server, lease information), DNS server configuration, DNS suffix search order and the default gateway.

Refer to our blog for more details:

<https://blog.jdisc.com/2020/03/25/collecting-ip-configuration/>

### **Improved: New Application Report**

A new application report lists all applications with the number of different versions and the number of installations.

### **Improved: Redhat OS Naming**

We have improved the normalization of Red Hat Linux operating system version names.

### **Improved: MAC OS X Discovery**

We can now discover the attached monitors on a MAC OS X computer.

### **Improved: Brocade ICX Stacked Switches**

We have implemented the stacked switch detection for Brocade ICX switches.

### **Improved: NFS File Systems on Linux**

We are collecting now the NFS mounted drives on Linux.

### **Updated: Postgres**

After customer reports that some of their queries ran significantly slower with version 12.1, we upgraded the embedded Postgres database version to 12.2.

### **Bugfix: Network Topology for stacked Switches**

In some cases, the topology was not correctly created for stacked switches.

### **Bugfix: Ignore Hyper-V VEEAM Backup VMs**

we are ignoring now the VEEAM Backup VMs when scanning a Microsoft



HyperV server.

**Bugfix: Duplicate Disk Cages for NetApp Clusters**

We made some changes for the NetApp disk array discovery when the NetApp runs in cluster mode. The disk cages have been duplicated for both management controllers. Furthermore, the type for the management controller was “Disk Array”. We have changed the controller type to “Disk Array Controller”. Furthermore, the disk cages do get created only once.

**Bugfix: Major IP Address**

In some cases, we did not mark the correct major IP address for a device. Therefore, it might happen the device gets displayed with an IP address that does not match the hostname.

But keep in mind, that all IP addresses and their host-names have been determined correctly. Only the “main” IP address was not marked correctly.

## Release 5.0 - Build 5020 (Mar-06 2020)

**New Devices**

- Cisco MPLS router

**Improved: Remote Jumphost for Improved Device Identification**

JDisc Discovery now uses an in-process ARP address resolution for locally reachable networks instead of running ARP.exe for each device.

**New: IPv6 Address support for Remote Jumphost**

If devices are discovered via IPv6 addresses, JDisc Discovery now also selects a Jumphost device in the respective IPv6 network and resolves MAC addresses using the IPv6 neighbor cache information.

**Bugfix: MAC Addresses for old Lexmark Printers**

The SNMP agent for older Lexmark printers did not return the interface table properly. We had to implement a workaround to gather this information.

**Bugfix: LDAP Security Settings not properly initialized**

The LDAP advanced settings dialog was not initialized with the correct value for the LDAP security method.

## Release 5.0 - Build 5019 (Feb-26 2020)

**New Devices**

- Zyxel XGS Switches added
- HPE R6000 USV

**New: Partition Type Information**

We collect partition type information (MBR, GPT, ...). This is important information when you consider to encrypt your volumes via Bitlocker.

**Reimplemented: Networking Add-On: Topology Detection**

The network topology detection within the networking add-on was far too complex – from both implementation and usability aspects. Therefore, we have decided to re-implement the network topology detection and make it easier to troubleshoot and use.

Read more in our blog about the reimplementation:

<https://blog.jdisc.com/2020/02/26/network-topology-completely-reimplemented/>

**Disabled: HPE Warranty Lookup**

HPE (Hewlett-Packard Enterprise) has protected its warranty web site (<https://support.hpe.com/hpsc/wc/public/home>) with a captcha. That makes it impossible to automatically retrieve warranty information for HPE devices. As far as we know, there is also no API available to access that information. Therefore, we have disabled the warranty lookup for HPE devices until HPE provides a solution.

## Release 5.0 - Build 5018 (Feb-19 2020)

**New Devices**

- Some more Huawei MSAN Devices

**New: Disable Protocols for Devices**

In some cases, it might be useful to disable certain protocols for specific devices in order to avoid security alerts. With the new build, we can disable protocols for individual devices.

Read more on <https://blog.jdisc.com/2020/02/12/disable-discovery-protocols-for-selected-devices/>

**Networking Add-On: New Topology Reports**

We have added some more reports to display the mac forwarding table, the CDP (Cisco Discovery Protocol) and LLDP (Link Layer Discovery Protocol) tables.

**Improved: Performance**

We have improved the performance for SNMP community checks and one of our parsers for the Linux RPM command was inefficiently implemented.

**Bugfix: HPE 3PAR Discovery**

We are using SSH to gather information for HPE 3PAR disk arrays. This was

triggered by SNMP information. HPE has changed the SNMP system description slightly and therefore, the SSH data collection didn't start. Before, it was "HP\_3PAR" and now it is "HPE\_3PAR". We have changed our condition to trigger the SSH connections to HPE 3PAR disk arrays.

#### **Bugfix: Cisco WLAN Access Points MAC Addresses**

We were not getting the ethernet mac address for Cisco WLAN access points which are controlled by an access point controller.

#### **Networking Add-On: Network Topology using LLDP**

LLDP is not consistently used by the different vendors. We had to adjust our code to cope with how differently the vendors populate the tables.

## Release 5.0 - Build 5017 (Feb-10 2020)

#### **New: Create Custom Reports using SQL**

JDisc Discovery has been offering custom reports since its beginnings. The custom reports were defined by using a wizard to select the data items and filter criteria. While this is comfortable for users not familiar with SQL and our data model, we got the request from more experienced users to also offer custom reports based on SQL queries.

The new build offers two kinds of custom reports: The traditional custom report using the Wizard and a new SQL based custom report.

Read more in our blog: <https://blog.jdisc.com/2020/02/06/custom-reports-using-sql/>

#### **New: Getting MAC Addresses using Jumphost**

Getting mac addresses is important for various purposes (e.g. identification of devices, getting manufacturer information, creating a topology). However, it is difficult to get the mac address unless you have access to the device with one of the discovery protocols.

We added a new feature to get the MAC addresses using jump hosts using the PING and ARP command.

Read more in our blog: <https://blog.jdisc.com/2020/01/29/mac-address-lookup-using-a-jumphost/>

#### **New Devices**

- Synology DiskStation detected via HTTP
- TP-Link Wlan access points via HTTP
- IndigoVision camera
- FlexDSL Group DSL modem
- Some more Printronix thermal printer
- Phoenix Contact ILC Inline controller
- Siemens SINAMICS CU320-2 controller

- beroNet berofix voip gateway
- Huawei MSAN

#### **Improved: Lenovo Support Entitlements Extended**

Second URL is now checked to retrieve start date of warranty for Lenovo devices, if that call is not successful then we use the previous URL to retrieve the warranty information.

#### **Improved: Avaya VSP VLAN Discovery**

Avaya VSP switches do not provide VLAN information via the standard bridge MIB. They use their own proprietary MIB. We have enhanced our tool to read the proprietary MIB and determine the VLAN configuration for Avaya VSP switches.

#### **Updated: SSH Library**

We are using the Jadaptive SSH library for SSH connections. We have updated the library to its latest version (2.8.0).

#### **Updated: SNMP Library**

We are using the SNMP4J library for SNMP queries. We have updated the library to its latest version (1.7.27)

#### **Bugfix: HPE Support Entitlements User-Agent Added**

HTTP Call to HPE website for warranty information was being denied because of lacking the User-Agent parameter in the header which is now added and works again.

#### **Bugfix: VMware Protocol Check**

The VMware protocol check was testing the same account for each and every group. That could much longer than actually needed.

#### **Bugfix: Cisco Blade ESX Server Merge Issues**

Usually, we are identifying servers using their mac addresses and serial number. However, due to a bug in VMware's ESX server, the ESX server does not return the server's serial number, but the blade enclosure's serial number. This causes duplicate serial numbers for all servers within one enclosure. That is not a big issue unless you have duplicate mac addresses. We have seen duplicate mac addresses for different physical hosts on some Cisco UCS servers.

As a workaround, we are using now the BIOS unique id as a unique identifier in this case.

This applies only to blade servers running VMware's ESX server.

## Release 5.0 - Build 5016 (Jan-24 2020)

#### **New: Getting physical hard disk FW Version**

JDisc Discovery now gets the firmware version of physical disks for a variety of computers systems including Windows, Linux and HP-UX but also for NAS storage and disk array devices from Dell/EMC, Fujitsu, HPE/3PAR, IBM, NetApp, Overland and QSAN.

#### **New Devices**

- Linksys camera
- ObiTalk IP phone adapter
- DrayTek access points (Vigor)

#### **Improved: Nutanix Controller VM Discovery**

We detect now Nutanix controller VMs running on KVM hosts.

#### **Improved: More Device Mappings for Lenovo added**

We added more mapping entries to map Lenovo part numbers to model names.

#### **Updated: New OpenJDK integrated**

Updated to the latest OpenJDK build (13.0.2).

#### **Bugfix: Collecting shared libraries on MacOSX**

The discovery of shared libraries (of the running processes) on MacOSX the 'otool' is required. However, this tool is not installed in the standard configuration. The existence of the 'otool' is now checked before the discovery starts.

#### **Bugfix: Disks not discovered on HP-UX under some circumstances**

Physical disks, partitions and logical disks were not discovered the 'cstm' command returned unexpected messages in the output.

#### **Bugfix: Laptops identified as Access Points**

An issue within our discovery caused laptops being identified as WLAN access points when they expose their own private hotspot.

#### **Bugfix: Custom Report (VM Snapshot Count)**

The SQL query that was generated for a custom report limiting the number of VM snapshots failed with a SQL error.

## Release 5.0 - Build 5015 (Jan-06 2020)

#### **New Devices**

- Mitel OpenCom

#### **New: Report "Devices by OS Version and Patch Level"**

A new report lists statistics about OS version together with the patch level.

#### **Improved: Oracle Discovery on Unix**

When ASM (Automatic Storage Manager) is installed, then we discovered a instance named "+ASM". However, this is not a "real" database instance. Therefore, we are going to ignore instances with this name.

#### **Improved: Synology RackStation**

The SNMP data for the Synology RackStation is lacking some essential values. Therefore, the type NAS has not been determined and the physical disks have not been scanned. This release improves the discovery for Synology rack stations.

#### **Improved: Part Number for Windows Computers**

Starting with Windows 10 and Server 2016, Microsoft has introduced a new field representing the part number in their Win32\_ComputerSystem structure. If the manufacturer populates this field, then we are going to read it and store the value as part number.

#### **Improved: Google Chrome Discovery**

In some cases, Google Chrome creates a registry entry within the components registry tree with an old version. We were reading this registry entry and created a fake Google Chrome installation with an older version number.

#### **Improved: Do not use Windows Accounts for Linux with Samba**

In some cases, we were using a Windows account that was able to access a Linux computer via SMB (Samba) also for the SSH connection. We have changed our code not to use this account when connecting via SSH and use the Unix/Linux accounts only.

#### **Bugfix: NetApp Cluster Mode**

We had an issue to detect the NetApp cluster member IP addresses. Therefore, not all cluster members were assigned to the cluster.

#### **Bugfix: Hostname ending with "."**

In some DNS configurations, we get a hostname that ends with "." which is an indication that this is the end of the hostname. We are removing the "." at the end of the hostname.

#### **Bugfix: Attached device's primary name overwritten**

When discovering a management device such as an HPE iLO or BladeSystem Onboard Administrator the primary device name of managed / attached devices was sometimes overwritten. Now the primary device name is preserved when discovering an attached device through its management device.

#### **Measurement Add-on: Bugfix**

An error was reported during polling performance characteristics for some SNMP switches.

# Release 5.0 - Build 5014 (Dec-13 2019)

## **New Devices**

- Cisco Firepower Firewalls

## **New: HBAs for Linux**

We have added some code to detect the hostbus adapters (HBA) on Linux together with the worldwide names (WWNs) for the interfaces. The collection is based on the sys filesystem (refer to <http://man7.org/linux/man-pages/man5/sysfs.5.html>) for more details.

## **Improved: SNOM IP Phone Discovery**

SNOM IP Phones have been discovered via HTTP(s) so far. We have also added SNMP support in case SNMP is enabled on the phones.

## **Improved: Dell Server Types**

Dell has acquired EMC a while ago and that also included their servers. Since we are matching the server type by looking at the model, the server type detection failed for former EMC servers since their naming schema was different.

## **Improved: Microsoft HyperV Discovery**

We have improved the HyperV discovery. We found a way to assign the IP addresses to the existing interfaces and we will also add information for processor, memory and disks to a VM. This information is available (similar to VMware) from the physical host.

## **Bugfix: Critical Bugfix Database Instances**

A bug in the database discovery caused that we get only one database instance even if there are multiple database instances.

## **Bugfix: Brother ADS-<XXXX> Scanners**

Brother ADS-XXXX scanners have been identified as printers.

## **Bugfix: Alcatel-Lucent ASAM Discovery**

Alcatel-Lucent ASAM devices seem to use a common MAC address for some interfaces which caused a device merge for two different ASAM devices. We have added the mac address to the exception list to avoid this merge.

## **Bugfix: Powershell Console Width**

We are setting the powershell console width to 2000 characters in order to get full information for the Microsoft Exchange Server scripts. It seems, that 2000 characters per line is not supported on all operating systems. When 2000 columns fail, then we try to set it to 500 characters per line.

## Release 5.0 - Build 5013 (Dec-06 2019)

### **New: Shared Libraries for MAC OS X Processes**

JDisc Discovery can detect the shared libraries for MAC OS X processes.

### **Improved: Java Detection**

Based on customer feedback, we have been able to improve the Java detection on Unix servers.

## Release 5.0 - Build 5012 (Dec-05 2019)

### **New: Display User Group Members in Custom Reports**

The custom reports have been enhanced to display the user group members.

### **Improved: Java Installation Detection on Windows/Linux**

We have improved the Java detection in order to find more processes using java.

### **Important Bugfix: Support ZIP and Excel Export failed**

Due to the new Java discovery information, the Excel export and the support ZIP creation failed.

## Release 5.0 - Build 5011 (Dec-04 2019)

### **New: Improved Java Installation Discovery**

We have improved our Java discovery. We are getting the correct version and edition as well as the Java installation path. That makes it possible to add additional reports that cover the risk of a Java installation. As you might know, Oracle has recently changed its Java license terms and you might be at risk to be incompliant.

Read more about this feature in our blog entry:

<https://blog.jdisc.com/2019/12/02/java-installations-and-license-risks/>

### **Improvement: Updated Dell Warranty API Calls**

Dell will disable their old warranty API in mid december and migrate to a new version. We have changed our software to use Dell's new API version.

### **Improvement: Citrix Hypervisor Discovery**

Citrix has changed the name for their virtualization technology from Citrix XenServer to Citrix Hypervisor. We have adjusted our code to reflect that change.



**Bugfix: LLDP Topology fixes**

We made some fixes in the LLDP based topology resolution for HP switches. The topology did not create correct connections in all cases for HP switches.

**Bugfix: Custom Report Query Issue fixed**

When the VM state was used in custom reports, then the SQL query for some custom reports could fail.

## Release 5.0 - Build 5010 (Nov-27 2019)

**New Devices**

- Dell Wyse 50xx Thin Clients
- Advantech ADAM – IO Modules

**Improvement: Enhanced LDAP connection security settings**

Now you can configure the LDAP protocol security settings alike the remote login settings. The new configuration option allows disabling LDAP simple (not encrypted) bind in case SSL (LDAPS) and TLS (LDAP over TLS) should fail.

**Improvement: Name Resolution for Windows Computers**

Sometimes, it can be pretty difficult to determine the actual name for a Windows computer. Especially when DNS and reverse DNS is not configured correctly. However, the “ipconfig /all” command displays the host name and the primary DNS suffix. When we find this information within the computer's registry, then we use the computer name and the DNS suffix as the device name (regardless of other DNS names).

**Improvement: Name Resolution for Linux Computers**

Similar to the item above, we use the command “hostname -f” on Linux devices to determine the name for a device. If “hostname -f” returns a FQDN, then we use this name regardless of DNS reverse lookups for the device's IP addresses.

**Improvement: Directory DNS Domain Controller Test Login**

Testing LDAP connectivity to manually configured and discovered domain controllers (global catalog servers) now works faster as it uses multi threading. Moreover the results dialog also displays the LDAP connectivity security, such as SSL (LDAPS), TLS (LDAP over TLS) and Simple (not encrypted).

**Bugfix: Last Update Timestamp not updated for Aruba Managed Access Points**

When scanning an Aruba access point controllers with its managed access points, then JDisc Discovery did not update the last discovered timestamps for the attached access points.

**Bugfix: Cisco C3900E has been identified as Switch**

The above mentioned Cisco routers have been falsely identified as switch.

**Bugfix: Cisco NX-OS VLAN Assignment**

The Cisco NX-OS switches use a non standard way in the SNMP mib to determine the VLAN assignment of ports. We have implemented a special procedure to get the VLAN assignment of the switch ports right.

**Bugfix: Remote Client didn't open due to missing .jar File**

The remote client didn't open the configuration dialog because a .jar file was missing in the client only installation.

**Bugfix: Possible Duplicates for HPE Access Point Controller**

HPE access point controllers which are attached as a module to a switch could be duplicated when scanned directly or via the switch.

**Bugfix: Oracle Instance State on Windows**

The state for an Oracle instance was incorrect when the instance name was in lower case within the Windows service configuration.

**Bugfix: Oracle Instance Discovery on Unix**

We did not get all ORACLE\_HOME directories and therefore, we were not able to determine the version for a specific Oracle installation. We are reading now also the listener.ora file in order to determine Oracle home directories.

Furthermore, running Oracle database instances that could not be assigned to a specific Oracle home have been identified as "stopped".

**Bugfix: Manually triggered directory object discovery**

Though the manually triggered discovery of directory object member computers worked, it has not raised the priority of the discovered member computers IP addresses in the device queue. As a result these were not discovered as fast as possible but only as all other devices that were added by discovery jobs.

## Release 5.0 - Build 5009 (Nov-15 2019)

**New: Solaris Process Shared Libraries**

JDisc Discovery collects the set of shared libraries loaded for each process on Oracle Solaris.

**Improvement: Misleading "Enable All" Button**

The device type filter dialog was using a misleading "Enable All" button. What it actually does is enable all subordinate items. We have changed the wording.

**Improvement: More recent Dell Switches**

More recent Dell switches have changed their SNMP signature which caused our discovery to fail. We have changed our signature to properly scan Dell switches.

**Bugfix: HyperV Motion Events**

HyperV Motion events were not all collected and stored in our database.

**Bugfix: Cisco C800, C1900 and C3900 have been identified as Switch**

The above mentioned Cisco routers have been falsely identified as switch.

## Release 5.0 - Build 5008 (Nov-08 2019)

**New Devices**

- Synology RackStation via HTTP
- TP-Link WLAN Access Point via HTTP
- AVTECH IP Surveillance via HTTP

**New: Loaded Modules for Processes**

We collect the list of loaded DLLs on Windows and shared libraries on Linux for each process. This is for instance useful to find out what processes are running a Java virtual machine (and if yes, which one). By searching for the JVM.DLL, you can easily identify all processes on Windows that use a Java VM. The loaded modules will be available from the Executable report and from within each device's device details (Software tab).

Refer to our new blog article to read more about this new feature:

<https://blog.jdisc.com/2019/11/08/dlls-and-shared-libraries/>

**Bugfix: Progress OpenEdge Shows for Some DBs Negative Size**

Multiplying two integers and then casting to Long was not working because result of multiplying the two numbers was overflowing as an integer value resulting in a random negative number and had to be changed to long to fix it.

**Bugfix: Meraki Cloud Discovery fixed**

The Meraki cloud discovery was falsely aborted after getting the first data.

**Bugfix: F5 Load Balancers**

The F5 virtual machine's load balancer pools have been deleted after the first scan.

**Bugfix: Motion Events for Microsoft HyperV Instances**

Storing migration events for HyperV instances failed.

## Release 5.0 - Build 5007 (Oct-31 2019)

**New Devices**

- WatchGuard XTM Security Appliance via HTTP/HTTPS
- WatchGuard Firebox Firewalls (incl. Clustering)

#### **Improvement: XCP-NG Instances**

Since XCP-ng is based on the Citrix XenServer code, we used the same type for XCP virtual machines: Citrix Xen Instance. In order to make the difference a bit more explicit, we have added a new device type 'XCP-ng Instance'.

#### **Improvement: Device Naming for WatchGuard Firewalls**

We changed the algorithm to determine the name for WatchGuard firewalls. They often have external interfaces with DNS names from the internet provider. This DNS name often became the device name. We changed the behavior for the WatchGuard firewall to use the SNMP system name instead.

#### **Improvement: SNOM IP Phone**

We used only the HTTP protocol to identify Snom IP phones. We added HTTPS in case HTTP is disabled on those phones.

#### **Improvement: Allnet Sensor Detection**

Allnet has changed their WEB site structure, so we needed to adjust our parser to detect the modified HTTP page.

#### **Bugfix: Powershell Output Parsing**

We have experienced, that Microsoft changed the column header from lower case to upper case for some scripts. Therefore, we adapted our parser to ignore lower/upper case.

#### **Bugfix: Oracle LMS Scripts**

Collecting the data from Oracle's LMS scripts failed when using version 19 or above.

#### **Bugfix: Virtual Machine Duplicate Assignment**

Due to a bug when writing a device to a database, a VM could be assigned to two physical servers after a move.

#### **Measurement Addon bugfixing: Provision status cache refresh after database restore**

Provision status update if scheduled job is missing after restore.

## Release 5.0 - Build 5006 (Oct-25 2019)

#### **New: XCP-NG Virtualization**

XCP-NG is a XenServer based open source virtualization solution. XCP-NG can now be discovered like Citrix XenServers.

#### **Improvement: F5 Virtual Server Discovery**

We improved the F5 virtual server discovery by assigning the load balancer pools to the actual F5 virtual machine that is forwarding the traffic to its pool members. Before, the pools and the pool member were assigned to the F5 load balancer itself and not to the actual F5 virtual server.

**Improvement: APC USV Discovery**

We are getting the “last battery changed date” from APC USV and store this information within our custom attributes.

**Improvement: Microsoft Surface Pro Discovery**

In some cases, Microsoft Surface Pro laptops have been identified as Computer.

**Bugfix: Client user interface logging did not work properly**

Now the client user interface stdout and stderr outputs are now logged to file properly in the calling user's %TEMP% directory.

**Bugfix: Manually triggered devices were not discovered ASAP**

This bug fix changes the device discovery priorities (order) as per below:

- Manually triggered devices are discovered with the highest priority.
- Directory logon scanning triggered devices are discovered with medium priority.
- Devices triggered by regular discovery jobs (IPv4 subnet ping sweep, Windows domain or Directory object, etc.) are discovered with low priority.

**Bugfix: Repeated manual discovery of the same directory failed**

Manually discovering the same directory object more than once did not work as the directory object entry remained processed in the directory queue forever. It's now deleted from the directory queue when the directory object is set to the processed state.

**Bugfix: Docker container with same IP and MAC like the host**

Is it possible Docker containers share the same MAC and IP address like their host. This was confusing the discovery and mixed the data between host and Docker containers. The MAC and IP address is now deleted from the data of the these Docker containers. This is logged and can be seen in the “Analyze” view.

## Release 5.0 - Build 5005 (Oct-18 2019)

**New: Cisco Meraki Cloud Discovery**

JDisc Discovery can access Cisco Meraki's cloud in order to gather additional information about the managed Meraki network devices.

Refer to our blog entry for more details: <https://blog.jdisc.com/2019/10/15/cisco->

[meraki-cloud-discovery/](#)

**Improvement: Cisco AP Controller Discovery**

Depending on the OS version and model, some Cisco AP controller don't return all entries within the Entity MIB physical entity table. We implemented a workaround to resolve this.

**Bugfix: Linux Virtual Server could be falsely merged in conjunction with Docker Containers**

In some cases (when there are docker containers having the same IPs on different docker hosts) JDisc Discovery falsely merged the hosts.

**Bugfix: Discovery Configuration Dialog didn't open on Client only Installations**

When installing the client only, then the discovery configuration dialog didn't open.

**Bugfix: Editing Custom Attributes failed**

Editing custom attributes dialog didn't open. This issue has been fixed with 5005.

**Bugfix: Hitachi SVP Discovery fixed**

Some REST calls require authentication. This part was missing when scanning the Hitachi SVP via its REST API.

## Release 5.0 - Build 5003 (Oct-11 2019)

**Improvement: New Settings to enable/disable Container Discovery**

The discovery configuration dialog has a new option in *Data Collection > Virtualization* to enable or disable the container discovery (docker, LXC, ...).

**Bugfix: Docker Discovery Performance Issue**

The docker discovery had an issue when looking inside the docker container and therefore, the discovery took very long on some hosts having docker containers.

## Release 5.0 - Build 5002 (Oct-10 2019)

**Improvement: Stop Discovery Jobs**

We have improved the stop discovery job behavior when a cloud discovery is active. Up to now, JDisc Discovery was waiting until the cloud discovery completed when a stop request was issued. However, this could take a while. The time until the job is actually stopped has been improved with this build.

**Bugfix: Cloud Discovery was running with all Discovery Jobs**

The cloud discovery was running for all discovery jobs. Even when the cloud sync was disabled within the job's settings.

**Bugfix: Docker Discovery Performance Issue**

The docker discovery had an issue when looking inside the docker container and therefore, the discovery took very long on some hosts having docker containers.

## Release 5.0 - Build 5001 (Oct-09 2019)

**New: Amazon AWS Discovery**

JDisc Discovery can scan Amazon AWS virtual machines and assign them to their resource groups and regions.

**Networking Add-On Improvement: WLAN Discovery**

We have added a new option "Detect reachable WLANs (might be any public or other WLAN reachable from a device)".

This option is disabled by default and avoids getting hundreds of public WLAN and access point information.

However, we store the connected WLAN in any case. If that network is a public WLAN, then it'll also appear in your database. You can only avoid this behavior by configuring a WLAN SSID whitelist. Refer to our blog entry for more details on the whitelists:

<https://blog.jdisc.com/2018/04/20/wlan-ssid-filtering/>

**Improvement: App Names**

Some apps from the Windows AppStore just return a UUID as a name. We have added some code to transform those UUIDs to proper application names.

**Improvement: Virtual Video Controllers on VMware Instances**

We filtered out virtual video controllers on VMware. However without having the virtual video controllers, you cannot determine how much video memory was assigned to the VM.

**Improvement: F5 Load Balancer Discovery**

We added the missing discovery of F5 virtual servers that are created as separate devices connected to the F5 appliance or load balancer. The virtual servers are virtual IP addresses for resource pools.

**Improvement: SQL Server Discovery**

We improved the discovery to detect a lot more release candidates and preview versions (especially for SQL Server 2019).

**Improvement: Device Naming**

When the hostname for a server is a fqdn, then we choose the interface that

fully matches the hostname as a primary interface. If none is found and the hostname is not a fqdn, then we use the first interface that matches the hostname.

Before, we were not checking for a full match in case the hostname is a fqdn.

### **Measurement Add-On Bugfix: Windows Performance Counters polling job status update**

When Windows host is not reachable provision status is not properly updated during polling job.

## **Release 5.0 - Build 5000 (Sep-25 2019)**

### **New Product: Measurement Add-On**

The Measurement Add-On collects utilization data for a variety of devices such as Windows computers, printers, routers and switches, PDUs or sensors. It creates reports for hourly, daily, weekly, monthly or quarterly aggregations, creates min/max average reports and a graphical representation makes it really easy to understand a device's workload.

An explanation video on:

<https://www.jdisc.com/de/support/videos/measurement-add-on.html>

Check out our blog on entry on:

<https://blog.jdisc.com/2019/09/24/measurement-add-on/>

The product web page: <https://www.jdisc.com/de/produkte/measurement.html>

### **New: Directory Logon Scanning**

The new directory logon scanning (DLS) feature can trigger the discovery for Active Directory member computers as these logon to a domain controller. This enables on-the-fly tracking of computers (e.g. notebooks) of field staff and home office users that are not regularly connected to the corporate network.

To activate directory logon scanning (DLS), please make sure you have:  
configured or discovered domain controllers for each DNS domain (preferably all domain controllers)  
entered directory access credentials for each DNS domain or the root DNS domain

When you have configured the domain controllers and directory access credentials for the DNS domains, preferably you create a new directory group in the discovery settings and enable the directory logon discovery for the directory objects you want to track.

Finally, you create a new scheduled discovery job (recurring interval set to 5 -15 minutes) and assign the directory group you have created just before to the job.

An explanation video on: <https://www.jdisc.com/de/support/videos/directory-logon-scanning.html>



Check out our blog on entry on: <https://blog.jdisc.com/2019/09/23/directory-logon-scanning-how-to-discover-computers-that-are-only-sporadically-connected-to-the-network/>

**Improvement: User Principal Name (UPN) added for directory users**

The directory synchronization now also retrieves the User Principal Name (UPN) for global directory users, stores it in the database and displays in the global user reports.

**Improvement: Shoreline ShoreGear Virtual Switch Discovery**

We are getting the current OS version for the ShoreGear virtual switch.

**Improvement: Improved Model Detection for Siemens S7**

We improved the model detection for SIMATIC S7 automation controllers.

**Improvement: Docker Discovery**

The docker discovery has been improved. JDisc Discovery can now connect to a docker VM from the hosting server and collect data from the docker instance itself.

**Improvement: Import Devices**

The import file format for the menu item *Discovery > Import Devices...* was very strict. One item per line and no quotes around the device's IP addresses or names.

We made the parser more tolerant. Now it allows multiple entries per line (separated by ','). It also allows quotes and double quotes (e.g. "192.168.178.22" or '[www.jdisc.com](http://www.jdisc.com)').

**Improvement: MAC Addresses for Microsens Switches**

The Microsens switches do not expose their MAC addresses in the SNMP interface table. We are reading another SNMP variable to get at least the MAC address of the management interface.

**Bugfix: Processor Count when scanning VMs via the VCenter**

We had a misunderstanding interpreting the CPU data for a VM. Therefore, the number of physical processors was incorrect (e.g. a two processor sockets with 2 cores resulted in total 4 processors with each 2 cores). There is no issue when scanning the VM directly.

**Bugfix: Getting Access Points for Cisco AP Controller**

We didn't get managed access points of some Cisco AP controllers.

**Bugfix: Several Issues in the Custom Reports fixed**

We fixed some query issues within the virtualization section (physical host) for the custom reports.

## Release 4.0 - Build 4094 (Sep-12 2019)

### **New Devices**

- Zyxel DSLAM

### **Improvement: Microsoft Office Discovery**

Microsoft has slightly changed the registry structure for Office 2019. That caused an issue when assigning partial license keys to the office installation.

### **Improvement: Allied Telesis Switch Discovery for new OS Version**

Allied Telesis has slightly changed their SNMP data structure in their new AW+ operating system. We had to adjust our code a little to correctly identify those switches.

## Release 4.0 - Build 4093 (Sep-05 2019)

### **Improvement: Allnet Sensor Device Discovery**

We are making use of the Allnet REST service in order to gather information about the OS version, the model and the hardware revision.

### **Improvement: Oracle LMS Scripts Version 19 integrated**

Oracle made some smaller name changes within their version 19 scripts so we had to adjust our code as well.

### **Improvement: VMware Discovery**

- added some code to determine the IP subnet masks for virtual machines.
- improved the operating system family detection.
- determine whether VMware tools are installed and if yes what version.

### **Improvement: Import of Devices in Configuration Dialog**

The import procedure for devices has been made more flexible with the input format. The text file containing hostnames or IP addresses can have multiple devices per line (separated by ','). Also, we allow to have quotes or doublequotes around the names.

### **Bugfix: A VM could be assigned to its Host twice**

A virtual machine could be assigned twice to its host. We have added some code to prevent this relation duplication.

### **Bugfix: MS Office Discovery**

We were only getting the initial Microsoft Office build number that was initially installed. We fixed the code in order to the correct build number when Microsoft Office has been updated/patched.

### **Bugfix: Duplicate Container Databases for Oracle 12c**

We determine the list of Oracle home directories by reading multiple configuration files. In one case, the Oracle home was defined with a trailing "/" and again without trailing slash. We were handling the two Oracle homes as two separate instances and therefore, we got duplicate container databases.

## Release 4.0 - Build 4092 (Aug-29 2019)

### **Bugfix: Oracle LMS Scripts on Windows**

Running the Oracle LMS scripts on Windows might fail when the current directory is not correctly set. We modified the call of the Oracle LMS scripts in order to make sure that the current working directory is set correctly before calling the scripts.

### **Improvement: Polycom IP Phones**

We have added more Polycom phones that we didn't support so far.

## Release 4.0 - Build 4091 (Aug-26 2019)

### **New Devices**

- Some Aruba Switches and its stacked Versions
- Shoreline Technologies Virtual Switch Appliance
- Netgear stacked Switches

### **Improvement: Aruba Switches**

Aruba has been acquired by HPE so we set the manufacturer for Aruba devices to HPE. However, HPE still uses the Aruba brand and therefore we got some requests from customers to change the manufacturer from HPE to Aruba.

### **Improvement: APC UPS Discovery**

We get the part number, the production date and the recommended battery change data for some APC UPS devices.

### **Bugfix: Ignore invalid Serial Number**

Some buggy HP printers return the serial number "XXXXXXXXXX". This serial number will be ignored since it causes issues when importing the wrong value into a CMDB.

## Release 4.0 - Build 4089 (Aug-09 2019)

### **Bugfix: Microsoft Office Discovery**

There is a Microsoft Office image called "Microsoft Office Single Image". The image is used to install different editions based on the activation. We have

improved the discovery to detect the correct edition once activated.

## Release 4.0 - Build 4088 (Aug-06 2019)

### **Measurement Add-On:**

- Get separate page counter for bw and color pages on Lexmark printers. So far, we did not get the counter for all lexmark printers.
- Get network packet and traffic counter for switches and routers.
- Get temperature information from Allnet temperature sensors.

### **Bugfix: Supermicro Desktops detected as Server**

Due to some missing name mappings, some Supermicro desktop boards have been detected as server.

### **Bugfix: Custom Attributes didn't display when in root folder**

Custom attributes didn't show up when they were stored in the root folder. This issue has been introduced in the last build 4087.

### **Bugfix: Connection Issue when connecting via SSH Key**

For some devices, we open a SSH command session only and open the shell on the target device. When such a device (e.g. a Shoretel phone) used SSH keys instead of username/password, then the connection failed.

### **Bugfix: Duplicate Hyper-V Instances**

A hyper-v instance with only IP addresses, but no mac addresses could lead to duplicate device entries.

## Release 4.0 - Build 4087 (Jul-30 2019)

### **New: JDisc Discovery can run Oracle's License Management Scripts**

We have added a configuration that lets you import and run Oracle's LMS scripts. This is very important if you are being audited by Oracle since you need to prepare carefully for the audit in order to minimize your license fees that you have to pay to Oracle.

Review our blog entry covering this topic:  
<https://blog.jdisc.com/2019/07/30/oracle-lms/>

### **Bugfix: Database Information not stored when Database Schema disabled**

JDisc Discovery did not store database information (name, size) when the schema discovery was disabled.

### **Bugfix: Duplicate IBM Flex Server**

JDisc Discovery created duplicate IBM Flex Server when the server did not provide a valid serial number.

## Release 4.0 - Build 4086 (Jul-22 2019)

### **Improved: Huawei Device Type Detection**

Some Huawei rack server have been identified as server.

### **Improved: F5 BIG-IP Discovery**

We improved the model and os version detection for some F5 BIG-IP devices.

### **Improved: Windows 10 Version detection**

Now Windows 10 (May 2019) release version 1903 is detected correctly.

### **Improved: New Search Capability in Device Type Tree**

A new search function makes it easier to find a device type in the device type tree.

### **Improved: Lenovo Laptop Lookups added**

We added a couple of lookup entries for Lenovo laptops.

### **Improved: New Search Capability in Custom Reports Attribute Tree**

A new search function makes it easier to find an attribute within the tree listing all attributes in order to create a custom report.

## Release 4.0 - Build 4085 (Jul-11 2019)

### **New Devices**

- Juniper PTX Router

### **New: Hitachi HDS Disk Array Discovery**

We can scan the HDS SVP via its REST API in order to get the list of controller and disk arrays.

### **Improved: Blackout Period Handling**

The blackout periods for discovery jobs were only preventing the start of new discovery jobs during the blackout period. Devices from jobs that have started outside the blackout period were also scanned during the blackout period. We have changed the behaviour. Now, also devices coming from jobs with blackout periods will not be scanned during the blackout period. They get the state "blocked" and the discovery waits until the blackout period is over.

### **Improved: Fujitsu iRMC Management Cards**

Fujitsu has OEMed HPE's iLO management cards as iRMC. We identify the

model now correctly and we determine the attached server.

**Bugfix: Sort Issue when exporting or mailing reports**

Sorting custom attribute columns didn't work when exporting or mailing reports.

**Bugfix: Some older Dell Blade Enclosures have been falsely identified as Blade Server**

We have fixed the issue that some older Dell blade enclosures have been falsely identified as blade server.

**Bugfix: NetApp Disk Array in Cluster Mode**

NetApp Disk Array in cluster mode had some issues with their SNMP protocol implementation (SNMP OIDs were not always increasing when doing an SNMP walk). That confused our SNMP library, but we found an option that ignores the correct sort order of OIDs when getting SNMP tables.

**Measurement Add-On**

- Bugfix: do not update started timestamp of provisions during resuming.

## Release 4.0 - Build 4084 (Jul-03 2019)

**New Devices**

- Geist Watchdog temperature and humidity sensor

**New: New Configuration Setting for Discovery Jobs**

A new configuration setting lets you configure the number of concurrent device discoveries for a specific job. While have a high number (e.g. 40 concurrent devices) as the default, you might reduce that number for sites with slow network connections.

Refer to our blog for more details:  
<https://blog.jdisc.com/2019/06/30/scanning-devices-via-a-slow-network-connection-here-is-the-solution/>

**Improved: VMware Instance Discovery**

The next JDisc Discovery build will be using VMware's API to determine the processor, memory and disk information for VMs where we don't have direct access to... This is, for example, useful for appliances without direct access hosted on ESX servers...

**Improved: NetApp Discovery**

We have improved the NetApp disk array discovery by getting the network ports (mac addresses, interface speeds etc) for NetApp disk arrays running in cluster mode.

**Improved: Supported Devices Report**

We have added a button to list the issues (if there are any) for devices supported by Jdisc Discovery.

**Bugfix: Warranty Lookup for Fujitsu returned wrong data**

The warranty lookup for Fujitsu returned wrong start and end date for devices. That caused issues saving the device data into the database.

## Release 4.0 - Build 4083 (Jun-25 2019)

**Measurement Add-On**

- Bugfix: disable of provisions from all device report now working.
- Bugfix: fixed data collectors stop ahead of scheduling for Windows Performance Counters due to Task Scheduler settings after system restart.

