

Wiz *Sense*

NVR4000-EI Series

Unlocking The True Value Of Data



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Background

—
There are more and more cameras connect with NVR, and the requirement of bandwidth become higher.



—
The resolution of camera has been improved, and the existing decoding capabilities may not support ultra-high definition screen decoding.



—
AI product is getting popular, but its price is quite expensive.



—
As the AI IPC becomes more and more complete, the backend NVR need to effectively process these intelligent data.



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Overview

NVR4000-EI series is a new generation of network recorders that offers powerful decoding capabilities, and strong bandwidth. Besides, “E” refers to “Economic”, showing a series of cost-effective AI products. It features high-precision face recognition, perimeter protection, and SMD (Smart Motion Detection), which can distinguish target vehicles and humans from other types in real time.

When connected with select IPC cameras, Quick Pick technology becomes available, allowing human and vehicle targets to be easily searched for and picked out.



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Highlight



Higher Bandwidth

- Up to **256Mbps** of input/record/transmission
 - Up to 32 channels input
 - Up to 16TB HDD
-



Higher Decoding Capacity

- Upgrade to **16CH@1080P** or **4CH@4K**
 - Up to 16MP IPC access is supported
-



Fusion AI

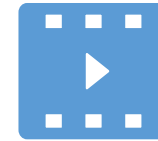
- Up to 4-channel SMD
 - Up to 2-channel IVS
 - Up to 1-channel FR
 - **Quick Pick**
-

Higher decoding capacity 🔥

With the help of the new CPU embedded, the NVR4000-EI Series have a higher decoding capacity than other NVR4000 series.



Decoding Capacity:



NVR4-EI: **16**@2MP
4@**8**MP

100%



NVR4/L
NVR4-4KS2/I: 8@2MP

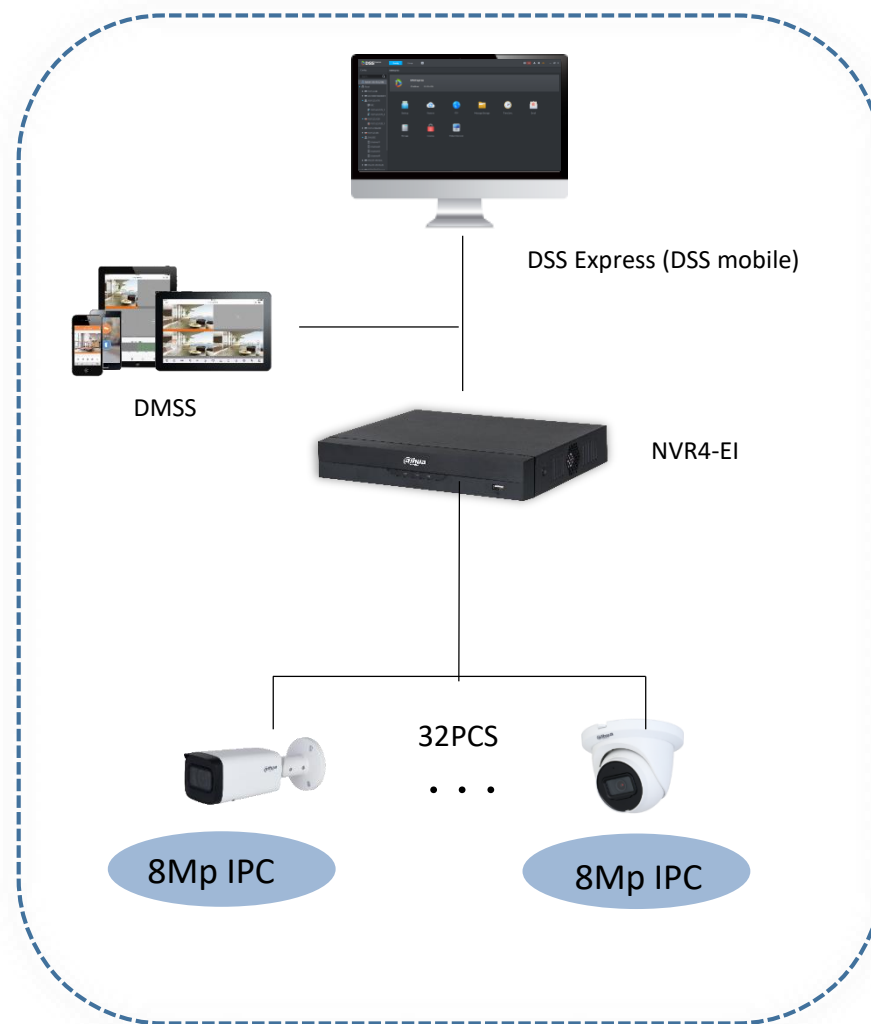
Higher Bandwidth

With Max. 256/256/256Mbps, NVR4-EI with gigabit Ethernet port can support 32 channels 8MP Camera accessing /recording/ forwarding under H.264.

NVR4-EI: **256/256Mbps**

Max. 60%

NVR4/L: 160/160Mbps



Fusion AI - Quick Pick

Quick Pick can quickly detect targets attributes and accurately locate target, which facilitates retrieval from massive video recording files.



