

# **Network Video Recorder**

# Version: V4.21.005 build190509

# **Release Note**

# (2019-5-9 External)

	Firmware Version:	V4.21.005 build190509
Firmware	SDK Version:	V6.0.2.30_build20190325
Filliwale	Play Library:	V7.3.7.32_Build20190305
Basic	Web component:	V4.0.1 build190505
Information	IVMS-4200:	V2.6.18.2 build20190326
	OpenSDK Version:	V1.5.55.1 build 181101

# **Reason of Upgrade**

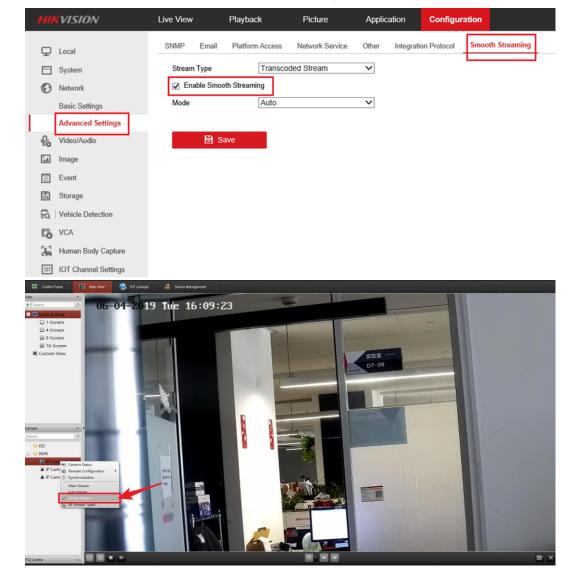
Add new features and optimize product performance.



# New features

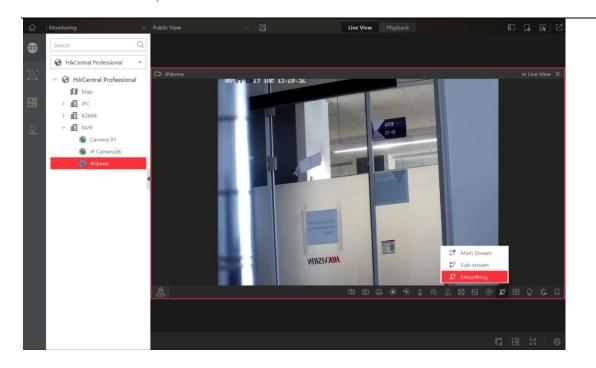
## 1. [Smooth Streaming]

- 1) Low bandwidth preview and playback, support up to 4 channels.
- This function can be configured on Web, iVMS4200 and Hik-central (above 1.3.2), and only 4200 and Hik-central support preview and playback.



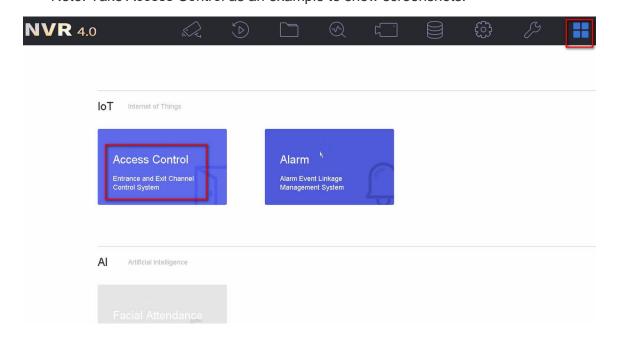
Note: Web doesn't support preview and playback.





## 2. [Access Control Devices Access]

 Support the access of Hikvision Access Control devices and Intercom devices. Note: Take Access Control as an example to show screenshots.





< Access Control							
Device Management	+ Add $ imes$ Delete	limport lip Export	t Ġ Refresh				
Card Swiping Record	Channel No. Na	me Device Type	IP Address Protocol	Edit	Config	Status	Security
	loT01 P1	B1 U1 F1 Hikvision Video I	nt 10.9.96.19 Hikvision		-	٥	Weak Pass
	0T03 P1	B1 L Add IoT Device		× 🗹	-	٥	Weak Pass
		Protocol	Hikvision -				
		Device IP	10.9.96.67				
		Port	8000				
		Transfer Protocol	TCP ~				
		User Name	admin				
		Password	*******				

2) Support alarm rule configuration and OSD display configuration.

