ADVANTECH

*Enabling an Intelligent Planet*

# Leading Embedded Innovations to AIoT Future

## 專注嵌入平台創新, 驅動AIoT突破成長

**Miller Chang,**

**President of Embedded IoT, Advantech**

# OPPORTUNITIES

## 5G &
## The Future of Connectivity

## AI & IoT
### The Power of Combination

- Edge Intelligence
- Video AI Acceleration
- Data Acquisition
- AI Model Deployment

## Subscription
### Economy

- ✓ Marketplace
- ✓ Industrial Applications
- ✓ Long Term Partnership

# CHALLENGES

- GEOPOLITICAL RISK
- MANUFACTURING TRANSFER
- SUPPLY CHAIN RISK MANGEMENT
- 2019 IMF WW GDP 3.0%

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# 2020 Embedded-IoT Key Strategies

## Embedded IoT SBG

### Embedded Core Design-in Services

【專注經營】

- ✓ Refocus Core Business
- ✓ Leading Innovations
- ✓ Time to the Market

### Edge Intelligence System & Solutions

【市場突破】

- ✓ New Market Creation
- ✓ Partner Collaboration

### Design & Manufacturing Services

【產業深耕】

- ✓ Vertical Market Focus
- ✓ Regional DMS Teams

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# Embedded Core Design-in Services

## Embedded Software Services

- Embedded BIOS
- Embedded OS
- SUSI Software API
- iManager : Intelligent Self-Management

Windows Embedded

Linux ANDROID

## Device Operation Management

- Remote Management
- Update Management
- Monitor & Control
- Alert & Action

WISE-PaaS/ DeviceOn

## Software & Cloud Integration

ADVANTECH WISE-PaaS AIoT Solutions & Marketplace

- Multiple Cloud Support
- McAfee IoT Security Solution
- Acronis Backup and Recovery
- Marketplace Online Software Store

Microsoft Azure arm PELION

McAfee Acronis

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# Advantech Embedded Platform Innovations

## COM - HPC

SOM-8990

## UTX

AIMB-U217

## MI/O Extension

MIO-5373

## UIO-40 Express

RSB-3430

# Industrial Leader. Innovative Specifications

# 領先業界. 創新制定平台規格

## Industrial Wireless

ADVANTECH AIWireless Advantech Industrial Wireless

*BT, Wi-Fi, GPS, 3G, 4G ,NB-IoT, LPWAN with Wireless Design-in Services*

## Industrial SSD/RAM

*Comprehensive Security & Thermal Design with 30-Days DTOS*

## Industrial Display

*Industrial Grade & Durable Designs for Vertical Applications*

# Industrial Grade. Peripherals Integrated Services

# 工業規格. 周邊模組整合服務

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# Embedded IoT Wireless Connectivity Solutions

