

Release Notes – AMI® Data Center Manager Console 5.2.2

AMI® Data Center Manager (AMI® DCM) is a powerful software solution designed to help organizations manage their data centers with greater efficiency and sustainability. Whether you are responsible for infrastructure management or IT operations, AMI® DCM provides you with the tools to optimize performance, reduce operating costs, and manage your Data Center carbon footprint.

By leveraging real-time data collection, predictive analytics, and advanced reporting features, AMI® DCM enables you to make data-driven decisions that improve the sustainability, reliability, and availability of your critical data center infrastructure. With AMI® DCM, you can achieve your sustainability goals while maximizing operational efficiency and minimizing environmental footprint.

What's New in version 5.2.2 (December 2023)

New features and enhancements:

- Supported AD group for tenant user
- Supported tenant user to do provisioning
- Maximum image file size limit increased to 1GB for firmware provisioning
- Scripts for automatic failover
- PSIRT security fixes

New device support:

- Panduit P24D03M and P24D01M PDUs
- Vertiv/Geist PDU models (PDU_VERTIV_I20471L, PDU_VERTIV_NU30027L_B, PDU_VERTIV_VP5665V_W, PDU_VERTIV_VP8930, PDU_GEIST_CWY1301-AJ28-RDU2)

What's New in version 5.2.1 (November 2023)

New features:

- AMI Rebranding
- PSIRT security fixes
- Support for RHEL 9.2
- Support for RHEL 8.8

What's New in version 5.2 (June 2023)

New features:

- Carbon Usage Effectiveness (CUE) calculation
- What-If server consolidation analysis

- What-If carbon calculator
- Carbon emission factor preconfiguration using data from Wattime.org
- Comparing carbon emission at different times
- IT energy efficiency calculation
- Renewable energy estimation
- Managing devices using IPv6
- Displaying passive instance details in active instances
- Using non-privileged accounts for device management

New device support:

- Intel D50DNP servers
- Advantech SKY-8201S servers
- Moonshot CMM 1.0/2.0 with SSH
- DIGITALFREAKS PDU DPDUv2

Usability and security improvements:

- Support RHEL 9.1
- Usability Improvements
- 3rd party component updates
- Security Enhancements
- Upgradable from version 4.1 and above

What's New in version 5.1

- What-If Carbon Emission analysis for server replacement
- Device level Carbon Emission report
- API for Carbon Emission
- API for Low Utilization Servers
- Scalability - Support 40k devices
- Advanced Provisioning for Intel Servers
- Support CoolIT CHx40 CDU
- Support SSD through RAID controller
- Support HP chassis / blades through OneView

- Support Dell iDRAC servers without Intel® Intelligent Power Node Manager
- Support Cisco device with UCS Manager 4.2(1i)
- Support PLANET AGS-6336-8P2SV Managed Switch
- Usability Improvements
- 3rd party component updates
- Security Enhancements
- Upgradable from 4.0 and above

What's New in version 5.0.1

- 3rd party component updates
- Security Enhancements

What's New in version 5.0

- Carbon Emission calculation, report, projection, threshold, and alert
- Scalability - Support 20k Redfish based devices
- Vendor based discovery / add / import
- Support SDPTool v4.1 with CUP
- Provisioning API
- Historical Power Status API
- Support Moonshot chassis
- Support contact sensor with Raritan PX2-2475 PDU
- Support ZTE R5300 server's disk info
- Support Ubuntu Server 22
- Usability Improvements
- Security enhancements

What's New in version 4.1

- Discover and model GPU (experimental)
- Support HP Synergy chassis
- Support Brocade fiber switch with RX/TX power level threshold
- Support Huawei storage devices
- Support Dell 15G servers
- Support additional Cisco network devices

- Allowing extending metrics for PCC telemetry data
- Support report for max power
- Support report scope filter based on custom attribute
- Support linking from 3rd party software to UI pages in DCM
- Support Windows Server 2022
- Support Debian 11
- Usability Improvements
- Security enhancements

What's New in version 4.0.1

- Intel® Data Center Manager Console 4.0.1 has been updated to use Log4j version 2.17.

