

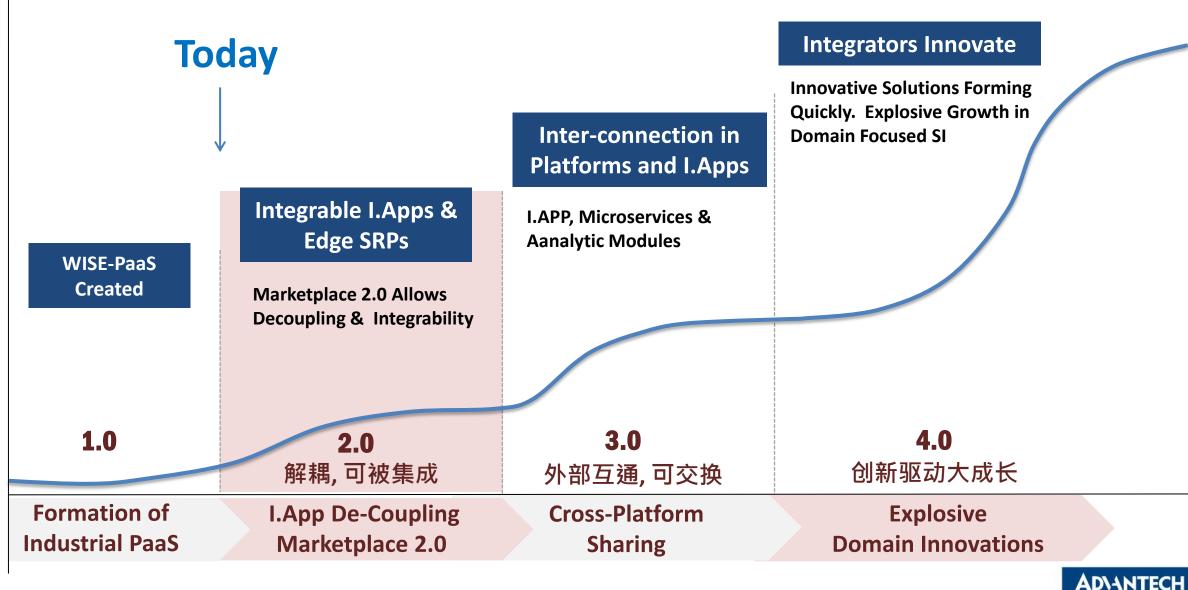
Digital Transformation with WISE-PaaS AloT Services and Marketplace 2.0

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Dec. 12th, 2019



Industrial IoT Platform Evolution Path from 1.0 to 4.0



AloT Ecosystem and WISE-PaaS Marketplace 2.0



WISE-PaaS
Marketplace 2.0

ADVANTECH

I.APP & Solutions Portfolio on Marketplace 2.0

I.APP:

Product Family	Product Name	PM	Marketing
Android DM	Android DM	Jianfeng.Dai	
iFactory	Mobile OEE	Phoenix	
iFactory	Mobile FEMS	Phoenix	
iHospital	iOutpatient >> Hospital Queuing Service	HS.Su	Claire.Tai
Stratus	Stratus	Albert.Wang	
VisionNavi	VisionNavi	Neil.Chen	
WebAccess/HMI	WebAccess/HMI	Wilson.Dai	Gennie.Chao
WebAccess/SCADA	WebAccess/SCADA	Jacksc.Yang	Gennie.Chao
WISE-PaaS WISE.M+	WISE-PaaS WISE.M+	LF.Chang	Gennie.Chao
WISE-PaaS/AFS	AFS.AOI	Jamie.su	Gail.Chen
WISE-PaaS/AFS	AFS.PQA	Michael.Chuang	Gail.Chen
WISE-PaaS/AFS	AFS.PHM	Ali.Chang	Gail.Chen
WISE-PaaS/AFS	AFS	Jamie.su	Gail.Chen
WISE-PaaS/APM	APM.IBMS	Ben.Shiue	Gail.Chen
WISE-PaaS/APM	APM Stnadard	Jamie.su	Gail.Chen
WISE-PaaS/APM	APM Advanced	Jamie.su	Gail.Chen
WISE-PaaS/APM	APM.CNC	Ben.Shiue	Gail.Chen
WISE-PaaS/APM	APM Managed	Jamie.su	Gail.Chen
WISE-PaaS/Dashboard	Dashboard	Tingting.Ning	
WISE-PaaS/Dashboard	Dashboard Mobile	Tingting.Ning	
WISE-PaaS/DeviceOn	WISE-PaaS/DeviceOn	Rison.Yeh	Lina.Liu
WISE-PaaS/EdgeLink	WISE-PaaS/EdgeLink	LF.Chang	Gennie.Chao
WISE-PaaS/EnSaaS	WISE-PaaS/EnSaaS	Kang.Ning	Gail.Chen
WISE-PaaS/LwM2M	WISE-PaaS/LwM2M	Oz.Chen	Gail.Chen
WISE-PaaS/Notification	WISE-PaaS/Notification	StevenHY.Li	Gail.Chen
WISE-PaaS/OTA	WISE-PaaS/OTA	Wei.Gang	Gail.Chen
WISE-PaaS/OTA	WISE-PaaS/OTA	Weigan	
WISE-PaaS/RTLS	OR	Ping.Huang	Fion.Liu
WISE-PaaS/RTLS	iWard	Ping.Huang	Fion.Liu
WISE-PaaS/SaaS Composer	WISE-PaaS/SaaS Composer	Ray.Lee	Gail.Chen
WISE-PaaS/SCADA	WISE-PaaS/SCADA	StevenHY.Li	Gail.Chen
WISE-PaaS/Video Services	WISE-PaaS/Video Services	Ray.Lee	Gail.Chen
WISE-PaaS/VideoSense	SignageCMS	HS.Su	Fion.Liu
WISE-PaaS/VideoSense	Store BI >> People Counting	HS.Su	Fion.Liu
WISE-PaaS/VideoSense	Facial Recognition	HS.Su	Fion.Liu

