Partner Presentation

Intelligent Security for Smart City

John Chuang, EverFocus
EverFocus AI Enabled Intelligent Security Solution

EverFocus Software + 3rd Party CMS + Cloud
- AIO NVR Software
- AI Models
- Xfleet System
- Mobile APP
- 3rd Party CMS Software
- Azure Cloud

EverFocus AI Edge Computing Device
- eIVP-CFS-IV
- eIVP-KBU-IV
- eIVP-BT3-IV
- eIVP-WHU-AI
- ARES-64X/128X-AI

EverFocus Sensors & Accessories
- Cameras
- SATA Storage
- GPS Receiver
- Wifi/3G/4G
- Monitor

www.everfocus.com.tw
Company Overview & Global Business Partnership

North America HQ
Orange, CA
- Business Development
- Project/Product Design
- Engineering Center

Global Manufacturing
HQ (Taiwan)
- Product Development
- Research & Development
- Manufacturing
Established in July 18th, 1995

Japan
Award Winning NDAA Compliant & Made-in-Taiwan(MIT) Security Solutions

2000
EverPlex 8CDX

2002
EDR400 ECZ300

2003
EHD350

2005
EDSR400M EDR1680 EHL350

2008
EZN850

2009
EPN360

2010
EPHD08

2011
ENDEAVR HD+SD44

2012
EPN4220 IP Speed Dome
Endeavor HD2H14

2013
EAN3300 EHN3261 GENIE XMS

2014
EMV1200 HD

2015
EHN3261 GENIE XMS

2016
ESJ1000

2017
ESN41 HD

2018
EMV1200 FHD EMV400S FHD EPRO NVR 32 EZN7221 EZN7360

2012
Small Giant Award
Secutech Excellence Award

2013
Security 50 2007~2017

2014
MIT Excellence Award
Branding Taiwan Award

2015
Golden Root Award
Market Segments

EverFocus Solution for AIoT

HW – Cameras, NVRs, Mobile NVRs
SW – VMS, Fleet Management, AI Model

Public Safety  Campus  Healthcare  Retail

Road Infrastructure  Rail System  Fleet System

General Market  Vehicle Market

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**Driver Fatigue and Distraction Monitoring**

- **Hardware**: 8th Generation Intel® Core™ i5/i7 Processors
- **Software**: AiO NVR SW

**Blind Spot Monitoring (BSD)**

- **Hardware**: Intel® Movidius™ Myriad™ X VPU (Vision Processing Unit) based AI core module
- **Software**: Crowd Density and Heat Map Analytics AI model

**AI Solution for Transportation**

**Market Problems Solved**

- **Safety issue**: Help bring safety to the road for drivers, passengers, and pedestrians by providing the AI functions of real-time monitoring and alarm notification
- **Data integrity**: By providing a ruggedized housing with EN50155 certification and delay power-off function for system to keep on working when traffic collision
- **Backup problem**: Able to send data to back-end server or cloud server through wireless network
- **System integration problem**: This solution can be used as a mobile NVR and also support multiple IO devices integration, i.e. TPMS, thermal sensors or CANbus

**AI Solution for Retail**

- **Hardware**: 7th Generation Intel® Core™ i5/i7 Processors
- **Software**: AiO NVR SW

**Benefits**

- Customer behavior analysis
- Customer flow analysis
- Improve goods allocation on shelf
- Customer queue management
- Peak hours for marketing campaigns
- Intelligent retail solution
AI Solution for Buildings

- EverFocus HW systems
- Cloud backup & data management
- AI analytics – incorporate with Axxon Next VMS
  - Access control
  - Fire alarm detection
  - License plate detection
- Edge Device (eIVP Series)
- Edge Sensor (IP Cameras)
- Large Amount Training Data
- Deep Learning & AI Analysis
- AxxonNext VMS
- Ares64X-Ai

AI Solution for Community

- EverFocus HW systems
- EverFocus CMS software for public safety
- AI analytics – incorporate with 3rd-party SW vendor
  - Virtual fence for intrusion alarm
  - Fall detection
- eIVP-KBU-IV-V0004 (eIVP5600)
- AI Box
- VANGUARD 16CH XVR
- EZA1280 EZN1250 EZN1240-A EBN1240-A
- Virtual fence for intrusion alarm
- Fall detection
EverFocus AiO – AI NVR Software

AiO (All-In-One) AI NVR SW can run on x86 platforms
Provides basic NVR functions + AI Models (OpenVINO™ AI models + Intel VAS SDK + EverFocus Algorithm)
AiO NVR SW supports Ubuntu 18.04; AI Models support Ubuntu 18.04 and Windows 10
AiO NVR SDK and AI model SDK provided