**Networking Add-On – Topology Improvement**

- JDisc Discovery was not detecting the situation properly in all cases when an ip phone is connected to the switch port and when a Laptop/Desktop is connected to the IP phone.
- In some situations, there might be some devices missing within the network map. We have modified the query to get all devices.

**New: Supported Devices Report**

We have created a new “supported devices” report. Use this report to browse the list of all supported devices, vendors and device types.

Refer to our blog for more detailed information:  
<https://blog.jdisc.com/2019/06/16/do-you-know-which-devices-we-support/>

**Improved: NetApp Discovery**

We have improved the NetApp disk array discovery for NetApp disk arrays running in 7-mode. We detect the disk array shelves and assign the disks to the correct shelf. In addition, we have added support for NetApp disk arrays running in cluster mode. We create a cluster, assign the member nodes to the cluster and find the disk shelves together with their disks.

**Improved: Workarounds for HPE Colubris AP Controller**

We experienced issues with HPE Colubris access point controllers. Some of them were not returning model information for their managed access points. Some of them did not return any managed access points at all. At least for the missing model information, we implemented a workaround when the support entitlement information collection is enabled. We can gather the model information from the HPE warranty page using the device's serial number.

**Bugfix: Laptops acting as Access Point with wrong Device Type**

We were overwriting the device type for devices acting as an access point. This caused confusion when a laptop which acts as access point has been changed from the type laptop to access point.

**Bugfix: TPM Module Discovery**

The TPM module could have failed with an access denied due to not sufficient connection privileges.

**Bugfix: Duplicate Scheduled Task Trigger Entries in the Database**

Internally, we could have duplicate database entries for the scheduled task triggers.

## Release 4.0 - Build 4082 (Jun-07 2019)

**Measurement Add-On**

- Measure ink/toner usage for printers
- Measure temperature and humidity for several sensor devices
- Measure power consumption for several PDUs
- Added user preferences to let the user choose between degree celsius and degree fahrenheit when displaying temperature values.
- New: Deleting measurement provisions with its data from the database (warning: deleting large data sets can take several hours).
- When instrumenting multiple devices, a dialog indicates which devices can be instrumented and what can be collected (e.g. performance counters, printer statistics, environmental information).

**New Devices**

- Lenovo Storage Vxxxx Disk Arrays (former from IBM)

**Improved: HP-UX Disk Discovery**

We have added a new command to gather disk details for cases where the current commands failed.

**Improved: Installation Path**

In some cases, we get the path information (e.g. for processes, software installation path, services, ...) in the 8.3 convention (such as "[c:\Progra~1](#)"). We have added code to determine the full path name.

**Improved: Siemens SIMATIC S7 Discovery**

We are using the S7comm protocol to gather information from SIMATIC devices when they are not part of the SNMP data. Furthermore, we have improved the model detection. In many cases, we were only getting "S7" as model and not the actual model such as "S7-300".

**Improved: Hanging Unix Commands**

In some cases, Unix commands can hang. We then try to send a CTRL-C after



the timeout. In most cases, the command then cancels and returns to the command line. However, in some cases, the command was not terminating with a CTRL-C and therefore all subsequent commands run into timeouts as well. This lead to extreme long discovery durations. We modified the code to terminate the console connection once a command hangs and cannot be aborted via CTRL-C.

**Bugfix: Attached Device Database ID in Custom Reports failed**

A custom report failed to display the database id for attached devices in the custom reports.

**Bugfix: Load Balancer Pools for F5 BigIP**

The load balancer pools for F5 BigIP have not been collected anymore. Furthermore, there was a SQL issue in the load balancer pool report for a device.

## Release 4.0 - Build 4081 (May-24 2019)

**New Devices**

- Unify OpenScape Business
- New USB PNP Devices (fingerprint scanner, scanner, smartphones)

**Improved: VMware Discovery**

When a VM has been deleted from the VCenter, then we did not delete the VM from the database, but only disconnected it from the VCenter and its ESX server. The reason is that it might have also been just migrated to another VCenter server.

That caused a lot of orphaned VMs – especially in virtual desktop environments.

We have modified the code so that it deletes the VM from our database when we can definitely determine that the VM has been deleted from the VCenter and not migrated to another environment.

**Bugfix: Add SSH Keys to Default Accounts**

When you have imported more than 4 SSH keys, then it was not possible to add a default account with an SSH key that is in a row > 4 within the table.

**Bugfix: Serial Number on Quanta Computers**

We did not get the correct serial number for Quanta servers when their BIOS serial number was set to “To be filled by O.E.M.”. In this case, the real serial number is the enclosure serial number and we didn't query this item.

**Bugfix: Discovery Time not updated**

In some cases, the discovery time was not updated for devices. This issue has been introduced in build 4080.

**Bugfix: Duplicate instances in Progress OpenEdge Databases**

We learned that OpenEdge database servers can get spawned from the database brokers. The database brokers spawn database servers as needed based upon database broker startup parameters and usage. This creates multiple processes for the same database server with the same path and name which we now only consider one of them to avoid duplicates.

## Release 4.0 - Build 4080 (May-17 2019)

**New Devices**

- Perle STS serial port server

**New: Custom Report Elements for Azure Cloud added**

We have added custom report elements for Azure cloud information.

**Improved: Optimize Database after Clear/Restore**

We have added a call to optimize the database size after a clear/restore by running the “vacuum full” Postgres command.

**Improved: Cisco WLAN Controller Discovery**

We added some code to get the IP addresses for the managed Cisco access points from Cisco WLAN controllers. This helps to reduce duplicates caused by scanning the access point via IP and scanning the access point via its controller.

**Bugfix: Vcenter Discovery failed in some cases**

The VMware VCenter discovery could fail in some cases (especially when the VCenter server has multiple IP addresses and was first scanned without any access credentials and later with access credentials).

**Bugfix: ESX Server Name empty**

The ESX Server name was empty in cases where the VCenter returns a simple IP address instead of a hostname.

## Release 4.0 - Build 4079 (May-10 2019)

**New: VM Snapshot Collection**

We collect the list of snapshots for VMware, Hyper-V and Citrix Xen virtual machines.

For VMware and Hyper-V, we can also determine each snapshot's size.

Read more about the snapshot data collection in our [blog entry](#).

**New: Compile Time for Cisco Operating Systems**

We collect operating system's compile time for many Cisco devices. This is important for consulting and assessment services.

**Improved: Discovery Device Status**

The discovery device status has been extended with a name and a type field for the currently discovered device. That helps to identify which device is just being scanned.

**Bugfix: Login Field on a fresh Installation**

The login field on a fresh installation should offer the currently logged in user. However due to a bug, it was just proposing the domain/computername without login.

## Release 4.0 - Build 4078 (May-03 2019)

**New Devices**

- some older IBM/Lenovo xSeries management cards.

**New: CSV File Encoding**

You can choose between ASCII, UTF8 (with byte order mark) or UTF8 (without byte order mark) when exporting CSV Files from reports.

**Improved: Executables in Custom Reports**

When adding executables into a custom report, then the report did response in a reasonable time. We optimized the query to reduce the query execution time.

**Improved: Checkpoint Edge Firewall**

The SNMP agent on Checkpoint Edge firewalls does not expose the model name. We use now the HTTP page to gather the model.

**Bugfix: SUDO calls were sending wrong Password**

In some cases when sudo is configured to require a password, then we were sending a wrong password. This could lead to locked accounts.

**Bugfix: Layout issue in Protocols Tab**

On small screen resolutions, the discovery configuration's protocols tab was not completely visible.

## Release 4.0 - Build 4077 (Apr-26 2019)

**New Devices**

- Auerswald ISDN Gateways

**Bugfix: Toner/Ink Level in Custom Report**

The custom report did not report the correct values for the different toner/ink for the different colors.

**Bugfix: Adding Devices to the Device List impossible**

A change in the basic table classes caused an issue when adding devices to the device list or when importing networks to the discovery configuration dialog. This issue has been introduced in build 4076.

**Bugfix: Slow Query when listing managed virtual Machines**

Listing the managed virtual machines for a VCenter installation was extremely slow.

**Bugfix: Single quotes and spaces in database passwords**

Due to a limitation in the used database server, single quotes and spaces are not allowed in the database passwords. Our setup checks for those special characters and issues an error when they are used within as password.

## Release 4.0 - Build 4076 (Apr-18 2019)

**New Devices**

- Solarlog Photovoltaic Controller

**New: Detect Production Date for HP/HPE Computers**

We have added the detection of the production date for HP and HPE computers based on their serial number.

**Improved: F5 Appliance Discovery Improved**

The F5 Appliance reports an interface status “Unknown” for some interfaces. We have added some code to determine the correct interface status in case SNMP reports an unknown status.

**Workaround: VMware Bug might cause duplicate Devices**

Suppose you are using blade servers as VMware ESX servers. When we are querying the serial number by the VMware API via the VCenter or the ESXi server directly, then VMware reports the wrong serial number. It reports the blade chassis serial number instead of the blade serial number.

However, when the WBEM protocol is enabled on the ESXi server, then we also utilize this protocol to gather the serial number. The WBEM protocol returns the correct serial number!

But since JDisc Discovery uses also the serial number as an identification attribute for finding devices within our database, we end up with two ESX servers (one having the serial number of the blade chassis – collected via the VMware API and one with the correct server serial number – collected via the WBEM protocol).

We modified our code not to use the serial number for blade servers running

ESX. At least, this avoids duplicates, but still the VMware API reports the wrong serial number.

There is a fix from VMware to fix this issue and it has to be applied to the vcenter appliance and also to the ESX servers. Read more in this thread in the VMware forum: <https://communities.vmware.com/thread/593828>

**Bugfix: Table Representation**

Table rows where cells contain multiple rows was not correctly displayed in our user interface. This bug has been introduced in 4074.

**Bugfix: Progress Log File**

Progress Database log file sometimes is bigger than heap size and therefore, we now only search for the specific pieces needed in the log file instead of transferring the whole file.

**Bugfix: MongoDB Driver updated**

MongoDB throws strange exception, this could be because of MongoDB driver. Therefore, we have updated it to the latest stable version.

## Release 4.0 - Build 4075 (Apr-12 2019)

**New: Detect Production Date for Devices**

We have added the detection of the production date for Cisco devices and monitors attached to a Windows or Linux computer.

**New: Detect Nutanix Storage Clusters**

JDisc Discovery detects Nutanix Controller VMs together with their clusters.

**New: Detect FileVault Disk Encryption on MAC OS X**

JDisc Discovery detects whether a file system is being encrypted using FileVault on Apple MAC OS X.

**Improved: Table Speed for variable Row Heights**

Tables which have variable row heights have been pretty slow when rendered on the screen. The reason was that we were calculating the row heights for each row in advance. With multiple thousand of rows, this can take a while. Now, we are only calculating only the heights of the visible rows.

**Improved: Detect VMware VCenter Appliance via SNMP**

VCenter appliances can now be identified via SNMP when it is enabled.

**Improved: Network Topology Add-On**

We have greatly improved the performance for reading topology information from Cisco switches.

**Bugfix: Interface Status on Linux**

The output format for the ifconfig command has changed on some distributions. Therefore, in some cases the interface status was down instead of up.

**Bugfix: Measurement Add-On**

- In some cases, we didn't get the performance data from Windows servers and we got a PDH\_NO\_DATA error.
- In very rare cases, concurrent access to the perfmon log files could generate a bluescreen.

## Release 4.0 - Build 4074 (Apr-05 2019)

**Bugfix: Null Pointer Exception fixed**

We had an error in the process of matching users which caused a null pointer exception. This has been fixed.

## Release 4.0 - Build 4073 (Apr-05 2019)

**New Devices**

- D-Link DXS Switches

**Improved: Scheduled Tasks Discovery**

The Discovery for Scheduled Tasks on Windows machines contains now the principals and the description for this task.

**Improved: Quanta Server Naming**

We have normalized the naming for Quanta server.

**Improved: Nutanix Server Device Type**

The device type for Nutanix servers has been improved. Before, they were detected as generic "Computer".

**Improved: Apple MAC OS X Discovery**

We can determine the NetBIOS computername and the domain when a MAC OS X computer has been added to Active Directory.

**Improved: Discovery of Cisco and HPE Access Point Controller**

We have improved the discovery for Cisco and HPE access point controllers. In addition to the individual access points, we determine the list of all (wifi) mac addresses for the access points as well as the WLAN SSIDs that the access point exposes. For HPE access points, we are able to get the list of accessible (visible) WLANs as well.

**Improved: Directory computer membership to devices assignment**

When synchronizing directories and also when discovering directory objects, Active Directory computer accounts are now assigned to devices in the database that already exist. This way offline devices (non-discoverable at the time of the discovery scan) can be tracked better and related to computer accounts in the directory.

**Bugfix: Network enable state toggles**

When editing the name for a network within the discovery settings, then the enabled status toggles when pressing the space key. This is a wrong behavior when editing the name field.

**Bugfix: Clone Device Details Window failed**

Cloning a device details window by clicking on the clone button within the report toolbar failed for the device details report.

**Bugfix: Scheduled Tasks view**

There was an error opening a second view for scheduled tasks.

**Bugfix: Topology Discovery**

The networking add-on ignored MAC forwarding entries on a switch when they were configured manually. This led to an incomplete network Topology.

## Release 4.0 - Build 4072 (Mar-27 2019)

**New Devices**

- iba AG automation controllers
- Compuprint printers
- Proxim access points
- Hirschmann industrial switches
- Printronix serial printers
- Indu-Sol PROFIBUS-INspektor NT
- Zyxel Prestige DSL router

**Improved: Measurement Add-On**

- We display the printed pages statistics per hour, day, week, month, quarter and year for printers.

**Improved: pfSense Discovery**

pfSense firewall appliances display a proprietary menu when connecting via SSH. The Linux shell is available after selecting the shell menu item. We have extended our discovery to use the proprietary menu in order to open the shell.

**Improved: Custom Report Filtering**

The TCP/IP connection and open ports custom report data elements allow filtering by local and remote IP address.

**Bugfix: Device List not always stored**

The JDisc Discovery configuration dialog allows to define a list of devices for a network range. The device list was not correctly stored immediately when configured with a new device group.

**Bugfix: Jumphost Discovery fixed**

The discovery via jumphost failed when logging on the jumphost via SSH key.

**Bugfix: HyperV Device Type**

VMware virtual machines which have been migrated to HyperV but kept their VMware mac address have been identified as "VMware Instance". Now, they are correctly identified as "Hyper-V Instance".

## Release 4.0 - Build 4071 (Mar-20 2019)

**New Devices**

- Siemens SIMATIC controller

**Improved: User Management**

JDisc Discovery can be used by multiple users concurrently. New users need to be registered in our user management dialog. The user who was used for the installation is marked as the master user. Up to now, it was not easily possible to change the master user to a different account. A new dialog makes this possible.

**JBoss Discovery: Missing Version**

JDisc Discovery was not able in some cases to determine the JBoss version.

**Bugfix: Cisco NXOS Switch Discovery**

A change in build 4070 on how to read the VLANs caused long discovery times for Cisco NXOS switches which are behaving slightly different from Cisco IOS switches.

**Bugfix: SNMPv2 Usage**

A change in build 4070 to make SNMP queries more efficient to use SNMPv2c more frequently caused issues on some SNMP based devices where the SNMPv2c version of the protocol is buggy. We reverted this to the old behaviour.

## Release 4.0 - Build 4070 (Mar-17 2019)

**New Devices**

- CSL Computer Mini PC
- Zodak Mini PC



- InFocus All-In-One PC
- Overland Tandberg NEO Tape Libraries

### **New: New Device Type “Mini PC”**

We have added a new device category “Mini PC” for Raspberry pi or CSL Mini PCs.

### **Improved: Measurement Add-On**

- A new comparison graphical report lets you compare counter values for selected devices in one chart.

### **Improved: Discovery Speed**

We perform port checks right at the beginning for SSH and telnet prior to testing a connection. That improves the discovery speed for devices when they are not supporting those protocols.

### **Improved: Cisco Switch Discovery**

When using the Cisco SNMP community indexing (with the VLAN id), then we were using far too many VLAN ids. Even VLAN ids which are not configured on the switch. This lead to longer discovery durations and longer durations when calculating the topology.

### **Improved: Cisco Call Manager and AndPhone Call Manager**

The discovery of Cisco Call Manager and AndPhone Call Manager instances was very slow because the SSH console is not an ordinary shell, but a vendor specific shell. Therefore, most commands ran into a timeout which caused the long discovery durations.

### **Bugfix: Missing Index in Measurement Database Partitions**

An issue within Postgres 11 caused missing indexes on the measurement tables. That caused queries to run very slow since it is not using indexes.

### **Bugfix: Could not open Device Details from some reports**

Opening the device reports for a virtual machine from within the device details of the ESX host caused an error and opened an empty dialog.

## Release 4.0 - Build 4069 (Mar-10 2019)

### **New Devices**

- Some more D-Link DGS Switches

### **New: Jumpost Discovery**

The latest build can use a jumpost to scan servers which are not accessible directly from the discovery server.

Read more in our blog: <https://blog.jdisc.com/2019/03/06/36181/>

**Improved: Measurement Add-On**

- New aggregation reports (hourly, daily, weekly, monthly, quarterly) including the min, max, and average values.
- Simply graphing added for displaying the measurement data in a graphical way.

Read more in our blog: <https://blog.jdisc.com/2019/03/09/getting-ready-for-the-cloud-with-our-measurement-add-on/>

**Improved: JBoss/WildFly Discovery**

We use the standalone.xml file in addition to the deployment folders in order to determine the list of deployed applications.

**Improved: Calculation of total Discovery Data Quality**

The calculation of the discovery quality did not take the number of actual devices within the operating system categories into account. That lead to lower values for the data quality.

**Bugfix: Cisco AP identified as Switch**

When a Cisco access point is too busy to return SNMP information such as some tables within the entity MIB, then the missing information caused an access point to be identified as a switch (based on the limited information we have).

We have added a retry mechanism in order to make sure that the entity MIB is being read correctly.

**Bugfix: Duplicate VFile in Database**

In some cases, we had duplicate vFile for NetApps in our database.

**Bugfix: IOS-XE Version not determined**

There was an issue getting the actual operating system version for Cisco IOS-XE switches running on Catalyst hardware.

**Bugfix: Deleted Path before “prostrct statistics”**

For Progress OpenEdge database, we have removed the detected path where we assumed the binary file should reside. This is due to existence of multiple databases on a system.

**Bugfix: Progress OpenEdge Command Line Arguments**

The parser in Progress OpenEdge database used to divide based on tags like -T and therefore the parser was expecting to see such format. But for database there can be cases which there is no tag at all.

## Release 4.0 - Build 4068 (Mar-01 2019)

### **New Devices**

- Some more D-Link DGS Switches

### **Improved: Hewlett-Packard / Hewlett Packard Enterprise naming**

As a result of the HP/HPE company split, many devices in the field still return HP when it should be HPE. Because of that JDisc Discovery now normalizes the manufacturer name to HPE for device types/families that belong to HPE.

### **Improved: Setup/Install**

The installation routine sometimes shows a gray window especially during database backup and restore while waiting for data. Now the progress of this operation is better shown using dots and the gray window should no longer show up.

### **Improved: WildFly Application Server**

WildFly is based on JBoss and was detected as JBoss server. Now, it will be identified correctly as WildFly.

### **Improved: Logon name in Scheduled Tasks**

Instead of the user name the logon name is shown in scheduled tasks.

### **Improved: SQL Server 2019 Detection**

JDisc Discovery detects the SQL Server 2019 installations.

### **Bugfix: Setup/Install**

Under some circumstances the installation was interrupted by an error when attempting to stop the JDisc Discovery processes.

### **Bugfix: Custom Reports for Scheduled Tasks**

There was an error if "Run as" was selected in a custom report for scheduled tasks.

## Release 4.0 - Build 4067 (Feb-22 2019)

### **New Devices**

- Xerox VersaLink printers
- Creston Video Conferencing devices
- Improvements for Teradici Think Clients
- Polycom IP Phones via HTTP/REST API
- 

### **Improved: Measurement Add-On**

- Optimized context menu for Measurement Add-On.
- Added additional statuses for paused and stopped provisions.

**Bugfix: Measurement Add-On**

- Last Data timestamp was not updating properly for new measurements in measurement overview report.
- Measurement data can be archived without measured values (previous constraint had a minimum of 14 days).

**Bugfix: Certificate Key Type was missing in Custom Reports**

The certificate key type field was missing in the custom reports section for certificates.

**Bugfix: Cloud Sync could not be disabled**

The cloud sync could not be disabled for a discovery job.

**Bugfix: IPv6 Check takes too long**

Due to an API change in the OpenJDK 11 implementation, the check for IPv6 addresses can take very long. We have changed the implementation to speed up the check again.

**Bugfix: Fujitsu Warranty Page Changed**

Due to changes on the warranty retriever page of Fujitsu, one was not able to obtain warranty information for a Fujitsu device. The code change been updated to adapt to new changes.

## Release 4.0 - Build 4066 (Feb-11 2019)

**New: Measurement Add-On**

- Added template for gathering only Total values from counters if available.
- Added measurement events overview report.

**New: Informix Database Discovery for Linux**

Informix databases are now discovered for Linux systems.

**Improved: Custom Software Collection Scripts**

JDisc Discovery can be extended by proprietary scripts to collect additional software installations that are not installed via the platform's standard installation procedure. We have extended the software collection to include also license and user information.

**Improved: Custom Report Performance for Software Instances**

The custom report for software instances was far too slow. We have modified the query and the result returns usually in less than one second.

**Improved: Scheduled Tasks**

The scheduled tasks for windows discovery scans the principal name for scheduled tasks.

**Bugfix: Handle bash install question configuration**

Some Linux distributions come with a bash configuration that asks whether to install a command line tool unless it is already installed. We were not expecting this behavior and thus the we were waiting for the command to terminate (which it didn't because it was waiting for our response). Therefore the command ran into a timeout and the discovery of the server took a very long time.

**Bugfix: Allnet Environment Monitor Discovery via HTTPS**

Allnet environment monitors were not identified correctly using HTTPS.

**Bugfix: Scheduled Tasks**

Some data of the scheduled tasks exceeds the length of the corresponding database fields. They are enlarged now.

**Bugfix: Device Naming**

Some SNMP devices (e.g. Siemens IP phones) return the model as system name by default. In this case, we were falsely choosing the system name.

## Release 4.0 - Build 4065 (Feb-01 2019)

**Bugfix: SSH Keys not imported correctly after restore**

The SSH keys were not imported correctly after a restore from the archives. The cause is an incompatibility of the base64 encoding class from the JDK 8 and OpenJDK 11.

**Bugfix: SMB Protocol Check failed**

The SMB protocol check failed when there were multiple default Windows accounts used in different device groups and when the default account from the root group did not succeed.

## Release 4.0 - Build 4064 (Jan-25 2019)

**New Devices**

- Some mappings for recent Lenovo laptops added
- Netgear ReadyNAS
- Raritan CommandCenter Secure Gateway
- HPE 3PAR Disk Arrays via SNMP

**Improved: HP Printer Serial Numbers**

We already had implemented several SNMP queries to gather the serial number for HP printers. That worked in most cases, but unfortunately not in all. With the new build, we query one more SNMP variable to gather the serial number for printers where the serial number was missing up to now.

# Release 4.0 - Build 4063 (Jan-11 2019)

## **New: Measurement Add-On**

- Improved instrumentation dialog
- Printer total page counter collection
- On request cleanup and pulling data issue fixed

## **New: Azure Cloud Discovery**

JDisc Discovery scans now the Azure cloud and finds Office 365 subscriptions as well as booked database resources and virtual machines within the Azure cloud. We display the complete structure including the subscriptions and resource groups as well as the assignments of devices to their resource groups.

## **New: Migration to OpenJDK 11**

Oracle has changed their license terms for their Oracle JDK/JVM. Therefore, we needed to migrate to OpenJDK and also due to lack of free updates for Java 8, we migrated to Java 11.

## **New: Discovery of Scheduled Tasks for Windows**

With JDisc Discovery you get now informations about the scheduled tasks on Windows machines. These data can be found under the "Configurations" tab in the client. There is a tree and a flat view of the scheduled tasks. It is also possible to create custom reports with this new informations.

## **New: Visual Studio Discovery on MAC OS X**

We determine the Visual Studio edition together with the MSDN cloud user for Microsoft Visual Studio installations on MAC OS X.

## **New: Local User Groups on MAC OS X**

We determine the list of local user groups together with the member users on MAC OS X.

## **New Devices:**

- Toshiba TEC label printer

## **Improved: VMware Discovery**

We added some code to ignore SRM (Site Recovery Manager) placeholder VMs. This avoids duplicate VM entries for the actually running VM and its placeholder VM.

## **Improved: Discovery Ping Speed**

Until now, JDisc Discovery pinged IP addresses in Chunks of 64 addresses. We have improved the ping procedure to work with several worker threads in parallel. The actual number can be adjusted in the general settings within the discovery configuration.

With this feature, ping is up to 16 times faster than before! This is especially useful for large networks. The default configuration is set to 4 times faster as

before.

**Improved: Get Name, OS Version and FW Version for Kyocera Printer**

Kyocera stores the device name, os version and fw version in non standard SNMP variables. We added the code to read those values and store them correctly in our database.

**Updated: Embedded Database updated to Postgresql 11**

We have updated the embedded database to Postgres version 11.

**Bugfix: Clear Database (devices only) also deleted Filter Settings**

The clear database option that should delete only the devices also deleted the discovery configuration filter settings.

## Release 4.0 - Build 4062 (Dec-12 2018)

**Improved: Get the Extension Number for Avaya IP Phones**

We are getting the extension number for Avaya IP phones and store them as a custom attribute.

**Bugfix: prtconf called with the wrong Path**

The prtconf command was called with the wrong path on Solaris in order to determine the total memory size.

## Release 4.0 - Build 4061 (Dec-04 2018)

**Bugfix: Archiving could lead to an OutOfMemory Failure**

Archiving databases with a large number of history snapshots could lead to out of memory exceptions during the archiving process.

**Improved: Logging when getting Bitlocker Encryption Status**

We have improved the logging for the bitlocker encryption status in order to find an issue that we currently have with Bitlocker installations which are not detected properly.

## Release 4.0 - Build 4060 (Nov-30 2018)

**New Devices:**

- Windows Server 2019 (based on Server 2019 Preview / Build 17677)
- Some more Avaya VSP Switches
- Planet Industrial Switches

- Digicomm VPN Router

**New: Cisco Support Entitlement feature added**

With your company specific Cisco Client ID and Client Secret keys you can gather Cisco devices support entitlements about warranty information and coverage. Simply give in your Cisco Client ID and Client Secret keys in Scope > Accounts > Support Entitlement > Cisco Support Entitlement > Cisco as “User name” and “Password” respectively.

**New: Measurement Add-On**

With the new release, it is possible to modify existing provisions. You can change the polling or sampling interval or modify the set of counter categories without stopping and re-instrumenting the existing provisions.

**Improved: Extended logging of Windows remote login for troubleshooting**

Logging of the JDisc Discovery Zero-footprint agent can now be enabled from the *Troubleshooting > Logging > Enabled Extended Logging* menu item. When enabled, the Disc Discovery Zero-footprint agent's debug log is automatically transferred and merged into the current \*.Debug.log file of the discovery server.

**Bugfix: IBM/Lenovo Flex Server Management Module**

The IBM/Lenovo Flex Server Management Modules were not assigned to the server.

## Release 4.0 - Build 4059 (Nov-16 2018)

**New Devices:**

- Dell Wyse V10L, 30XX Thin Clients
- Microsens Converter and Switches

**New: Simple Charting Capability for Reports showing Statistics**

Some reports can create pie or bar charts. Two new icons have been added to the reporting toolbar in order to easily create the charts.

**Improved: Show XML Discovery Log Sourcecode in case of Error**

In some occasions, the discovery log produces a parsing error when opening the troubleshooting tab. We have added a new error dialog which displays the XML code that creates the issue. That makes it easier for us to identify the root cause.

**Bugfix: Wrong Network Assignment**

In rare cases, devices were assigned to the wrong IP network although the network mask is correctly configured.

**Bugfix: UI could hang when moving Device Groups**

The user interface could hang when moving device groups.



**Bugfix: Executable Collection on 32 Bit Windows**

The collection of executable files on 32 bit Windows operating systems failed.

**Bugfix: DNS Forward Lookup**

Depending on the DNS server, forward DNS lookups returned the DNS server's IP address in addition to the actual IP address of the device. This does not happen with all DNS servers, but for instance with the FritzBox.

**Bugfix: BIOS Release Date for Linux**

When the BIOS release date has been collected using the "dmidecode" command, then the date was shifted one month to the future.

## Release 4.0 - Build 4058 (Nov-7 2018)

**New Devices:**

- Aten PDUs

**Important Update: New Dell Support Entitlement API Key**

The API key that we use to collect support entitlements for Dell devices expired. This build includes the new API key from Dell. Previous builds which still include the old API key will not be able to collect warranty information for Dell devices anymore.

**New: Detect MSDN, Teamviewer and iCloud User**

We detect MSDN, Teamviewer and Apple iCloud user and assign them to the corresponding local or AD user. A new report (Users > Cloud Users...) lists all cloud users together with the number of computer or AD accounts that uses this cloud user and the number of computers where the cloud user is used.

**New: New "Run" Button in Scheduled Mail/Export Jobs**

A new "Run" button enables users to run scheduled export or mail jobs on request.

**New: New "Comments" Field for SNMP Communities and Accounts**

You can attach comments to default SNMP communities and accounts. That makes them easier to identify.

**New: Progress OpenEdge Database discovery for Windows**

Discovery of Progress OpenEdge databases are now supported for Windows machines also.

**Improved: Serial Number and OS Version for Mikrotik Switches**

We are getting now the os version, fw version and the serial number for Mikrotik switches.

**Improved: Get last Windows Update timestamp for Windows 10/2016**

Microsoft has changed its way to store the last Windows update timestamp for Windows 10 and 2016 server. We have adjusted our code to get the last update timestamp for Windows 10 and 2016 Server.

**Improved: Check Command before starting via sudo**

We are going to check whether commands exist or not before calling the command via sudo. Otherwise, that might create alerts when calling non existing commands.

**Improved: Progress OpenEdge Database Parameter File**

OpenEdge databases can be run using a parameter file instead of providing the parameters in the command line. Now databases which were run using this method can also be discovered.

**Bugfix: Login Dialog did not remember previous Servers**

The login dialog did not remember previously entered serves in the server drop-down combo box.

**Bugfix: WWN Discovery on Brocade Switches**

We did not get the WWNs on Brocade switches in all cases (when not all ports have been used).

**Bugfix: Database Ports not written to the database**

Build 4057 has introduced an issue that the database ports are not written to the database. This issues is fixed in this build.

**Bugfix: Pinging Devices without IP Address always returns success**

When pinging devices from any device report, the ping result was always success for devices without any IP address.

**Bugfix: Conditions in Virtualization Custom Reports**

JDisc Discovery created a wrong query when adding conditions in some virtualization custom reports.

**Bugfix: Conditions in Certificates Custom Reports**

JDisc Discovery created a wrong query when a condition was set for the expires in days field for certificates.

## Release 4.0 - Build 4057 (Oct-21 2018)

**New Devices:**

- HW Group STE2 Temperatur Sensor
- Rittal PDU Devices
- MikroTik Routing Switches
- Barco ClickShare Presentation Systems (via REST API)

- Dell Unity Disk Array (via REST API)

**New: Applications assigned to Users**

Previous versions of JDisc Discovery were getting the list of applications. However, it did not assign applications to users in case the application was installed for some users only.

**New: Detect FibreChannel Interfaces for ESX Servers**

We are collecting now the information about the fibre channel interfaces (including WWN).

**New: Get VMware Tags for Hosts and VMs**

We are collecting the VMware tags for hosts and virtual machines and store them in a custom attribute.

**New: Get WWNs for Hostbus Adapter in VMware ESX servers**

We collect the WWNs and the hostbus adapter for VMware ESX servers.

**New: Using REST APIs to scan Devices**

We have started to use REST APIs to get device details from devices where SNMP or other protocols are not available. Whenever an account is required to scan a REST based device, then you need to configure an HTTP/HTTPS default account or account. We have implemented REST support for some Barco visualization gateways and Dell Unity disk arrays.

**New: Progress OpenEdge Database added**

Discovery can now detect OpenEdge databases on Linux systems and gather tables.

**Improved: Processor discovery of Oracle VirtualBox VM running Windows**

Due to a bug / strange behavior of Oracle VirtualBox VMs running Windows, processors were ignored as these appear to be in Unknown state. Now processors reported by WMI on virtual systems running Windows are always considered present / enabled.

**Improved: Filter and Sorting added**

We have added filtering and sorting to the custom report and filter string conditions. That makes it easier to find existing entries when there are a lot of filter entries.

**Bugfix: Server not discovered due to missing HPE iLO serial number**

Now the HP(E) Integrated Lights-Out (iLO) discovery discovers the attached / managed server also when its iLO does not have a serial number.

**Bugfix: Cisco Access Point Controller Discovery**

Cisco has slightly changed the data for its AP controller and therefore, we didn't recognize the managed access points anymore. This issue has been fixed.

**Bugfix: Change Password Dialog shows wrong Account Type**

The change password dialog within the default accounts showed a wrong account type when changing existing accounts. This was just a display issue and is fixed in this release.

**Bugfix: License Warning Info didn't disappear**

Once a license warning message appeared it did not disappear even when the root cause has been solved (e.g. too many devices). Only a server restart could fix this issue.

We have added code to remove the warning once the root cause of the license issue has been solved.

**Bugfix: User Group Membership deleted**

JDisk Discovery was deleting the user and usergroup members of local Windows user groups in some cases (when a VM with multiple network interfaces was scanned via a vcenter).

**Networking Add-On: SAN Topology**

When scanning Brocade (or OEMed Brocade) fibre channel switches, then we are collecting information about the connected devices. If we find the connected WWN, then we create the connection within our database and you can visualize it the in the same way as the layer 2 ethernet topology.

Refer to our blog entry for more details: <https://blog.jdisc.com/2018/10/19/fibre-channel-interface-discovery-and-fibre-channel-topology/>

**Measurement Add-On:**

- Improved logging facilities for measurement events.
- Fixed import of data to avoid loading the whole file into memory.
- Made use of chunks for measurement data transfer and parallel imports.

## Release 4.0 - Build 4056 (Sep-28 2018)

**New Devices:**

- New models added to our Lenovo partnumber↔model lookup

**Improved: IP4 and IP6 Address List field for Interfaces**

We have added two new fields (IP4 and IP6 address list) to the interface custom report. With those new fields, you might display the list of IP addresses configured on a specific interface.

**Improved: WMI DeviceID gets collector for Processor Information**

We collect the wmi DeviceID field for processors on Windows computers. This field is required from Microsoft in order to be certified as a data source for their audits.

**Improved: VMware and HyperV Identification**

We have had the issue that a customer was migrating all his VMware VMs to Microsoft HyperV without changing the VM mac addresses. In the past, we identified virtual machines technologies primarily based on their MAC addresses.

For HyperV and VMware, we have added other attributes to improve the identification process and avoid mistakes when only relying on the MAC address.

**Bugfix: Exception when scanning Shares for Samba devices**

Fixed NPE issue when scanning shares for Samba based devices.

**Measurement Add-On:****Improved: Memory Consumption during Data Import**

The memory consumption during the data import and transfer has been reduced.

**Bugfix: Performance Data Collection on local JDisc Server**

The performance data collection failed for the local JDisc discovery server.

**Bugfix: Access Denied Issues when transferring Data**

There could be sporadic access denied errors when polling performance data from Windows servers.

## Release 4.0 - Build 4055 (Sep-07 2018)

**New Devices:**

- Intermec EasyCoder Printer
- Barco Projectors

**Improved: Ping displays active IP**

We display the list of active IP addresses when manually pinging devices from our device report.

**Improved: Keyboard Shortcuts added**

We have added some keyboard shortcuts for “discover device”, “All Devices”, and “Custom Reports”.

**Improved: HyperV Instance Discovery**

Like for VMware, we perform a DNS lookup on all IP addresses on the HyperV instance. This helps to create a meaningful name for the HyperV instance.

**Bugfix: Custom Reports fail in some Cases**

The custom reports could fail when a duration value was null.

## Release 4.0 - Build 4054 (Aug-29 2018)

**Improved: Model Detection for HPE Stacked Switches**

We found some customer configurations where a HPE switch was still configured as stack although it is the only member. In this case, the SNMP system description does not include the proper model description, but only the series name.

We have improved the code to detect that situation and get the model information from another MIB location instead.

**Improved: F5 BigIP Discovery**

F5 BigIP devices can have appliances (virtual machines) running on the device. We have added a new virtualization type "F5 Appliance" and we link the F5 BigIP appliances to their hosting device.

## Release 4.0 - Build 4053 (Aug-24 2018)

**New Devices:**

- Hewlett Packard Enterprise StoreVirtual Virtual Storage Appliance (VSA)

**Improved: SNMP Walk Export**

We were asking for SNMP Walks in order to implement new SNMP devices. Up to now, the SNMP walk tool was separate from JDisc Discovery although we have a SNMP Walk functionality in the product. However, the output was not suitable for our SNMP simulator. We have added now a new Excel export functionality for the SNMP Walk that creates the output suitable for our SNMP simulator.

**Improved: Parallels Virtualization Detection**

We were detecting Parallels virtual machines based on their MAC addresses. However, this was not reliable in all situations. Therefore, we added another detection based on the device model.

## Release 4.0 - Build 4052 (Aug-20 2018)

**New Devices:**

- Mediant VOIP Gateways
- Avaya Virtual Services Platform Switches
- Intel NetportExpress Print Servers

**Improved: Zebra Printers which are offline**

Zebra printers which have been offline were not discovered correctly. Unfortunately, you will not get the proper model when the printer is offline. However, you will classify the device as a Zebra printer instead of a previously unidentified device.

**Improved: Hardware Version for Apple Computers**

We are getting the hardware version for Apple computers.

**Improved: Better Feedback for manual Support Entitlement Requests**

We have added a new feedback dialog for manual support entitlement discoveries. Once the support entitlement requests are submitted, we log the results and finally display a dialog with the result for all selected devices. In case of an error, a new window with the log explains the details of the failure.

**Improved: Dell Blade Enclosure Discovery**

We created a management controller device and a blade enclosure for the Dell blade servers when scanning the blade enclosure. The management device is not really necessary and we dropped that device. Now, the Dell blade system appears as one enclosure with the corresponding blades.

**Bugfix: Backup on local drive did not delete old files**

The scheduled backup of the database did not delete old backup files.

