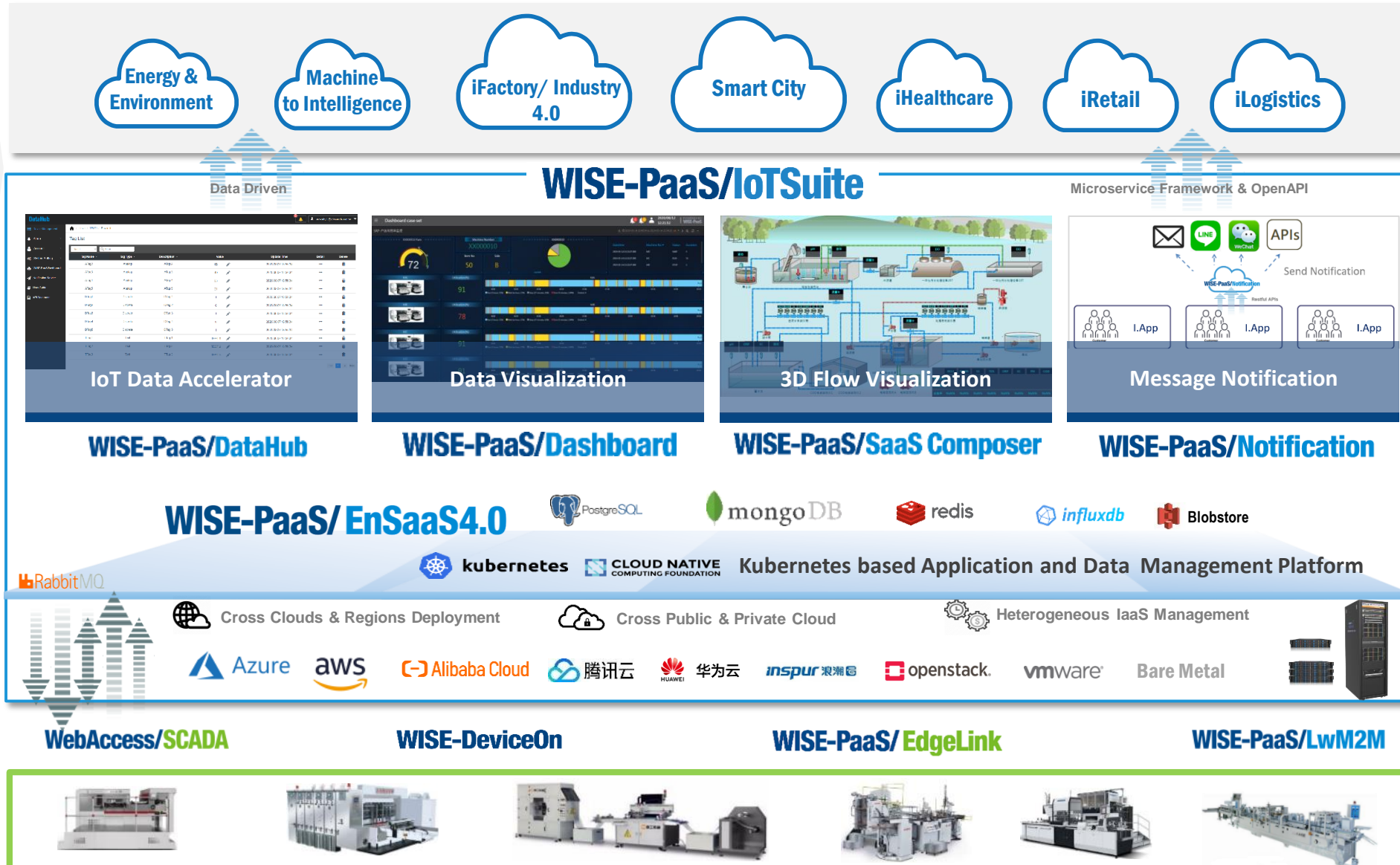


WISE-PaaS/IoTSuite Architecture

One-stop IoT Development Kit and Cloud-Native IoT Platform



Co-Creation Model
Solution provider

Enjoy a flexible ecosystem of off-the-shelf solution



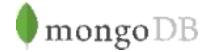
Domain Focused

System integrator

Design and implement services with ease



WISE-PaaS/ EnSaaS4.0



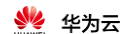
Kubernetes based Application and Data Management Platform



Cross Clouds & Regions Deployment

Cross Public & Private Cloud

Heterogeneous IaaS Management



WebAccess/SCADA

WISE-DeviceOn

WISE-PaaS/ EdgeLink

WISE-PaaS/LwM2M



Equipment Manufacturer

Intelligent collection, control, and visualization anytime, anywhere.

ADVANTECH

WISE-PaaS/IoTSuite Standard Software Service

Data fusion & collaborative management

WISE-PaaS/DataHub

DataHub is a data fusion and collaboration service for time-series data. It covers data acquisition, data aggregation, data monitoring, and alarm notification functions. Application services based on time-series data can be easily established using DataHub. These application services can be applied to IoT scenarios in smart factories, smart cities, or on the Internet of Vehicles quickly.

EnSaaS IoT Hub provides safe and efficient device access and data transmission services. It supports Streaming Text Oriented Message Protocol (STOMP), Message Queue Services protocol (MQTT), and CoAP of UDP protocol. It further supports access to millions of measuring points, millisecond data transmission, edge-to-cloud encrypted data transmission, and access permission control.

Device access & uploading data to the cloud

Applications based on WISE-PaaS/IoTSuite

InsightAPM, AIFS

Additional Subscription

2D&3D low-code data visualization

WISE-PaaS/Dashboard WISE-PaaS/SaaS Composer

Use various dashboard panels to intuitively display, explore, and analyze collected data while viewing statistics from multiple perspectives. When combined with SaaS Composer, the dashboard presents data in real-time, creates virtual application sites, and allows users to conduct data analysis/real scene presentations on the display quickly. It assists users in operation management and decision-making with insights to collected data.

This software delivers notification services via e-mail, LINE, WeChat, and SMS. It supports high concurrency and reliable notification delivery. Similarly, it enables notification group management, notification template management, notification schedule management, and notification record queries. This unified alarm notification process supports alarm notifications from all platforms, applications, and services. It helps users quickly implement full life cycle management programs for alarm notifications.

WISE-PaaS/Notification

Real-time alarm notification service

WISE-PaaS/EnSaaS4.0 Application Platform for Mobile Cloud-Native Microservices

Build industrial IoT platforms everywhere



Computing

Based on Kubernetes, EnSaaS K8s Service delivers a standardized computing resource management solution. This service supports application, multi-tenant workspace, resource, and permission management functionalities. EnSaaS K8s Service is an enterprise-level container cloud platform that enables stable operation of applications as well as easy operation and maintenance.



Storage

Based on Ceph, it provides a reliable auto rebalancing and auto recovery distributed storage system for object storage, block devices, and file systems. This solution relies on powerful replication capabilities to ensure data safety and reliability. In addition, it delivers convenient, flexible, and capable petabyte level data handling with ease.



Database

EnSaaS DB Services is suitable for various industrial applications. It supports PostgreSQL, MongoDB, InfluxDB, Redis, and other database programs. EnSaaS DB Services provides a unified management interface, and supports multi-tenant access control, flexible expansion, and data backup/restore. Additionally, it delivers excellent data safety and reliability.



