

Advantech Server Monitoring

Smart Hardware Monitoring Software



Industrial Cloud & Video Group
Software Team

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Software Portal



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Value Beyond Hardware Design

Beyond robust hardware design, Advantech has an own software engineering team developing multiple outstanding platform software with up-to-date features which improves availability, serviceability, and usability to minimize costly downtime.

We helps service providers and enterprises extend the cloud to the IoT edge by providing scalable platforms that reliably execute mission and business-critical applications anywhere in the network.

Advantech ICVG Software Team



ADVANTECH

Advantech Server Monitoring

Your Daily SKY Monitoring Doctor
24/7 System Monitoring Turnkey Solution



**Runtime
Monitoring**

- Centralized dashboard
- Health and asset information on system components
- System utilization
- Power consumption



**Proactive
Notification**

- Smart notifications when hardware faults are detected
- Email warnings with advice and guidance



**Failure
Identification**

- Identification of failed HDD and NIC with blinking LEDs
- Dashboard indication of failed components

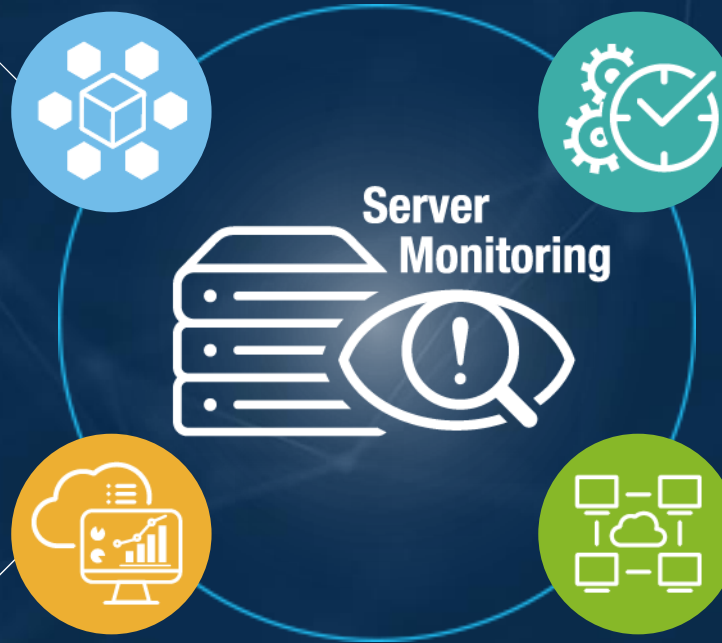
Boost Your Business and IT/OT Maintenance

All-in One Inspection Improves Efficiency and Saves Operational Cost

- Server Monitoring streamlines monitoring data from different hardware and subsystems into a centralized dashboard to provide operators with a fast way to get a full overview of assets, hardware health, and utilization rates.
- Smart alarm notifications alert users with relevant action and guidance recommendations to enhance efficiency of maintenance.

Visual Dashboard Provides Maximum Usability

- Server Monitoring uses the popular Grafana Labs dashboard for cloud and K8s infrastructures. Grafana not only shortens the learning curve for entry-level users via its secure, user-friendly UI, it also gives customers seamless integration with Server Monitoring software.