**Bugfix: Drag & Drop failed in the Custom Report Dialog**

Drag and drop of custom reports within the custom report dialog failed in some cases.

## Release 4.0 - Build 4051 (Aug-08 2018)

**New Devices:**

- Some more recent Lexmark printers

**New: WWNs for Brocade Switches**

We determine the WWNs for the fibre channel interfaces on Brocade switches.

**New: WWNs for HPE P2000 Disk Arrays**

We determine the WWNs for HPE P2000 disk arrays.

**New: Support Entitlement for Xerox Devices Added**

Inventory Discovery can now collect warranty information for Xerox devices from their website.

**New: Discovery Log includes Discovery Settings**

The discovery log includes now also the global discovery settings. That makes it

easier for us to troubleshoot discovery issues.

**Improved: Workaround added for Dell Management Boards**

Some SNMP agents from Dell iDRAC or other management boards seems to have issues with SNMP get requests. We added a get-next call in order to work around this issue.

**Improved: WebLogic 12.x Support improved**

We had issues properly scanning some configurations with WebLogic.

## Release 4.0 - Build 4050 (Aug-05 2018)

**New: Raspberry Pi Support added**

We are detecting the model and vendor for the Raspberry Pi.

**Improved: Oracle Database Discovery**

Usually, the set of SIDs exposed by a database server should be unique (no two SIDs on the same machine). However, when upgrading from one Oracle installation to a new version without a proper cleanup of the old version might lead having two SIDs with the same name for different installations. We have modified the code to cope with this situation.

**Bugfix: Filter Settings ignored for VMware Virtual Switches**

The filter settings were ignored for VMware virtual switches.

## Release 4.0 - Build 4049 (Aug-01 2018)

**Improved: Stacked Switch Discovery for HPE – Comware Switches**

We have added the discovery for the Comware stacked switches from HPE.

**Improved: Workaround added for Dell Management Boards**

The SNMP agent from Dell iDRAC or other management boards seems to have issues with multiple OIDs within a PDU. We added a workaround to gather that data using only one OID per PDU.

## Release 4.0 - Build 4048 (Jul-30 2018)

**New Devices:**

- HPE Walljack Switches
- Dell PowerEdge FN-XXX Switches

**New: iSCSI Initiator and Target for NetApp Disk Arrays**



We determine the iSCSI initiators and targets for NetApp disk arrays using the SNMP protocol.

**Improved: NetApp Discovery**

We have replaced the SSH discovery on NetApp disk arrays by the NetApp API. The NetApp API is independent provides a higher abstraction for the access and thus works on all operating system versions.

**Improved: Apache WEB Server Discovery on Unix**

The apache web server appears – depending on the distribution – as “httpd” or “apache2” package. When we try to find apache instances by checking the process list, we also added an apache2 package to the software list. On Redhat Linux distributions where apache was listed as httpd, we ended up in two entries: apache2 and httpd. We are going to normalize the naming according to the distribution and this removes the duplicate entry.

**Bugfix: Software Discovery on Domain Controller**

In some cases, the software discovery on Windows computers via remote login failed.

**Bugfix: Devices not assigned to Group**

The devices were not assigned to a group which is defined by a list of devices from an ASCII file.

**Bugfix: App. install location might contain XML escape characters**

When an application's install location (path) contained quote characters these have been incorrectly converted to XML special character sequences when using the remote login registry tunnel.

## Release 4.0 - Build 4047 (Jul-23 2018)

**New: iSCSI initiator and target discovery**

We are collecting the list of iSCSI targets and initiators for Windows, Linux and ESX environments. Additionally, we also gather this information for some SNMP based devices (e.g. disk arrays or NAS).

If you have any disk array or NAS that does not provide the list of iSCSI targets, then just let us know. Create a SNMP walk (<http://www.jdisc.com/en/support/faq.html#c1635>) and attach it to a ticket and we'll check the MIB for iSCSI information.

Refer to our [blog entry](#) for more details.

**Improvement: Show Datacenter and main IP Address**

The Device Details dialog displays the datacenter (if a VM is part of a VMware datacenter) and the major IP address for the device in the first *General Info*

panel.

**Bugfix: SNMP Walk failed for SNMPv3**

Our SNMP walk failed when the device supports SNMPv3.

## Release 4.0 - Build 4046 (Jul-13 2018)

**New Devices:**

- Xerox AltaLink printer
- Janitza Environment Sensors
- MultiTech iSMS Modem
- Wyse/Dell Xenith Thin Clients

**New: Active Directory member user account last logon time**

Alike the Active Directory member computer accounts, the last logon time is now also discovered from member user accounts. The member user account last logon time is pulled from the Active Directory's global catalog. Depending on the global catalog replication between sites the last logon time might leap a bit behind.

**Improvement: Zero-Footprint agent install recovery/repair**

Now the JDisc Discovery Zero-Footprint agent install automatically recovers from error conditions such as missing executable binaries when the service control manager (SCM) entry is still present on remote Windows computers.

**Bugfix: Some local Windows users appeared as global users**

Local virtual Windows users such as DWM-x (Desktop Windows Manager and also users of special local domains such as "IIS APPPOOL" have been mistakenly detected as global users even though these are local user accounts.

**Bugfix: Windows Storage Server 2016**

The operating system for Windows Storage Server 2016 was "Windows Server 2016" instead of "Windows Storage Server 2016"

**Bugfix: SSH not tested on some Unix servers**

SSH access was not tested, when some non standard SNMP agent was installed on the server.

**Bugfix: SSH Protocol Status was wrong**

The SSH protocol status was wrong when remote login via SSH and SSH key succeeded. It was set to "not tested" instead of "success".

**Bugfix: VMware Custom Attributes not always written**

In some cases (Windows VMs servers being scanned via WMI), the VMware custom attributes (such as MOR, VM name etc) were not updated when the vCenter or the ESX server was scanned.

## Release 4.0 - Build 4045 (Jun-28 2018)

### **New: Bitlocker Disk Encryption on Windows**

We detect whether a drive is encrypted via Bitlocker and if yes, what algorithm is being used.

### **Improvement: Test Button For DNS Checking**

Availability of existing DNS servers in the list can be checked via the "Test" button under Discovery Configuratio > Protocols > additional DNS servers configured (blue link)

### **Improvement: Serial Number and FW Version for Zebra Printers**

We have added support to gather the serial number and the fw version for the most recent zebra printers.

### **Bugfix: Computer Prefix instead of Domain Prefix for Users**

Logged on users on Windows had the wrong prefix (computer prefix instead of domain prefix) when scanned via remote login.

### **Bugfix: Start in Reporting Mode**

After importing very large databases (> 100.000 devices), a start in reporting mode could take a long time or even time out due.

### **Bugfix: IBM/Lenovo Flex System Type**

In some cases, IBM/Lenovo Flex System blade servers were identified with type "Computer" instead of "Blade Server".

### **Bugfix: Possible Database Restore Issue**

When a database restore fails (for any reason e.g. disk full), then we drop the database in order to re-create a fresh database. However, in some cases (e.g. when there is another database connection) from another application, then the drop database fails and you might end up with a corrupt database. The corrupt database might not have all indexes and foreign key constraints.

We modified the drop database code so that is kills all existing connections to the database. This ensures that we are able to drop the database and re-create a fresh database schema.

## Release 4.0 - Build 4044 (Jun-20 2018)

### **New Devices:**

• Dell	SCxxxx	Disk	Arrays
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### **Improvement: Powershell Script Execution**

All our powershell scripts require at least version 2.0. Therefore, we check the verion prior to executing a script. In previous builds, we ran the powershell get-

host commandlet in order to determine the version. However on some systems, the powershell process did not exit after running the commandlet. Therefore, we check the version in the registry as the first place. If we get the version from the registry, then we don't run the get-host commandlet anymore.

**Bugfix: Support ZIP Creation Error**

Due to a critical issue in the MS Excel export, the support ZIP functionality was broken since build 4043.

## Release 4.0 - Build 4043 (Jun-17 2018)

**Improvement: Delete Datacenter**

VMware Datacenters can be manually deleted from the Devices > Virtualization > Virtualization Datacenters.

**Improvement: DNS server availability check added**

Every DNS IP address added via Discovery Configuration > Protocols is now checked to see whether a valid DNS server sits behind the corresponding IP address.

**Improvement: Ignore more built-in Monitors**

We have added some code to ignore more built-in monitors (e.g. laptop monitors).

**Improvement: Tomcat Server Discovery**

We have improved the tomcat server discovery by reading the server.xml configuration file in order to determine the ports tomcat is running on.

**Bugfix: Deadlock Fixed**

A deadlock could set the discovery into a infinite waiting state.

**Bugfix: Database Export/Import during Setup**

In rare conditions, the discovery could be started during the restore process and that caused some strange exceptions during the import. The fix makes sure that the discovery is in stopped mode while importing the database.

**Bugfix: Creating a support.zip throws an Exception**

If the manufacturer and the device model are empty, then an exception occurred if a support.zip was created for such a device.

**Bugfix: Too many cell styles in Excel sheet**

There is a limitation in Excel for the number of cell styles in an Excel sheet (max 64.000). We are reusing the cell styles to avoid this error.

# Release 4.0 - Build 4042 (Jun-8 2018)

## **Improvement: Domain controller/GC connection status caching**

To determine the directory membership of discovered computers, JDisc Discovery connects to domain controllers / global catalog (GC) servers using the LDAP protocol and runs LDAP queries.

The discovery process was slowed down, when manually configured or automatically discovered domain controllers / global catalog servers were no longer responding (offline or decommissioned).

Now the discovery process caches the connection status of domain controllers / global catalog servers that did not respond on a previous connection attempt. This change improves the discovery speed on subsequent connection attempts to non-responding domain controllers / global catalog servers as JDisc Discovery moves on and picks the next available one from the database.

## **Improvement: Zebra Printer Discovery**

In the past, we created two devices when scanning Zebra printers. One for the print server (the management card) and one for the printer itself.

On request of several customers, we create only one device for the printer itself.

## **Bugfix: Directory canonical name empty**

The directory canonical name attribute is now updated / set for directory objects that have not been modified. There was a bug when using an older database archives that were initially created with a JDisc Discovery version that did not yet have the canonical name attribute.

## **Bugfix: Device Management Role**

The role "Device Management" was not attached to all devices that are managing other devices.

## **Bugfix: Device Name**

In some situations, a virtual machine was not assigned the FQDN as name, but only the system name.

## **Bugfix: License update fixed**

Update message was not showing because used credits was null in the code every time it was called to recalculate the remaining credits.

## **Bugfix: IBM Disk Array Discovery**

We are using SSH to gather information about IBM disk arrays. After a command execution, we check the return value for 0 (success). However, some IBM disk arrays return a different value (-2147483648) although the command ran successfully. Therefore, the check for success failed and any collected data was ignored. We adjusted the check for success to also include -2147483648 as success value.

## Release 4.0 - Build 4041 (May-30 2018)

### **New Devices:**

- Fujitsu Server Management Cards iRMC via HTTP(s)

### **Improvement: VMware VM-MOR**

We are collecting the managed object reference string for a VM and store it as custom attribute for each VM.

### **Improvement: Applications Report**

The applications report lists all applications stored in the database – even if they are not associated with any device. Furthermore, it is possible to delete software entries from the database (e.g. applications which are not associated with any device).

### **Bugfix: Local User Groups overwritten**

The local user groups have been deleted when a VM has been found via the vcenter or its physical host.

### **Bugfix: Manage Custom Attribute Scriptes Dialog Size**

The dialog to modify the custom attribute scripts could not be resized.

### **Bugfix: Orphaned Account Database Entries**

We created orphaned database entries in the account table which made the table larger than needed and slowed down the application. The orphaned account entries will be removed when importing an old archive.

### **Bugfix: Orphaned Executable Entries**

We created orphaned database entries in the executable table which made the table larger than needed and slowed down the application. The orphaned executable entries will be removed when importing an old archive.

### **Bugfix: Database Hangs when writing devices with many connections**

The database could hang when writing devices having many TCP/IP connections. The generated query was too long and crashed the database server.

We split the long query into multiple smaller queries in order to avoid this issue.

## Release 4.0 - Build 4040 (May-16 2018)

### **New Devices:**

- Alcatel-Lucent 73xx ASAM
- Some new Socomec USVs

### **Improvement: Performance for the Group Assignment improved**

JDisc Discovery assigns all vms and physical hosts to their corresponding groups when scanning Vcenter environments. For large vcenters, this was taking a while. We have improved the speed.

**Bugfix: NPE fixed in MongoDB**

Parameter of MongoDB was null as a string.

**Bugfix: Wrong Disk Size**

The disk size was in GB instead of TB when scanning HPE Nimble storage devices.

**Bugfix: Virtual Switches mistakenly counted for the License**

The new VMware local and distributed virtual switches have been mistakenly counted to the license. We removed them again. Now, they don't add to the credit count anymore.

## Release 4.0 - Build 4039 (May-04 2018)

**New Devices:**

- Zyxel XS Switches

**New: VMware Distributed Switch Discovery**

We detect distributed VMware virtual switches, their connections to the physical hosts and virtual machines. With the Networking Add-On, we will also get the list of VLANs associated with a port.

**Improvement: More initial Memory for the Client**

The client might get to its memory limits of currently 500MB with large databases. Therefore, we have increased the default maximal memory consumption to 2GB.

**Improvement: Dependency Mapping Option Removed**

The Dependency Mapping Add-On had the configuration option to scan devices which have an TCP/IP connection to the scanned device. This option might be useful in some environments. However, in most environments it adds the risk to actively scan devices outside the company's network.

Therefore, we have removed this option completely and JDisc Discovery will not scan an IP address outside the configured scope even if there is an active TCP/IP connection to the scanned computer.

**Important Bugfix: Long Device Database Write Durations**

When writing large VCenter installations to the database, a unnecessary nested loop caused very long write times (> 20 minutes) for medium sized (~100 ESX servers and ~1000 Vms) to large vcenter installations.

The database write time has been reduced to the usual 2 minutes.

**Bugfix: Possible Deadlock fixed**

A deadlock could lead to a hanging discovery process.

**Bugfix: DB2 Discovery on Oracle Solaris**

DB2 could not be detected on Oracle Solaris.

## Release 4.0 - Build 4038 (Apr-24 2018)

**New Devices:**

- Netgear Print Server
- Printronix Label Printer
- W&T USB Ethernet Adapter

**New: Dependency Mapping for Processes**

The Dependency Mapping Add-On collects open ports and TCP/IP connections between computers on the network. Now we have enhanced this by adding process related information to open ports and connections. With the new feature, you will now get the processes listening on a UDP or TCP port and also see to what devices and remote processes there it is connected.

Also check out our new [blog entry](#) and our [video tutorial](#).

**New: New Report “All Virtualization Management Servers”**

The new built-in report “All Virtualization Servers” helps to find all virtualization servers (e.g. Vcenter servers).

**New: Vertica Database support added**

Vertica databases can now be detected on Linux systems. Properties like size, row count of databases, schemas and tables are retrieved.

**Improvement: Volumes on Dell Caringo Object Storage**

We are collecting volume information for the Dell Caringo object storage.

**Improvement: Custom Report Import/Export**

We are exporting the report title and description when exporting custom report definitions. That makes it easier to import them on other installations.

**Bugfix: Client Only Installation failed when importing Text files**

The client only installation failed due to a missing library when importing text files into custom report conditions.

**Change: Faster discovery of Windows drivers using Remote Login**

Before, Windows drivers have been discovered using the WMI protocol. However WMI required many network round trips to get all driver information. Now, using Windows remote login, all driver information is collected on the remote computer, which makes it faster than before.



**Change: Ignoring users and groups on Windows domain controllers**

Users and groups on Windows domain controllers are no longer discovered. Depending on the size of the directory and included users and objects this has taken too long and often returned timeouts. Please use the directory synchronization feature when you need directory global users and groups.

## Release 4.0 - Build 4037 (Apr-12 2018)

**New Devices:**

- EMC RecoverPoint
- Some more IBM PDUs

**New: MTU for Windows Network Interfaces**

We are collecting the MTU field for network interfaces on Windows.

**New: DHCP Enabled for Windows Network Interfaces**

We are collecting the flag whether DHCP is enabled on a network interface for Windows computers.

**New: SQL Server 2000 Personal Edition**

We can detect the edition for SQL Server 2000 Personal Edition installations.

**Improvement: Restore Database Performance**

We have improved the performance for the restore operation for large archives by importing several tables in parallel. This makes a better use of processor capacities on multi core systems.

**Improvement: Serial and Part Number for IBM PDUs**

We added the code to detect the serial and part number for some IBM PDU models.

**Improvement: Google Chrome appears twice**

When Google Chrome is installed on a Windows computer, then the registry contains two application entries for Google Chrome. One with the actual version and one with version 43.0.1. We are going to remove the 43.0.1 version, if there is a second entry with a higher version.

**Bugfix: Stop Application**

In some cases, the stop application menu item did not stop the application. The service needed finally to be restarted in order to stop the application.

**Bugfix: IBM DB2 Discovery**

We were listing all DB2 databases on a server even if this is a remote database. We changed the code to display only the local databases on a server.

**Bugfix: IBM DB2 Databased List**

The database list discovery did not take multiple instances into account. It was returning the same set of database names for each instance.

**Bugfix: IBM DB2 Discovery on Solaris**

We were not able to detect the TCP/IP port that a DB2 instance is running on on Oracle Solaris.

## Release 4.0 - Build 4036 (Apr-04 2018)

**New Devices:**

- Siemens OpenStage Desk Phone
- Aastra IP Phones via telnet banner
- Bintec W2003n Access Point
- More SEH Computertechnik USB Dongles
- Patton SmartNode VOIP Media Gateways
- Agfeo DECT IP Station
- Dell Color MFPs
- Netgear FVS318v3 Router
- HPE Nimble Flash Storage Arrays

**New: Discovery Devices from Configuration File**

The “Devices” tab within the discovery configuration allows to define a list of files containing IP addresses or hostnames. The discovery will read those files and add all IP addresses and hostnames to the discovery.

This feature enables users to create programmatically modify those files and thus configure a list of devices that need to be scanned.

**New: New Report “Applications with Path”**

The new report “Applications with Path” lists all applications together with the installation path and the device count.

**Improvement: Custom Report for SSH, HTTP, HTTPS Identifiers**

The SSH, HTTP, and HTTPS protocol identifiers are available in the custom reports within the “Protocol Status” item.

**Improvement: Oracle Database Discovery**

The Oracle database discovery has been improved by getting the edition without actually connecting to the database itself (both Windows and Unix).

**Improvement: Executable File Report**

The executable file overview report was slow and on larger databases unusable because of its speed. We improved the query and the report runs much faster now.

**Improvement: Credential file for Database Backup an Restore**

Database Backup and Restore can be done with a script file (Windows Batch file). Now it is possible to create and use a file containing the credentials to automate the Database Backup and Restore outside from the JDisc Discovery client.

#### **Bugfix: Oracle Database Discovery**

An error within the JDBC Oracle database discovery led to incomplete information about the tables, schemas and databases.

#### **Bugfix: VMware Virtual Switch Discovery**

ESX servers with SNMP enabled caused issues when connecting the ESX server's physical interfaces with the virtual switches. The root cause is that the interface name that gets reported via SNMP slightly differs from the VMware description.

## Release 4.0 - Build 4035 (Mar-23 2018)

#### **New Devices:**

- Brocade VDX6720
- Dell EqualLogic Disk Arrays
- EMC VNX Disk Arrays
- IBM FlashSystem 900
- IBM SAN Volume Controller

#### **New: Device History for Directory Tab**

The JDisc Discovery History Add-On recognizes the previously introduced directory tab when comparing devices.

#### **New: MongoDB Windows Discovery**

MongoDB installations on Windows systems are discovered now.

#### **Improvement: Custom Report for Support Entitlements**

Custom reports which include filters on the support entitlement entries were not filtering devices which do not match the filters. We have changed the code to display only devices that match the configured filters.

#### **Improvement: Oracle Discovery**

We are reading the listener.ora file in order to get the oracle homes, the port and the list of SIDs. We experienced now a configuration file where the SID property was not set, but the GLOBAL\_DBNAME property. Up to now, we ignored this property and thus did not get the database instance details for this entry.

#### **Improvement: Oracle Discovery on Unix**

We were not using the root account to read Oracle database configuration files. If they were not accessible for the scan user, then we didn't get the expected information.

**Improvement: VMware Cluster Discovery**

JDisc Discovery was relying on DNS lookups when assigning cluster members to a cluster. It performed a DNS lookup on the member name and then was searching for the IP addresses within our database to assign the members.

However when DNS is properly configured, this could fail.

We modified the cluster detection for VMware clusters so that it does not rely on DNS lookups for the member servers.

**Improvement: Process list on Solaris**

We found a solution for getting the process list on Solaris with a much better performance. So the JDisc Discovery should be essentially faster for Solaris when getting the processes.

**Bugfix: Clearing the Database disabled File Collection**

A bugfix which has been fixed in build 4034 resolves the issue that clearing the database removes the built-in data collection configurations. This issue was fixed in 4034, but we experienced that archived databases which have been created with this issue also deleted the file collections when imported again.

This build fixes the data collection when such a database has been imported.

**Bugfix: Viewing the Discovery Log created an error message**

This happened when devices could not be identified and the HTTP / HTTPS protocol returned web-page contents with embedded XML CDATA sections. Now embedded XML CDATA sections are “escaped” and no longer garble the discovery log.

**Bugfix: Custom Report Logical and Physical Disk Overview**

When the logical and physical disk details have been selected in a custom report, then the generated SQL query failed.

## Release 4.0 - Build 4034 (Mar-16 2018)

**New Devices:**

- Newer Ubiquiti Access Points
- Some SNOM IP Phones (e.g. D375)

**New: Xen Instances running Solaris**

JDisc Discovery detects now Xen instances running Solaris.

**New: Computer account description and SID from Active Directory**

The directory discovery now also gets the computer account description and SID. You can view the computer account description in the computer accounts report and also in the Device Details report (Directory tab). Of course you can all the computer account description, SID or also the Last Logon Time to your custom reports (contained in the Directory element).

**Improvement: Linux Memory on Virtual Machines**

We were not using the command dmidecode on virtual machines in order to retrieve the total memory size. We used the free command. However, the free command did not show the total memory allocated for the virtual machine.

**Bugfix: Executable File Collection on Linux**

The executable file collection failed on Linux when the user has not access to all directories.

**Bugfix: Clearing the Database disabled File Collection**

Clearing the database disabled the built-in file collection for switches and routers.

**Bugfix: SFTP Upload of large Files**

Uploading large files to an SFTP server was sporadically interrupted.

**Bugfix: Physical Disks on Solaris**

The iostat command returns duplicate entries for disk storage mounted on a SAN. We have added a detection of duplicates and list them only once.

## Release 4.0 - Build 4033 (Mar-11 2018)

**New Devices:**

- Raritan PX2 PDUs
- Niagara Networks Packet Broker

**Improvement: MongoDB port detection enhancement**

We use now both MongoDB config file and Linux processes to find the corresponding port for each instance of MongoDB.

**Improvement: Discovery of Windows Cluster Computers**

In some cases, Windows servers running in a cluster expose an IP address which cannot be used to properly scan the server. In those cases, we ignore the data we get from the virtual cluster IP address.

**Improvement: Software Discovery on Windows**

We are collecting software information on Windows by reading registry keys. Some installation registry keys were marked as "system components". Those items do not appear in the Add/Remove programs dialog. However, we collected it since they are also software components. However, that can lead to fake installation packages. For instance a Visual Studio Professional creates a system component called "Visual Studio Community" which might lead to software entries that are actually not installed.

**Bugfix: DNS Lookup for ESX Server mistakenly removed**

We mistakenly removed the DNS lookup for the ESX servers in build 4032 when scanned via the VCenter. Therefore the ESX servers just have their hostname instead of the full DNS name as the server name.

**Bugfix: Discover within <n> Days ignored hostname**

The discover within <n> days option ignored devices with matching hostnames. Therefore, devices which have not been identified by their mac address were scanned even if they were scanned last last time before n days.

## Release 4.0 - Build 4032 (Mar-02 2018)

**New Devices:**

- Infoblox Network Automation Appliances

**New: Mongo DB**

The new JDisc Discovery build detects Mongo DB database instances and their databases.

**New: Local Switch Discovery on ESX Servers (Networking Add-On)**

We detect the local switches on the ESX server and determine the virtual machines connected to the virtual switch together with their VLAN configuration.

**New: Discovery devices only once within <n> days**

We have completely reworked this option because it caused issues in the past and we moved the settings to the discovery job.

**New: Filtering WLAN discovery (Networking Add-On)**

JDisc Discovery collects information about the available and connected WLANs when scanning a laptop or desktop computer. In many cases, that caused a lot of WLANs being added to the database which are not relevant for the discovery (e.g. WLANs from hotels, cafes, ...)

Therefore, we added a new configuration within the discovery settings where you can define a whitelist of desired WLANs:

- the discovery of WLANs can be globally turned on/off
- the discovery of anonymous WLANs can be globally turned on/off
- a white list with for the relevant WLAN SSIDs or SSID patterns
- you might browse already discovered WLANs and add them easily to the whitelist
- drop all non wanted WLANs by applying the whitelist rules

**Improvement: Ignore Applications installed for the system user**

JDisc Discovery collects the list of software items installed globally and for specific users. Some entries for the built-in SYSTEM user were not removed by the uninstall procedures. In some cases, there were some entries left for the

system user even if the software got uninstalled.

**Improvement: Linux dmidecode Execution**

Some Linux distributions do not allow the execution for member of the root group. They require the root user. This lead to missing data when the scan user was not the root user, but in the root group.

**Improvement: Redundant Interfaces / IP addresses for HPE iLOs**

More recent HPE iLO (Integrated Lights-Out) mgmt. cards support more than one network interface and IP address. Now JDisc Discovery picks up all interfaces and IP addresses configured for a HPE iLO.

**Improvement: Redundant HPE Server Interfaces / IP addresses**

Likewise the HPE iLO improvement, now JDisc Discovery finds redundant server network interfaces and IP addresses when discovering the server through its HPE iLO mgmt. Card.

**Improvement: Discovery Speed for non Windows Devices**

JDisc Discovery usually performs a protocol check at the beginning in order to determine the list of protocols which succeed on the device. On non-Windows devices, the SMB protocol check might take quite a while (sometimes several minutes). That slowed down the discovery speed. In order to improve the speed, we added a port check for port 445 prior to using the SMB protocol.

**Bugfix: IP address display of HPE Servers with multiple NICs**

HPE servers with multiple network interfaces that have been discovered through its HPE iLO did not display any IP address in the reports. Now one of the servers' IP addresses is selected as "discovery IP address" to make it display properly.

**Bugfix: Exchange Mailbox Size not collected**

An issue in the command line (introduced in build 4029) prevents the script from collecting the exchange mailbox size.

**Bugfix: IBM IMM ↔ Server Relation**

We did not create the relation between the IMM and the corresponding server for some IBM Integrated Management Modules.

## Release 4.0 - Build 4031 (Feb-21 2018)

**New Devices:**

- Raritan KVM Switches

**Improvement: Discovery Speed for large VCenter Installations**

When scanning large VCenters, the DNS lookups for all the virtual machine's IP addresses took a significant amount of time. We have reduced the time by

performing the DNS lookups in parallel instead calling them one after the other.

**Dropped: Discover only once within <n> Days**

We dropped the option “Discover only once within <n> days”. The reason is that this option caused issues and was confusing customers. Imagine, you use this option in a DHCP environment. When scanning a specific IP, we were checking for the device in the database with that particular IP. Once found, we checked whether it had been scanned within the last <n> days. However, at the time of the scan, the IP could be the IP of a completely different asset and the algorithm was taken the wrong device into account.

**Bugfix: CSV Export**

The CSV export failed in some configurations, when raw data gets exported.

**Bugfix: Installation Path not collected**

When the software gets collected via the remote login agent, then the installation path was not correctly collected and was null.

**Bugfix: Possible duplicate HyperV Instances**

When the user changes the MAC addresses for a specific HyperV instance, then JDisc Discovery was creating duplicate entries.

**Bugfix: IBM System x Model Naming**

In some situations, the IBM System x server model names were not normalized correctly.

**Bugfix: Possible Duplicate Devices for IBM System X Server**

There could be duplicates when a server gets scanned via the management module and directly.

## Release 4.0 - Build 4029 (Feb-10 2018)

**New Devices:**

- Some more Avaya IP Phones
- Avaya ERS-8810 Switch
- New patterns for ZEM Fingerprint Scanner
- Citizen Label Printers
- Some Dell Tape Libraries

**New: HP Inc. Warranty Information**

Each Inventory installation can now make 5000 calls per day to HP Inc. warranty website to get warranty info of the devices. The 5000 calls per day is a restriction from HP Inc.

**Improvement: Cancel Button added to DC check**

Checking access to the domain controllers can take a while depending on the



speed and load. We added a cancel button to let the user abort the test if it is not wanted.

**Improvement: Powershell Version configurable**

The powershell version can be configured for custom data collection scripts. This is important for scripts which require a specific powershell version.

**Improvement: Powershell User configurable**

The user which is used to run our powershell scripts can be configured. If you choose the admin/root option, then it is run as the user which has been configured to scan the computer. If you disable this option, then the system user gets used to run the powershell script.

**Improvement: HP-UX Disk Discovery**

The HP-UX blade servers do not seem to support the cstm command which was used to get the list of physical disks. We have added the ioscan and diskinfo command to gather this information in case cstm is not there.

**Bugfix: Not all Menu Items in Device Properties Dialog**

The device properties action menu was missing some entries that are available in device reports.

**Bugfix: Proxy was not applied to http post request**

A proxy server that was configured in the discovery settings was not deployed in HTTP post request of HttpSession class.

## Release 4.0 - Build 4028 (Feb-03 2018)

**New Devices:**

- Cisco Meraki access points
- Cisco Meraki ethernet switches

**New: New Device Difference Overview for the History Add-On**

The device history add-on has a new report which lists all devices together with differences of snapshots.

**Improvement: Serial Number for SNOM IP Phones**

We are collecting the serial number for SNOM IP phones.

**Improvement: Serial Number and FW Version for Bintec Router**

We are collecting the serial number and the firmware version for Bintec be.ip plus router.

**Improvement: Server selection at Login Dialog**

Different hostnames with their corresponding ports are now saved in the preferences and can be chosen from the dropdownbox at the Login dialog.

## Updated: Postgres 10.1-3 integrated

We have updated the postgres database to the latest version.

## Bugfix: IBM LPAR Parameter Collection

The IBM LPAR parameter collection did not write all required values read from the lparstat command.

## Bugfix: Ping IP Range Dialog failed

The Ping IP Range dialog failed to open.

## Bugfix: Custom Report Filter for Datacenter Name failed

A custom report failed to display devices once we filter for datacenter name.

Release 4.0 - Build 4027 (Jan-26 2018)

## New Devices:

- Some Avaya IP Phones
- Caringo Swarm Object Storage Disk Arrays
- VMware ESXi 6.5 identification using the HTTPS protocol
- Oracle / Sun Integrated Lights-Out Manager (ILOM) identification using the HTTP / HTTPS protocols
- Kemp LoadMaster load balancers
- Quanta Computer Server Remote Management Cards

## New: HTTP/HTTPS Server Identifier reports

The new *HTTP / HTTPS Server Identifier* reports (available from Software > Security) display the web-server name, version and the devices running the web-server. You might use this new feature to identify outdated / vulnerable web-servers in your IT environment.

## New: Logical Serial Numbers on HP Servers

On more recent HP servers, you might configure a virtual serial number. The virtual serial number replaces the physical serial number when scanning devices. The virtual serial number causes problems when getting support entitlement information or when correctly identify devices by their physical serial number.

We have added a new field for the logical serial number and we store the physical serial number when it was scanned via the management board or via the blade enclosure.

### Improvement: Serial Number for Avaya IP Phones

We are collecting the serial number for Avaya IP Phones.

## Improvement: Identification of recent VMware vCenter installations

JDisc Discovery identifies also more recent VMware vCenter installations and

assigns the Virtualization Management role to its hosting device.

**Improvement: Better (anonymous) identification of Linux and Windows systems**

JDisc Discovery can detect the operating system family of Linux systems when running a Nginx webserver and Windows systems when the BranchCache is turned on.

**Bugfix: License Credit Count**

JDisc Discovery did not count Linux based load balancers or other linux based devices which are not a subtype of computer, router, routing switch or switch for the credit count.

**Bugfix: Hanging Devices Not killed**

In some cases, the device discovery hangs due to blocking protocols or API calls. Normally, we cancel the device discovery after an inactive period of 60 minutes (configurable in the discovery settings). A bug within the device handling prevented aborting those device discoveries.

## Release 4.0 - Build 4026 (Jan-12 2018)

**New Devices:**

- Some Avaya IP Phones

**Improvement: VLAN column not shown in Topology Map**

VLAN column is now shown for connections in topology map.

**Improvement: Minimum Abort Discovery Duration**

JDisc Discovery aborts device discoveries when inactive for a specific amount of time. This duration could be configured from 1 minute to 240 minutes. However one minute is far so low since some WMI queries might take longer than one minute. Therefore, the minimum value has been set to 15 minutes.

**Improvement: Change wording for selecting Device types**

We changed the wording in Custom Reports from “Enable All” and “Disable All” in “Enable Subitems” and “Disable Subitems” if you select device types.

**Bugfix: Cisco ASA Certificate Discovery**

The certificate end date was not parsed in all cases because Cisco added some extra spaces in their output which was confusing our parser.

**Bugfix: Interface Speed Overflow**

When devices use a 10GBs interface, then the 10GBs do not fit into the 32 bit value for the interface speed. In this case, JDisc Discovery was showing the wrong interface speed.

**Bugfix: Custom Report Condition for Video Controllers**

The filter condition was ignored for video controllers in custom reports.

**Bugfix: Discovery Settings could not be saved**

The discovery settings could not be saved when using daily blackout periods.

**Bugfix: MS SQL Server Instance Status**

The status for the SQL server instance could be wrong with multiple database instances and instances when the instance path is not a prefix of the SQL server installation path.

## Release 4.0 - Build 4025 (Jan-08 2018)

**New Devices:**

- Dell DX6012S and similar disk arrays
- Dell MD32xx disk array
- Eaton Powerware UPS

**Important Bugfix: Access Violation fixed**

When using a lot of concurrent threads (> 100) or when running on systems with a lot of memory, a bug within one of our external libraries caused an access violation which crashed the java process.

In addition, a large memory dump file was created for each crash and that could fill up the disk drive.

**Bugfix: SUDO with wrong password ran into timeout**

Some Unix commands require root access. Sudo might prompt for a password when using sudo to get root access. When the provided password was wrong, then the command execution waited until the timeout (several minutes). That caused extremely long discovery durations on some Unix servers.

## Release 4.0 - Build 4024 (Jan-04 2018)

**Bugfix: HPE Warranty reporting success within discovery log**

HPE warranty website needs Product Number when it cannot find the warranty information only with serial number. We have covered such a case where Product number is also required in order to get the warranty information.

**Bugfix: Crash when running a very high number of devices**

We have seen the java process crashing when scanning many devices in parallel (e.g. > 200 devices). We have been able to see a similar situation in our lab and we added an error handling for this situation.

# Release 4.0 - Build 4023 (Jan-1 2018)

## **New Devices:**

- Mediant VE SBC
- Niagara Network Broker
- Allnet HD Camera
- Allnet DSL Router

## **New: Detect SSH remote identifiers**

Every SSH agent has its own identifier string. The identifier often contains the software vendor and the version number (e.g. OpenSSH with version 5.1). The new “SSH remote identifier” report (available from Software > Security) displays all SSH identifier strings. You can use this new feature to identify outdated / vulnerable SSH agent versions in your IT environment.

Please checkout our blog for more information:

<http://blog.jdisc.com/2017/12/30/ssh-remote-identification/>

## **New: Discover Certificates on Cisco ASA Firewalls**

JDisc Discovery now discovers installed certificates on Cisco ASA firewalls.

## **New: Synchronization of directory computer accounts**

The new “Synchronize computer accounts” allows synchronizing all directory computer accounts without discovering the associated devices. This way you can easily size an customer IT environment or measure how complete your actual inventory device discovery really is.

The “Synchronize computer accounts” option is available in the Discovery Jobs configuration next to the “Synchronize user” and “Synchronize user groups” options.

## **New: Microsoft SQL Server on Linux**

With Version 2017 it is possible to install Microsoft SQL Server on Linux. JDisc Discovery discovers now such databases.

## **Improvement: IIS/Apache web server based identification of Windows, Linux and OpenVMS systems**

JDisc Discovery can detect the operating system family of Windows, Linux and OpenVMS systems running an IIS/apache webserver (when running on the standard ports TCP/80 > HTTP and TCP/443 > HTTPS). This new feature is useful when discovering hardened data center environments for the first time because the discovery results will show fewer *Unidentified devices* while access credentials are not available or have not been configured.

## **Improvement: Parallel Device Discovery**

Previous JDisc Discovery versions discovered the same devices multiple times when the devices' IP address has been added through different discovery jobs.

That put an unnecessary load on the target computer and could also cause issues in the discovery itself.  
Starting from now, the JDisc Discovery version avoids scanning the same device twice at the same time.

**Improvement: WebSphere Discovery**

We try to get more informations about a WebSphere installation. On Unix we look into standard folder if no WebSphere process is running. On Windows the registry and the process list is scanned too. If an installation is found we try to collect all installed profiles regardless if the process is running.

**Improvement: Aruba Access Point Controller**

In addition to identify the access point controller, we are also getting the managed access points.

**Improvement: Device Discovery Log**

The HTTP based identification created unnecessarily duplicate log entries when checking URLs.

**Updated: Postgres 9.6.6**

The Postgres database has been updated to 9.6.6.

**Bugfix: VMware ESX Hostname**

The hostname configured on VMware ESX servers is now taken into account for the device naming algorithm. Before the discovery ignored the configured hostname when scanning ESX servers directly (not through its Vcenter) via the VMware API. That could lead to wrong device names.

**Bugfix: CSV Export**

The CSV Export added an additional character at the end of the line which was confusing some tools when importing CSV report data.

**Bugfix: Debian Software Name truncated**

The names for software items collected with dpkg have been truncated.

**Bugfix: Device Deletion Log**

The device deletion log created sometimes the wrong reason for merging devices.

## Release 4.0 - Build 4022 (Dec-03 2017)

**New Devices:**

- Genua genucrypt VPN appliance
- Genua genucenter
- Genua genugate firewall

**New: Discover All Hostnames**

The DNS reverse lookup now returns and displays all DNS hostnames of devices. Previous JDisc Discovery versions only picked up the first DNS hostname of an IP address and ignored all others.

