WISE-PaaS

Enabling IoT Edge Intelligence with a Collaborative Ecosystem

WISE-PaaS/ DeviceOn
IoT Device Operation Management

ADVANTECH

Enabling an Intelligent Planet

Microsoft   McAfee   Acronis

Industrial IoT Demand on the Rise

Billions of Connected Devices Driving AIoT Transformation

A surge in market demand for Industrial IoT products has rapidly increased the number of connected devices that are currently deployed and managed across different locations. It is essential to effectively manage, monitor, and control thousands of connected devices while ensuring uninterrupted service. Devices must work properly and securely after they have been deployed - without requiring frequent visits from service technicians. Customers require secure access to their devices in order to detect, troubleshoot, and undertake time-critical actions.
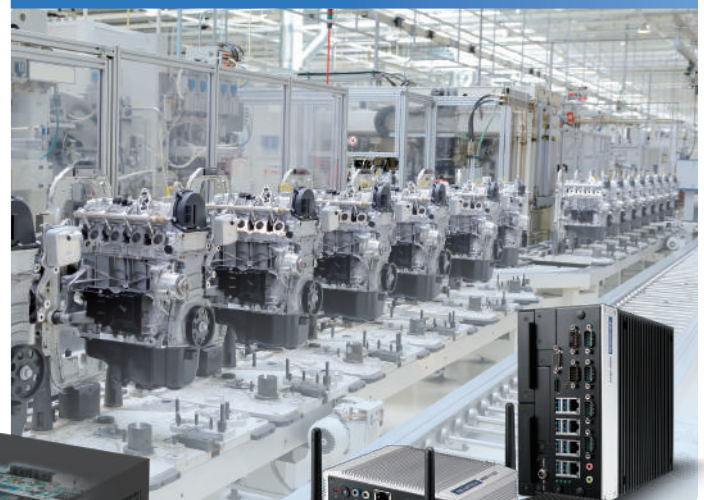
WISE-PaaS/

☑ **Automated Device Connection**   ☑ **Over-the-Air Software Updates**

Remote Monitoring & Control

Over-the-Air Software Update
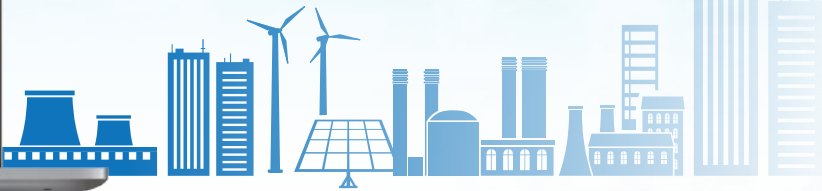
Embedded Boards   **Embedded PCs**   **Embedded Computers**

WISE-PaaS/DeviceOn

Power Up IoT Devices with 24/7 Operation Management

Advantech's brand-new designed IoT device operations and management solution gives users a transformational plug-and-play experience. Beginning with onboarding devices, WISE-PaaS/DeviceOn's fast and simple setup helps provide instant intelligent edge connection, data acquisition, and status visualization at the device operations center. Power on/off is also available at the tap of a button for quick and easy access. Over-the-Air software updates itself securely by sending software patch, firmware, software, and configuration updates through batch provisioning. The App is designed to ensure maximum efficiency in IoT device operations and management.

DeviceOn

☑ **Remote Device Monitoring and Control**

DeviceOn IoT Device Management inside

Explore More

Shop Now

Data Collection & Visualization

Wireless IoT Gateways

Automated Alert Notification

Vertical Focused Solutions

Equipment to Intelligence Solutions

Enable Equipment Intelligence and Asset Management

For equipment in the field, it is critical to quickly identify the source of any problem that occurs and take corrective action. Enabling equipment intelligence and detecting problems before a device shuts down completely is key to optimizing productivity and performance. Advantech's equipment-to-intelligence (E2I) solution series can improve asset utilization, facilitate preventative maintenance planning, and enable a new equipment as a service (EaaS) business model.