Solutions:

Product Family	Product Name	PM	Marketing
E&E	水處理	LF.Chang	Gennie.Chao
E&E	綜合能源	LF.Chang	Gennie.Chao
iCityServices	Monitoring & Security	HS.Su	Grace.Liu
iCityServices	Visitor Interactive Service	HS.Su	Grace.Liu
iCityServices	Smart Command Center	HS.Su	Grace.Liu
iFactory	扣件雲	Kai.Chem	Sherry.Lin
iFactory	Electronics	Willie Lin	Sherry.Lin
iHospital	Intelligent Outpatient	HS.Su	Claire.Tai
iHospital	Intelligent Ward	HS.Su	Claire.Tai
iHospital	Hospital Management	HS.Su	Claire.Tai
iRetail	Store Analytics	HS.Su	Grace.Liu
iRetail	Customer Engaement	HS.Su	Grace.Liu
iRetail	Store Management	HS.Su	Grace.Liu
iBuilding	Intelligent Building Management	Jichao	Gail Chen
iMachine	Intelligent CNC Management	Jichao	Gail Chen

AI Models:

Product Family	Product Name	PM	Marketing
AI	Process Quality Prediction Analysis	Michael.Chuang	Gail.Chen
AI	PQA for iFactory, PQA pretrained model	Michael.Chuang	Gail.Chen
AI	Automatic optical inspection	Paul.Kuo	Gail.Chen
AI	AOI pretrained model	Paul.Kuo	Gail.Chen

Consulting Services:

Product Family	Product Name	PM	Marketing
Solution Consult	DFSI	DFSI	DFSI
APM&AFS Consult	IoT.SENSE SW Enabling	Wang.Yu	Gail.Chen

I.Apps Portfolio on WISE-PaaS Marketplace 2.0

iCity Services E&E **iHospital iFactory** iRetail

Domain-**Focused**

行業專用

Apps



SPC

MES



QAD

Quality Abnormal Diagnostic for

Andon



FM

\$ PCM





SFT

PMS



Forming defect and failure predictive module



|جه|

Coagulation Sedimentation Process Dosing Control

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喠

Influent Water Pump



Energy & Consumption Analysis by Category







 \blacksquare

Smart Display

Customer

Queuing Engine

iCity



SSM

Signage Sensor

Visitor

ISM

Interactive Sensor

Mamagemen







SOM

Store Operation

Management

Customer Profile



RFM

Refrigerator

SHM

Store Heatmap

Dashboard







OPM

Operations

Managemen



















iHospital

(ER)