Higher Accuracy

Filter Target Accuracy $\geq 90\%$



Easier Operation

Average Search Time $\leq 5s$



Quick Search

Enhance Search Efficiency $\geq 90\%$



How does Quick Pick Work?

Step1: Frame Selected Target

Cameras - Analyzes color of clothing and vehicles in real-time SMD videos and send to NVR.



How does Quick Pick Work?

Step2: Search Target Videos
Shown as Thumbnail

NVR - Extracts color of clothing or vehicle(s) in the detection box and compares.

Quick Pick Solution



Recommended Solution: WizSense IPC/PTZ Camera+ NVR4000-EI Series



IPC



◆ WizSense IPC 3X41-S2 Series

PTZ



◆ SD4/5/6-GA/B PTZ Camera

Recorder



◆ WizSense NVR4000-EI Series

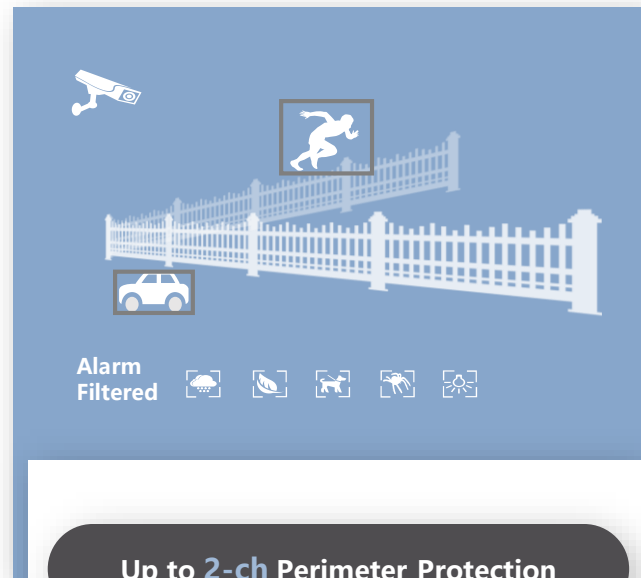
AI Functions



Up to 4-ch SMD

SMD Plus

as Smart Motion Detection Plus, filters the motion detection alarm triggered by non-concerned target and recognize human and vehicle effectively, sending alarms when human and vehicle intrudes.



Up to 2-ch Perimeter Protection

Perimeter Protection

is based on AI algorithm and focuses on human and vehicle, which offers high-definition capability that can provide accurate and predictable intrusion alarms.



Up to 1-ch video stream
Face Recognition

Face Recognition

is constituted with feature attribute information extracted from target faces, supports image search and face attribute search by comparison.

Model IList

Pictures	PN	Model
	1.0.01.23.14927	DHI-NVR4104-EI
	1.0.01.23.14952	DHI-NVR4108-EI
	1.0.01.23.14928	DHI-NVR4116-EI
	1.0.01.23.14982	DHI-NVR4104-P-EI
	1.0.01.23.14906	DHI-NVR4108-P-EI
	1.0.01.23.14997	DHI-NVR4108-8P-EI
	1.0.01.23.14911	DHI-NVR4116-8P-EI
	1.0.01.23.14930	DHI-NVR4104HS-EI
	1.0.01.23.14931	DHI-NVR4108HS-EI
	1.0.01.23.14935	DHI-NVR4116HS-EI
	1.0.01.23.14947	DHI-NVR4104HS-P-EI
	1.0.01.23.14907	DHI-NVR4108HS-P-EI
	1.0.01.23.14998	DHI-NVR4108HS-8P-EI
	1.0.01.23.14910	DHI-NVR4116HS-8P-EI
	1.0.01.23.14953	DHI-NVR4204-EI
	1.0.01.23.14954	DHI-NVR4208-EI
	1.0.01.23.14955	DHI-NVR4216-EI
	1.0.01.23.14936	DHI-NVR4232-EI
	1.0.01.23.14908	DHI-NVR4204-P-EI
	1.0.01.23.14999	DHI-NVR4208-8P-EI
	1.0.01.23.14991	DHI-NVR4216-16P-EI
	1.0.01.23.14909	DHI-NVR4232-16P-EI
	1.0.01.23.15064	DHI-NVR4416-EI
	1.0.01.23.15063	DHI-NVR4432-EI
	1.0.01.23.15109	DHI-NVR4416-16P-EI
	1.0.01.23.14914	DHI-NVR4432-16P-EI
	1.0.01.23.15123	DHI-NVR4816-16P-EI
	1.0.01.23.15115	DHI-NVR4816-EI
	1.0.01.23.14915	DHI-NVR4832-EI
	1.0.01.23.14916	DHI-NVR4832-16P-EI

