WISE-PaaS/RMM

IoT Device Remote Monitoring and Management Platform



Features

- Console-Server-Agent structure, where the server can be built in a public or private cloud
- Centralized remote IPC, IoT device HW & SW status monitoring and management
- Remote KVM, and support for Intel[®] iAMT (i5 and i7)
- Remote power on/off and scheduling
- Hardware, software and gateway threshold rule and notification
- Whitelist system protection (powered by McAfee)
- System backup and one-click recovery (powered by Acronis)
- Web-based management console
- Supports device maps (Google, Baidu, floor map...)
- Data acquisition and data storage
- Historical data statistics and queries
- IoT data visualization and 10+ dashboard widgets supported
- Supports hierarchical server management
- Supports redundant servers to ensure high availability and service continuity
- Supports up to 1000 device connections (IPC, IoT Gateway)
- RESTful API web service for further development and integration with other systems
- WISE Agent framework support with customized device handler for device connectivity

Introduction

WISE-PaaS/RMM is part of Advantech WISE-PaaS cloud solution, and focuses on remote device management and monitoring.

WISE-PaaS/RMM serves as an IoT device management platform that manages connected devices remotely, providing centralized management features, including HW/SW status monitoring, remote control, system backup/recovery, etc. Moreover, it supports server redundancy and hierarchical server management, which increases service reliability and availability.

WISE-PaaS/RMM utilizes standard IoT protocol, like MQTT from IBM, to communicate with IPCs, IoT gateways and sensors, provides WISE Agent framework for data acquisition from devices, and offers RESTful API web service, which allows the user to integrate RMM functions with other applications or do further customization.

Feature Details

Device Management

Monitor remote device status, including device temperature, internet connection, CPU temperature, fan speed, voltage, SW process, CPU/memory usage. System will detect device HW capability, and display items can be monitored.

Also provides hierarchical server view, group view, and map view to help the administrator organize and manage the devices more efficiently.

Advanced Server Capability

WISE-PaaS/RMMs support hierarchical server structure view to allow the administrator to manage services/devices across different subnets at the same time (logically) without compromising network segment privacy. Also, RMM allows a server to set 1 or 2 redundant servers, with which all data will be synced continuously and a redundant server will take over when the primary server is down to ensure service availability.

Power Management

Sets the power on/off schedule for remotely located devices; the schedule can be set on a daily, weekly, monthly, or yearly basis.

Protection Management

WISE-PaaS/RMM system protection is powered by McAfee, providing white list protection against unauthorized application execution, and also sending warnings of any unauthorized activities.

Backup & Recovery

WISE-PaaS/RMM system recovery is powered by **Acronis**, providing hot backup and scheduled backup, and also one-click recovery.

Event & Notification

When events occur, prompt notifications can be sent to administrators by email or SMS.

Data Visualization

Supports multiple types of data sources, e.g.: WebSocket and http stream, to feed in predefined 10+ widgets, including Google maps, gauge, sparkline, progress bar, HTML, picture, indicator, to present as live and statistical device data on dashboard.

WISE-PaaS/RMM Extension

Provides RESTful API Web Service, which allows cross-platform integration of RMM functions, and also open WISE Agent framework, which allows a customized handler to collect and process customer device data not defined by default for more flexible device connectivity.

Software Specifications and Versions:

• Max. concurrent device connections: 1000

Max. levels of server hierarchy: 3 (including Root server)
 Max. sub-server amount at each level: unlimited
 Max. redundant server candidate amount: 2