The new All Hostnames report displays all hostnames along with its device. Finding your favorite devices now become easier as you can search for any hostname which you could not do with the All Devices report that displays a single device name only.

**New: Discover / Match Active Directory Computer Accounts**

The directory discovery now not only queries all member computer accounts but also stores them in the database including the hostname, computer domain SID and last logon date. With this new feature you can match directory member computer accounts against discovered devices. This way you can easily identify missing devices that might have been offline at the time of the discovery scan, decommissioned or even stolen.

Check out our new video tutorial explaining this feature:

<http://www.jdisc.com/en/support/video-tutorials/discovery-completeness.html>

**Improvement: Enable/Disable Scheduled Discover Jobs**

In previous versions it was rather tedious and error prone to temporarily disable scheduled discovery jobs. Now you can simply turn off or off scheduled discovery jobs using the checkbox next to the Discovery Job.

**Improvement: ESX Server Name Resolution**

JDisc Discovery ignored the hostname configured on ESX servers when determining the device name in case there were multiple IP address having different DNS hostnames. Now the JDisc Discovery assigns the hostname configured on the ESX server as the device name.

**Improvement: Part Number for HP Printers**

We have improved the part number discovery for HP printers. This is important for warranty and support entitlement.

**Improvement: VLAN Discovery**

JDisc Discovery now also discovers dynamic VLAN configurations in addition to the previously supported static VLANs.

**Improvement: HTTP Basic Authentication**

Depending on the device type and manufacturer, JDisc Discovery accesses the embedded web server home page when identifying a device and also collect device details. However, this was failed for devices that required basic HTTP authentication (a pop-up Window asking for username and password). Now you can enter HTTP default credentials in the same way as you do for the other device types and platforms to make HTTP device identification work.

**Improvement: Save Registry Changes During Update**

Selected JDisc Discovery configuration settings (Java virtual machine configuration – for better performance) are now saved and restored when updating.

**Bugfix: HPE MSM Access Point Controller Discovery**

When discovering HPE MSM access point controllers, JDisc Discovery relates connected access point to the controller. Due to an issue when updating the database the IP addresses of the access points were dropped.

**Bugfix: VMware connection drop for large vCenter Installations**

The VMware API used by JDisc Discovery disconnects connections after an idle period of 20 minutes. When discovering large vCenter installations the DNS name lookup might take longer than 20 minutes and due to this the VMware API connection dropped. As a consequence some vCenter related data objects (e.g. clusters) were missing.

## Release 4.0 - Build 4021 (Nov-21 2017)

**New Devices:**

- W&T temperature sensors
- Samsung IP camera
- Eaton UPS
- W&T IO modules
- Socomec UPS

**Bugfix: Physical Disks on AIX**

The command that we ran to gather the list of physical disks returned in SAN environments the list of all available disks in the SAN. We changed the command to get only the disks used by the server.

**Bugfix: Ping IP Networks Restarts**

An issue when pinging networks could cause the discovery to start pinging a range again from the beginning. That might happen, when multiple discovery jobs ping the same network. This could significantly delay the discovery.

## Release 4.0 - Build 4020 (Nov-17 2017)

**New Devices:**

- Genua Genuscreen firewalls
- Some Silex USB to ethernet adapters

**Bugfix: Oracle Database Discovery**

There was an error collecting Oracle database instances when the command



“dbv” could not be executed. This command is used to determine the Oracle database version.

## Release 4.0 - Build 4019 (Nov-15 2017)

### **New Devices:**

- Some Behnke IP cameras

### **New: New Ad-Hoc Troubleshooting Method: Ping IP4 Ranges**

In some cases, you would like to know what IP addresses are active within a specific IP range. Use the new menu item *Discovery > Ping IP4 Range* to ping a range of IP addresses. Once the ping completed, the button „Discover active IPs“ adds all active IP addresses to the discovery An queue.

### **Improvement: Oracle Database Discovery on Unix**

We have experienced Oracle database installations where the inventory.xml file and comps.xml file were either not there or empty. In this case, the database version was empty. We are running now an additional command to retrieve the correct database version.

### **Improvement: Oracle Database Details**

JDisc Discovery can collect details from Oracle databases using JDBC. We were always connecting to the server's IP address to connect to the database. Now, we are taking the names and IP addresses within the tnsnames.ora file into account.

### **Improvement: Speed up the Stop Discovery Jobs Process**

When stopping a discovery job, JDisc Discovery was completing the device discoveries for the current devices being discovered before it finished a discovery job. With the 64 bit version and up to 100 concurrent device discoveries, this can take some time. We have implement more frequent checks within the discovery process to speed up aborting the discoveries.

### **Improvement: IBM StorWize Discovery**

We are getting more details for IBM StorWize disk arrays: Firmware, physical disks, and additional disk cages.

### **Improvement: Ignore VirtualBOX Monitors**

Oracle Virtual Box creates virtual monitors for its virtual machines. So far, we created a physical monitor. Now, we ignore those virtual monitor devices.

### **Bugfix: Not all TCP/IP Connections stored in database**

The dependency mapping did not store all TCP/IP connections in the database when the option “[Create new devices for connection endpoints when they do not exist](#)” is disabled.

**Bugfix: Not all VMK Interfaces listed on ESX Servers**

We did not get the full list of VMware VMK interfaces on ESX hosts due to an unnecessary duplicate MAC address check.

**Bugfix: Clear Cached Accounts**

It is possible to use the context menu "Clear cached accounts" to delete the accounts stored for a particular device. The clear cached accounts function did not delete application instance (database) accounts.

## Release 4.0 - Build 4018 (Nov-03 2017)

**New: Brocade ICX and VDX Config File Collection**

JDisc Discovery can collect (when the Networking Add-On is installed) configuration files from Brocade VDX and ICX ethernet switches.

**New: Warranty check for Lexmark devices**

Warranty of Lexmark devices can now be fetched from Lexmark warranty page.

**Improvement: AIX LPAR new custom attributes**

We identify the LPAR configuration parameters on AIX. The configuration parameters get collected via the lparstat command and appear as custom attributes:

- Type
- Mode
- Online Virtual CPUs
- Active CPUs in Pool
- Entitled Capacity

**Improvement: Disk State**

For storage devices, we collect the state for a physical (e.g. inactive, spare, ...) when available. This field has not been displayed in the user interface so far.

**Improvement: IBM StorWize Discovery**

We improved the IBM StorWize discovery. We run system commands to retrieve the interface list, firmware and operating system version.

**Bugfix: Possibly wrong Device Name**

In some situations within DHCP environments, JDisc Discovery was assigning a wrong name to the device.

## Release 4.0 - Build 4017 (Oct-28 2017)

**New Devices:**

- Behnke door phone

- Siemens Gigaset C... GO IP phones
- Silex USB to Ethernet adapter
- Eaton PowerXpert UPS

#### **New: HTTP Proxy Authentication**

You might need a proxy configuration in order to gather support entitlement information from the vendor's web pages. We have added the support of authentication for the proxy server.

#### **New: Detect IBM DataStage on a Unix server**

The IBM InfoSphere suite includes a set of components including IBM DataStage. JDisc Discovery has been enhanced to get details about the components and especially the DataState application.

#### **New: Warranty check for HPE devices**

Warranty of HPE devices can now be fetched from HPE warranty finder website. The corresponding warranty is listed under device Properties > Support Entitlements.

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#### **Improvement: Manufacturer Normalization**

The manufacturer normalization for monitors attached to thin clients has been improved.

#### **Bugfix: VMware Instances with same MAC address**

Different VMware instances having the same MAC address could lead to merging the devices although they are different Vms. We also use the serial number in addition to the MAC address to uniquely identify the device.

#### **Bugfix: Not all Default Accounts used**

When defining accounts for groups, JDisc Discovery did not use all default accounts from the assigned group to the root.

#### **Bugfix: Wrong Memory Size for Solaris > 1TB Memory**

An issue within one of our parser dropped the first memory module when the total memory size was larger than 1TB.

## Release 4.0 - Build 4016 (Oct-19 2017)

#### **New Devices:**

- Presentation Gateway WIPG-300H from Planet

**New: SonicWall Cluster Detection**

JDisc Discovery detects SonicWall firewall clusters.

**New: Support Entitlements for Fujitsu Devices**

JDisc Discovery can gather support entitlements and warranty information for Fujitsu devices.

**Improvement: License types for IBM DB2 databases**

License types and expiration dates are now detected.

**Improvement: Allied Telesis Switches with wrong model**

Some AlliedTelesis switches have a bug within the entity MIB. They report the model „Network Element“ instead of the correct model description. We detect this and replace „Network Element“ with the correct model description from the SNMP system description.

**Improvement: “Not Present” Interfaces are ignored**

In AlliedTelesis switches report interfaces via SNMP which do not physically exist. Those fake interfaces appear with the status „NotPresent“. We are removing those interfaces from the list.

**Bugfix: Filter text in custom reports failed**

Filter text in custom reports would fail when there was many entries with different row heights. This was because when the row height was 0, the preferred height was not used.

## Release 4.0 - Build 4015 (Oct-14 2017)

**New Devices:**

- IBM OS/390 server

**Improvement: Proxy Configuration**

Our new support entitlement feature now works using proxy servers to access the vendor pages for support and warranty information.

**Improvement: Postgres Discovery**

We didn't take the „-c config\_file=/<location>“ into account when searching for the Postgres configuration file.

## Release 4.0 - Build 4014 (Oct-12 2017)

**New Major Feature: Support and Warranty Collection**

JDisc Discovery has been extended to collect support and warranty information

for Dell, Lenovo and former IBM Intel based computers.

Check out our new video which explains how the feature works:  
<https://www.youtube.com/watch?v=Ka12ZUQpMM>

**Improvement: Discovery Status Table Sorting**

All the eligible tables in “Discovery Status” tab (Main Panel) now have table sorting feature implemented.

**Bugfix: LLDP Topology Discovery**

We experienced issues with some very old switches where the switch returns an endless LLDP table. This finally causes an out of memory error. We have limited the LLDP table collection to 5000 rows in order to avoid the out of memory issue.

**Bugfix: Database Ports not written**

The port for a database instance was not written when the device was scanned for the first time. Subsequent scans update the database port.

**Bugfix: Not all Oracle Instances discovered**

When there are multiple instance directories (e.g. from different Oracle database versions), then the instance might get lost.

**Bugfix: Duplicate Postgres Instances**

In some situations, JDisc Discovery created duplicate database instances for Postgres databases (one with the correct data path and one with the data path and an additional „\“).

**Bugfix: Use different Command Line Options for “ls” on MAC OS X**

For MAC OS X computers, we used the ls command with the „-Q“ option. However, this option is not available on all MAC OS X versions. Therefore, we changed it to „ls -1“.

## Release 4.0 - Build 4013 (Sep-28 2017)

**New Devices:**

- ShoreTel Mobility Router
- Digital Multitools KVM Switch
- ADVA Fibre Channel Switch
- Rockwell Communications communication controller via HTTP
- New Ubiquiti added

**New: VisualStudio 2017 Discovery**

JDisc Discovery detects the correct edition when scanning VisualStudio 2017.

**Improvement: Default Path and file name by JFileChooser**

Discovery can now remember the last used directory path in all JFileChooser dialogs. For example by export, import, save, browse and load. Exporting reports in CSV and Excel files have now default report's name as the file name being saved.

**Improvement: Windows based Wyse Terminals Discovery**

Some Wyse Terminals have been identified as computers. Now they are correctly identified as Thin Clients.

**Improvement: Lenovo/IBM Flex Server Discovery**

The FlexServer BIOS reports in some cases a rack server chassis although the FlexServers are blade servers. We corrected the type based on the model information.

**Bugfix: IBM StoreWize Details Discovery Fixed**

The IBM StoreWize discovery via SSH did not work when the device was identified via HTTP and not via SNMP.

**Bugfix: DNS Lookup returned IP addresses**

The DNS lookup did return IP address instead of a null value in case there is no reverse DNS entry for an IP address. This bug was introduced in build 4012 and is fixed now.

**Bugfix: Database not restored during setup fixed**

If the user selected „Drop database“ during setup, changed his mind and goes a step back, database has not been restored.

**Bugfix: HP-UX Integrity VM attached to wrong physical Host**

When HP-UX virtual machines have been cloned and if the cloned VMs are configured with the same IP address, then the virtual machine might have been assigned to the wrong physical host.

## Release 4.0 - Build 4012 (Sep-20 2017)

**New Devices:**

- ATTO FibreBridge 6500N and other ATTO devices.
- Juniper Stacked Switches
- IBM FlashSystem

**New: IBM StoreWize Details Discovery**

We use SSH to retrieve details for IBM StoreWize disk arrays. Via SSH, we can get the disk cages together with the contained disks.

**New: Enable Logging without Service Restart**

For troubleshooting purposes, we can enable/disable logging for specific components without a service restart.

**New: SQL Server 2017 RC2 Discovery**

SQL Server 2017 RC2 instances are now detected.

**Improvement: Linux SLES OS Version Normalization**

We improved the normalization for SLES operating system versions.

**Improvement: Windows network neighborhood / domain names**

Windows network neighborhood / domain names are now filtered for invalid characters such as "." and none ASCII character codes. Before the network neighborhood / domain names could be garbled when rogue devices (supporting SMB) returned invalid characters.

**Improvement: DNS domain – Windows domain synchronization**

Windows domains (as per their NetBIOS name in Active Directory) are now synchronized as part of the directory synchronization. This incorrect DNS domain – Windows domain associations are avoid that sometimes occurred in the past when rogue devices (with SMB protocol) reported incorrect Windows domain names while being a member of an Active Directory.

**Improvement: Export Email Report Personal Added**

Emails can now be sent with personal name by setting the "Name" property when adding a sender email.

**Improvement: IP4Network and IP4Range Export Added**

IP4networks and IP4Ranges can now be exported to CSV file and be imported again to Inventory.

**Bugfix: Discovery Hangs**

We fixed one situation where - when device aging out is enabled - then the discovery might hang. Furthermore, we have updated the database driver to its latest version. We also had issues with the database driver we were using so far.

**Bugfix: Invalid Characters within Domain Names**

On some computers, the SMB protocol might return invalid characters for domain names. We are filtering them out and correct the domain name.

**Bugfix: SuSE Service Pack**

The Linux SuSE Enterprise Server service pack information was not always collected.

**Bugfix: SSH Key Ciphers**

The underlying SSH library that we are using had issues with parsing some SSH Key private key files. Some SSH private keys (e.g. using the AES 256 CBC ciphers) could not imported.

**Bugfix: DNS Reverse Name Lookup**

When using additional DNS servers, the reverse DNS namelookup did not check the DNS record type for PTR records but also accepted CNAME (alias) records. In rare case this caused strange device names.

## Release 4.0 - Build 4011 (Aug-24 2017)

### **New Devices:**

- Enterasys Switches labled as Extreme Networks Switches (Enterasys has been acquired by Extreme Networks).
- More Brocade VDX Switches
- Avocent AlterPath Console Servers

### **New: Windows Apps Discovery**

We discover the Windows Apps installed in addition to the traditional Windows installed applications.

### **Improvement: HP Virtual Connect Logical Serial Numbers**

The HPE Virtual Connect technology can use “logical serial numbers” which they inject into the server's BIOS. As a result all software which queries the server's serial number from the BIOS receives the logical instead of the physical serial number for the server. This can cause quote some confusion when assigning servers to the blade chassis.

We will be implementing the virtual connect technology in future versions and as a first step, we set the serial number to a “null” value when we detect a logical serial number as the logical serial number is not guaranteed to be unique and has very little value.

### **Improvement: New HP Synergy Servers**

We detect the correct device type for the new HP Synergy Servers.

### **Improvement: Serial Number for Innovaphone IP Gateways**

We added the serial number collection for Innovaphone IP Gateways.

### **Improvement: HP Thin Client Detection**

Not all HP thin clients were identified as thin clients.

### **Improvement: Lenovo Flex Blade Switch Support**

Lenovo has acquired the IBM Intel based server business and has started to rebrand the IBM devices into Lenovo devices also in the SNMP agents. We have adjusted our code to detect former IBM Flex blade switches which are labled now as Lenovo Flex blade switches.



## Release 4.0 - Build 4010 (Aug-18 2017)

### **New Devices:**

- IBM Storwize Disk Arrays basic identification
- HP ThinClients based on the Linux operating system

### **Improvement: Innovaphone IP Phone Naming**

Innovaphone IP phones have a specific device naming. However, the device name is not exposed by SNMP and not configured via DNS. Therefore, we have adjusted our code to create the „correct“ system name for the IP phones.

### **Bugfix: HP StoreOnce SSH Discovery fixed**

Some issue running commands on the command line caused incomplete information for HP StoreOnce backup systems.

### **Bugfix: An inefficient Query caused long Restore Times**

An inefficient query caused long migrations when restoring large databases.

### **Bugfix: Linux Discovery Issue when “PROMPT\_COMMAND” defined**

JDisc Discovery starts a bash shell after logged on. We ran into prompt detection issues when a PROMPT\_COMMAND environment variable was set.

## Release 4.0 - Build 4009 (Aug-15 2017)

### **New: SSD Disks on Linux**

SSH disks connected via NVMe are being recognized on the Linux operating system.

### **Improvement: Change Discovery Settings in Reporting Mode**

In some situations, it might be useful to change the discovery settings in the reporting mode. Therefore, we enabled the discovery configuration changes even when in reporting mode.

### **Improvement: JDisc Discovery User Interface Ports**

Up to build 4009, a part of JDisc Discovery's user interface selected a random port for the communication. That made the firewall configuration nearly impossible.

We have added a new port to the configuration and the user interfaces use only a fixed set of ports.

### **Improvement: IBM Multinode Blade Server**

IBM Multinode blade server return the same serial number for each compute node within a multinode blade. Therefore, we have added the bios firmware unique id in order to identify both servers having the same serial number.

**Improvement: Yealink IP Phone Detection**

We have added some more variants to detect Yealink IP phones based on their WEB page.

**Improvement: Utax Printer Discovery**

Some inconsistent SNMP data caused the discovery for some Utax printers to fail.

**Bugfix: Clear Database**

The clear database function could fail in some cases.

**Bugfix: TCP/IP Port for Database Instances was not written to the Database**

The TCP/IP port for a database instance was not written to the database.

**Bugfix: Setup didn't start the JDisc Discovery application after update**

The setup procedure did not start the JDisc Discovery application properly after updating the database!

**Bugfix: Docker Container without Network Interfaces**

We still had some issues when scanning docker containers without network interfaces. The host was falsely overwritten and classified as docker container!

**Bugfix: UsersList put removed users into wrong group**

The removed user was put into another group instead of „Guests“ group because of bad choice of index in the list.

## Release 4.0 - Build 4008 (Aug-02 2017)

**New: SNMP Command Line Tool**

We created a new SNMP command line tool in order to test SNMP access with the actual SNMP library we are currently using. The command line tool resides in the <installdir>\bin folder and is called: SnmpWalk.cmd.  
The SNMP tool supports SNMPv1, v2c and v3.

**Improvement: Fujitsu KVM Switch – FW Version**

We are collecting for Fujitsu KVM Switches the firmware version.

**Improvement: IBM Flex Blade Server with multiple Compute Nodes**

IBM Flex Blade Servers with multiple compute nodes have not been assigned to the blade chassis and management module.

**Bugfix: Veritas Cluster Discovery**

Depending on the logon credentials and associated rights used for discovery

the HA status of Veritas clusters could not be queried. Now the discovery is executing the HA status command with elevated privileges. This way the discovery does no longer run into lengthy timeouts while waiting for an unexpected Veritas specific user login prompt.

**Bugfix: Windows 32-bit application discovery on 64-bit systems**

32-bit applications installed on Windows x64 systems were ignored by the application discovery.

**Bugfix: F5 Big IP Device Type**

The F5 Big IP devices have been identified as loadbalancers. However, they can be better categorized as web application firewall. We changed the assignment and added a new device type.

**Bugfix: Custom Report failed with Conditions for Timestamps**

Custom reports failed when using a „between“ condition for timestamp values.

**Bugfix: NetApp WebCache has been identified as Disk Array**

The NetApp web cache devices have been identified as disk array.

**Bugfix: Mail Feature failed to send email without authentication**

Mail feature failed to send email without authentication because mail.smtp.ssl.trust was defined in all cases. Now mail.smtp.ssl.trust has been used only for authentication cases.

## Release 4.0 - Build 4007 (Jul-21 2017)

**New Devices:**

- SEH myUTN USB to Ethernet Adapters
- ATTO FibreChannel Bridge

**Improvement: Oracle Database Discovery**

We were checking the /etc/oraInst.loc file for Oracle installations. On some operating systems, the file is located on /var/opt/oracle/oraInst.loc.

**Bugfix: LANCOM Access Points**

Some LANCOM access points do not return the proper SNMP system object id. We have added a workaround to identify those devices.

**Bugfix: Wrong Interface Speed on Windows Computers**

On some virtual computers, the Windows APIs return far too high interface speeds. We are going to ignore values which are not plausible.

**Bugfix: HPE StoreOnce Backup System Discovery**

The HPE StoreOnce Backup systems require a SSH shell to run system commands. We changed the command execution from an SSH Exec Session to

a shell session.

**Bugfix: Duplicate Device Names Report**

The duplicate device names report did not list all duplicates when one of the duplicate devices is a Solaris zone.

**Bugfix: Deadlock causes a hanging Discovery**

When using multiple discovery jobs, a deadlock could cause the discovery to hang. A service restart was required in this case.

## Release 4.0 - Build 4006 (Jul-14 2017)

**New Devices:**

- Fujitsu Disk Array DX8000

**New: Pacemaker Cluster are discovered**

Now we can scan and discover pacemaker cluster. The services in the cluster and their status are written in the discovery database.

**Improvement: Serial Numbers for Redback Edge Switches**

We are collecting the serial number for Redback Edge Switches.

**Improvement: Postgres Database Server Logging**

Up to now, our integrated database did not log error messages. We have changed the configuration in order to create log files and they will also be included within the support ZIP file.

**Improvement: Topology and MAC Forwarding Entries**

Some switches add MAC address forwarding entries with the type „other“ instead of „learned“. Previously, we ignored those entries and lost some port connections.

**Improvement: VMware Server Discovery on Linux**

When the VMware Server is installed, but possibly not properly configured, then the commands to retrieve vmware information never finish and finally run into a timeout. That creates very long discovery durations (> 1 hour) for those devices. We have reduced the execution timeout for the vmware-cmd command to one minute.

**Improvement: Patch Level for Windows 10 and Server 2016**

Because of the continuous delivery of new features and bugfixes there will be no more service packs. To better identify Windows versions on computers, we are now setting the patch level field with the Windows build or version number.

**Improvement: Memory Management**

We have improved the memory management for the JDisc Discovery server in

order to optimize it for less memory usage.

**Bugfix: Windows 10 and Server 2016 incorrectly identified**

This happened when Windows 10 and Server 2016 systems were only identified using SNMP and Microsoft's default SNMP agent, which returns the major and minor version of Windows 8.1 | Server 2012 R2 instead of Windows 10 and Server 2016.

## Release 4.0 - Build 4004 (Jun-30 2017)

**New Devices:**

- EMC Isilon NAS devices

**Improvement: Java 8 Update 131 integrated**

With the Java 8 Update 131, we are able to detect that JDisc Discovery is installed on a Windows 2016 Server. Before, we could not identify whether JDisc Discovery is installed on a server or client operating system when installed on a Windows 2016 server.

**Improvement: Serial Number for Meinberg Timeserver**

We are collecting the serial number for Meinberg timeservers.

**Improvement: Reporting mode is maintained when upgraded**

After reinstallation or update of the JDisc Discovery the reporting mode is the same like before the update.

## Release 4.0 - Build 4003 (Jun-27 2017)

**Improvement: Logging improved**

When we cannot identify a device by its management URL, then we log the HTML source code in order to simplify the troubleshooting process.

**Bugfix: VCenter Appliance Version**

We were falsely reading the licensed and not the product version when getting VCenter software information.

**Bugfix: Read-Only Mode node persistent**

Switching to the read-only mode was not persistent. After a reboot or service restart, the JDisc Discovery server was again in the normal discovery mode.

**Bugfix: Ignore MAC Address 00:00:00:00:00:00**

We did not ignore the MAC address 00:00:00:00:00:00 when NetBios reports

this address.

**Bugfix: Directory sync assigned incorrect NetBIOS domain names to directory users and groups**

This could happen when the NetBIOS domain name was set differently than the domain name elements of the corresponding DNS domain. Now the user and group sync queries the directory CrossRef class for the correct NetBIOS to DNS domain name mapping.

## Release 4.0 - Build 4002 (Jun-22 2017)

**New Devices:**

- Netgear ReadyDATA NAS Devices
- Shoretel IP Phones via SSH

**Improvement: Install Date for RPM based Linux software**

We collect the installation date for software that is installed with the RPM tool.

**Improvement: Yealink IP Phone Discovery**

Yealink has changed their HTML page layout. Therefore, our parsers didn't match anymore and the more recent devices have been unidentified.

**Improvement: New Discovery Options for Virtualization**

New discovery options within the virtualization tab offer the choice whether to add virtual machines or managed physical servers (when scanning a vcenter) to the discovery queue.

**Improvement: VMware vCenter Appliance Discovery**

The VMware vCenter Appliance is a customized Linux. When you connect to the appliance using SSH, then you end up at a special console. You need to run the „shell“ command in order to get to the Linux shell.

**Bugfix: Networking Add-On was missing a remote login binary**

The networking add-on was missing the wlaninfo32.exe binary within its setup. As a result, there was no WLAN information for 32 bit Windows operating systems.  
(Bug introduced in 4.0 – 4000).

**Bugfix: Fujitsu Server Management Board to Server Relation**

The relation between a Fujitsu Server and its management board was not created.

**Bugfix: Install Date not always written**

The software installation date was not always written to the database.

**Bugfix: VMware vSphere Application Discovery**

In some cases, we were not able to collect the license keys for a vCenter installation running on the VMware appliance.

**Bugfix: Unsigned Binaries**

The JDisc Discovery binaries were not signed with the JDisc signature. (Bug introduced in 4.0 – 4000).

**Bugfix: Large Switches having more than 10.000 interfaces**

Large switches having more than a couple of thousand interfaces could not be discovered due to a performance problem in JDisc Discovery. We have changed the code to cover switches with many interfaces.

**Bugfix: Folder Selection Dialog does not work**

During the installation/update process the dialog for selecting a folder was sometimes not shown.

**Bugfix: JDisc User and Group Management**

Adding or changing JDisc Users could lead to SQL exceptions.

## Release 4.0 - Build 4000 (Jun-04 2017)

**New: JDisc Discovery is a 64 Bit Application**

In the past, JDisc Discovery was a 32 bit application which has several limitations in the memory that can be used. We have migrated JDisc Discovery to a full 64 bit application. The 64 bit version can make use of servers with a lot of memory installed.

**New: Improved Installation and Update Procedure**

The new installation and update procedure offers some improvements compared to the old installation procedure:

- a single download ZIP includes the core product and all add-ons
- the update procedure takes care about archiving the database and the license file
- reinstalling the software is much easier

**New: Scheduled Report upload to SFTP servers**

Scheduled report exports can be uploaded to SFTP servers.

**New: Scheduled Backup upload to SFTP servers**

Scheduled backup jobs can export data to SFTP servers.

**New: Service Discovery on Linux**

JDisc Discovery scans now the services on Linux.

**Improved: Performance when scanning Unix/Linux**

A new SSH library and some optimizations improved the discovery speed for Unix by up to 70%.

**Improved: Performance when scanning Certificates**

In some cases, the powershell script getting the certificates took a while and used 100% CPU load.

**Improved: Maximal number of concurrent Threads dependent on memory**

The maximal number of concurrent device discoveries depends on the server's memory size.

**Bugfix: Vcenter Server in Virtualization Explorer**

JDisc Discovery did not show vcenter servers which don't have any datacenter assigned to it. That might happen when importing databases from older installations which did not support the datacenter discovery.

## Release 3.4 - Build 3410 (May-26 2017)

**New Devices:**

- Uiquiti Access Points
- Fujitsu Thin Clients

**Improved: Exchange Discovery**

The data collection powershell scripts failed in some cases due to a powershell commandlet which has been deprecated in some Exchange versions. We modified the scripts to use the correct cmdlet based on the Exchange version.

**Improved: CitrixXen Instance Detection**

When a Citrix XenInstance is configured to copy its BIOS values from the physical host, then it appeared as a physical server although it is a virtual machine. We have added some additional code to identify Citrix XenInstances properly even with the „copy BIOS values“ enabled.

## Release 3.4 - Build 3409 (May-21 2017)

**New: Delete Devices and Exclude by Name**

Apart from excluding by IP address, it is now possible to exclude devices by name as well.

**Changed: Discovery Scope for the Company group**

When the „discover all“ job gets started, then it was traversing recursively all device groups and their enabled items (networks, ranges, ...). This was confusing for most customers. We changed the behaviour so that it just scans



what is enabled at the „Company“ group.

**Improved: Patch Install Date using Remote Login**

We are also collecting the patch install date when using the remote login agent.

**Bugfix: One Device Networks**

One device networks (subnet mask 255.255.255.255) were not scanned.

**Bugfix: Devices within the Company Group**

Device lists which have been configured in the root „Company“ group have been ignored. Only device lists configured in subgroups were used for the discovery scope.

**Bugfix: Patch Installation Date corrected**

Some patches' installation dates showed 1 day ahead of actual installation date.

**Bugfix: Support ZIP could not be created**

The support ZIP creation failed, when log files have been removed while the support ZIP creation creates a ZIP with the log files.

**Bugfix: Custom Report Condition on the Interface MTU field**

A condition on the interface MTU field created an error within the created query.

**Bugfix: Serial Numbers with leading or trailing spaces**

Some devices return serial numbers with leading or trailing spaces. We have recently added code to trim the spaces. However, because we were also using the serial number to identify devices old devices were not found because the serial number didn't match (once with and once without trailing or leading spaces).

We modified the code to always trim the spaces. Archived databases will be processed after the import to remove the spaces for existing devices.

## Release 3.4 - Build 3408 (May-15 2017)

**Improved: Reduced Discovery Log Size**

We reduced the discovery log size in order to avoid out of memory errors.

**Bugfix: Correct OS Version for Meinberg Devices**

The latest Meinberg OS versions have changed their output format so we had to adjust our parser in order to get the correct OS version.

**Bugfix: Correct Model and Serial Number for MRV Layer 1 Switches**

We were using the wrong SNMP variables to gather the model and the serial number for MRV layer 1 switches.

## Release 3.4 - Build 3407 (May-05 2017)

### **Improved: Certificate Discovery on Windows**

We used a powershell script to collect the list of certificates on a Windows computer. The script we used was running very slowly on some machines and caused a high CPU load on the target computer. The new script runs typically within a few seconds and uses less CPU bandwidth.

### **Improved: Patch Installation Date**

Installation date column has been added to reports and its data is now written all at once in the database with one query which improves the time of writing.

### **Improved: Custom Attributes by Serial Number**

Now along side IP address and device name, one can import custom attributes with serial number as their identifiers.

### **Bugfix: Deleting Directory Queue Entries not possible**

It was not possible to delete directory queue entries from the discovery directory queue.

### **Bugfix: UI became slow since Build 3406**

Unnecessary calls to the Java garbage collector caused a slow reacting user interface. This bug has been introduced in build 3406.

### **Bugfix: Windows Remote Login failed in Build 3406**

The JDisc remote login agent failed to run its executables on the target computers in order to gather software and hardware data. This bug has been introduced in build 3406.

### **Bugfix: Group Tree failed to show some branches**

The group tree in settings was complete, but the group tree shown in reports had missing branches. The bug was because of false query fetched from the database. The bug is fixed now.

## Release 3.4 - Build 3406 (Apr-26 2017)

### **New Devices:**

- Avaya IP Office 500
- Fujitsu Blade Switches PY CB Eth Switch/IBP

### **Improved: SQL Server Database Discovery**

JDisc Discovery uses now Windows authentication when the database username contains has the form *domain\user*. Otherwise, it uses the SQL Server integrated authentication.

**Improved: Allnet Sensors**

We use https in addition to http in order to correctly identify Allnet sensor devices.

**Improved: Status Message when License is about to expire**

The JDisc Discovery status window is going to show a warning when the license is about to expire (either by running out of credits or when the license expires).

**Bugfix: Microsoft Cluster Discovery**

The Microsoft clusters discovery failed when using native WMI (not tunneled through our agent).

**Bugfix: IP Addresses not written for Apple MAC Computers**

In some cases, an error when writing the WLAN configuration caused missing IP addresses for Apple Mac OS X computers.

## Release 3.4 - Build 3405 (Apr-07 2017)

**New Devices:**

- Dell 10Gb Ethernet Switches

**New: Extended Discovery Scope**

Up to now, JDisc Discovery's scope was defined by IP networks, ranges, Active Directory OUs or Windows domains. In addition to this we added the feature to define a dedicated list of devices to scan. The list of devices might be a list of IP addresses or hostnames.

**Bugfix: List Directories**

We used to run a „ls“ command with options which did not work on every Unix derivate. Furthermore, the ls options we used did not return the list of subdirectories properly, if the directory is a link. This could cause issues whenever we list directories (e.g. when scanning MySQL databases).

## Release 3.4 - Build 3404 (Mar-30 2017)

**New Devices:**

- Siemens Rack PCs

**New: HPE StoreOnce Backup System**

We added some code to get details from HPE StoreOnce backup system via

ssh.

### **Improved: IPv6 Addresses for SNMP Based Devices**

We added support for a MIB containing IPv6 addresses configured on the network interfaces.

### **Improved: IPv4 Range and Network Configuration Dialog**

In some cases, customers enable class C networks or large IP ranges to ping. Pinging that large networks can easily take several days. Therefore, we added a new column indicating the number of IP addresses within a range/network and we put a warning in place when the user tries to enable very large ranges/networks for ping.

### **Improved: Identify Devices**

MAC addresses are an important criteria for JDisc Discovery in order to identify existing devices within our database. However, there may be MAC addresses common to all many devices (e.g. VPN adapter MAC addresses). Right from the beginning, JDisc Discovery maintains a list of MAC addresses which should be ignored for the identification process. When available, we use the device's serial number as additional criteria. This reduces the risk of merging physically different devices.

### **Improved: User List**

Users of each group can now be listed along with 3 operations of Add, Change and Remove. If a user belongs only to one group and is removed from that list on users list, then it will be automatically moved to „Guests“ group, unless completely deleted from „Users“ tab.

## **Release 3.4 - Build 3403 (Mar-15 2017)**

### **New Devices:**

- Mikrotik Router
- AVTECH IP Camera
- Mellanox Switches

### **Improved: Non Blocking Dialogs**

When rescanning devices using their hostnames, then JDisc Discovery performs DNS lookups. This might take a while with many devices. Until now, the progress dialog was blocking any other user interaction. The same has been implemented for device deletion.

### **Improved: Disk Sizes for HPE 3PAR Disk Arrays**

With our recent support for a deeper HPE 3Par discover, we were still missing the disk sizes. We added a mapping from the model name to the disk size for Hitachi and HGST disks.

**Improved: Add, Remove and Change buttons for users list**

Users list can now be listed and edited for a specific group of users.

**Improved: Serial Number Detection for Supermicro Server**

Some Supermicro servers contain the serial number „123456789“ in their BIOS for the chassis. However, the system board serial number is set correctly. We have added some code to use the BIOS serial number if the chassis serial number is invalid.

**Bugfix: Same Cluster Name for different vCenter Installations**

The correct assignment of clusters to vCenter installations failed when two vCenter installations used the same cluster name.

**Bugfix: Computer to OU Assignment**

The directory discovery did not always properly assign member computers to their directory object but has chosen the directory DNS domain instead or did not assign computers at all.

**Bugfix: Remove Signature from our Powershell Scripts**

We experienced at one customer that running our signed powershell scripts causes the powershell process to connect to a symantec server in order to check the validity of the signature. We have removed the signature from all powershell scripts again in order to prevent the powershell process to connect to the symantec server.

## Release 3.4 - Build 3402 (Mar-10 2017)

**New Devices:**

- Dymo Label Printers
- Some more Avaya IP phones

**New: HPE 3Par Disk Arrays**

We added some code to get details from HPE 3Par disk arrays, its controllers and disk cages via ssh.

**Improved: Cisco Nexus Switch Port to Module Assignments**

The network interfaces are being assigned to the switch modules.

**Improved: Percona Server for MySQL**

The „Percona Server for MySQL“ has been identified as ordinary „MySQL“ server. Now, we detect the „Percona Server“ correctly.

**Improvement: Users List**

Under Administration tab, User Management, Groups, now is possible to list the users that belong to each user group via the „Users“ button.

**Improvement: Mail Server Email Test**

After adding an Email server under Administration, Manage Mail Accounts, one can send a test Email to a desired destination to check whether the mail server works as expected.

**Bugfix: Concurrent Discovery and Database Archive**

Creating an archive while the discovery is active could lead to corrupt archives. This has been fixed.

**Bugfix: Postgres Database Discovery**

An incomplete JDBC connection string prevented JDisc from getting database details from Postgres installations where the superuser was not „postgres“.

**Bugfix: NetApp vFiler Discovery**

NetApp disk arrays which expose a share via the NetApps IP address could be falsely identified as vFiler.

## Release 3.4 - Build 3400 (Feb-24 2017)

**New Devices:**

- Detect Cisco S300v virtual security appliance
- Detect Tipping Point IPS/firewalls
- Detect HP Virtual Connect Manager instances

**New: Database Details Discovery**

One of the most important new features in version 3.4 is the more detailed discovery of databases. Once you provide access credentials for the database, JDisc Discovery connects via JDBC to the database and gets information about the databases, schemas, and tables.

**New: NetApp Disk Array Discovery with SSH**

JDisc Discovery gets more details from NetApp disk arrays using SSH.

**Improved: Ignore MAC Addresses based on Description**

JDisc Discovery identifies devices mainly based on mac addresses. However, some mac addresses are common to all devices. Those mac addresses can be configured in a file. They will be ignored when identifying devices. In some cases, interfaces must be ignored based on their description. We added the possibility to define a list of interface descriptions to ignore.

**Bugfix: Domain Controller (Global Catalog) access issues**

JDisc Discovery accessed domain controllers (specifically the global catalog) using the (display) name assigned to the device instead of the devices' IP address. When the (display) name could not be resolved to an IP address JDisc Discovery failed with the "Global catalog required") error message even if the

domain controller (global catalog) were running properly and the access credentials were correct.

## Release 3.3 - Build 3372 (Feb-14 2017)

### **New Devices:**

- Messpc environment monitor
- New Lenovo part numbers added to our mapping
- Yealink IP phones

### **New: Collect SIM Card Information**

We are collecting details SIM Card information for Windows computers with network interfaces connecting to the mobile network.

