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 MANAGEMENT

2019 IMF WW GDP 3.0%
2020 Embedded-IoT Key Strategies

Embedded IoT SBG

**Embedded Core Design-in Services**
- Refocus Core Business
- Leading Innovations
- Time to the Market

**Edge Intelligence System & Solutions**
- New Market Creation
- Partner Collaboration

**Design & Manufacturing Services**
- Vertical Market Focus
- Regional DMS Teams

【專注經營】
【市場突破】
【產業深耕】
Embedded Core Design-in Services

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

- **Device Operation Management**
  - Remote Management
  - Update Management
  - Monitor & Control
  - Alert & Action

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

**Carrier Boards Design**

**Industrial Display Systems**

**Full Spectrum of Embedded Platforms**

- Thermal Optimization
- Multiple I/O Extension
- AI Acceleration Modules

**SSD, Memory, Wireless Modules**

- iDoor
- MLO+ Extension
- m2.com
- AICore Wireless

**Advantech WISE-PaaS**

- AI Solutions & Marketplace
- Windows Embedded
- Linux
- Android
Advantech Embedded Platform Innovations

- PC/104 (1992)
- ETX/XTX (2000)
- Pico-ITX (2007)
- MIO-Extension (2010)
- RTX 2.0 (2015)
- m2.com (2016)
- UIO40-Express (2019)

- 3.5" SBC (1998)
- Mini-ITX (2001)
- R1.0 (2005)
- MIO-Extension (2008)
- UTX Industrial MB (2013)
- UTX-E Industrial MB (2018)
- COM+HPC (Initial)

- Micro-ATX (1996)
- MIO (2001)
- SOM (2002)
- MIO (2005)
- SOM (2008)
- MIO (2010)
- SOM (2012)

- PCM-3365
- PCM-9365
- AIMB-276
- MIO-2361
- MIO-5373
- AIMB-U117
- SOM-2569
- WISE-1570
- AIMB-U233
- SOM-8990

- AIMB-586
- SOM-4466
- SOM-5788
- SOM-3569
- SOM-5899R
- ROM-3310
- ROM-7720
- SOM-5962
- RSB-3430
Industrial Leader. Innovative Specifications

領先業界. 創新制定平台規格
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
Embedded IoT Wireless Connectivity Solutions

Advantech Industrial Wireless

Transportation | AGV | Medical | Smart Lighting | Bridge | Construction | Aquaculture | Logistics

Optical Antenna Design | RF Certification | Software Integration | System Performance Tuning

Embedded Wireless Module

WiFi-5 Module | WiFi-6 Module | Industry-Grade WiFi-5 Module | Industry-Grade GPS Module | Industry-Grade Cellular Module | New M.2 3052 Sub-6G Module | Mini PCI-e Module

IoT Solution

Wireless IoT Gateway & Sensor Node

Medical | Sensor Node Module
Embedded Software Services

Edge Intelligence & Cloud Services

Software Distribution & WISE-PaaS Mktplace

IoT Software Design Services. Globally Distribution

IoT 軟體設計服務. 全球經銷與軟體市集
Empowers Edge Intelligence

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

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.Dev

DeviceOn.App

DeviceOn.OTA
- Software, firmware & configuration updates
- Advantech BIOS updates

DeviceOn.FaceView
- Facial recognition
- People counting
- Behavior detection

DeviceOn.E2I
- Protocol conversion
- Edge intelligence
- Real-time virtualization

DeviceOn.ePaper
- EPD device auto-discover
- Fast transmission
- Device association
## WISE-PaaS Marketplace 2.0 - DeviceOn Dev. & Apps

### DeviceOn Apps

<table>
<thead>
<tr>
<th>DeviceOn Apps</th>
<th>Pricing Model</th>
<th>View Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device Management</td>
<td>Free</td>
<td>Free Software Trial</td>
</tr>
<tr>
<td>FaceView</td>
<td>125 Points</td>
<td>Get it now</td>
</tr>
<tr>
<td>Equipment to Intelligence</td>
<td>180 Points</td>
<td>Get it now</td>
</tr>
<tr>
<td>ePaper Management</td>
<td>Free</td>
<td>Free Software Trial</td>
</tr>
<tr>
<td>OTA Updates</td>
<td>Free</td>
<td>Free Software Trial</td>
</tr>
</tbody>
</table>

