

# March 2026 New Product Introduction

PM Team



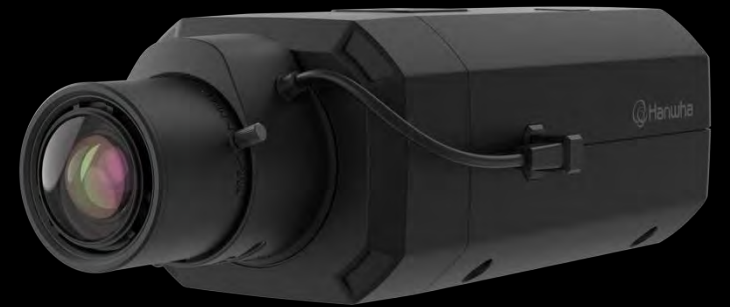


# 2<sup>nd</sup> Generation X Plus and Box cameras

XNV-A9085R / XNV-A8085R

XND-A9085RV / XND-A8085RV

XNB-A9004 / XNB-A8004



The product release date : Mar 2026

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# 2<sup>nd</sup> Generation X Plus series

XNV-A9085R/A8085R  
XND-A9085RV/A8085RV



Magnetic Modular Design

Common

**8 MP** (1/1.8" sensor)    **5 MP** (1/2.8" sensor)

Resolution

**PoE+**

IR Length  
up to 164.04 ft  
(50 m)

**PoE**

IR Length  
up to 98.43 ft  
(30 m)

**DC12V**

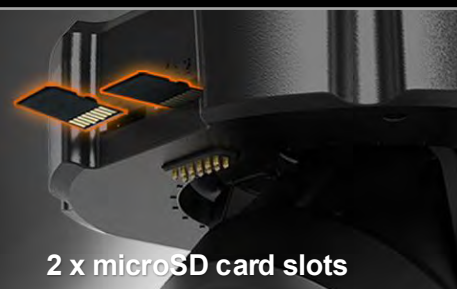
IR Length  
up to 164.04 ft  
(50 m)

Multiple Power Options

Common



IR Range



2 x microSD card slots



Case Tampering Alarm

XNV-A9085R/A8085R



IP66/IP67/IP6K9K/ NEMA4X



IK11

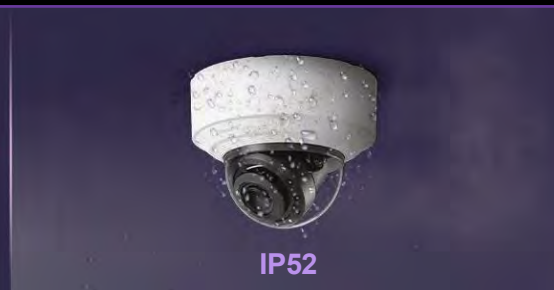


NEMA-TS 2

XND-A9085RV/A8085RV



Built-in Mic



IP52



IK10

# 2<sup>nd</sup> Generation X Plus series

XNV-A9085R / A8085R  
XND-A9085RV / A8085RV



The new Wisenet 9 SoC utilizes Dual NPU concept to ensure the video quality and analytics have independent resources, preventing one function from impacting the performance of the other.

## Object Detection and Attributes



People



Vehicle



Face



License Plate



Glasses



Bag



Color



Type of Vehicle



Face Mask



Direction



Gender



Age

## Advanced Analytics



Similarity Search

H1 26



Tailgating Detection

H1 26



Object Counter

H1 26



Auto Calibration

H1 26



Slip&fall Detection

H1 26



Social Distancing

H1 26



ATM Theft Event Detection

H1 26

## Basic Analytics



AI-Motion Detection



Enter/Exit



Line Crossing



Loitering



Advanced Loitering

H2 26



Blocked Exit Detection

H2 26

## Sound Analytics



Sound Level



Glass Break Detection



Scream Detection



Tire Screech Detection



Vehicle Horn Detection

## Image Processing



BestShot



WiseStream  
(Based on AI)



WiseNR II  
(Based on AI)



AI Noise Reduction



DPM  
(Dynamic Privacy Masking)

## Statistics



People Counting



People Queue



People Heatmap



Crowd Counting

## Software and Cloud

### Compatible Cloud Service

The 2<sup>nd</sup> generation X Plus series cameras feature native support for Hanwha Vision's Cloud Portal applications – OnCloud enabling easier integration, remote device management, and access without external devices or applications.



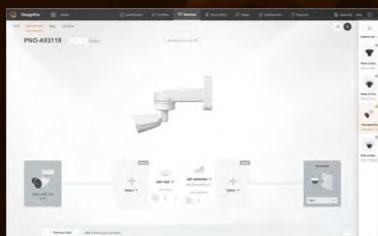
## Cybersecurity



### Next Level Cybersecurity

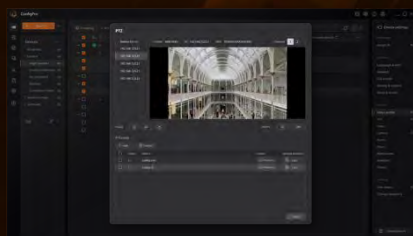
- Secure Element (FIPS 140-3 Level3 / CC EAL6+)
- EN 303 645 Certified
- SBOM
- IP and MAC filtering
- Admin login timeout

## Sales Support Tools



### DesignPro

Build and spec out your security system with DesignPro's intuitive user interface and dashboards.



### ConfigPro

This program discovers the Hanwha devices on the network and easily allows the user to modify their IP addresses.



### HealthPro

All Your Devices, One Health Dashboard  
Centralized health monitoring for enterprise supporting 5,000 sites and multi-device environments

# Device Solutions

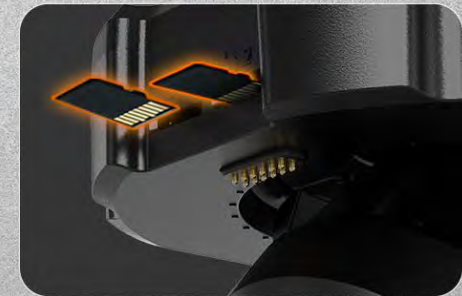
- Magnetic Modular Design
- Easy Installation
- Box Cameras
- Built-in Mic
- Multiple Power Options
- Device Monitoring
- Powerful Event Rules and Actions
- Case Tampering Alarm
- Reinforced Durability
- Easy Connection via Wi-Fi Direct

# Magnetic Modular Design

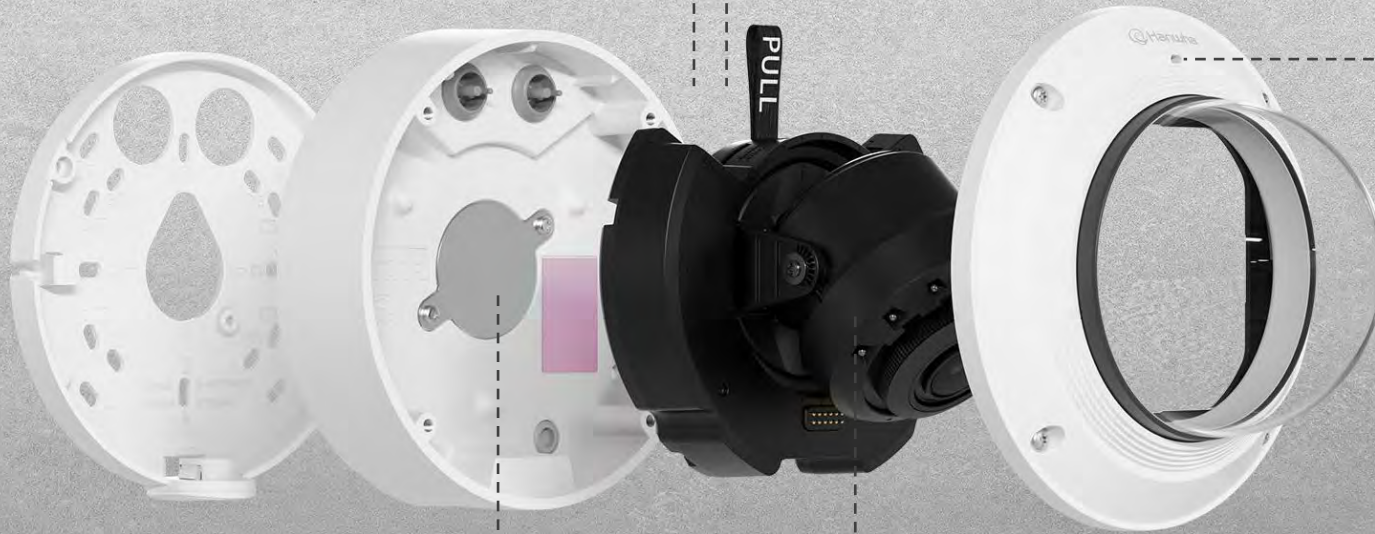
All 2<sup>nd</sup> generation X Plus series dome cameras offer magnetic modular design allowing for an easy and fast installation and service.


**Multiple Power Options**  
PoE+ / PoE / DC12V

**2x microSD Slots**



**Built-in Microphone**

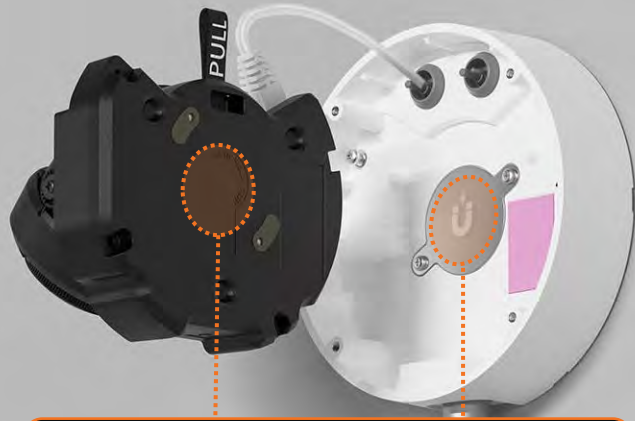


  
**Magnetic mounting structure**

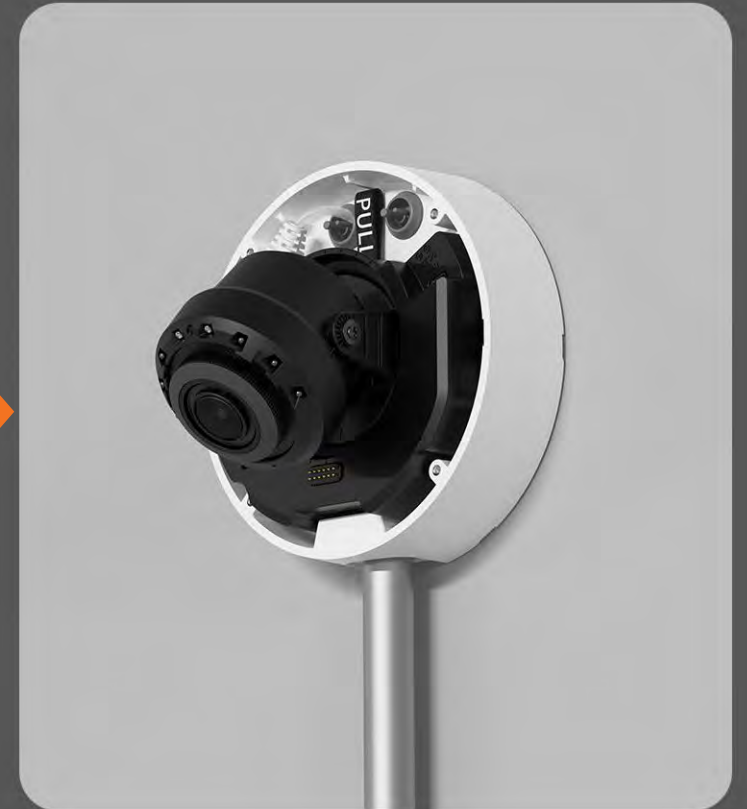
**IR LED**  
up to 164.04 ft (50 m)  
\* PoE mode: 98.43 ft (30 m)

# Easy Installation

The magnetic modular design of 2<sup>nd</sup> generation X Plus series allows for easy and fast installation and maintenance. Specially designed, installation-friendly packaging allows for easy pre-configuration prior to on-site shipment.



Magnetic mounting structure



# Built-in Mic

## Noise Reduction

2<sup>nd</sup> generation X Plus series indoor cameras utilize a built-in microphone to significantly improve overall audio quality and noise reduction performance, ensuring clear capture of essential audio, even in loud environments.



# Multiple Power Options

Users can select the power mode, PoE+, PoE, or DC12V based on their needs. This allows customers the flexibility to utilize the powerful AI capabilities and full performance of the product to use PoE+ or by selecting the PoE power mode, users can access the product's basic hardware functions and enhanced AI performance even at low power consumption.

**PoE+**

Enables full performance and powerful AI capabilities of the product.

\* IR Length: up to 164.04 ft (50 m)

**PoE**

Allows utilization of basic hardware functions and enhanced AI features with low power consumption.

\* IR Length: 98.43 ft (30 m)

**DC12V**

Provides a stable, dedicated power source based on the installation site's power environment.

\* IR Length: up to 164.04 ft (50 m)

**2<sup>nd</sup> generation X Plus series supports various power modes.**

# Device Monitoring

The new 2<sup>nd</sup> Generation X Plus cameras support real-time monitoring of CPU utilization, RAM usage, and power consumption, simplifying device maintenance. HealthPro cloud solution allows customer to check the overall device's health.

## Device

.....

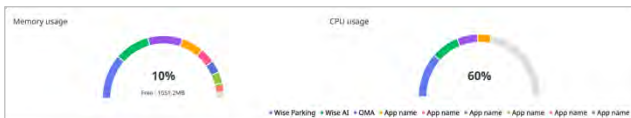
Camera 3

Camera 2

Camera 1

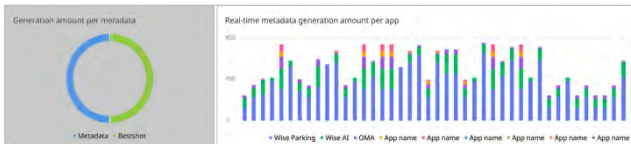
### CPU/RAM usage

Show usage of camera/App



### Metadata generation

Show metadata/ BestShot amount when event occurred



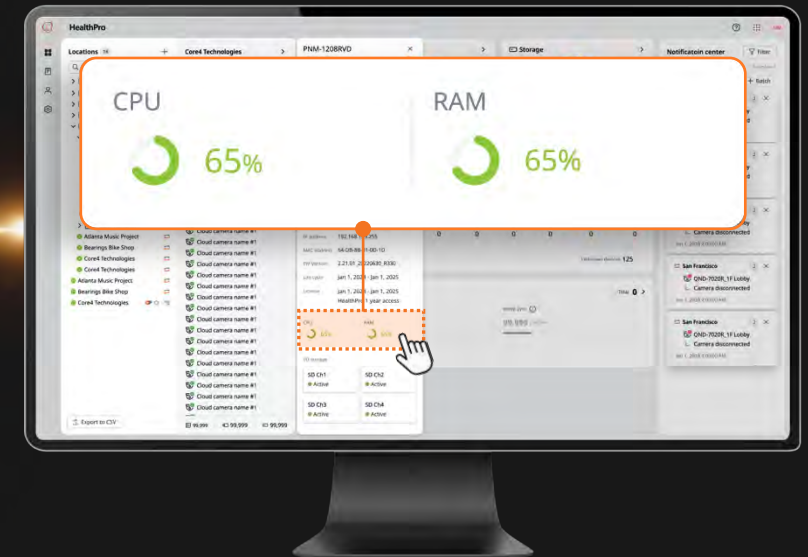
### Power Consumption

Show current/Max/Avg. power

## Cloud



## HealthPro



\* Monitoring power consumption will be support 2026.

# Powerful Event Rules and Actions

Using Boolean Logic rules engine, camera opens up new possibilities when setting up event action. Up to three event triggers can be grouped together to generate a single event. Newly added event triggers and action such as Day/Night On/Off, Storage disruption, FTP/SFTP video clip upload allows to monitor additional scenarios and respond to different type of events.

## When Event Occurred



Line Crossing



IVA Area



Motion Detection



People Counting



Vehicle Counting



Face mask Detection

Analytic Events



Alarm In



Day/Night Action



Storage Disruption



Rule-based Event Setup

## Event Notification



Record SD/NAS



Alarm Out



Video clip upload FTP/SFTP



Image Upload E-mail/FTP/SFTP



Notification E-mail



Send Message HTTP/HTTPS/TCP



Play Audio Clip WAV/MP3



MQTT Publication

# Case Tampering Alarm

The device is equipped with a tamper detection switch. In the event of the cover being removed, a tampering alarm will be triggered, alerting staff so they can take immediate action.



# Reinforced Durability



## IK11 Impact Protection

\* XND: IK10

Protects the camera from impacts up to 50 joules making it extremely safe and vandal resistant.



## IP66/67, IP6K9K

\* XND: IP52

2<sup>nd</sup> generation X Plus series outdoor cameras are designed to the highest outdoor specifications to withstand heavy rains or flooding as well as high-temperature water and high-pressure steam cleaning.



## NEMA TS-2 Certified(2.2.7~9)

\* XNV only.

NEMA TS2 certification allows camera to meet environmental, electrical, and safety requirements for use with traffic signal control systems.

- 2.2.7.2~8 : Transient, Temperature, Voltage, Humidity test
- 2.2.8 : Vibration test
- 2.2.9 : Shock(Impact) test

# Easy Connection via Wi-Fi Direct

Wisenet installation app allows installers to configure the camera by connecting USB type C cable and Wi-Fi dongle to the camera, then using a mobile device to connect to the camera over Wi-Fi (requires optional Wi-Fi dongle and USB type C cable). Application allows installers to check the camera position and configure settings such as simple focus, zoom, flip/mirror/hallway view as well as screen capture.

\* Wisenet installation app can be downloaded from the app store (Wi-Fi dongle and USB type C cable not included)



# 2<sup>nd</sup> Generation Box cameras

- Box camera
- Box camera – Lens compatibility

# 2<sup>nd</sup> Generation Box Cameras

XNB-A9004 / XNB-A8004



\*Lens and mount sold separately

Common

**8 MP**  
(1/1.8" sensor)

**5 MP**  
(1/2.8" sensor)

Resolution

PoE

DC12V

Multiple Power Options

XNB-A9004/A8004



Multiple housing options

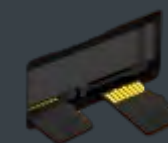
XNB-A9004/A8004



DC/P-Iris/i-CS Lens compatibility



RS-485 support



2 x microSD card slots

# Box Cameras

Box cameras deliver maximum lens flexibility, letting users choose the ideal focal length for any application. Available in 8MP and 5MP models, paired with our latest WN9 SoC, which enables advanced AI analytics to enhance awareness, capture more details, and expand real-world usability.



\*Lens sold separately

# Box camera - Lens compatibility

2nd Generation X-series box cameras support C/CS-mount lenses, giving the flexibility to cover everything from wide area monitoring to detailed long range capture. With i-CS lens compatibility, installers can remotely adjust zoom and focus for faster, more precise setup.



SLA-T-M410DN  
4-10mm



SLA-T-M1250DN  
12-50mm



SLA-C-I3910  
3.9-10mm  
i-CS

\*Lens sold separately





# AI Revolution at the Edge

- The Power of In-house SoC
- New 2<sup>nd</sup> Generation X Plus and Box cameras with Wisenet 9
- Dual NPU
- AI-based Image Enhancement
- Low-light Performance
- extremeWDR Performance
- AI-based Bandwidth Reduction, WiseStream
- Wisenet 9 vs ARTPEC 9



# The Power of In-house SoC

With in-house SoC development, Hanwha Vision has granular control over every aspect of the chip's design, allowing for tailored acceleration of specific video analytics algorithms and enhanced image quality. This direct control translates to faster processing speeds, reduced latency, and more efficient power consumption, ultimately delivering superior performance and a more reliable security experience.

	2013 <b>Wisenet 3</b>	2017 <b>Wisenet 5</b>	2020 <b>Wisenet 7</b>	2025 <b>Wisenet 9</b>
				
	<ul style="list-style-type: none"> <li>• 2MP 60fps</li> <li>• WDR 2MP 30fps (120dB)</li> <li>• Defog, 3DNR</li> <li>• H.264/MJPEG</li> <li>• 45nm</li> </ul>	<ul style="list-style-type: none"> <li>• 5MP 30fps, 2M 60fps</li> <li>• WDR 2MP 30fps (150dB)</li> <li>• Defog, HLC, 3DNR</li> <li>• H.264/H.265/MJPEG</li> <li>• 28nm</li> </ul>	<ul style="list-style-type: none"> <li>• 8MP 30fps</li> <li>• Enhanced Noise Reduction, LDC</li> <li>• H.264/H.265/MJPEG</li> <li>• HTPM</li> <li>• 14nm</li> </ul>	<ul style="list-style-type: none"> <li>• 8MP Resolution</li> <li>• Neural Processor</li> <li>• AI-based Image Enhancement (NR, HDR, Details, WDR)</li> <li>• H.264/H.265/MJPEG</li> <li>• 8nm</li> </ul>
Res	~ 2MP	~ 5MP	~ 8MP	
Image	General Image Processing			AI-based Image Enhancement
Codec	H.264/MJPEG	H.264/H.265/MJPEG		
NPU			Companion NPU	NPU Embedded
Process	45nm	28nm	14nm	8nm

# New 2<sup>nd</sup> Generation X Plus and Box cameras with WISENET 9



## Smarter, Clearer, More AI-powered X series

- Powerful Wisenet 9 AI-native SoC
- Significant improvement in image quality with AI-based Image Enhancement (Dual NPU)
- AI-based extreme Wide Dynamic Range
- Improved Natural Dynamic Range without WDR
- Significantly improved Bandwidth Reduction(WiseStream)
- Expandable AI
- Advanced AI performance (Object classification, attributes)
- Support AI-based DPM (Dynamic Privacy Masking)
- Improved Cyber Security (EN 303 645, FIPS 140-3 Level3)

# Dual NPU

The Wisenet 9 SoC utilizes Dual NPU concept to ensure the video quality and analytics have independent resources, preventing one function from impacting the performance of the other. This will prevent any degradation of the video quality even in case of extensive object analytics.