### **New: IP6 Address Custom Report**

IP6 addresses have not been part of JDisc's custom reports.

### **Improved: All Binaries Signed**

We signed all our binaries, powershell scripts and installation packages with our certificate. That'll help to reduce the false positives for some antivirus software products.

### **Improved: Ignore DNS name "localhost"**

We have experienced that some ISPs return „localhost“ for reverse DNS lookups. We will ignore the result whenever a DNS server returns „localhost“

### **Improved: IBM Flex Blade System Discovery**

We detect more blade components (switches, fans, and power supplies) and assign them to the blade chassis.

### **Improved: Adobe Acrobat Discovery**

We detect the edition (Professional or Standard) for Adobe Acrobat.

### **Improved: Postgres 9.6.2 integrated**

We integrated Postgres 9.6.2 which increases performance compared to the 9.3.3 which we have been using so far.

### **Improved: Java Settings**

We have modified the Java settings in order to reduce out of memory issues.

### **Bugfix: W&T Com Server has been identified as USB Dongle**

The W&T Com Server type has been changed to the correct device type „Port Server“.

**Bugfix: Network not pinged**

Networks have not been pinged anymore when manually triggered twice.

**Bugfix: Quality Meter for ESX Servers**

The quality meter did not recognize successfully scanned ESX servers which have been identified through the vCenter installation.

**Bugfix: Integer overflow for Memory on Video Cards**

An overflow for the size in bytes caused negative memory sizes for video controllers having more than 2GB memory.

## Release 3.3 - Build 3371 (Feb-08 2017)

**New Devices:**

- Some Brocade ICX Switches

**New: NetApp vFiler Support added**

Up to now, JDisc Discovery identified NetApp vFiler as computer running Windows 2000 Server. We have added code to correctly identify vFilers and assign them as virtual machines to the corresponding NetApp disk array.

**Improved: License Information for Adobe Software**

We missed for some adobe software the license type when the software was installed as trial software.

**Bugfix: Workaround for Cisco IOS-XE Switches**

We experienced some Cisco IOS-XE switches where the SNMP agent crashes when we are trying to read LLDP data via SNMP. Therefore, we have disabled reading the LLDP table on Cisco switches running the IOS-XE operating system.

## Release 3.3 - Build 3369 (Feb-01 2017)

**New Devices:**

- New Lenovo part numbers for laptops and desktops added.

**Improved: Directory Queue Troubleshooting**

The directory queue troubleshooting report includes now the number of device entries which were found for each organizational unit.

**Bugfix: HyperV Duplicate Serial Numbers**

JDisc Discovery didn't handle HyperV virtual machines with the same serial number correctly.



### **Bugfix: VCenter Appliance Discovery**

JDisc Discovery did not update the virtualization environment information when scanning the VMware VCenter appliance without having SSH access.

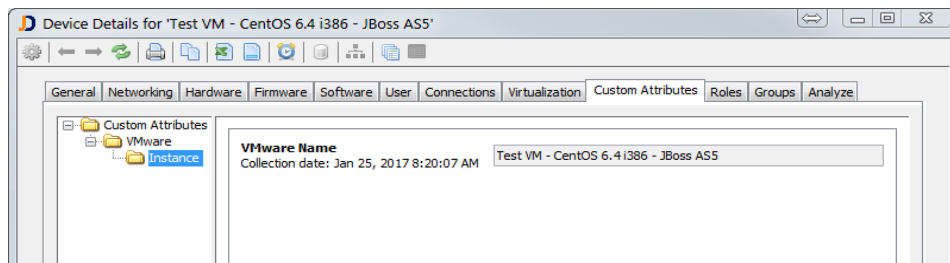
## Release 3.3 - Build 3368 (Jan-25 2017)

### **New Devices:**

- QSAN Disk Array

### **Improved: VMware Discovery**

We store the VMware name used in vCenter in a new custom attribute. That makes it easier to find VMs based on their name in their vCenter installation.



## Release 3.3 - Build 3367 (Jan-19 2017)

### **New: Read Windows Key from BIOS**

Major vendors store their OEM Windows license key for their latest PCs and laptops within their BIOS. JDisc Discovery reads this license key on laptops and desktops which have a Windows license key within their BIOS. The license key gets displayed within the firmware section.

### **Improved: Process Discovery Duration for Linux**

The discovery for processes on Linux has been reduced from minutes to only a few seconds.

### **Improved: VMware Discovery**

Some third party VMware tools might create virtual machines which use duplicate uuid (unique ids). Each virtual instance has its own unique id within the vcenter. We have changed our discovery procedure in order to cope with duplicate unique ids.

### **Improved: Citrix XenServer**

Offline virtual machines might not be assigned to any specific physical server

when stored on a shared disk. The Citrix XenCenter displays those virtual machines at the server pool level. In JDisc, those virtual machines did not appear in the VM list. We have changed our discovery method in order to display those VMs also at the server pool level.

**Bugfix: Citrix XenServer VMs assigned to wrong Host**

In some cases, VMs could have been assigned to the wrong XenServer host within a server pool.

## Release 3.3 - Build 3365 (Jan-15 2017)

**New: Assign directly attached Devices to Groups**

Directly attached devices can be assigned to the same groups as the hosted device. A new option within the group configuration allows to enable or disable the assignment of directly attached devices. With this feature, attached monitors can be assigned to the same groups as the connected PC.

**New: Globally Change Accounts And Passwords**

Password policies often force a password change every <n> months. JDisc already had a functionality in order to globally change the password for every occurrence within JDisc Discovery. However, in some cases, customers would like to change the scan account and the password. A new context menu within the *Users > Login Credentials* report allows to change the login account AND the password globally.

**New: SQL Server vNext Support added**

We have added support for the first previews of the next SQL Server generation (vNext).

**Improved: Optimized Database Settings**

JDisc Discovery used for a very long time the default settings for its underlying Postgres database. However, by optimizing the cache size and other parameters, the queries can run much faster than with the default settings.

We have modified our installation procedure to take the total memory into account for optimizing the Postgres database installation.

## Release 3.3 - Build 3364 (Jan-11 2017)

**New Devices:**

- Extreme Networks Access Point Controller
- Brocade FCX, FWS and ICX Series Switches
- Allnet 3500 Temperature Sensor

- Many new Lenovo Part Number Mappings added

**New: Kernel Version**

We added a new field for the kernel version. The kernel version will be populated with the kernel version on Linux and with the version number combined with the build number on Windows.

**Improved: SuSE Linux Patch Level Discovery**

We used the kernel version for the Patch Level field for most Linux computers. This is actually not correct and even some Linux distributions support the notion of “Service Packs” similar to the Windows operating system. We modified the behaviour and detect the service pack for SuSE Enterprise Linux.

**Improved: Memory Size for VMware ESX Servers**

The VMware API does not return the full memory size and therefore, we are correcting the total memory size.

**Improved: Additional VMotion Events for VMware**

Up to now, we collected the VmMigratedEvent and the DrsVmMigrated event for VMware servers. In order to get the complete list of migrations, we also added the VmRelocatedEvent.

**Bugfix: HP-UX VPars have been overwritten**

HP-UX Vpar instances have been overwritten because they can share the same VM serial number.

**Bugfix: HP ILO Discovery overwrites Server Data**

When the option “SNMP PassThru” is enabled on the HP ILOs, then it could overwrite the actual server data with ILO information.

## Release 3.3 - Build 3363 (Dec-21 2016)

**New Devices:**

- Supermicro Server Management Board

**New: Default Accounts for Windows**

JDisc Discovery used administrative accounts for domains or organizational units in the past to access Windows computers. In some cases (e.g. when using workgroups), this is not going to work. Therefore, we added a new tab for default accounts for Windows (similar to the default accounts for Unix).

**Bugfix: ESX Server without Cluster Assignment**

ESX servers in a Vcenter without a cluster assignment were not displayed in the virtualization explorer.

**Bugfix: Datagram Socket Creation**

JDisc Discovery creates Datagram sockets for SNMP and other protocols. The default socket count limitation using the standard Java security manager is 25 sockets.

When using many threads, this could cause socket creation errors. We have increased the number of concurrent datagram sockets to 20000.

## Release 3.3 - Build 3362 (Dec-14 2016)

**Improved: IBM/Lenovo Blade Server**

IBM/Lenovo offers blade servers with more than one computing node. Both computing nodes share the same serial number. IBM has sold its Intel based server business to Lenovo. Therefore, customers can mix Lenovo and IBM blade servers within their blade enclosures. JDisc Discovery assumed IBM blade chassis contain only IBM blade servers. Therefore, these were not linked to their chassis/management module.

**Improved: HP MSM Access Point Controller**

JDisc Discovery assigns HP MSM access point controllers to the switches they belong to.

**Improved: Redhat Software discovery**

JDisc Discovery detects Redhat licensed software and stores the software ID within its license information.

**Bugfix: Discovery of directory objects in domain forests**

The directory discovery of computers did not work for all domains in a domain forest.

**Bugfix: SSH Ciphers**

Due to a missing Java library, JDisc Discovery was not able to use all Ciphers.

**Bugfix: Scanning Access Points**

Scanning Access Points via the Wlan (Wifi) interface of a Windows computer could overwrite information collected directly from the access point via SNMP.

**Bugfix: Cisco IOS, ASA and PIX device diagnostic rules**

Diagnostic device rules for Cisco IOS, ASA and PIX devices were executed even though the Networking Add-On was not installed. This could be confusing as some of the referenced Discovery Configuration settings were not visible / available.

Now Cisco IOS, ASA and PIX device diagnostic rules are now executed only when the Networking Add-On is installed.

**Bugfix: Linux systems with Samba installed**

Some Linux computers with Samba installed/enabled were identified as

Windows computers.

## Release 3.3 - Build 3361 (Dec-09 2016)

### **New: System Board Discovery**

JDisc Discovery collects information about the system board and stores it within its hardware section.

### **New: Memory Module Speed**

JDisc Discovery collects the memory module speed for Windows, Linux, and MAC OSX computers.

### **Improved: IBM/Lenovo Blade Server**

IBM has sold its Intel based server business to Lenovo. Therefore, customers can mix Lenovo and IBM blade servers within their blade enclosures. JDisc Discovery assumed that an IBM blade chassis can only contain IBM blade servers. Therefore, they were not linked to their chassis/management module.

### **Improved: Supermicro SuperServer**

Supermicro offers servers with 2 or 4 compute nodes within one single chassis (similar to blade servers). JDisc Discovery detects them correctly and creates one rack chassis and the 2 or 4 compute nodes attached to it.

### **Improved: VMware Guest OS Detection**

JDisc Discovery was using the configured os version in order to determine the os version for a virtual machine. However vmware tools return more accurate information for the os version than the configured version. Therefore, we use the vmware tools information before using the configured os version.

### **Bugfix: Certificate Custom Report SQL Issue**

Custom reports could not be filtered by certificate status.

### **Bugfix: Missing Certificate Powershell Script**

The missing certificate powershell script has been added to the installation procedure.

## Release 3.3 - Build 3360 (Dec-04 2016)


### **Improved: Docker and LXC Support added**

JDisc Discovery detects now container based virtualization with LXC and docker. It finds the docker/lxc images which are currently offline and running.

### **Improved: Remove invalid Serial Numbers**

JDisc Discovery removes invalid serial numbers such as "0", "None", "0123456789".

**Improved: Table Column Resizing**

Table columns can be all resized to the required size by clicking the column resize icon within the toolbar: .

**Bugfix: Linux based HP ProCurve Switches**

Linux based HP ProCurve switches have been identified as Linux Computers.

**Bugfix: Remote Login Agent on Windows 2003/XP**

Due to a C++ compiler upgrade in build 3359, the remote login agent binary was not suitable for Windows 2003/XP. We have modified the linker settings in order to create binaries which are compatible with Windows 2003/XP.

## Release 3.3 - Build 3359 (Nov-30 2016)

**New Devices:**

- Sophos Firewall Discovery using SSH
- HPE Aruba access points and access point controllers
- LANCOM UMTS and VPN router.

**Improved: SSH Support for new Ciphers**

The SSH library that JDisc Discovery is not maintained anymore and new ciphers and key algorithms are not added anymore. Therefore, we needed to add a new SSH library.

**Improved: Proxmox 4.x Support added**

JDisc Discovery detects now Proxmox 4 installations and also the Proxmox license key if available.

**Bugfix: Windows remote login connection loss**

The JDisc Discovery server could loose connections to the JDisc Discovery zero-footprint agent in rare cases. This has happened especially during longer idle periods with no communication between discovery server and agent.

**Bugfix: Crash Fixed**

The JDisc Discovery process could crash in rare cases due to a synchronization race condition in the Windows remote login protocol.

**Bugfix: Duplicate Monitors**

Some Linux based Thin Clients reported duplicate monitor entries.

## Release 3.3 - Build 3358 (Nov-15 2016)

### **New Devices:**

- Riello UPS
- Innovaphone Gateway
- Ubiquiti Edge Switch
- Ixia xStream
- Aerohive Access Points

### **New: Custom Report Tree Search**

It was not easy to find custom reports for users which have many of them. We added a search toolbar for the custom report tree.

### **Improved: Expand Columns on Double Click**

A double click on the table column separator expands the column to the maximal width required for the column content.

## Release 3.3 - Build 3357 (Oct-01 2016)

### **New Devices:**

- HPE Aruba Switches
- BinTec be.IP plus

### **Improved: HPE Stacked Switch Discovery**

We have added the discovery for HPE ProCurve and Aruba stacked switches. For each stack, we find the virtual switch and the physical switches building the stack.

### **Bugfix: Group by Windows Computername**

Opening the discovery settings dialog causes an error message when there is a group with a rule based on the Windows computer name.

## Release 3.3 - Build 3356 (Oct-28 2016)

### **New Devices:**

- Innovaphone IP phones

### **New: Certificate Discovery**

JDisc Discovery collects certificate information from the standard certificate stores on Windows and Linux. Additionally, it collects all certificates coming from HTTPs web sites running on port 443.

**Improved: Certificate Acceptance for VMware**

Some VMware servers use older certificates which have not been accepted anymore by Java's SSL implementation. This caused an error when connecting to the VCenter installation.

**Improved: NoProfile Option for Powershell Scripts**

Powershell scripts are being called with the “-NoProfile” option in order to disable possibly registered scripts on the server.

**Improved: Manually triggered Devices**

JDisc Discovery prefers manually triggered devices when scanning computers. However, we have an internal cache which was processed before the manually triggered devices get scanned. This cache was pretty large, so it took some time until the manually triggered devices were scanned. We shrunk the cache size in order to accelerate the trigger for manual devices.

**Improved: License Dialog**

The license dialog displays the count of devices within the device categories which are using for JDisc licensing. Furthermore, users can open a report which lists the actual devices belonging to a device category.

**Bugfix: Cluster Member Report**

In some cases, JDisc Discovery did not show all cluster members when getting the cluster members from the cluster report. The root cause was a wrong SQL query.

**Bugfix: Support ZIP Creation Error**

JDisc Discovery had an issue when creating support ZIP files due to character encoding.

**Bugfix: VMware VCenter Edition and License Key**

We did not get the vCenter edition and license key for all vCenter installations. We added some code to get the correct edition and license key for cases, where we failed before.

## Release 3.3 - Build 3355 (Oct-19 2016)

**New Devices:**

- Torpedo DVB gateway

**New: Migration Events for Virtual Machines**

JDisc Discovery collects migration/motion events for virtual machines running on VMware ESX servers and Microsoft's Hyper-V servers.

**New: Last Successful OS Update Time**



Starting with build 3355, we collect the last successful update time for the Windows operating system.

**Improved: Printing Reports**

We have added the current date to the report when it gets printed.

**Improved: HPE P2000 Disk Array & MSA Disk Array**

The disk array discovery for HPE P2000 and MSA disk arrays has been improved.

**Improved: Data Archive Encrypted**

Up to now, JDisc Database archives ZIP files were not encrypted. Only the passwords have been encrypted so that they do not appear in clear text within the ZIP file.

We have improved the archiving process by encrypting the ZIP file itself. That'll improve the protection of your data.

**Bugfix: Crash when Scanning Novell Server**

A crash when scanning very old Novell server has been fixed.

## Release 3.3 - Build 3354 (Oct-13 2016)

**New Devices:**

- IBM TS3200 tape libraries

**New: MTU for Network Interfaces**

JDisc Discovery collects the MTU (Maximum Transmission Unit) for network interfaces on Linux, all SNMP devices, and Solaris.

**Improved: Model Naming for IBM xSeries Server**

There have been some inconsistencies with the IBM xSeries server naming (small or capital X within the model name).

**Bugfix: Directory and Domain Discovery**

Build 3353 introduced an issue when browsing AD organizational units and domains. The AD and domain browsing did not start and therefore, the discovery job didn't finish.

## Release 3.3 - Build 3353 (Oct-05 2016)

**New Devices:**

- Some Hewlett-Packard Thin Clients
- W&T Thermo-Hygrobarograph sensors

- Cisco SX... teleconferencing device
- Smart Checkpoint firewall appliance

### **Improved: Cisco Stacked Switch Model Detection**

Up to now, the model for Cisco stacked switches was empty since the stacked switch is just a virtual device and not a physical one. However, we decided to add a model to the stacked switch in order to refer to the underlying hardware platform.

### **Improved: NetBIOS Detection**

JDisc Discovery requires administrative accounts to scan Windows computers. Those can be configured either for a Windows Domain or for organizational units within the directory. In order to choose the right password, JDisc Discovery needs to find either the domain or the OU that a device belongs to. For newer operating system versions, the NetBIOS detection did not recognize the Windows domain and JDisc Discovery was depending on finding the correct OU via reverse DNS. We have implemented a new NetBIOS detection which works better for the current Windows operating systems. This reduces the need to configure accounts for devices individually.

### **Improved: Linux Distribution Detection**

We have improved the distribution detection on Linux.

### **Bugfix: Invalid XML Character when storing Discovery Log**

JDisc was missing some escaping code to remove invalid XML characters once they occur. This caused a transaction error in the database and thus some discoveries could not be completed.

### **Bugfix: Lancom Switch Discovery**

Lancom seems to use the same MAC addresses on different switches. This caused a false merge of two switches. Now, we are only using one dedicated MAC address for uniquely identifying the switch.

### **Bugfix: Memory Modules on Linux**

JDisc Discovery uses the dmidecode command to retrieve the memory modules for Linux computers. For some reason, the dmidecode command prints the memory module size in MB for memory modules below 16GB and in GB for memory modules above 16GB. This caused a failure in our parser for memory modules greater than 16GB.

### **Bugfix: Storing SNMPv3 Privacy Passwords**

JDisc Discovery did not store the configured privacy password for SNMPv3 accounts when changing them for individual devices.

## Release 3.3 - Build 3351 (Sep-21 2016)

### **Improved: Riverbed WAN Appliance Discovery**

The Riverbed WAN appliance discovery gets a more detailed model description and the correct OS version.

### **Critical Bugfix: Zero Footprint Agent in rare cases**

The JDisc Discovery Zero-Footprint agent might hang in some situations. In this case, the agent does not uninstall itself until someone stops the service manually or until the server gets rebooted.

### **Bugfix: Network Name**

JDisc Discovery was updating the network name from Microsoft's AD even if it has been configured by the user manually. We changed the code so that it overwrites the AD synchronization only if it has not been configured manually.

## Release 3.3 - Build 3350 (Sep-18 2016)

### **New: Collect BIOS Asset Tag**

JDisc Discovery collects now the BIOS asset tag (if available) and stores the value in a new field within the device information.

### **New: ESPRIMO Detection**

Some Fujitsu-Siemens ESPRIMO PCs running Windows XP did not return their chassis type (laptop, desktop, ...). Therefore, we added a model based type detection.

### **New: New Age Fields**

JDisc Discovery had a device data age field since its beginning. The device data age field indicates when the device has been successfully discovered and its data has been collected. We have added two new age fields:

- Age since device creation: The age of the device since it was discovered for the first time.
- Age since last seen: The age of the device since it has been seen as active the last time (e.g. a vm which has been scanned by scanning its vcenter or physical host).

### **Improved: AD Discovery**

JDisc Discovery pings devices which have been added by browsing AD organizational units before scanning them. This greatly reduces the discovery for devices which are currently offline.

### **Improved: Memory Consumption for Device History**

Creating a device history with large databases (> 10000 devices) was using a unnecessarily large amount of memory which could lead to OutOfMemory

exceptions.

**Improved: WMI Connections**

When JDisc Discovery is running on Windows 2008 or 2008 R2 server, then some users experienced a "The RPC server is unavailable error". The root cause is that we always use the IP address to connect to a device. On 2008 and 2008 R2 server, it seems that this causes in some cases a RPC server unavailable error. We added a workaround for this situation.

**Bugfix: Application Collection Binary**

Our application collection binary could ignore some applications if there was an unexpected error while scanning the registry.

## Release 3.3 - Build 3349 (Sep-09 2016)

**Improved: Device Group Description**

A new context menu within the discovery configuration provides a detailed group description for device groups.

**Bugfix: Ignore Invalid License Key**

Windows 8.1 stores in some cases the license key BBBB-BBBBB-BBBBB-BBBBB-BBBBB in its registry. JDisc Discovery was not ignoring this invalid license key on Windows 8.1 and above.

**Bugfix: Empty reports sent**

The filter was not taking effect in the report when sending emails. The program was treating the report still as a report with some entries inside which would override the checkbox for "Send empty report". Therefore, it was sending the reports which were empty.

**Bugfix: Deadlock fixed**

A deadlock could cause device discoveries to hang.

## Release 3.3 - Build 3348 (Sep-07 2016)

**New Devices:**

- A few more Emerson PDUs

**New: Get Windows Locale Information**

JDisc Discovery was collecting the locale information as hex value. Now, we have created a separate field for the locale code (the integer representation) as well as a descriptive name (e.g. English – United States).

**Improved: Get Mapped Printers**

JDisc Discovery did only get the list of local and network printers. Mapped printers which were shared by a server have not been collected yet. With the new build, we get the full list of mapped printers.

**Improved: Group by Serial Number**

JDisc Discovery can group devices by their serial number.

**Improved: IBM Integrated Management Module**

JDisc Discovery gets now the correct IMM version for IBM management modules.

**Improved: Isof command execution on Linux**

JDisc Discovery uses one more alternative path in order to execute the Isof command on Linux.

## Release 3.3 - Build 3347 (Sep-01 2016)

**New: Discover disabled VMs for HP-UX Virtualization**

JDisc Discovery scans now all VMs for HP-UX virtualization (including the stopped instances).

**New: Offline VMs for Xen**

JDisc Discovery scans now all VMs for Xen (including stopped instances).

**New: Use "Not Set" for Enumerations in Custom Reports**

Up to now it was only possible to query enumerations for specific values. Creating a custom report which lists devices where an enumeration is not set was not possible. This limitation has been removed.

**New: Discover disabled VMs for Linux KVM Virtualization**

JDisc Discovery scans now all VMs for KVM virtualization (including the stopped instances).

**Improved: SNMP Data Collection**

The SNMP library which we are using is by default very strict when checking the SNMP protocol compliance. For instance, 64 bit counter values are not supported in SNMPv1. However, some manufacturers ignore this fact and return 64 bit counter types with SNMPv1. This caused an error when getting tables with 64 bit counters and the complete information was discarded. We configured the library so that it is more fault tolerant and also accepts the 64 bit counters and does not generate an error.

**Bugfix: Serial Number for Catalyst Switches running IOS**

Cisco stores the hostname instead of the serial number in the serial number

field for some catalyst switches running Cisco IOS. We added a workaround to get the serial number in those cases from the entity MIB.

**Bugfix: Exchange Powershell Scripts**

The output of the exchange powershell scripts getting information for the exchange mailboxes was sometimes truncated after 80 characters. This caused an endless loop in our parser. We have fixed the parser to avoid those endless loops and we increased the line width within the powershell scripts.

## Release 3.3 - Build 3346 (Aug-24 2016)

**New Devices:**

- Emerson CollTherm rack
- Emerson PDU
- Mobotix M24M camera
- Rittal CMC rack control

**Improved: HyperV Serial Number**

JDisc Discovery can get now the BIOS serial number for HyperV virtual machines even if the VM is switched off.

**Bugfix: Discovery hanging**

JDisc Discovery was hanging when multiple discovery jobs scan active directory items or Windows domains.

**Bugfix: Device Name**

In some (rare) cases, the device name was not updated with the current DNS hostname.

## Release 3.3 - Build 3345 (Aug-22 2016)

**New: Discover disabled VMs for Solaris Zones**

JDisc Discovery scans now all VMs for Solaris Zones (including stopped instances).

**New: Processor Status and Number of Enabled Cores**

JDisc Discovery collects the processor status and the number of enabled cores (starting with Windows 10 and 2016 Server and Linux). Prerequisite is a SMBIOS at least version 2.5.

**Improved: Unix Discovery using SUDO**

JDisc Discovery checks whether a command exists before trying to execute it with sudo. This avoids false alarms and log entries being generated.

**Bugfix: IBM Blade Center Discovery failed with HTTP and HTTPS access**

When scanning IBM blade center management modules, JDisc was preferring HTTP or HTTPS information over SNMP data. However, SNMP information is much more accurate, than the information, we can get via HTTP.

**Bugfix: SQL Server Discovery for 2008 SP1 - SP4**

JDisc Discovery did not report the version, license key, installation path and instances properly for SQL Server 2008 SP1 – SP4.

**Bugfix: Exclusion Ranges were ignored**

The exclusion ranges were not taken into account in every case.

**Bugfix: Mapped Printer Report**

The mapped printer report for single device showed all mapped printers for all devices. The SQL query has been fixed.

## Release 3.3 - Build 3344 (Aug-14 2016)

**New: More License Details for Windows Operating System**

JDisc Discovery gets more detailed information such as license type (OEM, Retail, ...) and the license status including a license comment.

**Improved: Oracle Database Discovery on Windows**

When the file "comps.xml" is not accessible, then JDisc did not retrieve the Oracle database instances.

**Bugfix: Custom Report failed when device id selected**

Custom reports failed when the device id field has been selected and when the custom report filters by discovery log content.

**Bugfix: Reverted to a previous SNMP Library revision**

The latest SNMP library we are using seems to have an issue at some customers so we reverted to the previous revision.

## Release 3.3 - Build 3343 (Aug-10 2016)

**New: Discover disabled VMs for Microsoft HyperV**

JDisc Discovery scans now all VMs for Microsoft's HyperV (including the disabled instances).

**New Devices:**

- Cisco IronPort security appliance
- Extreme Networks stacked switches

- Dell SonicWALL firewalls

**New: Use the Discovery Log within Custom Reports**

Users can use the discovery log within custom reports in order to find devices with specific patterns within their logs.

**Changed: Offline VMs do not count for the license**

Virtual machines which are offline do not count for the license cost.

**Improved: Extreme Networks Switch Discovery**

We get the modules, fans and power supplies for Extreme Networks switches and stacked switches.

**Improved: Solaris System with NetSNMP Agent**

NetSNMP installations on Solaris systems could create issues by deleting zones which have the same mac addresses as the discovered system. We have added some special handling for Solaris servers running the NetSNMP agent.

**Improved: Virtualization Explorer includes Microsoft HyperV**

Microsoft's HyperV technology has been added to our virtualization explorer.

**Improved: Exchange Powershell Scripts**

Our Exchange Powershell scripts have been loading all mailboxes into memory which could cause a lot of memory consumption during the discovery. We changed the scripts to use pipelining in order to reduce the memory consumption to a minimum.

**Improved: New SNMP Library**

We updated the SNMP library used to collect information from SNMP devices.

**Improved: Serial Number and FW Version for Zyxel Switches**

We collect the serial number and the fw version for Zyxel switches.

**Dropped: ESX Server Discovery via SSH**

We have dropped the VMware ESX server discovery via SSH. SSH has been used for older VMware ESX server, but the VMware SOAP API is sufficient. Furthermore, the command line tools sometimes caused problems since they were hanging and running forever.

**Bugfix: Workaround for Zyxel Switches added**

Zyxel's SNMP agent seems to have some issue with the interface table. As a result, the interface table was not completely collected. We added a workaround in order to get the full interface list.

**Bugfix: Juniper EX Switches**

Juniper EX series switches have been identified as router. With this build, they are correctly identified as switches.



**Bugfix: Device Types in Custom Reports**

Changing the filter conditions for the device type in custom reports failed in some cases.

**Bugfix: New Exclusion Ranges were ignored**

New exclusion ranges were ignored by the discovery until the discovery service got restarted.

## Release 3.3 - Build 3342 (Jul-31 2016)

**New: Discover disabled VMs for VMware**

JDisc Discovery scans now all VMs for VMware (including the disabled instances).

**New: Discover disabled VMs for Citrix XenServer**

JDisc Discovery scans now all VMs for Citrix XenServers (including the disabled instances).

**New Devices:**

- Juniper WLC wireless access point controller
- Ferrari OfficeMaster Gate
- APC management cards

**Bugfix: Moving Device Groups**

Moving device groups within the configuration dialog caused in some cases that the group hierarchy is not completely visible within the reports.

**Bugfix: Discovery was hanging**

In some cases, JDisc Discovery did not finish a discovery job after scanning all devices.

**Bugfix: Some Reports Disabled in Reportin Mode**

JDisc Discovery can be started in reporting mode only. Some reports have been disabled in this mode.

**Bugfix: Ping IP4 Ranges**

Pinging IP4 ranges using all protocols failed when used to ping IP4 ranges with a single address.

**Bugfix: Duplicate Mapped Printers**

Duplicate registry entries could lead to duplicate entries within the mapped printer entries.

## Release 3.3 - Build 3341 (Jul-15 2016)

### **New Devices:**

- Agfeo LAN modules
- Lenovo Laptop and Desktop mappings added
- Checkpoint firewall
- OpenStage ip phones (US version)
- IBM DPI PDUs
- Juniper SSG-... firewalls
- Astaro Sophos firewalls
- Lenovo laptops and desktops added
- Linux based Tandberg NAS devices

### **Improved: Symbol Access Point Discovery**

JDisc Discovery detects now the serial number and detailed model information for Symbol access points.

### **Improved: Unknown PNP Devices**

JDisc Discovery removes entries from the Unknown PNP Device list when they have been added to our PNP lookup tables.

### **Improved: new format for Excel reports**

JDisc Discovery uses the more recent .xlsx format for Excel exports. The new format allows more than 1.000.000 rows per sheet as compared to 65.000 rows with the old .xls format.

### **Bugfix: Custom Software Data Collection**

The custom software data collection failed on Unix when the command line did not start with the “./” as path for the command.

### **Bugfix: Adding DNS Controller**

In some cases, adding DNS controllers failed.

## Release 3.3 - Build 3340 (Jul-01 2016)

### **New Devices:**

- Hatteras high speed modem
- RISO IS.... printer added
- Ubiquiti Networks edge router
- PCS INTUS time management terminal

### **Improved: Epson Printer Discovery**

In the past, JDisc Discovery created two devices for the management card and the Epson printer but this did not make much sense as there is no additional information available for the management card other than the IP and MAC

addresses. JDisc Discovery now creates a single device for the printer.

**Improved: Brocade Switch Model Detection**

JDisc Discovery did not get the correct model name in all cases. Furthermore, now JDisc Discovery detects OEM EMC versions of Brocade switches.

**Improved: Windows remote execution stdout and stderr transmission**

When executing programs or scripts, the JDisc Discovery zero-footprint agent sent a message to the discovery server for each block of characters received from the stdout and stderr pipe of a running process. This turned out very inefficient for large outputs with little character block-sizes. Now the JDisc Discovery zero-footprint agent buffers characters before sending to the JDisc Discovery server.

**Bugfix: Subgroups not discovered**

When a network group is located underneath a simple device group and the recursively flag was enable for the device group in a discovery job, the network group was not being pinged.

## Release 3.3 - Build 3339 (Jun-22 2016)

**New Devices:**

- Cisco security appliances added (SA 520 + SA 540)
- IBM tape library TS3100

**Improved: Monitor Discovery**

In the past, JDisc Discovery did only detect attached monitors if they have been switched on before the PC or laptop has been switched on. With the current release, we get the monitor information even if the monitor was switched off when the laptop starts. Furthermore, we get the size in Inch for the laptop.

**Improved: Custom Reports**

Custom reports can include protocol status.

**Bugfix: Not all Unix User Groups written**

Not all Unix user groups have been written to the database due to an issue when writing the groups to the database.

**Bugfix: Client Crashed in some Dialogs**

The client crashed in some dialogs. For performance reasons, we have migrated some of the HTML widgets to native widgets using the JavaFX technology. Unfortunately, this component has an issue which causes the client to crash. Oracle will fix this issue in Java9. Until then, we reverted the code again to the Swing based HTML widget (which is slower when it comes to very large HTML tables).

## Release 3.3 - Build 3337 (Jun-15 2016)

### **New Devices:**

- Zyxel GS1920-8
- Allnet access point
- Allnet webcam
- Bintec r1202 and w2003n-ext VPN router
- Epson TM88 label printer
- Silex USB to Ethernet Adapter

### **Improved: HP-UX VPar Discovery**

JDisc Discovery assigns HP-UX vPar instances to their physical servers.

### **Improved: MS Exchange Server Discovery**

JDisc Discovery created temporary files with the exchange mailboxes on the Exchange server. This has been eliminated. There are no more temporary files needed.

### **Bugfix: Several SQL Errors fixed**

Several SQL errors while writing devcies to the database fixed.

### **Bugfix: Accounts for Domains**

A bug within the discovery settings dialog prevented users from configuring administrative accounts for their domains.

## Release 3.3 - Build 3336 (Jun-07 2016)

### **New: Now Discovering VMware Datacenters**

JDisc Discovery detects the VMware datacenters and assigns clusters, physical servers and virtual machines. A new virtualization browser makes it very easy to explore your virtualization environment. Refer to <http://blog.jdisc.com/2016/06/08/virtual-datacenters/> for more details.

### **New: Identify HP-UX vPars**

JDisc Discovery detects HP-UX vPars and assigns the correct device type.

### **New Devices:**

- Dell DRAC 6 management module
- Tandberg tape library

### **Improved: Using readonly mode for virsh command**

We are using now the readonly mode. This minimizes authentication issues when calling the virsh command in order to get the KVM virtual machines.

### **Bugfix: Changing IP4 Ranges failed**

Changing existing IP4 ranges within the discovery settings failed. The changed range was not saved to the configuration settings.

## Release 3.3 - Build 3335 (May-29 2016)

### **Improved: Now supporting LDAPS using SSL**

When synchronizing objects in Active Directories and looking up devices, JDisc Discovery is now using also LDAPS on port 3369/TCP to access the AD global catalog.

### **Improved: CPU Core and Thread Count on Linux**

JDisc Discovery uses the sys file system in order to determine the number of threads and cores.

### **Bugfix: HP-UX Service Guard Cluster Detection**

A bug within one of our parses prevented JDisc Discovery from detecting HP Service Guard clusters correctly.

### **Bugfix: Discovery Settings**

A bug within the user interface listed networks within the discovery scope always as not enabled although they have been enabled for the discovery.

## Release 3.3 - Build 3333 (May-25 2016)

### **Bugfix: Networks always listed as disabled**

The discovery settings showed the networks always as disabled although they were enabled.

### **Bugfix: Filter by Computername didn't work**

The discovery filter using the computername filtered all devices.

## Release 3.3 - Build 3332 (May-24 2016)

### **New Devices:**

- Canon iPF printers
- beroNet failover switch

### **Improved: Import Button for Group Definitions**

A new *Import* button simplifies adding values for custom report definitions, group and filter definitions.

### **Improved: Dell Laptop Type Detection**

In a few cases (e.g. when the system board has been changed), Dell Latitude laptops do not recognized as laptops anymore. We added a pattern matching based on the model name to handle such situations.

**Bugfix: Missing Index caused Delays when writing devices**

A missing database index caused long delays when writing devices to the database.

**Bugfix: Annoying Reconnect Window**

An issue within the reconnect procedure lead to a reconnect Window popping up every few seconds.

**Bugfix: Scheduled CSV Report Exports**

Scheduled report exports failed in some cases due to a concurrency issue.

**Bugfix: Storing Users failed in some Cases**

In rare cases, an issue within a query caused an exception when storing local users for a device.

**Bugfix: Security Event 1511**

In some cases, our remote login agent created security events with the event id 1511: "Windows cannot find the local profile and is logging you on with a temporary profile. Changes you make to this profile will be lost when you log off"

## Release 3.3 - Build 3330 (May-18 2016)

**New: Improved Device Filtering**

JDisc Discovery's device exclusion filters have been enhanced. Users can define multiple exclusion filters on a very fine granularity.

Refer to our blog entry for more details:  
<http://blog.jdisc.com/2016/05/16/new-device-filters/>

**New Devices:**

- W&T COM servers
- Siemens Gigaset IP phones
- Mobotix web cams
- APC KVM switches
- Konica Minolta MF multifunctional printers added

**Improved: Use lscpu on Linux**

In some cases, JDisc Discovery was not able to get the proper thread and core count for processors on Linux computers. In addition to the currently called commands, we are also calling lscpu in order to get the core and thread count.

**Improved: SNMP Walk from Device Details Dialog**

The action menu within the device details dialog contains now the SNMP walk action. This action was still missing.

**Improved: List Devices with selected Windows Feature**

JDisc Discovery gets the installed Windows Features for every Windows computer and displays the list within the device details dialog. A doubleclick on a feature within this dialog opens a new dialog which lists all devices having the same feature installed.

**Bugfix: Duplicate Database Instances**

Database instances have been shown twice when an application is installed in two different directories.

## Release 3.3 - Build 3329 (May-11 2016)

**New Devices:**

- AKCP temperature sensors
- Epson scanner
- some new PNP devices

**Bugfix: Disk Model on Solaris**

A bug within the parser caused a null value for all disk models on Solaris servers.

**Bugfix: Excel Export failed with large Reports**

The Microsoft Excel export failed when the report had more than 65000 rows.

## Release 3.3 - Build 3328 (May-05 2016)

**Improved: Juniper Firewall Detection**

JDisc Discovery detects the serial number for Juniper Firwalls.

**Bugfix: ProCurve File Collection using SSH**

JDisc Discovery failed to collect configuration files for ProCurve switches using SNMP.

**Bugfix: Sporadic VMware API Problem on vCenter**

JDisc Discovery failed to collect the server and VM configuration on some vCenter installations due to missing network interface information on some ESX servers. We modified the code so that it does not cancel the complete vCenter discovery.

## Release 3.3 - Build 3327 (Apr-27 2016)

### **New: New Command Line Tools**

We have added two new command line tools to archive and restore JDisc Discovery database using command line tools.