IAM

SSO provides a unified ID authentication service that allows users to use one account to access all authorized WISE-PaaS services. It fully covers the unified permission management of all platform services including applications, databases, and K8s resources. Additionally, it supports single sign-on and an integrated interface of third-party applications.



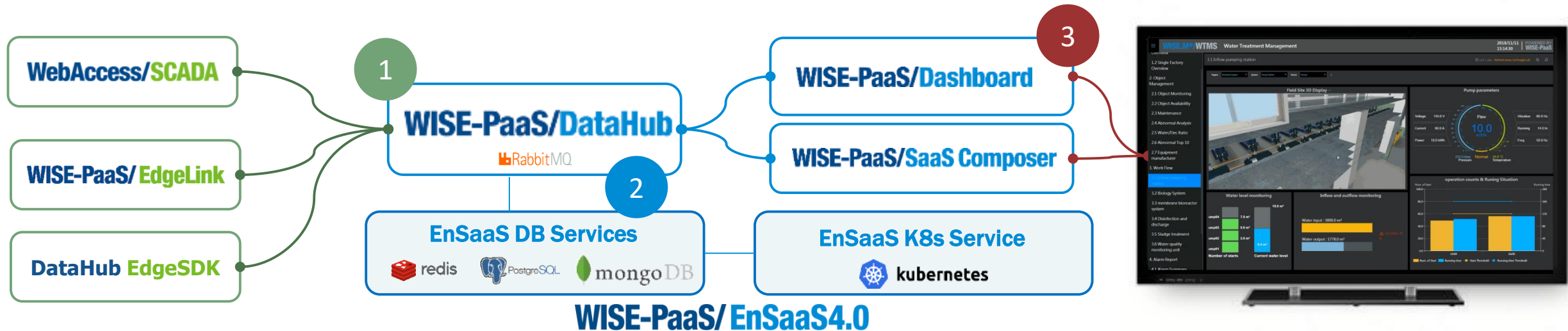
Microservice Management

EnSaaS Service Mesh and Configuration Management supports complete micro-service management functions — including application configuration/key management, service discovery/observability, smart routing, load balancing, automatic fault detection /recovery, authentication/authorization, and message encryption.

Develop & Manage IoT Applications Quickly

WISE-PaaS/IoTSuite 3 Steps to Build IoT Applications Quickly

- ☑ Step 1: Device access and management ☑ Step 2: Data transmission and storage ☑ Step 3: Data visualization



Cloud-Native Platform

☑ Data management

☑ Application management

- Easier for engineers to use
- Build industrial apps faster
- Supports a myriad of devices
- Do everything with one suite
- Enable cloud-edge collaboration
- An open cloud native ecosystem

3 Quick Steps for IoT Applications

Step1



Device access & management

Safe and reliable device connection

The device relies on an issued key to access the platform. It uses SSL/TLS encrypted communication to ensure security and reliability during data transmission.

Easy access and multi-protocol support

Supports numerous cloud protocols. Users can access the platform via a simple configuration. Integrates Advantech's existing edge advantages to achieve a fast connection from the edge to the cloud. Additionally, WebAccess and WISE-PaaS/EdgeLink support many edge devices and data acquisition protocols

Multi-tenant equipment management

Provides excellent equipment management and data acquisition. Supports the management of tens of thousands to millions of nodes at a millisecond data acquisition rate. Provides four levels of data and authority management for engineering, nodes, equipment, and measuring points.

Step2



Data transmission & storage

Stable and scalable data transmission

Supports low latency, high concurrency, and high throughput data uploads. Delivers cloud data, data services, and resource expansion flexibility to ensure simultaneous data transmission stability.

Safe and reliable data storage

Data is enterprises' most valuable asset. Platform data supports high availability and multiple copies to prevent data loss. Additionally, multi-tenant isolation mechanisms ensure data security and strictly manages data access.

Adaptable instant alarms/notifications

Supports user-defined alarm notification rules, alarm query, and alarm processing. Combines several alarm notification services (E-mail, WeChat, DingDing, Line, etc.) to ensure the immediate delivery of notifications.

Step3



Data visualization

Seamless integration of data and applications

Execute uploaded data visualization immediately by configuring data sources. Enable fast data presentation and analysis reports.

Diverse data presentation

Supports common data analysis and statistics. Features more than 50 common industry-specific graphic components and built-in application frameworks to help you quickly create domain data visualization solutions.

2D/3D view of application sites

Enables creation of site 3D models. Recreates on-site circumstances to deliver a sense of presence. Offers real-time view of key indicators. Connects uploaded data to site models for easy visualization and control.

Device Cloud Access and Data Uploading

- Connect the Edge to the Cloud With Ease

1 Connect

Edge SDKs of six mainstream programming languages including C, C#, Python, Java, Go, Node.js support various IoT devices, gateways, and system software. Applicable to various operating systems and hardware environments.

2 Flexible

Provide AI engine functionality via SQL-like syntax to extract, transform and filter data. Supports dozens of functions, and the flexibility to configure AI engine rules according to the application site.



3 Integrate

Rich data aggregation APIs provide functions such as device management, alarm notifications. These are suitable for IoT scenarios such as smart factories or Internet of Vehicles, helping deploy domain applications quickly.

4 Efficient

High-performance data management services support the management of tens of thousands /millions of nodes at millisecond data acquisition rates. These services provide edge-to-cloud data encryption for transmission and access control at device hierarchy.

- ✓ Supports TLS 1.2 encrypted transmission
- ✓ Supports MQTT/AMQP/CoAP
- ✓ Stable performance & expansion flexibility
- ✓ Multi-tenant connection isolation

IoTHub Service

RabbitMQ

kafka



Edge Connectivity / OT Control

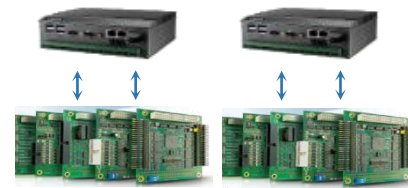
WebAccess/SCADA



WebAccess/CNC



WebAccess/MCM



WISE-PaaS/EdgeLink



WISE-PaaS/DataHub



Advantech's existing edge hardware solutions and data acquisition advantages

ADVANTECH

Low-Code Data Visualization - Fast Data Value Mining

Low-code fast application development

- ✓ No coding — just drag and drop
- ✓ Complete configuration using application framework
- ✓ Rich common and professional dashboard plug-ins

Alarm notifications & data labeling

- ✓ Flexible and configurable alarm rules and frequencies
- ✓ Multiple notification services
- ✓ Data attribute labeling, classification, and query

Reusable dynamic pages

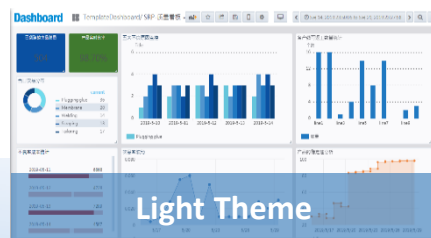
- ✓ Dashboard information changes according to specific variables
- ✓ A single or a group of panels can be dynamically copied according to specific variables

Multi-language support

- ✓ Multilingual query support
- ✓ Multilingual SRP-Frame application development
- ✓ Multi-language differentiated panel configuration

Multi-tenant & multi-level authorization

- ✓ Multi-tenant Org management
- ✓ 2 management dimensions: User & Team
- ✓ Org, Folder, Dashboard authorization control



Multi-device support from 2k, 4k, & 8K high resolution self-adjusting panels on PCs and mobile devices.