Hospital Queuing

Inpatient BI

Industry Apps

產業通用



iFactory





4 Mobile

£

OTA

WISE-PaaS/OT/



ALM

 Φ

EnSaaS

I FDC

Fault detection

Mold



EQM

r\$J

WISE.M+

WISE-PaaS/

WISE.M+

Edge.SRP

Cell

ME-Cell

MotionNavi



CNC







MBR

Equipment Predictive Membrane Bioreactor

























Air Quality

Common Apps

中台









Edge.SRP

DAO

Navi



WISE-PaaS/

SCADA

Edge.SRP

Android DM





Service

WISE-PaaS/

Video Service

Edge.SRP

Line

ME

£

WISE



B

 \Box

Notification

WISE-PaaS/

Notification

Edge.SRP

Edge.SRP/



 \Box

WISE-PaaS/APM

Edge.SRP

Edge.SRP/

Intelligent NVR





Dashboard

£

Android

Android DM

Edge.SRP

Edge.SRP/

People Counting



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 \Box

AFS

WISE-PaaS/AFS

Edge.SRP

Edge.SRP/

Facial Recognition



Mobile Dashboard WISE-PaaS/Signage

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Signage

CMS Management

 \Box

POA

ΔFS

WISE-PaaS/

Device0n

OTA

DeviceOn/

WebAcc ss

Wzzard



£

PHM

AFS

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AOI

ΔES

WISE-PaaS/

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Device0n

FaceView

FaceView



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DeviceOr

DeviceOn/

Device Management

Intelli-Signage

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Device0n

DeviceOn/



arm MBED

mbed Device

Connector

Data Management Connectivity Service



Personal OEM

OpenR8

Professional Edition

Alleantia ISC Acronis True Image

Device0n

DeviceOn/





Device0n

DeviceOn/

Tiandi hexing





Machbase



VNC Connect

Edge.SRPs

邊緣功能模組



ΑI

Navi

WISE-PaaS/VPN





Motion Navi





