## For AI-based image enhancement

Low-light performance  
extremeWDR  
Noise reduction

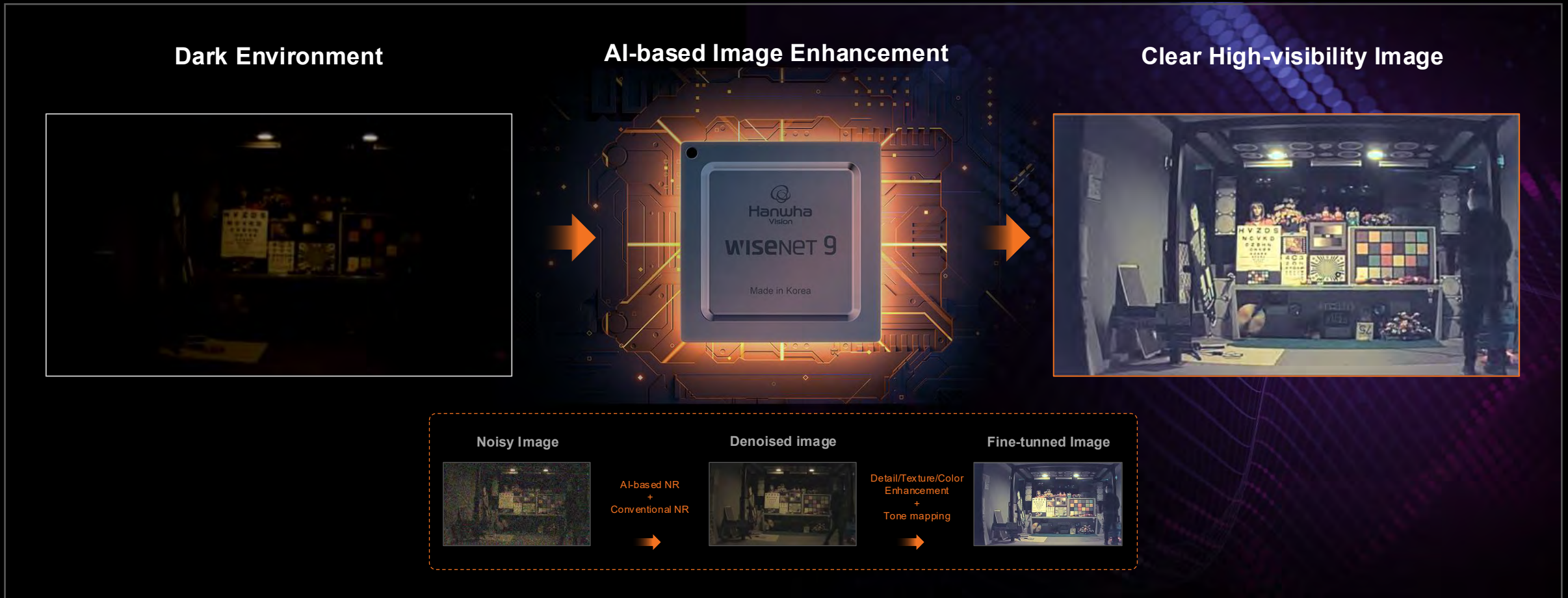


## For AI-based Analytics

Object detection  
Slip and Fall detection  
Business intelligence  
DPM

# AI-based Image Enhancement

By combining conventional and AI based denoising network we were able to greatly improve picture quality in low-light and other challenging conditions. This also allows us to free up the second NPU to be used for analytics and other operations. This processing further reduces motion artifact in denoised images allowing ISP to fine-tune video with advanced image enhancement technologies such as detail/texture/color enhancement and tone mapping. With our cutting edge technology enables various image enhancements, like dynamic range expansion, image sharpening, and color optimization, resulting in improved visibility.



# Low Light Performance

WDR Low, IR On (Video Clip)

Conventional

WDR Low



VS

2<sup>nd</sup> Generation X series

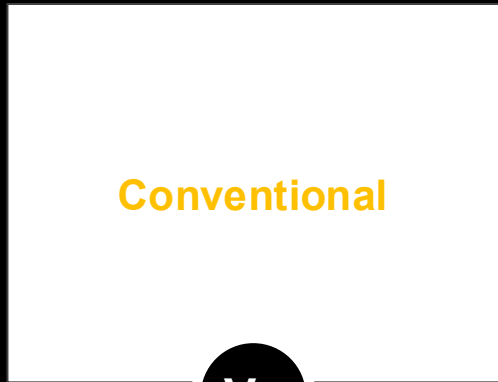
WDR Low



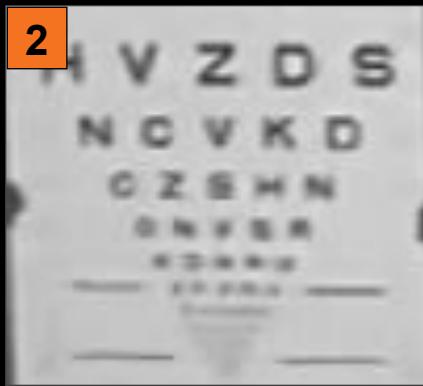
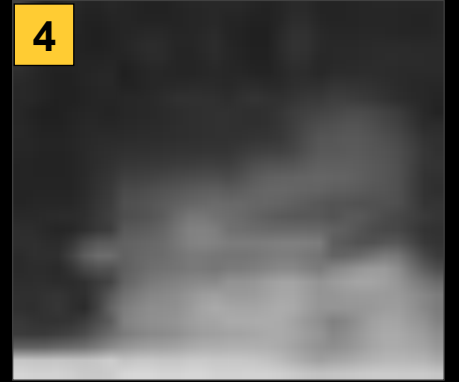
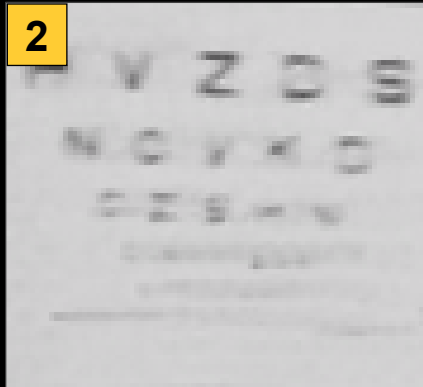
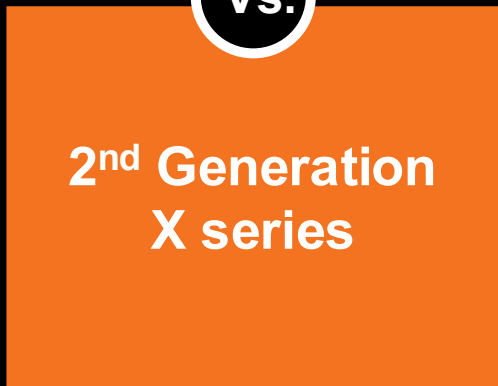
# Low Light Performance

## Clear Fine Details

Even the level of details in bright/dark area in the video improved drastically when compared to conventional cameras.



Vs.



# Low Light Performance

WDR Off, Color(IR Off), Car light

Conventional



VS

2<sup>nd</sup> Generation X series



# Low Light Performance

## Clear Fine Details

Even the level of details in bright/dark area in the video improved drastically when compared to conventional cameras.



# Low Light Performance

WDR Off, Color(IR Off), Front light

Conventional



VS

2<sup>nd</sup> Generation X series



# Low Light Performance

## Clear Fine Details

Even the level of details in bright/dark area in the video improved drastically when compared to conventional cameras.



# extremeWDR Performance

Our extremeWDR has been greatly improved by AI-based image enhancement. Using denoised image based on NR processing, camera analyzes scene and evaluates the dynamic range. After processing, it determines the optimal exposure and controls motion artifacts, contrast, and tone using new image enhancement technology. This leads to a clearer, enhanced, and well-contrasted images even under challenging backlighting conditions.

**WDR Off**



**WDR Low**



**WDR High**



# extremeWDR Performance

Our extremeWDR has been greatly improved by AI-based image enhancements. Using denoised image based on NR processing, camera analyzes scene and evaluates the dynamic range. After processing, it determines the optimal exposure and controls motion artifacts, contrast, and tone using new image enhancement technology. This leads to a clearer, enhanced, and well-contrasted images even under challenging backlighting conditions.

Conventional



VS

2<sup>nd</sup> Generation X series



\* WDR low condition

# extremeWDR Performance

## Clear Fine Details

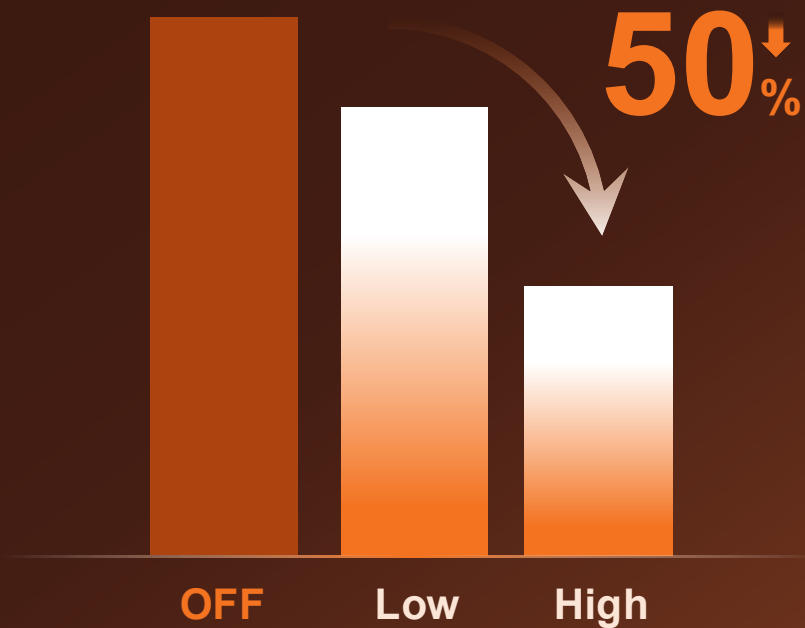
Even the level of details in bright/dark area in the video improved drastically when compared to conventional cameras.



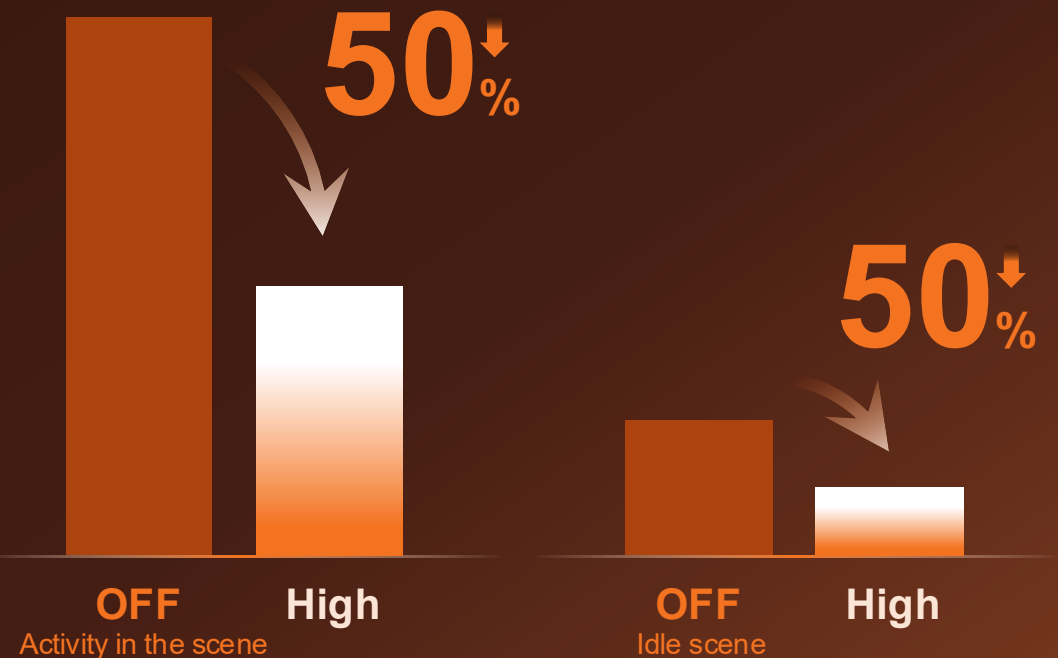
# AI-based Bandwidth Reduction, WiseStream

The new cutting-edge compression technology (WiseStream) is AI-based and operates by using object detection performed through advanced AI algorithm. When combined with the H.265 compression technology, bandwidth can be reduced without compromising the video quality, enabling efficient video management.

### WiseStream Performance Based on Level



### WiseStream Performance Based on Scene Activity



# WISeNET 9 vs ARTPEC 9

## H.265 vs AV1

As shown in the Wisenet 9 H.265 vs ARTPEC 9 AV1 bandwidth consumption comparison, codec performance is comparable, with differences mainly resulting from scene complexity and activity levels.

### Bandwidth real test results



Wisenet 9 H.265

52 MB

5.07 Mbps



ARTPEC 9 AV1

55 MB

5.37 Mbps

### ARTPEC 9 AV1

### WISeNET 9 H.265

VMS

Requires AXIS camera station

Supported on all VMSs

Browsers

All

All

Encoding / Decoding

High resource requirement

Low resource requirement

ONVIF

Not supported

Supported

# WISENET 9 Vs. ARTPEC 9

## H.265 Vs. H.265 - Low-light

By using Wisenet 9's advanced AI -based noise reduction, bandwidth usage in black-and white scenes averages about 50% lower than competing solution from Axis.

### ARTPEC 9

AXISQ3548LVE

3840x2160  
30.00fps  
3.89Mbps  
H.265 (HW)  
Hi-Res

9/2/2025 9:58:31 PM

VS

### WISENET 9

PNV-A9082RZ

3840x2160  
30.00fps  
2.33Mbps  
H.265 (HW)  
Hi-Res

9/2/2025 9:58:31 PM

# WISENET 9 vs ARTPEC 9

## Low-light image quality

Even in low-light environments, you can monitor brighter and clearer video images with minimized motion blur and noise.

\* 1Lux

ARTPEC 9



VS

WISENET 9



# Expandable AI

- The Most Advanced AI Solution
- Object Classification and Attributes
- Advanced Tool to Enhance AI Accuracy
- AI-based Analytics - Value-added Benefit to Various Solutions
- AI-based Analytics - Sound Classification
- AI-based Statistics - Value-added Benefit to Various Solutions
- AI-based Analytics - Similarity Search
- Dynamic Privacy Masking - Protecting the Privacy of Objects
- Motion Detection Based on AI
- Hanwha Vision Open Platform

# The Most Advanced AI Solution

2<sup>nd</sup> generation X Plus series adds more specialized AI analytics on top of the 2<sup>nd</sup> generation X series platform, enabling more precise alerts and richer statistical insights for demanding, analytics-driven applications.

Analytics		2 <sup>nd</sup> generation			
		P	X Plus	X	
Object Detection and Attributes	Object	People	Y	Y	Y
		Vehicle	Y	Y	Y
		Face	Y	Y	Y
		License plate	Y	Y	Y
	Attributes	Color	Y	Y	Y
		Type of vehicle	Y	Y	Y
		Face Mask, Glasses, Bag	Y	Y	Y
		Age, Gender	Y	Y	Y
		Direction	Y	Y	Y
		Height, Speed	Y H2 '26	N/A	N/A
Basic Analytics	AI-Motion detection		Y	Y	Y
	Enter/Exit		Y	Y	Y
	Line crossing		Y	Y	Y
	Loitering		Y	Y	Y
	Face mask detection		Y	Y	Y
	Advanced Loitering		Y H1 '26	Y H1 '26	N/A
	Blocked exit detection		Y H2 '26	Y H2 '26	Y H2 '26
Image Processing	BestShot		Y	Y	Y
	WiseStream (Based on AI), WiseNR II (Based on AI)		Y	Y	Y
	AI-based Image Enhancement		Y	Y	Y
	DPM		Y	Y	Y

Analytics		2 <sup>nd</sup> generation			
		P	X Plus	X	
Advanced Analytics	Social distancing		Y	Y	Y
	Slip&fall detection		Y	Y	Y
	Similarity search		Y H1 '26	Y H1 '26	Y H1 '26
	Tailgating		Y H1 '26	Y H1 '26	Y H1 '26
	Object counter		Y H1 '26	Y H1 '26	Y H1 '26
	Auto calibration		Y H1 '26	Y H1 '26	Y H1 '26
	Behavior detection		Y H1 '26	N/A	N/A
	Proximity detection		Y H1 '26	N/A	N/A
	Traffic Jam detection		Y H1 '26	N/A	N/A
	Stopped vehicle detection		Y H1 '26	N/A	N/A
	Pedestrian detection		Y H1 '26	N/A	N/A
	Wrong-way detection		Y H2 '26	N/A	N/A
	Road obstruction detection		Y H2 '26	N/A	N/A
	ATM theft event detection		Y H1 '26	Y H1 '26	N/A
	Statistics	People/Vehicle/Crowd Counting		Y	Y
People Queue/Heatmap		Y H2 '26	Y H2 '26	Y H2 '26	
Age/Gender Counting		Y H2 '26	Y	Y	
Vehicle Queue/Heatmap		Y	N/A	N/A	
Multilane Vehicle counting		Y	N/A	N/A	
Sound Analytics	Sound Level		Y	Y	Y
	Sound classification		Y H1 '26	Y	Y

# Object Classification and Attributes

Built on the Wisenet AI platform, all cameras natively detect people, faces, vehicles, and license plates, and provide analytics based on these objects. Best shot images and detailed attribute metadata are delivered for each object, enabling powerful forensic search in VMS/NVR systems, dramatically improving search efficiency and reducing time spent finding events.

Search...

## Person

- Gender
- Top and Color
- Bag
- Bottom and Color

## Face

- Gender
- Face mask
- Glasses
- Age

## Vehicle

- Car and Color
- Bus and Color
- Truck and Color
- Motorcycle and Color
- Bicycle and Color

## License Plate

• AB1234 •

# Advanced Tool to Enhance AI Accuracy

Auto calibration enables more accurate and objective AI analysis by precisely defining object size in the scene. This allows the system to more accurately understand not only the distance between the camera and objects, but also the distance between objects themselves, while additionally providing reliable speed information for selected objects.

\* Available in H1 2026.

The image illustrates two calibration methods for an AI system. On the left, the 'Manual Calibration' interface shows a camera view of a highway with a red grid overlay. Below the view are four sliders for adjusting camera parameters: Camera height (m) set to 3, Tilt (°) set to 62, Focal length (mm) set to 4.5, and Roll (°) set to 0. On the right, the 'Auto Calibration' interface shows the same camera view with a red grid overlay. Below the view is a large orange button labeled 'Start' with a hand icon, and the text 'One-click operation' above it. An orange arrow points from the manual calibration interface to the auto calibration interface.

# AI-based Analytics

## Value-added Benefit to Various Solutions

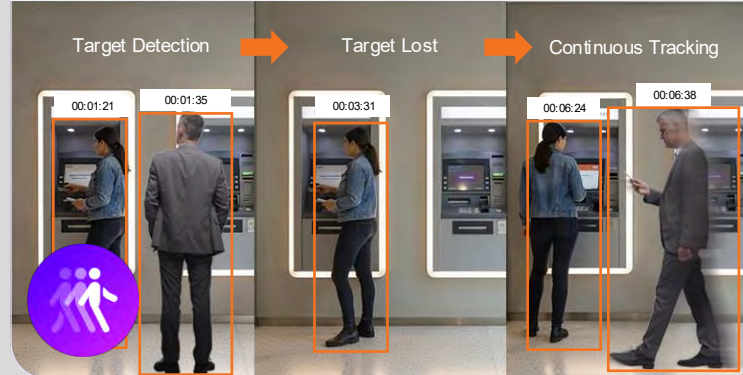
The intelligent video analytics on the camera utilize AI object detection to trigger events. The 2<sup>nd</sup> generation X Plus series AI camera includes various analytics such as Advanced loitering detection and ATM theft event detection for the Banking solution, and Slip&fall detection and Blocked exit detection to address diverse customer needs across multiple use cases.

2<sup>nd</sup> Generation P-AI and X-Plus Only

### Advanced loitering detection

This feature takes into account the object's staying time and direction, rather than the existing loitering feature.

\* It will be available from 2026. H1



### ATM theft event detection

Advanced detection for irregular vehicle approaches and multi-person presence at ATMs.

\* It will be available from 2026. H1



### Slip&fall detection

Designed for emergency response, this feature detects slip&fall accidents instantly.



### Blocked exit detection

Identifies obstructions at exits/entrances to help maintain clear evacuation routes.

\* It will be available from 2026. H2



# AI-based Analytics

## Value-added Benefit to Various Solutions

The intelligent video analytics on the camera utilize AI object detection to trigger events. The 2<sup>nd</sup> generation X Plus and Box cameras include various analytics such as Tailgating detection, Face mask detection, and Social distancing detection to address diverse customer needs across multiple use cases.

### Line crossing / IVA area

This feature strengthens perimeter security by automatically detecting unauthorized access or suspicious movements in restricted zones.



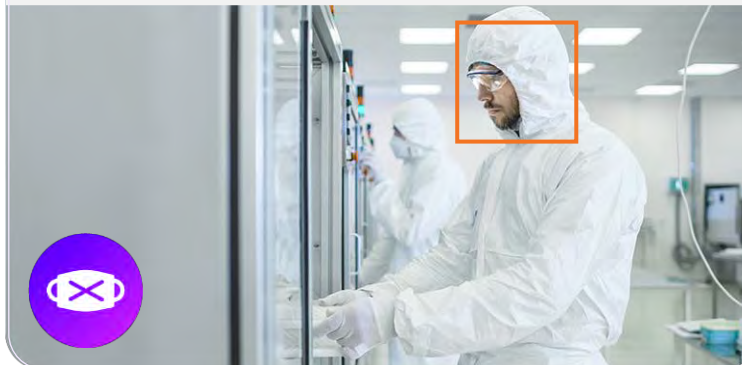
### Tailgating detection

This feature detects tailgating attempts where an unauthorized individual follows closely behind a credentialed user, or when a vehicle follows another through a gate without stopping for authorization.



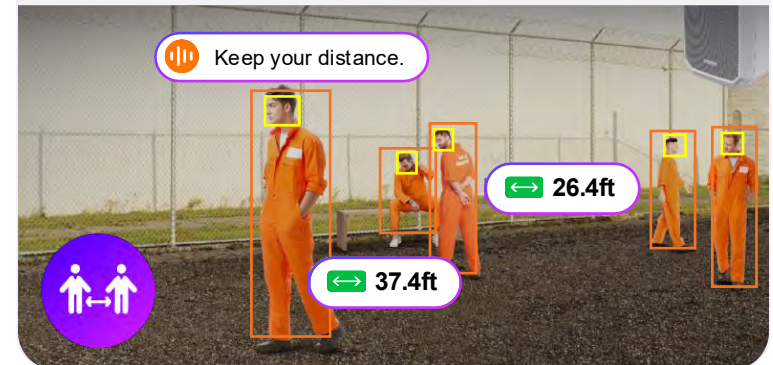
### Face mask detection

This feature identifies whether people are wearing masks or not and can simultaneously track multiple individuals to ensure safety compliance.



### Social distancing detection

This function promotes a safer environment by monitoring person-to-person proximity to prevent overcrowding in busy spaces.



# AI-based Analytics

## Sound Classification

The 2<sup>nd</sup> generation X Plus and Box cameras, more advanced AI technology provides sound classification that alert users to specific situations, such as glass breaking, screams, tire screeching and vehicle horns.

\* Available late 2026.

