Agenda & Notes

- Presenter Introductions

- Introduction to Hanwha Techwin America

- Analytics for Education, Live AI Demonstration: Chris Musick

- The Hanwha Camera Experience: Brandon Knutson, Everett Public Schools

- Stimulus Funding for Education

- Poll Questions, Q&A, and Close

1.This webinar is being recorded and will be available for replay and in pdf format. Please visit
https://www.hanwhasecurity.com/trainings/webinars/ to view past webinars & sign up for future ones.

2. All participants have been put into listen only mode.

3. We will take Q&A time permitting and if time runs out to answer all of the questions, we will reply to
you individually afterwards. Please use the Chat Box.

History

2010 ~ Current

- 2018 - Hanwha Techwin Vietnam manufacturing subsidiary established
- 2017 - Winner of IF Design Award, Red Dot Design Award
- 2017 - Wisenet V SoC and Wisenet X camera series launched
- 2015 - Hanwha Techwin is formed by strategic acquisition by Hanwha Group
- 2015 - Winner of Red Dot Design Award
- 2015 - Wisenet Lite series launched
- 2013 - Wisenet III SoC and camera series launched
- 2012 - Winner of Red Dot Design, CES Innovation Award
- 2012 - World's first 37X IR PTZ camera launched
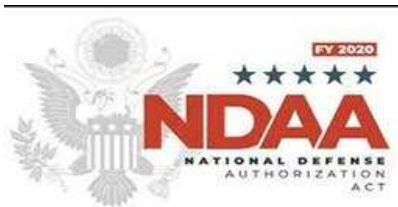- 2011 - B2C business launched

1991 ~ 2009

- 2009 - Hanwha Techwin Tianjin and Shanghai subsidiaries established
- 2008 - Korea's first 37X optical AF PTZ camera launched
- 2004 - Wisenet III analog ISP chip developed
- 2001 - Hanwha Techwin Europe subsidiary established
- 1997 - World-class ultra low-light surveillance camera launched
- 1993 - Korea's first auto-iris lens for CCTV camera developed
- 1991 - Video surveillance business established

milestones & landmarks

Hanwha Techwin has a rich history of security industry landmark achievements, with a legacy of "firsts" including:

1993
Korea's first auto-iris lens for CCTV cameras developed

2008
World's first ultra-thin, 8MP module 'ABACUS' developed

2018
Industry's first 55x IR PTZ IP camera (XNP-6550RH)

2020
Industry's first 8K IP camera (TNB-9000)

Manufacturing and Security

- Global Fortune 500 company over 30 years of security manufacturing experience in video surveillance

- Our Supply Chain of Trust is critical to our cybersecurity posture: one of the most advanced in the industry: **SoC** design with no root access

- UL CAP Certified, FIPS 140-2 Certified

- Compliant with **NDAA** and **TAA** provisions making them eligible for GSA Schedule Contracts and other government opportunities

- End-to-end encryption

A comprehensive range of intelligent video analytics

Wisenet P series multi-sensor cameras support a variety of exclusive video and audio analytics, providing enhanced monitoring solutions and market intelligence.
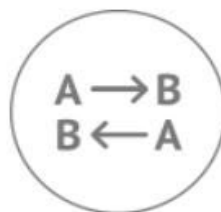
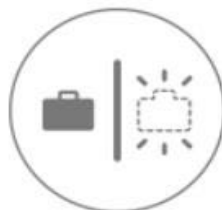* Supported video analytics may vary depending on the camera.

Tampering	Loitering	Directional detection	Fog & Dust detection	Virtual line

Appear Disappear	Enter / Exit	Face detection	Motion detection

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Non AI Camera

Wisenet X series
AI Camera

Vehicle

Person

Person

Vehicle

Hanwha Techwin

Mr. Brandon Knutson

Information Systems and Technology, Everett Public Schools

"The Hanwha Techwin cameras integrate perfectly with our VMS system and we particularly like the on-the-edge analytics that the cameras provide in addition to using motion to trigger recording."