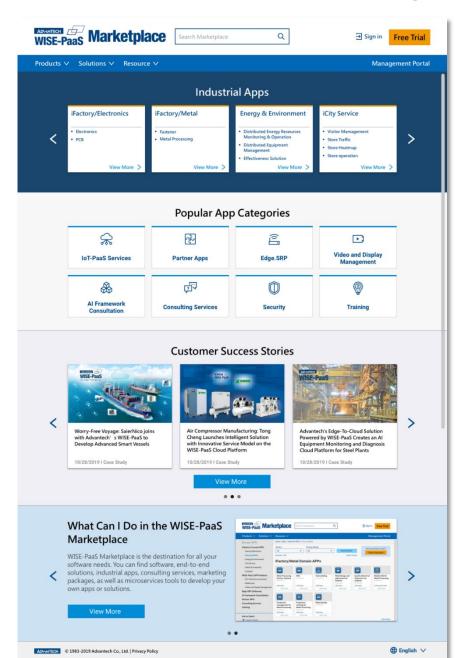


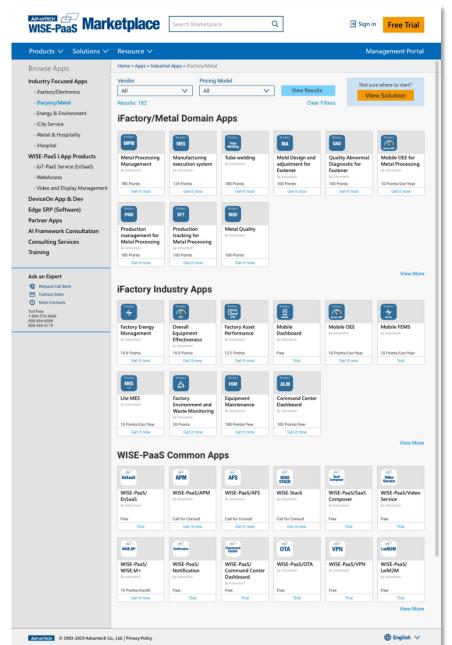


DeviceOr



WISE-PaaS Marketplace 2.0: Curated User Experience



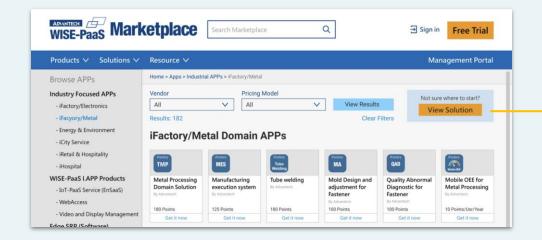




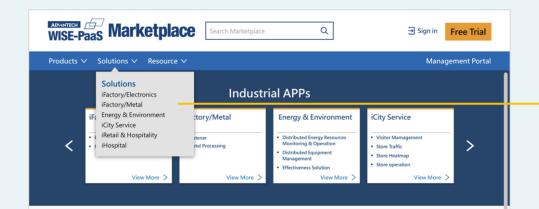


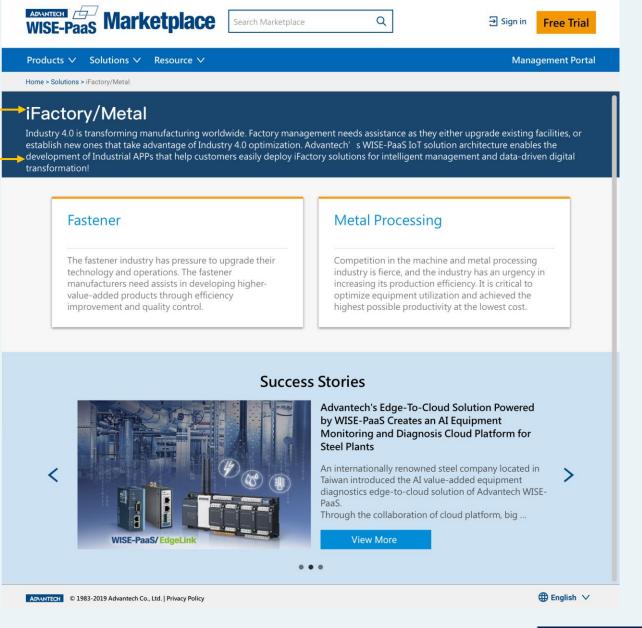
Solutions by Industries

Want to know how to start AloT Transformation? Explore WISE-PaaS Solution Offerings.



Also accessible from Nav bar:

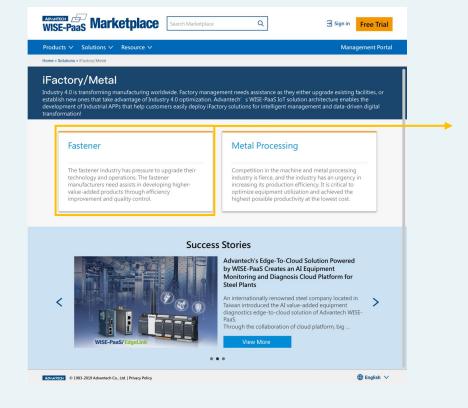






Browse Solutions by Industry Segments

Industry Segments



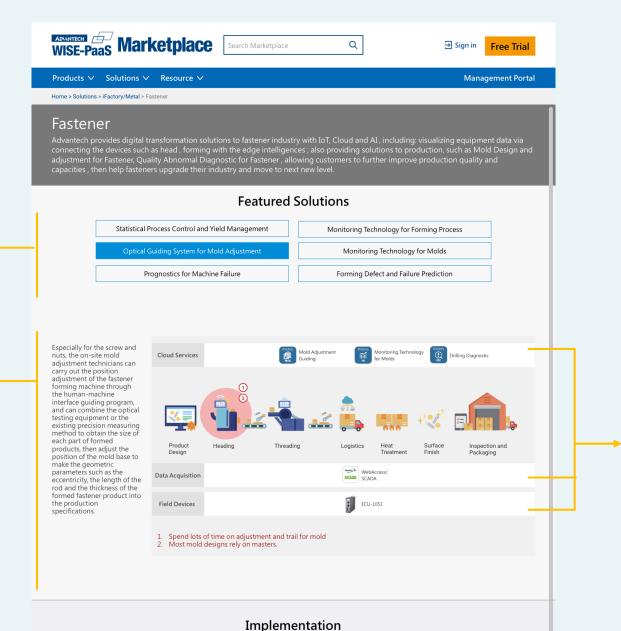


Solutions in the Focused Industry Segments

Cloud Services

Our solutions target at specific **pain points** in the focused industry segments

Solutions explained
with solution
architecture and field ←
site scenarios,
manifesting what
pain points the
solution targets at.



Adjusts the position of the fastener

Ontical Cuiding System

Products and services required for implementing the solution:

Grouped by:

- Cloud Services,
- Data Acquisition,
- Field Devices
- Consulting Services



Products and services required for implementing the solution from edge to cloud:

Grouped by:

- Cloud Services,
- Data Acquisition,
- Field Devices,
- **Consulting Services**

Implementation

Cloud Services

Cloud-based services are designed and developed for making full use of the visualized data to facilitate end-users' production operations and behaviors.



Adjusts the position of the fastener human-machine interface guiding

Mold Adjustm Guiding

forming machine through the

Optical Guiding System for Mold Adjustment:

We provide flexible plans for the solution package. Click the GET button below to custimize the package according to your needs.

