

WISE-STACK Private Cloud

軟硬整合 WISE-STACK 邊緣智能私有雲
打造工業物聯網數位轉型

Frank Cheng, PM, Advantech



Agenda

- 工業物聯網 AIoT 數位轉型
- WISE-PaaS 工業物聯網平台架構
- WISE-STACK 工業物聯網私有雲產品介紹
 - WISE-PaaS 應用服務框架
 - WISE-STACK 平台方案
- WISE-STACK 優勢
- WISE-PaaS Marketplace
- 成功客戶案例分享

工業物聯網數位轉型是現在進行式

智慧製造



智慧城市



智慧物流



根據MarketsandMarkets預測，2018年全球工業物聯網 (IIoT)市場規模約640億美元，2023年可望成長至914億美元，2018-2023年間CAGR為7.39%

智慧零售



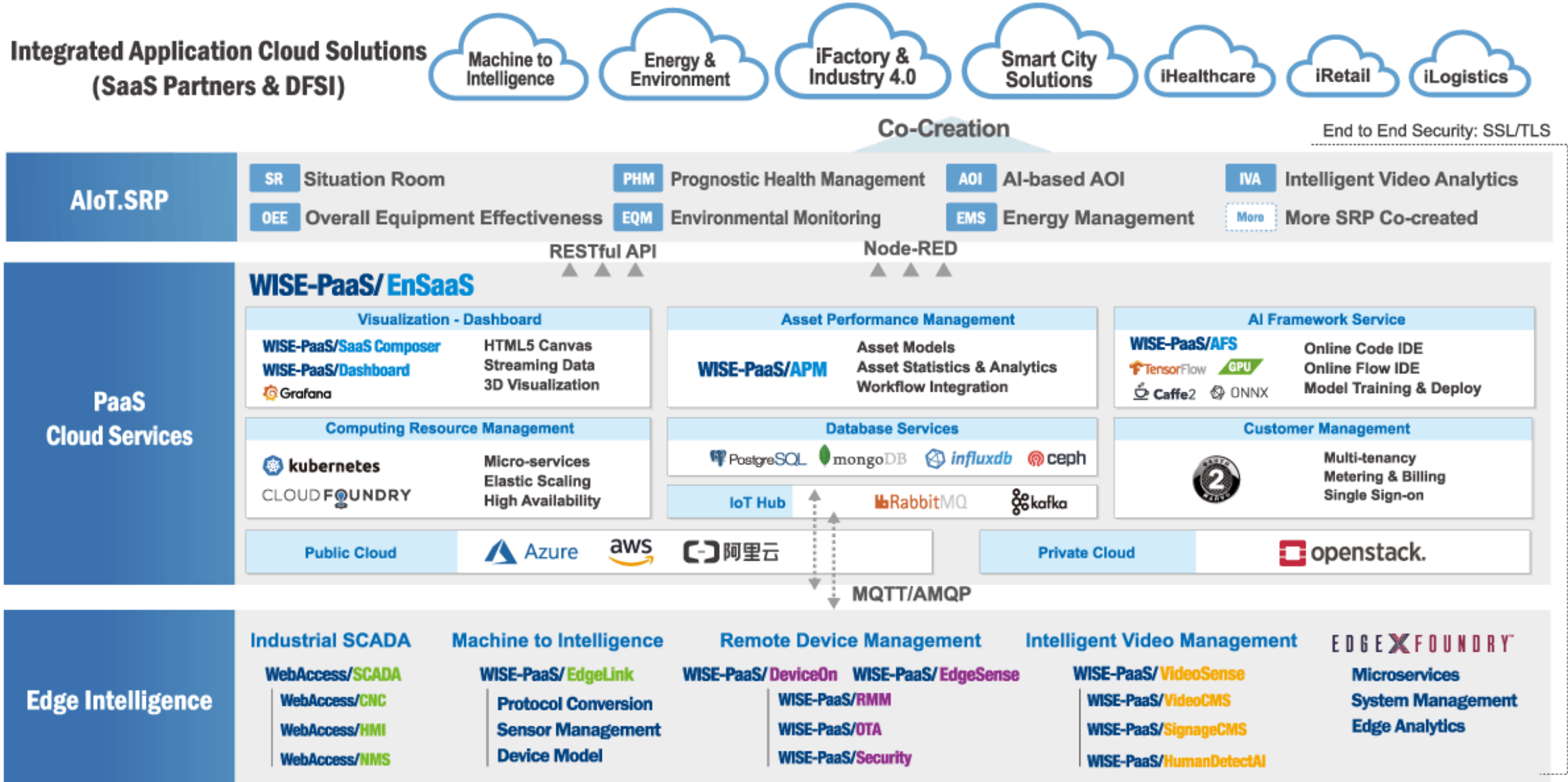