/								
Access Control								
Device Management	< Back	Config						
Card Swiping Record		Channel [IoT04] IOT01	- Name	IOT01		Device Type	Hikvision Access Co	ontrol Device
		Event Configuration OSD Dis	splay Configuration					
		Event Type Authentication	on Passed -	Enable			Copy to	
		Linkers Astism Amilan Osha	4.4-					
		Linkage Action Arming Scheo	Jule					
		Normal Linkage	Trigger Alarm Output	Trigger Channel	PTZ Linkage			
		Full Screen Monitoring	Local->1	D1	PTZ Linkage	[D1] 1234	5678 Fro 👻	
2		Audible Warning	Local->2	D2	Preset No.	1		
5		Notify Surveillance Center	Local->3	D3	O Fleset No.	1		
		Send Email			OPatrol No.	1		
			Local->4	<b>☑</b> D4	OPattern No.	1		
		✓OSD Display	Local->5	D6	UT allem No.			

3) Support Normal Linkage, Trigger Alarm Output, Trigger Channel, PTZ Linkage.



←< Access Control		
Device Management	< Back Config	
Card Swiping Record	Channel         [IoT01]         Name         IOT01         Device Type           Event Configuration         OSD Display Configuration                  Device Type	Hikvision Access Control Device
	Event Type Authentication Passed - CEnable Linkage Action Arming Schedule Normal Linkage Trigger Alarm Output Trigger Channel PTZ Linkage	Copy to
	Full Screen Monitoring     Local->1     D1     PTZ Linkage     [D1] 1234	15678 Fro 👻
	Audible Warning Local->2 D2 Preset No. 1	
	□Notify Surveinance Center         □ceal->3         □D3           □Send Email         □Local->4         □D4	
	OSD Display     Cocal->5     D6	

4) The Access Control alarm information also can be overlapped on live view. Which IP channel will be overlapped with the OSD display depends on the trigger channel you select.

Device Management	< Back	Config	2704	100	10701		Dealer Trees	Lile inion Accord Cont
Card Swiping Record		Channel [loT04] IC		* Nar	ne IOT01		Device Type	Hikvision Access Contr
		Event Configuration	OSD Display Confi	guration				
		Device Name	Card No.	Event Na	me			
		Name	ID No.					
						Character Encod	Latin-1(iso-8859	9-1) -
						Overlay Mode	Page	•
						Font Size	Small	Medium Large
						Font Color		
		device:10 T 01		-	The second secon	Display for(s)	1000	
		event:Door Clos						

5) Support Access Control alarm event log.

NV	<b>R</b> 4.0							ŝ	۶	
i	System Info	>	< Back							
	Log Information		No.	Major Type	Time	Minor Type				Parameter
B	Import/Export		1	Alarm	27-05-2019 09:14:5	6 Access Contro	ol Host Event			N/A
Ŷ	Upgrade	2	2	Alarm	27-05-2019 09:16:4	9 Access Contro	ol Host Event			N/A
	opgrade		3	Alarm	27-05-2019 09:16:4	9 Access Contro	ol Host Event			N/A
00	Default		4	Alarm	27-05-2019 09:17:0	9 Access Contro	ol Host Event			N/A
	Network	>	5	Alarm	27-05-2019 09:19:5	6 Access Contro	ol Host Event			N/A

6) Support to upload alarm to Hik-Connect.

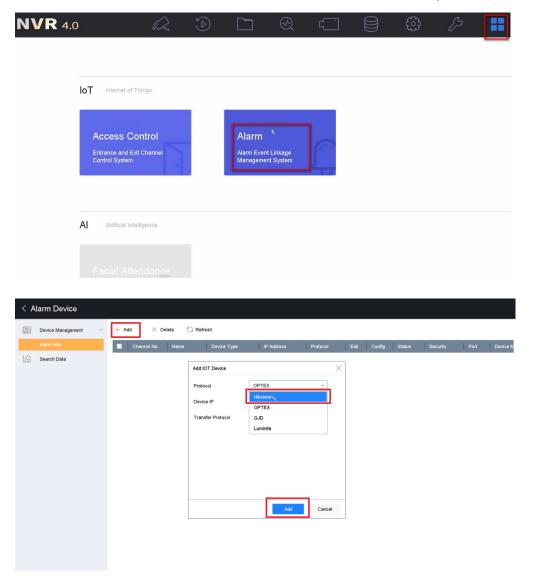


7) The timeout period for recording after the call starts is 90 seconds, or 90 seconds if there is no call end.