LoRa

Wi-Fi

Vibration Sensor

USB DAQ

WISE-PaaS/ DeviceOn
Equipment Edge Connectivity Solution

SRP-E2i110

Establishing both wired and wireless edge-to-cloud connectivity while providing protocol conversion, edge intelligence, and equipment status management dashboard. This solution facilitates data visualization, remote monitoring, alarm notification, and asset management.
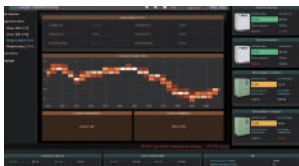
WISE-PaaS/ DeviceOn   AnCAD
Equipment Vibration Monitoring Solution

SRP-E2i210

Facilitates real-time vibration monitoring, time–frequency vibration data analysis, and alarm management/maintenance. With its application dashboard, users can visualize vibration data and monitor equipment status to enhance maintenance efficiency. This can reduce equipment maintenance costs and provide a predictive maintenance mechanism, thus ensuring a high return on investment.
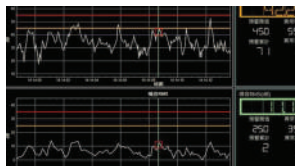
Edge Connectivity Dashboard

Virbration Monitoring Dashboard

Dashboard Highlights

Reciprocating Compressor

▪ Frequency domain
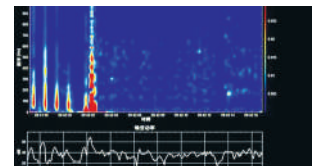▪ RMS status monitoring
▪ Time–frequency analysis

Screw Air Compressor

▪ Discharge information
▪ Loading status

Vibration Data Analytics

▪ Frequency domain
▪ RMS status monitoring
▪ Time–frequency analysis

Condition Monitoring

▪ Threshold monitoring
▪ Data monitoring and alerts

Edge Intelligence and Data Service Server

Simplify IoT Deployment from Edge to Cloud

Advantech edge intelligence servers accelerate IoT implementation by providing integrated solutions that include edge computers, WISE-PaaS/DeviceOn IoT device operation management software, IoT development tools, and pre-configured cloud services. Furthermore, Advantech provides data service servers as scalable data management platforms for private cloud solutions. They are all-in-one platforms with an open standard structure and have Kubernetes built-in, platform management software, and self-health management. Our servers facilitate IoT connectivity, light edge analytics and cloud integration, thus simplifying IoT application deployment, visualization, and predictive maintenance for IoT applications.

Device Operation Management APP

intel XEON inside

EIS-S230

Data Service Server

WISE-PaaS/EnSaaS Microsoft Azure

ADVANTECH
WISE-PaaS
IoT Edge Intelligence

Pre-configured cloud services

WISE-PaaS/ DeviceOn
IoT Device Operation Management

Device Management   **Monitoring & Control**   **Update Management**

EIS-D150	EIS-D620	EIS-D210	EIS-D120	EIS-D110
High Performance	RISC-based	LPWAN Connectivity	Multiple I/O	Wireless Connectivity

Wireless

IoT Devices

Controllers   IoT Devices   Sensors

Wired

Industrial Protocols   PLC Controllers   CNC Controllers

Motors   Workstations   Robots   CNC Machines

Dashboard and Development Tools

For Edge Intelligence Server

WISE-PaaS/ DeviceOn

Device Operation Management

- Centralized IoT device HW & SW status management
- Built-in 15+ real-time monitoring widgets
- Up to 1000 device connections

SDK

IoT Development Tools

- Node-RED data flow logic designer
- Dashboard builder
- Protocol plug-in SDK & configuration tools