Panel Plugins

Graph, Singlestat, Bar Gauge, Control Panel, Work Order, Dash video, Monitor Panel, Patient Card, Funnel Panel, Advanced Datable, Worldmap Card Panel, APM Work Order

70+ display plug-ins

Data Source Plugins

Influxdb, PostgreSQL, MySQL, MS SQL Server, SimpleJson/Datahub, SimpleJson/InsightAPM, SimpleJson/DeviceOn, SimpleJson/WebAccess

40+ data source plug-ins

Commonly used database or resource monitoring services

Prometheus, Microsoft SQL Server, influxdb, OPENTSOB, ZABBIX, elasticsearch, PostgreSQL, MySQL, graphite

WISE-PaaS platform seamless data integration

WISE-PaaS/DataHub, WISE-PaaS/AIFS, iFactory/OEE, WISE-PaaS/InsightAPM, WISE-DeviceOn, iFactory/FEMS

Edge data acquisition monitoring services

WebAccess

Data source service or API

WISE-PaaS/SaaS Composer

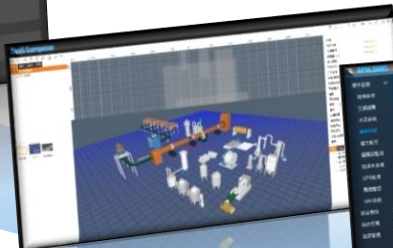
Low-code Cloud-based Graphical Control Tool



Accelerating Multi-industry Applications



User Management



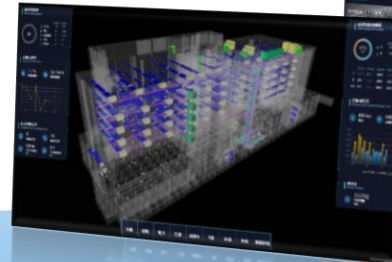
2D & 3D Editor



2D presentation



3D presentation



Building Information Modeling



Integrated video service streaming



Integration with WISE-PaaS/Dashboard

WISE-PaaS data platform

WISE-PaaS/EnSaaS4.0

WISE-PaaS/InsightAPM WISE-PaaS/DataHub
 WISE-DeviceOn WISE-PaaS/VideoService

Data Source



Equipment data acquisition

WebAccess/SCADA

WISE-DeviceOn

WISE-PaaS/VideoService

Edge devices



ADVANTECH

2D/3D Fusion View – Insight for Your Operation

The combination of dashboard and SaaS Composer plug-in embeds the SaaS Composer windows into the dashboard. Use the various dashboard panels to visually display, explore, and analyze data. View statistics from multiple angles and present the combination of dashboard and SaaS Composer in real-time to render a virtual application site. This solution allows users to access data analysis and real scene presentation on the display quickly. Users can benefit from the insights presented by the augmented operation data visualization to achieve better decision-making.

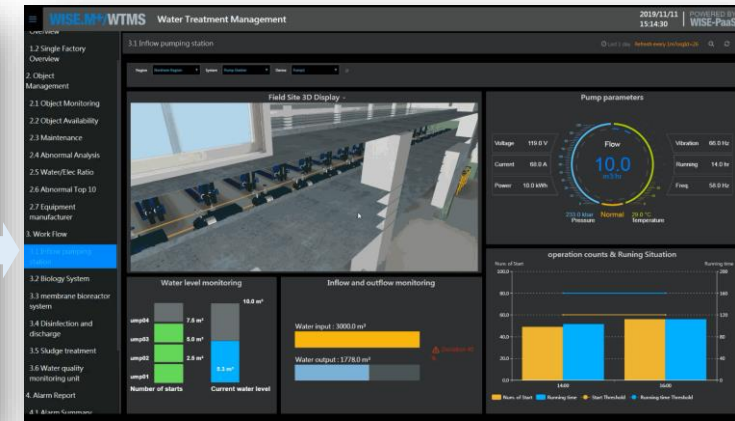
WISE-PaaS/Dashboard



WISE-PaaS/SaaS Composer



Integration Result



- Big screen situation room, reports, and mobile reports
- Easily expandable plug-in interface
- No coding required — simply drag and drop
- Common and pro dashboards for diverse industries
- Supports platform data, multiple database software, and commonly used statistic functionalities
- Access to iframe framework services

- 100% user-defined graphics presentation for different applications
- Improves users' situational awareness
- Supports standard JavaScript, logical analysis, and processing on object properties
- Supports iframe web page with embedded video function
- Refresh screens in milliseconds
- Intuitive data binding
- Anti-picture distortion

Application & Data Management - The Cornerstones of IoT Innovation

01

EnSaaS K8s Service - Application Management Service



Ready to use out-of-the-box micro-services frameworks helps customers focus on domain applications

Based on Kubernetes, EnSaaS K8s Service provides a ready to use out-of-the-box application and micro-service framework management solution. This solution enables the use of micro-services — these include: routing/API management, service discovery, load balancing/flexibility, centralized monitoring/alerts, and centralized log management — in production, testing, and development environments. Micro-service management functions — such as scaling, centralized monitoring/alerts, and centralized log management — can be linked with WISE-Marketplace to complete the automated subscription and deployment of applications.



Enterprise-level container management platform & innovative cloud-native application development

EnSaaS K8s Service delivers cloud container management aimed at helping enterprises to easily deploy and manage containers via an intuitive user interface. Users with no prior experience can start using K8s quickly. Its easy to use interface greatly reduces barriers to entry and accelerates application development.



Multi-level workspace helps companies manage authorizations and resources easily

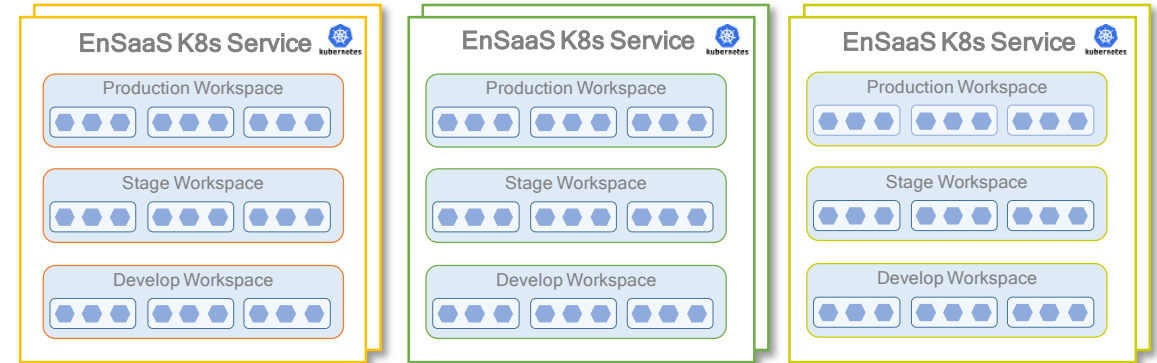
EnSaaS K8s Service provides a variety of workspaces completely isolated from access permissions. This helps SI's and IT managers to easily manage workspace access permission and resource quotas for different user groups.



Consistent infrastructure management enables one-time development for multiple deployments

EnSaaS K8s Service incorporates different K8s services provided by different IaaS providers. It encapsulates the differences between public and private clouds, and supports one-time app development for multi-cloud deployment. Likewise, it supports centralized management for multiple clouds and clusters.