### DeviceOn Dev

<table>
<thead>
<tr>
<th>DeviceOn Dev</th>
<th>Pricing Model</th>
<th>View Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device Management</td>
<td>Free</td>
<td>Free Software Trial</td>
</tr>
<tr>
<td>Data Management</td>
<td>Free</td>
<td>Free Software Trial</td>
</tr>
<tr>
<td>Connectivity Service</td>
<td>Free</td>
<td>Free Software Trial</td>
</tr>
<tr>
<td>OTA Updates</td>
<td>Free</td>
<td>Free Software Trial</td>
</tr>
<tr>
<td>Rule Engine</td>
<td>Free</td>
<td>Free Software Trial</td>
</tr>
<tr>
<td>DeviceOn Security</td>
<td>Free</td>
<td>Free Software Trial</td>
</tr>
</tbody>
</table>

### DeviceOn 3rd Party Apps

<table>
<thead>
<tr>
<th>DeviceOn 3rd Party Apps</th>
<th>Pricing Model</th>
<th>View Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Control</td>
<td>2 Points</td>
<td>Get it now</td>
</tr>
<tr>
<td>Backup &amp; Recovery</td>
<td>2 Points</td>
<td>Get it now</td>
</tr>
</tbody>
</table>

### DeviceON App

DeviceON App

### DeviceON Dev

DeviceON Dev

### DeviceON 3rd Party App

DeviceON 3rd Party App
Edge AI Solutions

Pretrained Models

Deployment Wizard

3rd Party SDK

OpenVINO

Acceleration Modules

Inference Systems

Solutions

VEGA-320
M.2, 1 VPU

VEGA-330
MiniPCIe, 1/2 VPUs

VEGA-340
PCIex4, 4/8 VPUs

AIR-100
Quad 4K Displays

AIR-101
Din Rail

AIR-200
Ruggedized

AIR-300
High performance

VEGA-340
PCIex4, 4/8 VPUs

AIR-100
Quad 4K Displays

AIR-101
Din Rail

AIR-200
Ruggedized

AIR-300
High performance

Facial Recognition

VEGA-320
M.2, 1 VPU

VEGA-330
MiniPCIe, 1/2 VPUs

VEGA-340
PCIex4, 4/8 VPUs

AIR-100
Quad 4K Displays

AIR-101
Din Rail

AIR-200
Ruggedized

AIR-300
High performance

Facial Recognition

VEGA-320
M.2, 1 VPU

VEGA-330
MiniPCIe, 1/2 VPUs

VEGA-340
PCIex4, 4/8 VPUs

AIR-100
Quad 4K Displays

AIR-101
Din Rail

AIR-200
Ruggedized

AIR-300
High performance

Facial Recognition

VEGA-320
M.2, 1 VPU

VEGA-330
MiniPCIe, 1/2 VPUs

VEGA-340
PCIex4, 4/8 VPUs

AIR-100
Quad 4K Displays

AIR-101
Din Rail

AIR-200
Ruggedized

AIR-300
High performance

Facial Recognition
Global Design & Manufacturing Services (DMS)

Latest Technology, Vertical Solutions, Global Services

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

Applied Computing Group (ACG)

North America
Irvine
- ANA
- Development Center

Europe
Munich
- AEU
- Development Center

China
Kunshan
- ACN
- Development Center
- Manufacturing Site

Taiwan
Linkou
- ACL
- Development Center
- Manufacturing Site

Japan
Nohgata
- ATJ
- Development Center
- Manufacturing Site

Design
- Concept & Planning
- Research & Development
- Prototyping
- Validation

Develop
- Engineering
- Manufacturing
- Quality Control

Validation
- Testing
- Certification
- Compliance

Manufacturing
- Production
- Logistics
- Supply Chain

Worldwide Service
- Customer Support
- Field Services
- After Sales

Design to Manufacturing
- Analyze
- Analysis
- Design
- Development
- Manufacturing
- Service
Regional Business Expansion (2018-2022)

3 Manufacturing Sites
4 Logistics Centers
14 Repair Centers
27 Countries

America
550pp
Chicago, Q4 2019
Boston, H1 2020
Toronto, H1 2020
Dallas, H2 2020

Europe
540pp
Stockholm, 2018
Milan, 2019
Madrid, 2020

China
3,100pp
St. Petersburg, 2019
Istanbul, 2019
Tel Aviv, 2019
South Africa, 2022

Taiwan
3,400pp

N. Asia & SAP
500pp
Hanoi, 2018
Nohgata, 2019
Co-Creating the Partnership for AIoT Era

<table>
<thead>
<tr>
<th>Channel Partners</th>
<th>Silicon Partners</th>
<th>WISE-PaaS</th>
<th>ELAA</th>
<th>Kiosk/POS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>Digital Signage</td>
<td>Automation</td>
<td>Gaming</td>
<td>Medical</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Kiosk/POS</td>
</tr>
</tbody>
</table>

500+ Eco-system Partners
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