### Glass break detection

- Minimum Required dB: >80dB
- Detection Range: 6.5 ~ 52.5ft (2 ~ 16m)



### Scream detection

- Minimum Required dB: >70dB
- Detection Range: 6.5 ~ 98.4ft (2 ~ 20m)



### Tire screech detection

- Minimum Required dB: >80dB
- Detection Range: 6.5 ~ 52.5ft (2 ~ 16m)



### Vehicle horn detection

- Minimum Required dB: >80dB
- Detection Range: 6.5 ~ 52.5ft (2 ~ 16m)



# AI-based Statistics

## Value-added Benefit to Various Solutions

Our 2<sup>nd</sup> generation X Plus and Box cameras feature built-in intelligent video analytics with AI-based object detection. This enables real-time analysis for people heatmapping, crowd and people counting, and automated queue management, improving safety, operational efficiency, and overall user experience.

### People heatmap

This feature visualizes foot traffic intensity to help businesses identify popular areas and optimize store layouts based on customer movement patterns.



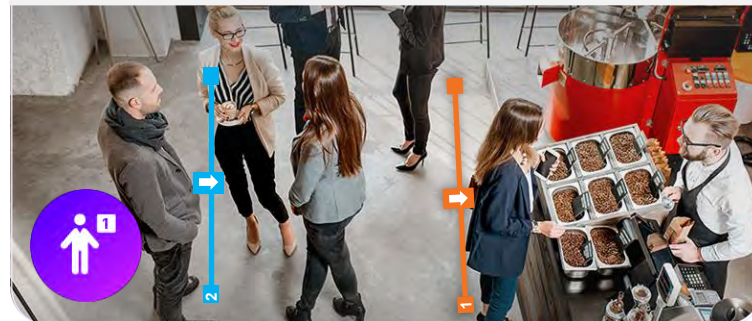
### Crowd counting

Utilizing zone-based detection, this powerful tool monitors high-density areas by counting up to 500 people simultaneously for effective large-scale occupancy management.



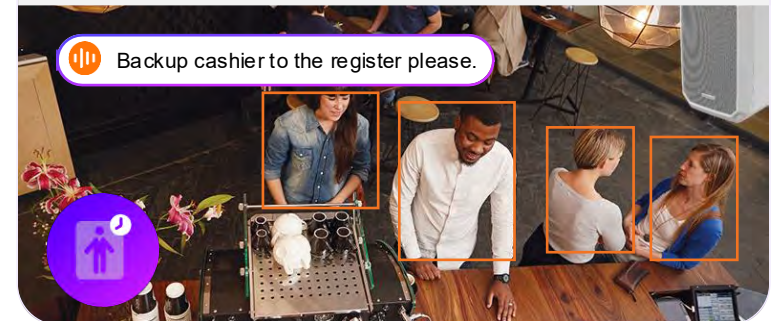
### People counting

Designed for operational insight, this function tracks the number of visitors entering and exiting a premises to analyze peak hours and improve service efficiency.



### Queue management

This feature helps reduce customer wait times by monitoring line lengths and triggering alerts to ensure smooth service flow during busy periods.



# AI-based Analytics

## Similarity Search

Cameras that support similarity search provide attribute data, such as the color of the upper and lower clothing of person, through AI-based analysis.

VMS that supports similarity search can analyze attribute data from multiple cameras to identify and track a person with similar characteristics.

\* Similarity search will be available in 2026.



# Dynamic Privacy Masking

## Protecting the Privacy of Objects

Enabling “Dynamic Privacy Masking (DPM)” will mask any objects by providing a color/mosaic overlay based on AI. This preserves privacy for objects, including moving people and/or vehicles, during live view. Simultaneously, the original video can be saved without the privacy masking in place, allowing forensic search based on original video.

Person



Face



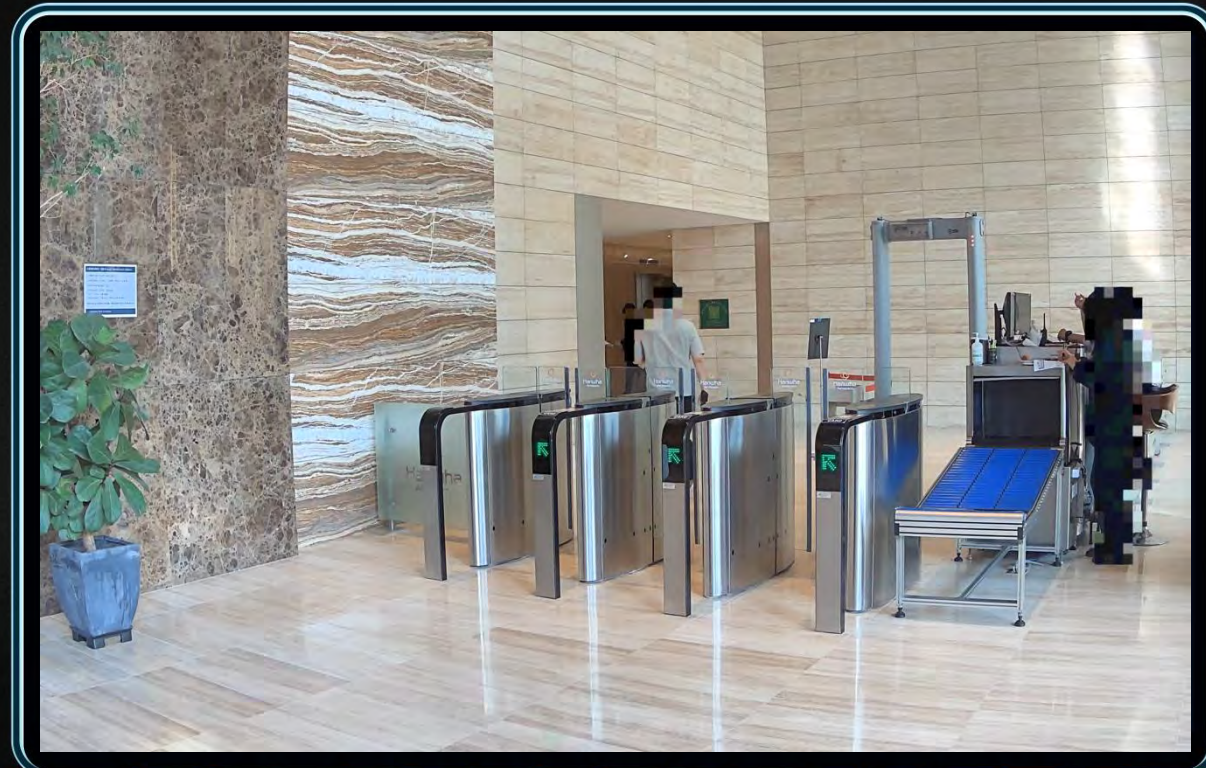
Vehicle



License Plate



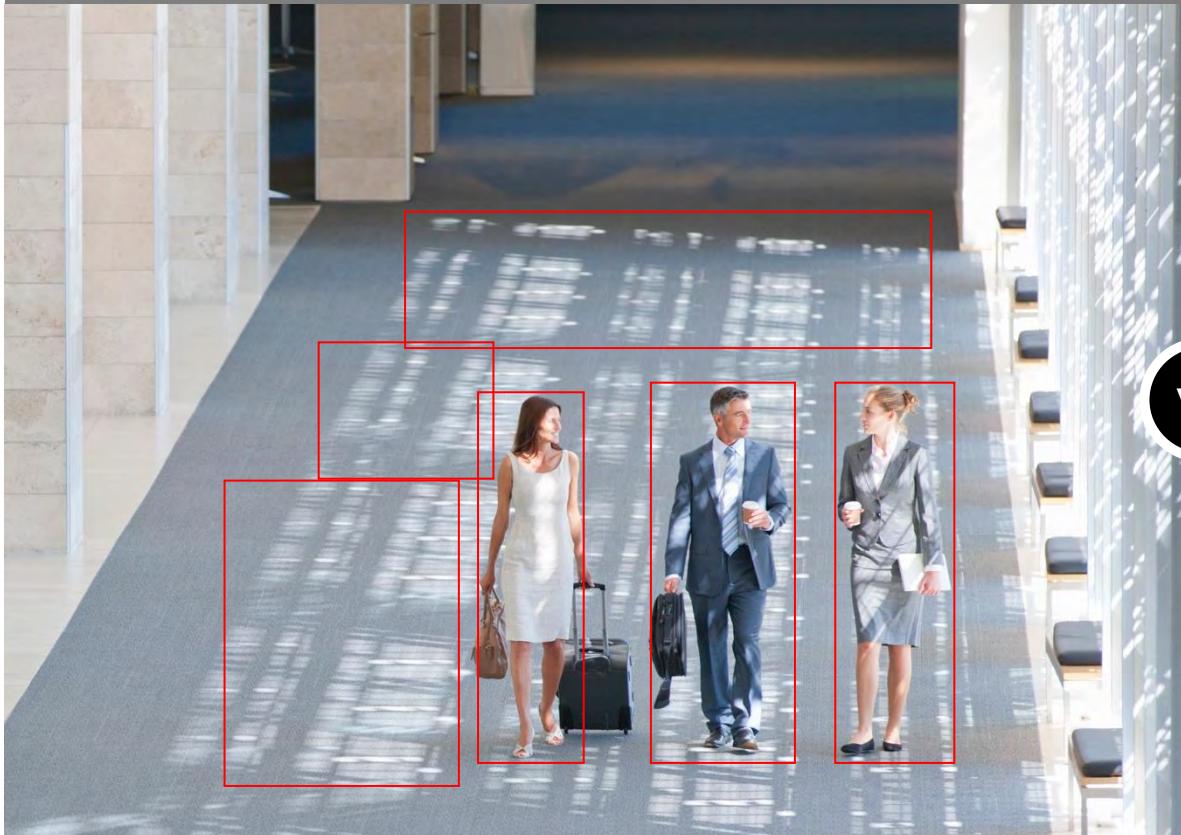
# Dynamic Privacy Masking



# Motion Detection Based on AI

The 2<sup>nd</sup> generation X Plus and Box cameras can detect and classify people and vehicles in real time, greatly enhancing the accuracy of video analytics. AI algorithms can discern persons as distinct objects separate from their surroundings such as waving trees, shadows, or animals, so motion detection alarms are only triggered when specific objects such as cars or people are moving in the scene.

Pixel-based Motion Detection



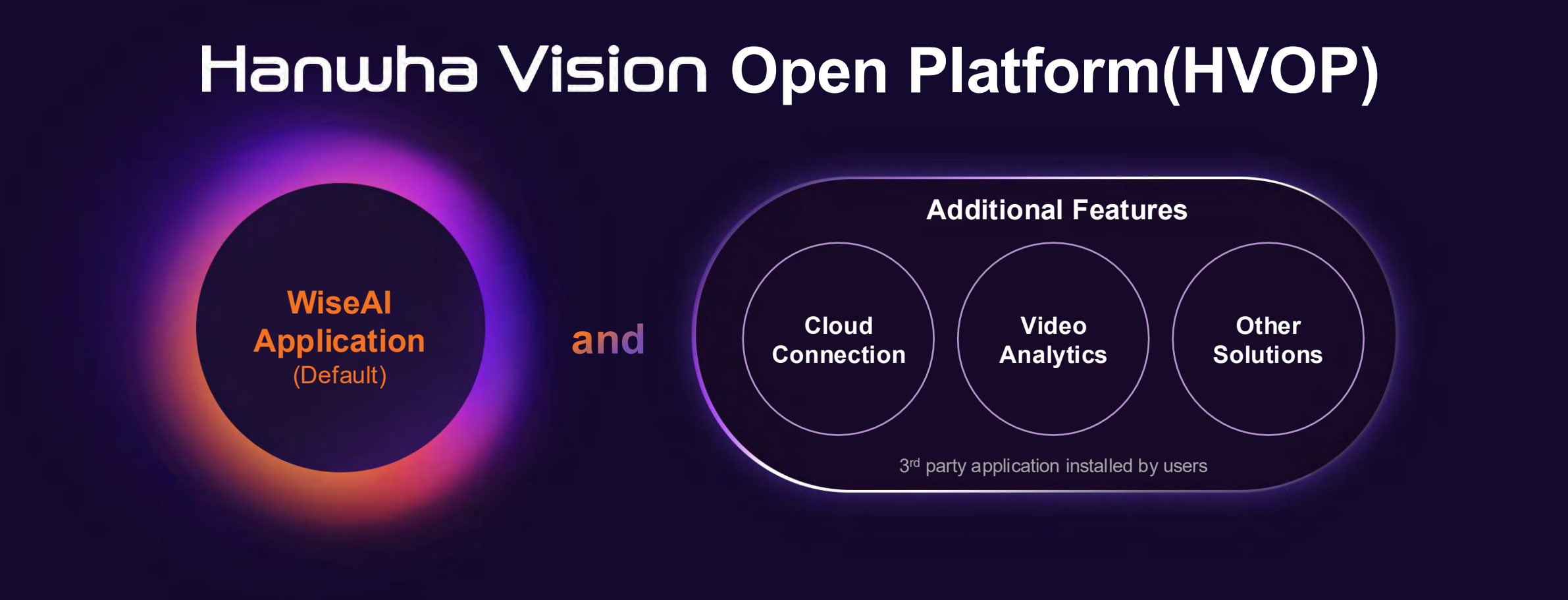
VS

AI-based Motion Detection



# Hanwha Vision Open Platform

Hanwha Vision supports open platform for the development of various applications. 3rd party partner can develop scalable and tailored applications with secure and efficient HVOP. They could analyze video, transmit files to cloud, or use information from products to build new applications. The program does not require additional servers and runs on a device, making the system design simple. The WiseAI app which developed by Hanwha is installed by default, and we are expanding our lineup to allow new application packs to be added for various vertical markets. (Support up to 2048MB of storage for HVOP)



# Software and Cloud

- Next Level Cybersecurity
- SBOM
- Cloud Connected - OnCloud
- Sales Support Tools - DesignPro
- Sales Support Tools - ConfigPro
- Sales Support Tools - HealthPro
- Compatible VMSs - Compatible Software

# Next Level Cybersecurity

The cybersecurity of the 2<sup>nd</sup> generation X Plus and Box camera validates the boot process, stores key information securely inside the Secure element with FIPS 140-3 Level 3 certified, and preempts hacking risk with unauthorized access blocking. Camera also have obtained ETSI EN 303 645 in which globally applicable standard CloT cybersecurity certificate. As a result, we can provide industry-leading end-to-end cybersecurity to the customer.



## Security Certificate

- Secure element (with FIPS 140-3 Level 3, CC EAL6+)
- EN 303 645 standard



## OS/Firmware Protect

- Secure boot
- Signed firmware
- Firmware encryption



## User Authentication

- Digest Authentication
- Prevent brute-force attack



## Network Authentication

- 802.1X Authentication (EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)



## Secure Communication

- HTTPS
- SRTP
- WSS(WebSocket secure)



## Access Control

- IP and MAC filtering
- Admin login timeout



## Data Protect

- Encryption Credentials
- Encrypt compress for live recording file export



## Audit

- User Access/System/Event log management



## Device ID

- Device Certificate (2<sup>nd</sup> generation X Plus series Root CA)



## Secure Storage

- Secure element
- SD card partition encrypt



## Supply Chain Security

- SBOM

# SBOM(Software Bill Of Materials)

Hanwha Vision supplies an SBOM as part of the product that includes the name and version of open source software components, their source, functional description, license, copyright holder, Common Platform Enumeration (CPE), Package URL (purl), and vulnerability patch information. SBOMs are especially important when managing third-party and open-source components, which often contain hidden vulnerabilities.

## For Better Software Supply Chain Management



### Enhanced Customer Trust

SBOMs can help organizations demonstrate their commitment to security and compliance, which can improve customer trust.

### Streamlined Software Development and Maintenance

SBOMs help organizations track and manage changes, updates, and compatibility issues.

### Faster Incident Response

SBOMs help organizations quickly identify and address vulnerabilities in the event of a cyberattack.

### Regulatory Compliance

SBOMs help organizations comply with regulations and industry standards.

# Cloud Connected

## OnCloud

Hanwha Vision OnCloud is a direct-to-cloud VSaaS solution that provides seamless video management and AI analytics without the complexity of local recording hardware.



### Serverless Infrastructure

Simplifies deployment and reduces costs by connecting cameras directly to the cloud without the need for on-site NVRs or servers.

### Unified Remote Access

Enables real-time monitoring and management of multiple global sites through a single web or mobile dashboard from anywhere.

### AI-Driven Analytics

Leverages high-performance AI for real-time object detection and business intelligence insights like queue management and heatmaps.

### End-to-End Security

Ensures data integrity with comprehensive encryption and stays protected through automated cloud-based security updates.

# Sales Support Tools

## DesignPro

DesignPro allows design and simulation of end-to-end Hanwha solutions. It can recommend optimal product for project with validated system design including bandwidth, storage and power calculation. When selecting DesignPro, users can also use professional reports that can help sales, dealers and end-users.



### Product Selector with Filters

Allows users to quickly find and compare models to select optimal product for project.

### Validated System with Project Simulation

Predicts necessary network resources, storage capacity, power budget and proper field of view by each location.

### Life-like Rendering with Compatibility Guide

Allows users to find compatible option by installation placement, showing with 3D rendering assembly images.

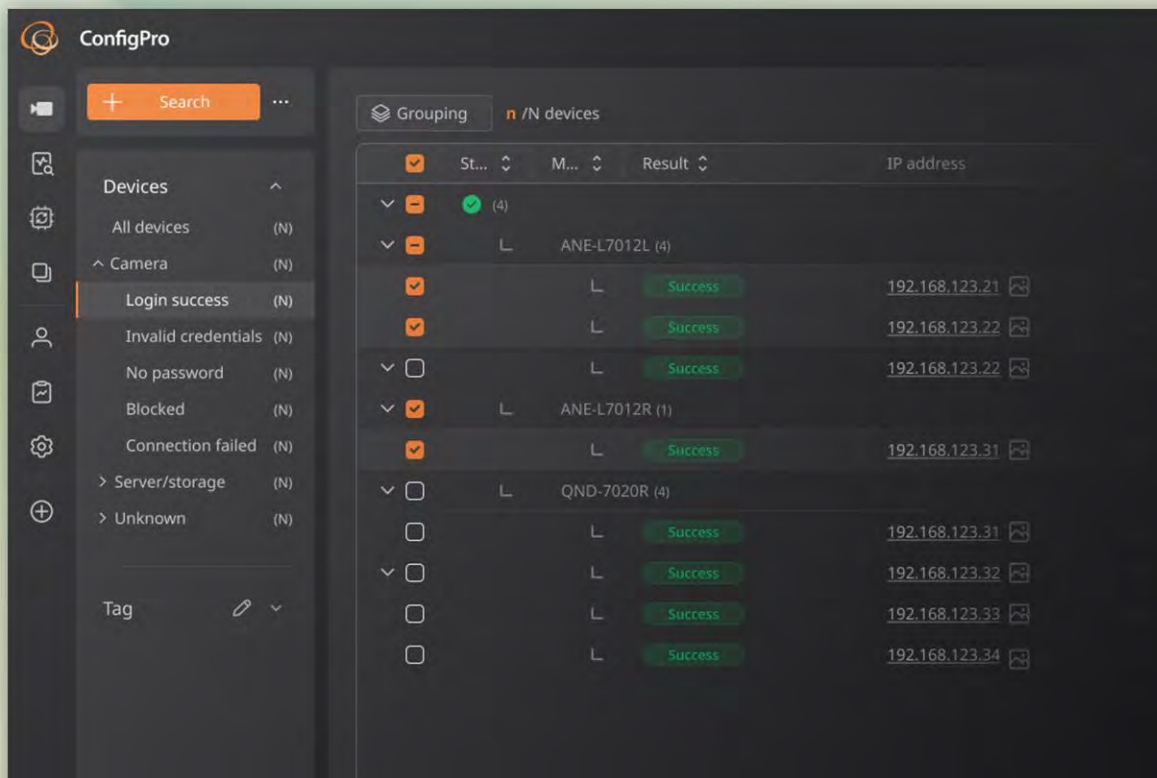
### Professional Proposal Generation

Automatically generates comprehensive design reports and equipment lists to streamline the bidding and planning process.

# Sales Support Tools

## ConfigPro

Hanwha Vision ConfigPro is a specialized on-site installation and optimization tool that allows engineers to precisely tune camera settings and verify AI performance.



### Server-Client Architecture

Built for scale with enterprise customers and support remote configuration.

### Mass Device Provisioning and Deployment

Bulk configuration with high efficiency and more accuracy.

### System Diagnosis and Reporting

Professional diagnosis can be done, both network and device status. When configuration and diagnosis done, also supports professional report with selecting proper option.

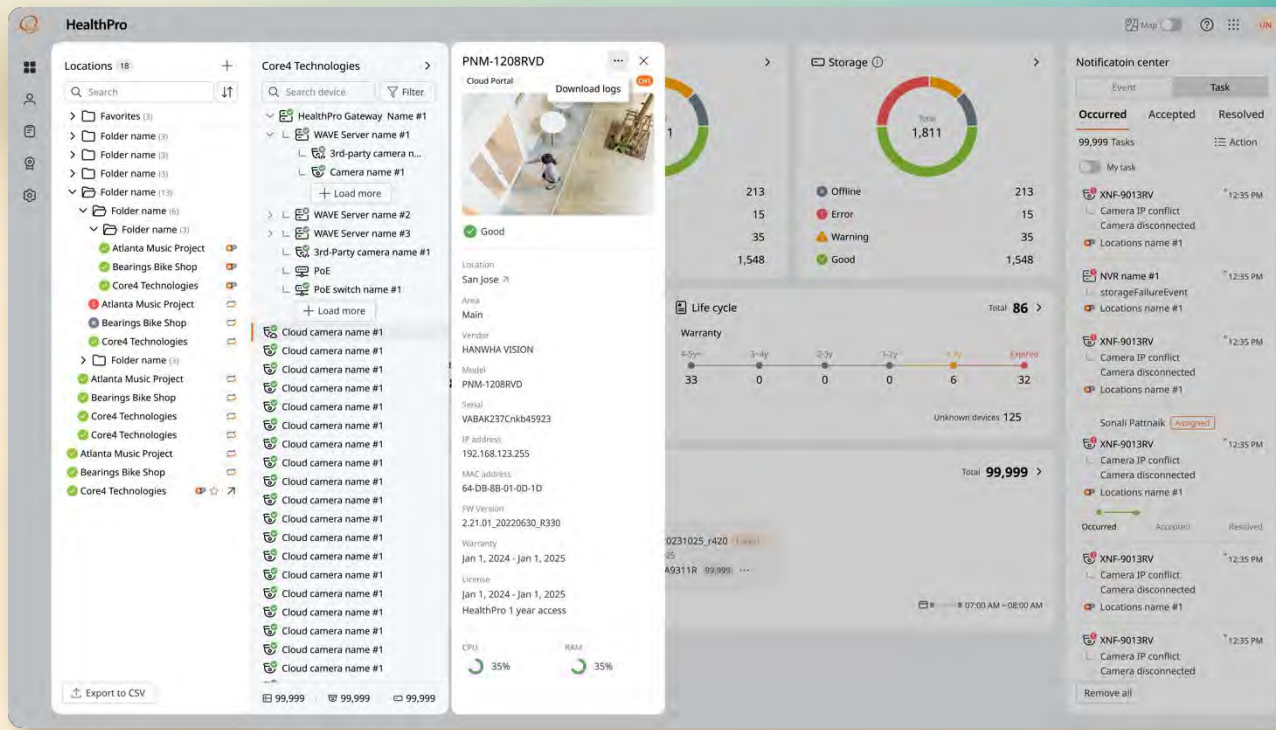
### Effective Updates and Onboarding

Mass firmware upgrades and application management, both installation and onboarding.