What's New in version 4.0

- Warranty expiration notification
- Offline mode for devices
- Support firmware version for hard disk and host NIC on Intel servers
- Mount ISO image for HP / Dell / Lenovo servers
- New firmware detection for Intel servers
- Performing firmware updates, BIOS setting changes, and mounting ISO images for Intel Server Products using Redfish
- Redfish based firmware update for HP / Dell servers
- Support additional component inventory / health for H3C and Netapp storage
- Support Intel Whitley servers
- Manage Dell iDRAC 7 / Cisco servers through Redfish
- Manage Oracle servers through SSH protocol
- Manage Gigabyte blade chassis through IPMI protocol
- Support Enlogic PDU
- Support EMC Connectrix DS4100B switch
- Support Cisco ASA 5525 firewall
- Mapping between switch port and managed devices
- Auto login to server BMC to simplify KVM access (experimental)
- Enhanced report (group scope, capacity report, CSV support, etc.)

- Event Statistic
- High Availability through DB replication and manual failover
- API enhancement (capacity and utilization data for space / power / weight, get device location)
- Switch port utilization monitoring with threshold-based notification
- Support “IPMI Dump” as part of the diagnostic tools
- Usability Improvements
- Security enhancements

What's New in version 3.9.1

- Updating some 3rd party components to address newly identified CVEs.

What's New in version 3.9

- Network port status monitoring and change alert
- Hard power off single server
- Health monitoring with component instance level details
- Match keywords in device SEL log
- Consolidated firmware inventory
- Batch provisioning task sequences for Intel Purley servers
- Support additional inventory for Intel Purley servers: Backplane
- Restore BIOS settings to default for Intel Purley servers
- Redfish based firmware update for SMC Purley servers
- Health monitoring for additional network / storage devices: F5 switch, NetApp storage, Arista switch, Mellanox switch, H3C switch
- Component firmware version distribution and outlier (BIOS, PSU, Backplane)
- Reports support
- Archive events
- Enhanced RESTful API (link devices to discovery task, custom attributes management)
- Device diagnostics (SNMP walk, IPMI Ping, Redfish dump and export DCM server logs)
- Usability Improvements
- Security enhancements

What's New in version 3.8

- Retrieving recent SEL logs when a server becomes unhealthy

- Events for asset change
- Events for long-time-disconnection
- Searching devices by health status, firmware version
- Watchdog sensor health monitoring
- Threshold for IPMI analog sensor
- Support for temperature sensor monitoring through Raritan PX3 PDUs
- Inventory / health monitoring when devices are managed through Redfish protocol (Lenovo XClarity, Dell iDRAC 8/9, Intel RMM4, H3C, Huawei iBMC, Kontron)
- Support for more components for inventory / health monitoring
- Inventory / health monitoring and sensor reading for SuperMicro Chassis
- SEL log for Sugon I620-G30 servers
- Enhanced RESTful APIs (Managing device capabilities, PDU outlet management, filling device health information)
- Support for Ansible Modules
- Enhanced Audit Logs
- Support for boot source overrides for Intel Purley servers
- PDU outlet power on / off
- The capability to download / email a snapshot of the dashboard
- Support for Ubuntu Server 20
- Other usability improvements
- Security enhancements

What's New in version 3.7

- Supporting health and inventory monitoring for more devices like Inspur M4, Dell servers with iDRAC 7, and SuperMicro Purley servers
- Collecting system event log from Dell iDRAC 8 / 9 servers, Lenovo XClarity servers, and HP iLO4 / iLO 5 servers
- Sending health alert to device vendor through email
- Separated API package
- Enhanced RESTful API (statistics, event / threshold management, SSD SMART data, unhealthy SSDs, getting SNMP walk data, discovery, power on / off, rediscovery, enhanced query, real-time monitoring, unhealthy devices, etc.)
- Usability improvements

- Mounting ISO image for Intel Purley / Grantley servers
- Managing SuperMicro Purley servers with Redfish protocol
- Supporting non-root account for Linux (requires sudo)
- Supporting CentOS 8, Debian 10

What's New in version 3.6.2

- Addressing certain security issues.

What's New in version 3.6.1

- Removing Optane Health commands to avoid some platform compatibility issues.

What's New in version 3.6

- Collecting and exporting CPU telemetry data
- Restful APIs
- Flexible Grouping
- Inventory information collection for Huawei iBMC based servers, Sugon servers, and Inspur servers
- Health monitoring for Cisco Catalyst Switches and HDS F700/F900 storage devices (experimental)
- Recurrent discovery tasks
- Event acknowledgment
- Health & inventory monitoring for additional Dell server components
- Power monitoring, capping and temperature monitoring for Dell MX7000
- RHEL 8 support
- Various usability improvements and security enhancements

What's New in version 3.5

- Weight Capacity Management
- Enhanced inventory support
- BIOS configuration for Intel S2600WFT, S2600ST, S2600BP servers
- Replaced Oracle JDK with OpenJDK
- Support additional platforms (Lenovo n1200 enclosure, ServerTech PDU, SMC chassis, SMC micro server)
- UI / Usability improvements
- System / Component Failure Analysis by model & location
- RAID health support for selected HP and DELL servers