Pictures	PN	Model
	1.0.01.23.14956	NVR4104-EI
	1.0.01.23.14958	NVR4108-EI
	1.0.01.23.14959	NVR4116-EI
	1.0.01.23.14983	NVR4104-P-EI
	1.0.01.23.14985	NVR4108-P-EI
	1.0.01.23.15003	NVR4108-8P-EI
	1.0.01.23.15005	NVR4116-8P-EI
	1.0.01.23.14957	NVR4104HS-EI
	1.0.01.23.14929	NVR4108HS-EI
	1.0.01.23.14960	NVR4116HS-EI
	1.0.01.23.14988	NVR4104HS-P-EI
	1.0.01.23.14984	NVR4108HS-P-EI
	1.0.01.23.15004	NVR4108HS-8P-EI
	1.0.01.23.15006	NVR4116HS-8P-EI
	1.0.01.23.14961	NVR4204-EI
	1.0.01.23.14962	NVR4208-EI
	1.0.01.23.14963	NVR4216-EI
	1.0.01.23.14964	NVR4232-EI
	1.0.01.23.14986	NVR4204-P-EI
	1.0.01.23.15007	NVR4208-8P-EI
	1.0.01.23.14992	NVR4216-16P-EI
	1.0.01.23.14993	NVR4232-16P-EI
	1.0.01.23.15103	NVR4416-EI
	1.0.01.23.15090	NVR4432-EI
	1.0.01.23.15110	NVR4416-16P-EI
	1.0.01.23.15094	NVR4432-16P-EI
	1.0.01.23.15116	NVR4816-EI
	1.0.01.23.15096	NVR4832-EI
	1.0.01.23.15124	NVR4816-16P-EI
	1.0.01.23.15099	NVR4832-16P-EI



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01 Overview

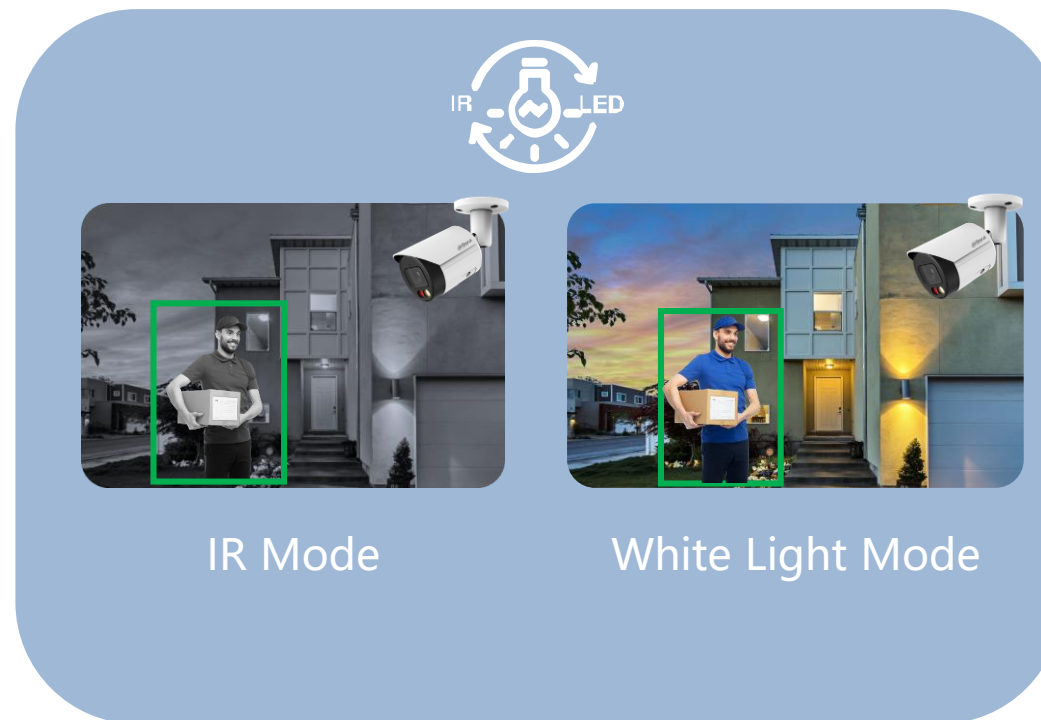
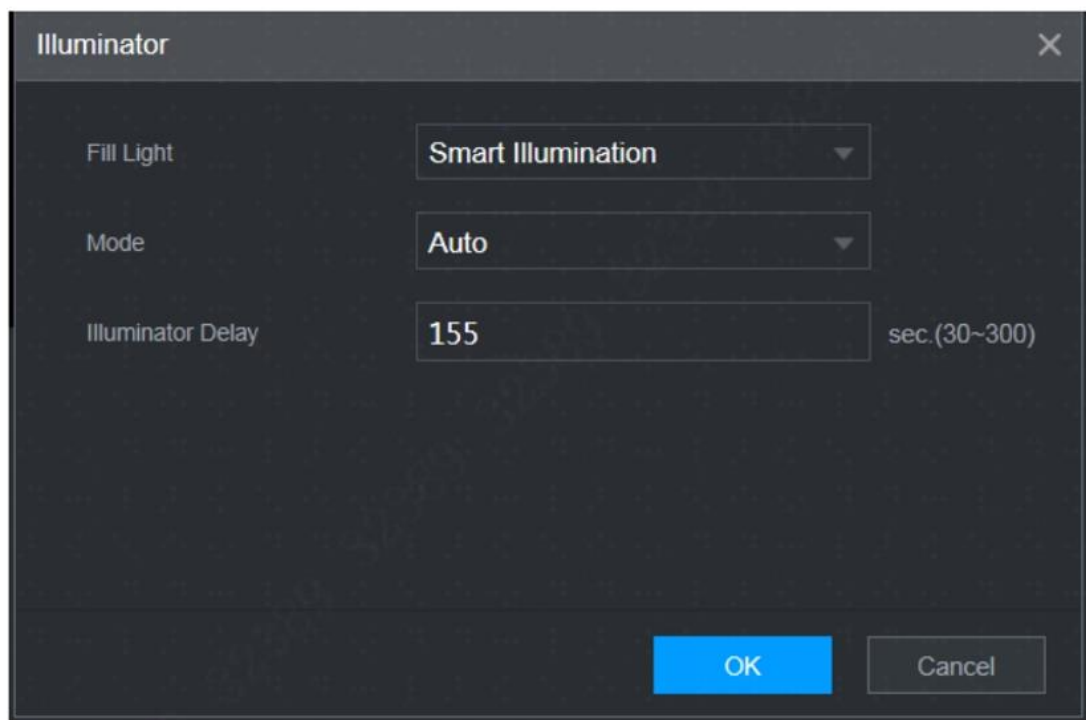
02 Highlight