智慧能源



AIoT 數據驅動的數位轉型 2.0



研華 WISE-PaaS 工業物聯網平台架構



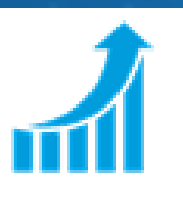
研華工業物聯網私有雲解決方案 (WISE-STACK)



安全



成本



效能



WISE-STACK 提供本地部署的智能私有雲
使工業物聯網解決方案具備：

低延遲

高頻寬

高度彈性

高安全性

高互動性

WISE-STACK 軟硬體高度整合的邊緣智能私有雲



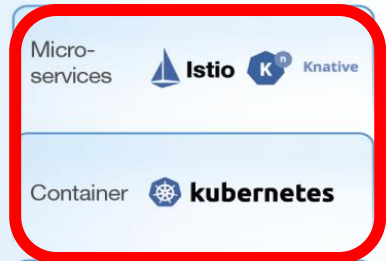
WISE-PaaS 平台
應用服務框架



- Privacy
- Continuous Operation

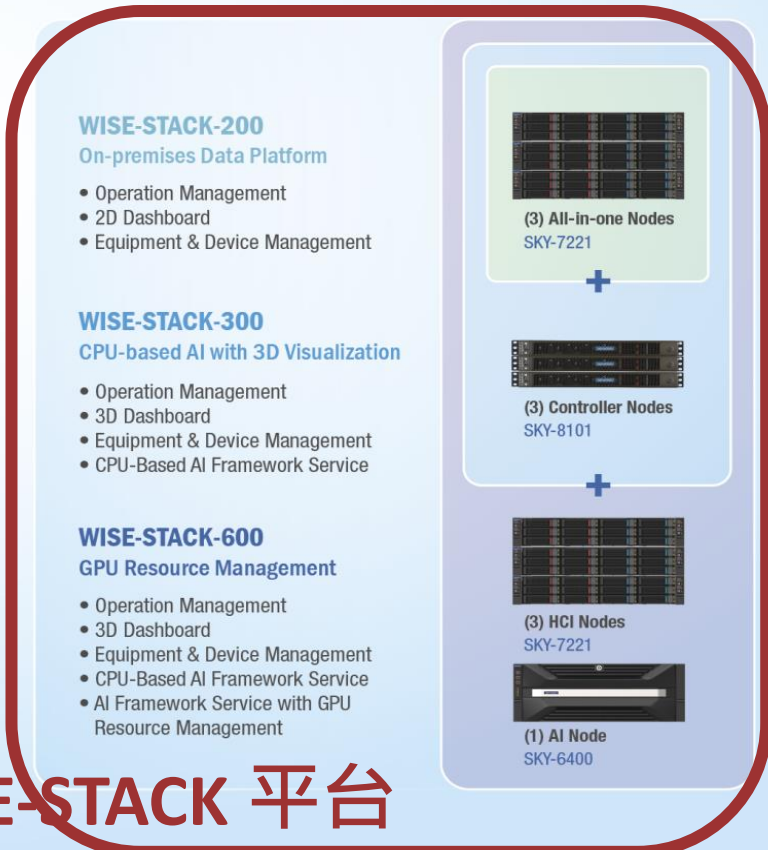
- Multi-tenancy Support
- Easy Expansion