# Sales Support Tools

## HealthPro

Break free from vendor lock-in. HealthPro empowers businesses with universal device compatibility, supporting not only its own hardware but a vast ecosystem of third-party manufacturers. With next-level scalability, richer features, and seamless integration, HealthPro doesn't just outperform the competition—it redefines the standard.



### Real-time Device Status, All In One Dashboard

Check real-time status of all your devices from a single dashboard. See device status, CPU/RAM/Power usage, flash memory status, open apps and AI features, and issues all at a glance. (\*Supports AXIS, i-PRO, ONVIF)

### Multi-site Orchestration With Local Precision

Experience centralized health monitoring and control. Key features include 'Site grouping', 'Geo-dashboard', and 'Hierarchical tree view' for unified multi-site operations.

### Seamless Security With Real-time Event Management

Automatically detects and alerts on critical events such as camera disconnects, server failure, and storage errors for responsive mitigation.

### Life Cycle & Warranty Overview

Consolidates all device histories, license status, and warranty expiry to provide a holistic view of life cycles and empower proactive maintenance and compliance.

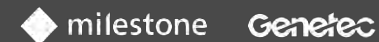
# Compatible VMSs

## Compatible Software

The 2<sup>nd</sup> generation X Plus and Box cameras offers seamless integration with VMS(Video Management Software) from Milestone and Genetec(with Hanwha Vision Plug-in), Wisenet SSM and Wisenet WAVE. Operators can search object detection events of AI cameras and playback of videos.



## Hanwha Vision Plug-in



※ Search for object detection events of AI cameras and playback of videos



※ Supports receiving real-time events and searching for events.

# Specifications and Installation Solutions

- Model Number and Specification
- Installation Solutions

# XNV-A9085R/A8085R



Category	Specification		
<b>Model Name</b>	<b>XNV-A9085R</b>	<b>XNV-A8085R</b>	
Resolution	8MP (1/1.8")	5MP (1/2.8")	
Lens	4.4~9.3mm M-V/F lens	3.3~9.3mm M-V/F lens	
Wide Dynamic Range	120dB		
Min. illumination	0.04Lux (F1.3, 1/30sec, 30IRE)		
IR Distance	WisIR PoE+: 50m(164.04ft) / PoE: 30m(98.43ft)		
Analytics	Based on AI Engine	Classified object type	Person/Face/Vehicle/L.plate
		Attributes	<ul style="list-style-type: none"> <li>• Person(Gender, Clothing top/bottom color, Bag)</li> <li>• Face(Age, Gender, Mask, Glasses)</li> <li>• Vehicle(Type: car/bus/truck/motorcycle/bicycle, Color)</li> </ul>
		Bestshot per object	Support
			<ul style="list-style-type: none"> <li>• Motion detection</li> <li>• Object detection</li> <li>• Virtual line(Crossing/Direction)</li> <li>• Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear)</li> <li>• Slip&amp;fall detection, Face mask detection, Social distancing detection</li> </ul>
	Defocus detection, Tampering, Shock detection, Audio detection		
Business Intelligence	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap		
I/O	Alarm(2 configurable), Audio(1/1)		
Power Consumption	PoE, PoE+, 12VDC		
Certification	IP66/IP67/IP6K9K, NEMA4X, IK11, NEMA-TS 2(2.2.7.2-8, 2.2.8, 2.2.9)		
Security	Device certificate(Hanwha vision Root CA), Secure boot, Signed firmware, ETSI EN 303 645, Secure element(FIPS 140-3 level3, CC EAL6+)		
ETC	Dynamic privacy mask		

# XND-A9085RV/A8085RV



Category	Specification		
<b>Model Name</b>	<b>XND-A9085RV</b>	<b>XND-A8085RV</b>	
Resolution	8MP (1/1.8")	5MP (1/2.8")	
Lens	4.4~9.3mm M-V/F lens	3.3~9.3mm M-V/F lens	
Wide Dynamic Range	120dB		
Min. illumination	0.04Lux (F1.3, 1/30sec, 30IRE)		
IR Distance	WisIR PoE+: 50m(164.04ft) / PoE: 30m(98.43ft)		
Analytics	Based on AI Engine	Classified object type	Person/Face/Vehicle/L.plate
		Attributes	<ul style="list-style-type: none"> <li>• Person(Gender, Clothing top/bottom color, Bag)</li> <li>• Face(Age, Gender, Mask, Glasses)</li> <li>• Vehicle(Type: car/bus/truck/motorcycle/bicycle, Color)</li> </ul>
		Bestshot per object	Support
			<ul style="list-style-type: none"> <li>• Motion detection</li> <li>• Object detection</li> <li>• Virtual line(Crossing/Direction)</li> <li>• Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear)</li> <li>• Slip&amp;fall detection, Face mask detection, Social distancing detection</li> </ul>
	Defocus detection, Tampering, Shock detection, Audio detection		
Business Intelligence	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap		
I/O	Alarm(2 configurable), Audio(1/1)		
Power Consumption	PoE, PoE+, 12VDC		
Certification	IP52, IK10		
Security	Device certificate(Hanwha vision Root CA), Secure boot, Signed firmware, ETSI EN 303 645, Secure element(FIPS 140-3 level3, CC EAL6+)		
ETC	Dynamic privacy mask		






















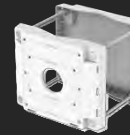









# XNB-A9004/A8004



Category	Specification		
Model Name	XNB-A9004	XNB-A8004	
Resolution	8MP (1/1.8")	5MP (1/2.8")	
Lens	DC auto iris, P iris(IR corrected), Manual, I-CS (sold serapately)		
Wide Dynamic Range	120dB		
Analytics	Based on AI engine	Classified object type	Person/Face/Vehicle/License Plate
		Attributes	<ul style="list-style-type: none"> <li>• Person(Gender, Clothing top/bottom color, Bag)</li> <li>• Face(Age, Gender, Mask, Glasses)</li> <li>• Vehicle(Type: car/bus/truck/motorcycle/bicycle, Color)</li> </ul>
		BestShot per object	Support
		<ul style="list-style-type: none"> <li>• Motion detection</li> <li>• Object detection</li> <li>• Virtual line(Crossing/Direction)</li> <li>• Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear)</li> <li>• Slip&amp;fall detection, Face mask detection, Social distancing detection</li> </ul>	
	Defocus detection, Tampering, Shock detection, Audio detection		
Business intelligence	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap		
I/O	Alarm(2 configurable), Audio(in/out)		
Power Consumption	PoE, 12VDC		
Security	Device certificate(Hanwha Vision Root CA), Secure boot, Signed firmware, ETSI EN 303 645, Secure element(FIPS 140-3 level3, CC EAL6+)		
ETC	Dynamic privacy mask		


























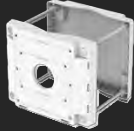

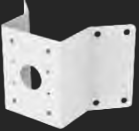




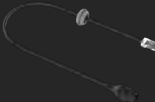
# Installation Solutions of XNV-A9085R/8085R

For ø180 Vandal

 <p>Hanging Adaptor SBP-180HMW1</p>	 <p>Ceiling Mount Base SBP-140CMB</p>	 <p>Ceiling Mount Base SBP-180CMB</p>	 <p><b>Ball Head</b> Ceiling Mount Base SBP-180CMS</p>	 <p>Ceiling Mount Pipe SBP-150CMP/300CMP/900CMP</p>	 <p>Ceiling Thread Converter SBP-C15H</p>	 <p>Ceiling Thread Converter SBP-C15NP</p>	 <p>Ceiling Pipe Converter SBP-C35H</p>	 <p>Ceiling Mount Coupler SBP-C15P</p>	 <p>Ceiling Mount (Assembly) SBP-150CMI / 300CMI</p>
 <p>Ceiling Mount (Assembly) SBP-300CMW1 / 900CMW</p>	 <p>Ceiling Mount (Assembly) SBP-300MTW</p>	 <p><b>Ball Head</b> Ceiling Mount (Assembly) SBP-300CTS</p>	 <p>In-Ceiling Mount SHD-1370FPW</p>	 <p>Wall &amp; Pole Mount SBP-250MMW</p>	 <p>Wall &amp; Pole Mount SBP-400MMW</p>	 <p><b>Q2 '26</b> Wall &amp; Pole Mount SBP-200MMW</p>	 <p><b>Q2 '26</b> Wall &amp; Pole Mount SBP-350MMW</p>	 <p>Wall &amp; Pole Adaptor SBP-115PFA</p>	 <p>Back Box SBV-180BW</p>
 <p>Back Box SBV-180WW</p>	 <p>Pole Mount SBP-150PMW</p>	 <p>Pole Mount SBD-180PMW</p>	 <p>Corner Mount SBP-156KMW</p>	 <p>Parapet Mount (Telescopic) SBP-156LMW1</p>	 <p>Cabinet SBP-150NBW</p>	 <p><b>Q2 '26</b> Smoked Dome Cover SPB-VAN850W</p>	 <p>Mounting Hole Cover SBP-180C</p>	 <p>Steel Strap SBP-060S</p>	 <p>Steel Strap SBP-150S</p>
 <p>Cable Converter SPP-C45W</p>									

# Installation Solutions of XND-A9085RV/8085RV

For ø160 Vandal

 <p>Hanging Adaptor SBP-160HMW1</p>	 <p>Ceiling Mount Base SBP-140CMB</p>	 <p>Ceiling Mount Base SBP-180CMB</p>	 <p><b>Ball Head</b> Ceiling Mount Base SBP-180CMS</p>	 <p>Ceiling Mount Pipe SBP-150CMP/300CMP/900CMP</p>	 <p>Ceiling Thread Converter SBP-C15H</p>	 <p>Ceiling Thread Converter SBP-C15NP</p>	 <p>Ceiling Pipe Converter SBP-C35H</p>	 <p>Ceiling Mount Coupler SBP-C15P</p>	 <p>Ceiling Mount (Assembly) SBP-150CMI / 300CMI</p>
 <p>Ceiling Mount (Assembly) SBP-300CMW1 / 900CMW</p>	 <p>Ceiling Mount (Assembly) SBP-300CMTW</p>	 <p><b>Ball Head</b> Ceiling Mount (Assembly) SBP-300CMTS</p>	 <p>Ceiling Mount (Tile Grid) SBP-140CMT</p>	 <p>In-Ceiling Mount (Lite) SHD-1600FW</p>	 <p><b>Plenum</b> In-Ceiling Mount SHD-1602FPW</p>	 <p>Wall &amp; Pole Mount SBP-160WMW1</p>	 <p>Wall &amp; Pole Mount SBP-250WMW</p>	 <p>Wall &amp; Pole Mount SBP-400WMW</p>	 <p><b>Q2 '26</b> Wall &amp; Pole Mount SBP-200WMW</p>
 <p><b>Q2 '26</b> Wall &amp; Pole Mount SBP-350WMW</p>	 <p>Wall &amp; Pole Adaptor SBP-115PFA</p>	 <p>Tilt Mount SBP-160TMW1</p>	 <p>Back Box SBV-180BW</p>	 <p>Back Box SBV-180WW</p>	 <p>Pole Mount SBP-150PMW</p>	 <p>Pole Mount SBD-180PMW</p>	 <p>Corner Mount SBP-156KMW</p>	 <p>Parapet Mount (Telescopic) SBP-156LMW1</p>	 <p>Cabinet SBP-150NBW</p>
 <p><b>Q2 '26</b> Smoked Dome Cover SPB-IND850W</p>	 <p><b>Q2 '26</b> Skin Cover SPC-161B</p>	 <p>Cable Converter SPP-C45W</p>							

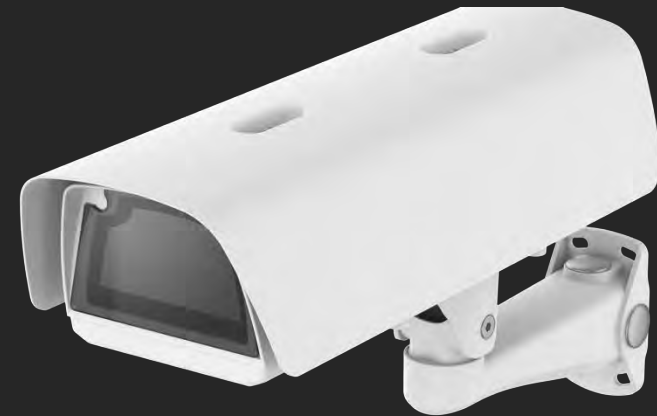
# Installation Solutions of XNB-A9004/A8004

For Box



**Enclosure**

SHB-4200H, SHB-4200



**Enclosure**

SHB-4301HP, SHB-4301H2, SHB-4300H, SHB-4301H1

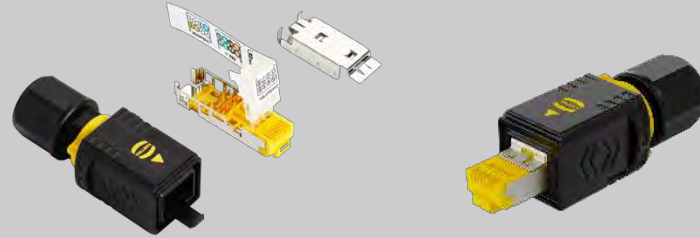
# New Accessories



# T AI Ruggedized PTZ Camera Accessories

## SPP-K004EP

RJ45 Push-pull ruggedized Connector Kit



## SPP-C00402EP, SPP-C00405EP, SPP-C00410EP

RJ45 Push-pull ruggedized Cable 2m, 5m, 10m



# ConfigPro



# Introduction

## Configuration Tool Purpose

In large-scale deployments, configuring devices simultaneously is significantly more efficient than managing them one by one. This makes a dedicated management tool essential.

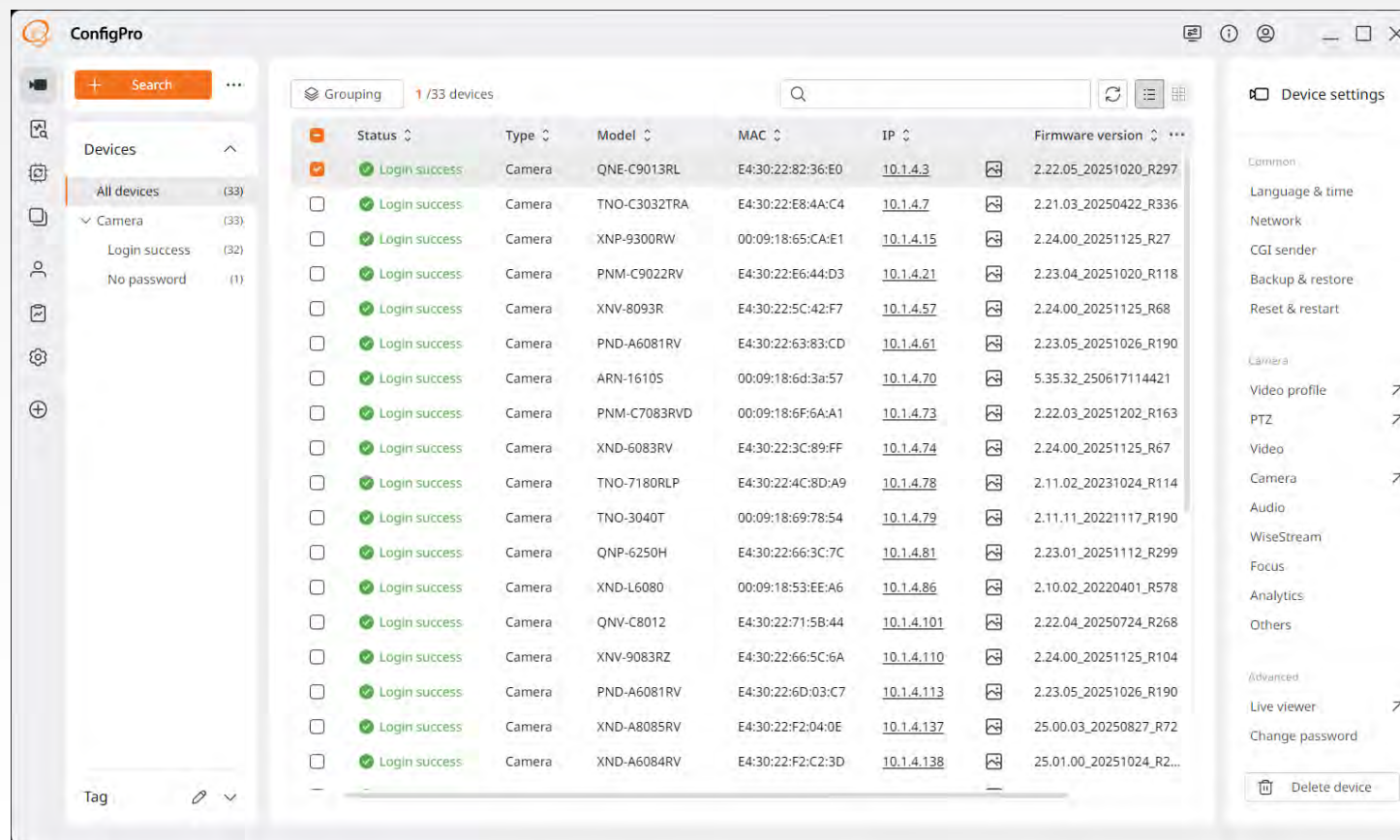
ConfigPro enables devices to be pre-configured in advance, reducing installation time, minimizing errors, and ensuring smoother on-site deployment.

Installation & Configuration  
Device setup



Pre-installation

**CONFIGPRO**



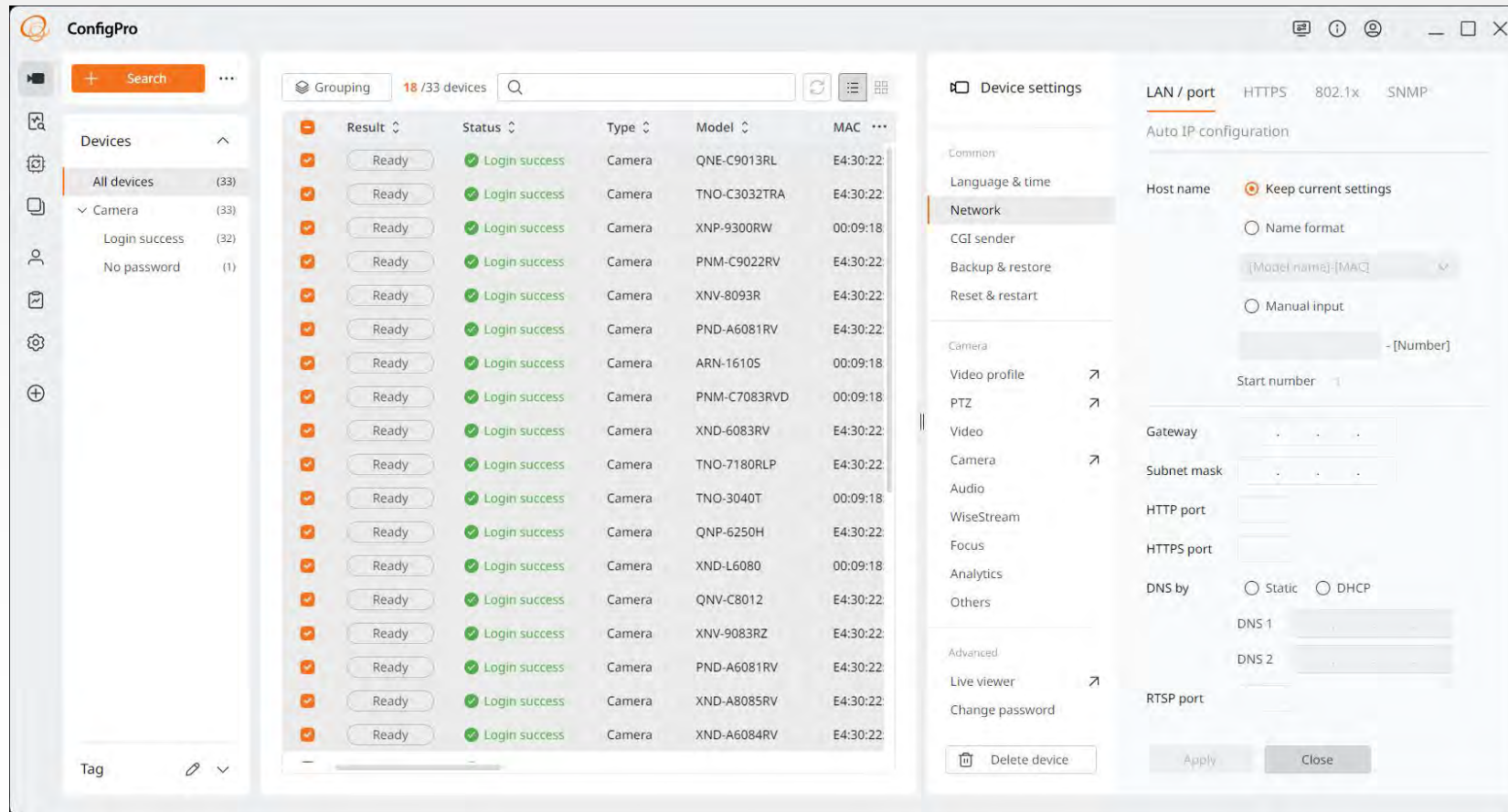
Status	Type	Model	MAC	IP	Firmware version
Login success	Camera	QNE-C9013RL	E4:30:22:82:36:E0	10.1.4.3	2.22.05_20251020_R297
Login success	Camera	TNO-C3032TRA	E4:30:22:E8:4A:C4	10.1.4.7	2.21.03_20250422_R336
Login success	Camera	XNP-9300RW	00:09:18:65:CA:E1	10.1.4.15	2.24.00_20251125_R27
Login success	Camera	PNM-C9022RV	E4:30:22:E6:44:D3	10.1.4.21	2.23.04_20251020_R118
Login success	Camera	XNV-8093R	E4:30:22:5C:42:F7	10.1.4.57	2.24.00_20251125_R68
Login success	Camera	PND-A6081RV	E4:30:22:63:83:CD	10.1.4.61	2.23.05_20251026_R190
Login success	Camera	ARN-1610S	00:09:18:6d:3a:57	10.1.4.70	5.35.32_250617114421
Login success	Camera	PNM-C7083RVD	00:09:18:6F:6A:A1	10.1.4.73	2.22.03_20251202_R163
Login success	Camera	XND-6083RV	E4:30:22:3C:89:FF	10.1.4.74	2.24.00_20251125_R67
Login success	Camera	TNO-7180RLP	E4:30:22:4C:8D:A9	10.1.4.78	2.11.02_20231024_R114
Login success	Camera	TNO-3040T	00:09:18:69:78:54	10.1.4.79	2.11.11_20221117_R190
Login success	Camera	QNP-6250H	E4:30:22:66:3C:7C	10.1.4.81	2.23.01_20251112_R299
Login success	Camera	XND-L6080	00:09:18:53:EE:A6	10.1.4.86	2.10.02_20220401_R578
Login success	Camera	QNV-C8012	E4:30:22:71:5B:44	10.1.4.101	2.22.04_20250724_R268
Login success	Camera	XNV-9083RZ	E4:30:22:66:5C:6A	10.1.4.110	2.24.00_20251125_R104
Login success	Camera	PND-A6081RV	E4:30:22:6D:03:C7	10.1.4.113	2.23.05_20251026_R190
Login success	Camera	XND-A8085RV	E4:30:22:F2:04:0E	10.1.4.137	25.00.03_20250827_R72
Login success	Camera	XND-A6084RV	E4:30:22:F2:C2:3D	10.1.4.138	25.01.00_20251024_R2...