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Smart Illumination

- Support setting front-end Fill Light to IR Mode, White Light, Smart Illumination.
- When selecting Smart Illumination as Fill Light, the system will switch the illuminators according to the actual condition.



Compatible with **Smart Dual Illuminators Cameras**: IPC-HX2X49-IL / **TiOC 2.0 cameras**: IPC-HX3X49-PV

Smart Dual illumination & TiOC Solution



Recommended Solution: WizSense IPC 2X49 / **TiOC 2.0** IPC 3X49-PV+ NVR4000-EI Series



IPC		◆ WizSense IPC 2X49 Series
IPC		◆ WizSense IPC 3X49-PV Series
Recorder		◆ WizSense NVR4000-EI Series

*EPTZ will be supported in next version FW around end of Dec.

EPTZ

NVR4000-EI support EPTZ by camera which can simultaneously zoom in and track multiple humans and vehicles (up to 3) when an alarm is triggered, realizing an intelligent function similar to PTZ linkage. In addition to a panoramic view, EPTZ also provides rich details to help users see distant object clearly.



The Advantage of EPTZ

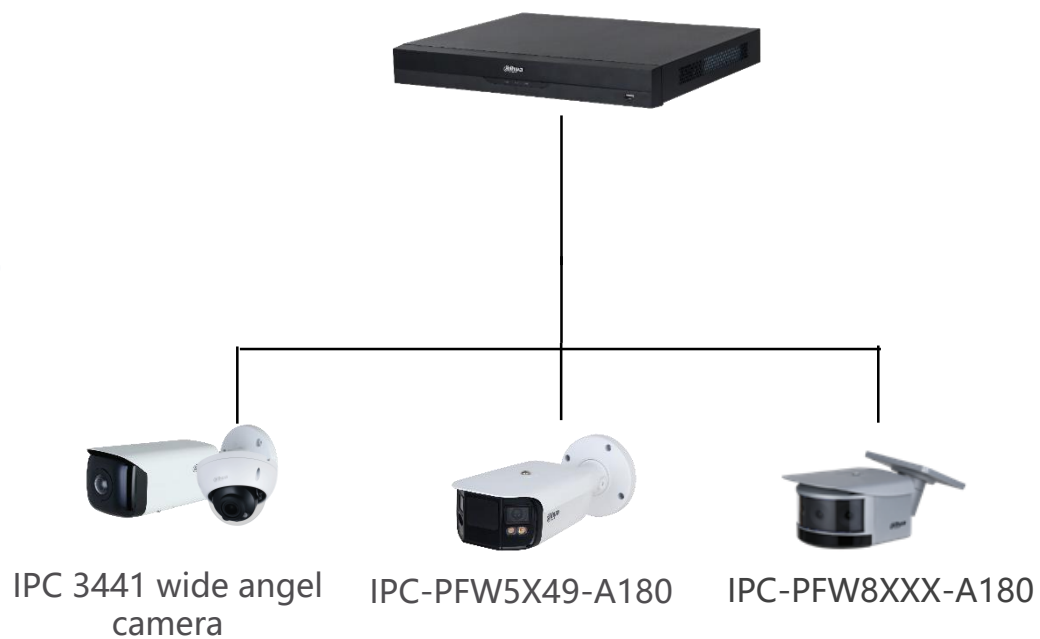
- **Based on IVS:** support Human/Vehicle classifications
- **Multiple Target Tracking:** up to 3 targets at the same time
- **Accurate Tracking:** false alarm rate is less than 5%
- **Panorama with Details:** display both panoramic and detailed views
- **Focusing Area:** zoom in and focus on up to 3 important areas when there is no alarm
- **Fast Moving Target Tracking:** with high-speed positioning, once the alarm is triggered, it will quickly track the moving target until it disappears