• Max. message handling: 3000m/s, < 1KB

IPC Device Management Group View V Map View V Map View V V Map View V V Map View V V Map View V V V Map View V V V V Map View V V V V V V V V V V V V V V V V V V V		Standard Version	Professional Version	
Saleway/Sensor Management Group View	Device Management			
Group View Wap View Wap View V	IPC Device Management	✓	\checkmark	
Map View HW Status Monitoring & Rule Setting WP Process Monitoring & Rule Setting Data Auto Report • Only keeps historic data for 30 days • No support for RESTful API query Dashboard Widgets will be discarded after the browser is closed Hierarchical Server Only 1 level of sub-server and only 1 sub-server is supported No sub-server supported No sub-server supported No sub-server supported No sub-server amount limitation at each layer Server Redundancy Remote KVM* Remote KVM* Remote LYM* VP Remote MVM* Remote Driver Remote Nord Remote Nord Hierarchical Server WP Remote On/Off Hierarchical Server WP Remote On/Off Hierarchical Server WCACCOUR/Report WCACCOUR/Report WCACCOUR/Recovery WCACCOUR/Recovery WCACCOUR/Recovery WCACCOUR/Release WCACCOUR/R	Gateway/Sensor Management	Read-only; unable to set sensor value	✓	
Wistatus Monitoring & Rule Setting Wireses Monitoring & Rule Setting Data Auto Report Only keeps historic data for 30 days No support for RESTful API query Widgets will be discarded after the browser is closed Widgets will be discarded after the browser is closed Only 1 level of sub-server and only 1 sub-server is supported No sub-server supported No sub-server supported No sub-server amount limitation at each layer Supports at most 2 redundant servers Remote KVM** Remote KVM* Remote KVM Verential Mode Iterminal Mode Iterminal Mode Verential AMT Integration Verential Notification Verential Not	Group View	✓	\checkmark	
SW Process Monitoring & Rule Setting - Only keeps historic data for 30 days - No support for RESTful API query Dashboard Widgets will be discarded after the browser is closed Hierarchical Server Only 1 level of sub-server and only 1 sub-server is supported No sub-server supported No sub-server amount limitation at each layer Server Redundancy Remote KVM* Femmit RVM Femmit RVM Femmit Mode Intel AMT Integration Screenshot - V Femmote On/Off Filterante Power On/Off Scheduling System Protection* McAlee White List Protection System Protection* McAlee White List Protection System Recovery* Acronis Backup/Recovery Holding Control Filterante Formation Formation Filterante Form	Map View	✓	✓	
Dala Auto Report No support for RESTITul API Query Widgets will be discarded after the browser is closed Hierarchical Server Only 1 level of sub-server and only 1 sub-server is supported No sub-server supported No sub-server amount limitation at each layer Server Redundancy N/A Supports at most 2 redundant servers Widgets will be discarded after the browser is closed I level of sub-server amount limitation at each layer Supports at most 2 redundant servers Remote KVM** Remote KVM* Remote KVM Integration Corcenshot Power Management** Remote On/Off Power Management** Remote On/Off Power On/Off Scheduling Power On/Off Scheduling Power On/Off Scheduling Power Management Acronis Backup/Recovery Acronis Backup/Recovery Notification Center Vent Log Power Management Femil Notification Management Interface Management Mobile Mode Power Management Power Management Mobile Mode Power Moderate Mobile Mode Power Moderate Moderate Moderate Moderate Moderate Moderate Moderate Moderate Moderate Moderat	HW Status Monitoring & Rule Setting	√ *	√ *	
- No support for RESTful API query (Actual data storage amount is subject to HDD capacity) Widgets will be discarded after the browser is closed Hierarchical Server Only 1 level of sub-server and only 1 sub-server is supported N/A Supports at most 2 redundant servers Remote KVM** Remote KVM Remote KVM Permital Mode Prover Management** Remote On/Off Hibernate Power Management* Remote On/Off Hibernate Power On/Off Scheduling Power On/Off Scheduling Power On/Off Security Power	SW Process Monitoring & Rule Setting	√**	√**	
# 2 levels of sub-server supported Figure Redundancy Remote KVM** Remote KVM Remote MVM	Data Auto Report			
N/A Sub-server amount limitation at each layer Supported Supported and only 1 sub-server is supported Supports at most 2 redundant servers Remote KVM** Remote KVM -	Dashboard	Widgets will be discarded after the browser is closed	✓	
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Remote KVM Ferminal Mode Ferminal Mode Formal Integration Form	Server Redundancy	N/A	Supports at most 2 redundant servers	
Intel AMT Integration	Remote KVM**			
Intel ANT Integration	Remote KVM	✓	\checkmark	
Screenshot	Terminal Mode		\checkmark	
Power Management** Remote On/Off	Intel AMT Integration	✓	✓	
Remote On/Off Hibernate Power On/Off Scheduling System Protection** McAfee White List Protection System Recovery** Acronis Backup/Recovery A	Screenshot	✓	\checkmark	
Hibernate Power On/Off Scheduling System Protection** McAfee White List Protection System Recovery** Acronis Backup/Recovery Acronis Backup/	Power Management**			
Power On/Off Scheduling System Protection** McAfee White List Protection System Recovery** Acronis Backup/Recovery Backup/Recovery Scheduling Hot-Key Recovery Volification Center Event Log Email Notification Smiss Notification Management Interface Account/Role management Mode Web-Based Console Veb-Based Console Veb Strict Veb Stric Veb Strict Veb Strict Veb Strict Veb Strict Veb Strict Ve	Remote On/Off	✓	\checkmark	
System Protection** McAfee White List Protection System Recovery** Acronis Backup/Recovery Backup/Recovery Scheduling Hot-Key Recovery Notification Center Event Log Email Notification SMS Notification Management Interface Account/Role management Mobile Mode Web-Based Console Others RESTful API Web Service	Hibernate	✓	\checkmark	
McAfee White List Protection System Recovery** Acronis Backup/Recovery Backup/Recovery Scheduling Hot-Key Recovery Notification Center Event Log Email Notification SMS Notification Management Interface Account/Role management Mobile Mode Web-Based Console Others RESTful API Web Service	Power On/Off Scheduling	✓	\checkmark	
System Recovery** Acronis Backup/Recovery Backup/Recovery Scheduling V Hot-Key Recovery Notification Center Event Log Email Notification SMS Notification V SMS Notification V SMS Notification V Management Interface Account/Role management Mobile Mode Web-Based Console V Web-Based Console V Web-Based Service V V V V V V V V V V V V V	System Protection**			
Acronis Backup/Recovery Backup/Recovery Scheduling Hot-Key Recovery V Notification Center Event Log Email Notification SMS Notification SMS Notification V Management Interface Account/Role management Mobile Mode Web-Based Console V Web-Based Console V Others RESTful API Web Service V	McAfee White List Protection	✓	\checkmark	
Backup/Recovery Scheduling Hot-Key Recovery Notification Center Event Log Email Notification SMS Notification Management Interface Account/Role management Mobile Mode Web-Based Console Others RESTful API Web Service	System Recovery**			
Hot-Key Recovery Notification Center Event Log Email Notification SMS Notification V Management Interface Account/Role management Mobile Mode Web-Based Console Others RESTful API Web Service V V V V V V V V V V V V V	Acronis Backup/Recovery	✓	\checkmark	
Notification Center Event Log	Backup/Recovery Scheduling	✓	\checkmark	
Event Log	Hot-Key Recovery	✓	\checkmark	
Email Notification SMS Notification Management Interface Account/Role management Mobile Mode Web-Based Console Others RESTful API Web Service	Notification Center			
SMS Notification Management Interface Account/Role management Mobile Mode Web-Based Console Others RESTful API Web Service	Event Log	✓	\checkmark	
Management Interface Account/Role management Mobile Mode V Web-Based Console Others RESTful API Web Service V	Email Notification	✓	✓	
Account/Role management Mobile Mode Web-Based Console Others RESTful API Web Service V V V V V V V V V V V V V	SMS Notification	✓	\checkmark	
Mobile Mode ✓ Web-Based Console ✓ Others RESTful API Web Service ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	Management Interface			
Web-Based Console Others RESTful API Web Service ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	Account/Role management	✓	\checkmark	
Others RESTful API Web Service ✓	Mobile Mode	✓	✓	
RESTful API Web Service ✓	Web-Based Console	✓	\checkmark	
	Others			
WISE Agent SDK N/A ✓	RESTful API Web Service	✓	✓	
	WISE Agent SDK	N/A	✓	