- Enable IoT Solution
- Cost Effective



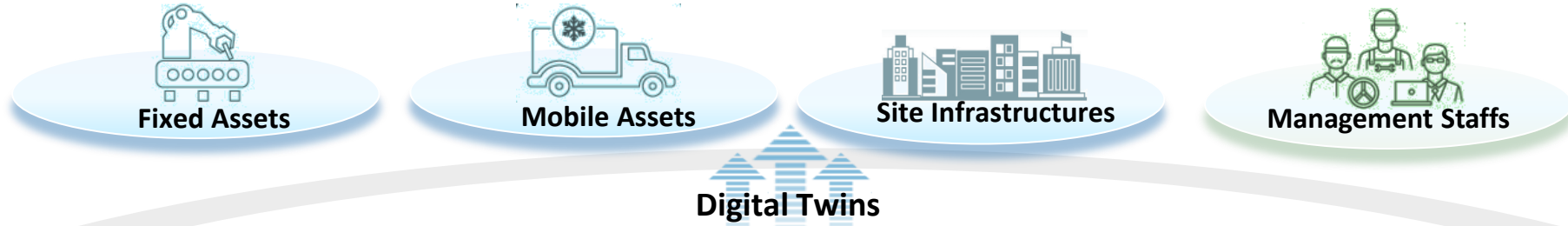
Software Defined Infrastructure

WISE-STACK



WISE-STACK 平台
基礎設施與資源管理

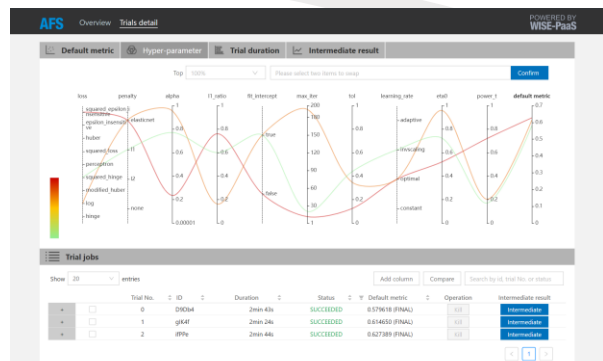
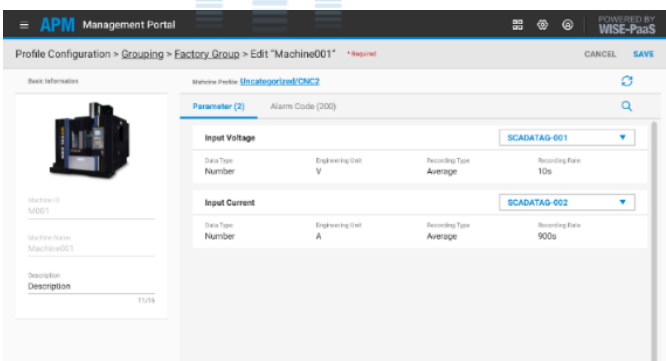
研華 WISE-PaaS 應用服務框架



Integration with workflow IT systems

Connected Assets, Sites, & Staffs

Data Fusion



Visualization

WISE-PaaS/Dashboard
WISE-PaaS/SaaS Composer

Multiple Data Sources
2D & 3D Rendering

Asset Performance Mgmt.

WISE-PaaS/APM

Asset Models Alarm/Trigger
Asset Evaluation OTA
Workflow Integration Auth. Mgmt.

AI Framework Service

WISE-PaaS/AFS

Code IDE Model Management
Hyper Parameter Inference Engine Deploy
Data Pre-Processing Compute Resource Mgmt.

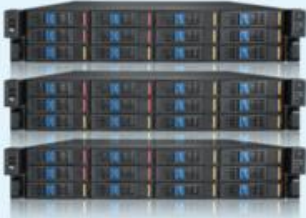
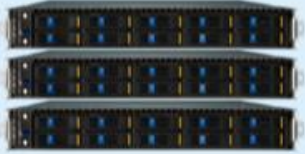
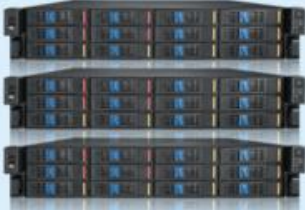