PNM-7000VD

2 x 2MP outdoor dome

- 2 x 1920 x 1080 resolution
- 60fps@2M (H.265 / H.264)
- H.265, H.264, MJPEG codec supported
- Day & Night, WDR (150dB)
- Loitering, Directional detection, Fog detection, Motion detection, Tampering
- SD/SDHC/SDXC memory 2 slots (each camera), WiseStream II Support
- Lens modules are required, not included with the camera

PNM-9000VQ

4x 2MP / 5MP Multi-sensor Multi-directional camera

- Exchangeable 4ea x 2MP / 5MP lens modules 8MP to 20MP resolution depend on the combination of lens modules
- 60fps@2MP, 30fps@5MP (H.265 / H.264)
- WDR 150dB with 2MP lens module, 120dB with 5MP lens module
- 2.4mm, 2.8mm, 3.6mm, 6mm fixed lens (2MP module)
- 3.7mm, 4.6mm, 7mm fixed lens (5MP module)
- H.265, H.264, MJPEG codec, Multi streaming support
- Video analytics, WiseStream ?
- IP66, IK10, SD / SDHC / SDXC memory 4 slots
- Lens modules are required, not included with the camera

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Preset mode

Smart Zoom mode

Advance handover to PTZ

When the multi-directional camera detects an event, it automatically links to PTZ camera which carries out zoom-in and track functions. When using preset mode, PTZ camera zooms in to the position that the users preset, while smart zoom mode automatically zooms into the area where event is detected.

PNM-9080VQ

8MP Multi-sensor, multi-directional camera

- Max 8MP @ 60fps, 2MP X 4 sensors using one IP address
- Motorized vari-focal 2.8~ 12mm (FOV: 119.5?~27.9?)
- Triple codec: H.265, H.264 and MJPEG multiple streaming
- WiseStream II compression technology
- WDR 150dB @ 8MP @30fps, 120dB @8MP @60fps
- Loitering, directional detection, fog detection, tampering, motion detection enter or exit an area
- Hallway view
- SD cards (each channel has its own)
- Gyro sensor for digital image stabilization
- Power: PoE+ or 12VDC

4K/6MP/2MP

WISENET PTZ PLUS
XNP-9300RW/9250R/9250
XNP-8300RW/8250R/8250
XNP-6400RW/6400R/6400

- Clear images with up to 4K resolution, 40x, 30x, 25x optical zoom ratio
- Up to 200 meters of IR viewable length with Wise IR
- Enhanced preset with accuracy of ±0.1°
- Quick Pan, Tilt correction (within 1 second)
- Built-in wiper, quick spin, and heater for the perfect water removal
- Easy and safe installation with compact and light-weighted camera body
- AI deep learning based object tracking (Target-lock tracking with right click)
- Wisenet7 SoC applied

Hanwha-Security.com

"The district has achieved a new level of control, quality and confidence. [With more] Wisenet series cameras from Hanwha added regularly, the ability to expand and manage the system is a key benefit for the district and its security partners."

-2018, June 1. Security Magazine.

How Much Will Congress Spend to Shore Up Schools?

The Covid-19 relief plans before Congress all dedicate billions to stabilizing education budgets amid deep losses in state revenue. But the amounts vary from bill to bill.

	CARES Act Signed into Law March 2020	Covid Relief Package Signed into Law December 2020	American Rescue Plan Signed into Law March 2021
FutureEd GEORGETOWN UNIVERSITY			
Education Total	$30.7 billion	$82 billion	$168 billion
K-12	$13.2	$54	$126
Higher Ed	$14	$22	$40
Governors	$3	$4	$2.7

ALLOWABLE USES OF FUNDS: ESSER II & III

Consult with SEA if questions

Hanwha may qualify under 4 areas

1. Preparedness & Response Efforts

Coordination of preparedness and response efforts of local educational agencies with state, local, tribal, and territorial public health departments, and other relevant agencies, to improve coordinated responses among such entities to prevent, prepare for, and respond to coronavirus.