 $^{{}^{\}star}\text{HW status includes CPU/system temperature, fan speed, voltage, CPU/memory usage, system information, HDD monitoring, depending on HW capability.}$

^{**}Support depends on device type, OS and account permission.

Minimum Requirements

Web Console

Web browser that supports HTML5+CSS3+Javascript

Microsoft Internet Explorer

- Device Management: IE8+

- Dashboard: IE10+

■ Google Chrome: 9.0+

■ Firefox: 15.0+

Safari: 5.1+

Note:

Cookies must be enabled; Accept Cookies per session must be enabled (Accept all Cookies or only accept Cookies from this server)

Browser must support HTTPS (SSL)

Server

Hardware Minimum Requirement:

- Intel® Core™ i3 2.3 Ghz CPU or above
- 4 GB RAM
- 25 GB root partition for the system
- 100 GB data storage partition for documents and indexing

Operating System:

- Windows Server 2008/2008 R2 64-bit (Recommended and fully tested)
- Windows Server 2012/2012 R2 64-bit (Recommended and fully tested)
- Windows 10 64-bit
- Windows 8/8.1 64-bit
- Windows 7 SP1 64-bit

Database:

RDBMS: PostgreSQL 9.2NoSQL DB: MongoDB 3.0.6

Web Server: Tomcat 7.x

Agent

Hardware:

 Advantech HW with SUSI 3.02/4.0 support; SUSI API is required for HWM (Hardware Monitoring Management) function to work normally.

Operation System:

- Windows Server 2012/2012 R2 64-bit (Limited support for System Protection/ Recovery)
- Windows Server 2008 32-bit/64-bit (Limited support for System Protection/ Recovery)
- Windows Server 2008 R2 64-bit (Limited support for System Protection/Recovery)
- Windows 10 32-bit/64-bit
- Windows IoT Core 32-bit (TBD)
- Windows 8/8.1 32-bit/64-bit
- Windows 7 SP1 32-bit/64-bit
- Windows XP SP3 32-bit
- CentOS 6.5 32-bit
- · Others by request

Order Information

Standard Version (fully bundled with Advantech platforms)*

• 968EMLRMP2 WISE-PaaS/RMM Standard Version

*Please confirm with your Advantech contact for availability.

Professional Version*

32EMRMP31B WISE-PaaS/RMM Pro (Max. 10 Agents)
 32EMRMP31C WISE-PaaS/RMM Pro (Max. 50 Agents)
 32EMRMP31D WISE-PaaS/RMM Pro (Max. 200 Agents)
 32EMRMP31E WISE-PaaS/RMM Pro (Site License)

*Professional version license is charged by amount of connected agents, with different price levels depending on maximum agents to be connected.