Multi-level multi-tenant space enables stable operation and easy maintenance



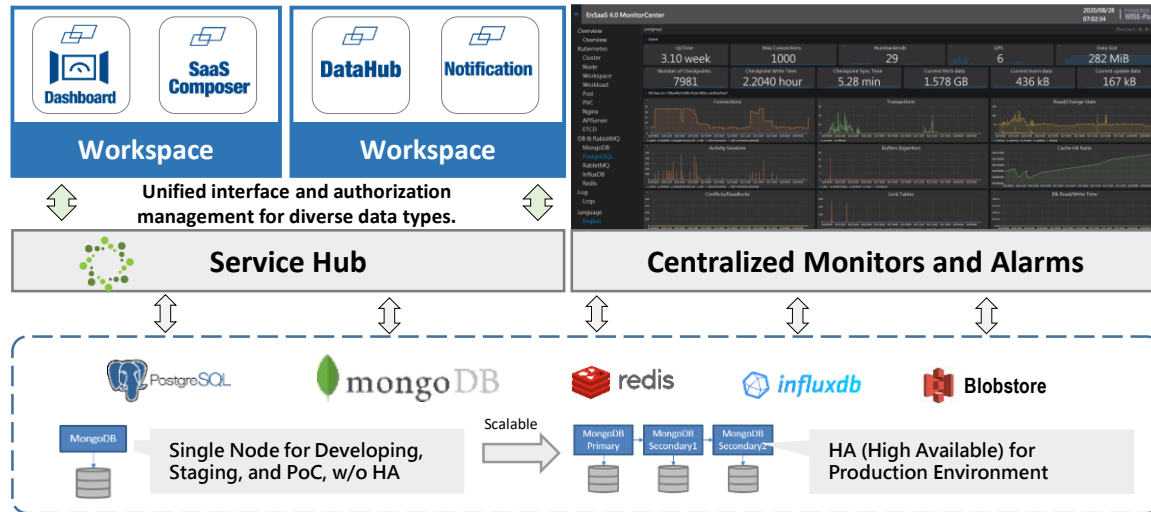
EnSaaS Management Portal – Application Management Console

The screenshot displays the EnSaaS Management Portal interface. At the top, there's a navigation bar with 'Billing', 'Order', and 'Tickets'. The main content area shows a 'Workspaces' section for the 'slave04' cluster. A table lists the details of active workspaces:

Status	Name	Namespaces	Update Time (GMT+8)	CPU (Core) Request/Limit	CPU (Core) Usage	Memory (Mi) Request/Limit	Memory (Mi) Usage	RootFS (Mi)
Active	afs	3	2020/1/14 10:46:20	85.00% / 85.00%	1.50% / 2.00%	53.13% / 53.13%	26.69% / 2186.83 / 8192.00	221.15 / 10240.00
Active	scada	2	2019/12/26 14:58:29	25.00% / 51.67%	0.33% / 6.00%	36.47% / 66.67%	7.24% / 444.88 / 6144.00	4.04 / 24576.00
Active	se	2	2019/12/26 21:58:52	60.00% / 60.00%	0.00% / 0.50%	6.25% / 6.25%	2.23% / 45.76 / 2048.00	0.09 / 1024.00

Application & Data Management - The Cornerstones of IoT Innovation

A selection of data storage services suitable for diverse industrial applications.
All-around management features enable easy maintenance



EnSaaS Management Portal – Data Management Console

Status	Instance Name	Instance ID	Service Name	Plan	Creation Time	Action
Active	redis-appyay	4e4427dd-b077-4702-b23f-3fc2da3e98cc	Redis	Containerized	8/21/2020 11:35:23	[Action]
Active	postgresql-datahub	fc5bee64-5f60-11ea-9e0c-666e7521b4c4	PostgreSQL	Shared	3/6/2020 21:47:14	[Action]
Active	postgresql-dashboard	7f5a7a21-5f60-11ea-9e0c-666e7521b4c4	PostgreSQL	Shared	3/6/2020 21:43:44	[Action]
Active	redis-production	09e1442e-5196-4afc-8370-f9b99a58dc2	Redis	Containerized	4/13/2020 18:06:01	[Action]
Active	MongoDB-Pro	f1c57d87-b201-45f1-8562-72ee3d9b68f4	MongoDB	Shared	4/14/2020 16:23:37	[Action]
Active	PostgreSQL-Dedicated-aria	c1852808-9ca2-4ce3-a264-c0b4268207c	PostgreSQL	Dedicated-Single-Small	4/21/2020 15:55:25	[Action]
Active	RabbitMQ-android	7737d81e-6a65-479b-a0a1-07a32d10132	RabbitMQ	standard	4/3/2020 15:05:24	[Action]
Active	MongoDB-Dedicated-aria	28c05518-ae68-4425-bd35-79e99f437f0	MongoDB	Dedicated-Single-Small	4/21/2020 16:00:04	[Action]
Active	PostgreSQL-android	c13e6655-8da9-4211-9e37-431afa9e3418	PostgreSQL	Shared	4/3/2020 15:03:48	[Action]

EnSaaS DB Service – Data Management Services

02



Rich database support

To meet the needs of different types of IoT data storage requirements, EnSaaS DB Service provides PostgreSQL, MongoDB, InfluxDB, and other database services. It helps customers build industrial applications quickly. Additionally, EnSaaS DB Service enables flexible resource expansion and high usability.



Secure access key management

EnSaaS DB Service provides key management functions for connecting to data storage instances. This ensures the management of keys — including creation, viewing, and deleting — and can automatically inject keys into application deployment workspaces. This facilitates a consistent interface and fast connection to multiple data storage instances to support industrial applications. It simultaneously ensures data security, yielding an excellent adaptable solution.



Convenient operation interface

EnSaaS DB Service delivers a convenient and interactive interface management system. Users can complete the management of all data storage services via a set of user interfaces — including the creation/deletion of instances and keys. EnSaaS DB services simultaneously integrates WISE-PaaS/SSO to enable unified identity authentication for applications, data, and platforms. Users can enjoy convenient single sign-on functionality while having guaranteed data access management security.



Comprehensive real-time monitoring

EnSaaS DB Service delivers real-time database instances monitoring. The monitoring dashboard allows users to intuitively understand the health status and real-time usage of database instances. In the event of an abnormality, it can be combined with WISE-PaaS/Notification services to deliver real-time alerts.

WISE-PaaS/SSO Single Account With Access To All Platform Services

Features



Unified ID management

Consistent user ID and permission management, including application permissions, data permissions, and K8s RBAC, achieving unified coverage in multiple business scenarios



Single sign-on (SSO)

Promptly authenticating and accessing all authorized systems all at once with single username and password — including applications, data, and platforms