3. Providing Resources Necessary

Providing principals and other school leaders with the resources necessary to address the needs of their individual schools.

2. Facility Repairs & Improvements

School facility repairs and improvements to enable operation of schools to reduce risk of virus transmission and exposure to environmental health hazards, and to support student health needs.

4. Develop & Implement Procedures

Developing and implementing procedures and systems to improve the preparedness and response efforts of local educational agencies.

ALLOWABLE USES OF FUNDS: HEER III

1. *Evidence Based Practices*

Implementing evidence-based practices to monitor and suppress coronavirus in accordance with public health guidelines

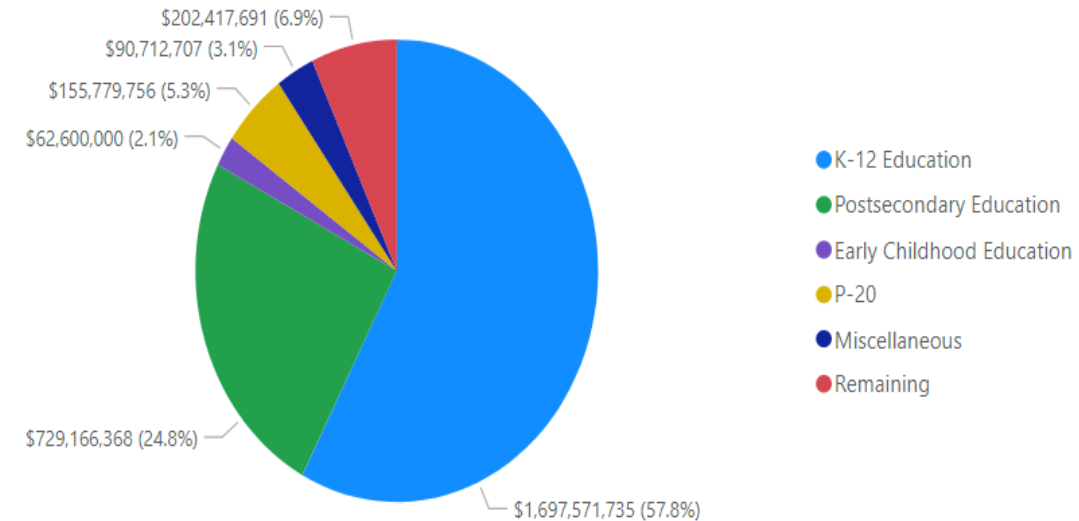*ARPA's HEERF III requires that a minimum of 50% of an institution's allocation be spent on students

ALLOWABLE USES OF FUNDS: GEER I and II

Emergency Assistance to Non-Public Schools: both K-12 and Higher Education

1. *Expanding Capacity to Test, and Monitor and Suppress*

2. *Expand Capacity to Conduct Surveillance and Contact Tracing Activities*

"[Expand] capacity to administer coronavirus testing to effectively monitor and suppress coronavirus, to conduct surveillance and contact tracing activities, and to support other activities related to coronavirus testing for students, teachers, and staff at the non-public school."

$202,417,691 (6.9%)
$90,712,707 (3.1%)
$155,779,756 (5.3%)
$62,600,000 (2.1%)

- K-12 Education
- Postsecondary Education
- Early Childhood Education
- P-20
- Miscellaneous
- Remaining

$729,166,368 (24.8%)

$1,697,571,735 (57.8%)

For GEER I: Must be awarded last day of June 2021
For GEER II: Must be awarded last day of January 2022

Consulting, Planning, and Design Services?

Yes. If it is for the purposes of, and in the pursuit of, making schools safer by mitigating the effects of COVID-19

Thank You!

Hanwha Techwin

Questions?

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