For Data Service Server

kubernetes

Data & System Management

- Kubernetes resource monitor
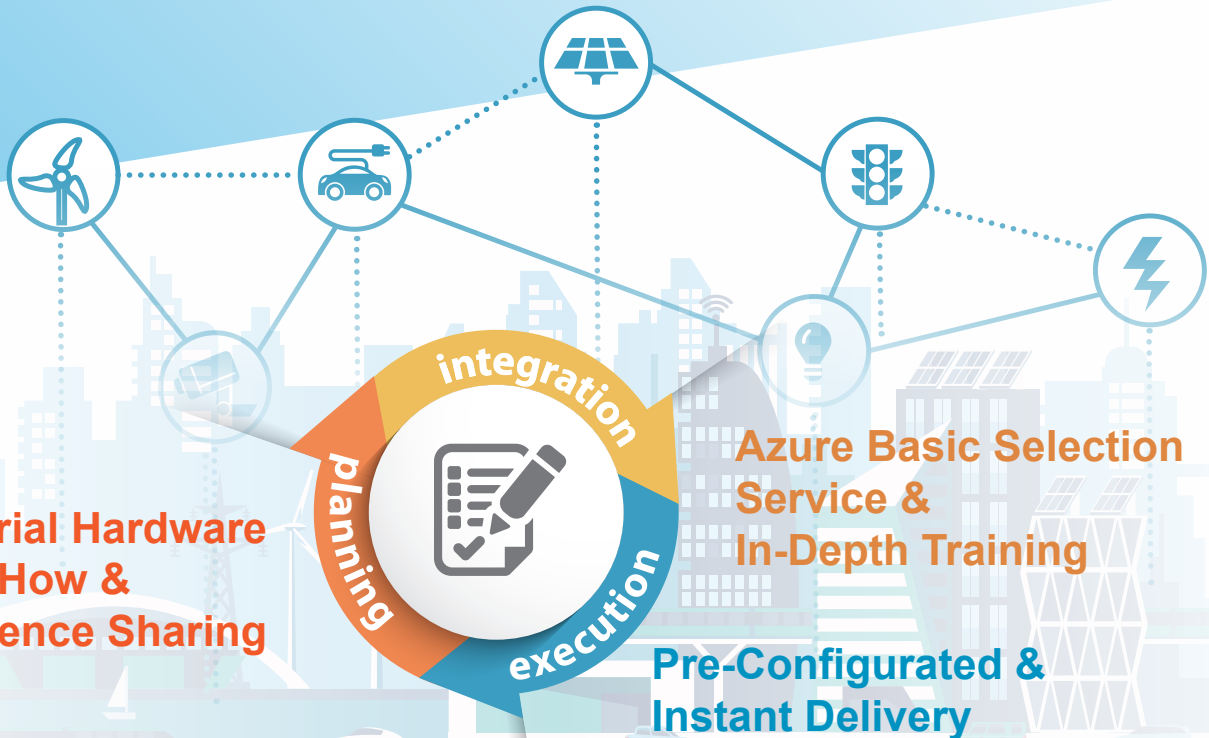- Application status monitor
- Database I/O throughput monitor

Self-Health Management

- Condition monitor
- Load balance
- Events/alerts

Microsoft Azure Migration Services

Embrace Digital Transformation with Advantech

Azure is an ever-expanding set of cloud computing services to help your organization meet its business challenges. With Azure, your business or organization has the freedom to build, manage, and deploy applications on a massive, global network using your preferred tools and frameworks. Advantech offers Microsoft Azure Cloud Services, helping businesses connect their industrial solutions to the cloud through both custom service packages and pre-configured solution packages. Custom cloud infrastructure services are allowing customers to choose the services that best fits their needs, ensuring they only pay for what they use. Alternatively, Advantech offers pre-configured solution packages ready for immediate deployment. The IoT Central connects, monitors, and manages your IoT assets at scale, and IoT cloud solution accelerators connect and monitor your devices remotely. Improve your industrial efficiency with a connected factory and increase equipment reliability with predictive maintenance. All services will be covered by Pay As You Go in your monthly billing structure.

integration

planning

execution

Industrial Hardware Know-How & Experience Sharing

Azure Basic Selection Service & In-Depth Training

Pre-Configurated & Instant Delivery

Service Highlights

Compute
- Access cloud compute capacity
- Virtualization and scale on demand
- only pay for the resources you use

Storage
- Range of solutions for your needs
- Scalability you will not outgrow
- Flexible as your needs change