### **New Devices:**

- Alcatel-Lucent OmniSwitches added

### **Improved: SSH Key Usage**

JDisc Discovery was not able to use SSH keys which use "AES-128-CBC " in order to encrypt the key. We have added support for keys using AES-128-CBC.

### **Improved: Apache Tomcat Discovery**

JDisc Discovery did not discover Apache Tomcat installations which were not using the standard installation mechanism on Unix (such as RPM on Linux).

## Release 3.3 - Build 3326 (Apr-20 2016)

### **Improved: Archive Database**

Some customers archived their database without including the passwords in their archive. Restoring such a database causes failures when scanning because the access credentials are missing. We have added a confirmation dialog which warns the user when he tries to archive a database without including the access credentials.

### **Improved: Clear Database Performance**

Clearing a large database took up to several hours depending on the database size. We have reduced the duration to just a couple of minutes.

### **Improved: Restore Database Performance**

Restoring the database takes is now more than two times faster than before by dropping indexes before the bulk import. The indexes are recreated again when the data has been imported.

### **Improved: Custom Attribute Collection**

JDisc Discovery takes care of using the correct powershell binary (32 bit or 64 bit) when executing powershell scripts to populate custom attributes. Previous version were using the 32 bit binary even on 64 bit systems. That caused script execution failures.

### **Improved: Serial Number for Solaris Zones**

JDisc Discovery collected the serial number on Solaris zones. However since Solaris zones are virtual machines, they do not have an actual serial number and up to now JDisc Discovery reported the serial number for the physical



server.

We modified the behaviour and now Solaris zones will not have a serial number.

**New Devices:**

- ExaGrid EX.... backup devices
- SNOM IP phones

**Bugfix: Exchange Server Discovery**

Due to a permission issue, JDisc Discovery was not able to get mailbox and exchange server details via Powershell scripts.

## Release 3.3 - Build 3325 (Apr-13 2016)

**Improved: Windows Driver Discovery**

Up to now JDisc Discovery collected only the running system drivers. Drivers which were not running or which were not system drivers were not collected. Now, we collect the full list of drivers.

**Improved: Linux Software License**

JDisc Discovery reads the license type using the rpm command.

**Improved: VMware License Key Discovery**

JDisc Discovery failed to get the license keys for VMware 4.x servers. Furthermore, it will also detect evaluation licenses.

**New Devices:**

- W&T USB Server
- Fujitsu BX Blade System Switches
- Fujitsu Eternus DX90 Disk Array

## Release 3.3 - Build 3324 (Apr-6 2016)

**New: Ping Networks with all Protocols**

In the past, JDisc Discovery had issues with devices which do not reply to ping. Devices that do not reply to ping have not been added to the discovery device queue and thus have not been scanned at all.

Our team has added a new method to scan networks and IP ranges. Instead of using only ping, it uses all protocols (SNMP, WMI, SMB, ...) in order to check if the device replies. If a device replies to one of the protocols, then it gets scanned even if does not reply to ping. But be careful with this option. The discovery process for a network might take significantly longer because the timeouts for protocols such as SNMP, WMI or SMB are much higher than ping timeouts.

**New: AIX LPAR Virtualization**

JDisc Discovery reads information from the HMC installation in order to scan IBM AIX LPAR virtualization.

**New Devices:**

- LANCOM GS-Switches
- LANCOM Web-Smart Switches
- Panasonic Smart TVs
- Samsung Smart TVs
- LANCOM VPN Router
- Siemens OpenStage IP Phones

**Improved: Serial Number for Canon Printers**

We have improved the serial number collection for Canon printers so that we can get serial numbers where the field was empty before.

**Improved: Open Device list with specific Applications**

When the device details dialog lists the applications for a single device, then the user can select one or more applications and open a new report which lists all devices having a specific software installed. The same works for services and patches.

**Improved: JDisc UI Issues with multihomed Laptops**

JDisc Discovery had issues when the user interface is used remotely and when the computer running the UI has multiple network connections (e.g. a WLAN connection and a LAN connection). In some cases, the server was not able to deliver report results properly to the user interface. We have modified our code so that it checks which network interface to use when talking to the server.

## Release 3.3 - Build 3323 (Mar-29 2016)

**New: Cygwin Installation**

JDisc Discovery detects Cygwin installations. Cygwin installations did not appear today in the software list as they are using their own installer.

**Improved: Logging during VCenter License Discovery**

JDisc Discovery has improved its logging when scanning VMware licenses.

**Improved: JBoss Discovery**

JDisc Discovery detects JBoss EAP installations in addition to JBoss AS installations.

**Bugfix: HyperV Instances**

Microsoft HyperV instances have been mistakenly identified as desktop computer.

## Release 3.3 - Build 3322 (Mar-24 2016)

### **New: IBM AIX Cluster**

JDisc Discovery scans now AIX clusters and their members.

### **New: Fortinet Firewall HA Cluster**

JDisc Discovery scans now Fortinet firewall HA clusters and their members.

### **New Devices:**

- FujiXerox DocuPrint printer

### **Improved: Custom Reports**

The custom report dialog took unnecessarily long to open. The load time has been improved. Furthermore, it is possible to add constraints for timestamp and date values.

### **Bugfix: Change Report Owner**

Changing the owner for scheduled report export or mail jobs failed.

### **Bugfix: Serial/Part Number for Extreme Networks Switches**

Extreme Networks combines the part number and the serial number on some switches in one SNMP variable. We added code to separate the part- and serial number in case both of them are provided.

## Release 3.3 - Build 3321 (Mar-17 2016)

### **Improved: User Handling and Permissions**

JDisc Discovery has extended its access rights with a right to schedule report exports or report mails. Every user can view, delete or modify his own scheduled jobs and administrators can view all scheduled jobs.

## Release 3.3 - Build 3318 (Mar-14 2016)

### **New: Improved Iterative Discoveries**

Many IT consultants and service use JDisc Discovery as a one-shot assessment tool. Their goal is to get as quickly as possible information about the client's environment. A network discovery is usually an iterative process. You start scanning, then you find issues, fix them and start the next cycle. Many already successfully scanned devices get scanned again. This slows down the process and therefore, we already had an option to scan devices only once within a specific number of days. Unfortunately, this also affected unsuccessfully scanned devices. A new option lets the discovery process scan incomplete devices even though they have been scanned recently.

**Improved: Report Export Dialog improved**

JDisc Discovery has improved its report export dialog and converted it into a wizard like dialog.

**Bugfix: Permission Issues in UI fixed**

Some menu items have been enabled although a user had no permission to select the menu item. This has been fixed.

## Release 3.3 - Build 3317 (Mar-09 2016)

**New: MaxDB Discovery für Linux und Windows**

JDisc Discovery detects SAP MaxDB databases and their instances on Windows and Linux.

**New: Device Group Names in Custom Reports**

JDisc Discovery's custom reports can include the device group name.

**New: Application Instance Application Path in Custom Reports**

JDisc Discovery's custom reports can include the application installation path for application instances such as database or web server instances.

**New: Virtualization Managed By in Custom Reports**

JDisc Discovery's custom reports can include the virtualization managed by relation. A custom report can display the vCenter installation for every VM or physical host.

**Improved: Windows discovery over low speed network links**

Windows computers connected via low speed network links and having high latency are now discovered significantly faster.

**Bugfix: Scheduled Custom Report Creation failed**

Creating report export or report mail jobs failed when the device list was filtered by a particular device group.

## Release 3.3 - Build 3315 (Mar-02 2016)

**New: Microsoft Exchange Server Discovery**

JDisc Discovery detects the Exchange Server edition, the managed mailboxes together with their configuration, size and quota information

**New: Mapped Network Drives**

JDisc Discovery collected the list of local logical disk drives. Starting with this build, it also collects the network mapped drives.

**Improved: OpenSuSE Leap Distribution**

JDisc Discovery detects the os version for the Linux openSUSE Leap distribution correctly.

**Bugfix: Crash Fixed**

The JDisc Discovery process crashed when it tried to scan a computer that was running out of disk space on its system drive.

**Bugfix: Dell PowerVault Tape Libraries**

JDisc Discovery requested a false URL from PowerVault tape libraries. Therefore, the identification failed for this device.

## Release 3.3 - Build 3314 (Feb-24 2016)

**New: Windows Server Feature Discovery**

JDisc Discovery detects the installed features on Windows server operating systems.

**New Devices:**

- Avaya DECT antenna
- Cisco Switches running IOS-XE

**Improved: Network Utilization when using Remote Client**

JDisc Discovery reduced the network utilization when polling the discovery status from the server when using a remote client.

**Usability Improved: Handling Multiple Monitors**

JDisc Discovery stores the position and size of many Windows. This cause problems when a laptop gets disconnected from a multi monitor environment. JDisc Discovery opened the Window outside visible area. Now, JDisc Discovery checks whether the Window is outside the visible area and if yes, it moves it back to the visible area.

**Usability Improved: Close Report Windows with the ESC Key**

JDisc Discovery closes now report windows when pressing the ESC key.

**Bugfix: Duplicate Visual Studio Software Entries**

JDisc Discovery created duplicate software entries for some Visual Studio versions. This has been fixed.

## Release 3.3 - Build 3313 (Feb-18 2016)

**New Devices:**

- Brocade VDX Switches
- Siemens VOIP Adapter
- IBM IMM2 Management Modules
- VCS Video Server

**Improved: Cisco Stacked Switches**

JDisc Discovery detects now stacked Cisco switches together with the participating switches.

**Improved: Action Menu in Device Details**

The device details dialog provides now an action menu similar to the context menu within device reports.

**Improved: Remove Button added in Mailing report Browse Dialog**

Now the unused email addresses in mail recipients database can be deleted from the database.

**Improved: Recipients Email Addresses auto-resize**

The Recipient Mail(s) column fills the whole table width by window resizes.

**Bugfix: Mail Recipients Browse Dialog**

- When recipients emails were imported using the Browse button, after that the Finish button in the wizard was still disabled.
- When selecting the email addresses from the list and clicked OK, the unwanted email addresses were actually added to the main recipients list and this was the problem with table indexing.

**Bugfix: Mail Recipients List in Recipients Email Adresse Panel**

When Remove button was pressed, the dialog used to inform the user that selected email addresses will be deleted from the database where actually were being deleted from the list only which was the intended action. It was only a mistake in the message.

**Bugfix: Change Button in Manage Scheduled Mail Jobs**

Changing the recipients email addresses were not taking effective in the database. It was missing from being updated.

## Release 3.3 - Build 3312 (Feb-10 2016)

**New Devices:**

- KO Technologies fingerprint scanner
- Brocade VCS Fabric Switches

**New: Custom Attributes for VMware Hosts**

JDisc Discovery already collected the set of custom attributes for VMware virtual machines. Starting with this release, we also collect this kind of information for VMware physical hosts.

**Improved: Module Slot Names for Cisco IOS Devices**

JDisc Discovery used simple numbers for module slot names. Cisco provides the real slot description for modules and JDisc Discovery uses now the real name instead of just a number.

**Improved: Model Naming for Linux Computers**

The system BIOS for some computers returns the string "0123456789" as version. This version string has been used to augment the model information. Starting with this build, we ignore the version string "0123456789".

**Improved: Logged On User Discovery**

JDisc Discovery did always create a new device when users connect remotely via RDP, SSH or telnet. We have added an option which controls whether new devices being created or not. When the option is disabled, then JDisc Discovery only indicates the client computer only if it is already within JDisc's database.

**Bugfix: Scheduled Report Export and Mailing**

When JDisc Discovered scheduled report exports and mailings, then it ignored the sorting order. Furthermore, it removed the first column which removed usually the name column.

**Bugfix: Software Manufacturer for Linux**

The manufacturer for Linux software elements had been truncated (e.g. "Red Hat" became "Red").

## Release 3.3 - Build 3311 (Feb-03 2016)

**New: Send Reports via email**

Similar to exporting reports to a shared drive, JDisc Discovery can now send reports via emails to a list of recipients.

**New: SNMP Devices**

- Some new HP switches added (e.g. HP-1920)
- Avocent AutoView console switch
- Develop ineo multifunctional printer
- Tandberg MAGNUM tape library

**New: Telnet Banner Detection**

- For Silex USB Dongles added

**Updated: Sun -> Oracle**

The vendor "Sun Microsystems" has been replaced by "Oracle". "Sun Solaris" as operating system family has been replaced by "Oracle Solaris".

**Bugfix: Check Exclusion Ranges when creating VMs**

When JDisc Discovery scans virtual machines via the vCenter installation, then it didn't check the IP exclusion ranges when creating the VMs. This has been fixed.

## Release 3.3 - Build 3310 (Jan-29 2016)

**New: SNMP Devices**

- Brocade Director switches and other Brocade Fibre Channel switches
- Océ PlotWave printer
- Some missing Allied Telesis switches

**Improved: Model Naming and Classification for IGEL**

JDisc Discovery has improved the model naming for IGEL thin clients in order to have a consistent naming for all models. Also some of the IGEL thin clients identified themselves as desktop or laptop computer. This has been fixed.

**Improved: Memory Management for JDisc Server and Client**

JDisc Discovery used default Java Virtual Machine settings for the heap memory allocation. However, when discovering large environments these default settings were not sufficient and needed manual configuration of the maximum Java heap memory size, which was error prone. Starting with this build, the client and also the server try to allocate as much Java heap memory as possible (starting with 1.8 MB maximum heap memory).

**Improved: Configuration Wizard**

The JDisc Discovery configuration wizard lets users configure and synchronize Microsoft Active Directory information. Synchronizing the directory is usually pretty fast and just a matter of minutes. However this has changed since we added the discovery of users and user groups from AD. Therefore, we modified the configuration wizard so that it doesn't synchronize the users and user groups.

**Bugfix: Configuration File Diff failed on Client Only installations**

The file diff failed in some cases on client-only installations, because it was using a temporary folder within the installation folder. However access to this folder was not granted in some cases by the administrators. Now, we are using the user's temp folder.

**Bugfix: Foreign Key Violation when writing logged on user history**

In some cases, writing the logged on user history causes foreign key violation issues within our database. This has been fixed.



**Bugfix: Handle Locally Administered MAC Addresses correctly**

JDisc Discovery uses MAC addresses as the primary key to identify devices. Some mac addresses are not unique (such as special VPN adapter interfaces). Those are usually in the range for the so called locally administered mac addresses. Those addresses are not guaranteed to be unique and therefore must be ignored when it comes to identifying devices.

## Release 3.3 - Build 3309 (Jan-17 2016)

**New: Stacked Switches**

JDisc Discovery has been prepared to detect stacked switches. When using stacked switches, a set of physical switches creates a virtual (stacked) switch. JDisc Discovery creates the stacked switch and assigns all physical switches to it.

Up-to-now, JDisc Discovery detects stacked switches from AlliedTelesis.

**New: FreeBSD Discovery**

JDisc Discovery discovers FreeBSD computers via SSH or telnet.

**New: SNMP Devices**

- Extreme Networks XOS switches
- Mikrotik access points
- AlliedTelesis switches and stacked switches
- Siemens OpenStage IP phones
- Blackbox DSL routers
- Bachmann BlueNet power distribution

**Bugfix: Discovery jobs did not finish on time**

Discovery jobs did not finish on time while manually triggered device discoveries have been running.

**Bugfix: Naming Corrections for SQL Server Components**

We changed the naming from „Microsoft Data Quality Server“ to „Microsoft Data Quality Service“. We also mistakenly used „2008“ as a version for MDS with the version „2008 R2“.

## Release 3.3 - Build 3308 (12/27/2015)

**New: SNMP Devices**

- cab Label Printers
- Lenovo Flex Blade Systems (formerly IBM flex blade systems)

**New: Collection VM Annotation for KVM**

JDisc Discovery collects now the KVM VM annotation and stores it as custom attribute.

**Improved: ESXi 4.x License Key Discovery**

JDisc Discovery failed to collect license keys for ESXi 4.x servers. We changed the code to use the same procedure as for ESX 5 servers.

**Bugfix: XML Data Export created a NPE**

The XML data export created a NullPointerException.

**Bugfix: Starter Edition did not identify Unix computer correctly**

The starter edition did not use remote login correctly to identify Unix computers via SSH or telnet.

## Release 3.3 - Build 3307 (12/16/2015)

**New: SNMP Devices**

- Sato Thermal Printers
- Cisco Tandberg videoconferencing device
- Dell Thin Client
- More Zebra Network printers

**New: New SQL Server Database Service**

JDisc Discovery scans now SQL Server Master Data Services and Data Quality Server.

**Bugfix: Filter didn't work in some Dialogs**

The filter mechanism didn't work in some of our dialogs (e.g. discovery settings).

**Bugfix: Column Order Configuration in Custom Reports failed**

In some cases, it was not possible to change the column order within custom reports.

## Release 3.3 - Build 3306 (12/11/2015)

**New: Discover IBM Flex Server Management Module**

JDisc Discovery identifies IBM Flex Server management modules correctly.

**Bugfix: Edit Custom Attributes failed**

A change in version 3.3 caused a failure when editing custom attributes. This issue has been fixed.

## Release 3.3 - Build 3305 (12/09/2015)

### **New: Discover TPM Module Information**

Getting TPM information is essential for encrypting disk drives. The new JDisc Discovery build retrieves basic information of the TPM module (if installed).

### **New: IGEL Thin Client Support**

JDisc Discovery identifies IGEL Thin Clients correctly.

## Release 3.3 - Build 3304 (12/06/2015)

### **Improved: Cisco Small Business Switch Discovery**

JDisc Discovery didn't get the correct type for some Cisco small business switches (SG- and SF- series).

### **Improved: New Lenovo Laptop Models**

JDisc Discovery has enhanced its Lenovo laptop lookup table with new models..

### **Improved: NetApp Discovery**

JDisc Discovery gets the list of file systems on NetApp disk arrays.

### **Improved: File Systems on Solaris**

JDisc Discovery filtered some file systems on Solaris. Now, we store the complete list of all file systems on Solaris computers.

## Release 3.3 - Build 3303 (12/03/2015)

### **Improved: SQL Server 2000 Discovery**

The Microsoft SQL Server 2000 discovery has been improved. In some cases, we didn't get the edition for the installation.

### **New: SNMP Devices**

- BDT FlexStore Tape Library

### **Bugfix: Crash when Scanning Novell Servers**

JDisc Discovery process crashed when scanning the shared network drives from Novell servers.

# Release 3.3 - Build 3302 (12/01/2015)

JDisc Discovery 3.3 is our new major release and includes many new features and the Security Add-On.

## **New: User Synchronization from the AD**

JDisc Discovery synchronizes users from Microsoft Active Directory and determines the relation to their defining AD elements (such as Ous).

## **New: User Group Synchronization from the AD**

JDisc Discovery synchronizes user groups from Microsoft Active Directory and determines the relation to their defining AD elements (such as OUs).

## **New: User Group Membership Discovery**

JDisc Discovery determines all user groups and users that belong to a specific user group.

## **New: User Group Browser**

Open the user group browser in order to explore the user group hierarchy and user group memberships.

## **New: Local User Groups**

JDisc Discovery discovers local user groups on Windows and Unix computers and assigns users and user groups to local user groups.

## **New: New Security Add-On**

The Security Add-On focusses on security and permission related aspects. In its first edition, it detects shared network drives on Windows computers including the configured permissions.

## **New: Many new User and User Group related reports**

There are many new reports related to users and user groups.

## **Improved: Copy-Paste from the Device Details Dialog**

Data can be copied from the device details dialog via copy-paste.

## **Improved: Performance for very large reports**

The performance for very long reports (> 1 million rows) has been improved.

## **Improved: New Icons for Menus**

New icons for menus and context menus help to identify specific functions quicker.

## **Improved: Buttons for frequently used Operations**

Buttons within table based reports help to access frequently used operations faster than before.

## Release 3.2 - Build 3254 (12/01/2015)

### **Bugfix: Sporadic issue with the JDisc zero-footprint agent**

JDisc Discovery's zero-footprint agent occasionally failed to return data from the agent due to timeout and handle errors. This synchronization related bug has been fixed.

## Release 3.2 - Build 3252 (11/26/2015)

### **New: Read SWIDTAG Files for Adobe Software**

JDisc Discovery reads swidtag files for Adobe software and extracts license type and license key.

### **Improved: BIOS Release Date on VMware Servers**

JDisc Discovery gets now the release version and the release date for VMware ESX servers.

### **Improved: Processor Information on VMware Servers**

JDisc Discovery used WBEM as the primary protocol to get processor information on VMware ESX servers. It turned out, the VMware API is more accurately reports the number of cores and threads than the WBEM protocol. Therefore, we changed the order of the protocols. JDisc Discovery now prefers the VMware API over the WBEM protocol.

### **New: SNMP Devices**

- NetApp CN.... Switches

## Release 3.2 - Build 3251 (11/18/2015)

### **New: License Keys for ESX Servers**

JDisc Discovery reads the software license keys for ESX servers.

### **Improved: KVM Virtualization**

JDisc Discovery detects KVM virtualization via the qm command. It assigns the virtual computers to the physical host and detects KVM server clusters.

### **Bugfix: SQL Server 2000 MSDE Edition**

JDisc Discovery failed to detect MSDE editions for SQL Server 2000.

### **Bugfix: False Success Message**

JDisc Discovery reported a false success message for empty passwords when testing domain accounts within the directory configuration. This has been fixed.

## Release 3.2 - Build 3250 (11/11/2015)

### **Improved: Application Discovery on MAC OS X**

Apple has changed some command out formats in OSX 10.11.1 and that caused an issue in JDisc Discovery's application discovery. Furthermore we implemented the data collection for drivers on MAC OS X.

### **Improved: Reliable Edition Discovery for MS SQL Server 2000**

Although SQL Server 2000 is already pretty old, you still find it in the field. The edition discovery (which is essential for software license management) was based on the registry information. It turned out, that this information is not reliable. The only reliable source of information is the database itself. Therefore, we determine the edition now directly from the database via an SQL query..

## Release 3.2 - Build 3249 (11/04/2015)

### **New: SNMP Devices**

- Juniper MAG VPN Appliance
- Lancope SteathWatch FlowController
- Cisco MCU Video Conferencing Device

### **Improved: HP MSM Access Point Controller**

JDisc Discovery gets the list of managed access points from HP MSM WLAN controllers.

### **Bugfix: Enable Toolbar when Discovery Log loaded**

The report toolbar was disabled when the discovery log was loaded from the device details tab.

### **Bugfix: Integer Overflow**

An overflow of a signed integer caused negative RAM sizes for video controllers.

### **Bugfix: Microsoft SQL Server Analysis Services Name**

JDisc Discovery normalizes application names. For the Microsoft SQL Server Analysis Services, we did too much normalization and removed the ADOMD.NET suffix which makes a big difference when it comes to software license management.

## Release 3.2 - Build 3247 (10/09/2015)

### **New: Modify cached VMware Accounts**

JDisc Discovery caches successfully tested accounts for each device in order to

avoid to test all default accounts at each scan. A new context menu within the „Manage“ context menu lets users change the cached account for one or multiple devices.

**New: Clear all cached Accounts**

Delete all cached accounts (VMware, root, user, SNMP communities, SNMPv3 accounts, SSH credentials) for one or multiple devices.

**Improved: Microsoft SQL Server Discovery**

The new build detects Microsoft SQL analysis and reporting services. Those components are important when it comes to licensing the product.

**Improved: Microsoft SQL Server Discovery – Cont.**

The new build detects Microsoft SQL 2000 servers with their product key, product id and its edition.

**Bugfix: Duplicate Devices**

JDisc Discovery did not delete duplicate devices (only if they exist) as it finds them when identifying servers by serial number.

## Release 3.2 - Build 3246 (10/07/2015)

**New: SNMP Devices**

- Digi Passport Console Server

**Improved: Model Names for Fujitsu LIFEBOOKS**

The model name for Fujitsu LIFEBOOKS running Linux has been improved. In previous versions, it contained an additional number that does not belong to the model name.

**Improved: No Rights Required to use the menu Item Connect to...**

In previous versions, a user required the right „Manage Devices“ in order to use the context menus to connect via SSH, telnet, or HTTP to a specific device. We have changed the code in order to allow every user to connect to the device (authentication is still required, so that is no public access to every device).

## Release 3.2 - Build 3245 (09/30/2015)

**New: SNMP Devices**

- Cisco Internal Service Module

**Bugfix: File Collection on Cisco ASA Firewalls failed**

The file collection on Cisco ASA firewalls failed due to an issue within the code

that switches to the enable mode.

## Release 3.2 - Build 3244 (09/22/2015)

### **New: SNMP Devices**

- Palo Alto Network Firewall
- Riverbed WAN Appliance CX5055

### **Improved: Sort device group entries**

The device group tree was not sorted alphabetically when opened in a report.

### **Improved: Store password comment**

When JDisc Discovery probes access credentials successfully, then it stores them at the device in order to avoid trying all passwords again when the device gets scanned the next time. Up to now, the comment field from the default account was not copied and this was sometimes complicated when troubleshooting access issues.

### **Bugfix: Scheduled reports crashed**

When scheduling more than 3 scheduled reports at the same time, the scheduler failed and all scheduled tasks (such as discovery jobs, database backups etc. failed).

## Release 3.2 - Build 3243 (09/14/2015)

### **New: Discover Management Modules for Fujitsu Server**

Some older Fujitsu servers come with management modules that do not support SNMP. In those cases, we need to get the management module information directly from the Fujitsu server via SNMP.

### **New: New Option within Dependency Mapping Add-On**

The JDisc Discovery Add-On determines the TCP/IP connections for devices. Up to now, the product created a new device whenever it finds a connection to a device that doesn't exist in JDisc Discovery's database – even if it there is just a HTTP connection to a WEB site. That was confusing for some customers and also created a lot of unnecessary devices within the database.

The new option controls this behaviour. When the option is disabled (which is the default), then it creates only connections to existing devices. All other TCP/IP connections get discarded. When the option is enabled, then it creates new devices as before.

### **Bugfix: Device Naming fixed**

In some cases, JDisc Discovery was not using the fully qualified DNS name



although it was available. This has been fixed.

## Release 3.2 - Build 3242 (09/06/2015)

### **New: vCPU Collection for VMware Guests**

Besides the guest annotation, JDisc Discovery now also collects the vCPU value for the guest virtual machine. The vCPU value gets stored as custom attribute within the VMware folder.

### **New: SNMP Devices**

- Axis WebCams
- Rittal rack controller
- Nexans switches
- IBM (now Lenovo) Flex System Fabric switch
- Epson Network Projector

### **Improved: Get Serial Numbers for Avocent KVM Switches**

We determine the serial numbers for Avocent KVM switches (when available via SNMP).

### **Bugfix: Wrong Cell Value when exporting Report**

The value for the diagnostic result within the diagnostic overview report was not correct when exported into Excel.

### **Bugfix: Incomplete Processor Information on Linux**

An issue within our parser caused to get incomplete processor information on Linux via dmidecode.

### **Bugfix: VMware Server Information not written to database**

In some situations, JDisc Discovery did not write the information for a VMware ESX host to the database.

## Release 3.2 - Build 3241 (08/30/2015)

### **New: SNMP Devices**

- Server Tech switched CDU
- Zyxel stackable ethernet switch
- Meinberg Lantime time server
- HP StoreOnce Backup systems

### **New: New Diagnostic Report**

A new diagnostic report displays the results of JDisc Discovery's diagnostic rules for each device.

**New: Collect Partition Information via SNMP**

Collect partition information for all SNMP devices that support the host-mib.

**New: Collect Process Information via SNMP**

Collect process information for all SNMP devices that support the host-mib.

**Improved: Microsoft Office 2010 and 2013 Discovery**

We improved the Microsoft Office Discovery for Office 2010 and Office 2013. In addition to the license key, we also get the license type (retail, subscription, MAK, ...), the license status, the license expiration date (if there is any) and a comment that describes the license status.

**Improvement: Sort list of Custom Reports by Name**

JDisc Discovery sorts the list of custom reports by name. Finding your custom report is now a lot easier.

**Improvement: Serial Numbers for ServerTech CDUs**

JDisc Discovery gets now the serial numbers for server tech CDUs.

**Improvement: Use native WMI as Fallback**

In rare cases, JDisc Discovery failed to execute WMI queries via its zero-footprint agent. Up-to-now, this lead to no WMI data at all. We added a fallback solution to use the native WMI protocol in case WMI over remote login fails.

**Improvement: Use SUDO Only**

Up-to-now, JDisc Discovery always used the „su“ command as a fallback when sudo fails. A new option within the remote login root access methods lets users configure the option „sudo only“. The su command will not get called anymore.

**Bugfix: Wrong License Key for Office Products**

Due to an decoding error, JDisc Discovery got the wrong license key for some Microsoft Office products. This issue has been resolved.

## Release 3.2 - Build 3240 (08/11/2015)

**New: SNMP Devices**

- Dell Networking switches N....
- Areaca raid controllers
- Dell PowerConnect 5324
- Dell PowerConnect 5448

**New: Product Keys for VMware vCenter Installations**

JDisc Discovery determines the product key for your VMware vCenter installations.

**New: Filter field in Discovery Log**

A filter field within the discovery log lets enables users to search for specific information within the discovery log.

**Improvement: Remove Unnecessary Applications**

JDisc Discovery uses a generic approach to read application information from the Windows registry. In some cases, the operating system itself appeared as „Microsoft Windows“ within the application list. We are going to filter this application out of the application list, because the operating system information gets stored separately.

**Bugfix: Fake Office Installations**

In some cases, JDisc Discovery displayed a list of false Microsoft Office installations that were actually not installed, deleted or upgraded from previous versions.

**Bugfix: Zoneadm Parser fixed**

The parser for the zoneadm command output on Solaris failed on older Solaris installations that do not return the unique id for each zone.

## Release 3.2 - Build 3239 (07/26/2015)

**New: OS Description**

JDisc Discovery collects the description field for Windows computers.

**Improvement: Keep Application Instance IDs constant**

JDisc Discovery always created new database entries with new database IDs whenever it scanned application instances. This caused unnecessary issues when importing application instance information into third party tools.

## Release 3.2 - Build 3237 (07/16/2015)

**New: KVM Discovery**

JDisc Discovery detects KVM virtualization running on Linux hosts and assigns the virtual machines to their physical hosts.

**Improvement: Report Reload maintains sort order**

JDisc Discovery keeps the current sort settings when reloading a report.

**Improvement: Support ZIP uses CSV instead of Excel**

JDisc Discovery uses for some logs a CSV file instead of a Microsoft Excel sheet. That speeds up the export process for very large logs.

**Bugfix: BDF Command Parsing failed in some cases**

JDisc Discovery executes the bdf command on HP-UX to get the list of logical disk drives. In some cases, bdf prints one entry in within two lines instead of one. This confused our parser and we have fixed this issue.

## Release 3.2 - Build 3236 (07/08/2015)

**Improvement: Microsoft SQL Server Discovery**

JDisc Discovery detects Microsoft SQL Server 2014 installations including the product key. Furthermore, we identify Microsoft SQL Server Integration Services installations including their product key and product id.

**Improvement: Use correct Port when for SSH Connections**

JDisc Discovery can open a SSH connection from any device report. Up to now, the product always used the standard SSH port (22). But since a few weeks, JDisc Discovery can also discover devices where SSH runs on a different port. Opening a SSH shell from the user interface uses now the correct SSH port.

**Bugfix: Web Service Interface terminated session**

JDisc Discovery's web service terminated session to early. This leads to unnecessary logins. Now, the session stays active unless the API to logout is called or the client is not sending his keep-alive ping.

## Release 3.2 - Build 3235 (06/27/2015)

**New: SNMP Devices**

- TP-Link Broadband Router
- Redback Multiservice Router
- Server Technologies CDUs

**Improvement: Intel Processor Maximum Speed**

JDisc Discovery uses not the process model string as the primary source for the maximum speed since WMI turned out to be inaccurate in some cases.

**Improvement: Manufacturer for Operating System**

JDisc Discovery stores the manufacturer for the most frequently used operating systems.

**Improvement: Mount Point Collection for VMware**

JDisc Discovery stores logical disk mount points for VMware server.

**Improvement: Microsoft SQL Server Discovery**

JDisc Discovery determines the correct data directory, port, and product id/key for Microsoft SQL Server installations.

**Bugfix: History Module did not archive the software list**

JDisc Discovery's history add-on failed to archive the software items such as applications, services, and drivers.

**Bugfix: Pentium Processor Core Count**

JDisc Discovery did not determine the correct number of cores for old Pentium dual processors.

**Bugfix: Windows 2003 R2 Server Detection**

JDisc Discovery did not identify the operating system for Windows 2003 R2 servers correctly. The „R2“ part was not identified.

## Release 3.2 - Build 3233 (06/16/2015)

**New: VMware vCenter Discovery**

From its beginning, JDisc Discovery was able to discover hardware and software details from VMware ESX(i) servers. However, we frequently find the situation at customers where the IT Asset managers have no administrative access to the VMware servers themselves. In some cases, administrative access has been disabled at all.

Our development team implemented a vCenter discovery. The new feature lets IT asset managers scan hardware and VM details directly from the vCenter installation – even with read-only accounts.

**New: VMware and Citrix Xen Server Default Accounts**

Up to now, all Linux based default accounts have been managed from the „Linux/VMware/XenServer“ tab within JDisc Discovery's configuration dialog. The new build lets users maintain the default accounts for VMware and CitrixXen servers within separate sections. The number of required default accounts for Linux can be reduced and thus the number of accounts being tested against Linux computers gets reduced too.

**New: SNMP Devices**

- Fujitsu SNMP iRMC Management Boards

**Bugfix: Database ID of Blade Fans changing**

Due to a bug the database ID of Blade Fans has been changing every time when being rediscovered. This is fixed and the database ID remains stable.

**Bugfix: Wrong or missing Path for Services**

An issue within a regular expression parsing the path out of a command caused wrong path values for Windows services.

## Release 3.2 - Build 3232 (06/10/2015)

### **New: Comment Field for Default Accounts**

The new comment field for default accounts lets users add hints for passwords and what they are used for.

### **New: New Right „Discover Single Device“ for JDisc Discovery Users**

We have added a new right „Discover single device“ to our JDisc Discovery rights. This enables non admin users to initiate a scan for a single device.

### **New: Improved Logging when Checking Accounts**

We log the new comment field for default accounts when testing Unix accounts. This helps to resolve username/password issues.

### **New: New SNMP Devices**

- Raritan Rack Environment Sensors
- Citrix Wan Repeater
- Sophos Email Appliance
- McAfee Webwasher appliance

### **Bugfix: Wrong Computer Name**

The SMB protocol returns in some cases an IP address instead of the Windows computer name. This caused JDisc Discovery to store the wrong computename.

## Release 3.2 - Build 3231 (06/02/2015)

### **New: Configure additional DNS Servers**

We have encountered some customer environments where reverse DNS lookup is not properly configured. As a result, DNS name resolution is not resolving IP addresses to DNS names properly. In order to improve DNS lookup results, users can add additional DNS servers to JDisc Discovery's configuration.

### **New: Binary File Collection for Linux and Solaris**

Similar to the existing executable file collection, JDisc Discovery can now collect the list of all binary files on Linux and Solaris.

### **Bugfix: Duplicate Entries for Solaris LDOMs**

JDisc Discovery created in some cases duplicate entries for Solaris LDOMs. This problem has been fixed.

## Release 3.2 - Build 3230 (05/31/2015)

### **New: New SNMP Devices**

- AudioCodes MediaPack VOIP Gateways

### **Improved: Use the Process List to find Oracle Database Ports**

JDisc Discovery makes now use of the process list and the netstat command in order to find the TCP/IP port for a particular Oracle database installation.

### **Improved: Use the Process List to find MySQL Database Ports**

JDisc Discovery makes now use of the process list and the netstat command in order to find the TCP/IP port for a MySQL database installation.

### **Bugfix: Not all Ports and Collections discovered on Linux**

Due to a regular expression bug, JDisc Discovery did not scan all open TCP/IP ports and TCP/IP connections on Linux.

## Release 3.2 - Build 3229 (05/26/2015)

### **New: Configurable SSH Port**

JDisc Discovery can configure a list of SSH ports. So far, JDisc Discovery was using only the default port 22 when connecting via SSH. With the coming build, JDisc Discovery can also scan devices where the SSH port has been reconfigured.

## Release 3.2 - Build 3228 (05/25/2015)

### **New: Database Port Discovery for Oracle**

JDisc Discovery gets the port for each Oracle database instance.

### **New: Logical Disk Location for VMware Servers**

JDisc Discovery collects an additional attribute for VMware file systems. Besides name, mount point and size, JDisc Discovery gets the location attribute. This is especially useful in order to find out whether the file system is local to the server or resides on a NAS device.

### **Improved: Serial Number Collection for Canon Printers**

JDisc Discovery gets the serial numbers for Canon printers.

### **Improved: Device Creation for Attached Devices**

JDisc Discovery did create a new device and deleted the old device when scanning attached devices without serial numbers. In order to improve the

import process for CMDB solutions, we keep the current device within the database.

#### **Improved: Custom Report Conditions**

JDisc Discovery can use new conditions within its custom reports:

- field does not match regular expression
- field does not contain a string
- field does not contain a string (case insensitive)
- field does not match pattern (with \* and ? as joker characters)

#### **Bugfix: Could not Connect to a Device via SSH or Telnet from Custom Reports**

When using custom reports, it was not possible to connect to a device via SSH, Telnet, HTTP, HTTPS or RDP.

## Release 3.2 - Build 3227 (05/17/2015)

#### **New: MySQL Database Discovery**

JDisc Discovery detects MySQL database installations and their databases.

#### **New: Database Port Discovery**

JDisc Discovery is prepared to find the TCP/IP ports for databases. The port detection is already implemented for MySQL and will follow for other databases soon.

#### **Improved: Custom Report lists OS Version for VMs**

We have enhanced the capabilities for our custom reports. Starting with this release, it is possible to list the operating system version for each virtual machine.

## Release 3.2 - Build 3226 (05/11/2015)

#### **Bugfix: Fake MS Office Installations**

An issue within our MS Office discovery caused to list MS Office installations that are not installed on the computer.

## Release 3.2 - Build 3225 (05/10/2015)

#### **New: Device Aging-Out**

The new aging-out mechanism removes devices when their data is older than a configurable number of days. The aging-out mechanism is disabled by default.



**New: Device Deletion Log**

JDisc Discovery creates a log entry whenever a device gets deleted. Users can now provide a comment when they delete a device from the database in order to document the reason for the deletion.

**New: IP4 Network List in Custom Reports**

The list of IP4 networks has been added to the list of available fields within the custom report definition.

**Bugfix: Thread Leak**

A race condition caused JDisc Discovery to not stop all threads when the discovery runs for a very long time.