AiO NVR Software

AiO NVR Key Features

- AI functions
- Multi-channel live view, recording and playback
- Alarm notification
- Cloud backup
- Remote operation and configuration

- Storage management
- ONVIF supported
- Log history
- User privilege
- System maintenance

Driver Fatigue & Distraction Monitoring
Face Recognition
Vehicle Recognition
Pedestrian Detection
Private 5G Smart Harbor

**eIVP-TGU-IV-V**
- NVR for vision analytics and storage
- Analytics data to cloud or server
- AI analytics: Object detection, blind spot monitoring, cargo tracking
- Supports 5G networks
- GPS positioning for truck arrangement
- Container truck fleet management

**eIVP-TGU-AI**
- Smart scheduling
- Smart operation
- Smart transportation
- Smart gate
- Smart tally
- Smart energy
- Smart monitoring
- Smart security

*11th Generation Intel® Core™ Processor Family (Codenamed Tiger Lake)*

- Intel® Movidius™ Myriad™ X VPU supported
- Intel® Movidius™ Myriad™ X VPU supported

**AI Analytics | 5G Network | Big Data | Cloud Computing | Internet of Things**
Bus Stop / Shelter Monitoring

Intel Atom® x6000E Series, Intel® Pentium®, and Intel® Celeron® N and J Series Processors (codenamed Elkhart Lake)

**AI Analytics | 5G Network | Big Data | Cloud Computing | Internet of Things**

### eIVP-EHL-IV-V
- Q3’21
- Intel® Movidius™ Myriad™ X VPU supported
- NVR for vision analytics and storage
- Analytics data to cloud or server
- AI analytics: passenger counting, driver monitoring
- Supports 5G networks
- Integration: advertisement, ADAS

### eIVP-EHL-AI
- Q3’21
- Intel® Movidius™ Myriad™ X VPU supported
- Passenger counting
- Crowd detection
- Queue management
- Bus entry/exit
- Bus stop time/open door time

Intel Atom® x6000E Series, Intel® Pentium®, and Intel® Celeron® N and J Series Processors (codenamed Elkhart Lake)

**Passenger counting**
**Crowd detection**
**Queue management**
**Bus entry/exit**
**Bus stop time/open door time**
**Edge Computing Server**

**ARES64-AI**

3U 16-Bay Rack Mount

- CPU: Intel® Xeon® E-2124G processor
- RAM: DDR4 2666 16G
- 3.5” hot swap x 16
- Internal HDD: 2.5” x 6
- RAID Card: MegaRAID 9361-8i LSI
- Backplane: 12Gb SATA/SAS
- 430 x 680 x 133mm
- Acbel 800W 1+1 Redundant
- Pre-installed with Axxon Next VMS

**Soter128-AI**

4U 24-Bay Rack Mount

- CPU: Dual Intel® Xeon® E5-2620 v4 processor
- RAM: DDR4 2666 16G
- 3.5” hot swap x 24
- Internal HDD: 2.5” x 2
- RAID Card: MegaRAID 9361-8i LSI
- Backplane: 12Gb SATA/SAS
- 430 x 680 x 177mm
- Acbel 1200W 1+1 Redundant
- Pre-installed with Axxon Next VMS
The Mail Processing Center of Chunghwa Post uses EverFocus Soter64 servers installed with Axxon Next VMS software along with a number of IP cameras to monitor the whole center with AI technologies including object tracking, fire alarm, and people counting. Two buildings were installed with a total of 40 Soter64 and 750 cameras.

Deployment: March, 2020

eIVP-KBU-IV-V0004 (eIVP5600) works as a server installed with EverFocus CMS to control multiple EverFocus 16-ch hybrid DVRs. The model is integrated with Intel AI box to perform AI functions (Geofence, Intrusion Detection, Fall Detection).

Deployment: October, 2019
Vehicle On-Board Units Monitoring

Project in progress: October, 2020

The eIVP1300 is used as an electronic unit monitoring system installed inside electric vehicle (taxi) to monitor on-board units status through CAN bus.

AI functions incorporated: Driver recognition to start the engine. Voice control to open window or turn on music.

Singapore Commercial Building

Deployment: February, 2021

Multiple eIVP-CFS-AI-D0000 devices are used as a Stream Box installed with 3rd-party software to receive IP camera streaming and then transfer to central server.
Thank you for watching!
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