Database
- Database
- Intelligent, scalable, cloud database service
- The broadest SQL engine compatibility
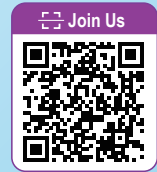- Up to a 212% return on investment
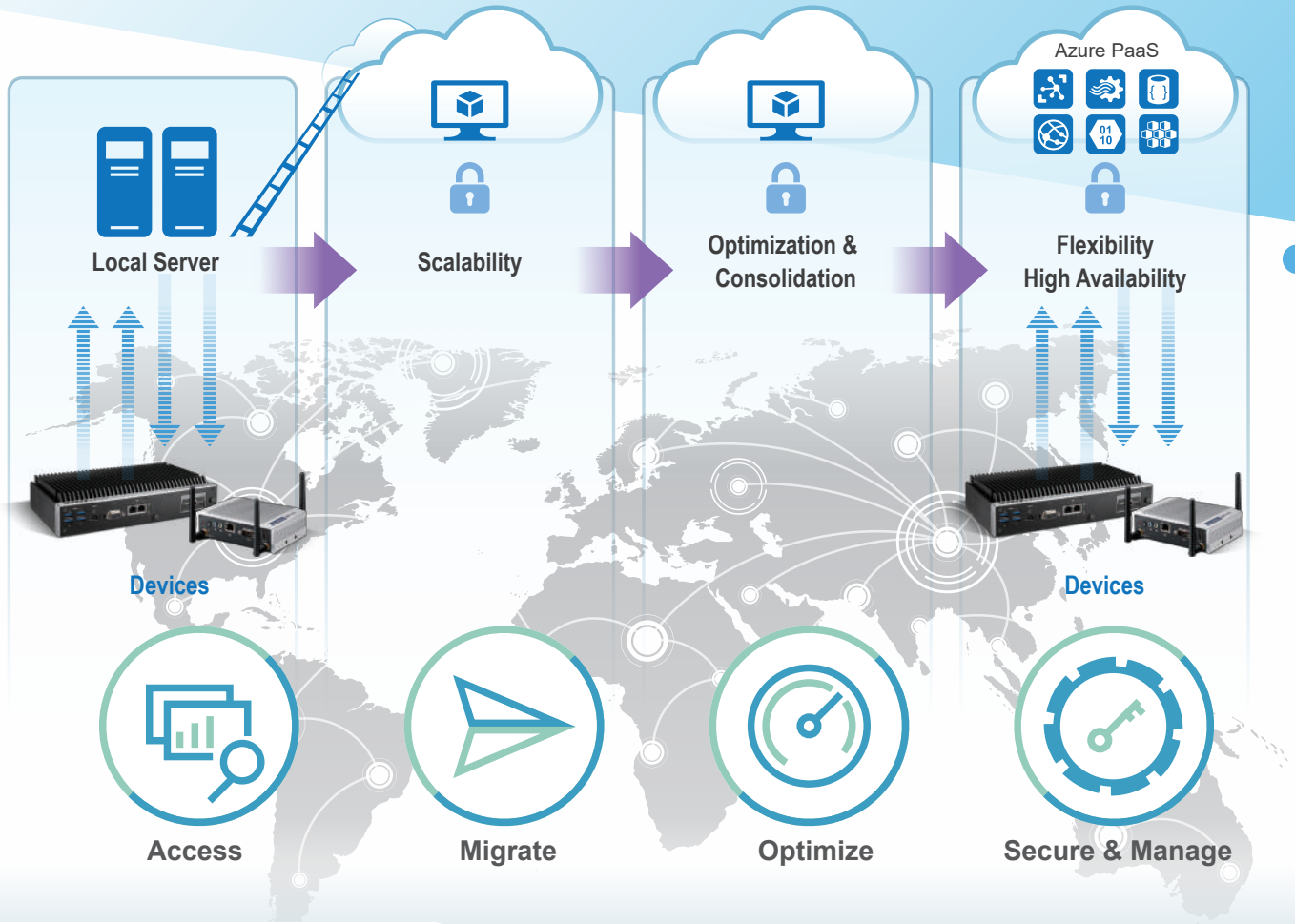
IoT Service
- IoT Service
- Security from the endpoint to cloud.
- Open for any devices, OS, and data services
- Scalability enable millions of devices and terabytes of data

Microsoft Embedded License and Cloud Service Global Distributor

As a strategic industrial partner of Microsoft, Advantech seamlessly integrates Microsoft's direct support to provide our partners with headache-free headache-free services. Our industrial partners will get know-your-need software and cloud solutions from Advantech to meet their expectations. Let Advantech know your requirements, we'll always find a way to work out a solution for you.