WISE-PaaS/EnSaaS Scalable Data Platform with Microservices Framework

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

Connected OT assets



研華 WISE-STACK 私有雲平台方案

| | <u>Standard</u> | <u>Advanced</u> | <u>Pro</u> |
|--------------------|---|---|---|
| Model | WISE-STACK-200 | WISE-STACK-300 | WISE-STACK-600 |
| Software Package** | WISE-PaaS/EnSaaS Standard: Operation Management + 2D Dashboards + Device Management | WISE-PaaS/EnSaaS Advanced: Operation Management + 2D & 3D Dashboards + Device Management + CPU Based AI Framework Service | WISE-PaaS/EnSaaS Pro: Operation Management + 2D & 3D Dashboards + Device Management + AI Framework Service with GPU Resource Management |
| Node |  <p>(3) All-in-one nodes SKY-7221</p> |  <p>(3) Controller Nodes SKY-8101</p>  <p>(3) HCI Nodes SKY-7221</p> |  <p>(3) Controller Nodes SKY-8101</p>  <p>(6) HCI Nodes SKY-7221</p>  <p>(1) HCI Nodes SKY-6400</p> |



研華 WISE-STACK 私有雲優勢



ADVANTECH
WISE-PaaS
IoT Edge Intelligence

Micro-services
Istio Knative

Container
kubernetes

Hardware Resource Management
Bigstack

Software Defined Infrastructure

WISE-STACK

- ✓ 完整提供端到雲工業物聯網解決方案
- ✓ 顯著簡化用戶與供應商之間的關係
- ✓ 無縫遷移於公有雲和私有雲之間



WISE-PaaS Marketplace : I.APP 導覽式選購

The screenshot shows the WISE-PaaS Marketplace website. At the top, there is a search bar and navigation links for 'Products', 'Solution', 'Learn', and 'Management Portal'. The main content area is titled 'Browse APPs' and features a grid of product cards. Each card includes an icon, the product name, a brief description, and pricing information (e.g., 'Free', '15.4WP/month', '36WP'). The products are categorized into 'Industry apps' and 'For Smart Factory'. A sidebar on the left provides filters for 'Refine by Product' and 'Refine by category'. At the bottom, there is a section for 'Ask an Expert' with contact information.

WISE-PaaS全方位軟體平台 立即建構您的IoT佈署

This graphic illustrates the WISE-PaaS IoT Edge Intelligence platform. It features a central logo with the text 'WISE-PaaS IoT Edge Intelligence' and 'ADVANTECH'. Surrounding the logo are several icons representing key features: '行銷擴展' (Marketing Extension), '軟體市集' (Software Market), '無縫整合' (Seamless Integration), '輕鬆部署' (Easy Deployment), and '行銷擴展' (Marketing Extension). Below the main title, there are logos for partner companies: Microsoft, arm, MBED, McAfee, and Acronis. On the right side, there is a video player showing a screenshot of the WISE-PaaS Marketplace interface.

解決方案套件

SignApps Express Cloud

SignApps Express is an easy-to-use, WYSIWYG digital signage editor with many pre-designed templates. Support various content type and cloud update feature for wild area deployment.



IdeaCare

IdeaCare is a device intelligence and management service that helps ensure digital signage deployment runs reliably as planned.



VisionNavi

Advantech VisionNavi is a programmable machine vision software that facilitates flowchart-based user interface to develop and deploy machine vision applications.