Security

Secure JWT user token
Users' passwords are encrypted with MD5 + salt



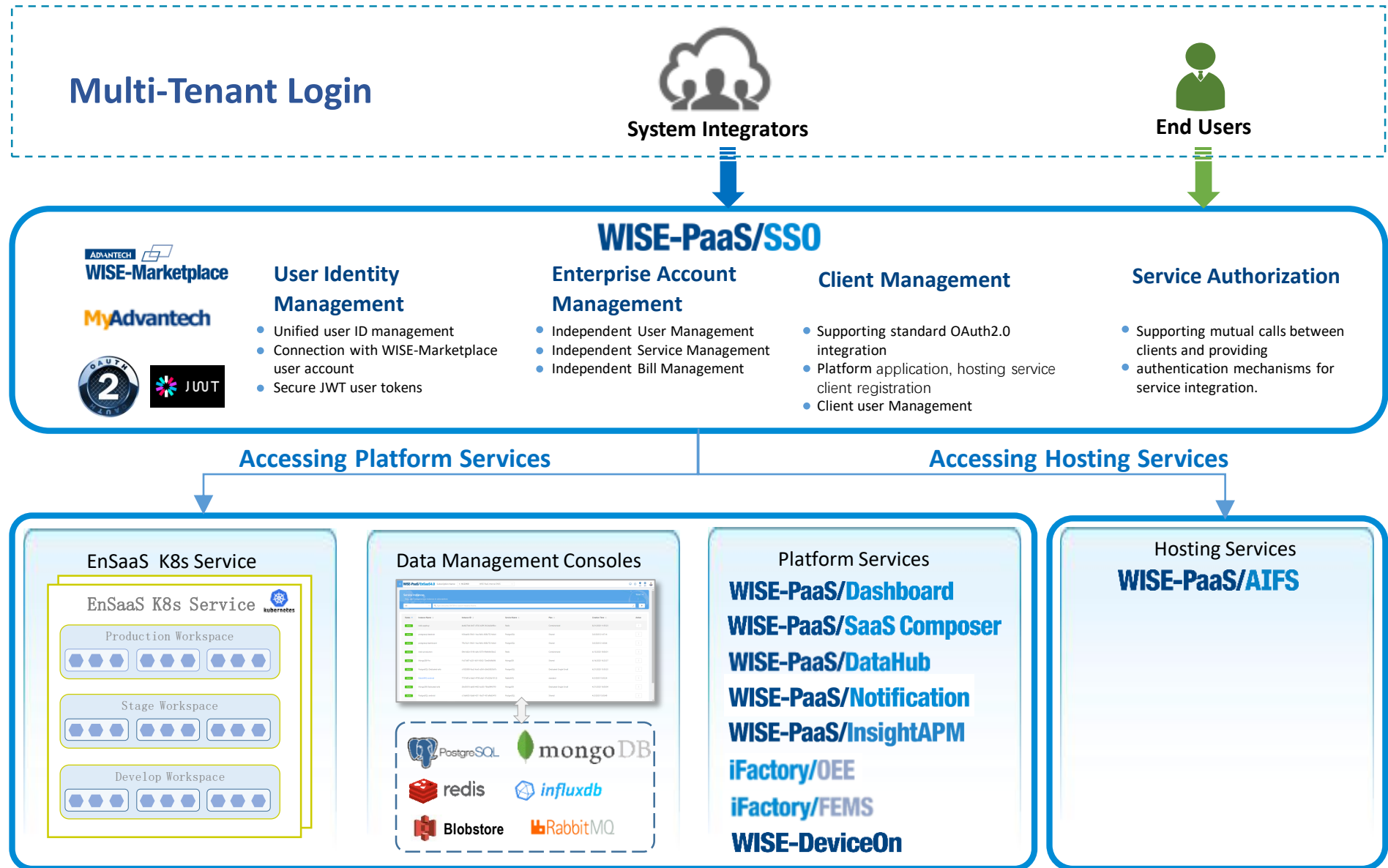
Transparent audit

Detailedly recording all key operations of enterprise accounts, subscriptions, users, and clients, and providing queries for easy audit and traceability



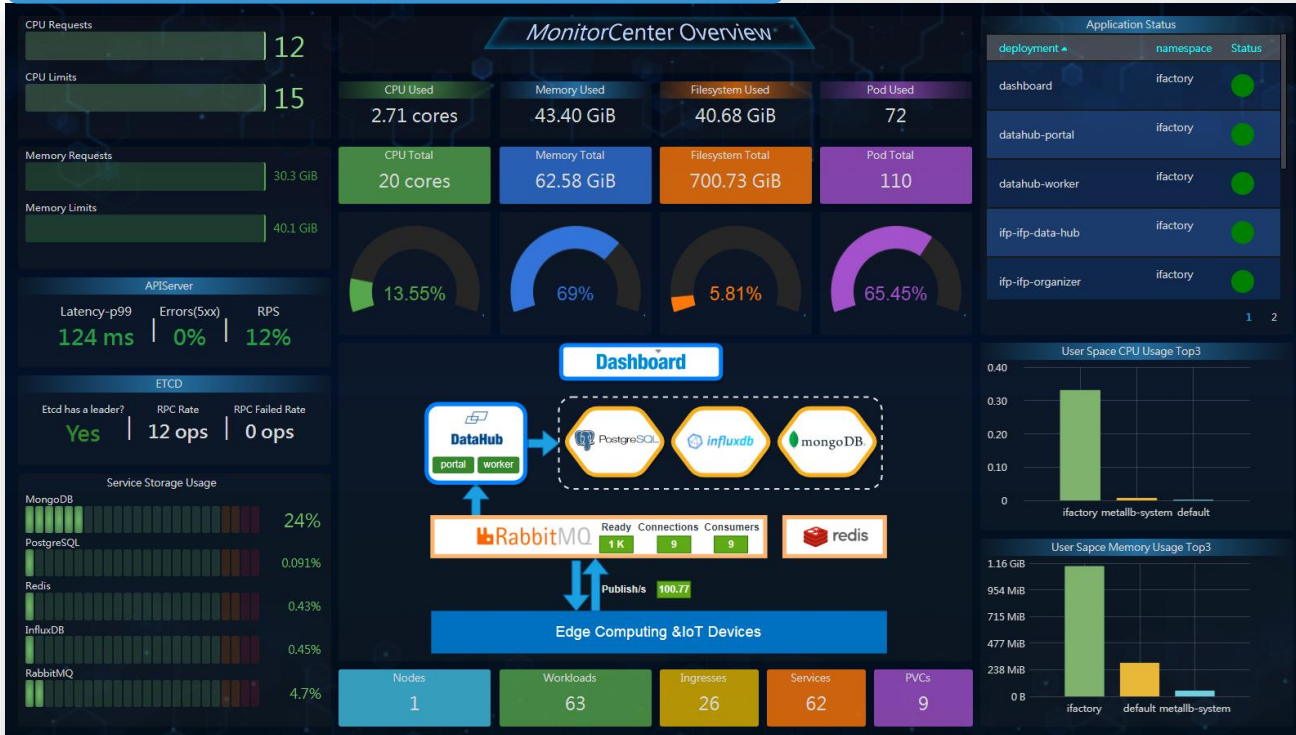
Flexible integration

Supporting front-end direct integration, back-end API integration, OAuth2.0 standard integration