Learn More

Join Us

Advantech Azure Services

Azure PaaS

Local Server → Scalability → Optimization & Consolidation → Flexibility High Availability

Devices

Devices

Access | Migrate | Optimize | Secure & Manage

Microsoft Azure Cloud Offerings

ADVANTECH

Advantech Azure Solution
- Perfect integration
- Azure and Advantech hardware
- Industrial domain know-how solutions

Microsoft Azure

Microsoft Azure
- Computing and storage
- Internet of things
- AI + machine learning

Office 365

Office 365
- Full access, anytime and anywhere
- Pay-as-you-go flexibility for your business
- Automatic updates for no additional charge

WISE-PaaS/Security

powered by **McAfee™** **Acronis**

Comprehensive Threat Protection and Backup Recovery

McAfee™ embedded solutions provide superior and intelligent security functions, such as whitelisting and blacklisting, for protecting IoT devices and data from zero-day attacks, monitoring/tracking system changes, and guarding entire systems with McAfee Global Threat Intelligence. WISE-PaaS/Security, empowered by McAfee™, provides a centralized IoT security management console on Azure for deploying security policies that ensure data and device protection. This IoT platform can be configured with McAfee™ function modules to satisfy diverse vertical applications and scenarios. In addition to data protection, the ability to restore systems to their factory settings on site reduces time and financial costs for both system integrators and end users. Leveraging Acronis' award-winning technologies, Acronis OEM solutions are specifically designed to satisfy the needs of OEMs.

Easy Backup Solution
- Full image backup
- Disk and partitions backup

Change Control
- Access rights- who, when, what
- Prevent out-of-policy changes

Application Control
- Protect against zero-day attacks
- Proactive protection

Powerful Recovery Options
- Disk/partition cloning
- Universal restoration

Endpoint Security Blacklisting
- Real-time endpoint protection
- Powered by McAfee Global Threat Intelligence

Product Offerings

Acronis

McAfee™

True Image 2016 Personal	Application Control with ePO	Embedded Control	Integrity Control
31WPSALO16	31WPSMAP01	31WPSMEC01	31WPSMIC01
1 WISE Point (Perpetual)	3 WISE Points (Perpetual)	6 WISE Points (Perpetual)	15 WISE Points (Perpetual)

WISE-PaaS Marketplace

Discovering and Shopping for Your Own IoT Deployments

The WISE-PaaS Marketplace is an online software store that features Advantech's exclusive software services, diverse IoT cloud services, IoT security services, WISE-PaaS IoT software services, and solution packages pre-packaged into Advantech Edge Intelligence Servers (EIS). The WISE-PaaS Marketplace also integrates IoT partners' cloud and software solutions to accelerate the development of tools for upgrading existing systems to the cloud. Customers can subscribe to WISE-PaaS Marketplace services using WISE-Points provided with WISE-PaaS VIP membership packages to obtain cloud-based software solutions that facilitate innovation for the IoT.

Cloud Services

| Azure Cloud Infrastructure | Azure Remote Monitoring | Azure Predict Maintenance | Arm Pelion Device Connector | Arm Pelion Device Provision | Arm Pelion Device Update |

Security Services

| McAfee™ Application Control | McAfee™ Integrity Control | McAfee™ Endpoint Security | Acronis Backup Recovery |

WISE-PaaS IoT Services

| WISE-PaaS/DeviceOn | WISE-PaaS/OTA | WISE-PaaS/Security | WISE-PaaS/EdgeLink | WebAccess/SCADA | WebAccess/HMI | WISE-PaaS/SignageCMS |

Solution Packages

| Device Management | Software Upgrade Deployment | Centralized Security Deployment | Device Management & Security |

Azure   arm PELION   ADVANTECH WISE-PaaS IoT Edge Intelligence   McAfee™   Acronis

Cloud Services	Security Services	WISE-PaaS IoT Services	Solution Packages
Empowered by Microsoft Azure and Arm Pelion Cloud solutions to provide cloud infrastructure and pre-configured services	Integrated with McAfee™ and Acronis solutions for secure data transmissions and centralized management	Diverse mature software platform services for various domain-focused solutions aimed at vertical markets	Pre-configured solution packages featuring cloud, security, and WISE-PaaS IoT services for each domain-focused solution

Service Highlights

Solution Incubation
Diverse WISE-PaaS and WebAccess software and services

Authorized Distribution
Microsoft Azure, Arm Pelion Cloud, McAfee™ and Acronis service sources