# Advantages

Configure cameras and security devices at scale with ease.

Minimize repetitive setup tasks, and deliver faster, more efficient security solutions.

Take advantage of server-client architecture for remote configuration support and improve work efficiency.



With **ConfigPro**, you can:

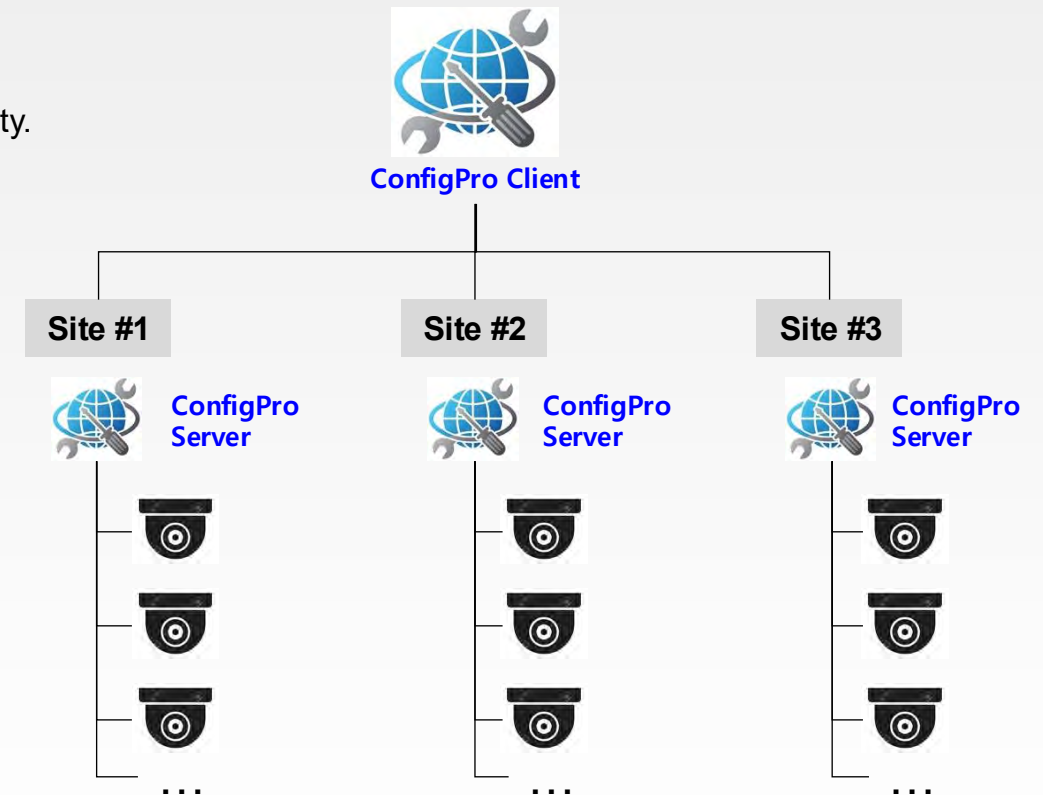
- Configure everything from the current “Wisenet Device Manager” (out of box setup, network configuration, device configuration, Firmware updates)

Plus, gain added advantages:

- A new server-client architecture enabling remote configuration
- A modern, intuitive user experience

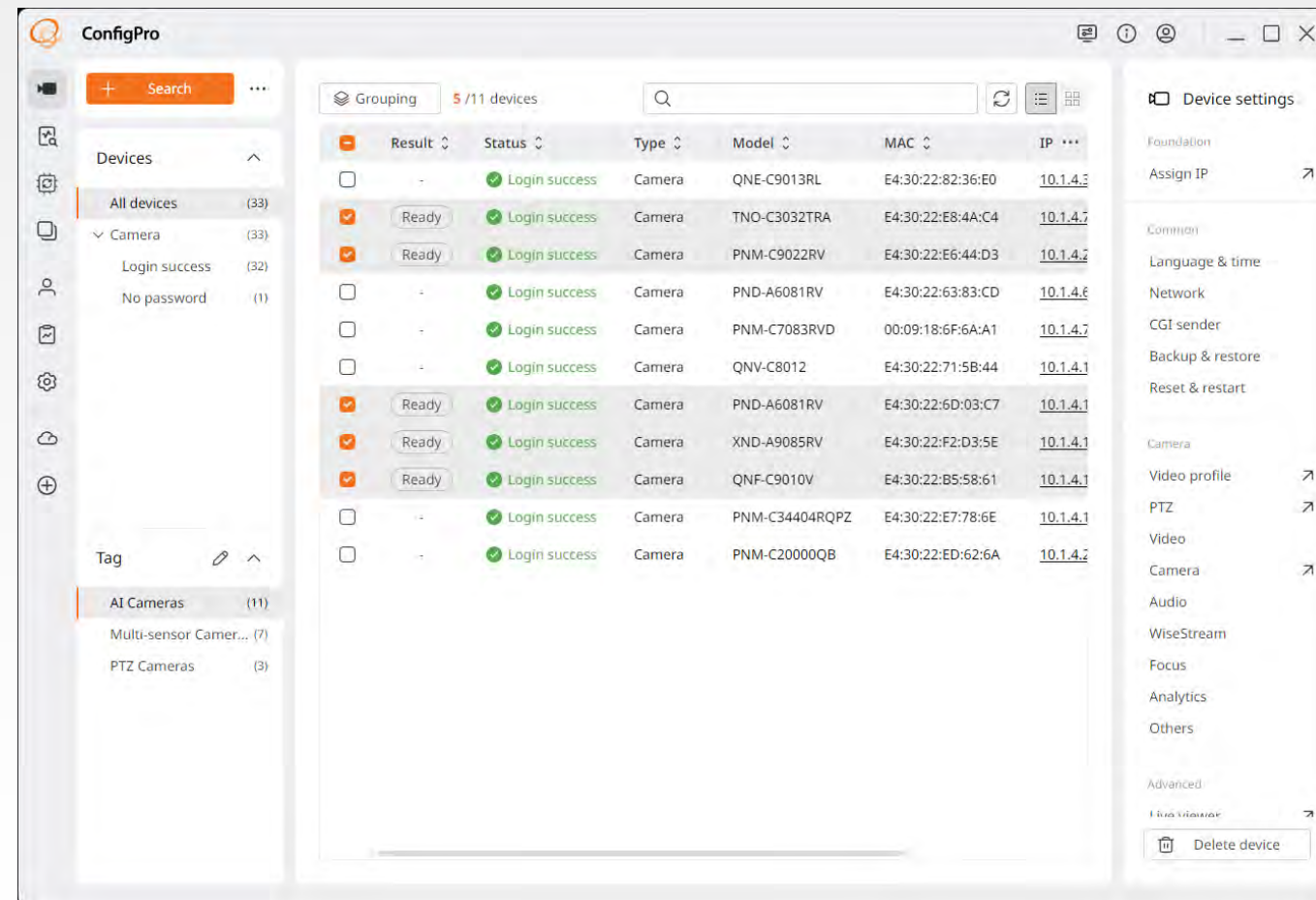
# Improvements

- **Scalable Server-Client Architecture**
  - Designed for efficient, large-scale deployments.
- **Hardened Security Foundation**
  - Removes vulnerable libraries and outdated code to significantly improve cybersecurity.
- **High-Efficiency Configuration at Scale**
  - Tag and group-based batch configuration
  - Firmware updates that run without interrupting configuration work
  - Template-based configurations for simultaneous, multi-device setup (coming soon)
- **Advanced Device Configuration & Management**
  - Expanded access to detailed settings consistent with the web interface
  - Enhanced multi-device viewer functionality
  - Improved search and configuration for devices, including NVRs and OnCloud onboarding
- **Enterprise-Grade Stability for Large Sites**
  - Improved handling of large project files
  - Eliminates hangs and crashes when managing high device counts



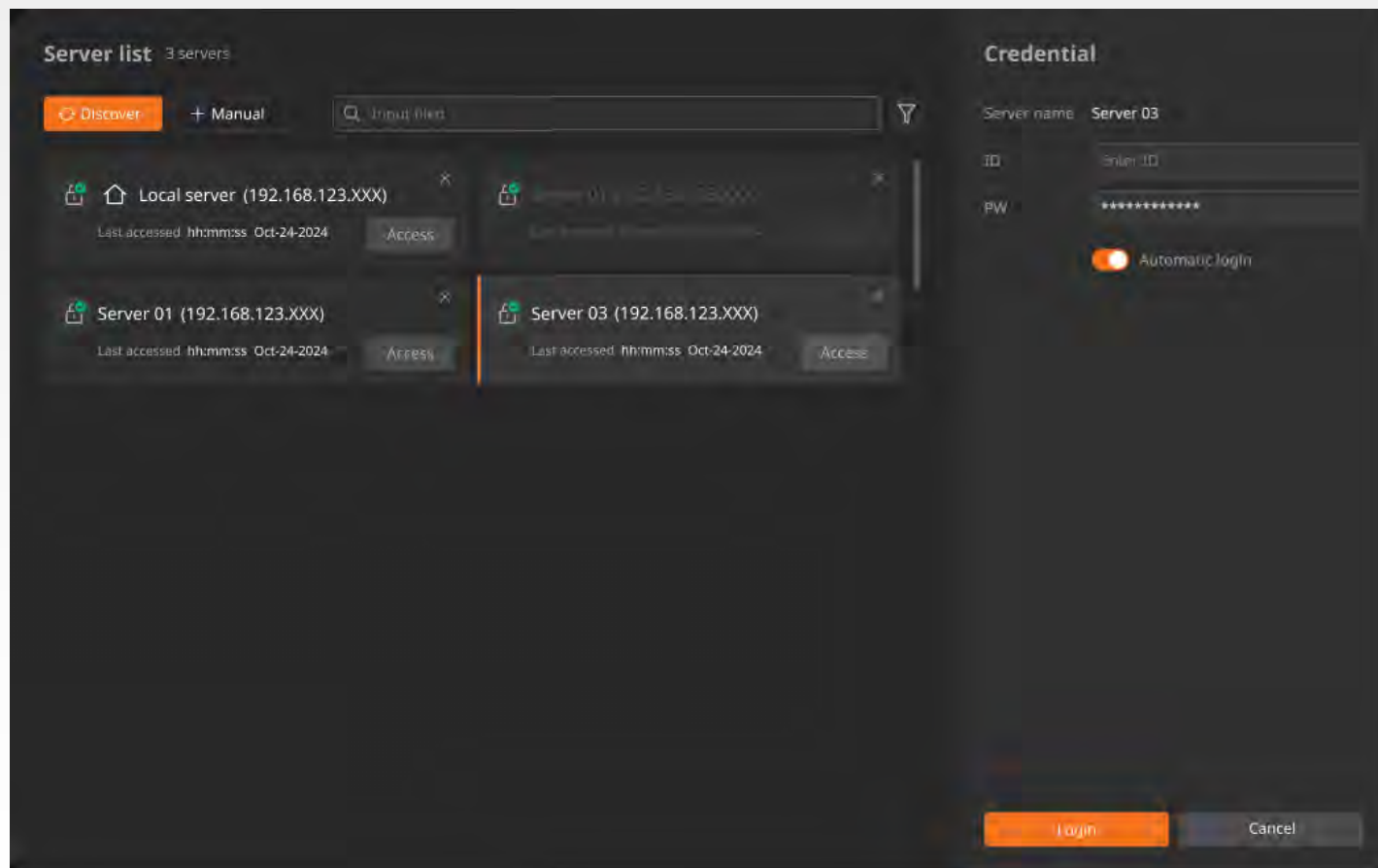
# Key Features

- **Remote Access to Multiple Sites**
  - Enables configuration and management of devices across geographically distributed locations.
- **Device Configuration**
  - Security: Set Admin password, register user accounts, and assign passwords.
  - Identification: Define device names and assign tags.
  - Network: Configure IP address, port, HTTP/HTTPS protocols.
  - Streaming Profile: Set resolution, FPS, codec, WiseStream, etc.
  - System Settings: Perform factory reset, configure date and time.
  - Configuration Management: Backup and restore device settings.
  - Firmware Update: Manual, automatic, or scheduled updates.
  - Certificate Management: CA certificates, 802.1x authentication, etc.
- **Log Search and Backup**
  - Centralized access to logs from both devices and ConfigPro, including backup functionality.
- **Web Viewer Access**
  - Direct connection to each device's web viewer interface.



# Server-Client Architecture

Connect to a ConfigPro server from a client workstation, or use ConfigPro as standalone mode, configured on the local server.

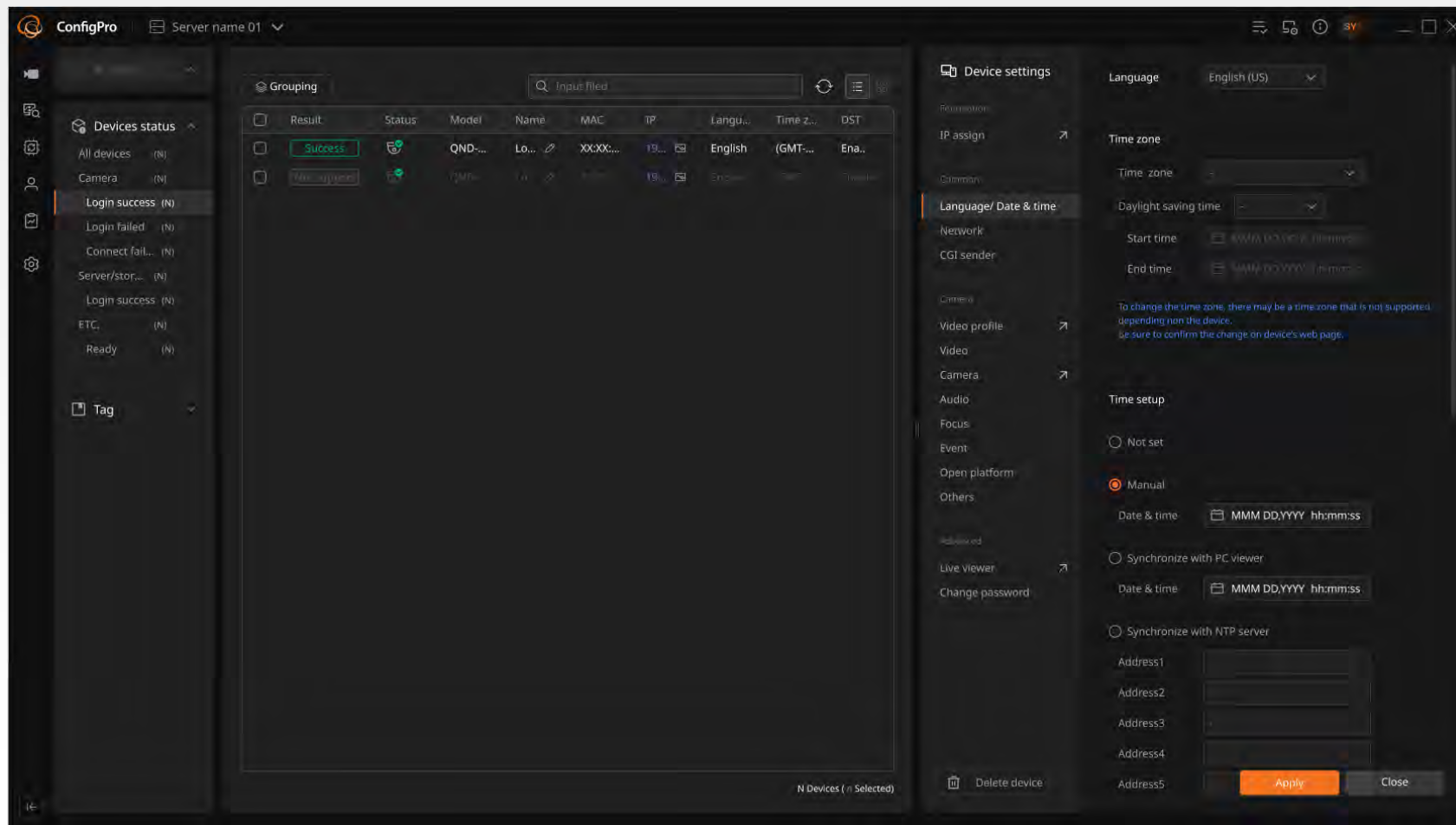


## Benefits of Client Server architecture

- **Frees up workstation resources** – offloads processing to the server
- **Centralized management** – unified configuration, backup, and updates
- **Improved performance** – uses server's higher computing power
- **Scalability** – better suited for large deployments or enterprise use

# Modern UX

## New UI/UX for Intuitive and Efficient Bulk Configuration

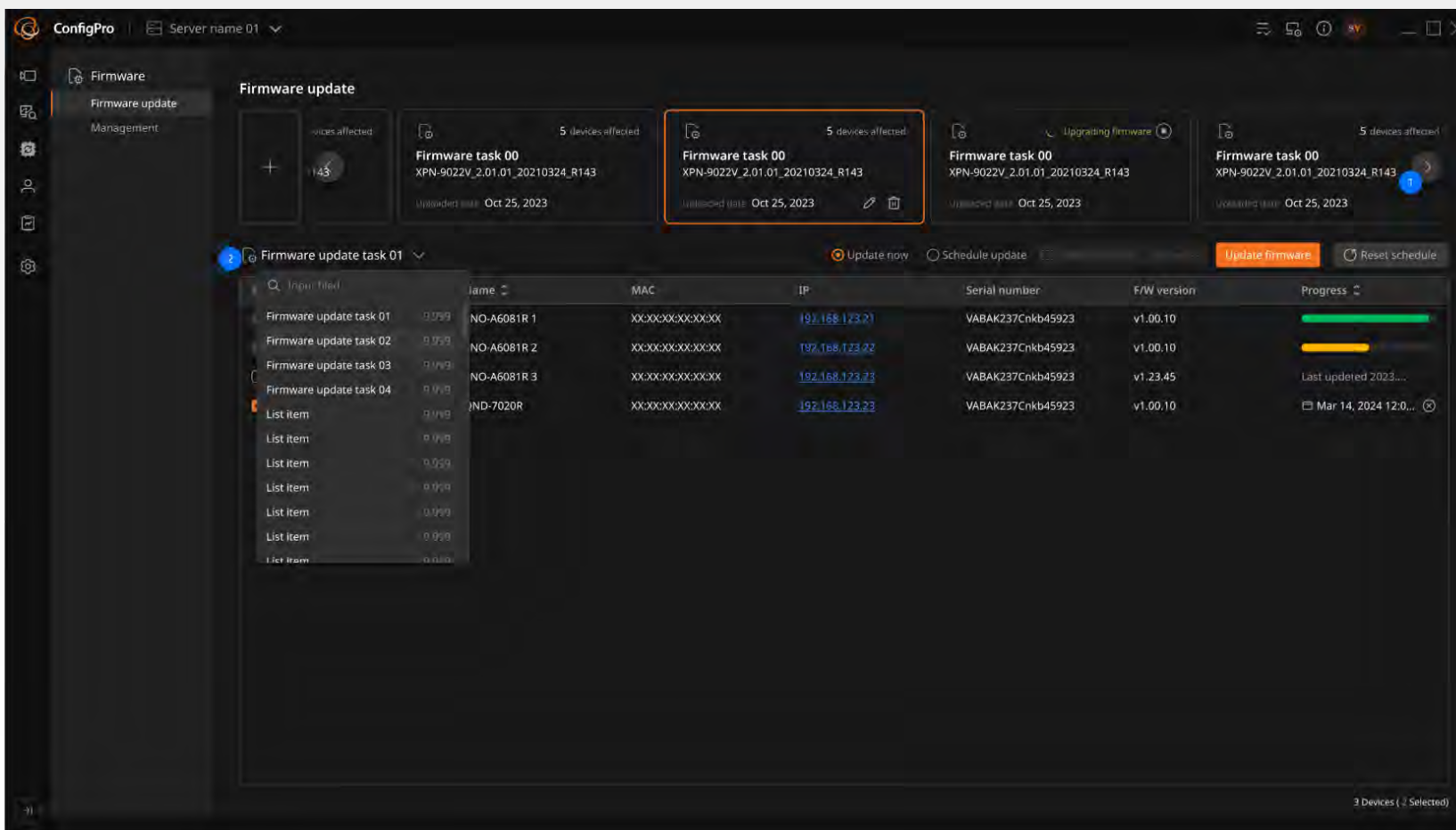


### New and Improved UI/UX

- **Modern, streamlined interface** designed for ease of use
- **Familiar layout** reduces learning curve for new users
- **Bulk editing** tools simplify large-scale configuration tasks
- **Responsive design** ensures smooth performance across devices

# Improved Configuration Efficiency

Tasks such as Firmware updates can be scheduled to be performed on the ConfigPro server, freeing up the workstation, so the technician can continue doing other tasks.



