UNMP
Unified Network Management Platform

Featuring the integrated management of IoT devices and network devices, the Unified Network Management Platform can realize the unified operation and maintenance of all devices in the network system via global visualized topology view and connection visualization, which helps users to quickly find, locate, and solve system issues, reduce the maintenance threshold, and improve maintenance efficiency.

- Unified Management: Centralized management of all IP devices in the network, including cameras, smart managed switches, full managed switches, NVRs, access control devices, two-way audio devices, alarm devices, broadcast devices, etc.
- Unified Topology: Unified topology display of IoT devices and network devices, automatically generated by the system. Based on real-time dynamic topology, platform provides visualized information such as device type, link type, running status, and port, enabling a clear system network architecture and whole network visualization maintenance.
- Intelligent Operation & Maintenance: Monitoring of the status of IoT devices, network devices, links, etc., within the entire network 24/7. Platform proactively alerts users upon detecting issues and pinpoints the fault locations combined with the dynamic topology, reducing operation and maintenance complexity.
- Network-Wide VLAN Configuration: Automated recognition of IoT device types and one-click configuration of VLAN ports according to types, to realize efficient VLAN configuration for the whole network.
- Service Priority Assurance: Priority is given to critical service data transmission for key points to ensure stable service performance during high traffic loads.
- Security Protection: Implementation of IP-MAC-port binding to prevent unauthorized IoT device access. Alerts are triggered upon detecting disabled IoT devices access.
- Service Configuration: Platform supports batch configuration and single device configuration adjustment, such as including loop prevention, port mirroring, link aggregation, long-range transmission, PoE, etc.
- Asset Management: Unified management of different types of assets.
- Device Compatibility: Platform supports network devices from mainstream manufacturers via SNMP protocol and video devices from mainstream manufacturers via ONVIF protocol.
- Product Form: Standalone server deployment with bypass networking, based on B/S architecture.
- Access Specification: Platform provides license purchases based on the required number of device connections for the project.

▪ Specification

Software Function	
Device Management	1. Supports up to 5,000 IoT devices, including cameras, NVRs, access control devices, two-way audio devices, alarm devices, and other types of devices. 2. Supports up to 500 network devices, including smart managed switches, full managed switches. 3. Supports active device discovery, and activation, network information modification, and password resetting for Hikvision devices. 4. Supports adding devices via device discovery, IP address, and file template import. 5. Supports compatibility with mainstream manufacturers' network devices through SNMPv1, SNMPv2c, and SNMPv3. 6. Supports auto-detecting and adding mainstream brand cameras and NVRs. 7. Supports fast positioning of device topology location. 8. Supports statistics of online status for added devices based on classification. 9. Supports group management, to view device information in groups. 10. Supports custom device types. 11. Supports applying/synchronizing device name. 12. Supports firmware upgrade. 13. Supports exporting device list.
Overview & Statistics	1. Supports cyber health index scoring. 2. Supports statistics display of security indexes (port protection ratio, disabled list, and authorized terminal ratio). 3. Supports statistics of unhandled alarms. 4. Supports statistics display of link statuses (disconnected, busy, congested, and unblocked). 5. Supports statistics of online trends of switches, and cameras in the last 24 hours/7 days. 6. Supports video smoothness analysis statistics. 7. Supports light/dark themes. 8. Supports full screen display.

Network Topology	1. Supports one-click generation of the entire network topology, including network devices and IoT devices. 2. Supports layer 2 and layer 3 network topologies. 3. Supports network cable, optical fiber, wireless (Wi-Fi/RF433/RF868), and RS-485 line types. 4. Supports topology editing, including getting topology again, setting node sorting, displaying unmanaged IoT devices, displaying/hiding devices, setting root node, and filling in information of unknown device nodes. 5. Supports switch between showing port panel status and pure icons of topology nodes. 6. Supports distinguishing between stackable and non-stackable switches via icons. 7. Supports custom device information display. 8. Supports custom port/aggregation port information display. 9. Supports only displaying abnormal links of nodes. 10. Supports topology setting, including refreshing frequency and bandwidth threshold. 11. Supports manual and scheduled refreshing of topology. 12. Supports link diagnosis, allowing customizable end-to-end link visualization and Ping test analysis. 13. Supports cable diagnosis. 14. Supports viewing VLAN segmentation information of topology node. 15. Supports viewing link running status and bandwidth usage trend statistics. 16. Supports viewing network device CPU, memory, PoE power usage, fan, temperature, etc. 17. Supports viewing network device port panel status, port basic information, and port running information. 18. Supports CRC, and packet loss counting and analysis. 19. Supports DDM diagnosis and analysis of optical module. 20. Supports operations on network devices such as rebooting device, restarting PoE service, redirecting to device web page, upgrading firmware, SSH, and Ping. 21. Supports viewing live view, PTZ control, image quality status, and smoothness status of the camera, as well as traffic shaping. 22. Supports viewing the status and internal components of the turnstile, and controlling the turnstile to open/close. 23. Supports viewing the real-time and historical trends of network status, CPU, and memory of IoT devices. 24. Supports one-click topology exporting. 25. Supports light/dark themes. 26. Supports full screen display.
Asset Management	1. Supports displaying asset management list. 2. Supports importing, exporting, and deleting asset list.
Service Configuration	1. Supports network-wide VLAN configuration. 2. Supports loop prevention configuration for the whole network. 3. Supports prioritizing configuration of key link service. 4. Supports port switch, and port configuration of speed, duplex, flow control, port mirroring, link aggregation, long-range transmission, and PoE. 5. Supports security protection configuration and blocklist limit.

Log Search	Supports searching, viewing, and exporting logs of network devices and the platform.
Alarm Search	1. Supports alarm information searching, viewing, handling, and exporting based on customized conditions. 2. Supports audible alarm alerts with on/off control. 3. Supports alarm subscription and alarm level configuration. 4. Supports device maintenance setting to suppress alarm reporting during defined maintenance periods. 5. Supports various alarm types, such as device online, device offline, frequent device online/offline status fluctuations, abnormal port protocol rate, abnormal port negotiation duplex, blocklist device access, electrical/optical port disconnection or reconnection, PoE port power failure/power on, IP address conflict, abnormal device temperature, network loop, unauthorized device access, rate lower than threshold, abnormal image quality, etc.
System	1. Supports platform user management, including creating multiple users with various permissions. 2. Supports platform debugging. 3. Supports platform Ping test and IP network segment usage monitoring. 4. Supports importing and exporting platform configuration files. 5. Supports automatic time calibration for newly added devices. 6. Supports upgrading and downloading logs of the platform server.
Maintenance & Troubleshooting	1. Supports generating and exporting device offline duration statistical reports.

▪ Available Model

HikCentral-M-DMM-NSM

UNMP

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