EPTZ Solution



Recommended Solution: EPTZ IPC Camera+ NVR4000-EI Series

WizSense NVR4000-EI Series



IPC



◆ IPC 3441 Wide angel camera

IPC



◆ IPC-PFW5X49-A180

IPC



◆ IPC-PFW8XXX-A180

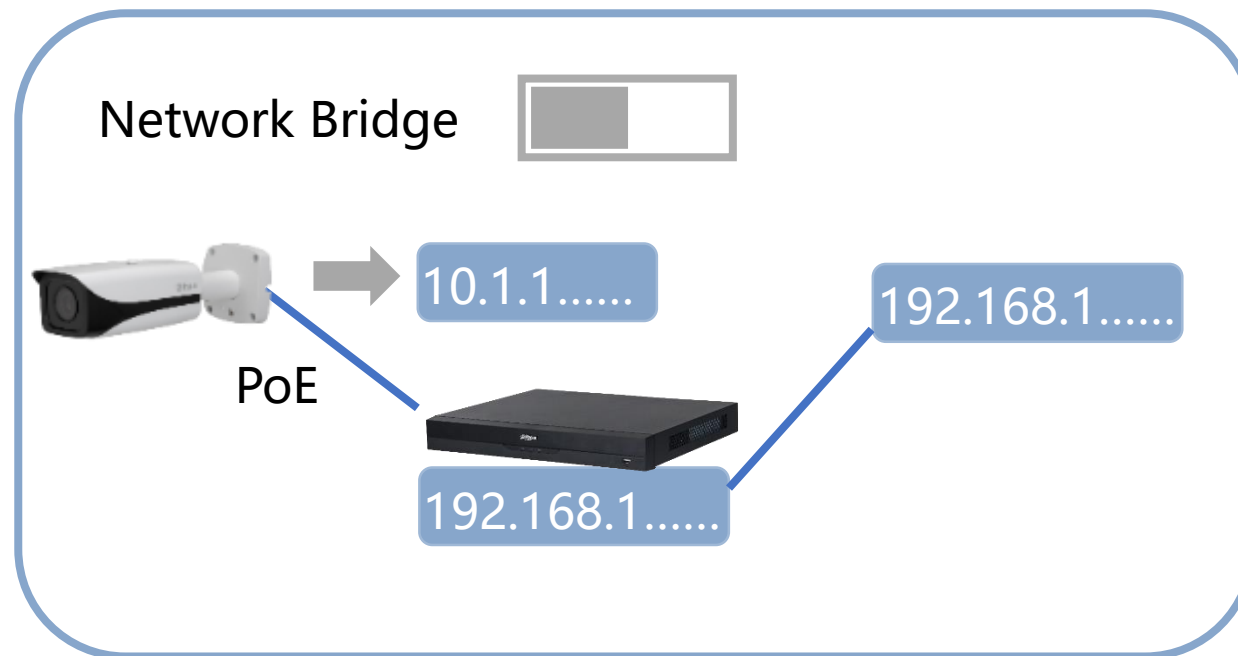
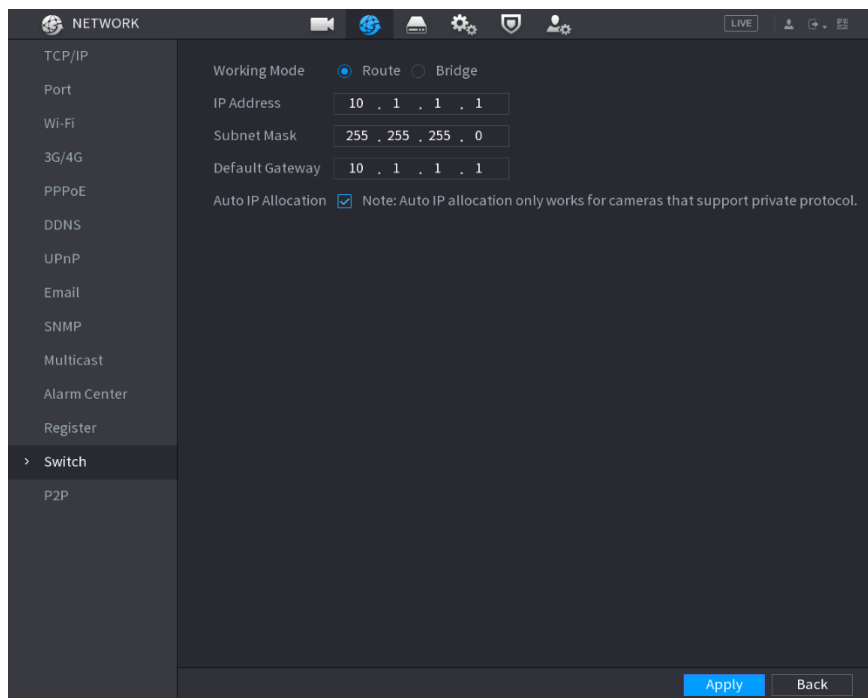
Recorder



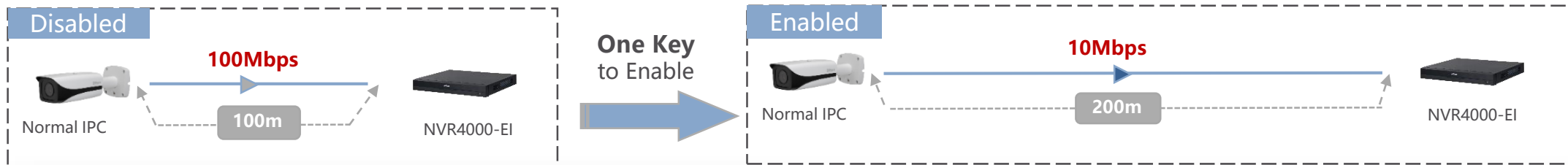
◆ NVR4000-EI Series

Network Bridge

- In Network>Switch, there are a Network Bridge function button.
- When Network bridge is enabled, the DHCP of PoE network card will be disabled, all cameras connected to PoE port will not get IP address automatically. And they can be given a IP address in the same network segment with the main network card to have a directly communication with main network card.