Note: The total number of IoT access channels is up to half of the number of device channels. For model 7732NI-I4, the sum of the number of access control channels, video intercom channels and alarm (Hikvision & third party alarm) channels is up to 16.

#### 3. [Alarm Devices Access]

1) Support the access of HIKVISION alarm devices and GJD, OPTEX and Luminite alarm devices. Note: Take Hikvision Alarm Host as an example to show screenshots.





2) Support alarm rule configuration and OSD display configuration.

Device Management Adde Note Search Data Config Status Strong Pass		arm Device												
Alarm Device Search Data Back Config Channel [[0101] wire Name wire Device Type Hikvision Alarm Host Search Data Back Config Channel [[0101] wire Name wire Device Type Hikvision Alarm Host Search Data Back Config Channel [[0101] wire Configuration Event Type Tost-wire Copy to Linkage Action Arming Schedule Formal Linkage Action Arming Schedule Formal Linkage Config Cost->1 Prove No. 1 Prove No. 1 Prove No. 1 Prove No. 1 Prove No. 1 Prove Strong Schedule Prove Schedul	÷.	Device Management	+ Ad	dd X Delete	G Refres	sh								
Alarm Device          Device Management       Back       Config         Channel       [0T01] wire       Name       wire       Device Type         Search Data       Event Configuration       SD Display Configuration       Enable       Copy to         Inkage Action       Aming Schedule       Inkage Action       Trigger Channel       PTZ Linkage       [D1] Pdome         Used bie Viaming       Local+>1       D1       PTZ Linkage       [D1] Pdome       Image Patri No.         Search Bati       Local+>4       D1       Preset No.       1       Image Patri No.		Alarm host		Channel No. Na	ame	Device Type	IP Address	Protocol	Edit	Config	Status	Security	Port	Devic
Device Management       Back       Config         Aarm hold       Channel [OT01] wire _ Name wire _ Device Type Hilvidion Alarm Hold         Search Data       OSD Display Configuration _ OSD Display Configuration _ Device Type Hilvidion Alarm Hold         Event Type host-wire _ Enable       Copy to         Linkage Action Arming Schedule	22 :	Search Data			ire	Hikvision Alarm Host	192.1.34.53	HIKVISION			0	Strong Pass	8000	DS-P
Valuem tool         Search Data         Event Configuration         Event Type         host-wire         Inkage Action         Amming Schedule         Inkage Action         Amming Schedule         Introduction         Introduction      <			< Back	Config										
Search Data       Event Type       host-wire       Copy to         Event Type       host-wire       Copy to         Linkage Action       Arming Schedule         Normal Linkage       Trigger Alarm Output       Trigger Channel       PTZ Linkage         Pull Screen Monitoring       Local->1       D1       PTZ Linkage       [D1] IPdome         Audble Warning       Local->2       Preset No.       1       1         Notify Surveillance Center       Local->3       Patrol No.       1       1	A	Varm host	0	Channel [IOT01] wire		- Name	wire		Device 1	Type Hikvi	sion Alarm Host			
Linkage Action       Arming Schedule         Normal Linkage       Trigger Alarm Output       Trigger Channel       PTZ Linkage         PHUI Screen Monitoring       Local->1       D1       PTZ Linkage       [D1]Pdome         Audible Warning       Local->2       Preset No.       1       1         Notify Surveillance Certer       Local->3       Patroi No.       1       1         Send Email       Local->4       Patroi No.       1       1	s	Search Data		Event Configuration	SD Display Con	figuration								
Put Scheen Monitoring     PTZ Linkage     [D1] Pdone     -       Audible Warning     Local->2     Preset No.     1       Notify Surveillance Center     Local->3     Patrol No.     1       Send Email     Local->4     -				Linkage Action Arming	g Schedule			PTZ Linkage			Copy to			
Audible Warring       Local->2       Preset No.       1         Notry Surveillance Center       Local->3       Patrol No.       1         Send Email       Local->4       Patrol No.       1				Full Screen Monitor	ring	I->1	D1	PTZ Linkage	10.41					
Notify Surveillance Center     □Local->3       □ Send Email     □Local->4										1 IPdome				
Send Email				Audible Warning	Local	I->2		Preset No		] IPdome				
									1	] IPdome				
				Notify Surveillance (	Center 🗌 Local	I->3		Patrol No.	1	] IPdome				
				Notify Surveillance (	Center 🗌 Local	I->3		Patrol No.	1	] IPdome				
				Notify Surveillance (	Center 🗌 Local	I->3		Patrol No.	1	] IPdome				
				Notify Surveillance (	Center 🗌 Local	I->3		Patrol No.	1	] IPdome				
				Notify Surveillance (	Center 🗌 Local	I->3		Patrol No.	1	] IPdome				
				Notify Surveillance (	Center 🗌 Local	I->3		Patrol No.	1	] IPdome				

3) Support alarm event log.