客戶成功案例分享 : 溫度敏感的制程監測系統

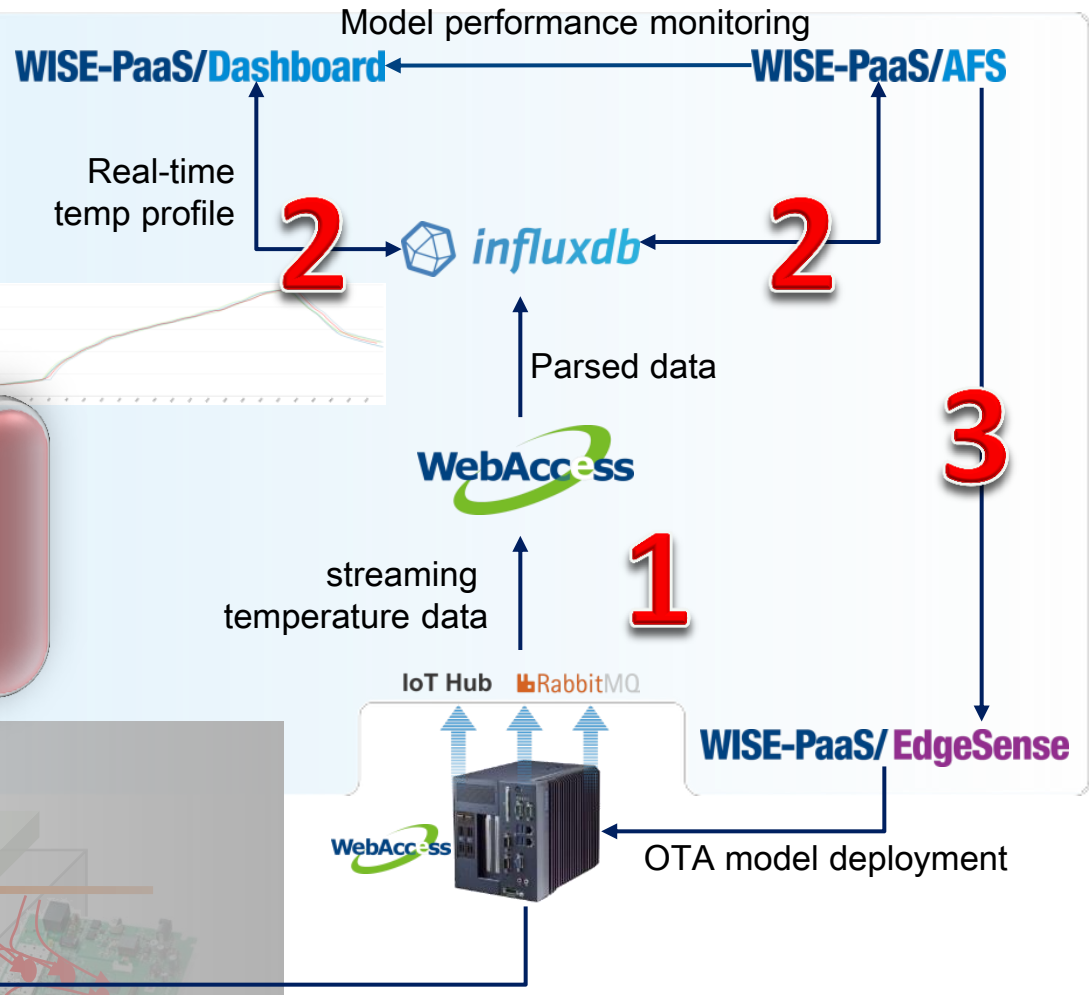


Situation Room for Manufacturing Activities

ADVANTECH WISE-Stack



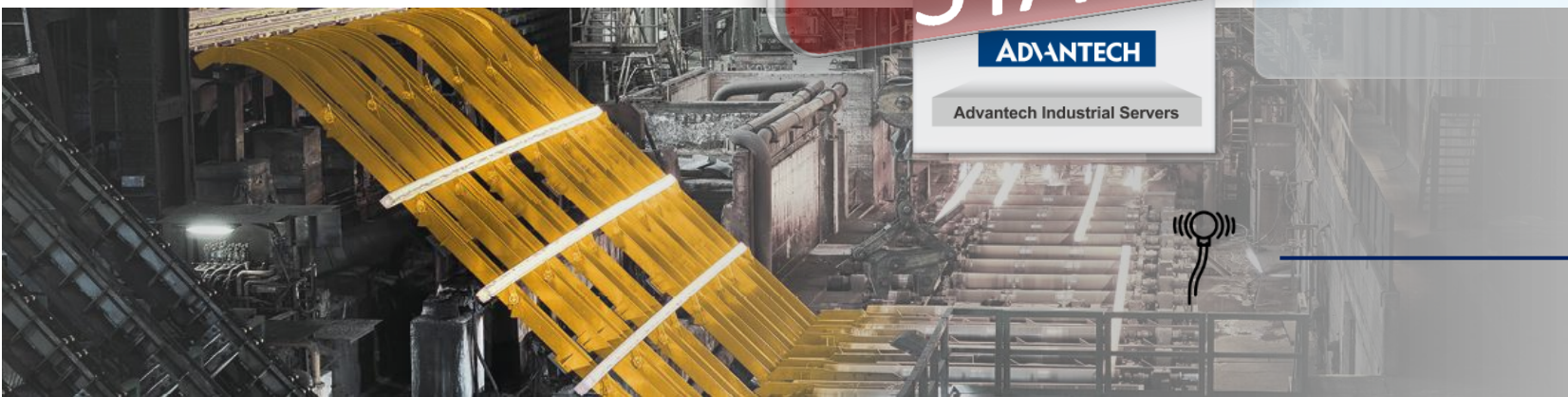