Enhancement Mode



- The enhanced mode function makes it possible for POE long-distance transmission between NVR4000-EI to normal IPC.
- It extends the transmission distance up to **200m** by reducing transmission bandwidth.
- And the maximum power budget at 200m is around **10W**.

Connected/Total

1/8

Actual/Total Power(W)

3.5/64.8

Status	Port	Enhancement Mode	Rate(Mbps)	Power(W)
	1	Off	100	3.5
	2	Off	-	-
	3	Off	-	-
	4	Off	-	-
	5	Off	-	-
	6	Off	-	-
	7	Off	-	-
	8	Off	-	-

Note:

1. About icon: for PoE connection status, green circle means the device is connected and red circle means the device is disconnected;

2. Power protection function: Once the system detects the connected total power consumption exceeds the threshold, it begins to disconnect device one by one according to the port number (N - 1). System stops disconnecting when total power consumption is restored to rated power.

Main Menu-> CAMERA -> PoE



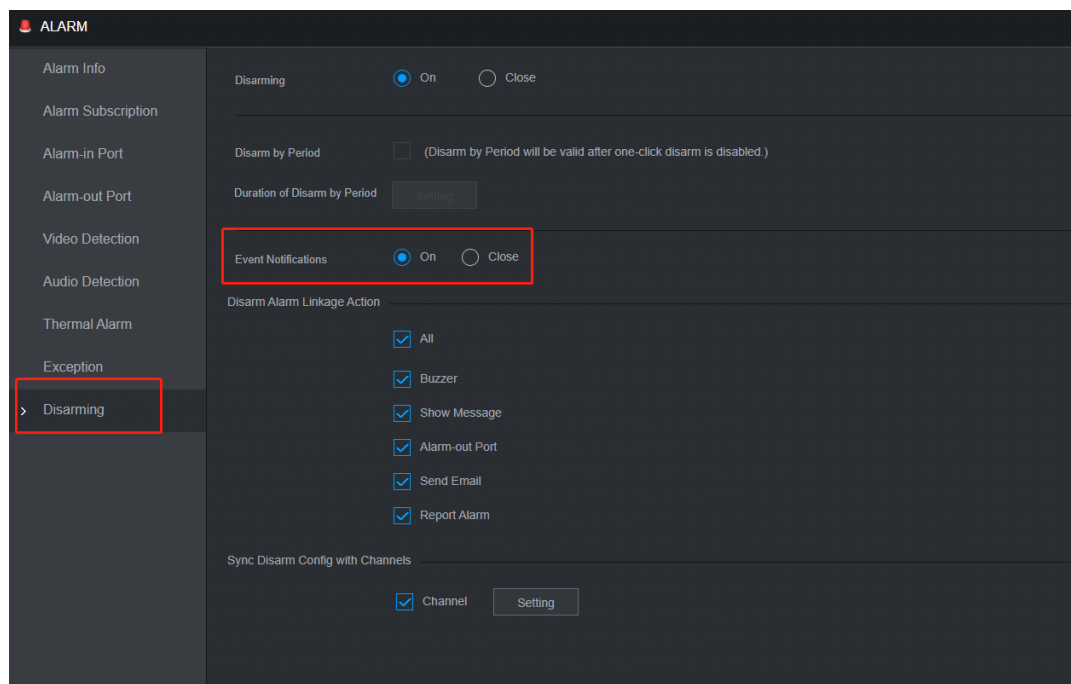
Rate(Mbps)	OFF	Power(W)
100		3.5

Rate(Mbps)	ON	Power(W)
10		3.5

- What's more, the real time power consumption of each channel is displayed on the interface.
- Once the system detects the total power consumption exceeds the threshold, it begins to disconnect device one by one according to the port No. (N -> 1). System stops disconnecting when the total power consumption is restored to rated power.

One-click disarming

- Support One-click disarming in Alarm interface
- In Alarm>Disarming menu, add a new option “Push notification”, when enable this option, one click disarming will close all the push notification to mobile App, DSS Pro and other platform.