- System health monitoring for iLO4, iLO5, iDRAC 9, XClarity Controller, and Huawei iMana based servers
- Security enhancements

What's New in version 3.4

- Intel® Data Center Manager Console 3.4 has been updated to include up-to-date 3rd party components (PostgreSQL 9.6.11, JRE 8 update 202, Tomcat 7.0.92, bouncycastle 1.60, Jackson 2.9.8, Xalan 2.7.2, zlib 1.2.11; commons-fileupload 1.3.3, javamail 1.6.1, smtp 1.6.1, Pio 3.1.7, remove Dom4j, replace axis2 with cxf 3.2.7), which covers functional and security updates.
- Lightweight Asset Management
- Grouped Email Notification
- Server Health Recovery Report
- SSD Life Span Estimation
- Usability improvement for firmware update
- Inventory information support (experimental)
- Enhanced BMC Console URL support (as an alternative for KVM access)
- Exposing web API for data extraction
- UI improvements
- Security enhancement
- Additional OS support (SLES 15, Debian v9, Windows Server 2019)

What's New in version 3.3

- Server model reliability statistics
- Firmware upgrade for Intel S2600WFT, S2600ST, S2600BP servers (experimental)
- SSD health monitoring through in-band
- FPGA health monitoring
- Displaying rack view
- EMC VNX 5700 storage support
- Hitachi chassis support
- Huawei MM910 chassis support
- Cisco blade management through UCS manager
- HPE PDU support
- Hoffman PDU support

- ServerTech / Raritan PDU temperature monitoring
- HP Procurve switch / Racktivity PDU support
- Lenovo PDU support
- New Eaton PDU support
- Cisco Nexus Switch support
- Support CentOS 7.5
- Support Ubuntu Server 16 and 18, drop the support for Ubuntu Server 12
- Support Debian v8.11
- Improved AD authentication
- UI improvements
- Performance improvement
- Security improvement

What's New in version 3.2

- High availability support
- New UI enhancement

What's New in version 3.1

- Brand new look and feel
- Multi-tenancy

What's New in version 3.0

- SNMP alert receiving
- Humidity data trending
- Telemetry hub data display with proper configurations on Node Manager 4.0 SKUs

What's New in version 2.9

- Energy comparison report
- Searching device by power state (on/ off)

What's New in version 2.8

- Server component health status monitoring
- Lenovo AMM component health status monitoring
- Server age distribution

What's New in version 2.7

- Out-of-band remote KVM
- Real time server sensors monitoring

- Cisco UCS blade level modeling

What's New in version 2.6

- Support (row level) cabinet PDU modeling and what-if analysis
- Visualizing blade servers in a chassis
- What-if power and space capacity analysis
- Predictive failure analysis of server fans (experimental feature)

What's New in version 2.5

- Device placement based on power and space capacity
- Server model distribution
- Server component faults UI improvement
- Power capping support for IBM IMM2 platform
- Cooling anomaly detection (experimental feature)

What's New in version 2.4

- New widget on server component faults
- More options in the rack power capacity view
- Additional data elements and visualization on advanced telemetry for Node Manager 3.0 platforms
- Experimental support for platforms based on Redfish standard and rack scaling architecture

What's New in version 2.3

- Chatsworth daisy chain support
- Historical datacenter layout
- Support stopping import task
- Per datacenter dashboard
- More OSes support (refer to System Requirements)

What's New in version 2.2

- Improved PDU support in hierarchy and logical group
- Chatsworth Gen1 and Gen 2 PDU support
- New user role (power user) support
- Rack orientation in visualized layout
- Fahrenheit support (experimental feature)

What's New in version 2.1

- LDAP support

- 2D orthogonal thermal map (row level front-panel thermal visualization & room level thermal visualization)
- Power/space capacity view in physical layout
- Improvements on physical layout (e.g., configurable origin position, tooltips adjustment, unavailable area modeling, etc.)
- Export hierarchy

What's New in version 2.0

- Visualizing layout of racks in a room
- Support enclosure level monitoring on IBM CMM platforms
- A new device status gadget for an overview of device management status
- Out-of-band resource utilization (Compute Usage Per Second: CUPS) data on Grantley servers
- Improvements on powering on/off server or servers
- Support reporting power of unmanaged chassis by aggregating blade power data with a multiplier
- Support disabling power/temperature monitoring capability on certain servers with incorrect data reported