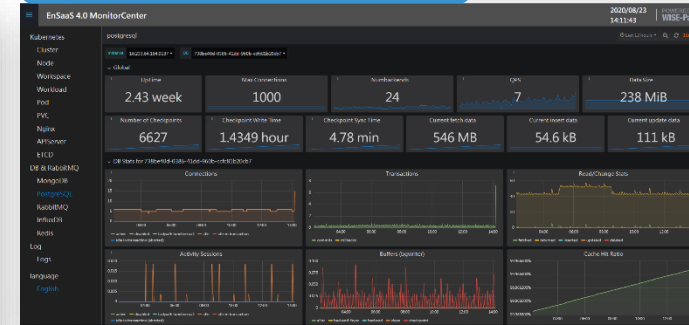


EnSaaS Integrated Real-Time Monitoring and Control

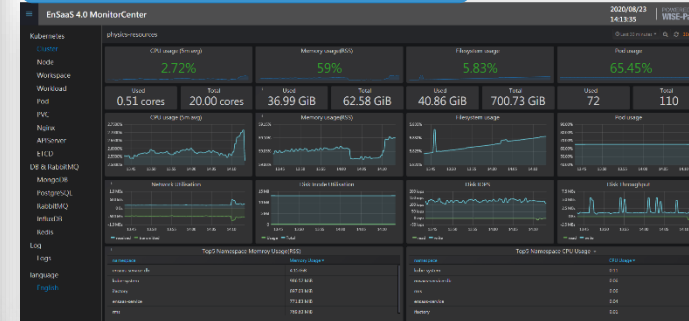
Platform service monitoring overview



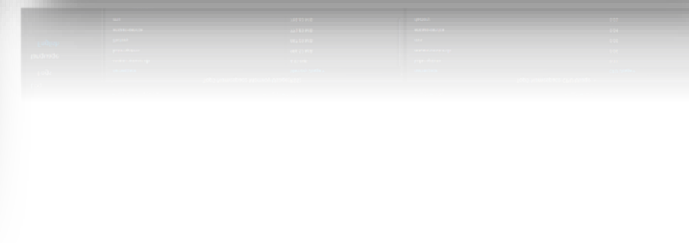
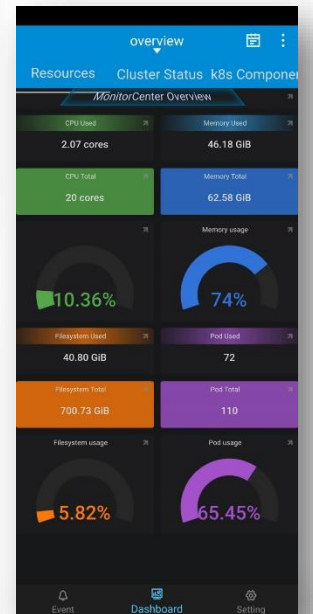
Database monitoring



Resource monitoring



Mobile App



EnSaaS Catalog – Cloud & Edge Collaborative Deployment & Operation

Cloud Edge Collaboration

EnSaaS has cloud and edge collaborative deployment and application operation capabilities. It supports application deployment on public/private clouds and edge smart nodes based on EnSaaS architecture.

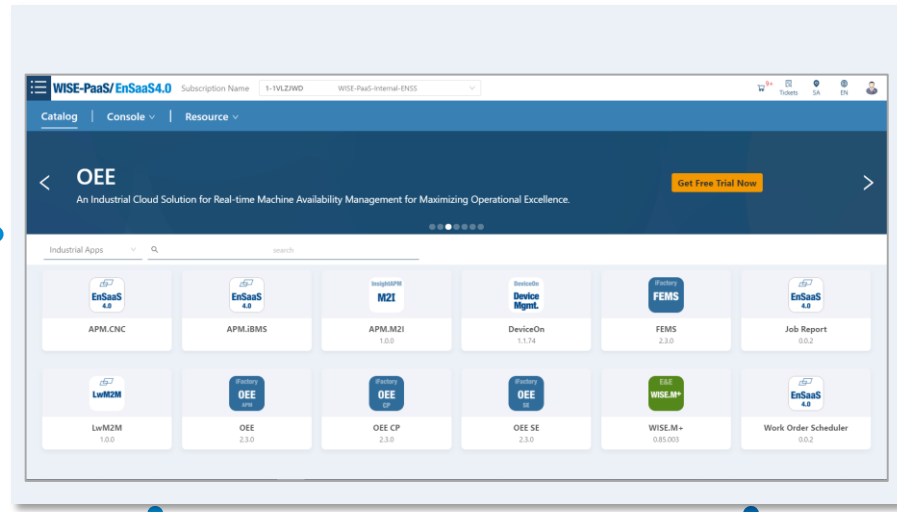


Authorization Center

EnSaaS License Service aids in the management of application authorization keys. It supports the online authorization of cloud applications, as well as the online subscription and offline activation of edge applications.

Service Catalog

EnSaaS Catalog is a service catalog based on EnSaaS architecture. It provides back-end support for applications based on the EnSaaS architecture on WISE-Marketplace.



Expense Center

EnSaaS Billing Center is a user interface that enables enterprise users to view bills in real time. It is connected to the WISE-Marketplace billing system, and supports independent billing management for varied enterprise account subscriptions.

Subscription Center

EnSaaS Subscription Center manages online subscription services from the EnSaaS service catalog. These include subscribe, upgrade, unsubscribe, and renewal service instances. In sum, it is a comprehensive life cycle management solution.

The cloud and edge applications described on this page refer to applications developed according to the EnSaaS architecture

One-time Development, Multiple Deployments, and Unified Operation

On-line Work Order

EnSaaS Work Order System is an online work order system. Using this system, subscribers of EnSaaS cloud and edge products can create work orders for diverse issues as they arise.

WISE-PaaS/IoTSuite Applied Industries

WISE-PaaS/IoTSuite

Accelerates Enterprise Digital Transformation



Smart Retail



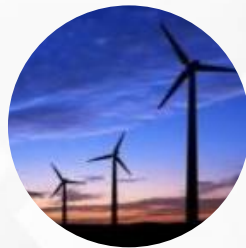
Smart Car Park



iHealthcare



Vehicle Test Center



Windmill Farm Management



Test Chamber Mgmt.



Smart Steel Mill



Smart Factory OEE Real-time Monitoring



Smart Agriculture

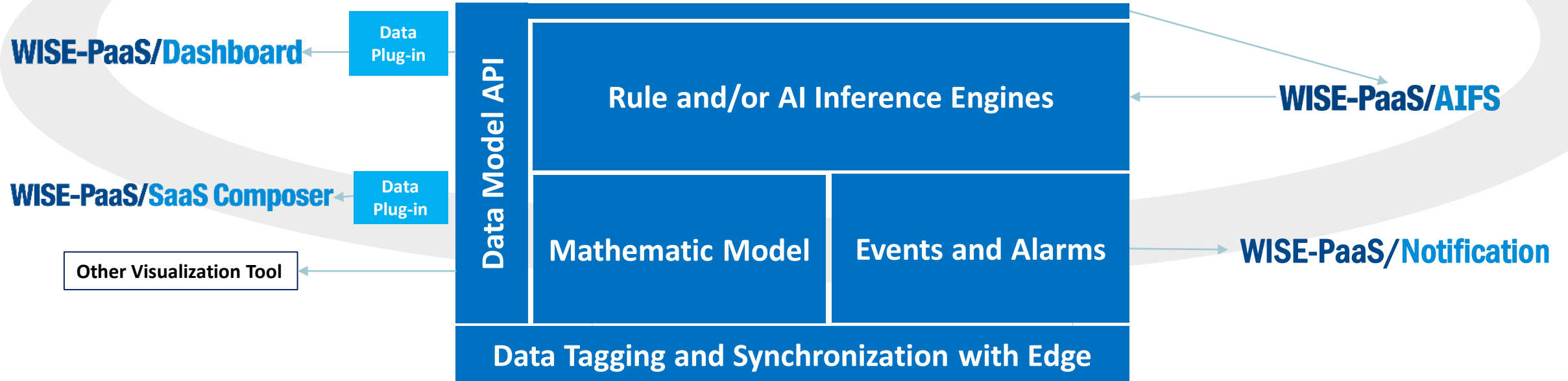
- › This one-stop low-code development kit provides enterprises with the ability to build end-to-end solutions. It helps them implement device networking and cloud data acquisition quickly.
- › Similarly, the data center builds data-driven business capabilities. This helps them accelerate their digital strategies.
- › This cloud-native platform fuels enterprise technological transformation and innovation. Additionally, It helps enterprises hasten application delivery.