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AIWireless

Advantech Industrial Wireless

Transportation

AGV

Medical

Smart Lighting

Bridge

Construction

Aquaculture

Logistics

Optical Antenna Design

RF Certification

Software Integration

System Performance Tuning

## Wireless Design –in Services

WiFi | GPS | Lte | 5G | NB-IoT | LoRa

Industry-Grade WiFi-5 Module

WiFi-5 Module

WiFi-6 Module

Industry-Grade
GPS + G-sensor Module

Industry-Grade
GPS Module

Industry-Grade
Cellular Module

4G LTE Module

New M.2 3052
Sub-6G Module

Mini PCI-e Module

Sensor Node Module

Wireless IoT Gateway &
Sensor Node

## Embedded Wireless Module

## IoT Solution

## Embedded Software Services

*Embedded BIOS, OS, API & Software Design-in Services*

## Edge Intelligence & Cloud Services

*Edge Computing Management & Cloud Services*

## Software Distribution & WISE-PaaS Mktplace

*Globally Software Distribution Business, WISE-PaaS Marketplace*

# IoT Software Design Services. Globally Distribution

# IoT 軟體設計服務. 全球經銷與軟體市集

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# WISE-PaaS/ DeviceOn

## Empowers Edge Intelligence

Ready on WISE-PaaS Marketplace

### Device Management
- Device Monitoring and Diagnostics
- Device Control & Updating

### Data Management
- Data Acquisition and Storage
- Secure Data Access

### Connectivity Service
- Device Connectivity
- Plug-n-Play Peripherals

## DeviceOn.Dev

### OTA
- Software & Firmware Updates
- Advantech BIOS Updates

### Rule Engine
- Distributed Rule Monitoring
- Flexible Trigger and Action

### Data Security
- McAfee Threat Protection
- Acronis Backup Recovery

## DeviceOn.App

DeviceOn OTA

### OTA
- Software, firmware & configuration updates
- Advantech BIOS updates

DeviceOn FaceView

### FaceView
- Facial recognition
- People counting
- Behavior detection

DeviceOn E2I

### E2I
- Protocol conversion
- Edge intelligence
- Real-time virtualization

DeviceOn ePaper

### ePaper Manager
- EPD device auto-discover
- Fast transmission
- Device association

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# WISE-PaaS Marketplace 2.0 - DeviceOn Dev. & Apps

**DeviceON App & Dev**
選項

**DeviceON App**

**DeviceON Dev**

**DeviceON 3rd Party App**

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# Edge Computing and Intelligence Solutions

# Edge AI Solutions

OpenVINO

Pretrained Models

Deployment Wizard

SDK

3rd Party SDK

intel IoT Solutions Alliance Premier

NVIDIA

## Acceleration Modules

**VEGA-320**
M.2, 1 VPU

**VEGA-330**
MiniPCIe, 1/2 VPUs

**VEGA-340**
PCIex4, 4/8 VPUs

## Inference Systems

**AIR-100**
Quad 4K Displays

**AIR-101**
Din Rail

**AIR-200**
Ruggedized

**AIR-300**
High performance

## Solutions

**Facial Recognition**

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# Global Design & Manufacturing Services (DMS)

## Latest Technology, Vertical Solutions, Global Services

## Applied Computing Group (ACG)

**North America** ANA
**Irvine**
D Development Center

**Europe** AEU
**Munich**
D Development Center

**China** ACN
**Kunshan**
D Development Center
M Manufacturing Site

**Taiwan** ACL
**Linkou**
D Development Center
M Manufacturing Site

**Japan** ATJ
**Nohgata**
D Development Center
M Manufacturing Site

## Vertical Expertise

- Medical – deeper & broader
- AI-integrated IoT solution
- Automation & Transportation
- Smart display & Tablet

## Latest Technology

- Demo/Evaluation kits
- Working prototypes
- DMS Early Access program

## Countless Product & Platform

- Global top share
- Cross Sector / BG
- Edge to Cloud Service

### Design

### Develop

### Validation

### Manufacturing

### Worldwide Service

# Regional Business Expansion (2018-2022)

**3** Manufacturing Sites **4** Logistics Centers **14** Repair Centers **27** Countries

| America | Europe | China | Taiwan | N. Asia & SAP |
|---|---|---|---|---|
| 550pp | 540pp | 3,100pp | 3,400pp | 500pp |

## N. America
Chicago, Q4 2019
Boston, H1 2020
Toronto, H1 2020
Dallas, H2 2020

## Europe
Stockholm, 2018
Milan, 2019
Madrid, 2020

## Intercon
St. Petersburg, 2019
Istanbul, 2019
Tel Aviv, 2019
South Africa, 2022

## Asia
Hanoi, 2018
Nohgata, 2019

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# Co-Creating the Partnership for AIoT Era

## Transportation

## Digital Signage

## Automation

## Gaming

## Medical

## Kiosk/POS

## Channel Partners

**500+**

**Eco-system Partners**

## Channel Partners

## Silicon Partners

## WISE-PaaS

## ELAA

## m2.com

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# 1. Embedded Core Design-in Services

# 2. Edge Intelligence System & Solutions

# 3. WISE-PaaS DeviceOn & Marketplace 2.0

# 4. Design & Manufacturing Services & Regional Teams

# The Future Is Now!

## Co-Creating the Future of the IoT World