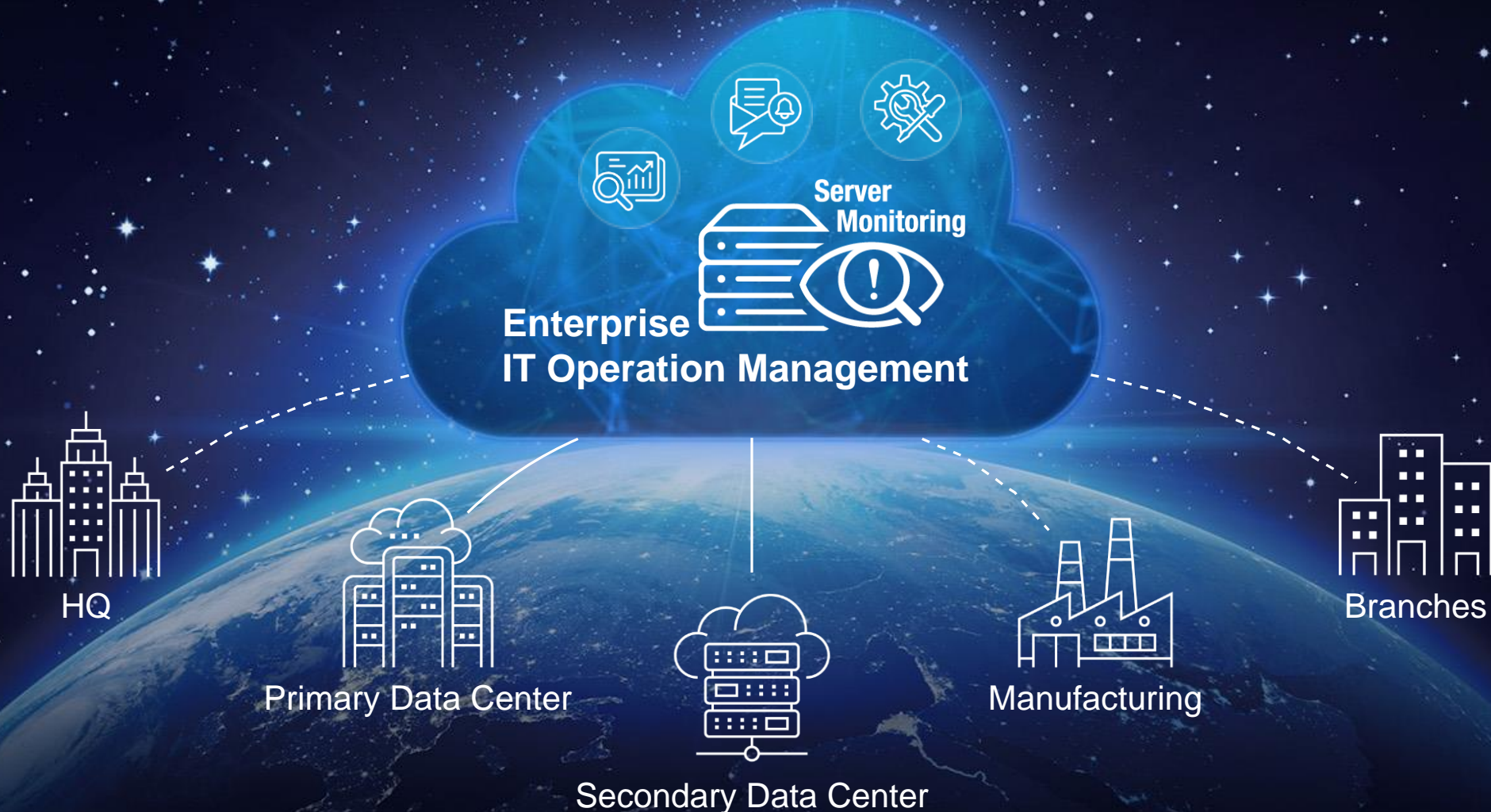
Zero Downtime Server to Strengthen Serviceability

- Digital transformation means software applications are a key component of your infrastructure, so server system reliability is paramount to your business success. Server Monitoring enables hardware predictive maintenance notifications and early failure component detection which can prevent problems and downtime.

Simple, Easy and Wide Application in Heterogeneous Computing Environments

- Server Monitoring is designed to simplify server maintenance and reduce manual intervention through easy deployment. Pre-configurable hardware asset profiles are supported, as well as monitoring services for multiple servers in different cloud infrastructures.

Integrating Advantech Products with Enterprise IT operations Management (ITOM)