Additional Service can be superimposed WISE-PaaS/InsightAPM



Digital Twins

WISE-PaaS/InsightAPM



WISE-PaaS/EnSaaS4.0

Scalable Data Platform with Microservices Framework

WebAccess/SCADA

WISE-PaaS/WISE.M+

WISE-PaaS/DeviceOn

WISE-PaaS/VideoSense

WISE-PaaS/LwM2M

Connected OT assets



ADVANTECH

WISE-PaaS/AIFS (AI Framework Service) Architecture

One-stop AI management center for resource management, development, model training, deployment, retraining and redeployment

Smart Building

Smart Manufacturing

Smart Healthcare

Smart Education

6. Life Cycle Management

AI Platform (Cloud)

2. Data

Data Fusion Mgmt.



3. Teams

Collaborative Development
JupyterLab
Code upload



AI Development Service

Data process
Feature Extraction
Data labeling (AIAA)

Model management
Model performance
Model encryption

Model Catalog
Model releasing
Model subscription



4. Algorithms

Concurrent task Mgmt.
Multi-model retraining
Hyperparameters

1. Compute

Cluster management

Add & delete nodes
Node resource monitoring



AI Resource Management

Computing resource Mgmt.

On-demand resources Dev.
Resource scheduling Mgmt.

GPU

AI framework container Mgmt.



Authorization & pricing Mgmt.

Resource authorization deployment
Pricing management for resource usage

Public Clouds: Azure aws 阿里云 ...

Private Clouds: WISE-STACK openstack. vmware

GPU Server

5. Mass Deployment at Edge

Inference engine deployment

Restful API

Cloud reasoning & Edge reasoning

Container Runtime :



Model deployment

Model and file deployment update

Model deployment rule engine

Operating System:



WISE-DeviceOn

WISE-PaaS/OTA2.0

Edge Intelligence (Inference)



WISE-PaaS/IoTSuite S Enterprise Exclusive Cloud

WISE-PaaS/IoTSuite S is a customized exclusive industrial IoT cloud platform for enterprises. It incorporates compatible certified server stacks and deploys them on private networks to create an integrated industrial IoT cloud platform. Additionally, it can be deployed on an enterprises' virtual network established in public clouds — such as Azure, AWS, and Alibaba Cloud. When deployed in an enterprise's data center via OpenStack and VMWare, it yields an exclusive industrial IoT application cloud/industrial cloud. Advantech's WISE-PaaS/IoTSuite enables the centralized management of multiple WISE-PaaS/IoTSuite E intelligent edge platforms deployed on networks and clouds. In summary, this solution delivers integrated management and cloud-side collaboration.

What is WISE-PaaS/IoTSuite

WISE-PaaS/IoTSuite is the cornerstone of industrial IoT applications. It covers a set of development kits which enable the rapid development of industrial IoT applications, as well as cloud-native applications, and data management platforms. A complete IoT platform can be built quickly through a low-code development kit. This kit uses a three step process — device access and management, data acquisition and storage, and data visualization. Users of cloud-native applications and data management platforms simply focus on business innovations while improving efficiency/security, reducing costs, and implementing agile application development and platform operations. By using WISE-PaaS/IoTSuite and overlaying industry applications with a micro-service architecture, users can build domain focused solutions for industry clouds. WISE-PaaS/IoTSuite covers a series of cloud-side collaboration products such as Cloud(C), Stack(S) and Edge(E).



WISE-PaaS/IoTSuite C Self-Operated Public Cloud



WISE-PaaS/IoTSuite C is a set of WISE-PaaS/IoTSuite industrial IoT application development kits provided by the public cloud data center of WISE-PaaS 4.0 cloud platform. It includes WISE-PaaS/Dashboard, WISE-PaaS/SaaS Composer, WISE-PaaS/DataHub, WISE-PaaS/Notification, EnSaaS K8s Service, EnSaaS DB Service, and EnSaaS IoT Hub. WISE-PaaS/IoTSuite@Cloud helps enterprises accelerate their digital transformation.



WISE-PaaS/IoTSuite E Edge Intelligence All-in-one Solution



WISE-PaaS/IoTSuite E is an industrial IoT intelligent edge platform based on Kubernetes and Bare Metal Architecture deployment. It is deployed on enterprises' private networks using a certified compatible server. WISE-PaaS/IoTSuite cloud is fully compatible with cloud/edge platform architectures and extends cloud native capabilities to the edge. It provides complete device access, edge computing, and cloud-side collaboration capabilities to create a one-stop integrated cloud solution for enterprises.



WISE-PaaS/EnSaaS4.0 Enterprise-level IoT PaaS

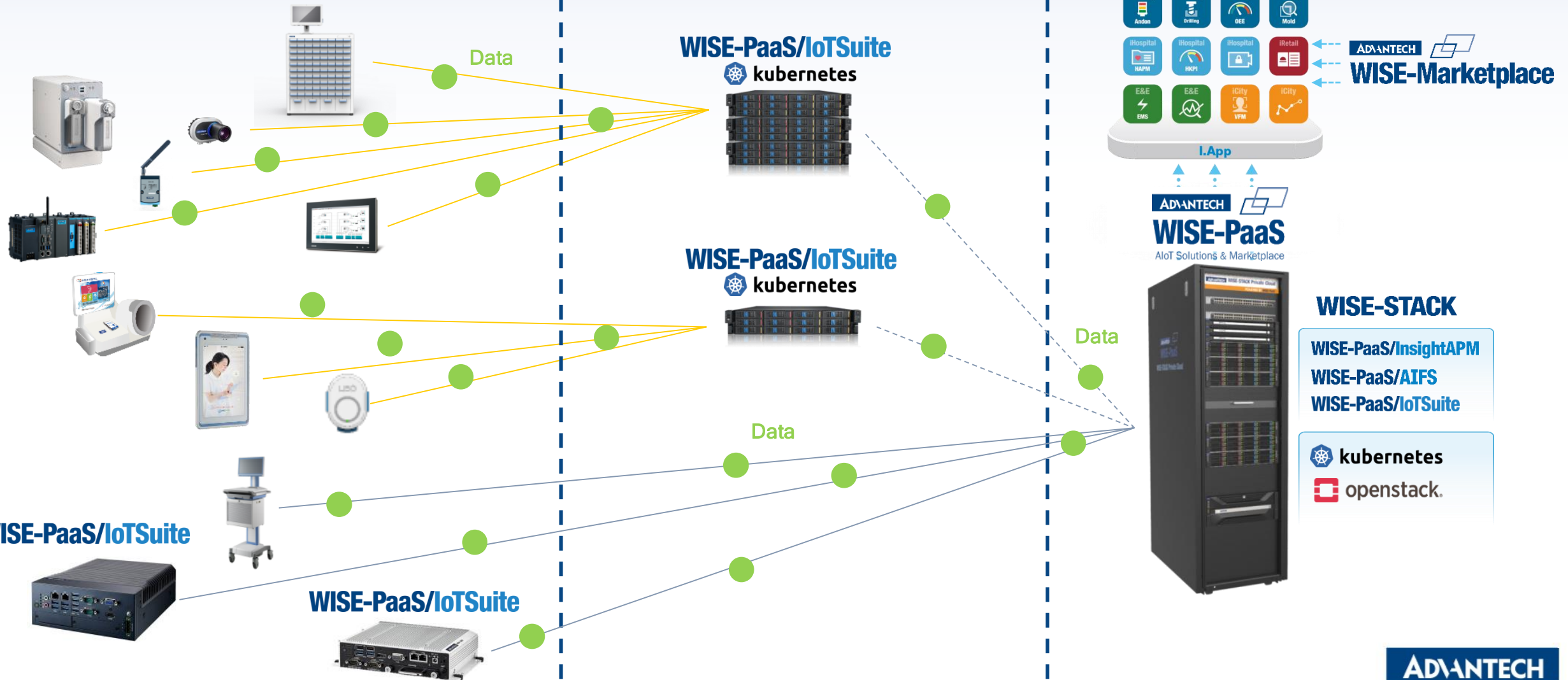
WISE-PaaS/EnSaaS is the core technology for applications and data services on the WISE-PaaS industrial IoT cloud platform. EnSaaS K8s Service provides application, workspace, resource, and micro-service management services frameworks to users. Additionally, EnSaaS DB Service provides the multi-metadata storage services needed for building industrial applications. The EnSaaS Catalog Service is linked to WISE-Marketplace to provide enterprise users with a business operation platform for industrial IoT solutions. EnSaaS is committed to the integrated management of cloud and edge solutions.