Disarming



On



Close

Event Notification



On



Close

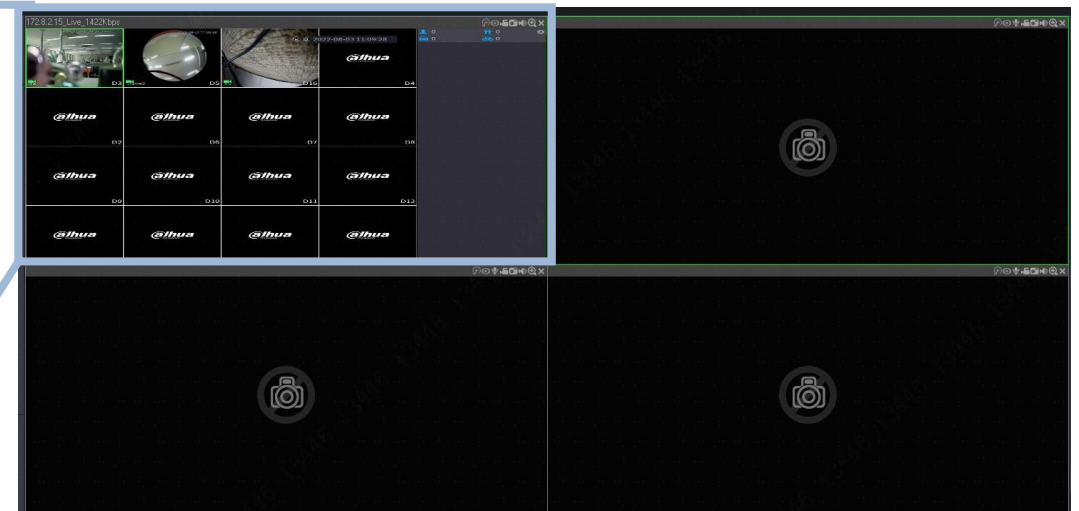


Zero-Channel

NVR4000-EI support Zero-Channel. This feature allows the NVR to combine all its channels into a single video stream, thus reducing the bandwidth requirement for a remote transmission over a congested network or the internet.



Original Channels



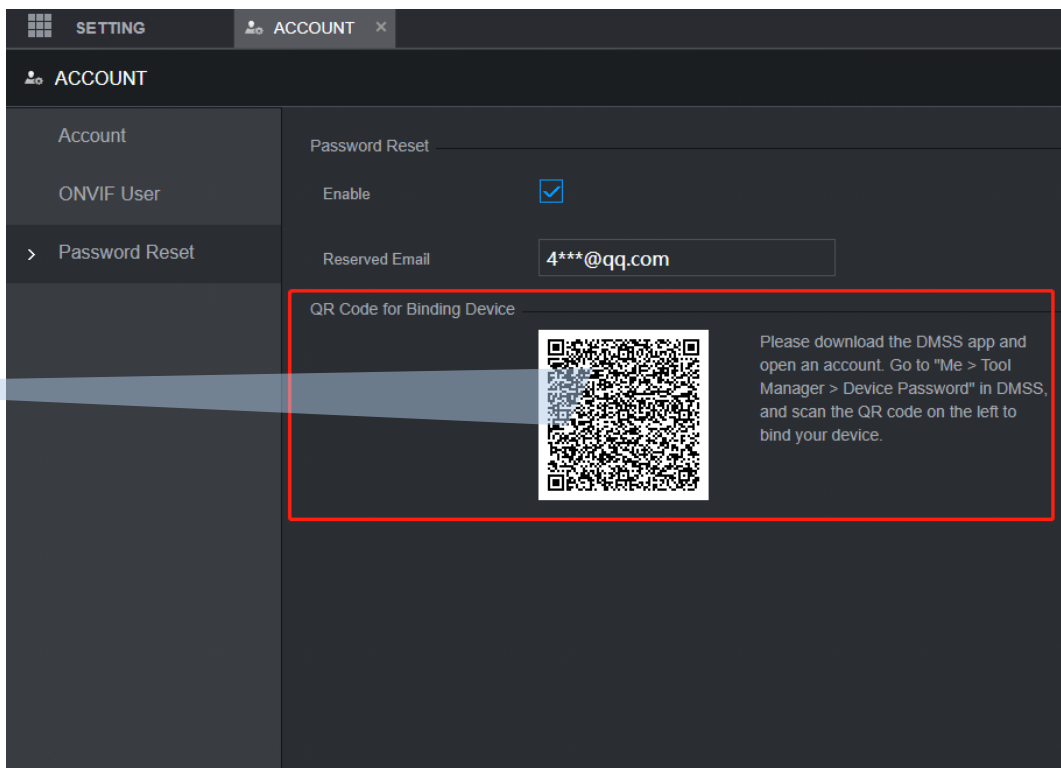
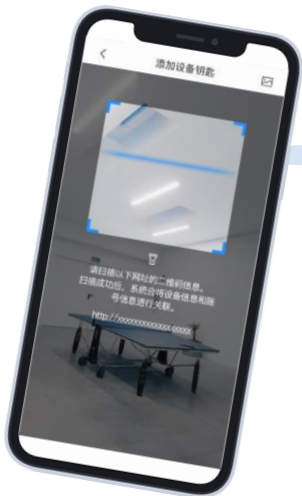
Combine into Zero-Channel on its web

Password Reset through DMSS

NVR4000-EI add device key binding QR code, users can bind device key in his DMSS account, when he forgot device password, he can use DMSS to reset his device.