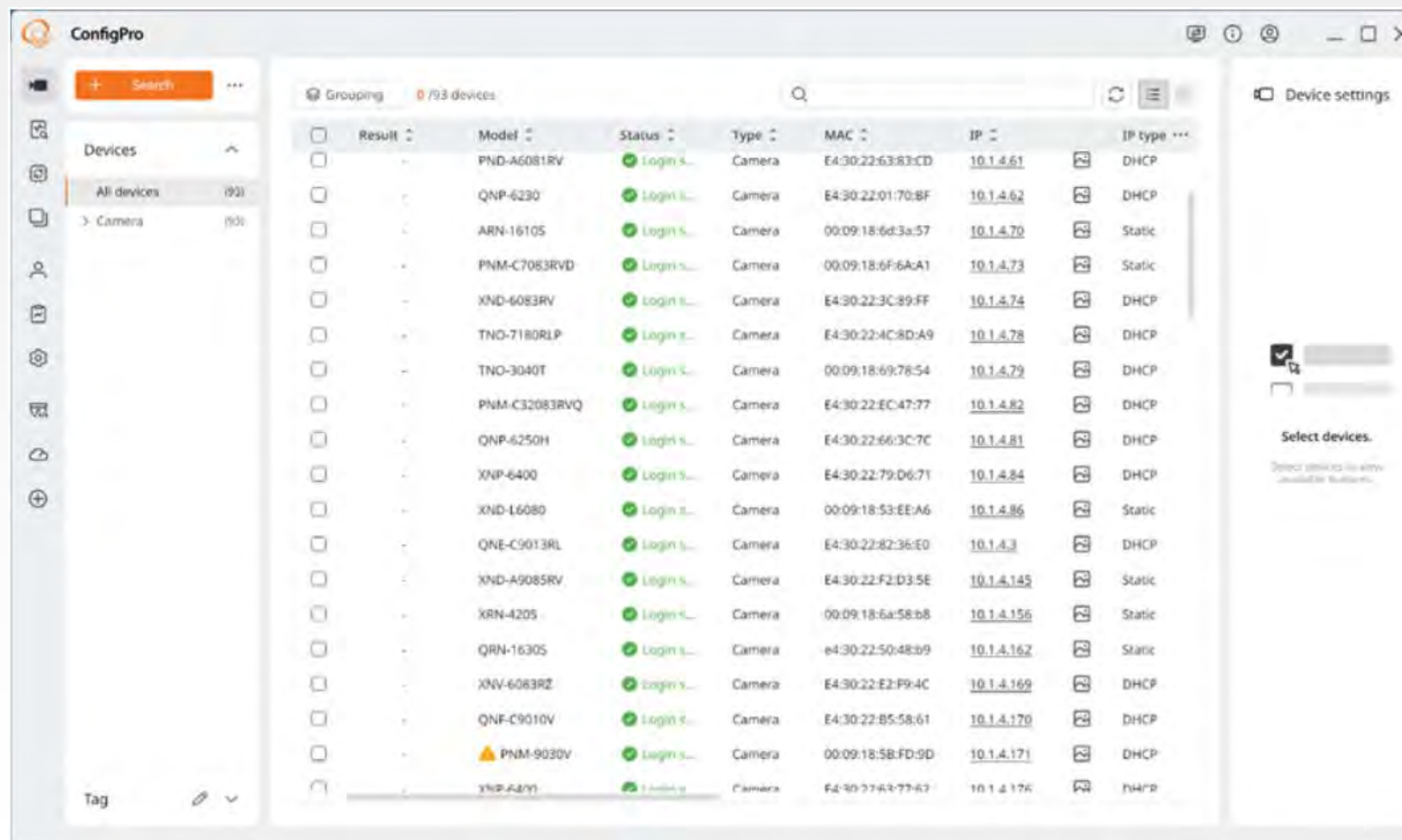
Run tasks smarter with ConfigPro

- **Streamlined Firmware Updates:** Allows continued configuration while firmware updates are in progress.
- **Enhanced Tag/Group Features:** Enables batch settings based on device groups.
- **Template-Based Configuration:** Allows saving multiple configuration sets and applying them simultaneously. (Coming soon)

# Updating Device Firmware

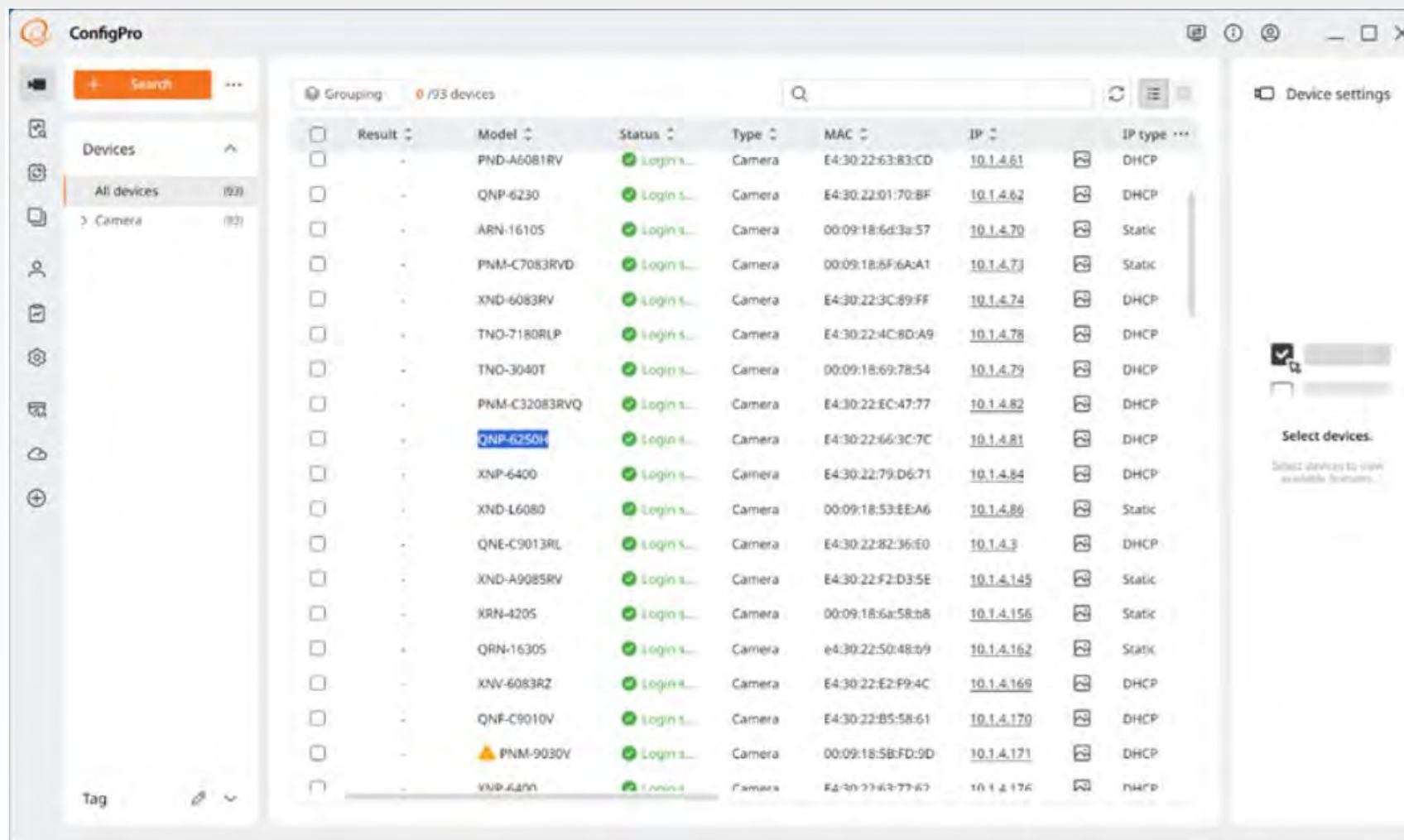
Effectively update the device firmware using ConfigPro by following these steps:

1. From the **Device Settings** menu, click **Search**



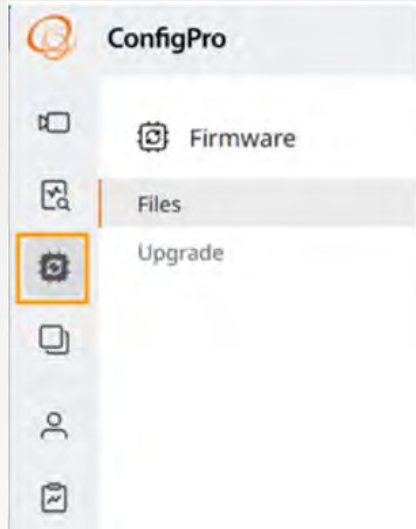
# Updating Device Firmware

2. Highlight the **model name** of the camera to update and press **Ctrl+C** to copy

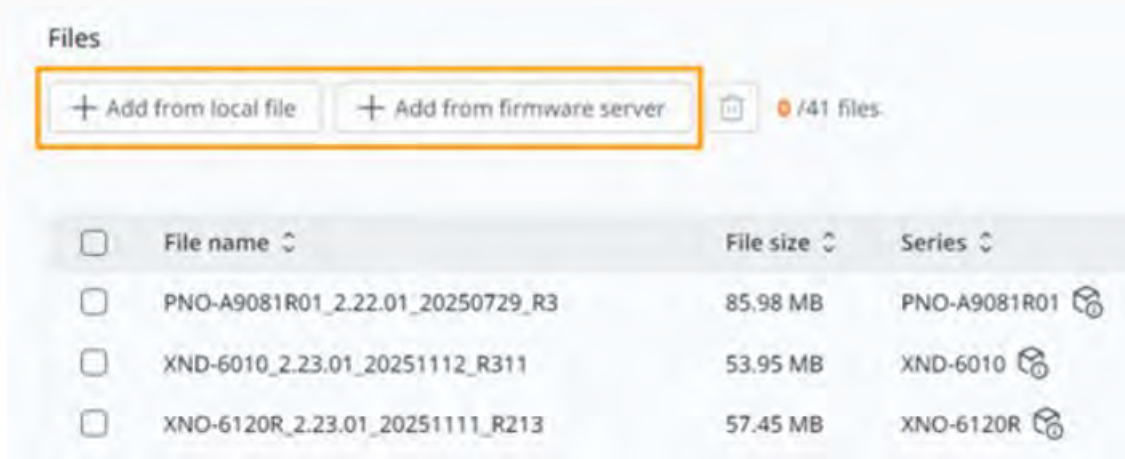


# Updating Device Firmware

3. In the navigation bar on the left, click the **Firmware** icon



4. Click **Add from local file** or **Add from firmware server**



**Note:** Internet access is required to download firmware files from the server.

# Updating Device Firmware

5. Paste (**Ctrl+V**) the **device name** into the **Search** field.

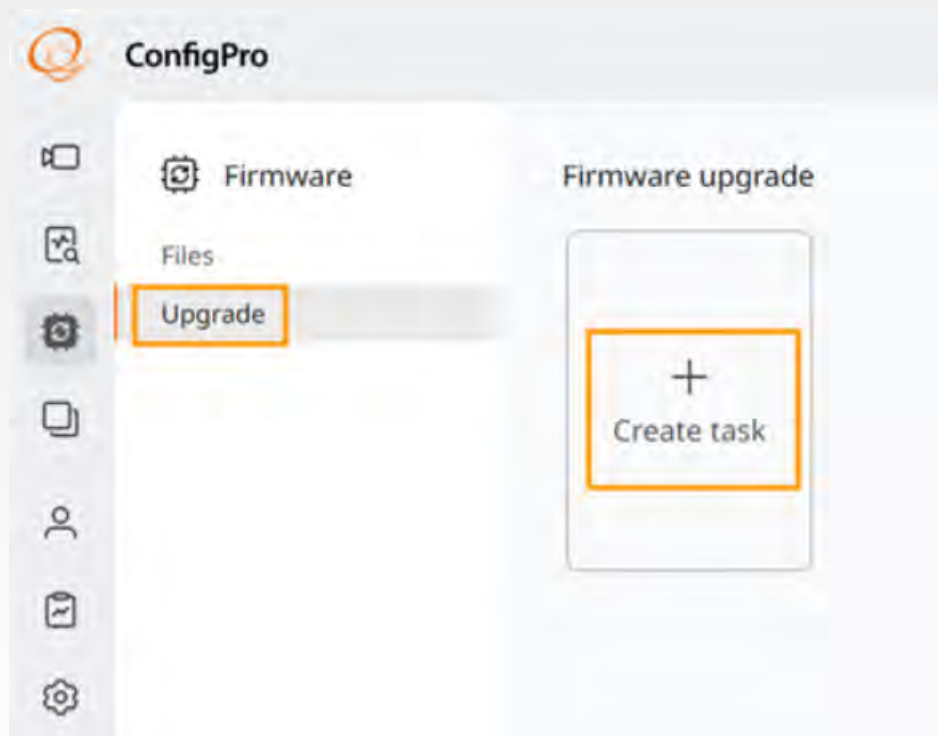


6. Check the box next to the appropriate firmware and click **Download**, then **Close**



# Updating Device Firmware

7. Click the **Upgrade** tab, then click the **Plus (+)** button to create a firmware update task.



# Updating Device Firmware

8. In the Create firmware update task dialog box:

a. Enter the name of the task in the Task name field.

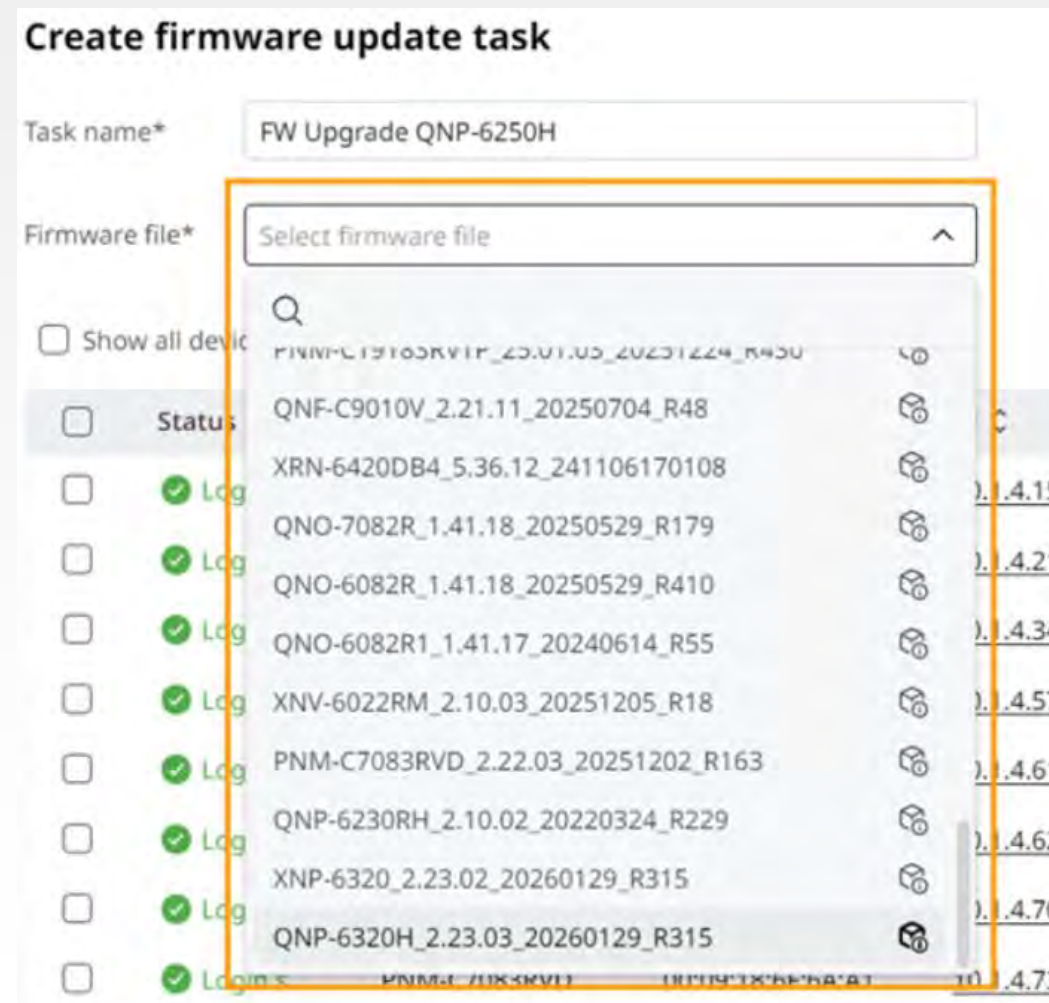


**Create firmware update task**

Task name\*

Firmware file\*

b. Use the Firmware file drop-down menu to select the firmware file that was just downloaded.



**Create firmware update task**

Task name\*

Firmware file\*

Show all devices

Status	Device ID	Firmware File
<input type="checkbox"/>	QNF-C9010V_2.21.11_20250704_R48	
<input type="checkbox"/>	XRN-6420DB4_5.36.12_241106170108	...4.15
<input type="checkbox"/>	QNO-7082R_1.41.18_20250529_R179	...4.21
<input type="checkbox"/>	QNO-6082R_1.41.18_20250529_R410	...4.34
<input type="checkbox"/>	QNO-6082R1_1.41.17_20240614_R55	...4.57
<input type="checkbox"/>	XNV-6022RM_2.10.03_20251205_R18	...4.61
<input type="checkbox"/>	PNM-C7083RVD_2.22.03_20251202_R163	...4.62
<input type="checkbox"/>	QNP-6230RH_2.10.02_20220324_R229	...4.70
<input type="checkbox"/>	XNP-6320_2.23.02_20260129_R315	...4.73
<input type="checkbox"/>	QNP-6320H_2.23.03_20260129_R315	

# Updating Device Firmware

9. Check the box next to the devices to update

### Create firmware update task ✕

Task name\*

Firmware file\*

Show all devices 1 / 1 device

<input checked="" type="checkbox"/>	Status ↕	Model ↕	MAC ↕	IP ↕	Firmware version ↕
<input checked="" type="checkbox"/>	✔ Login s...	QNP-6250H	E4:30:22:66:3C:7C	<u>10.1.4.81</u>	2.23.02_20260106_R306

# Updating Device Firmware

**Note:** To add additional firmware updates to the same task, use the **Firmware file** drop-down menu and browse for another firmware file, then **check the box** next to the devices to update.

**Create firmware update task**

Task name\* FW Upgrade QNP-6250H

Firmware file\* QNP-6320H\_2.23.03\_20260129\_R315

Show all devices

Status	Model	MAC	IP	Firmware version
<input checked="" type="checkbox"/>	QNF-C9010V_2.21.11_20250704_R48			
<input checked="" type="checkbox"/>	XRN-6420DB4_5.36.12_241106170108			
<input checked="" type="checkbox"/>	QNO-7082R_1.41.18_20250529_R179			
<input checked="" type="checkbox"/>	QNO-6082R_1.41.18_20250529_R410			
<input checked="" type="checkbox"/>	QNO-6082R1_1.41.17_20240614_R55			
<input checked="" type="checkbox"/>	XNV-5022RM_2.10.03_20251205_R18			
<input checked="" type="checkbox"/>	PNM-C7683RVD_2.22.03_20251202_R163			
<input checked="" type="checkbox"/>	QNP-6320H_2.23.03_20260129_R315			
<input checked="" type="checkbox"/>	QNP-6230RH_2.10.02_20220324_R229			
<input checked="" type="checkbox"/>	XNP-6320_2.23.02_20260129_R315			

Update schedule  Enable

**Create** **Cancel**

**Create firmware update task**

Task name\* FW Upgrade QNP-6250H

Firmware file\* XNP-6320\_2.23.02\_20260129\_R315

Show all devices 3 / 2 devices

Status	Model	MAC	IP	Firmware version
<input checked="" type="checkbox"/>	QNP-6230	E4:30:22:01:70:BF	10.1.4.62	2.23.02_20260129_R315
<input checked="" type="checkbox"/>	XNP-6320H	00:09:18:52:90:4F	10.1.5.32	2.23.01_20251112_R310

# Updating Device Firmware

10. To schedule an update, check **Enable** next to **Update schedule**, and click **Create**

### Create firmware update task ✕

Task name\*

Firmware file\*

Show all devices 3 / 2 devices

<input checked="" type="checkbox"/>	Status	Model	MAC	IP	Firmware version
<input checked="" type="checkbox"/>	Login s...	QNP-6230	E4:30:22:01:70:BF	10.1.4.62	2.23.02_20260129_R315
<input checked="" type="checkbox"/>	Login s...	XN			2.23.01_20251112_R310

Feb 2026

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

10 : 00 : 00 AM PM

OK

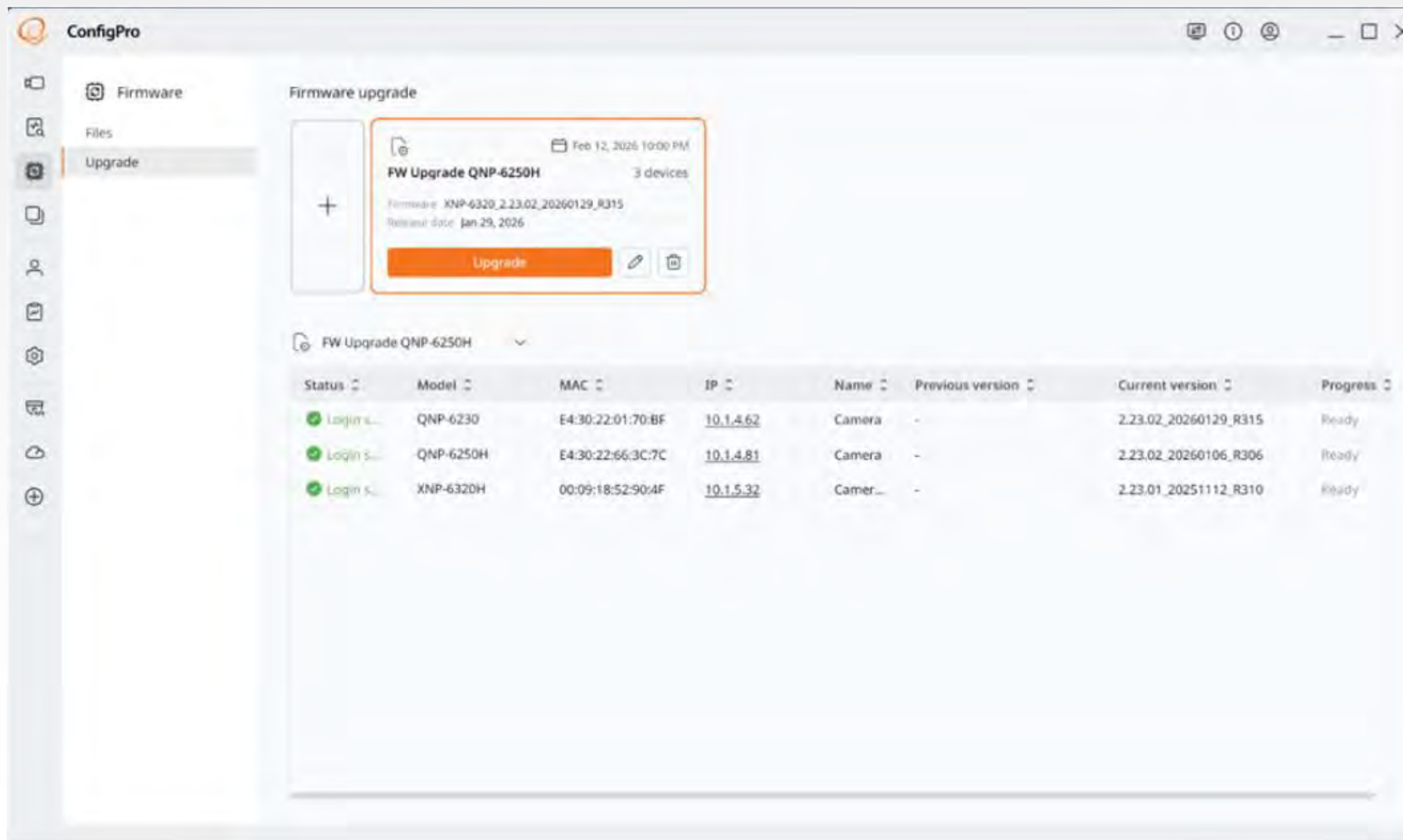
Update schedule  Enable  (Based on server time)

Create
Cancel

# Updating Device Firmware

Clicking the task that was just created allows the user to see the list of devices that are included in the firmware upgrade task.