Get

Proactively analyze the trend to discover and alert to potential shutdown features

Fault Detection

Monitoring

Molds

Technology for

Proactively detects any faults to prevent any possible loss. Includes alert and notification

Data Acquisition

Fundamental software for managing connected devices. Data collected from Field devices can be processed to



An 100% web-based SCADA software allowing users to monitor and control their projects simply through a web browser.

Field Devices

Fundamental hardware for connecting and managing Date collected from field devices can be processed to cloud via data acquisition



Its modular design features optimized I/O and offers three different configurations. It also supports Advantech' s iDoor technology via a second expansion

< 1/3 >

Consulting Service

Consulting service is recommended for this solution to ensure you can enjoy smooth installation and its performance.



DotZero - provides professional and experienced consulting services in Fastener industry

Success Stories



The customer is a large manufacturer with hundreds of threading equipment in the fastener industry. With more and more equipment, it is more and more difficult to rely on manpower to control and monitor them, except that it is hard to know the operation status and production of each machine in time. Beyond the situation, labor costs and human error are also a major problem

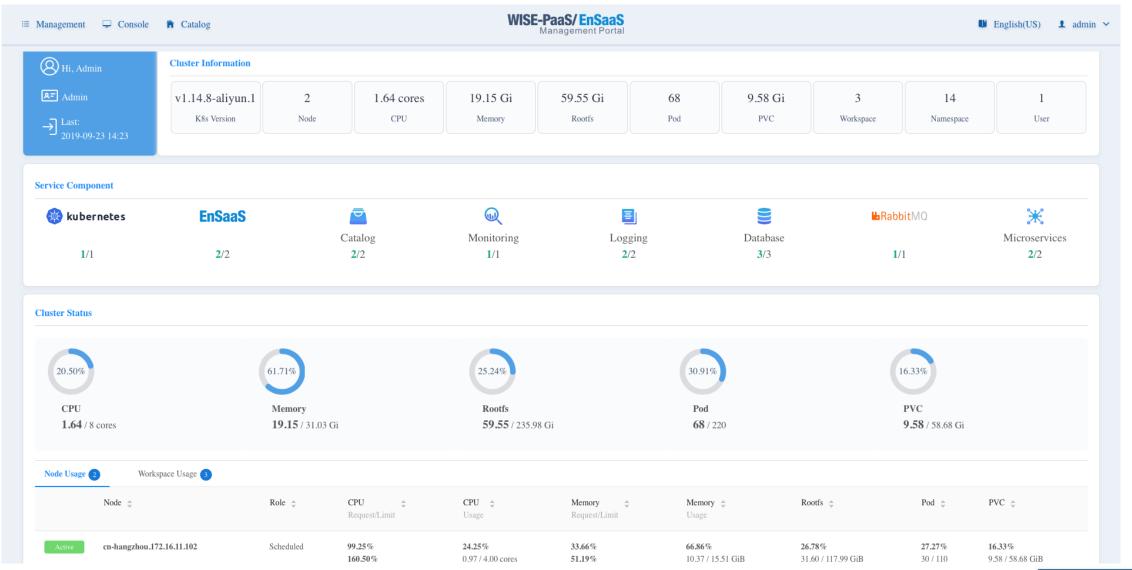
Advantech provides client a visualization solution that connects edge devices to each fastener equipment. After collecting the data from that, Advantech visualizes the data by existing module, and show the current plant status, production line conditions, and operating status of each device with different easy understanding graphs in few days

Leads customers to EnSaaS 4.0 Management Portal where users can customize solution packages and deployment.

Further information available on each product pages.