ŃΥ	<b>R</b> 4.0		*	$\bigcirc$			
i	System Info	>	< Back				
	Log Information		No.	Major Type	Time	Minor Type	Parameter Play
B	Import/Export		1651	Alarm	27-05-2019 14:51:43	Motion Detection Started	N/A 🕨
Ŷ	Upgrade		1652	Alarm	27-05-2019 14:51:57	Motion Detection Stopped	N/A 🕨
	opgrade		1653	Alarm	27-05-2019 14:52:01	Alarm Host Event	N/A
0	Default		1654	Alarm	27-05-2019 14:52:03	Alarm Host Event	N/A
	Network	>	1655	Alarm	27-05-2019 14:52:07	Alarm Host Event	N/A
			1656	Alarm	27-05-2019 14:52:08	Alarm Host Event	N/A
2	HDD Operation	>	1657	Alarm	27-05-2019 14:52:13	Alarm Host Event	N/A
Q	System Service	>	1658	Alarm	27-05-2019 14:52:16	Alarm Host Event	N/A

4) Support Normal Linkage, Trigger Alarm Output, Trigger Channel, PTZ Linkage.



Device	Management	🗸 < Back	Config
Alarm h	ost		Channel [IOT01] where - Name where Device Type Hikvision Alarm Host
🔆 Search	Data		Event Configuration OSD Display Configuration
			Event Type zone01-wirelessZone1-Instant - Copy to
			Linkage Action     Arming Schedule       Normal Linkage     Trigger Alarm Output     Trigger Channel
			Image: Second

5) The alarm information also can be overlapped on live view. Which IP channel will be overlapped with the OSD display depends on the trigger channel you select.

Device Management	< Back	Config				
Alarm host	(	Channel [IOT01] wire	- Name wire		Device Type Hikvis	ion Alarm Host
Search Data	1	Event Configuration OSD Display C	Configuration			
		12-14-2018 Fri 12:51:38		Character Encod	Latin-1(iso-8859-1)	-
				Overlay Mode	Page	•
			-	Font Size	Small Medium	Large
				Font Color		
-				Display for(s)	5	

- 6) Support to upload alarm to Hik-Connect.
- 7) The default port for NVR to receive alarms is 30999, which can be modified.



NV	<b>/R</b> 4.0			$\mathfrak{D}$	ک	٥	B	
3	General	SNMP Email	Platform Access More	Settings				
2	User	Alarm Host IP	192.168.2.1.21					
	Network	✓ Alarm Host Port	23					
	ТСРЛР	Server Port	8000					
		Server Polt	0000					
	Event	> HTTP Port	80					
	Live View	> Multicast IP						
Ţ	RS-232	RTSP Port	554		_			
	Holiday	IoT Monitoring Po	rt 30999					
	POS	Enhanced SDK Se	er 8443					
		Арр	ly					

# 4. [Counting Statistics]

1) It can support display counting statistics by selecting channels in local GUI.

NVR 4.0 《		💽 tī 🗎 tộ: 🄑 III 🛓 🕮 🛽	U
NVR 4.0 🔇	Camera	Image: Constraint of the second se	
		[D12] IPCamera 12         [D13] IPCamera 13         [D14] Camera 01         [D15] IPCamera 15         [D16] IPCamera 16	

2) Support display and export reports by daily, weekly, monthly and annual.



<b>NVR</b> 4.0		Ĺ A			Ţ		ිදි	ES,	
요. Counting	Car	mera	[	[All] Can	nera	*			
leat Map	Da	aily Report	Weekly	/ Report	Monthly Rep	ort Annu:	al Report	Date	05-01-2019
		People	Entered	Peop	le E×ited				
		0							

## 5. [Hik-connect Download QR Code]

Hik-connect Download QR code is added in Platform Access interface of NVR local GUI.