What's New in version 1.5

- Support IBM enclosure temperature monitoring
- Including enclosure temperature in cooling analysis
- Support IBM x240 compute node monitoring
- Support blade level modeling for IBM blade systems
- Providing what-if power-utilization analysis with power prediction
- Providing email alerts
- Support power-on/off server or servers with batch policies
- Product scalability improvements

What's New in version 1.4

- Active Directory integrated authentication
- Chatsworth PDUs and rack temperature monitoring through Chatsworth PDU temperature sensors
- Enhancements to the command line tool
- Improving Virtual KVM Gateway functions which is enabled through certain license options

What's New in version 1.3

- Providing console of Virtual KVM Gateway with the functions which is enabled through certain license options

What's New in version 1.2

- Support for searching devices using the device model, connection status, or capability
- Support task management of importing hierarchy/devices
- Providing a command line tool to manipulate hierarchy
- Providing a new widget of power data summary with peak power data and top power consumers.

What's New in version 1.1

- Support monitoring and limiting enclosure level power consumption of enclosure of HP ProLiant SL Scalable system.
- Support blade level modeling for Dell and HP enclosure.
- Providing static power profiles for EMC and NetApp storage device.
- Support associating in-band communication channel to out-of-band IPMI devices to monitor in-band CPU utilization.
- Support guest role authorization.
- Providing event reminders of sound and blinking.
- Support Ubuntu Server 12 x64.

Feature List

Feature	Description
Dashboard	Provides a high-level overview of the environment's power, thermals, health, carbon emissions, etc.
Emergency Power Reduction	Throttles the power of devices with power capping capability to the lowest level at datacenter or room level.
Events	Supports two types of events: device-generated events and customized threshold-based events.
Hierarchy	Enables the manipulation of the physical hierarchy of the datacenter.
Room Layout	Provides a visual layout at the room level and a 2D orthogonal thermal map, including front-panel thermal visualization and room-level thermal visualization.
Rack Layout	Offers a rack view with power and temperature data.
Capacity Planning	Provides capacity planning based on power, space, and weight constraints.
Device Management	Allows the manipulation of devices supported in AMI® Data Center Manager.

Device Discovery	Discovers supported devices using an IP range and device credential.
Device and Hierarchy Import	Imports devices and hierarchy from an MS Excel file.
Power and Temperature Historical Trends	Provides trending of power and temperature data.
Sustainability	Monitors, predicts, and controls the carbon emissions on the device, rack, row, room, and data center levels using real-time power data, the PUE and carbon intensity
Power Policies	Offers power control functions at both the device level and the physical group level.
Cooling Analysis	Analyzes temperature data, evaluates cooling status, and provides cooling optimization suggestions.
Low Utilization Servers	Analyzes power data to identify servers with low utilization.
Failure Indicators	Estimates the probability of servers/components being unhealthy.
Server Power Characteristics	Analyzes power data to identify power characteristics per server model.
Groups	Allows user-defined groupings of devices based on common characteristics.
Power Estimation	Estimates power for devices without power monitoring capability.

Some of the servers require Intel SDP Tool for provisioning capabilities. The SDP Tool can be downloaded from Intel web site: [Intel SDP Tool](#).

System Requirements

AMI® Data Center Manager Console has been validated on the following operating systems (64-bit version) and web browsers:

- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- Microsoft Windows Server 2022
- Red Hat Enterprise Linux 7.9 Server x86_64
- Red Hat Enterprise Linux 8.8 Server x86_64
- Red Hat Enterprise Linux 9.2 Server x86_64
- Novell SUSE Linux Enterprise Server 12 SP5 x86_64
- Novell SUSE Linux Enterprise Server 15 SP4 x86_64

- Ubuntu Server 18.04.7 x86_64
 - Ubuntu Server 20.04.5 x86_64
 - Ubuntu Server 22.04.1 x86_64
 - CentOS 7.9 x86_64
 - Debian 10.13 x86_64
 - Debian 11.8 x86_64
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- Mozilla Firefox 120
 - Google Chrome 120
 - Microsoft Edge 120

It is recommended to install the AMI® DCM Console server on a system with at least:

- A dual-core processor of 2.6 GHz or higher
- 8GB RAM
- 200GB of hard drive space

Below is the recommended configuration for a scaled environment (e.g. managing up to 40,000 IPMI based nodes):

- 2 * Intel® Xeon® Gold 6348 CPU @ 2.60GHz
- 64GB RAM
- 1000GB SSD
- Gigabit network

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