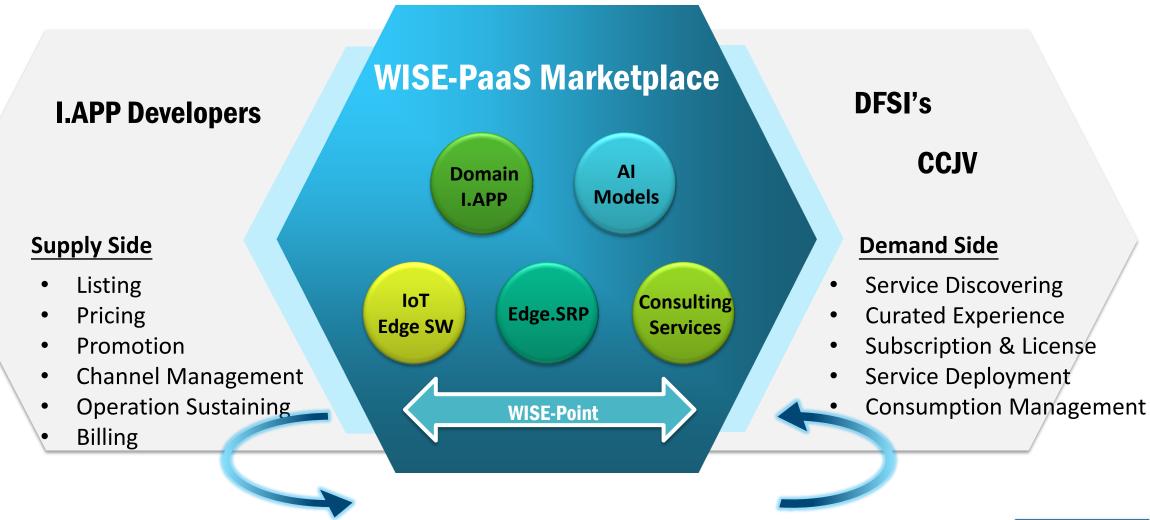


WISE-PaaS/EnSaaS MP (Management Portal) Tenants' UI/UX on Cloud Service Operation & Resource Management





WISE-PaaS Marketplace 2.0 as Network Orchestrator – Many Make, Many Sell





WISE-PaaS Application Framework Services –

Low-Coding AloT Solution Development









Integration with workflow IT systems

Connected Assets, Sites, & Staffs







Data Fusion

Asset Performance Mgmt.

WISE-PaaS/Dashboard WISE-PaaS/SaaS Composer

Multiple Data Sources
2D & 3D Rendering

WISE-PaaS/APM

Asset Models
Asset Evaluation
Workflow Integration

Alarm/Trigger OTA Auth. Mgmt.

WISE-PaaS/AFS

Code IDE
Hyper Parameter
Data Pre-Processing

Model Management
Inference Engine Deploy
Compute Resource Mgmt.



SF-PaaS/ FnSaaS Scalable Data Platform with Microservices Framework



WISE-PaaS/WISE.M+

WISE-PaaS/ DeviceOn

WISE-PaaS/VideoSense

WISE-PaaS/LwM2M



















WISE-PaaS/APM: Asset Performance Management











WISE-PaaS/APM

WISE-PaaS/Dashboard

Plug-in

Data Plug-in

Data Plug-in

Data Plug-in

Other Visualization Tool

Rule and/or AI Inference Engines

Mathematic Model

Events and Alarms

WISE-PaaS/Notification

WISE-PaaS/AFS

Data Tagging and Synchronization with Edge

WISE-PaaS/EnSaaS

Scalable Data Platform with Microservices Framework



WISE-PaaS/WISE.M+

WISE-PaaS/ DeviceOn

WISE-PaaS/VideoSense

WISE-PaaS/LwM2M





Data Model API













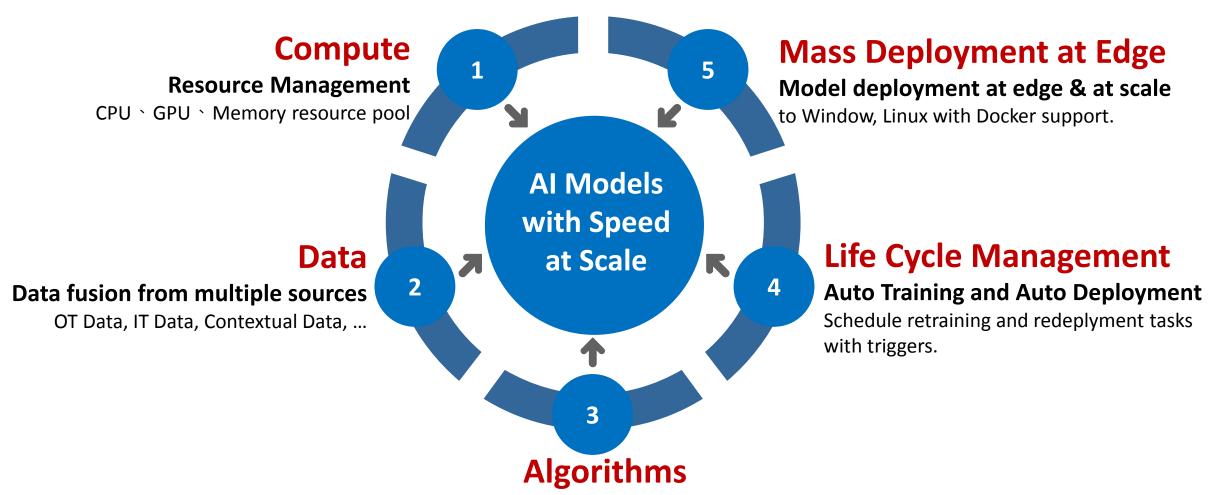


WISE-PaaS/AFS: AI Framework Service

0 to 1 : Speed up building the first working AI model, and continue to improve accuracy.