11. Click **Upgrade** to manually start the firmware update.



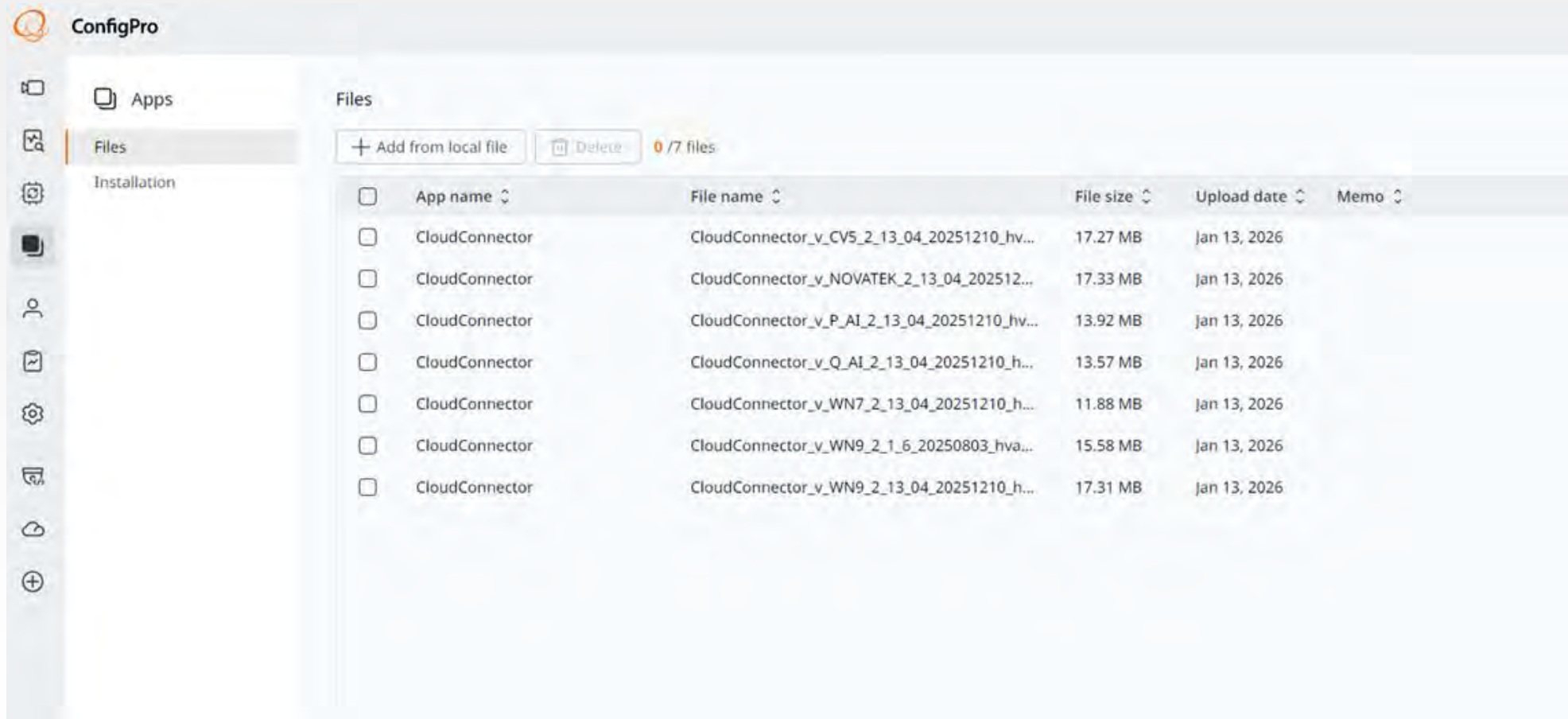
The screenshot shows the ConfigPro interface with the 'Upgrade' tab selected. A task card for 'FW Upgrade QNP-6250H' is highlighted with an orange border. Below the task card is a table of devices included in the upgrade.

Status	Model	MAC	IP	Name	Previous version	Current version	Progress
✔ Login S...	QNP-6230	E4:30:22:01:70:BF	<a href="#">10.1.4.62</a>	Camera	-	2.23.02_20260129_R315	Ready
✔ Login S...	QNP-6250H	E4:30:22:66:3C:7C	<a href="#">10.1.4.81</a>	Camera	-	2.23.02_20260106_R306	Ready
✔ Login S...	XNP-6320H	00:09:18:52:90:4F	<a href="#">10.1.5.32</a>	Camer...	-	2.23.01_20251112_R310	Ready

# OnCloud Onboarding

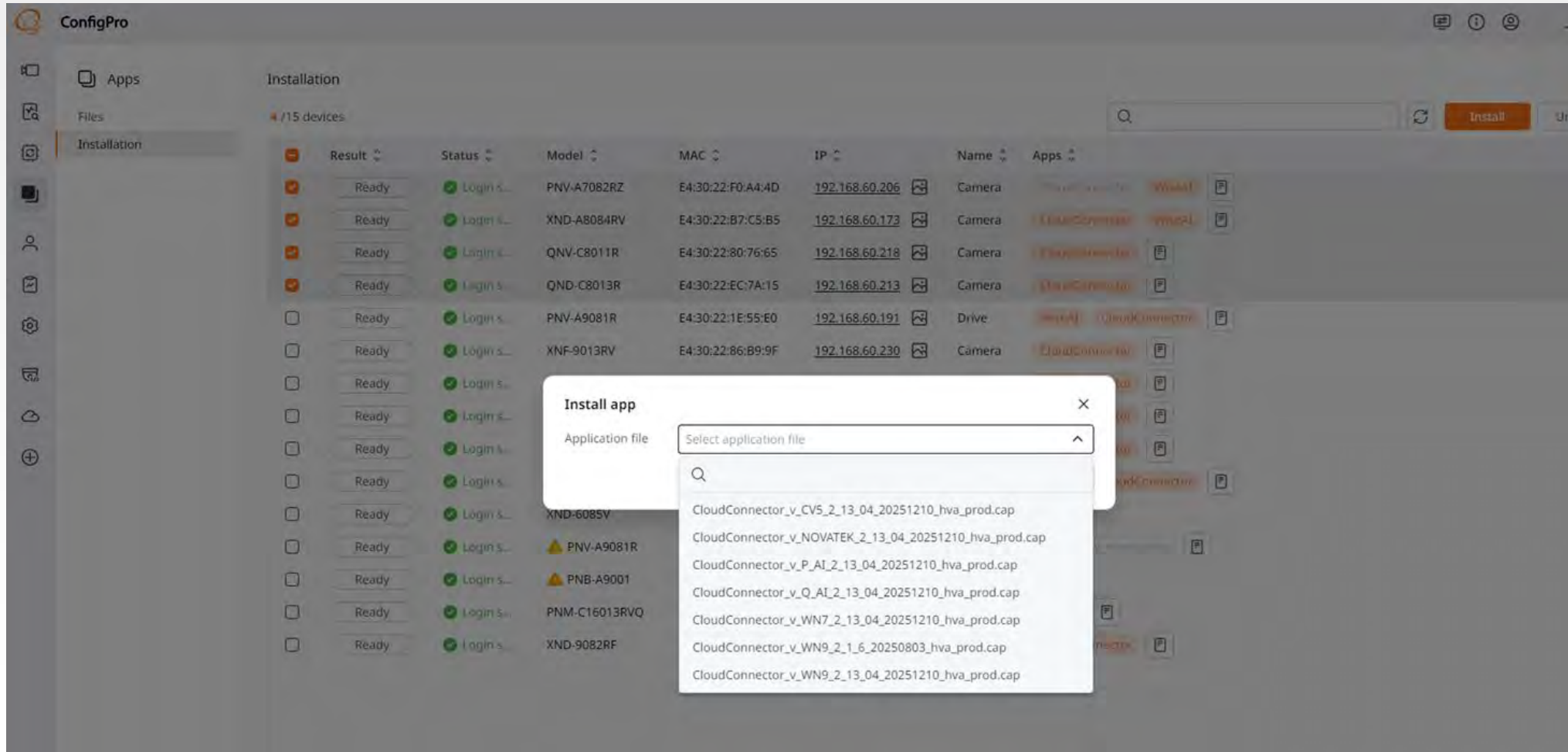
Easily onboard your devices to OnCloud using ConfigPro by following these steps:

1. Download the CloudConnector files and add them to the ConfigPro server



# OnCloud Onboarding

## 2. Install the CloudConnector application to your devices



The screenshot shows the ConfigPro interface with a table of 15 devices. An 'Install app' dialog box is open, displaying a list of application files to be installed on the selected devices.

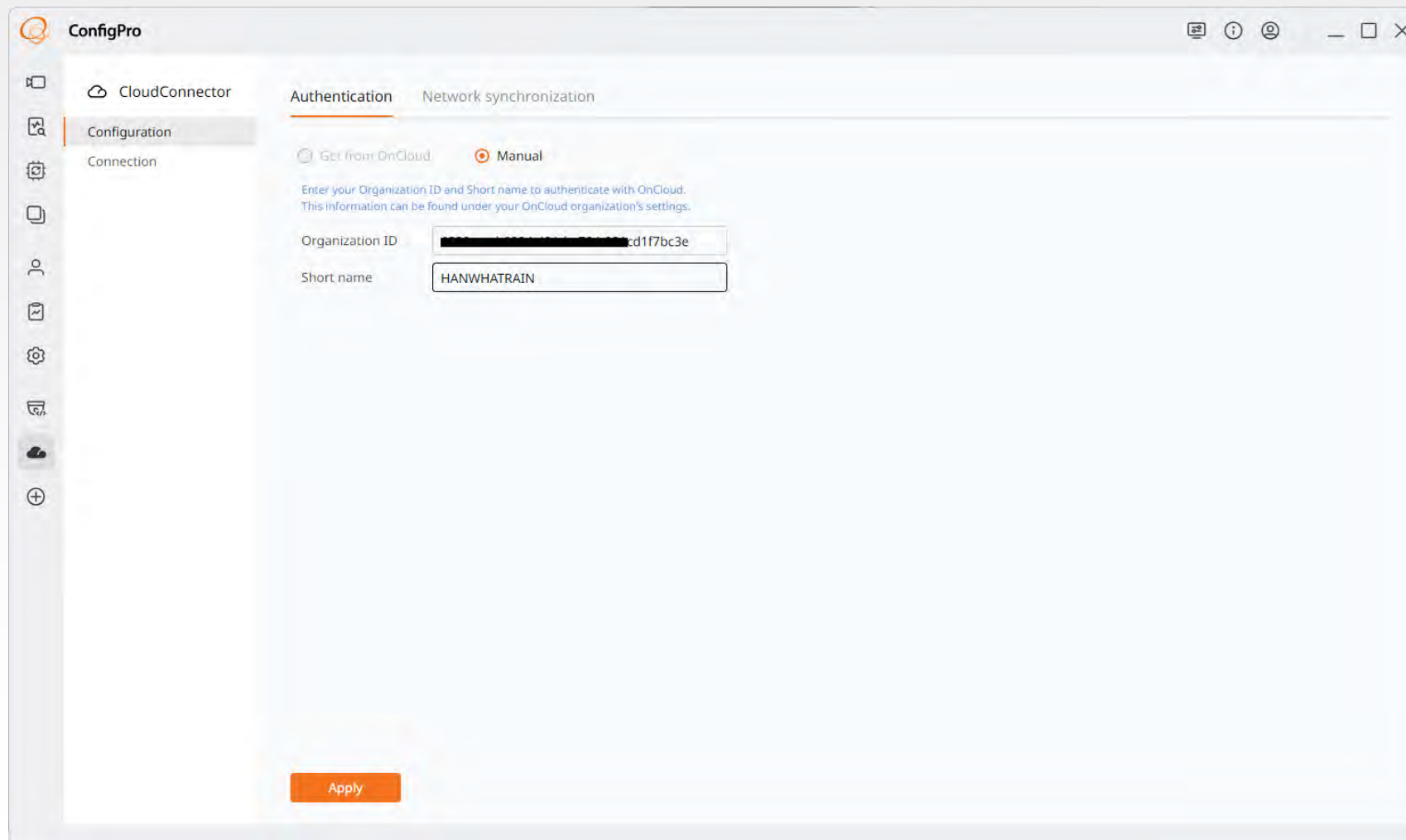
Result	Status	Model	MAC	IP	Name	Apps
Ready	Login s...	PNV-A7082RZ	E4:30:22:F0:A4:4D	192.168.60.206	Camera	CloudConnector, VMS41
Ready	Login s...	XND-A8084RV	E4:30:22:B7:C5:B5	192.168.60.173	Camera	CloudConnector, VMS41
Ready	Login s...	QNV-C8011R	E4:30:22:80:76:65	192.168.60.218	Camera	CloudConnector
Ready	Login s...	QND-C8013R	E4:30:22:EC:7A:15	192.168.60.213	Camera	CloudConnector
Ready	Login s...	PNV-A9081R	E4:30:22:1E:55:E0	192.168.60.191	Drive	CloudConnector
Ready	Login s...	XNF-9013RV	E4:30:22:86:B9:9F	192.168.60.230	Camera	CloudConnector
Ready	Login s...	XND-6085V				CloudConnector
Ready	Login s...	PNV-A9081R				CloudConnector
Ready	Login s...	PNB-A9001				CloudConnector
Ready	Login s...	PNM-C16013RVQ				CloudConnector
Ready	Login s...	XND-9082RF				CloudConnector

**Install app** dialog box content:

- Application file: Select application file
- CloudConnector\_v\_CV5\_2\_13\_04\_20251210\_hva\_prod.cap
- CloudConnector\_v\_NOVATEK\_2\_13\_04\_20251210\_hva\_prod.cap
- CloudConnector\_v\_P\_AI\_2\_13\_04\_20251210\_hva\_prod.cap
- CloudConnector\_v\_Q\_AI\_2\_13\_04\_20251210\_hva\_prod.cap
- CloudConnector\_v\_WN7\_2\_13\_04\_20251210\_hva\_prod.cap
- CloudConnector\_v\_WN9\_2\_1\_6\_20250803\_hva\_prod.cap
- CloudConnector\_v\_WN9\_2\_13\_04\_20251210\_hva\_prod.cap

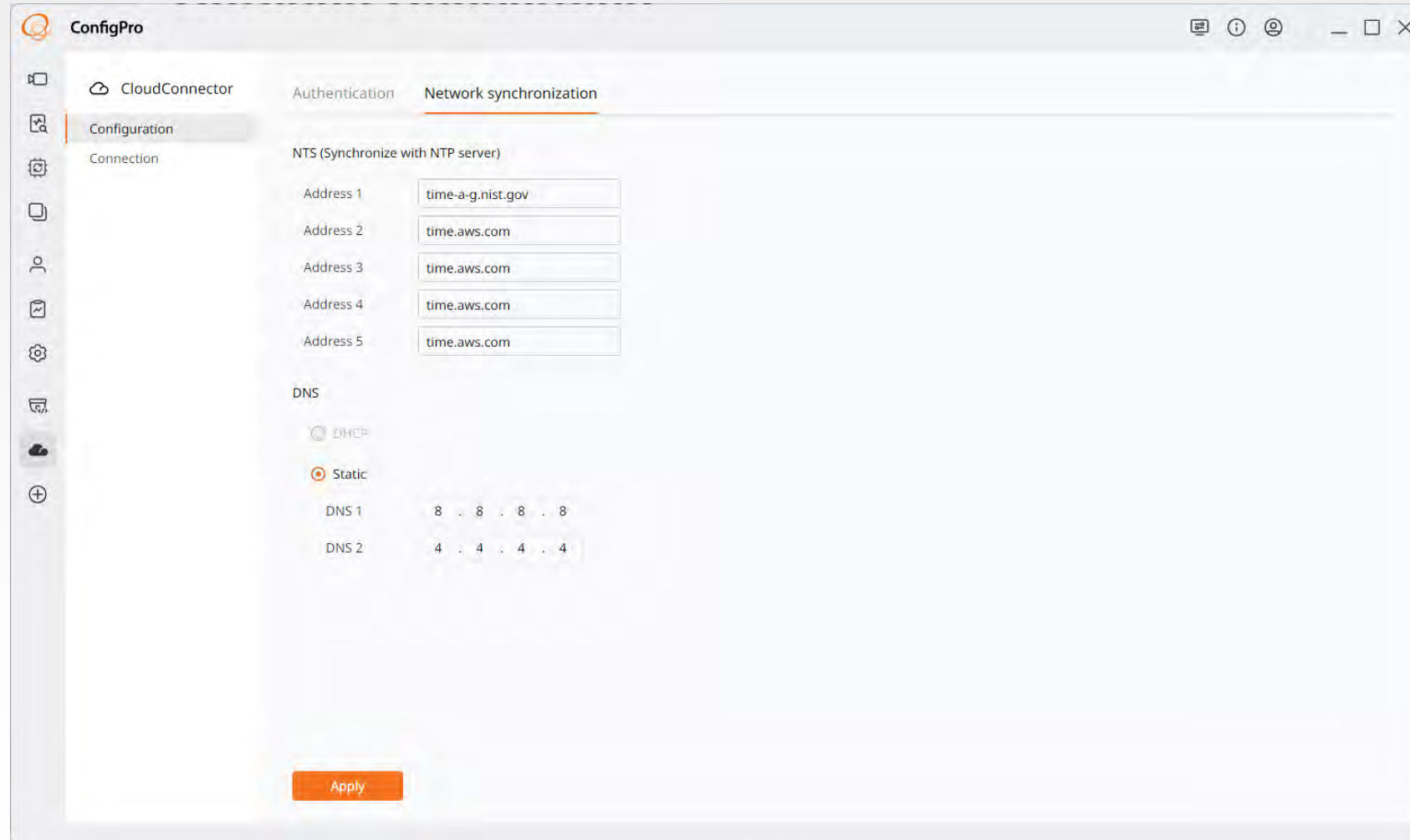
# OnCloud Onboarding

## 3. Enter your Organization ID and Short name



# OnCloud Onboarding

## 4. Enter the NTP and DNS settings



The screenshot shows the 'ConfigPro' application window with the 'Network synchronization' tab selected. The interface includes a sidebar with navigation icons and a main configuration area. The 'Network synchronization' section is divided into 'NTS (Synchronize with NTP server)' and 'DNS'.

**NTS (Synchronize with NTP server)**

Address 1	time-a-g.nist.gov
Address 2	time.aws.com
Address 3	time.aws.com
Address 4	time.aws.com
Address 5	time.aws.com

**DNS**

DHCP

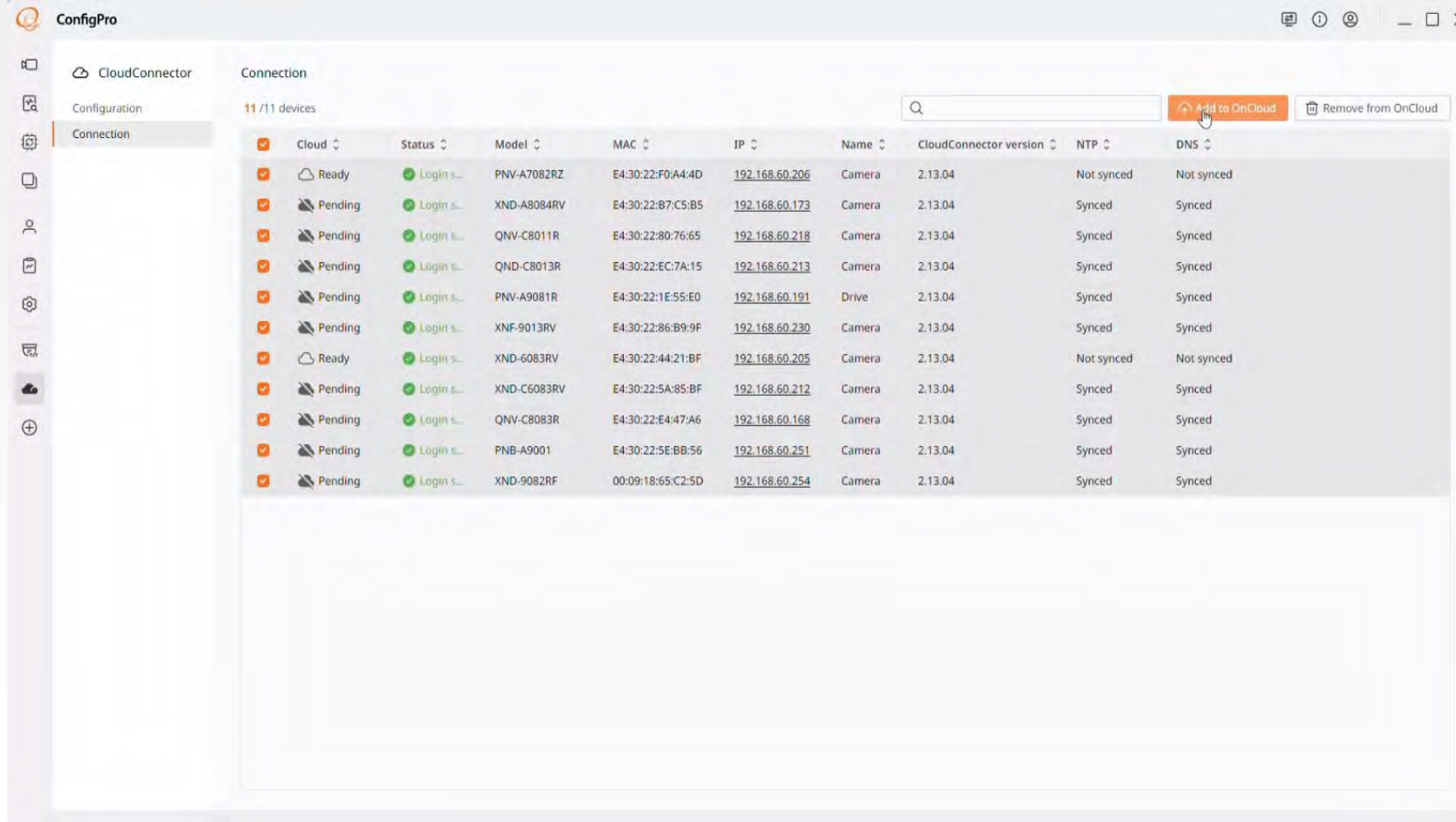
Static

DNS 1	8 . 8 . 8 . 8
DNS 2	4 . 4 . 4 . 4

An orange 'Apply' button is located at the bottom center of the configuration area.