🗦 Export

NVR 4.0						Ŋ	<u>↓</u> 24	@ ∪
දිලි} General		SNMP Email	Platform Access	More S	ettings			
A User		Access Type	Hik-Connect		-			
Network	~	Enable						
TCP/IP		Server Addr	litedev.hik-conn	ect.com	Custom			
Advanced		Enable Stream						
Event >	>	Verification Cod	1qaz2ws×					
Live View	>	Status	Offline(0×3007)					
RS-232		Hik-Connect Ac Scan the QR code	Unlinked	200	Unbi Scan the QR c	 wolcad the		
Holiday		application to add th		abb	smartphone ap	Anioaa tric		
POS								
Hot Spare								
E- Horopare				L				

## 6. [Main and Auxiliary Menu Switching]

- 1) Support non-homologous devices to support this function.
- 2) There is no resolution limit for the operation of primary and secondary ports, and they can be switched as long as they are supported.
- 3) Only the current port can operate PTZ after switching.



NVR 4.0 🔍		
Channel Target Dete Q IPCamera 01 IPCamera 02 IPCamera 03 IPCamera 04 IPCamera 05 remote testing dome	NO LINK	01-06-2019 Sun 00:26:39
IPCamera 07 IPCamera 08 IPCamera 09 IPCamera 10 IPCamera 11	<b></b>	
IPCamera 12 IPCamera 13 Camera 01 IPCamera 15 IPCamera 16	NO LINK	NO LINK
IPCamera 17		< 2/8 > 🐺 🖽 😳 🔀 រុ 🖉 រុ

## 7. [IP, MAC Address Black-and-white List Function]

- 1) Local GUI and web can set blacklists and whitelists of IP and MAC.
- 2) Only one (IP or MAC) black-and-white list can be enabled.

NVR 4.0	s.	2 5	$\rightarrow$		Ð	۲		ලි	۶	88	玉 🤹 🖻   む
(i) System Info	>	Enable									
Log Information		Restrictio	n Mode	💌 IF	⊃ Address	MAC	Address				
& Import/Export		Restrictio	n Type	<ul> <li>A</li> </ul>	llow	<ul> <li>Forb</li> </ul>	id				
습 Upgrade	>	Restrictio	n List	_					$+  \operatorname{Add}$	🗹 Edit	imes Delete
🕘 Default			No.	1	IP Address	5					
Retwork	>		1		10.25.204	41					
HDD Operation	>		2		10.9.96.9						
🛞 System Service	$\sim$										
System Service											
ONVIF											
Stream Encryption	n										
Address Filter											
Double Verificati											
More Settings											

3) MAC and IP address black-and-white lists can support 32 addresses separately.



- 4) The actual IP and MAC are acquired in the router with IP and MAC addresses, and the IP and MAC on the router side are acquired outside the router.
- 5) The IP and MAC black-and-white list addresses set can be modified and deleted.

#### 8. **[Double Verification]**

 If enabling Double Verification, non-admin users need secondary password authentication when local GUI playback, video export, remote video playback / download in web or IVMS4200.

N١	/R 4.0					$\mathfrak{D}$	۲	]		ŝ	Ę		🛧 🤹 🖻   (	>
Chanr	nel	~												
		Q)												
Max. (	Cam Min. C	am												
	IPCamera 0													
	IPCamera 0													
	IPCamera 0	3								_				
	IPCamera 0	4			Doub	le ∨erificat	ion user		>	<				
	IPCamera 0													
	remote test.				User	Name	test1		-					
	IPCamera 0	7												
	IPCamera 0	8			Pass	word								
		-												
Time		$\sim$					ОК		Cancel					
~ · · ·	Lette call													
SM	T W T	F S 4 5												
67		11 12												
13 14		18 19												
20 21	22 23 24	25 26												
27 28	29 30 31		Norm	al S	mart (	Custom	Tag 🧲	2019-01	-05 -00:00:01			1 Day	*****	
			2:00	14:00	16:00	18:00	20:00	22:00	1.5	02:00	04:00	00:00	08:00 10:00 12:C	Γ
C	Custom Searc	h	E HH		16.00	18.00	20:00 ⊲I	I⊳ ⊲	145 ▲	1× Þ		lormal Eve		R 7

- Admin users don't need Double Verification and only admin user can configure the function.
- Double Verification can newly add up to 8 users. Double Verification users can only be used for secondary authenticate, but can't be used for logging in NVR.



