



iFactory

Sustainable Intelligent Facility Solutions

Accelerating Energy Efficiency Through Enhanced Operational Insights

Solution

FactoryEHS

Energy Management

Based on ISO 50006 standards this solution provides tools that help calculate energy baselines and performance indicators.

Carbon Footprint

Based on ISO 14064 standards — including direct emissions, indirect emissions, and upstream/downstream emissions.

Health and Safety

Diverse AI packages — including digital fencing, PPE detection, compliance tracking — reduce factory maintenance costs.

AI Retrain Service

AI model accuracy may decline over time. Users only need to click the retraining button to automatically complete the retraining task (add-on service).

ADVANTECH

Enabling an Intelligent Planet

POWERED BY
ADVANTECH
WISE-IoT

Introduction

The right EHS management system can strengthen organizations behind the scenes and enable them to continuously put their best foot forward. FactoryEHS solution is designed to help manufacturers manage employee health, improve safety, and analyze environmental footprints while ensuring operational continuity.



Reduce Carbon Footprint

Optimize high carbon emission processes while reducing carbon footprint



Keep Workers Safe

Improve workplace safety and manage incidents as they happen to improve ESG & sustainable management.



Streamline Workflows

Reduce equipment data integration and rework time/costs by consolidating and centralizing tasks and information in the command center.



Mobile Management

Improve problem solving flexibility and convenience while accelerating problem elimination and reducing downtime costs.

Problems

Solutions



Compliance with new regulations — especially carbon-emission regulations.

ISO 14064/14067/50001 CBAM

Follow ISO 14064/14067/50001 standards to comply with CBAM.



Difficulties tracking, analyzing, and monitoring indicators can cause injuries and incidents.

Use AI to monitor events and send alarms immediately using iMobile services.



Factory management is complex, making cost origin identification difficult.

Monitor devices via the Command Center and leverage BI tools to analyze complex problems.



Innovative Advantech Solutions



Carbon Footprint Calculation

Based on ISO 14064/14067, this solution can calculate carbon footprints automatically using input data sources.



Factory Energy Management

Collect data from power meters. Display results on the dashboard for easy monitoring. Set targets based on ISO 50001 to continually track the savings plan.



Safety & Incident Monitoring

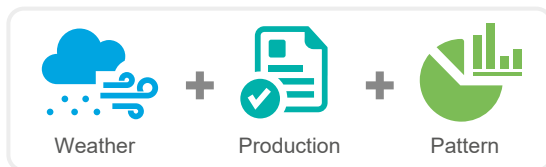
Monitor worker safety and PPE in real time. Set automatic incident alarms before injuries occur.

Artificial Intelligence Technology

From aimless “Cost Reduction” to smart “Cost Optimization”

Costs can be divided into accident costs and prevention costs. AI can more accurately predict failure dates and reduce accident rates. Likewise, AI can further provide error classification that reduces maintenance times and improves overall factory profits.