# OnCloud Onboarding

5. Select the devices and add them to OnCloud

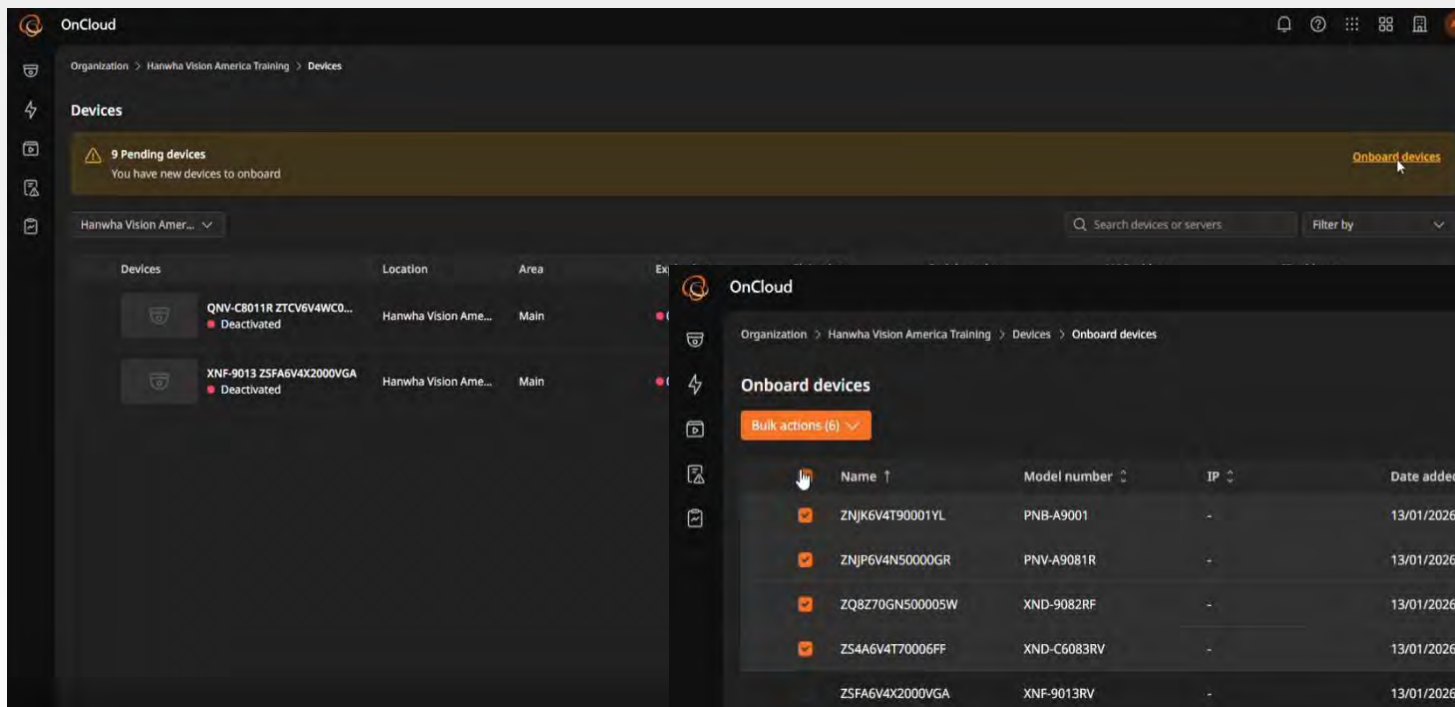


The screenshot shows the ConfigPro interface with a table of 11 devices. The table has the following columns: Cloud, Status, Model, MAC, IP, Name, CloudConnector version, NTP, and DNS. The 'Add to OnCloud' button is highlighted in orange.

Cloud	Status	Model	MAC	IP	Name	CloudConnector version	NTP	DNS
Ready	Login s...	PNV-A7082RZ	E4:30:22:F0:A4:4D	<a href="#">192.168.60.206</a>	Camera	2.13.04	Not synced	Not synced
Pending	Login s...	XND-A8084RV	E4:30:22:B7:C5:B5	<a href="#">192.168.60.173</a>	Camera	2.13.04	Synced	Synced
Pending	Login s...	QNV-C8011R	E4:30:22:80:76:65	<a href="#">192.168.60.218</a>	Camera	2.13.04	Synced	Synced
Pending	Login s...	QND-C8013R	E4:30:22:EC:7A:15	<a href="#">192.168.60.213</a>	Camera	2.13.04	Synced	Synced
Pending	Login s...	PNV-A9081R	E4:30:22:1E:55:E0	<a href="#">192.168.60.191</a>	Drive	2.13.04	Synced	Synced
Pending	Login s...	XNF-9013RV	E4:30:22:86:B9:9F	<a href="#">192.168.60.230</a>	Camera	2.13.04	Synced	Synced
Ready	Login s...	XND-6083RV	E4:30:22:44:21:BF	<a href="#">192.168.60.205</a>	Camera	2.13.04	Not synced	Not synced
Pending	Login s...	XND-C6083RV	E4:30:22:5A:85:BF	<a href="#">192.168.60.212</a>	Camera	2.13.04	Synced	Synced
Pending	Login s...	QNV-C8083R	E4:30:22:E4:47:A6	<a href="#">192.168.60.168</a>	Camera	2.13.04	Synced	Synced
Pending	Login s...	PNB-A9001	E4:30:22:5E:BB:56	<a href="#">192.168.60.251</a>	Camera	2.13.04	Synced	Synced
Pending	Login s...	XND-9082RF	00:09:18:65:C2:5D	<a href="#">192.168.60.254</a>	Camera	2.13.04	Synced	Synced

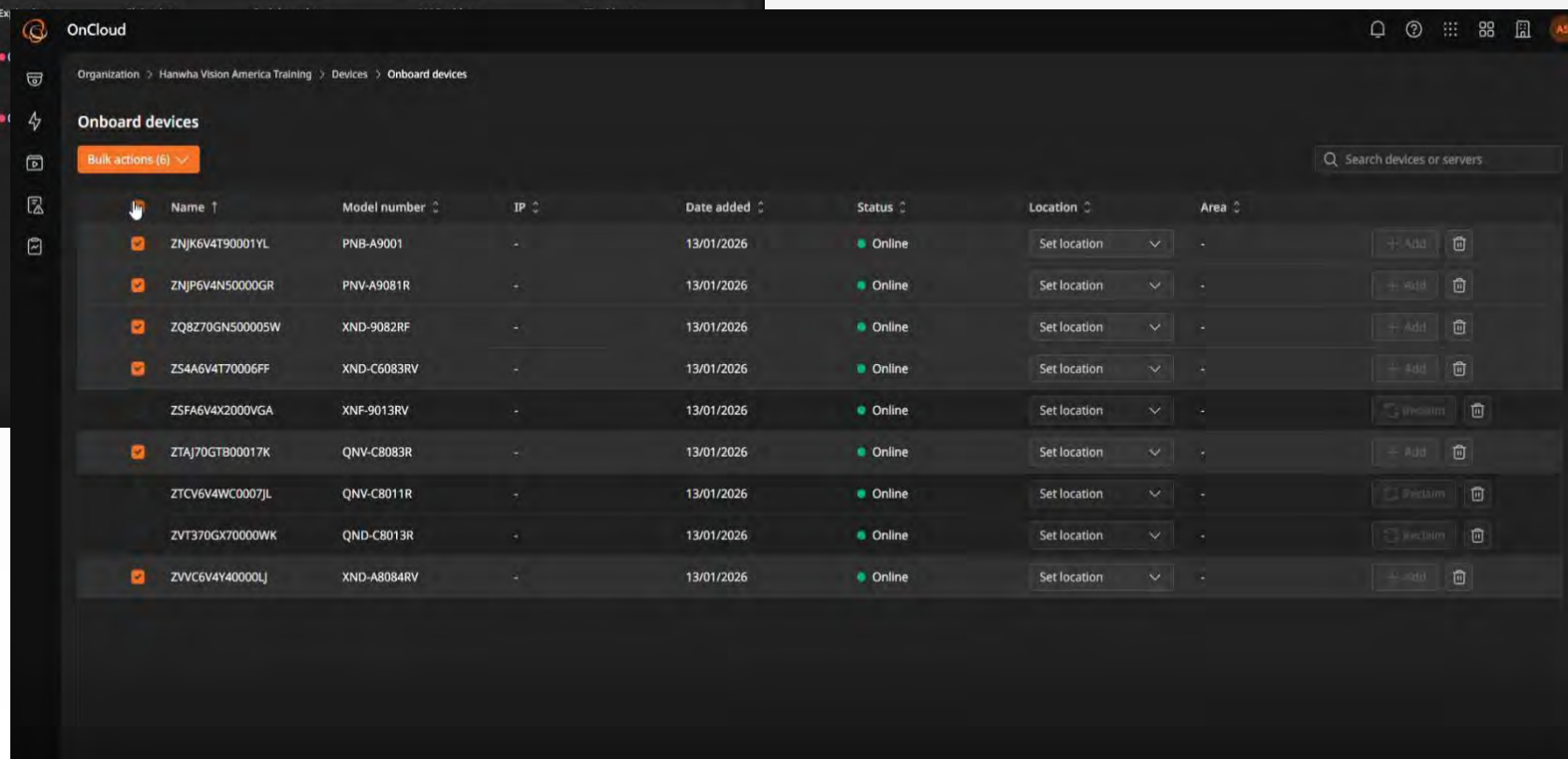
# OnCloud Onboarding

## 6. Navigate to OnCloud and Onboard the devices



The screenshot shows the OnCloud interface with a notification banner at the top: "9 Pending devices" and "You have new devices to onboard". A button labeled "Onboard devices" is visible in the top right of the notification. Below the notification, there is a search bar and a "Filter by" dropdown. A table lists two deactivated devices:

Devices	Location	Area
QNV-C8011R ZTCV6V4WC0... Deactivated	Hanwha Vision Ame...	Main
XNF-9013 ZSFA6V4X2000VGA Deactivated	Hanwha Vision Ame...	Main

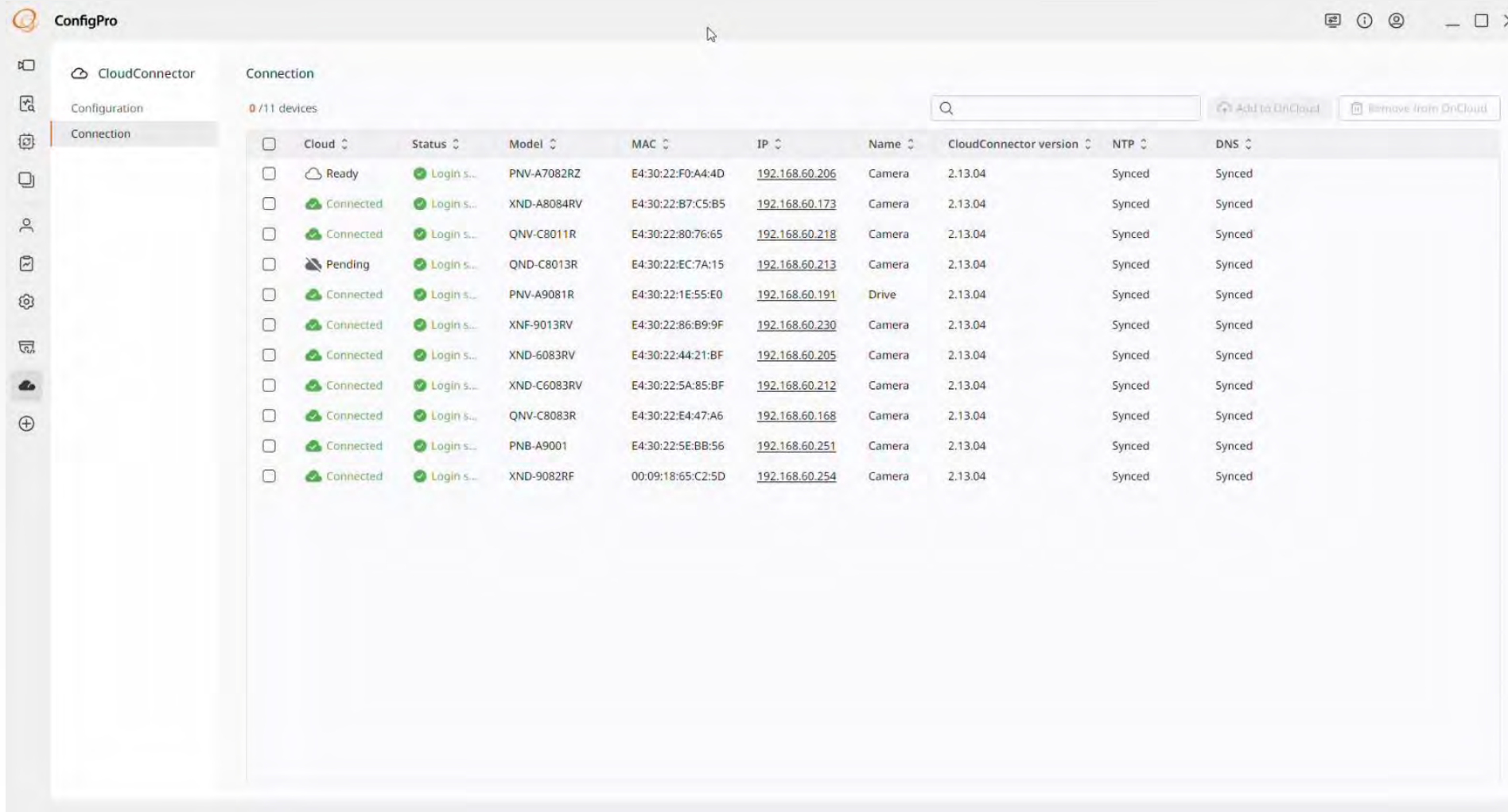


The screenshot shows the "Onboard devices" page in OnCloud. It features a "Bulk actions (6)" button and a search bar. A table lists six online devices with their respective details and actions:

Name	Model number	IP	Date added	Status	Location	Area	Actions
ZNJK6V4T90001YL	PNB-A9001	-	13/01/2026	Online	Set location	-	+ Add, Delete
ZNJP6V4N50000GR	PNV-A9081R	-	13/01/2026	Online	Set location	-	+ Add, Delete
ZQ8Z70GN500005W	XND-9082RF	-	13/01/2026	Online	Set location	-	+ Add, Delete
ZS4A6V4T70006FF	XND-C6083RV	-	13/01/2026	Online	Set location	-	+ Add, Delete
ZSFA6V4X2000VGA	XNF-9013RV	-	13/01/2026	Online	Set location	-	Reclaim, Delete
ZTAJ70GTB00017K	QNV-C8083R	-	13/01/2026	Online	Set location	-	+ Add, Delete
ZTCV6V4WC0007JL	QNV-C8011R	-	13/01/2026	Online	Set location	-	Reclaim, Delete
ZVT370GX70000WK	QND-C8013R	-	13/01/2026	Online	Set location	-	Reclaim, Delete
ZVVC6V4Y40000LJ	XND-A8084RV	-	13/01/2026	Online	Set location	-	+ Add, Delete

# OnCloud Onboarding

Confirmation that your devices have been onboarded, the cloud status will show as connected



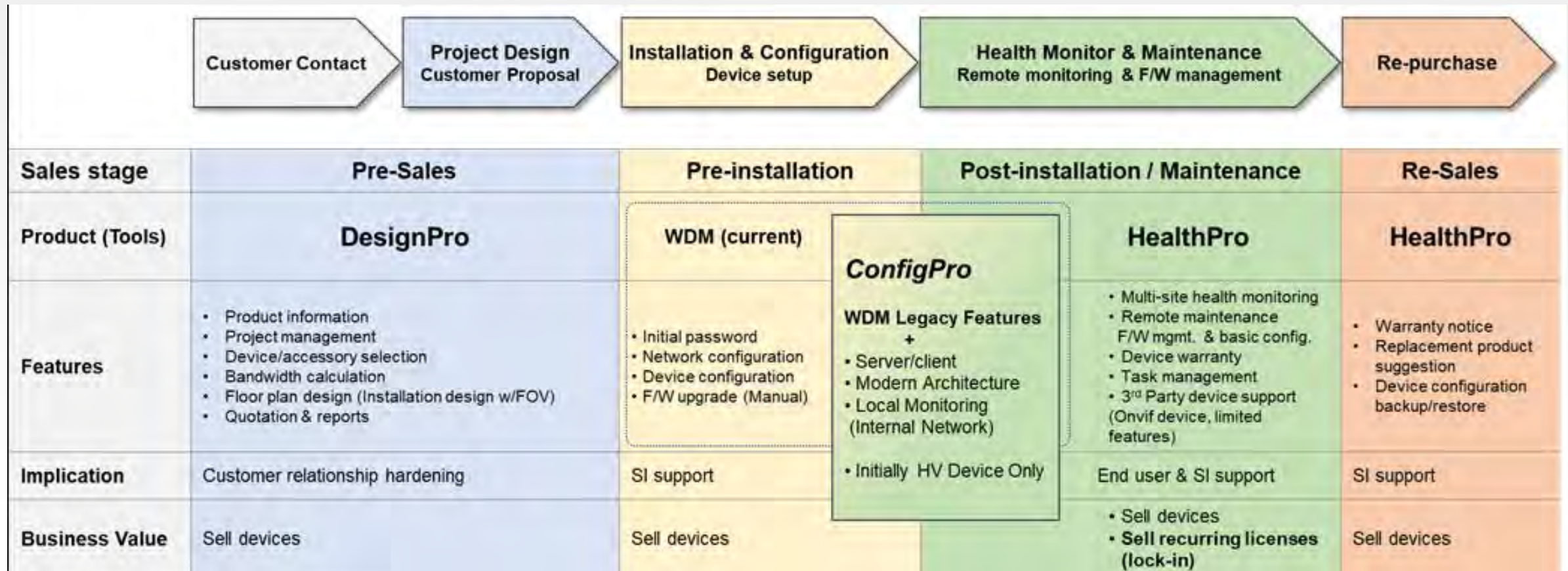
The screenshot shows the ConfigPro interface with the 'Connection' tab selected. The main area displays a table of 11 devices. The 'Status' column shows that all devices are 'Connected' (indicated by a green checkmark icon). The 'Cloud' column shows a cloud icon, and the 'Status' column shows a green checkmark and the text 'Login s...'. The table columns are: Cloud, Status, Model, MAC, IP, Name, CloudConnector version, NTP, and DNS. The table also includes a search bar and buttons for 'Add to OnCloud' and 'Remove from OnCloud'.

Cloud	Status	Model	MAC	IP	Name	CloudConnector version	NTP	DNS
Ready	Login s...	PNV-A7082RZ	E4:30:22:F0:A4:4D	<a href="#">192.168.60.206</a>	Camera	2.13.04	Synced	Synced
Connected	Login s...	XND-A8084RV	E4:30:22:B7:C5:B5	<a href="#">192.168.60.173</a>	Camera	2.13.04	Synced	Synced
Connected	Login s...	QNV-C8011R	E4:30:22:80:76:65	<a href="#">192.168.60.218</a>	Camera	2.13.04	Synced	Synced
Pending	Login s...	QND-C8013R	E4:30:22:EC:7A:15	<a href="#">192.168.60.213</a>	Camera	2.13.04	Synced	Synced
Connected	Login s...	PNV-A9081R	E4:30:22:1E:55:E0	<a href="#">192.168.60.191</a>	Drive	2.13.04	Synced	Synced
Connected	Login s...	XNF-9013RV	E4:30:22:86:B9:9F	<a href="#">192.168.60.230</a>	Camera	2.13.04	Synced	Synced
Connected	Login s...	XND-6083RV	E4:30:22:44:21:BF	<a href="#">192.168.60.205</a>	Camera	2.13.04	Synced	Synced
Connected	Login s...	XND-C6083RV	E4:30:22:5A:85:BF	<a href="#">192.168.60.212</a>	Camera	2.13.04	Synced	Synced
Connected	Login s...	QNV-C8083R	E4:30:22:E4:47:A6	<a href="#">192.168.60.168</a>	Camera	2.13.04	Synced	Synced
Connected	Login s...	PNB-A9001	E4:30:22:5E:BB:56	<a href="#">192.168.60.251</a>	Camera	2.13.04	Synced	Synced
Connected	Login s...	XND-9082RF	00:09:18:65:C2:5D	<a href="#">192.168.60.254</a>	Camera	2.13.04	Synced	Synced

# Device Life Cycle

Our goal is to enable a seamless experience across the entire device lifecycle.

- Import selected products from pre-sales and design phases to streamline bulk configuration (DesignPro ↔ ConfigPro)
- After installation, seamlessly extend support to ongoing health monitoring and lifecycle services for deployed devices (ConfigPro ↔ HealthPro)



# Feedback

Please submit feature requests or bug reports for ConfigPro at:

<https://hanwhavision.atlassian.net/servicedesk/customer/portal/1004>


HanwhaVision Help Center / Hanwha Vision Cloud Services intake form

## Hanwha Vision Cloud Services intake form

Please use the following forms to submit bugs and/or feature requests. This allows respective PMs to triage the request in a timely manner.


We are committed to addressing all reported issues promptly. In instances where additional information is required, you may be contacted for clarification. Failure to respond within a reasonable timeframe may result in the closure of the ticket if further progress cannot be made.

What can we help you with?

 **Bug**  
Thank you for helping us improve! Your bug report is greatly appreciated.

Required fields are marked with an asterisk\*

Raise this request on behalf of\*

 Kevin Choi (kevin.choi@hanwha.com)

Summary\*

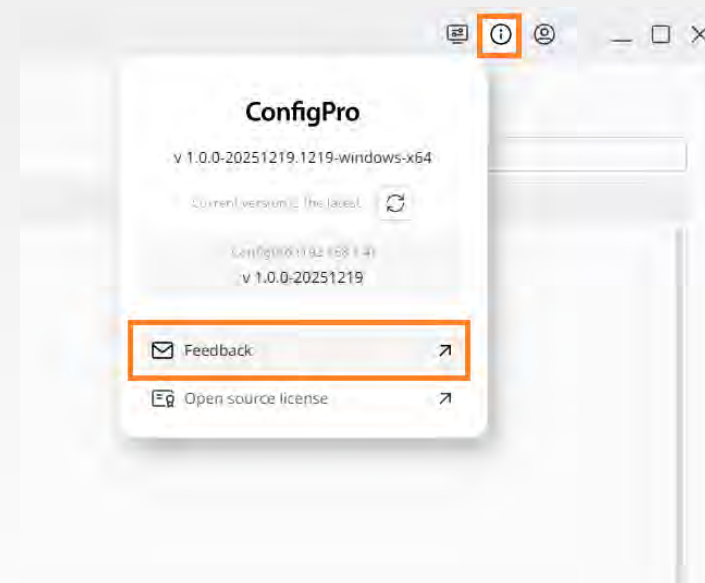
Thank you for helping us improve! Your bug report is greatly appreciated.

Product\*

Select Cloud Product

Select...

- HealthPro Bridge
- SightMind
- SalesHub
- DesignPro
- ConfigPro



**Thank you**