Pre-Configured Packages
Integrated cloud, security, and WISE-PaaS software packages that satisfy your needs
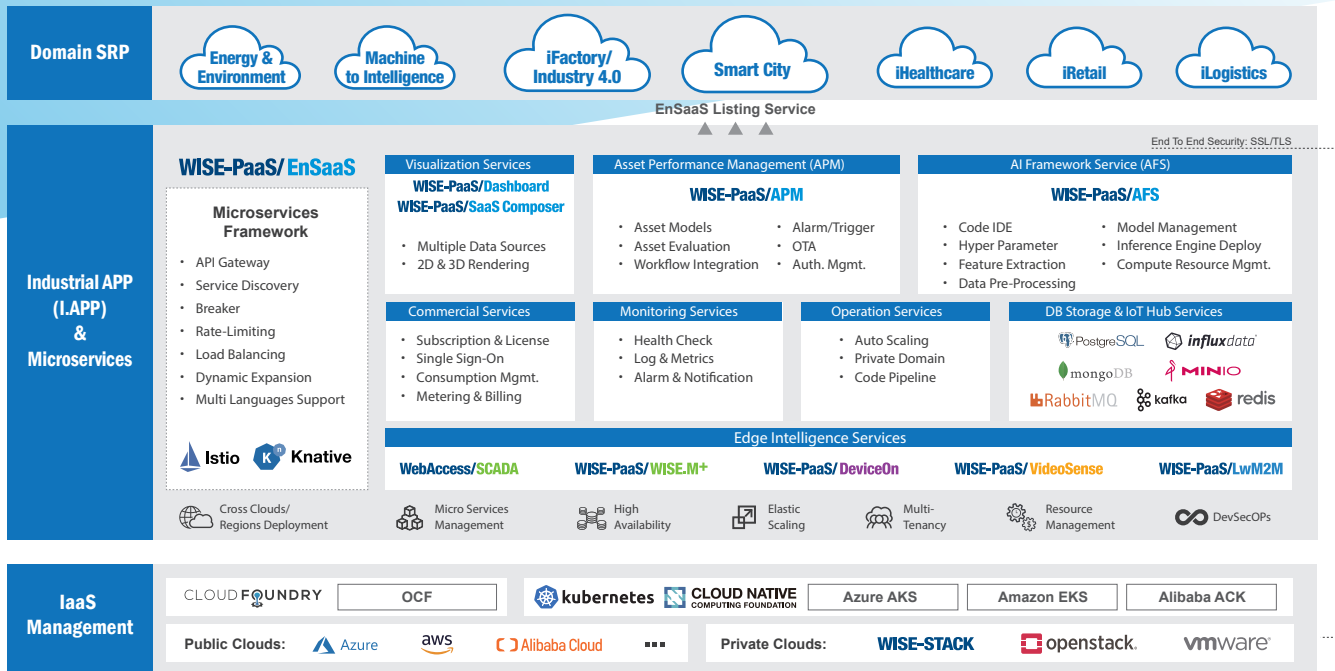
Third-Party PaaS Services
Exclusive domain-focused applications for various vertical markets

Advantech WISE-PaaS Ecosystem

Buy, Deploy, and Customize Your Industrial Software Needs

Advantech's WISE-PaaS ecosystem features a flexible and expandable architecture that facilitates the seamless integration of diverse cloud solutions and solution-ready packages (SRP) offered at the WISE-PaaS Marketplace. Customers who join the WISE-PaaS Alliance, Advantech's IoT partnership program for resolving IoT application challenges, can access the WISE-PaaS Marketplace and select software packages via WISE-Point. Customers can choose from a variety of effective solutions, purchase a standard suite for creating unique solutions, or combine standard and purpose-built packages to customize an IoT solution according to their specific requirements and usage conditions. With WISE-PaaS Marketplace, Advantech provides customers with the tools for easily upgrading from existing systems to a cloud-based infrastructure.

WISE-PaaS 4.0 Architecture with Microservices & I.APP

Domain SRP

| Energy & Environment | Machine to Intelligence | iFactory/ Industry 4.0 | Smart City | iHealthcare | iRetail | iLogistics |

EnSaaS Listing Service

End To End Security: SSL/TLS

Industrial APP (I.APP) & Microservices

WISE-PaaS/EnSaaS

Microservices Framework
- API Gateway
- Service Discovery
- Breaker
- Rate-Limiting
- Load Balancing
- Dynamic Expansion
- Multi Languages Support

Istio   Knative

Visualization Services
WISE-PaaS/Dashboard
WISE-PaaS/SaaS Composer
- Multiple Data Sources
- 2D & 3D Rendering

Asset Performance Management (APM)
WISE-PaaS/APM
- Asset Models
- Asset Evaluation
- Workflow Integration
- Alarm/Trigger
- OTA
- Auth. Mgmt.