## Release 3.2 - Build 3224 (04/29/2015)

**New: New SNMP Devices**

- Teradici ThinClients
- Missing Zebra print servers and printers
- TSC barcode printers
- Tandberg video conferencing devices

**New: Delete Devices via WEB Service**

Devices can be deleted using the web service.

**New: FAN devices of HP BladeSystems**

In addition to blade servers, interconnect devices and power supplies, JDisc Discovery also discovers all FANs in HP BladeSystem enclosures.

**Improvement: Memory Consumption for the Dependency Mapping Add-On**

In large environments the Dependency Mapping add-on was using a huge amount of memory. We have optimized the memory consumption dramatically to run properly also on computers with limited resources.

**Bugfix: Wrong Serial Number for HP Blade Members**

JDisc Discovery did assign incorrect serial number for HP Blade servers when discovering the BladeSystem through the onboard administrator.

**Bugfix: IP command for Linux**

JDisc Discovery used an incorrect path when running the „ip“ command on Linux.

## Release 3.2 - Build 3223 (04/23/2015)

### **New: New SNMP Devices**

- IBM Flex Blade Systeme (Management Modul, Enclosure, Server)

### **Improvement: Interface Discovery on Linux**

The 'ifconfig' command does not always print all configured IP addresses. In addition, we use the more recent 'ip' command in order to retrieve list of all IP addresses.

### **Improvement: Use less Memory**

We were running into out of memory situations in large environments. Therefore, we changed the code to optimize the memory allocation.

## Release 3.2 - Build 3221 (04/16/2015)

### **Improvement: Serial Number for 3Com SuperStack Switches**

We have implemented a new method to retrieve serial number and model for 3Com SuperStack switches.

### **New: New HTTP based Devices**

- Dell PowerVault Tape Libraries
- Tibbo Multifunctional Terminals (access control)

### **New: New SNMP Devices**

- Lenze PROFINET Module
- Leuze Barcode Positioning System
- SICK Barcode Scanner
- Dell Projectors
- More Samsung printers and multifunctional devices supported
- Improved Avaya Switch Support
- Improved Lantronix Console Switch Support
- Avocent Console Switch
- Improved Merlin Gerin UPS Support
- ShoreTel voice gateways
- Symbol Technologies switches added
- Fuji Xerox DocuCentre printers
- Fuji Xerox ApeosPort printers
- HW group temperature sensor
- Improved SNMP detection for SunFire server
- AnywhereUSB network hubs
- EMC Disk Array support improved

### **Bugfix: Solaris LDom and Zone detection**

In some cases, Solaris zone information was accidently deleted and in some

cases, Solaris zones have mistakenly identified as Solaris LDOMs.

**Bugfix: Active Directory discovery**

When discovering and looking up Active Directory member computers, JDisc Discovery now accesses domain controllers and global catalog servers that belong to the same DNS domain as the Active Directory member computers.

Prior to this change, JDisc Discovery sometime accessed domain controllers and global catalog servers at the DNS root domain level when looking up member computers in subordinate DNS domains. As a result of this, Active Directory member computers were not found in the directory and associated access credentials have not been used for discovery.

## Release 3.2 - Build 3220 (03/31/2015)

**Improvement: Disable Menu Items when Permissions are missing**

Up to now, we did show an error message when a user performed an operation that he was not allowed to execute. We improved the user interface by disabling menu items that are not allowed with a user's current permissions.

**Improvement: Get Serial Number on Solaris Servers**

We did implement another way to retrieve the serial number on Intel based Solaris servers.

**Improvement: Include more fields within Custom Reports**

We did add the following fields within the custom reports:

- Creation Timestamp
- Internal Database Device ID

**New: New SNMP Devices**

- Barracuda Firewall
- McAfee WEB Gateway

**Bugfix: Import IP4 Networks did not include the name**

The IP4 Network import did not include the network name.

## Release 3.2 - Build 3219 (03/12/2015)

**Bugfix: Wrong Directory Account Used**

JDisc Discovery was choosing under certain circumstances a wrong AD account to scan computers that belong to a specific OU.

**Bugfix: Remote Login Failure**

JDisc Discovery did encounter in some cases a problem with its remote login agent (mostly on Windows 2000 based NAS devices).

**New: New SNMP Devices**

- PowerScaler USV

## Release 3.2 - Build 3218 (03/05/2015)

**Bugfix: Use root user in order to execute Idm**

JDisc didn't use root privileges to execute the Idm command on Solaris. This has been fixed.

## Release 3.2 - Build 3216 (02/25/2015)

**New: New SNMP Devices**

- Citrix WANScaler
- Cisco Network Analysis Module
- ECI HiFOCuS Access Node
- Redback Networks Multi Service Router SE800

**Improvement: Get all IP Addresses for VMware Server**

JDisc didn't get all IP addresses configured on a VMware host. We have added the missing code to retrieve the full list of IP addresses and their assignments to network interfaces.

**Bugfix: Use full path for virtinfo command in Solaris**

Use full path in order to get the virtualization info on Solaris.

**Bugfix: Processor detection on Windows**

When a processor did not have a processorid other than „000.“ JDisc Discovery assumed the process slot empty, which was not true in all cases.

## Release 3.2 - Build 3215 (02/16/2015)

**New: New SNMP Devices**

- Cisco Small Business Switches
- Juniper EX3300 Switch
- WatchGuard X25/X26 Security Appliance

**Bugfix: HP BladeSystem Enclosure name set rack name**

JDisc Discovery mistakenly set the HP BladeSystem enclosure device name to the rack name, which was causing duplicated enclosure names.

## Release 3.2 - Build 3214 (02/08/2015)

### **New: New SNMP Devices**

- Cisco                      Unity                      Connection                      VMware                      Appliance

### **Bugfix: Unnecessary use of Default SNMP Communities**

JDisc Discovery stores the access credentials that succeeded for the last discovery. In case of SNMP communities and SNMPv3 access credentials, JDisc Discovery was unnecessarily trying the default communities which could cause alarms within switches and routers. JDisc Discovery now tries the last successful access credentials first, before trying default accounts.

## Release 3.2 - Build 3212 (01/28/2015)

### **New: New SNMP Devices**

- Alcatel-Lucent                      WLAN                      Controller

### **Bugfix: Not all logical Disks detected on VMware Servers**

JDisc Discovery did not write all logical disks for VMware servers correctly to the database. This has been fixed with this build.

## Release 3.2 - Build 3211 (01/14/2015)

### **New: New SNMP Devices**

- ADTRAN                      Access                      Node

### **Bugfix: Correct Product Key for Windows 8 and later**

Microsoft has changed the encoding for its product key starting with Windows 8. Therefore, the algorithm used up to now returned wrong product keys. Starting with build 3210, JDisc Discovery uses the correct algorithm for product keys in Windows 8 and later.

## Release 3.2 - Build 3208 (01/01/2015)

### **New: New HTTP Devices**

- Mitel Aastra IP Phones

**Bugfix: VMware Vcenter Discovery failed in some cases**

In some cases, JDisc Discovery was not using the correct access credentials to connect to the VMware Vcenter installation. As a result, it could not read the VMware cluster configuration.

## Release 3.2 - Build 3207 (12/28/2014)

**New: AutoDesk Software License Detection**

The new JDisc Discovery build detects AutoDesk software together with its license serial number and license type.

**New: New SNMP Devices**

- IBM PDUs
- Moxa 1G copper port aggregator
- KOMDRUCK printers
- Mitel VOIP gateway
- SEH Computertechnik print server
- EFI Fiery print server

**New: New HTTP Devices**

- AVM Fritzbox
- AVM WLAN repeater
- Mitel MX-ONE Manager Telephony System
- Allnet 3000 environment controller

## Release 3.2 - Build 3205 (12/14/2014)

**New Starter Edition at no Cost**

The new JDisc Discovery Starter Edition enables customers to enter the area of automated network discovery at no cost. The Starter Edition scans model, manufacturer, serial number, operating system version and the network interfaces for all supported devices. If you would like to get more such as detailed hardware or software information, then you need to use our Professional Edition.

**New: New SNMP Devices**

- EMC RSA Appliance
- Some more Kyocera printers added
- EMC AX Disk Arrays
- Konica Minolta bizhub MFPs
- Dell TL4000 tape libraries with their tape drives

**Bugfix: Solaris LDOM detection failed in some cases**

JDisc Discovery was not able to collect the Solaris LDOM configuration when

the server when a non-root user was used to logon to the server.

**Bugfix: Strange Characters in Serial Number for Fusitsu ILOs**

Fujitsu uses an OEM version of HP's ILO in order to manage their servers. However, a bug in their firmware version causes invalid characters within the serial number. We filter the serial number and remove invalid characters.

## Release 3.2 - Build 3204 (12/01/2014)

**New: Improved IBM device support using HTTP/HTTPS protocol**

- IBM BladeCenter Advanced Management Module
- IBM Advanced System Management Processor

**Improved: Serial number detection for Cisco Routers**

JDisc Discovery did not collect the correct serial number for all Cisco router models. This has been improved in this release.

**Improved: Serial number detection on Solaris**

JDisc Discovery has did not recognize the serial number on some Solaris servers. This has been improved by calling another command line tool in order to retrieve the serial number.

**Bugfix: Detecting Solaris Zones with active SNMP could delete existing servers from the database**

Same mac addresses on the pyhsical Solaris and zones resulted in a false merge of the physical server and the Solaris zone. This has been fixed.

## Release 3.2 - Build 3203 (11/23/2014)

**Improvement: Configurable Separator String when importing Custom Attributes**

The user can define a separator character or string for CSV files when importing custom attributes into JDisc Discovery. So far, only ',' and ';' have been accepted as separators.

**New: SNMP Devices**

- Meinberg correlation receiver
- NikSun appliance

## Release 3.2 - Build 3202 (11/03/2014)

### **Bugfix: Licensing for Unix remote login did not work correctly for JDisc Discovery Essential Edition (JEDI).**

Even though you could turn on the Unix remote login protocol and assign default accounts, JDisc Discovery did not logon to Unix computers.

## Release 3.2 - Build 3201 (10/30/2014)

### **Bugfix: Testing of default SSH keys failed**

As we have changed all database schema primary and foreign keys from integer to long unfortunately we forgot to adapt the code for SSH keys.

## Release 3.2 - Build 3200 (10/29/2014)

### **JDisc Discovery**

#### **New: New licensing scheme**

The new licensing scheme uses a credits based approach that controls how many devices can be discovered. Depending on the operating system and the device type a device consumes a variable amount of the available credits. The new licensing scheme is more flexibel and cost effective than the old edition based licensing scheme. This is because the price per devices is no longer mandated by the edition but the operating system and the device type.

#### **New: F5 Load Balancer Discovery**

The new version detects F5 load balancers and creates the load balancer pools and connects them to the pool members.

#### **Improved: HTTP/HTTPS protocol based discovery**

The HTTP/HTTPS based protocol discovery is faster and lowers the network bandwidth utilization.

#### **Improved: VMware ESX/Citrix Xen Server operating system detection**

The operating system version of VMware ESX, VMware ESXi and Citrix Xen servers are detected using the HTTPS/HTTP protocol.

#### **Improved: HP BladeSystem discovery**

The HP BladeSystem discovery detects the active and standby onboard administrator devices and assigns both to their respective blade enclosure device.

#### **Improved: Windows 10 (Technology Preview) discovery**



JDisc Discovery is already prepared to discover computers running the Windows 10 (Technology Preview).

## Release 3.1 - Build 3126 (10/15/2014)

### **JDisc Discovery**

#### **Improved: Serial Number Discovery for Solaris**

The serial number discovery for Solaris servers did not return the serial number for all models. This has been improved.

#### **Improved: New SNMP Devices**

- Fujitsu KVM Switches

#### **Bugfix: CSV and Excel Export failed for Devices by Group Report**

The CVS and Excel report failed for the devices by group report.

## Release 3.1 - Build 3125 (09/28/2014)

### **JDisc Discovery**

#### **Bugfix: Microsoft Hyper-V Discovery**

The Hyper-V discovery did not detect virtual machines running on Windows Server 2012 (R2), Windows 8 / 8.1 (Professional and Enterprise editions).

## Release 3.1 - Build 3124 (09/14/2014)

### **JDisc Discovery**

#### **New: Connect via HTTP and HTTPS**

A context menu allows users to connect via telnet, ssh or RDP. We've added a context menu to open the WEB Browser for a device using HTTP or HTTPS.

#### **Improved: New SNMP Devices**

- Dorma Access Control Terminals
- Kyocera MFPs and Printers

## Release 3.1 - Build 3123 (09/03/2014)

### **JDisc Discovery**

**Improved: New SNMP Devices**

- Brocade Vyatta VPN Router

## Release 3.1 - Build 3122 (08/27/2014)

**JDisc Discovery****Improved: New SNMP Devices**

- Cisco Application Deployment Engine
- Cisco MCS Servers
- Cisco TelePresence ISDN Gateways
- D-Link DMC Management Modules
- F5 BIG-IP Load Balancers
- Moxa Nport 5110
- EMC Data Domain Backup Devices
- Lancom Wireless Access Points
- Lancom Wireless DSL Router
- Dell iDRAC remote access controller

**Bugfix: Race Condition in Remote Login for Windows fixed**

In rare occasions, a race condition could cause timeouts when gathering information via remote login for Windows.

## Release 3.1 - Build 3121 (08/17/2014)

**JDisc Discovery****Improved: HP-UX Identification**

JDisc Discovery uses cprop in order to identify the model and the processors on HP-UX servers.

**Improved: Identification for QNAP NAS Devices**

The SNMP detection for QNAP NAS devices has been improved.

## Release 3.1 - Build 3119 (08/08/2014)

**JDisc Discovery****New Devices: Identification for new Devices added:**

- QNAP NAS devices

## Release 3.1 - Build 3117 (08/04/2014)

### **JDisc Discovery**

#### **New Devices: Identification for new Devices added:**

- Bintec VPN Router
- Toshiba eSTUDIO MFPs
- Siemens HiPath Gateways
- Digi Connect ME devices
- Kaba Benzing access control devices
- Motorola Symbol WLAN Switch
- Riverbed WAN appliances

#### **Improved: Use cprop command on HP-UX**

Some of the more recent HP-UX servers provide a new command „cprop“ to retrieve hardware information. The older commands are often no longer supported on those servers. Therefore, we added the code to get HP-UX hardware information via cprop in addition to the older commands.

#### **New: Detect Cisco UCS Blade Server dependencies**

JDisc Discovery detects now how Cisco's UCS blade servers are connected to their blade enclosures and the switches connecting the blade system to the network.

## Release 3.1 - Build 3115 (07/21/2014)

### **JDisc Discovery**

#### **Improved: Get correct Maximal Processor Speed for VMware Servers having Processors with Turbo Boost**

The WBEM protocol on VMware servers often returns incorrect maximum speed values. Now the Turbo Boost max. speed is used instead.

#### **Improved: Model detection for Huawei Routers**

The model detection for Huawei routers has been improved.

#### **Bugfix: Windows Computer Name empty**

Windows computer names have not been stored in the database when containing non standard characters such as the “\_” character.

## Release 3.1 - Build 3112 (07/03/2014)

### **JDisc Discovery**

**Bugfix: Relation between Blade Enclosures and Blade Servers got lost**

The assignment of blade servers to their blade enclosures could get lost.

**Bugfix: Relation between Server and Management Card got lost**

The relation between a server and its management device could get lost.

## Release 3.1 - Build 3110 (06/28/2014)

### **JDisc Discovery**

**Bugfix: VMware Cluster Discovery fixed**

JDisc Discovery did not get all clusters that belong to a vCenter installation.

**Bugfix: Citrix XenServer VM assignment**

In some cases, JDisc Discovery did assign all virtual machines to one physical server instead of the correct physical servers.

**Bugfix: SNMPv3 Access Failed**

In some cases, JDisc Discovery did not use the SNMPv3 protocol to obtain information although SNMPv3 has been configured correctly and tested successfully.

**Improved: Detection of IBM Servers**

JDisc Discovery determines the correct device type (Blade Server, rack server) for the new IBM FlexSystem servers.

**Improved: VMware Server Serial Number Detection**

JDisc Discovery can get the serial number using VMware's API. Up to now, JDisc Discovery needed the WBEM protocol to retrieve a server's serial number.

## Release 3.1 - Build 3108 (06/19/2014)

### **JDisc Discovery**

**Bugfix: SNMP Community Test failed on some devices**

Due to an incorrect SNMP implementation on some devices, JDisc Discovery reported successful SNMP access although the SNMP community was not correct.

### **JDisc Discovery Networking Add-On**

**Bugfix: Not all Port Forwarding Entries read**

For some Cisco devices, JDisc Discovery did not read the port forwarding information for all VLANs. This has been corrected in this build.

## Release 3.1 - Build 3107 (06/12/2014)

### **JDisc Discovery**

#### **Bugfix: Remote Login on Chinese Windows**

Due to a problem with character encoding, the remote login failed on Chinese Windows servers and clients. This has been fixed with this release.

#### **Bugfix: SSH Operating System Detection**

JDisc Discovery detects the operating system version by calling the uname command on Unix operating systems. The operating system detection failed in some cases, because the conditions were too strict. This has been improved in this release.

## Release 3.1 - Build 3106 (06/07/2014)

### **JDisc Discovery**

#### **Enhanced: New SNMP Devices**

JDisc Discovery has added support for the following SNMP devices:

- Blue Coat PacketShaper 12000 and 900
- Cisco MCS Servers

#### **Bugfix: Scanning users parser error fixed**

There was a parser exception that caused problems under some circumstances when scanning users on Oracle Solaris.

#### **Bugfix: Windows 2000 based NAS devices caused problems**

Some Windows 2000 based NAS devices caused problems when checking the remote login protocol. The discovery for this device was hanging and was killed after the timeout. We added some code to avoid the remote login test for those devices.

### **JDisc Discovery Networking Add-On**

#### **Improved: Port to Module Assignment for Cisco IOS devices**

Cisco did not populate the entity mib properly in all cases. Therefore, JDisc Discovery could not assign all network ports to the corresponding modules. We've implemented a workaround for this situation.

## Release 3.1 - Build 3105 (06/01/2014)

### **JDisc Discovery**

#### **Enhanced: Support for Cisco Servers added**

JDisc Discovery identifies Cisco Servers correctly as Blade or Rack servers.

#### **Updated: SNMP4J Updated**

The SNMP library has been updated to the latest version (2.3).

#### **Bugfix: SNMP Walk for devices supporting SNMP v3**

The SNMP Walk failed for devices that support only SNMPv3.

#### **Bugfix: Sudo on Linux**

The sudo command was called with wrong parameters which could cause problems when the password contains some special characters such as “!”.

#### **Bugfix: Protocol Status incorrect when using Sudo on Linux**

The remote login protocol status was not correct when using sudo on Linux. Although sudo access succeeded, the remote login protocol for the admin account was set to “failed”.

### **JDisc Discovery Networking Add-On**

#### **Bugfix: SNMPv3 Port Forwarding on Cisco Routers**

Similar to Cisco's SNMPv1/v2c community indexing, Cisco uses a similar approach for SNMPv3. This was not implemented by JDisc Discovery. The topology algorithm was only getting the MAC forwarding database for the default VLAN. With this bugfix, JDisc gets the port forwarding database on Cisco routers for all VLANs.

## Release 3.1 - Build 3103 (05/07/2014)

### **JDisc Discovery**

#### **Enhanced: Support for Netgear Switches added**

JDisc Discovery identifies Netgear switches correctly.

#### **Enhanced: Support for Supermicro Blade Switches added**

JDisc Discovery identifies Supermicro blade switches correctly.

## Release 3.1 - Build 3102

### **JDisc Discovery**

#### **Bugfix: Getting interfaces and IP addresses failed using Windows Remote**

JDisc Discovery failed to get interfaces and IP addresses using Windows remote login due to missing user impersonation.

## Release 3.1 - Build 3101 (04/17/2014)

### **JDisc Discovery**

#### **New: VMware cluster discovery**

JDisc Discovery discovers VMware clusters, cluster member servers and cluster services through the VMware vCenter management system.

#### **New: Xen cluster discovery**

Xen clusters and Xen cluster member servers are identified by JDisc Discovery.

#### **New: Web Server device role assignment for Microsoft Internet Information Server installations**

Windows client and servers having the Internet Information Server installed are assigned the Web Server device role.

#### **Improved: Microsoft cluster service (MSCS) discovery**

All member servers of a Microsoft cluster are now identified by their respective IP addresses.

#### **Bugfix: Scheduled database archive password configuration**

The password configured for the scheduled database archive job was not properly coded in the database archive.

## Release 3.1 - Build 3100

### **JDisc Discovery**

#### **New: Oracle VirtualBox host discovery for Linux, Solaris and Mac OS X computers**

JDisc Discovery can discover Oracle VirtualBox installations on Linux, Solaris and Mac OS X and associate VirtualBox instances with the physical host.

#### **New: Supported devices**

Adtran NetVanta Routers  
Avaya Media Gateways  
Cisco Access Pointer Controllers  
Fore ES and ESX Switches  
H3C Access Point Controllers and Fibre Channel Gateways  
HP Comware Load Balancers and EVA Storage Works Array Controllers  
Huawei VRP and Quidway Routers  
Lantronix SLC Console Servers

#### **New: Support ZIP function**

The new support ZIP function collects support information such as server log, discovery job, topology job and device discovery log files and packs them all into a single ZIP file. This dramatically reduces the time required by customers to create support information and it also ensures that our support engineers have all the information they need.

#### **Improved: Network interface details on Mac OS X**

JDisc Discovery collects the network interface speed, type and operational status.

### **Updated: PostgreSQL, Java JRE and VMware VI Java API**

Upgrade to PostgreSQL 9.3.3

Upgrade to Java 7 Update 51

Upgrade to VMware VI Java API 5.5

### **JDisc Discovery Networking Add-On**

#### **New: WLAN Discovery for Mac OS X**

In addition to Windows computers, JDisc Discovery also identifies WLANs and WLAN access points in the proximity of Mac OS X computers.

#### **New: Segmentation topology maps display WLANs, WLAN access points and WLAN connections**

In addition to wired network equipment, JDisc Discovery also now displays WLANs, WLAN access points and WLAN connections in its segmentation topology maps.

#### **New: VLAN filter for segmentation topology maps**

Segmentation topology maps can be filtered (restricted) by VLANs. This enables to only display end-point and network device that belong to selected VLANs.

#### **New: Ping devices prior to collecting topology information**

The segmentation topology algorithm pings all devices on configured IP networks prior to collecting bridge forwarding database information. This makes sure the bridge forwarding databases are populated as much as possible and the segmentation topology will be more accurate.

#### **Improved: WLAN reports aligned to industry standard terminology**

The WLAN report physical type, authentication and cipher algorithm columns have been aligned to industry standard terminology.

## Release 3.0 - Build 3030

### **Bugfix: Wrong Process Details on Linux**

JDisc reported in rare cases the wrong number of physical processors (processors where dmidecode delivers the status 'idle' were ignored).

### **Bugfix: Wrong device Name**

JDisc reported in rare cases wrong device name.

### **Bugfix: Wrong Linux Distribution**

JDisc did not detect the correct Linux distribution for a HP ProLiant servers running Linux and SNMP enabled.

## Release 3.0 - Build 3029

### **Improved: Get serial numbers for Motorola AP**



JDisc gets now the serial numbers for Motorola access points.

## Release 3.0 - Build 3028

### **New: Motorola Access Point identification added.**

JDisc Discovery identification Motorola Symbol access points.

## Release 3.0 - Build 3027

### **Improved: VMware Discovery via WBEM**

JDisc Discovery reads the memory modules and BIOS version information via WBEM. This information has not been available by reading the VMware API.

## Release 3.0 - Build 3025

### **New: Import IP addresses into Network Based Group**

JDisc Discovery can import single IP addresses in addition to IP address ranges into a network based group.

## Release 3.0 - Build 3023

### **New: Citrix XenServer Discovery**

JDisc can identify XenServer and associates their virtual machines with the physical host.

### **Bugfix: Exception when starting a discovery cycle**

In rare cases, a Java exception prevented starting the discovery cycle from the user interface.

## Release 3.0 - Build 3022

### **New: VLAN identification is now customizable**

JDisc can identify VLANs depending on the configuration either by the VLAN id or

by the VLAN id and the VLAN name.

**New: SasDB Discovery**

JDisc can discover “Scalable Performance Data Server” from SAS.

## Release 3.0 - Build 3020

**New: Linksys VPN Router Discovery added.**

JDisc detects now the Linksys VPN routers.

## Release 3.0 - Build 3019

**New: VRRP and Cisco HSRP Cluster Support added**

JDisc detects now the VRRP and HSRP switch/router clusters.

## Release 3.0 - Build 3016

**Improved: IBM RackSwitch Discovery improved**

JDisc detects the serial number and operating system version for IBM Rack Switches.

## Release 3.0 - Build 3015

**Improved: Device Details XML Export contains now the Discovery Log**

The discovery log is an essential tool for our support to isolate the cause for a discovery result that is not as good as it could be. Up to now, the discovery log was not exported when a user performs the Excel export for the device details. The new export includes the discovery log and that simplifies the troubleshooting efforts for the customer and our support.

## Release 3.0 - Build 3010

**Improved: DMIDECODE usage on Linux**

When dmidecode is installed on Linux, JDisc Discovery is using the installed dmidecode instead of copying our dmidecode that comes with JDisc Discovery.

**Improved: New SNMP Devices**

Support for IBM blade switches, some H3C and some DrayTek DSL routers has been added.

**Improved: Support for devices that support only SNMPv2c**

We found configurations where network devices did only support SNMPv2c (without supporting SNMPv1). JDisc Discovery assumed that devices supporting SNMPv2c always support SNMPv1. This has been changed.

**Bugfix: Virtual machine identification**

The virtual machine identification mistakenly did not ignore local VMware interfaces that exist on computers running VMware server, workstation or player. As a consequence, in rare cases when a VMware instance device did also have VMware server, workstation or player installed, the VMware instance device has not been properly assigned to its VMware ESX(i) host.

**Bugfix: Interface speed on Linux computers**

The interface speed has not been correctly set when running the mii-tool.

## Release 3.0 - Build 3009

**Improved: Application and database server role assignment**

The application and database server role assignment has been updated and improved.

**Improved: Merging of virtual machine devices**

The virtual machine discovery did not merge virtual machines with existing devices in the database when these did not have a MAC address assigned.

**Improved: JBoss JAR discovery**

JDisc identifies the .jar files deployed on a JBoss server.

**Enhanced: Added identification if Cisco (CRS) and Juniper high end routers.**

## Release 3.0 - Build 3008

**Bugfix: Custom reporting of the Interface > Duplex mode failed**

Custom reporting failed when the Interface > Duplex mode attribute has been added to a custom report.

## Release 3.0 - Build 3007

### **Improved: Interface Annotation for SNMP based Devices**

JDisc Discovery collects network interface annotations not only for Cisco switches but also accesses the ifXTable for non Cisco device annotations.

### **Bugfix: Root access on Unix failed in some cases**

Executing commands as root on Unix failed when logged on via SSH key and root user.

## Release 3.0 - Build 3006

### **Improved: More complete Interface Duplex Mode on Solaris**

JDisc Discovery uses also the dladm command to determine the interface duplex mode on Solaris systems.

### **Improved: Directory Synchronization Log**

JDisc Discovery creates a log when synchronizing Active Directory objects from domain controllers with the database. The directory synchronization log helps to troubleshoot LDAP access failures and synchronization issues.

### **Bugfix: Directory Synchronization failed in large environments**

The directory synchronization failed when a Active Directory contained more than 1000 DNS domains, organizational units and containers and the LDAP MaxPageSize policy value was set to default (max. 1000 objects that are returned in a single search result).

### **Bugfix: JBoss Discovery**

The JBoss application server discovery failed when the classpath in the JBoss command line contained multiple paths separated by “.”.

### **Bugfix: Solaris Zone Discovery**

Under certain circumstances the Solaris Zone discovery created duplicated devices when discovering the Solaris Zone host system.

## Release 3.0 - Build 3003

### **Improved: Interface Duplex Mode**

JDisc Discovery detects the Ethernet interface half-, full or auto-negotiation mode of most computers and network infrastructure devices.

### **Improved: Interface Status on Linux**

Prior versions of JDisc Discovery detected only active network interfaces on Linux systems. Starting with this build/version, JDisc Discovery detects all network interfaces regardless of their current state.

#### **Improved: Interface Speed of Linux Computers**

JDisc Discovery uses two more methods to detect the network interface speed of Linux computers.

#### **Improved: Discovery of Zyxel Switches added**

JDisc Discovery identifies Zyxel Switches using SNMP.

#### **Improved: Discovery of Zyxel Firewalls added**

JDisc Discovery identifies Zyxel Firewalls using SNMP.

#### **Improved: Windows 8.1 and Windows Server 2012 R2 support**

JDisc Discovery installs on the new Windows 8.1 and Windows Server 2012 R2 operating systems. Moreover, JDisc Discovery also identifies systems running Windows 8.1 and Windows Server 2012 R2.

#### **Improved: Better Solaris LDom instance detection**

JDisc Discovery's Solaris LDom instance detection has been improved.

#### **Bugfix: Microsoft Hyper-V Server Discovery**

The Microsoft Hyper-V server discovery failed on non-English locale Windows platforms and when running Linux virtual machines that did not have "Integration Services for Hyper-V" installed.

#### **Bugfix: Discovery of dual-band WLAN access points failed**

The discovery of dual-band access points failed when these were using the same MAC address for both frequency bands and serving the same WLANs.

#### **Bugfix: Memory leak when using Windows remote login protocol**

A memory leak related to the Windows remote login protocol has been fixed.

#### **Bugfix: Very long timeouts in WMI Browser**

In rare cases the WMI browser was hanging due to a very long timeout and could be interrupted.

## Release 3.0 - Build 3000

#### **New: WBEM/WMI Browser**

View and export WBEM/WMI agent information, such as namespaces, classes and instances.

#### **New: J2EE Server Discovery**

JDisc Discovery identifies IBM WebSphere, Oracle WebLogic and JBoss server

installations and deployed applications.

**Improved: Collection of interface speed on IBM AIX and Windows systems**

The interface speed is now collected for IBM AIX and Windows systems using remote execution.

**Improved: IPv6 support for IBM AIX systems**

IPv6 addresses are now collected from IBM AIX systems running an IPv6 stack.

**Enhanced: IBM Intel based server detection**

IBM Intel based servers running Windows and IBM's SNMP extension agent are now correctly identified including serial and part number.

**Enhanced: SCADA / automation / climate controller support**

- Siemens Simatic and Schneider Modicon SCADA systems
- Wago programmable field controllers
- Geist climate monitoring devices

**Enhanced: Printer support**

- OCE ColorWave printers
- Samsung ML Series printers

**Changed: Remote Login Default Configuration**

Starting with JDisc Discovery 3.0 remote login for Windows and Unix platforms is enabled by default. JDisc's remote login protocol for Windows improves the discovery result especially when local firewalls block WMI traffic.

**Updated: Embedded Java runtime environment**

The Java runtime environment has been updated to version 1.7.0\_25.

**Updated: Embedded PostgreSQL database**

The embedded PostgreSQL database has been updated to version 9.2.4.

## Release 2.9 - Build 2929

### **Bugfix: Memory leak when using Windows remote login protocol**

A memory leak related to the Windows remote login protocol has been fixed.

## Release 2.9 - Build 2926

### **Improvement: Support for Arista Switches added**

The new build detects Arista switches correctly.

## Release 2.9 - Build 2925

### **Improvement: Detect the correct Interface Speed for 10GB Ethernet**

The standard SNMP interface table stores the interface speed as 32 bit unsigned integer measured in bits per second. For high speed interfaces such as 10GB interfaces, this causes an overflow which leads to wrong interface speed values. This release integrates the SNMP ifxtable in order to retrieve the correct interface speed.

### **Bugfix: Foreign key violations**

Deleting networks from the database could lead to foreign key violations.

### **Bugfix: Clear Database deleted Topology Jobs**

JDisc Discovery deleted the topology jobs even, if it should only delete all discovered devices.

### **Bugfix: Discovery job did not terminate**

Under rare circumstances, a race condition prevented JDisc Discovery from terminating discovery jobs.

## Release 2.9 - Build 2923

### **Improvement: Collect Cisco Interface Description**

Cisco customers can define their own description for the Cisco switch or router interfaces. This annotation is often used to describe to what the interface is connected to. JDisc Discovery now collects this information and stores it as

“annotation” for each network interface.

**Bugfix: Very rare crashes of JDisc's Remote Login Agent**

JDisc Discovery's remote login agent crashed in very rare cases when the initial agent to discovery station communication has been interrupted by intrusion detection or firewall systems.

**Bugfix: Problem when storing Users for Domain Controllers**

JDisc Discovery's could get problem when storing the user list for domain controllers. The generated SQL query could grow too long and caused problems in the database server. The long query has been split into multiple smaller queries.

## Release 2.9 - Build 2922

**Enhanced: Fortinet Firewall Support added**

JDisc Discovery detects Fortigate and FortiWiFi firewalls correctly



# Release 2.9 - Build 2921

## **New Feature: Custom Attribute Import**

Import custom attributes from comma separated files (CSV) and assign them to devices.

## **New Feature: Traceroute**

You can call the traceroute command from the “troubleshooting” context menu in every device report to trace the route from the discovery server to the selected device.

## **New Feature: Windows Hyper-V Server Discovery**

In addition to identifying Hyper-V virtual machine instance, JDisc Discovery discovers virtual machine instances running on Windows servers with Hyper-V enabled and associates running virtual machine instances with the Hyper-V server.

## **Enhanced: More accurate processor details on Linux and VMware ESX systems**

JDisc Discovery discovers the number of cores and threads more reliably and the L2 cache size on Linux and VMware ESX systems.

## **Enhanced: More accurate processor details on IBM Power systems running IBM AIX or Linux**

JDisc Discovery discovers the number of cores and the L2 cache size on IBM Power systems running IBM AIX or Linux.

## **Enhanced: More accurate processor and memory details of Windows systems running Windows Server 2003, Windows 2000 or Windows NT 4.0**

JDisc Discovery discovers the number of cores and the memory modules using the remote login agent if the WMI protocol is not available or does not return detailed enough information.

## **Enhanced: Model detection of IBM Power systems running Linux**

Along with the processors, JDisc Discovery detects the model of IBM Power systems running Linux.

## **Enhanced: Add root logins other than “root”**

Now you can configure Unix login accounts having root privileges that are not named “root”.

## **Bugfix: In some cases the IP address has been displayed instead of a device name**

In some cases JDisc Discovery chose an IP address instead of a proper name as the device name.

## **Bugfix: The User Interface Client failed to start under rare circumstances**

The user interface client failed to start when the launching user's did not have proper access rights on its TEMP directory.

**Bugfix: The discovery process was extremely slow on some Security Enhanced Linux (SELinux) systems**

Because the “ls -l” and few other commands were hanging infinitely on SELinux systems the discovery process extremely slow due to command line communication timeouts. The troublesome commands have been replaced with alternate commands and modified command parameters.

## Release 2.9 - Build 2901

### **New Feature: Reporting Mode**

When starting JDisc Discovery in reporting mode, all discovery and topology jobs are stopped, scheduled compact and archive database activities are suspended and the discovery settings cannot be changed. However, you can run all reports and also create new custom reports.

We have added the new reporting mode especially for IT service providers to run reports of discovery results from customer assessments in their back office without the need of reconfiguring all scheduled discovery jobs, topology jobs, scheduled compact and scheduled archive database activities.

### **New Feature: Custom Report displaying MAC Forwarding Entries of Switches**

The new "Switch Port Forwarding" object allows creating custom reports that display switch forwarding database information such as MAC address of all switch interfaces. The "Switch Port Forwarding" object is only populated when the JDisc Networking add-on is installed and topology jobs have been configured.

### **Enhanced: Support for Telco Devices**

JDisc Discovery supports high-end devices such as optical switches from Calient found at many telco-providers.

### **Enhanced: Wyse T10 Terminal supported**

JDisc Discovery detects Wyse T10 terminals correctly.

### **Enhanced: Detection of H3C and HP networking switches**

JDisc Discovery detects more recent H3C and HP networking switches.

### **Bugfix: VMware ESX default accounts did not work properly**

Default accounts for VMware ESX systems have not been tested if the Telnet Banner or SNMP protocol have successfully identified a device as VMware ESX system.

### **Bugfix: Possible duplicated blade servers**

Blade servers have been duplicated when the blade servers' hosting enclosure has been discovered prior to the blade server itself.

### **Bugfix: Windows Product Key Detection was broken**

Due to a bug, JDisc Discovery did not collect Windows product keys.

## Release 2.8 - Build 2814

### **Enhanced: Added support for selected Avaya and Nortel Switches**

JDisc Discovery now supports Nortel Business Policy Switches and selected Avaya Switches.

**Enhanced: Dell Remote Access Controller (DRAC) discovery**

JDisc Discovery associates Dell DRAC management devices to Dell PowerEdge servers.

**Enhanced: Citrix XenServer operating system naming**

Citrix's XenServer operating system is now consistently named including the patch level, if available.

**Enhanced: Error handling of LDAP logon credentials for device directory lookup**

The device Discovery Log now contains the LDAP specific error message when logging-on to a directory's domain controller or global catalog server failed.

**Bugfix: JDisc Discovery's remote login agent communication interrupted**

The communication to JDisc Discovery's remote login agent was interrupted in very rare cases due to a bug when handling the asynchronous named pipe IO.

**Bugfix: Sorting of enumeration types failed when creating a custom report restriction**

When creating a column restriction on an enumerated type such as Networking > Interfaces > If Type, sorting of enumeration values did not work properly.

## Release 2.8 - Build 2813

**New Feature: Collection of all Executable Files on Windows Computers**

JDisc Discovery can collect executable file attributes including name, path, version information, etc. on Windows computers. These executable file attributes are often times needed when integrating with license management systems that map executable file information to applications. By default, this option is turned off.

**New Feature: Local Printer, Scanner and Card Reader Discovery**

JDisc Discovery can detect many locally attached devices by mapping their unique plug and play device and product id.

**New Feature: Add Deleted Device to Exclusion Filter**

When deleting a device from the database, JDisc Discovery offers a new delete device option. The new delete option adds all IP addresses of the device to the exclusion filters thus avoiding JDisc Discovery will rediscover the device.

**Bugfix: Computer to Active Directory assignment lost**

When a Active Directory member computer had been discovered via blade enclosure, a management processor or a virtualization host the assignment to its Active Directory object in JDisc Discovery's database got lost.

## Release 2.8 - Build 2806

### **New Feature: Windows Remote Login agent expiry duration**

JDisc Discovery's Windows Remote Login agent can be configured to remain installed on target Windows computers for a configurable idle period. The agent automatically deletes itself when not being accessed by a JDisc Discovery server for longer than the configured idle period.