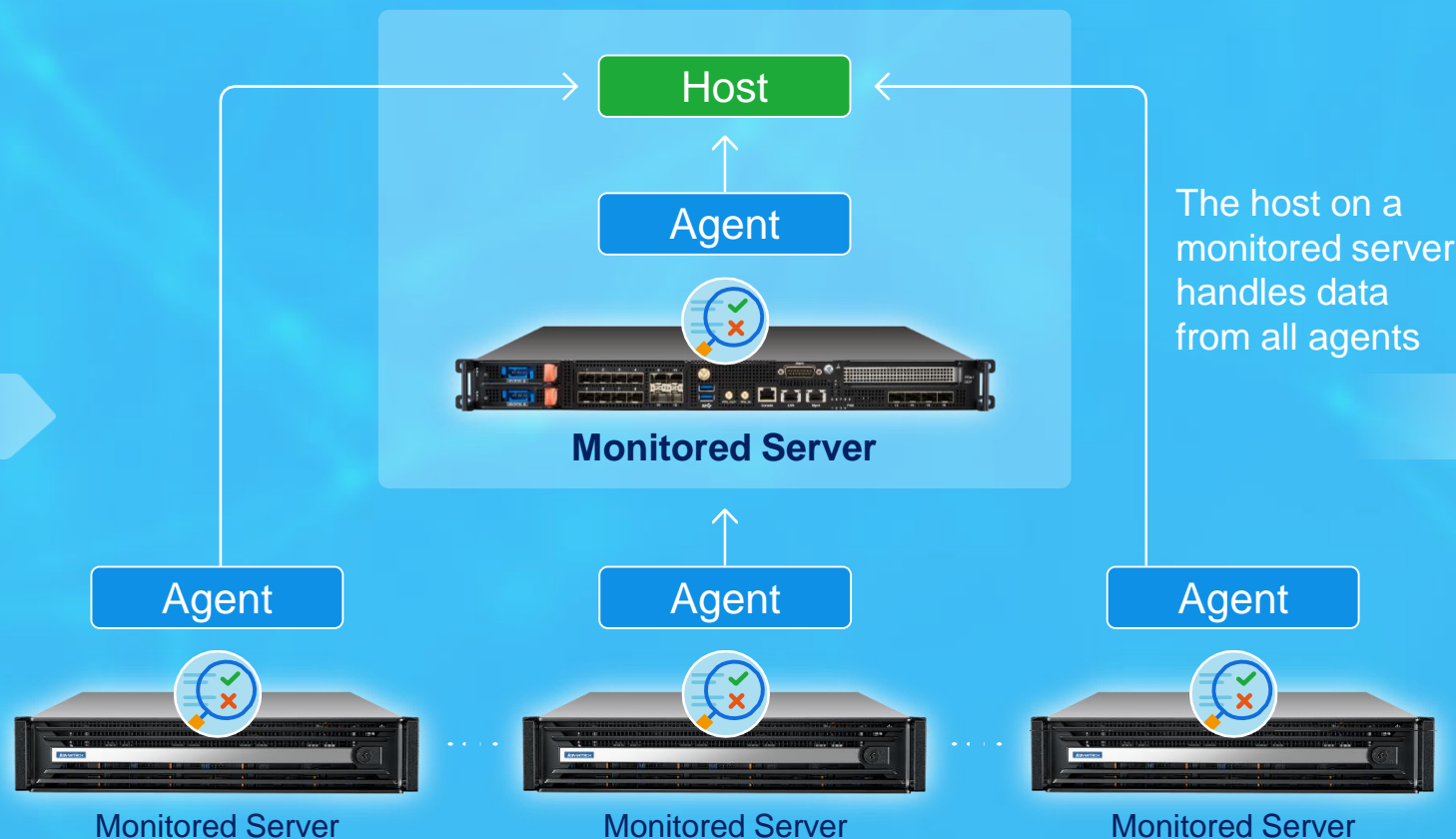


The Architecture of Server Monitoring Deployment

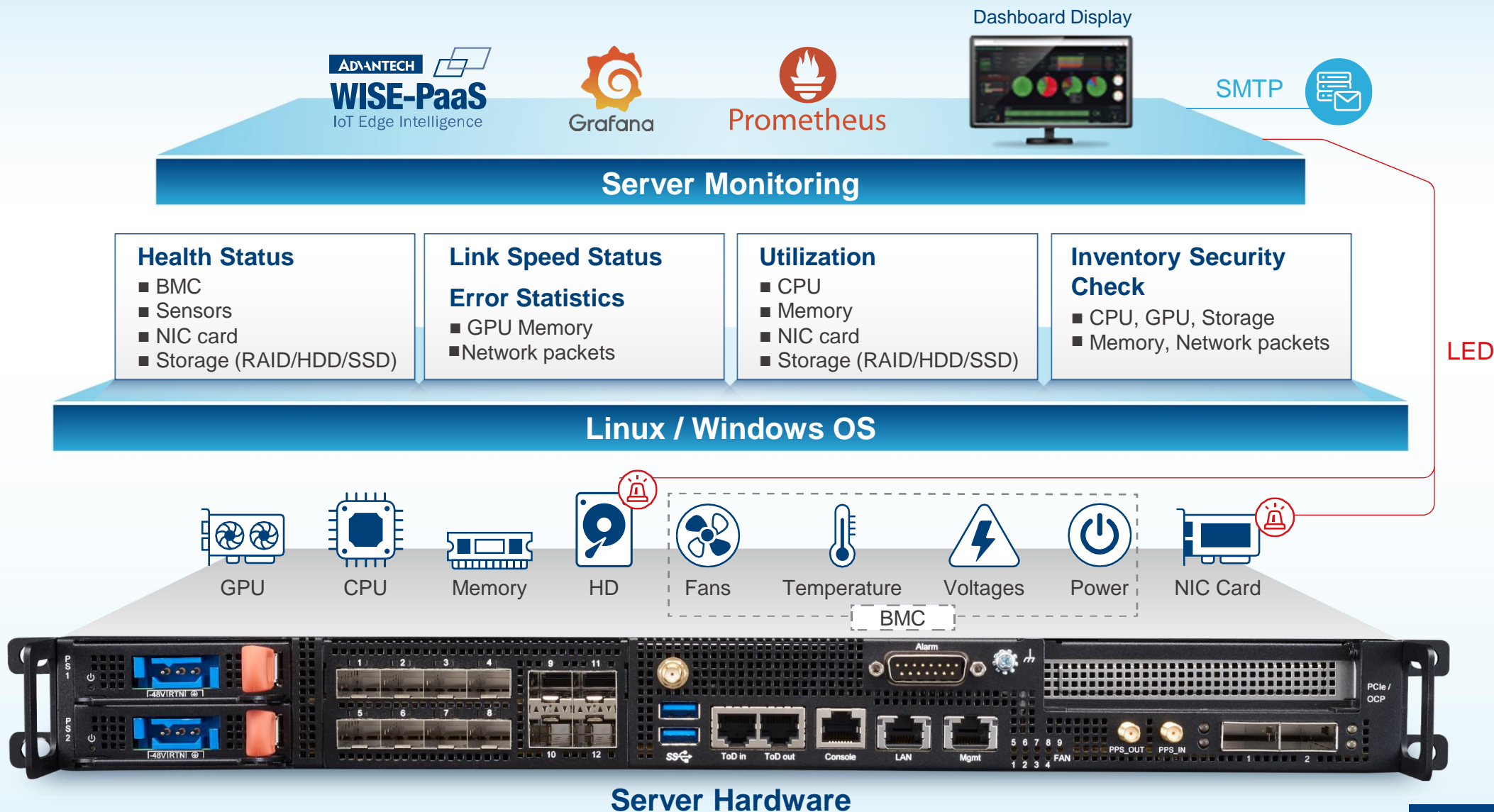
Administrators worldwide can monitor the servers by connecting to the Server Monitoring website via HTTPS.



Server Monitoring Software Suite



What Does Server Monitoring Monitor ?