<b>NVR</b> 4.0	st.	¢ \$				ද්ලි	۶	88	1 🗘 🦉	A   し
i System Info	>	Enable Dout	le Verification			0				
Log Information		+ Add	🗹 Modify	imes Delete						
/> Import/Export		No.	User Name	1	Security	1				
☆ Upgrade	>	1	test1		Weak Pass					
🕘 Default										
Retwork	>									
A HDD Operation	>									
() System Service	~									
System Service										
ONVIF										
Stream Encryption	n									
Address Filter	_									
Double Verificati			k							
More Settings										

Note: After inputting double verification account, the validity period is 10s. For example, the D1 channel is authenticated and then playback. No secondary authentication is required when playback is stopped in 10s. Otherwise you have to authenticate again over 10s.

### 9. [EHOME 5.0 Protocol]

ß **NVR** 4.0 ٦ General SNMP Email Platform Access More Settings User EHome Access Type Network Enable TCP/IP Server Port 7660 Event Registration Status Offline Live View 531648296 ♥ Device ID RS-232 := Holiday V5.0 Version Encryption Password POS 1 Hot Spare

The device can be connected to the platform through E-home5.0 in LAN.



### 10. [Two-way Audio Function between NVR Channels and Hik-Connect]

- 1) It can be turned on and off on Hik-connect.
- 2) Only one channel is supported, and the channel must be in living view.
- 3) The version of Hik-Connect must be V3.7.0 or later.

#### 11. [Thermal Camera Alarm Image Upload to Hik-Connect]

- After the thermal camera reports the alarm to NVR, NVR synchronizes the alarm information to Hik-Connect.
- 2) The alarm picture is the thermal channel, not the visible light channel.





# 12. [Add POE Setting in Web]

1) It is supported to configure IP address of POE network card in web.



HII	VISION	Live View	Playback	Picture	Application	Configuration
₽ □	Local System	TCP/IP DDN		NAT		
Ð	Network	NIC Type	Auto		~	
	Basic Settings		DHC	P		
	Advanced Settings	IPv4 Address	10.9.96	28		
<u>Q.</u>	Video/Audio	IPv4 Subnet M	ask 255.255	.255.0		
1	Image	IPv4 Default G	ateway 10.9.96	254		
	Event	IPv6 Address	fe80::c6	2f:90ff:fea1:be4		
	Storage	IPv6 Default G	ateway			
Fo	Vehicle Detection	Mac Address	c4:2f:90	:a1:0b:e4		
63	VCA	MTU	1500			
34	Human Body Capture	DNS Serve	r			
			🗹 Auto	DNS		
		Preferred DNS	Server 10.1.7.9	7		
		Alternate DNS	Server 10.1.7.9	8		
		PoE Netwo	rk Card Settings			
		No more IOT o	hannels ar 192.168	.254.1	2	

#### 13. [Alarm In and Other Event Types Support Combination Alarm]

 If Alarm In is configured with a combination alarm, the Alarm Input will not alarm separately, but only alarm for other events such as motion or smart events; If Alarm In is not set combination alarm, Alarm In should be alarmed alone. Note: Go to System->Event->Normal Event->Alarm input->Edit->Combined Alarm One alarm input can only correspond to one camera channel when using Combination

function.