WISE-PaaS/IoTSuite - Cloud Native Technologies Empower Cloud-Side Integration

Device Edge

Infrastructure Edge

Centralized Data Center



WISE-PaaS/IoTSuite Hybrid Cloud Architecture

One-Time Development, Multiple Deployments, and Unified Operation

- WISE-STACK 200, is a single-scenario data center that features a light weight and highly usable and expandable secured design
- WISE-STACK 300 supports deployment in multiple scenarios and complete cabinets
- WISE-STACK 600, GPU accelerated AI analysis and applications for large-scale industrial IoT cloud platform environments



- Software and hardware integrated solution
- Single scenario edge computing node
- Supports deployment on private enterprise networks
- Lightweight, secured, low cost, and low latency
- Supports cloud-side collaboration

WISE-PaaS/IoTSuite S Series
WISE-STACK Private Cloud

WISE-PaaS/IoTSuite E Series
 Edge Intelligence All-in-One Solution

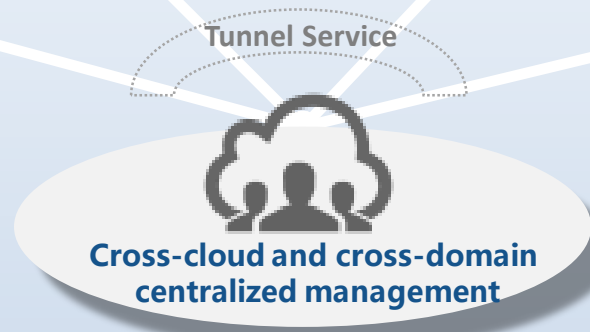


WISE-PaaS/IoTSuite S Series
 Enterprise Exclusive Cloud

WISE-PaaS/IoTSuite C Series service plans
 Self-Operated Public Cloud

- Deployed on an enterprise exclusive cloud platforms
- Supports deployment based on OpenStack or VMware
- Supports deployment based on enterprise public clouds by private accounts
- Supports Azure, AWS, Alibaba Cloud, Tencent Cloud, and Huawei Cloud, etc.

- Advantech self-operated data center
- Launched in four major regions
 - Azure @ Singapore
 - Alibaba Cloud @ Hangzhou
 - IIJ @ Tokyo
 - TWCC @ Taiwan



WISE-Marketplace x WISE-PaaS/EnSaaS4.0

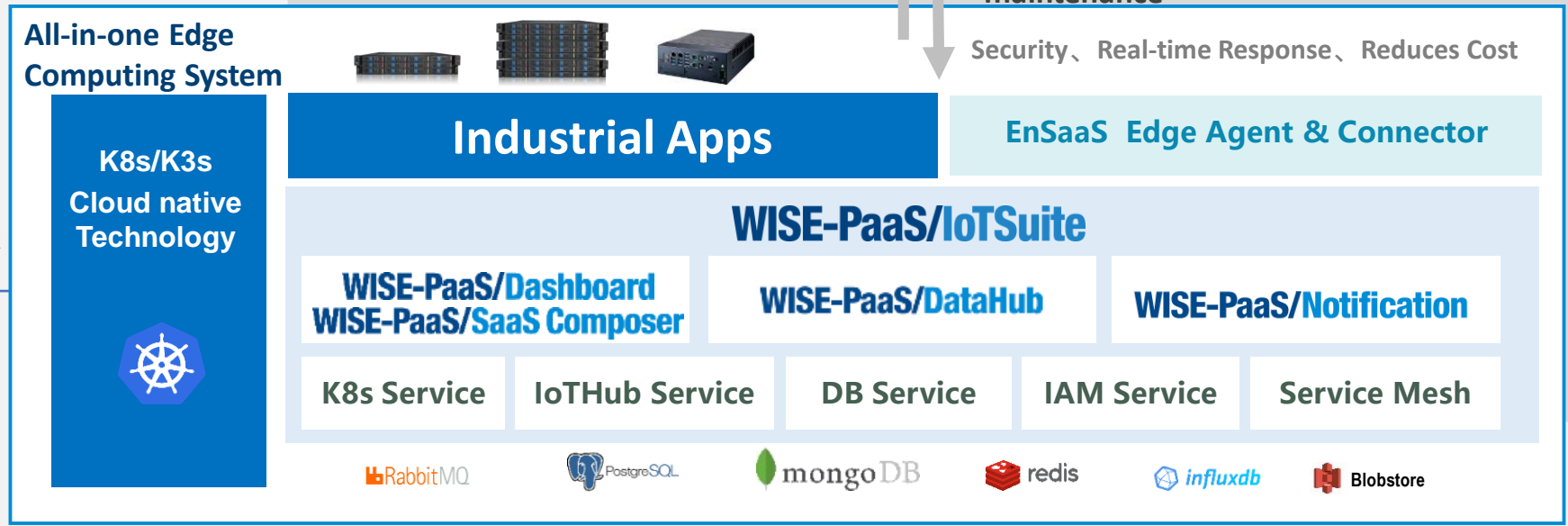
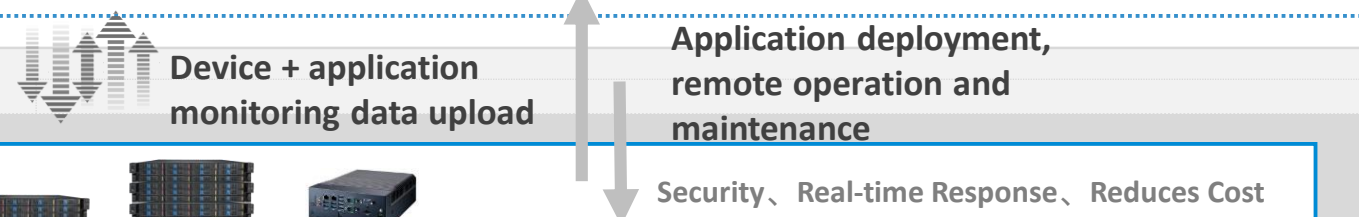
WISE-PaaS/EnSaaS — Centralized Collaboration Management for the Cloud, Edge, and Node

WISE-PaaS/EnSaaS4.0



kubernetes

Central Cloud



Device



K8s/K3s
Cloud native
Technology



Co-Creating the Future of the IoT World