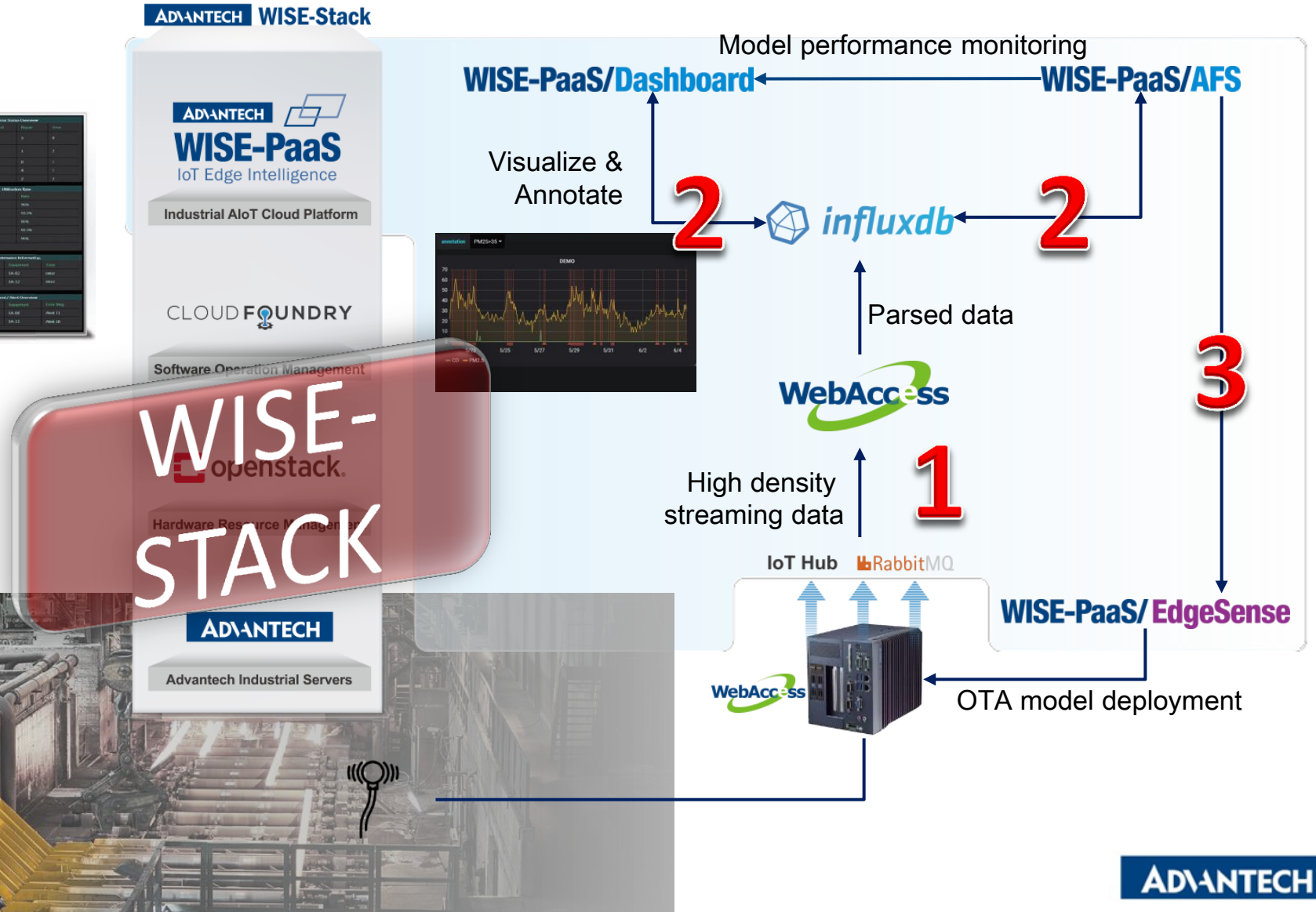
ADVANTECH Advantech Industrial Servers



客戶成功案例分享：機台異常振動即時檢測系統



Situation Room for Equipment management



Co-Creating the Future of the IoT World