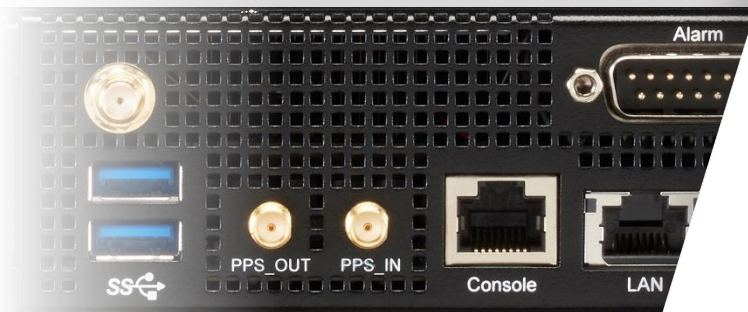


Monitoring Center and Smart Notification

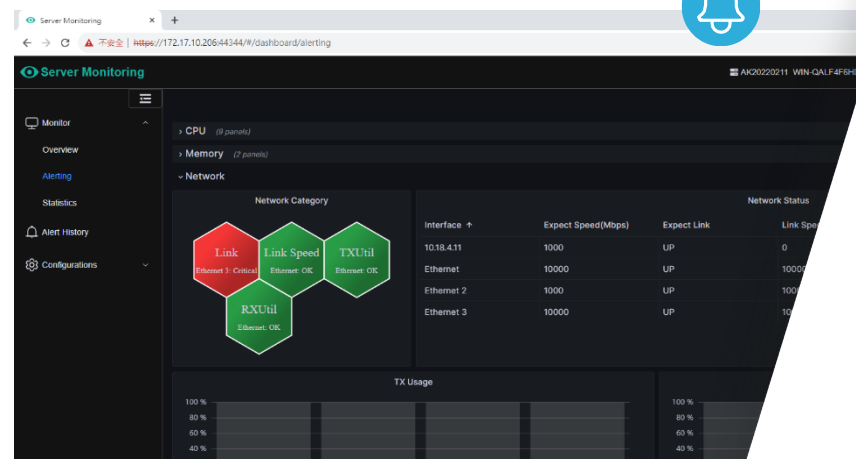


Example : Network Port Failure

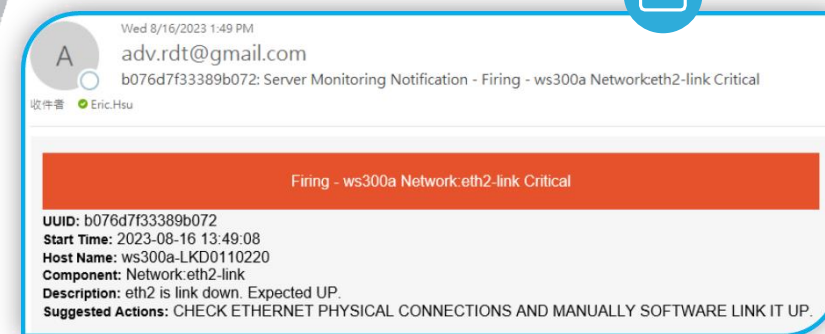
1 Discovered an issue with the machine



2 Displayed a warning notification screen



3 Presented an email notification



System Requirements (Linux and Windows)

Server Monitoring Service

Monitored Server



x86-64 architecture

- Intel Xeon or AMD EPYC
- Support Intel VT-x or AMD SVM Technology



BMC

- IPMI spec v2.0 compatible

- KCS interface (Linux)
- Serial/Modem Interface (Windows)



General OS

- Ubuntu 20.04 / 22.04 LTS 64-bits
- Debian 11 Stable 64-bits

- Windows 10/11 Enterprise 64-bits
- Windows server 2019 64-bits
- Windows server 2022 64-bits

- Linux (as left)
- Windows (as left)



Hardware Minimum Requirements ※ (Keep 30 days log history)

- 2 cores CPU
- 2GB DDR4 memory
- 4GB Disk (installation)
- 2GB Disk (data)

- 4 cores CPU
- 4 GB DDR4 memory
- 1 GB Disk (installation)
- 16 GB Disk (data)

- 0.5 cores CPU
- 512 MB DDR4 memory
- 1 GB Disk (installation)
- 512 MB Disk (data)



Others

- Container Environment
- RAID Card

- Docker engine: community 20.10.17 or later
- Python: 3.8 or later
- SSH with root privilege for installation

- Windows Hyper-V support

- Compatible with RAID card: ADV ROC-8i



Security Connection Credential (private key and certificate for CA, Certificate Authority)

※ The above system requirements are calculated based on monitoring 10 Agents.

Server Monitoring on WISE-STACK

Challenges

AIoT generates valuable data on IoT servers, which are often connected to the cloud. However, private cloud environments may have multiple independent monitoring systems for IaaS, PaaS, SaaS and hardware, creating data silos that are difficult to manage. Without a comprehensive server monitoring software, managers must handle each system separately, leading to inefficiencies and difficulty in detecting performance issues and security threats.

Solutions and Technologies

Advantech SKY servers can be monitored using a lightweight, container-based GUI hardware monitor system on both Linux and Windows. Server Monitoring integrated in WISE-IoT allows WISE-STACK administrators to manage hardware, IaaS, PaaS, and SaaS in a unified interface. Its centralized dashboard offers real-time monitoring, advanced analytics, and automation for proactive notifications, ensuring the health and performance of Advantech servers.

Benefits

Integrating Server Monitoring into WISE-PaaS reduces development risks and costs for customers. The centralized platform streamlines server management, improves visibility, and minimizes data silo complexity for seamless monitoring and optimization of key servers for superior performance and customer experiences.

Server Monitoring in WISE-IoT



WISE-STACK Private Cloud Solution