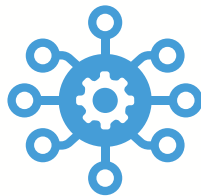
Feature Data



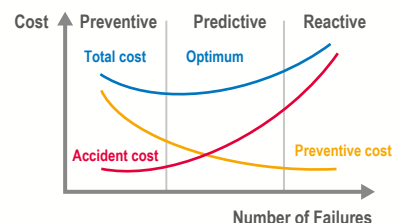
Improve Profit



AI Inference Model



Cost Optimization



Success Story

Centralized Monitoring and Data Management Optimizes Energy Efficiency

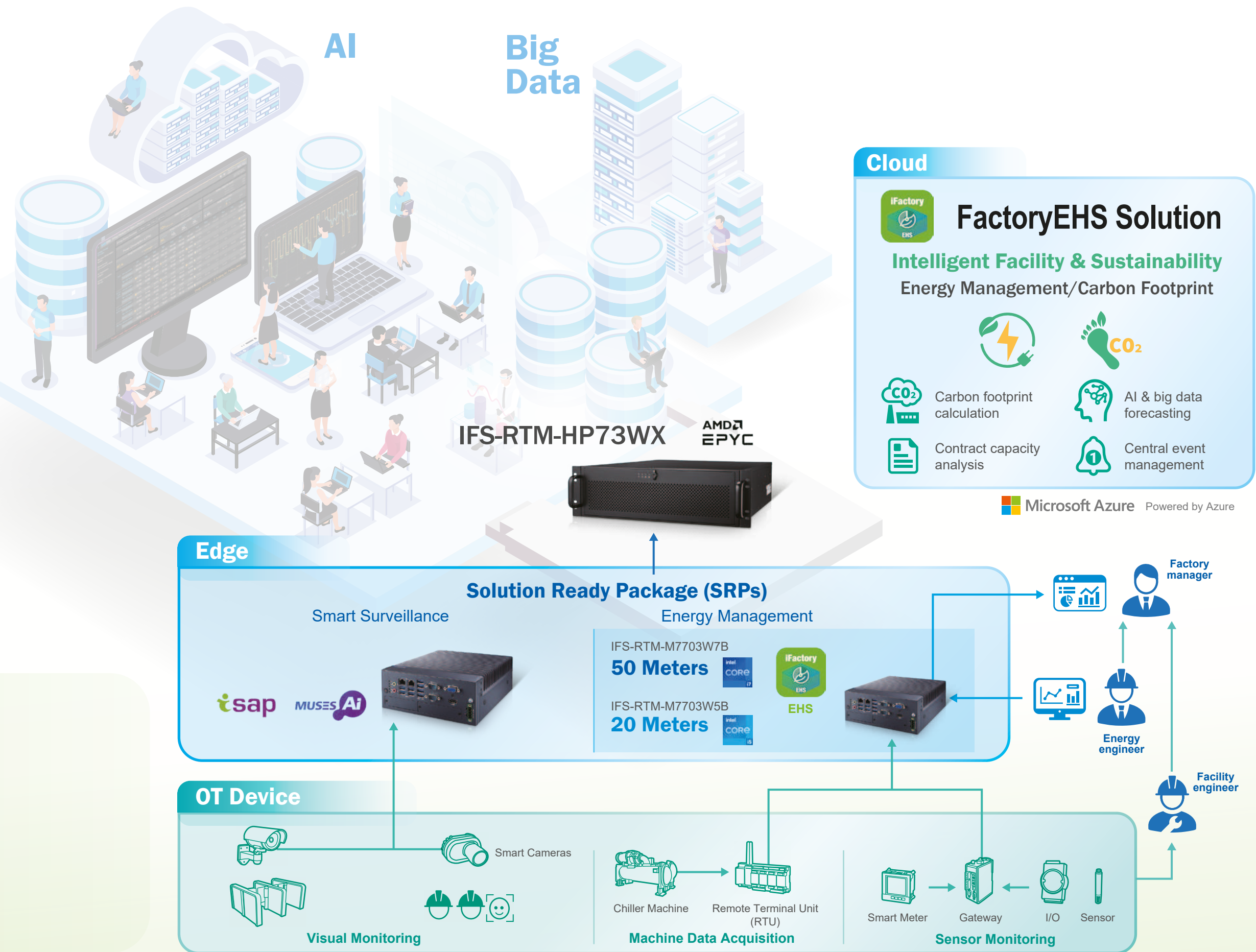


A well-known Taiwanese EMS foundry adopted Advantech iFactory's energy sustainability management solution in a Mexican factory in order to accelerate regulation compliance.

Key Benefits

- Enables the factory energy management without large capital investment, and reduces energy waste costs between 8 ~ 13%.
- 24/7 monitoring of factory energy usage enables operators to respond to abnormalities quickly.
- 7 day energy consumption forecasting avoids exceeding contract capacity.

Solution Architecture Overview



FactoryEHS Solution

ISO 14064

Energy Management/ Carbon Footprint

Data Center Package



IFS-RTM-HP73WX

Energy Management Settings



Energy Overview
Displays energy consumption and cumulative usage value for managers enabling monthly consumption monitoring.



Environmental Monitoring
Displays the temperature, humidity, and CO2 emissions from individual regions via Grafana Flow Charting.

KPI Management



Energy Consumption Monitoring
Establishes a baseline for energy to determine energy-saving goals. Track actual savings rate to measure saving plan effectiveness.



Prediction






Demand Forecasting
Predict peak demand in the next short period of time to ensure that the contracted capacity is not exceeded.

Ordering Information





2024 Special Package

| | | | |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| EHS Monitoring Software | 9803ITEHS00 <ul style="list-style-type: none"> • 5 licenses with one-year subscription • Functions include Utility Manager, FMS, and Environment-Monitor |  |  Learn More |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|






Edge Solution

| | | |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Intelligent Facility & Sustainability | IFS-RTM-HP73WX HPC-7320 / EPYC™ Zen2 8 C / 4 x 32G / 2 x 480G (RAID 1) / 2 x 1920G (RAID 1) |    |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Solution Ready Packages

| | | |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Facility Management and Sustainability (FMS) | IFS-RTM-M7703W7B MIC-770 V3 / i7 / 32G / 128G + 1T SSD / Win10 Optional 50 EHS licenses available for RTM |   |
| | IFS-RTM-M7703W5B MIC-770 V3 / i5 / 16G / 128G + 500G SSD / Win10 Optional 20 EHS licenses available for RTM |   |

Additional Offerings

| | | |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Gateway | SRP-IFS420-E12TAE Protocol gateway with EdgeLink, 2 x LAN, 2 x COM, 1 GB storage 96PD-01075 Remote maintenance protocol gateway, 1 x LAN, 2 x COM, 1 x USB |  |
| Remote Terminal Unit (RTU) | SRP-IFS210-D36TAE Modular edge intelligent data acquisition with EdgeLink, 2 x LAN, 3 x COM, 8 x AI, 16 x DI, 4 x DO, 1 GB storage |  |
| Smart Power Meter | 96PD-01283 Multi-function panel mount smart power meter |  |
| | 96PD-01285 Multi-loop din-rail smart power meter | |
| Sensor | 96PD-THS16B IP65 high accuracy temperature & humidity sensor |  |
| Remote Ethernet I/O | ADAM-6015-DE 7-CH isolated RTD input Modbus TCP module |  |



WISE-Marketplace



Academy video

Advantech Co., Ltd.

Official website: www.advantech.com

WISE-Marketplace: <https://wise-paas.advantech.com/en-us/marketplace>

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