DMSS V1.98

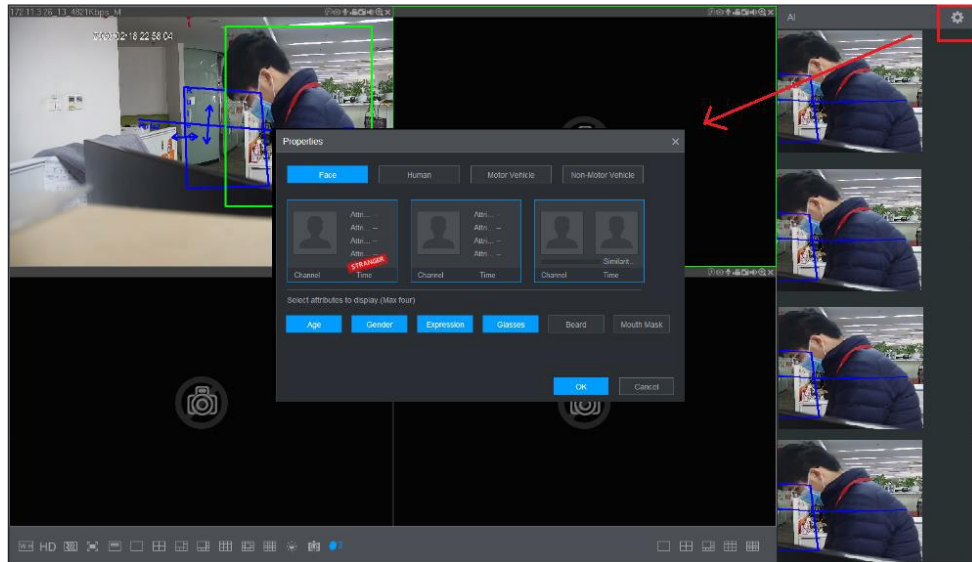


Operation

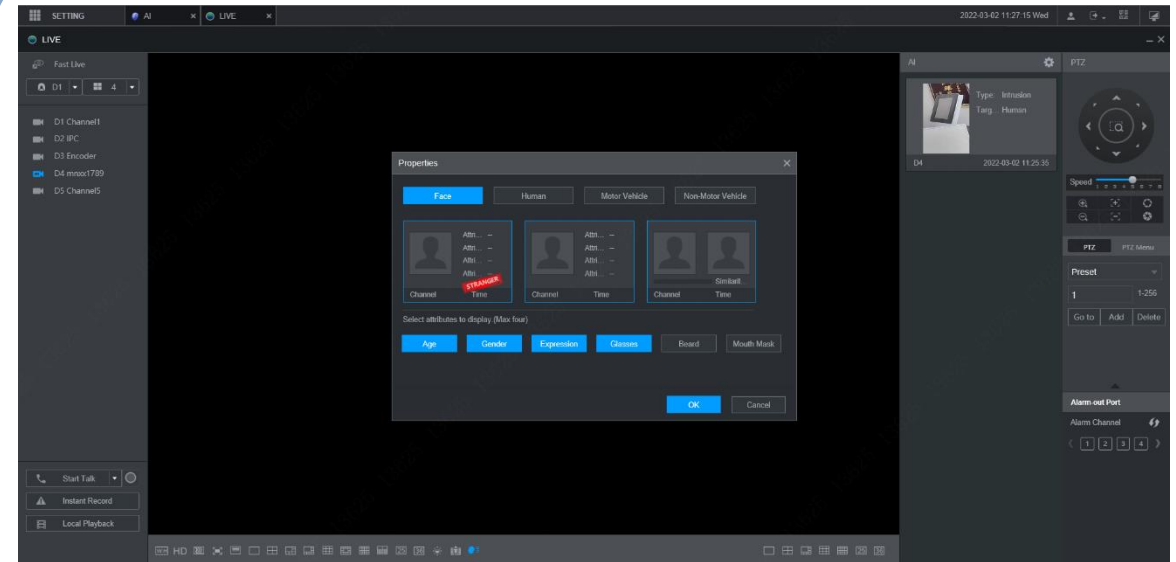
- Binding device with DMSS account to reset password (For End user)
- Binding device reset key with DMSS account to reset password (For installers)
- DMSS V1.98 support this function
- Device should be P2P online when using this function

AI Panel on Local and Web

NVR4000-EI support AI Panel on local and web, which helps to display more intelligent event information not only on local interface but also on Web.



AI Panel on Local Side



AI Panel on web Side



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Parameter

Category	Item	NVR4000-EI	NVR4000-4KS2/L	NVR4000-4KS2/I
	HDD	1/2/4/8	1/2	4/8
Capacity	IP camera input	4/8/16/32CH	4/8/16/32CH	16/32CH
	Decoding Format	H.265+/H.264+/H.265/H.264	H.265+/H.264+/H.265/H.264	H.265+/H.264+/H.265/H.264
	Incoming/Outgoing Bandwidth	Max. 256/256Mbps	Max. 160/160Mbps	256/256Mbps
	Recording Resolution	16MP	8MP	16MP
	Decoding capacity	AI OFF: Max16ch@1080P AI ON: 12ch@1080P	Max 8ch@1080P	Max 10ch@1080P
	Storage Capacity	1/2/4/8*16TB	1/2*16TB	4/8*16TB
Interface	Display	1HDMI/1VGA	1HDMI/1VGA	1HDMI/1VGA
	Audio I/O	1/1	1/1	1/1
	Alarm I/O	1HDD: N/A (2/1 Optional) 2HDD: 4/2 4/8HDD: 16/4	1HDD: N/A 2HDD: 4/2	4/8HDD: 16/4
Web	0 Channel	Yes	N/A	Yes
Smart Function	Perimeter Protection	Max 2 channels	N/A	Max 1 channel
	Face Recognition	1 channels video stream or 4 channel pictures stream	N/A	1 channels video stream or 4 channel pictures stream
	SMD Plus	Max 4 channels	N/A	Max 4 channels