### **New Feature: VMware Custom Attribute & Annotation Collection**

JDisc Discovery reads custom attributes and annotations from VMware servers and maps them to JDisc Discovery custom attributes. This JDisc blog article <http://blog.jdisc.com/2012/08/19/collecting-vmware-custom-attributes> explains the VMware custom attribute and annotation collection in more detail.

### **Enhanced: Support for more than 60 Alcatel switches added**

JDisc has added support for more than 60 Alcatel switches.

### **Enhanced: Support for Cisco SRW switches added**

JDisc detects now the Cisco SRW switches, their operating system.

### **Enhanced: Active Directory synchronization of forests**

Active Directory synchronization did not work properly when an Active Directory forest contained more than one tree thus forming a non-contiguous namespace with different root DNS domains.

### **Updated: The embedded JVM has been updated**

The embedded JVM has been updated to the most current release JRE 6 Update 35.

### **Updated: The embedded Postgres database has been updated**

The embedded Postgres database has been updated to the latest release 9.1.5.

### **Bugfix: Windows Remote Login agent install failed sporadically**

In rare cases JDisc Discovery's remote login agent failed to install on Windows computers having more than one IP address.

## Release 2.7 - Build 2714

### **Bugfix: Parser for MAC OS X system\_profiler command enhanced**

Since Apple changed the output format of its system utility system\_profiler, JDisc was not able to read the hardware and software information properly. This has been fixed with this release.

## Release 2.7 - Build 2711

### **Improved: Detection of HyperV Instances**

JDisc Discovery did not detect all kinds of HyperV instances. This has been improved in this build.

### **Bugfix: Sporadic Crashes of JDisc's Remote Login Agent**

JDisc Discovery's remote login agent crashed in rare cases. This problem has been fixed.

## Release 2.7 - Build 2705

### **Improved: 32/64 Bit Registry Access over WMI**

JDisc Discovery sets the 32/64 bit WMI provider architecture context when accessing the 32 or 64 bit registry respectively. This change improves the reliability of WMI based registry access.

### **Improved: Windows remote login more reliable**

Windows user impersonation avoids access denied failures for the Windows remote login protocol when JDisc Discovery runs on Windows Server 2008 (R2) or Windows 7.

### **Improved: Microsoft Hyper-V instance detection**

JDisc Discovery detects Microsoft Hyper-V instances more reliably.

### **Bugfix: Windows remote login sporadically crashed**

The Windows remote login agent crashed in very rare cases on Windows Server 2008 systems having a high system load (CPU and memory).

## Release 2.7 - Build 2704

### **New: Use Powershell Scripts to Collect Custom Attribute Values**

In addition to batch files, Visual Basic Scripts and executables, JDisc Discovery can also execute powershell scripts to populate custom attributes and to detect custom software on the target computers.

### **Enhanced: Detection for Cisco WLC2112 Wireless Access Points**

Cisco WL2112 Access Points are detected correctly.

### **Improved: Sorting according to the client's Locale**

Table views are sorted according to the client's locale.

**Bugfix: MS HyperV Virtual Machine to Physical Host Relation**

The relation between Microsoft HyperV physical host and its virtual machine got deleted when the physical has been discovered after its hosted virtual instances.

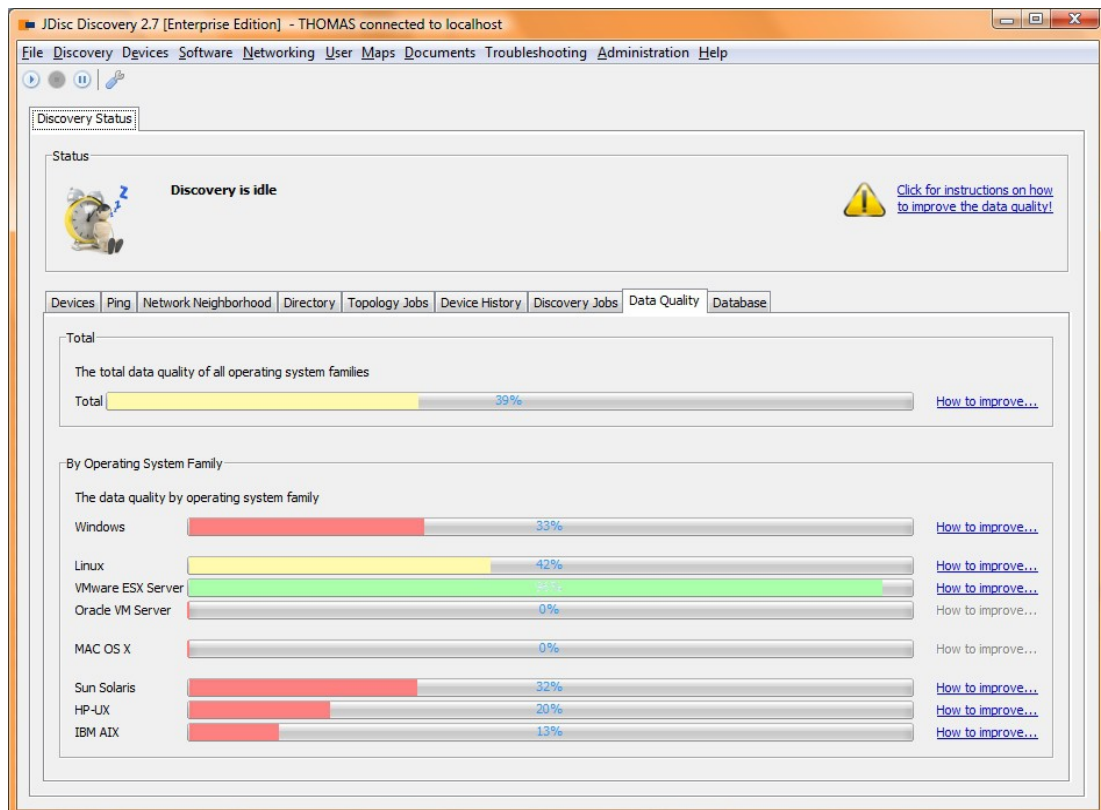
**Bugfix: A user's real Name was accidentally overwritten with his account**

In some cases, a user's real name was overwritten by the users account name. This has been fixed in build 2704.

# Release 2.7 - Build 2702

## New Feature: Discovery Quality Meter

JDisc Discovery's new data quality meter helps new users and consultants that do not often use JDisc Discovery. The data quality meter quantifies the discovery result of well discovered systems relative to the total number of systems by operating system family.

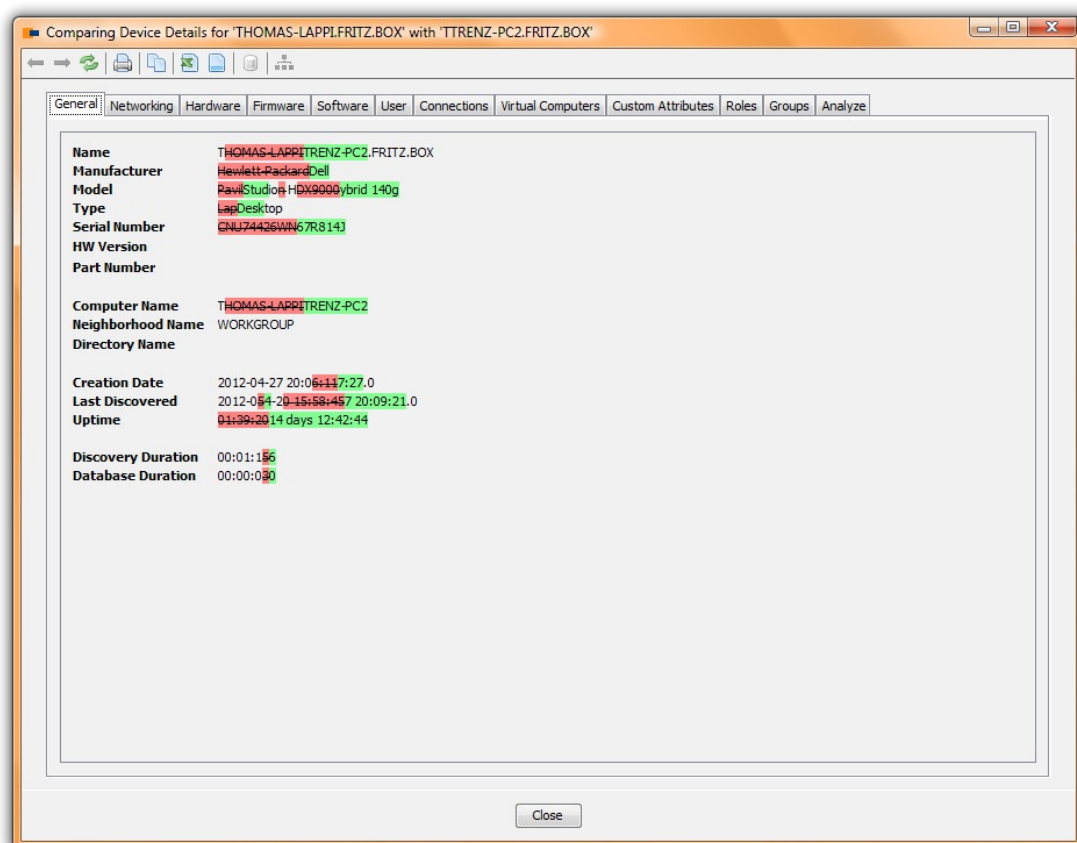


The data quality meter also provides hints on how to improve the data quality which make troubleshooting discovery problems easier.

## New Feature: Compare Devices

JDisc Discovery's new compare device feature simplifies the analysis of problems and failures that have their root cause in software or configuration differences.





### Improved: Performance Improvements for Windows remote login

The Windows remote login agent-server communication latency has been reduced to a minimum and also the buffer sizes for reading standard output and error streams has been increased. All together this leads to performance improvements of 6 to 10 times faster discoveries for remote computers!

### Improved: Support for Sharp MX-Printers

JDisk Discovery detects Sharp MX printers correctly.

### Improved: Improved Rules to Detect Discovery Problems

New and improved rules detect more access and discovery problems helping users understand why discovery results are not that good as possible. In addition to highlighting access and discovery problems, JDisk Discovery's rules often suggest hints on how to improve the discovery result.

### Improved: New Troubleshooting Reports

The new rule based troubleshooting reports diagnose access and configuration problems for all devices in JDisk Discovery's database.

## Release 2.6 - Build 2613

### **Enhanced: Exclusion of User Types**

JDisc Discovery can be configured to exclude service/daemon users from being discovered. The new release allows to exclude Windows Service users and built-in users (such as SYSTEM) independently from each other.

### **Enhanced: Mappings for Lenovo Laptops and Desktops added**

New Lenovo laptops and desktops have been added to JDisc's internal lookup tables.

### **Improved: Performance Improvements for remote login when transferring large files**

Transferring large files has been a performance issue with previous releases. This build improves the performance when transferring large files via slow network connections.

### **Bugfix: Wrong Windows Domain name in rare cases**

We experienced, that WMI is delivering the wrong domain name in some cases. Now we prefer domain names that are discovered through NetBIOS or SMB. WMI is only used to determine the domain name if no other protocols returned a valid result.

## Release 2.6 - Build 2605

### **New Feature: Device Naming Conventions**

The new device naming algorithm lets you choose any of the following settings:

- Do not modify device names
- Use upper case only for device names
- Use lower case only for device names

### **Bugfix: Devices with no information**

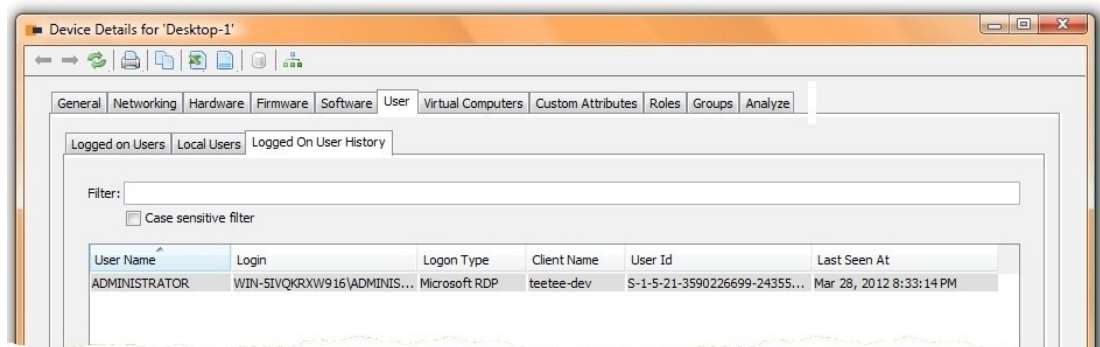
A bug in the dependency mapping add-on did create empty devices (without any information) in very rare cases.

## Release 2.6 - Build 2602

### **New Feature: Terminal services (Microsoft RDP & Citrix ICA) client discovery**

The logged on user discovery can also discover Microsoft RDP and Citrix ICA client computers from which users have logged on to a Windows computer. This new

feature requires to enable Windows remote login.



### **New Feature: Windows Installation Key discovery**

JDisc Discovery detects the Windows operating system license key.

### **New Feature: New report “Duplicate Device Names”**

The duplicate device name report (Troubleshooting > Devices > Duplicate Device Names) displays all devices having the same device name.

### **New Feature: Clone Custom Reports**

The new 'Clone' button allows to creating new custom reports based on already existing custom reports.

### **Improved: Logged on user type detection of Windows computers**

JDisc Discovery detects if a user is logged on interactively (console), from a terminal services client (Microsoft RDP or Citrix ICA) or running a service.

### **Improved: Wyse ThinClient support**

Now supporting the discovery of Wyse S30, S10, R10, and Winterm 3000 thin clients using the SNMP protocol.

### **Improved: Allied Telesyn Switch support**

Now supporting the discovery of Allied Telesyn ethernet switches using the SNMP protocol.

### **Improved: Overland Storage Snap Server 1 support**

Now supporting the discovery of Overland Storage Snap Server 1 NAS using the SNMP protocol.

### **Improved: Part number discovery of Windows, Linux and VMware ESX computers**

JDisc Discovery queries the hardware part number (when available in the system management BIOS) of computers running Windows, Linux or VMware ESX using remote login.

### **Improved: New diagnostic rules for common Windows configuration problems**

New diagnostic rules can detect common Windows configuration problems that

negatively affect JDisc Discovery's ability to accurately discover Windows computers.

**Bugfix: Regular Expression Search for the Hostname List fixed**

A bug in the SQL query that filters hostnames using regular expressions has been fixed.

**Bugfix: Custom attribute collection using Windows remote login**

The custom attribute collection using Windows remote login sporadically failed due to a race condition when copying executable, command and script files.

**Bugfix: Application install location using Windows remote login**

The install location of Windows applications has been ignored when Windows remote login has been enabled.

## Release 2.5 - Build 2507

**Improved: Support for VMware ESXi Servers**

VMware ESXi servers are difficult to discover, since they do provide remote login capabilities using SSH or telnet. However, the VMware API and WBEM protocol provide detailed hardware and software information. All previous JDisc Discovery versions could not discover detailed hardware information using the WBEM protocol from ESXi servers. The most recent JDisc Discovery version collects detailed hardware and software information using VMware's API and the WBEM protocol.

**Improved: Network Interface Detection**

JDisc Discovery merges network interface information from all protocols (e.g. WMI, SNMP or WBEM). Older JDisc Discovery versions have selected network interfaces from a single protocol such as WMI and ignored network interface information from all other protocols.

**Improved: Wyse Terminal Detection improved**

The detection of Wyse Thin Clients via SNMP has been improved.

**Updated: WBEM Library**

The WBEM library used by JDisc Discovery has been upgraded to the latest revision.

**Bugfix: Excel Export Workbook Naming**

In some cases, JDisc Discovery created workbook names that caused problems when opening the file using Microsoft Excel. This build fixes this problem by using different workbook names.

**Bugfix: Cisco File Collection**

A modification in the remote login classes caused a failure when collecting

configuration files from Cisco IOS devices using the enable mode. This problem has been fixed.

## Release 2.5 - Build 2504

### Collect Printer Ink/Toner Level

Build 2504 adds the capability to detect the toner/ink level on printers. We collect the current level, the maximum level and the percentage. Getting all printers that need a refill is trivial together with our custom reports.

Toner/Ink Cartridge	Current Toner/Ink Level	Max Toner/Ink Level	Percent
black ink cartridge	95	100	95.00%
ink blotter	11	100	11.00%
tri-color ink cartridge	37	100	37.00%

Fig: Printer Usage Information

### Automatically detect new license files

JDisc now automatically detects new license files copied to the installation directory and reads them immediately.

## Release 2.5 - Build 2503

### Migration to 2.5

The new release 2.5 adds the new Device History Add-On to the family of JDisc Discovery products. Review the discovery state in the past for your devices by taking snapshots at any time.

### Improved: Printing support added

Print table based reports directly from JDisc Discovery.

### Improved: Blackout periods for scheduled discoveries

Define blackout periods for discovery schedules (e.g. run an hourly discovery, but not between 8pm and 6am).

### Improved: Support for many new SNMP devices added

JDisc continuously improves its SNMP device detection capabilities. This release is not an exception. We added support for many new SNMP devices including D-Link switches, Kyocera printers, and many other devices.

**Updated: VMware API library updated**

The VMware API has been updated to the latest revision. This revision saves a execution time and reduces memory consumption during the discovery.

**Updated: Postgres database updated**

The embedded Postgres database has been updated to the latest revision (9.1.2).

## Release 2.0 - Build 2069

**New Feature: New report “SSH Login Credentials”**

The new report “SSH login credentials” lists the SSH keys for every device that have been used to discover a device.

**Improved: SNMP device discovery enhanced**

JDisc constantly adds new supported SNMP based devices to its discovery. This release adds support for:

- Adva Optical Networking SAN switches

**Improved: Custom reporting supports now virtual computers**

Our flexible custom reports can list the virtual machines running on a virtual server.

**Bugfix: Blade enclosure components and directly attached devices have not been updated properly**

Blade enclosure components (for example blade servers, switches or power supplies) and directly attached devices (for example monitors) have not been updated properly when being moved to another blade enclosure or connected to another computer.

**Bugfix: CSV Export within the details dialog did not work**

The CSV export within the device details dialog failed.

**Bugfix: License problem caused problems within the discovery settings dialog**

A licensing problem caused JDisc Discovery's discovery settings dialog to hang with a Small-Business-Edition license.

## Release 2.0 - Build 2063

### **Improved: Solaris LDom discovery**

JDisc Discovery identifies Solaris LDom instances using remote execution and associates Solaris LDom instances with their physical Solaris host server.

### **Improved: Client only installation running in Citrix XenApp environment**

The JDisc Discovery client no longer creates registry keys below HKEY\_LOCAL\_MACHINE\SOFTWARE\JDisc\JDisc Discovery 2.0 on start-up. This has been an issue when running as “normal” user. Moreover, the JDisc Discovery client now creates its log files in the user's %TEMP directory.

### **Bugfix: JDisc ignored the patched version for Oracle database installations and returned the initial version**

The JDisc Discovery server reported the initially installed Oracle version instead of the current version when the database server has been patched.

## Release 2.0 - Build 2061

### **Bugfix: In some rare occasions, the server crashed**

The JDisc Discovery server crashed in under some circumstances. The problem is related to the base64 decoding and occurred in very rare occasions.

## Release 2.0 - Build 2060

### **Improved: Windows 8 (Developer Preview) support**

JDisc Discovery identifies and collects data from Windows 8 (Developer Preview) systems.

### **Improved: DNS protocol check**

JDisc Discovery probes devices for DNS server implementations and updates the DNS role assignment accordingly.

### **Bugfix: Blade enclosure components not stored in the database**

Blade enclosure components, such as blade servers or blade switches were not stored in the database if the device type could not be determined or if the serial number has been absent.

### **Bugfix: Using the “Save” icon when editing custom attributes causes the client to hang.**

The client was hanging when clicking the dialog's “Save” icon twice.

## Release 2.0 - Build 2059

### **Bugfix: Windows 7 computers were not detected properly**

Windows 7 computers were mistakenly classified as Unidentified device if only the Anonymous NetBIOS protocol has been successful.

## Release 2.0 - Build 2058

### **Updated: The embedded Postgres database has been updated to version 8.4.8**

To stay up-to-date with current postgres releases, we updated the previously used version 8.4.4 to 8.4.8.

## Release 2.0 - Build 2056

### **Improved: Discovery Protocol Status report**

The Discovery Protocol Status report displays results faster due to using a single complex SQL query instead of running a SQL query for each device.

### **Improved: Less memory required to start JDisc Discovery's Server service**

Previous versions needed 768MB available contiguous memory for JDisc Discovery's Java runtime environment to start properly. Because of this the JDisc Discovery Server service sporadically failed on computers which could not allocate 768MB of contiguous memory. The new version uses the default Java runtime environment memory allocation.

### **Bugfix: Device with Discovery Status Warnings and Errors reports**

The Device with Discovery Status Warnings and Errors reports did not display all devices having warning and errors that were displayed in the Discovery Protocol Status report.

### **Bugfix: Fixed Logical Disk Overview custom report object for Sun Solaris**

The Logical Disk Overview custom report object reported incorrect results for Sun Solaris computers having 'tmpfs' files systems.

### **Bugfix: WMI Tunnel processes have been temporarily hanging**

The WMI Tunnel processes started by JDisc's remote login agent had been temporarily hanging.

### **Bugfix: JDisc Discovery's setup program might have caused a reboot**

JDisc Discovery's setup program did install the 'JDisc Discovery Database Service'



and 'JDisc Discovery Server' services using an incorrect error control option which caused the computer to reboot when any of the two services failed to start-up properly.

## Release 2.0 - Build 2052

### **New Feature: License key detection for Microsoft SQL Server 2008 and Office 2010 added**

JDisc Discovery now discovers Microsoft SQL Server 2008 and Office 2010 license keys.

### **New Feature: Determine network interface speed of Sun Solaris systems**

JDisc Discovery detects the network interface speed of Sun Solaris systems.

### **New Feature: More granular discovery data collection settings**

The discovery of blade enclosure components and managed devices can be enabled or disabled individually in JDisc Discovery settings.

### **Bugfix: Custom Reports bug fixed**

Custom reports sporadically failed when containing custom attributes.

### **Bugfix: Discovery of Cent OS Linux systems**

The discovery has mistakenly merged Cent OS Linux systems when the interface contained unrecognized/invalid MAC addresses.

## Release 2.0 - Build 2045

### **New Feature: Blade Enclosure assignment for Dell Servers**

JDisc Discovery associates Dell blade servers to Dell blade enclosures.

### **Improved: Many new SNMP devices**

Support for many new SNMP devices has been added in build 2045.

### **Bugfix: Windows Remote Execution compression failed in some cases**

In some cases, JDisc's remote login compression failed for larger files. This problem has been resolved in this version.

## Release 2.0 - Build 2038

### **New Feature: ZFS file system detection on Solaris**

JDisc Discovery detects ZFS file systems on Solaris.

#### **New Feature: User account reports**

These new user account report provide a quick overview about what users exist on which computers.

#### **New Feature: Login credentials reports**

The login credentials report displays the user accounts that JDisc Discovery has been using to logon to a computer during the discovery and allows changing the password of a user accounts for all computers at once.

#### **Improved: Option and question dialogs**

Option and question dialogs have been improved to include more verbose descriptions.

#### **Improved: SNMP device support**

Improved support for several switches and fibre channel switches.

## Release 2.0 - Build 2032

#### **New Feature: HP Integrated Lights-Out (iLO) discovery**

JDisc Discovery associates HP Integrated Lights-Out (iLO) management devices to the respective HP ProLiant rack or HP ProLiant Blade servers.

#### **Improved: Gentoo Linux Software Discovery**

JDisc Discovery has been extended to discover installed software on Gentoo Linux systems using the equery utility.

#### **Bugfix: Windows Remote Execution failed on Windows NT 4.0 / Windows 2000**

The JDisc Discovery Remote System Execution Agent failed to start on Windows NT 4.0 and Windows 2000 systems. As a consequence, JDisc Discovery did not collect detailed system information on Windows NT 4.0 systems which do not have the Windows Management Instrumentation (WMI) installed.

#### **New User Account Report**

A new user account report lists all user accounts. Change access credentials globally from this dialog for all devices, default accounts, domain, and active directory accounts.

## Release 2.0 - Build 2030

#### **New Feature: Apache Tomcat Discovery**

JDisc Discovery now detects Apache Tomcat Server installations and creates instances for each running configuration.

#### **Improved Remote Login for Windows**

JDisc Discovery uses compression when transferring data between its remote login agent and the discovery server. This reduces the traffic generated by remote login by 50 to 80 percent.

#### **Improved WMI and Windows Registry Tunnel for Windows**

Build 2020 introduced a tunnel for WMI and Windows registry data through JDisc's remote login agent. JDisc Discovery has enhanced the tunnel configuration to use the tunnel for WMI and registry only, if the native access fails.

#### **Improved Troubleshooting Rules**

JDisc Discovery uses rules to find possible reasons for not satisfactory discovery results. The most frequent failures are for instance invalid access credentials or firewalls blocking the traffic. So far, JDisc Discovery supported a large set of rules for the Windows platform. With this release, the rules have been extended to the Unix platform, Cisco, and HP ProCurve devices.

## Release 2.0 - Build 2024

#### **New Feature: Apache WEB Server Discovery**

JDisc Discovery now detects Apache WEB Server installations and creates instances for each running configuration.

#### **New Feature: New Document Assignment Report**

A new report lists all documents with the devices that it is assigned to.

#### **Enhancement: Improved Oracle Database Instance Discovery**

Prior to this build, JDisc was not able to assign running Oracle database instances to the correct installation directory. The new build makes use of the listener.ora file to assign instances to installation directories.

#### **Enhancement: New Troubleshooting Rules for Unix Operating Systems**

JDisc maintains a set of rules that help users to troubleshoot access problems. Those rules now include rules for the Unix platforms.

## Release 2.0 - Build 2022

#### **Bugfix: Clear Database was broken**

Clearing the database did not work properly.

## Release 2.0 - Build 2020

### **New Feature: Tunneling of WMI and Remote Registry protocols**

The WMI and remote registry protocols can be tunneled through JDisc's remote login agent. This helps avoiding access problems when firewalls block WMI and remote registry traffic. Moreover the new feature also improves discovery speed for Windows computers up to 8 times (compared to not using remote login and the tunneling options) for slow LANs and wide area networks.

### **New Feature: License Detection for Veritas (now Symantec) Software**

JDisc Discovery detects now the licenses for Veritas software such as cluster manager, volume manager etc. on Unix and Windows.

### **Bugfix: License Keys for SQL Server installations**

The license keys for SQL Server installations were not collected.

## Release 2.0 - Build 2014

### **New Feature: Document Management**

Manage your inventory related documents such as support contracts, user manuals, service contracts or operations procedures with JDisc Discovery. Import documents into its database and assign documents to individual devices.

### **F-Secure Anti Virus Version detection updated**

JDisc Discovery did not detect the latest versions of F-Secure's Anti Virus products.

## Release 2.0 - Build 2008

### **Java Virtual Machine Updated**

The Java virtual machine has been updated to Java 1.6.0\_22.

### **Bugfix: CSV Export hangs in some cases**

In some cases, the CSV export hangs. This problem has been fixed.

### **Bugfix: Incorrect SQL query created**

The custom reports created incorrect SQL queries when selecting logical disk details or video controllers.

## Release 2.0 - Build 2006

### **Cluster Discovery**

The discovery of HP Service Guard cluster has been added.

## Release 2.0 - Build 2004

### **Cluster Discovery**

The new build of JDisc Discovery detects Veritas Cluster and Microsoft Cluster, its cluster members and the implemented cluster services.

### **Scheduled Database Backup**

Define a maximal number of backup files. Older backup files will be deleted automatically with new database backups.

### **Bugfix: Process list on MAC OS X didn't work**

The process list on MAC OS X was not collected correctly.

### **Bugfix: Problem identifying the OS for Systems having VMware Virtual Center installed**

Systems having VMware Virtual Center installed have falsely been identified as systems running an ESX server!

## Release 2.0 - Build 2003

### **Bugfix: Excel Export for Device Details failed**

A bug within the excel export prevented device details to be exported.

## Release 2.0 - Build 2002

### **License Model slightly changed**

Prior to build 2002, monitors and other devices not having an IP address have been counted to calculate the number of licensed devices. Now, we are not counting devices without an IP address to calculate the number of licensed devices.

### **Bugfix: Networking Manual was missing in the installation package**

The networking PDF manual was missing in the installation package.

**Bugfix: In rare cases, WMI returned access denied for all devices**

Due to a incorrect security initialization at startup, the WMI protocol returned WMI access denied for all devices.

**Bugfix: Problem in the Active Directory Configuration within the configuration wizard.**

The Active Directory section within the configuration wizard did not enable the "Next" button correctly to go to the next screen.

**Bugfix: Physical computer was falsely identified as Oracle VirtualBox instance**

When there are host only interfaces configured on a VirtualBox installation, then the physical computer was falsely identified as VirtualBox instance.

## Release 2.0 - Build 2001

**New Networking Add-On**

The new Networking Add-On offers network and segment topology discovery and configuration file collection for interconnect devices.

**Custom Attribute Collection History**

JDisc Discovery maintains custom attributes history regardless if manually edited or automatically collected. The side-by-side difference viewer highlights the changes graphically.

**Simplified File Collection**

JDisc Discovery offers a simplified configuration for collecting files or system command output. Configuring your own collections has never been as easy as today.

**Product ID and Product Key Collection for Microsoft Applications**

JDisc Discovery collects product ids and keys for Microsoft Office, SQL Server, and Developer Studio installations.

**Scheduled Database Backups**

JDisc Discovery creates a backup of your database on configurable intervals.

**Scheduled Database Compacts**

Databases grow over time and usually become slower when executing insert, delete or update statements. This is why JDisc offers the scheduled compact feature to automatically compact the database according the configured schedule.

**Archive Database while the Discovery is running**

You do no longer need to stop the application to archive the database. Archiving is even possible while the discovery is running.

**Bugfix: Active Directory Account ignored**

In some cases Active Directory accounts have not been used to discover member computers.

**Bugfix: Postgres Database Instances Not Detected for all Versions**

JDisc Discovery did not determine database instances for some Postgres versions.

## Release 1.2 - Build 1905

**XML Export**

JDisc Discovery can export discovered information in an XML file.

## Release 1.2 - Build 1903

**Runnning Process Discovery**

Build 1903 discovers the list of running processes on all platforms.

**Bugfix: Remote Login was hanging in rare cases on Unix platforms**

In rare cases, JDisc Discovery's remote login on Unix (either telnet or SSH) was hanging.

## Release 1.2 - Build 1901

**3COM Device Supported extended**

Support for 3COM switches, routers, and access points added.

**IBM DB2 Database Discovery**

Detects IBM DB2 installations and instances on all platforms.

**Identification for H3C (acquired through 3COM by HP) Routers added**

Detects H3C (acquired by 3COM by HP) routers.

**Identification for Huawei Routers added**

Detects Huawei routers.

**Show Database Table Size**

The database status displays besides the total size the size and the row count for each individual table.

## Release 1.2 - Build 1900

### **New Postgres Release 8.4.4 integrated**

The new postgres version 8.4.4 dramatically improves the performance of some complex custom reports.

## Release 1.1 - Build 1571

### **Driver vendors longer than 127 characters truncated**

Driver vendor names longer than 127 characters caused a problem when writing information to the database. Software vendors are truncated to 127 characters to fix the problem.

## Release 1.1 - Build 1570

### **Custom Report can list devices where a software element is *not* installed**

Prior to this build, JDisc Discovery's custom reports could list only devices where a specific software element (application, patch, service, application instance) is installed. Now, it is possible to list devices where an element is not installed. This is especially useful to find devices where a particular patch is not installed.

### **Device Driver Discovery added**

JDisc Discovery detects the drivers for Windows, Linux, VMware ESX, Oracle VM Server, and Solaris computers.

### **Added User Id to user Information**

JDisc Discovery stores the user id (on Unix from the etc/passwd file, on Windows the user SID).

## Release 1.1 - Build 1567

### **Experience for first Time Users improved**



A new dialog that prompts for the Windows domain administrative account when starting the first discovery helps first time users to get optimal results with their first discovery.

#### **Detect MAC address for Cisco IP Phones**

JDisc Discovery detects now the MAC address for Cisco IP phones. The MAC address is important to identify a phone's telephone number in Cisco's call manager.

#### **Open Ports and TCP/IP Connections added to Custom Reports**

Open ports and TCP/IP connections could not be used in custom reports. Starting with build 1567, those items can be selected when creating custom reports.

#### **Custom Reports created in some cases a wrong SQL Query**

Custom reports created in some cases a wrong SQL query that resulted in a database error.

## Release 1.1 - Build 1560

#### **Service Pack Detection on Windows fixed**

JDisc Discovery did not detect in all cases the service pack for Windows computers.

#### **Device Name resolution improved**

JDisc Discovery improved its capability to detect the name and the major IP address for devices.

## Release 1.1 - Build 1557

#### **IP4 Addresses filter in Custom Reports added**

JDisc Discovery's custom reports can filter by IP4 addresses.

## Release 1.1 - Build 1550

#### **Discover Switches for IBM BladeCenter**

JDisc Discovery identifies SNMP based switches for IBM BladeCenter Enclosures and associates them to the correct blade enclosure.

#### **Ping Devices from any Device Report**

The Troubleshooting menu within the context menu for devices contains now a new menu item *Ping*. This menu item pings the currently selected devices.

### **Custom Reports can be organized in a Folder Hierarchy**

Custom reports were shown in a flat list. Now, they can be organized in a folder hierarchy to improve usability when using many custom reports.

## Release 1.1 - Build 1547

### **Support for Brother printers and MFCs added**

JDisc Discovery identifies SNMP based Brother printers and multifunctional devices correctly.

### **Support for IBM Infoprint printers added**

JDisc Discovery identifies model and serial number for SNMP based IBM Infoprint printers.

### **IBM AIX Operating System Family problem fixed**

A bug introduced in build 1546 identified the operating system family for IBM AIX systems as 'PowerPC'. This bug has been fixed. The operating system family is now again 'AIX' and the operating system system type is 'PowerPC'.

## Release 1.1 - Build 1546

### **Enhance JDisc's Software Discovery with your own Scripts**

Use your own scripts to enhance JDisc's software discovery in order to identify your own homegrown applications that do not use the platform's standard installation procedure.

### **Constraint violation problem fixed when discovering local Users**

In rare cases, there has been a database constraint violation when storing local users for a device.

### **Support for Hitachi Data Systems Disk Arrays**

JDisc Discovery discovers SNMP based Hitachi Data Systems disk arrays.

### **Support for Dot Hill Disk Arrays**

JDisc Discovery discovers SNMP based Dot Hill disk arrays.

## Release 1.1 - Build 1544

### **Custom Attribute Data Collection for Windows failed**

A problem in JDisc Discovery's custom data collection canceled the discovery for a Windows computer when collecting its custom attributes.

## Release 1.1 - Build 1543

### **Discover Oracle VM Server**

JDisc Discovery identifies Oracle VM Servers correctly. Furthermore it associates instances running on Oracle VM Servers with their physical server.

### **Support for XEN Virtualization**

Xen servers and its instances are identified. JDisc Discovery associates Xen instances with their physical server.

### **“Not set” and “Empty” Condition added to Custom Reports**

Conditions in custom reports support now the “Not set” operator and the “empty” operator. Not set means that a field is not set at all. Empty means that a field is either not set or contains an empty string.

### **Populate Custom Attributes by executing Scripts or Binaries**

JDisc Discovery has enhanced its capabilities to fill custom attributes automatically. Besides reading the registry, JDisc Discovery can populate custom attributes by executing scripts, commands, or binaries on target computers. On successful execution, it captures the command output and stores it as custom attribute value.

## Release 1.1 - Build 1542

### **Discover HP BladeSystems**

JDisc Discovery detects HP BladeSystem enclosures. Furthermore it detects the blade servers within the blade enclosures and associates them with the BladeSystem enclosure.

## Release 1.1 - Build 1541

### **Client reconnect didn't work**

The automatic client reconnect failed when the server shuts down.

### **Discover IBM BladeCenters**

JDisc Discovery detects IBM BladeCenter enclosures. Furthermore it detects the blade servers within the blade center and associates them with the BladeCenter enclosure.

### **Discover VMware ESX 4.0 and VMware Server 2 are supported**

VMware ESX server version 4.0 and the latest VMware server on Linux is discovered correctly.

## **Release 1.1 - Build 1540**

### **Sybase Database Version corrected**

Jdisc Discovery showed the wrong version (e.g. "0" instead of "15.0") for Sybase database installations.

### **Discovery Sybase databases on Windows**

JDisc Discovery detects now Sybase database installations and its instances on Windows computers.

## **Release 1.1 - Build 1539**

### **Detection of VMware ESX .Server version**

Under certain circumstances the version of VMware ESX Servers has not been detected correctly when using Telnet banner parsing.

### **Operating System Family set to Linux for VMware ESX Server**

The operating system family of VMware ESX Servers has been mistakenly set to Linux when Telnet banner parsing and SNMP have been successful

### **Perform DNS lookup for Cisco loopback interfaces**

Cisco's loopback interfaces are usually used as the management interface. In previous versions, JDisc Discovery did not perform a DNS lookup on the management interfaces. This behaviour has changed. Now JDisc Discovery performs now DNS lookups on loopback interfaces where the IP address does not start with 127.x.x.x.

### **Discover IBM Blade Center Enclosures**

Discover IBM Blade Center Chassis with model, serial number, and operating system version.

### **Discover Sybase database installations and instances on Unix**

Discovers Sybase database installations and its related database instances on Unix (HP-UX, Solaris, AIX, Linux, MAC OS X).

### **Discover Nokia Firewalls**

Identify Nokia firewalls and discover model, serial number, and firmware version.

# Release 1.1 - Build 1536

## **Known port table gets deleted when deleting the database**

The known port table defines the mapping between port names and port numbers. This table gets deleted when the database is cleared.

**Workaround:** Restart the JDisc Discovery service after a database clear. This will populate the lookup tables with default values.

## **Database size not displayed when application restarted**

The database is not displayed directly, when the application gets restarted after a clear, archive, or restore operation.

**Workaround:** Restart the JDisc Discovery service or wait for approximately 5 minutes.

## **Client hangs sporadically when trying to log on when server is in startup phase**

The client might hang sporadically, when the user tries to log on when the server is in its startup phase.

**Workaround:** Kill the client processes and wait 2-3 minutes until the server has completed its startup phase.