1 to N: Replicate and tune AI models to similar scenarios that require retraining.

NXM: Manage multiple AI models across entire site.



Model Dev and Management

Al framework integration & Model repository and version control

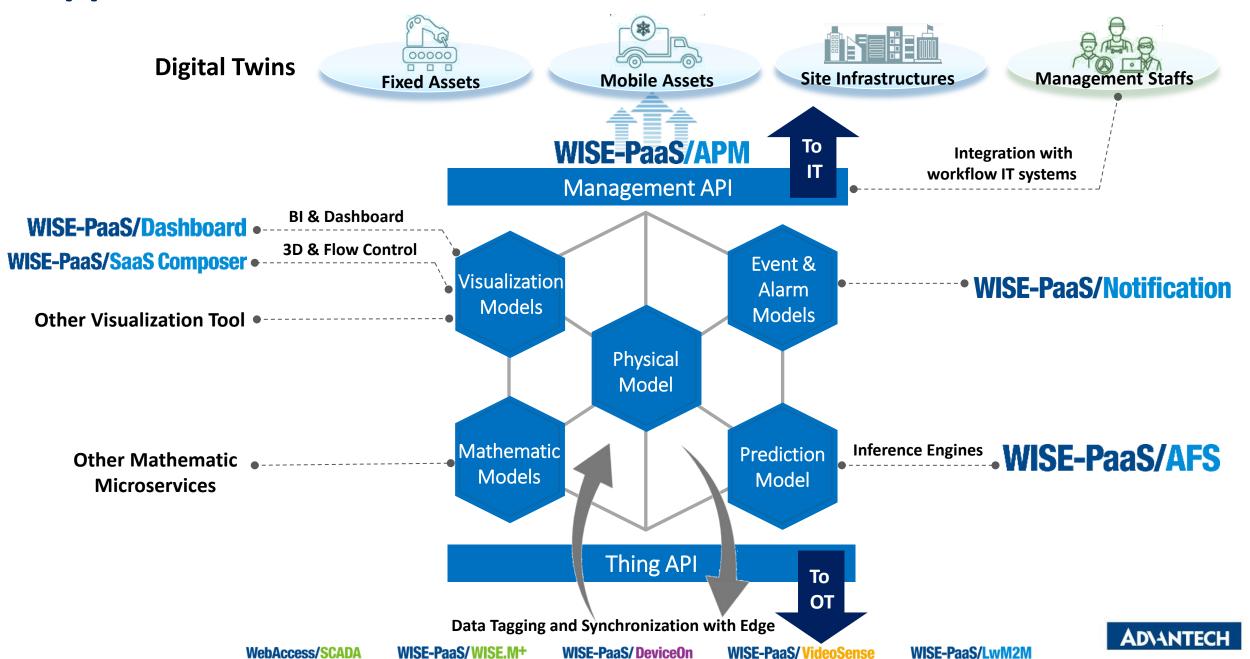


Integrating AI to Solutions with WISE-PaaS/AFS

Unified Platform for AI Models Training, Deployment and Life Cycle Management. AOI PHM **Face Recognition Smart Smart Smart Process Quality Analysis Motor PMS Factory** & Passenger Flow Calculation Machine Retail **Inventory Forecast Predictive Cutting Edge Broken Training and Model Management Catalog Preprocess** (6) **SDK Resource Schedule** Workspace & Cluster Management Data Source Feature Selection Firehose Notebook (online) **Model Management Time Series Data label Data Preprocess** GPU **AutoML** Image & Video Data Label kubernetes **Upload Code (offline) Pre-build Algorithm WISE-PaaS Pre-trained Model** Cloud **Training Model Management Training Data Source** PYT6RCH **Auto Re-Training Task** 3rd Party Algorithm **Model Repository** PostareSQL (A) influxdb K Keras TensorFlow **Hyperparameter Tuning Model Compression Marketplace Integration** ■ mongoDB @ ceph ONNX OpenVINO Microsoft Azure WISE-PaaS/APM **Azure** aws **Public Clouds:** Private Clouds: WISE-STACK openstack. **vm**ware **Hybrid Clouds: GPU Server** (一) 阿里云 Inference **Inference Engine Deployment Model Deployment** WISE-PaaS/ DeviceOn Edge Restful API **Model & File Update** WISE-PaaS/OTA Intelligence **Cloud Inference and Edge Inference Model Update Rule** 🤛 docker EDGE 💥 FOUNDRY **Windows** Linux **Container Runtime: Operating System:** CIOFCOD