NV	<b>R</b> 4.0	Edit	5	P3 6			<u>^</u>	<u>r</u> oo	×	J 🖓 🛛	U U
6)	General	Alarm Input N	No. Local<-2		Туре	N.O					
2	User	Alarm Name	combine		_					1	
	Network >	Settings	Nonuse	Input							1
	Event	Arming Sche		Combined Alarm	1						
	Normal Event										
	Smart Event	Select Chan		•	0						
S.Z.	Live View >	Combined A	lar Motion	Capture)							
Ş	RS-232		Vehicle								
	Hollday		Line Crossing	9							
	POS		Region Entra	ince							
			Region Exitin	Ig							
			Loitering								
								Appt	A		
								Appt	y I		
Н	VISION	Liv	/e View	Playback	F	Picture	Application	Configu			
нп	VISION	Liv	re View	Playback	F	Picture	Application	_			
<i>H</i> 11	KVISION Local			Playback	F Video Loss	Picture Alarm Inp	_	Configu			
	Local						_	Configu			
Q E	Local System		Motion Video T	ampering		Alarm Inp	Alarm Outpu	Configu It Exception		(cannot	copy)
₽ □ ₽	Local System Network		Motion Video T Alarm Input No. Alarm Type	A<-1	Video Loss	Alarm Inp	Alarm Outpu IP Address	Configu It Exception		(cannot	copy)
₽ □ ₽	Local System		Motion Video T Alarm Input No. Alarm Type Z Enable Alarm	A<-1	Video Loss	Alarm Inp	Alarm Outpu IP Address Alarm Name	Configu It Exception		(cannot	сору)
₽ □ ₽	Local System Network		Motion Video T Alarm Input No. Alarm Type ☑ Enable Alarm Arming Schedu	A<-1	Video Loss	Alarm Inp	IP Address Alarm Name	Configu It Exception		(cannot	сору)
₽ □ ₽	Local System Network Video/Audio		Motion Video T Alarm Input No. Alarm Type Canable Alarm Arming Schedu Camera	Tampering A<-1 NO Input Handlin, ule Linkaş Camera1	Video Loss	Alarm Inp	Alarm Outpu IP Address Alarm Name	Configu It Exception		(cannot	copy)
₽ © 0;	Local System Network Video/Audio Image		Motion Video T Alarm Input No. Alarm Type ☑ Enable Alarm Arming Schedu	Tampering A<-1 NO Input Handlin, ule Linkaş Camera1	Video Loss g ge Method	Alarm Inp	IP Address Alarm Name	Configu It Exception		(cannot	copy)
₽ © 0;	Local System Network Video/Audio Image Event		Motion Video T Alarm Input No. Alarm Type Canable Alarm Arming Schedu Camera	Tampering           A<-1           NO           Input Handlin           ule         Linkag           Camera1	Video Loss g ge Method	Alarm Inp	IP Address Alarm Name	Configu It Exception		(cannot	copy)
₽ © 0;	Local System Network Video/Audio Image Event Basic Event		Motion Video T Alarm Input No. Alarm Type Canable Alarm Arming Schedu Camera	Tampering	Video Loss g ye Method t All	Alarm Inp	IP Address Alarm Name	Configu It Exception		(cannot	сору)
	Local System Network Video/Audio Image Event Basic Event Smart Event Storage		Motion Video T Alarm Input No. Alarm Type Canable Alarm Arming Schedu Camera	A<-1         NO         Input Handling         Linkag         Camera1         Select         Motion         Video	Video Loss g ye Method t All	Alarm Inp	IP Address Alarm Name	Configu It Exception		(cannot	copy)
	Local System Network Video/Audio Image Event Basic Event Smart Event Storage Vehicle Detection		Motion Video T Alarm Input No. Alarm Type Canable Alarm Arming Schedu Camera	A<-1 NO Input Handlin Ule Linkaç Camera1 Select Video Facial	Video Loss g ge Method t All Tampering Detection (Fr	Alarm Inp	IP Address Alarm Name	Configu It Exception		(cannot	copy)
	Local System Network Video/Audio Image Event Basic Event Storage Vehicle Defection VCA		Motion Video T Alarm Input No. Alarm Type Canable Alarm Arming Schedu Camera	A<-1 NO Input Handlin, Ule Linkag Camera1 Select Video Facial Intrusi	Video Loss g g t All Tampering Detection (F: on	Combined A	IP Address Alarm Name	Configu It Exception		(cannot	copy)
	Local System Network Video/Audio Image Event Basic Event Smart Event Storage Vehicle Detection		Motion Video T Alarm Input No. Alarm Type Canable Alarm Arming Schedu Camera	A<-1 NO Input Handlin Linkag Camera1 Select Video Facial Intrusic	Video Loss g g t All Tampering Detection (Fi on rossing Dete	Combined A	IP Address Alarm Name	Configu It Exception		(cannot	сору)
	Local System Network Video/Audio Image Event Basic Event Storage Vehicle Defection VCA		Motion Video T Alarm Input No. Alarm Type Canable Alarm Arming Schedu Camera	A<-1 NO Input Handlin, Ule Linkag Camera1 Select Video Facial Intrusi	Video Loss g g t All Detection (Fi on rossing Dete n Entrance	Combined A	IP Address Alarm Name	Configu It Exception		(cannot	copy)

 The Arming Schedule for combination alarm should be the same as other events such as motion detection or smart event.