AI Framework Service (AFS)
WISE-PaaS/AFS
- Code IDE
- Hyper Parameter
- Feature Extraction
- Data Pre-Processing
- Model Management
- Inference Engine Deploy
- Compute Resource Mgmt.

Commercial Services
- Subscription & License
- Single Sign-On
- Consumption Mgmt.
- Metering & Billing

Monitoring Services
- Health Check
- Log & Metrics
- Alarm & Notification

Operation Services
- Auto Scaling
- Private Domain
- Code Pipeline

DB Storage & IoT Hub Services
PostgreSQL   influxdata
mongoDB   MINIO
RabbitMQ   kafka   redis

Edge Intelligence Services
WebAccess/SCADA   WISE-PaaS/WISE.M+   WISE-PaaS/DeviceOn   WISE-PaaS/VideoSense   WISE-PaaS/LwM2M

Cross Clouds/ Regions Deployment | Micro Services Management | High Availability | Elastic Scaling | Multi-Tenancy | Resource Management | DevSecOPs

IaaS Management

CLOUD FOUNDRY   OCF   kubernetes   CLOUD NATIVE COMPUTING FOUNDATION   Azure AKS   Amazon EKS   Alibaba ACK

Public Clouds: Azure   aws   Alibaba Cloud   •••

Private Clouds: WISE-STACK   openstack   vmware

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WISE-PaaS/DeviceOn Software

WISE-Agent
- Open and standard framework
- Default plugin offering for standard protocols
- Software SDK for legacy support

WISE-PaaS/DeviceOn
- Remote IoT devices operation management
- Automated bringing IoT devices online and control
- OTA software/firmware update at a scale

WISE-PaaS/OTA
- Centralized remote application and firmware updates
- Download and deploy scheduling for planned upgrades
- Support rollbacks

WISE-PaaS/Security
- Centralized security management
- Flexible security modules
- Threat prevention on potential malware in real-time

WISE-PaaS Application and Cloud Software

WebAccess/SCADA
- Web-based configuration and free management for web clients
- Cross-browser dashboard with 40 built-in widgets
- Supports ample protocols and drivers

WebAccess/HMI
- Programmable logic controller (PLC) driver support
- Easily integrate protocols
- Friendly development interface

WISE-PaaS/VideoService
- Supports standard ONVIF IP cameras
- Provides Dash, HLS and RTMP streaming protocol
- Offers RESTful APIs for web/mobile application integration

WISE-PaaS/EnSaaS
- Connect, monitor, and manage millions of IoT assets
- Managed SQL, NoSQL, and time-series databases
- Visualization dashboard for deriving actionable insights

WISE-PaaS VIP Alliance

One Alliance, One Network, Limitless Opportunities

Co-create IoT domain-specific solutions and enjoy business growth through Advantech networking and marketing resources. Advantech has launched the WISE-PaaS Alliance as an IoT partner program designed to connect partners, cultivate joint vertical solutions, and encourage strategic co-marketing. Being a member of the WISE-PaaS Alliance connects partners to diverse IoT resources and provides access to various vertical IoT markets.

Sell to Grow

- Publish I.APP on the Marketplace
- Gain international promotion and orders

Alliance Network

- Attend Advantech IoT Partner Conferences
- Business networking through 1-on-1 meetings
- Co-marketing and case studies

Speed to Market

- Get the best discount for 150+ IoT Solutions
- Instant purchase with one click
- Business consultation and technical training

ADVANTECH
WISE-PaaS
VIP Member

Join VIP

WISE-PaaS VIP Package

Package	Pricing	EIoT P/N	Certified Training & Consulting Service	Business Network & Co-Marketing
Premier	USD 40,000 4,000 WISE Points +1,000 FREE Points	9806WSPA1A	Training for 5 engineers 10-hour consultation	☑
VIP	USD 20,000 2,000 WISE Points	9806WSPA0A	Training for 2 engineers 5-hour consultation	☑
Regular	USD 1,000 100 WISE-Points	9806WSPAP1	N/A	N/A

Power Up IoT Devices with 24/7 Operation Management

Alerts & Action
Update Management
Device Management
Monitoring & Control

WISE-PaaS/ DeviceOn

DeviceOn
IoT Device Management
inside

View Video

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