Application Framework Services – decoupled, refactored, integrable



WISE-STACK – AloT Edge Cloud in a Rack



	Standard	Advanced	<u>Pro</u>
	Data Platform & Device Mgmt.	Std + 3D Visualization & AI	Advanced + GPU Management
Model	WISE-STACK-200	WISE-STACK-300	WISE-STACK-600
Software Package**	WISE-PaaS/EnSaaS Standard: Generic PaaS + Dashboards + APM Standard	WISE-PaaS/EnSaaS Advanced: Generic PaaS + Dashboards + SaaS Composer + APM Multi-tenancy + AFS	WISE-PaaS/EnSaaS Pro: Generic PaaS + Dashboards + SaaS Composer + APM Multi-tenancy + AFS GPU
		(3) Controller Nodes SKY-8101	(3) Controller Nodes SKY-8101
Node			SKY-7221
	(3) All-in-one nodes SKY-7221	(3) HCI Nodes SKY-7221	(1) Al Nodes SKY-6400

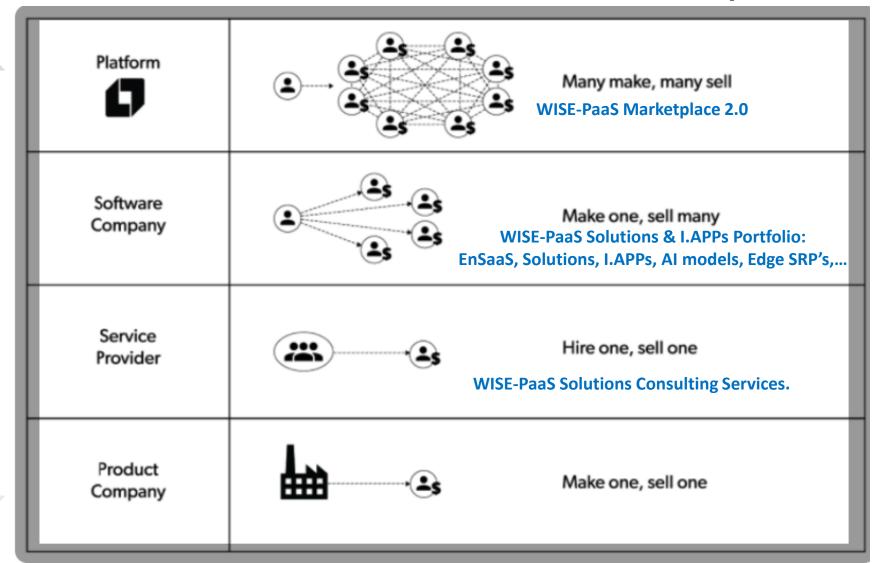
^{*} Service Level Agreement (SLA) from 2nd year



^{**} Annual software subscription from 2nd year

Business Scope Extends from Products to AloT Services

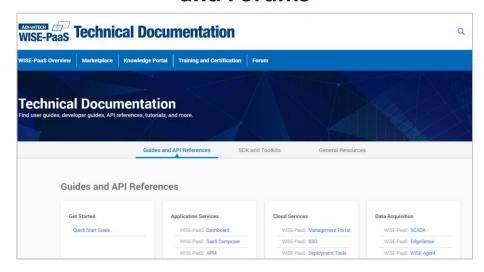
Complete Edge to Cloud AloT offerings together with ecosystem partners. Extends business from transactions to subscriptions.





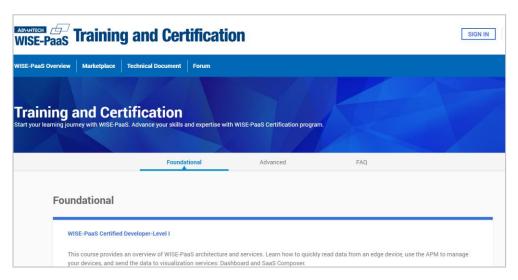
Technical Resources, Training, Certification and Support

Technical Documents and Forums





Training and Certification







Co-Creating the Future of the IoT World