Note: When you select motion event as one of combined alarm events, the Arming Schedule of motion and combined alarm should be the same. (see the pics below)



MIKVISION	Live View Playback Picture Application Configuration	HIKVISION	Live View Playback Picture Application Configuration
Local	Motion Video Tampering Video Loss Alarm Input Alarm Output Exception	Local	Motion Video Tampering Video Loss Alarm Input Alarm Output Exception
System	Camera [D3] Camera 01	System	Alarm Input No. A<-1 V IP Address Local
Network	Enable Motion Detection	Network	Alarm Type NO V Alarm Name Combine (cannot copy)
Q Video/Audio	C Enable Dynamic Analysis for Motion	Video/Audio	Enable Alarm Input Handling
a image	Area Settings Arming Schedule Linkage Method	🔝 image	Arming Schedule Linkage Method Combined Alarm
Event	X Delete 💼 Delete All	Event	× Delete all
Basic Event	0 2 4 6 8 10 12 14 16 18 20 22 24	Basic Event	0 2 4 6 8 10 12 14 16 18 20 2 24
Smart Event	Mon	Smart Event	Mon 0 2 4 5 8 10 12 14 15 18 20 2 24
Storage	0 2 4 6 8 10 12 14 16 18 20 22 24 Tue	Storage	Tue 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 2, 24
R   Vehicle Detection	0 2 4 6 8 10 12 14 16 18 20 22 24	R   Vehicle Detection	0 2 4 6 8 10 12 14 16 18 20 2 24 Wed
CA VCA	Wed 0 2 4 6 8 10 12 14 16 18 20 22 24	CB VCA	0 2 4 6 8 10 12 14 16 18 20 2 24
Human Body Capture	Thu	Human Body Capture	Thu 0 2 4 6 8 10 12 14 16 18 20 2 24
III IOT Channel Settings	0 2 4 6 8 10 12 14 16 18 20 22 24 Fri	III IOT Channel Settings	0 2 4 6 8 10 12 14 16 18 20 2 24 Fri
	0 2 4 6 8 10 12 14 16 18 20 22 24		0 2 4 6 8 10 12 14 16 18 20 2 24 Sat
	Sat		
	0 2 4 6 8 10 12 14 16 18 20 22 24 Sun		Sun
			Copy to 🗄 Save
	🗎 Save		Copy IN

## 14. [Add four types of smart event]

1) Four smart events are added: gathering, fast moving, parking detection, and loitering detection.

Note: Only if the access cameras support these functions

## 15. [Fisheye Camera]

- 1) Support second generation fisheye camera access.
- 2) Four new fisheye expansion modes: Fisheye+3PTZ, Cylinder, Hemisphere, 4PTZ.





## 16. 【HDD Health Detection】

- 1) Only Western Digital HDD and Seagate Skyhawk Series HDD are supported.
- 2) The health status of various indexes of the hard disk can be visually checked.

<b>VR</b> 4.0				S L		۶		
i) System Info	, _				D: 1.1.44(D)			
Log Information	10	tal number	r of HDDS: 3. I	t only detects Weste	rn Digital (VVD) an	id Seagate Sky	Hawk series HDD	S.
S Import/Export			Western Digital	iNiD	Western Digital HDD is healthy.	Wes Digit	tern tal	
Upgrade	5	No.2 HC	DD not	No.3 HDD is	No.5	HDD is		
Default								
Network	>							
HDD Operation	~							
S.M.A.R.T								
Bad Sector Detection								
HDD Clone								
Health Detection								
System Info	>	si Z					· -	
_		< Back						
Log Information								
S Import/Export		2	No. 3 HDD HE					
企 Upgrade	>		No.	Alarm Name		Status	Current Value	
Default		<b></b>	1	Lifetime PowerOn Re		HDD is healthy.	306.00	
		5	2 3	Power On Hours Alen Head Load Lifetime C		HDD is healthy. HDD is healthy.	N/A 354.00	
Network	>		4	Current Temperature		HDD is healthy.	33.00	
HDD Operation	$\sim$		5	Total Lifetime Worklo		HDD is healthy.	1.00	
S.M.A.R.T			6	Total Workload Rate	Alert	HDD is healthy.	N/A	
Bad Sector Detection			7	Power On Reset Rate	Alert	HDD is healthy.	N/A	
			8	Head Load Rate Alert		HDD is healthy.	N/A	
			0			TIDD is fiedulity.		
HDD Clone			9	Soft Reset Alert		HDD is healthy.	N/A	
HDD Clone Health Detection							N/A N/A	

## **Modified functions**

## 1. [Optimize Keyboard Access]

- 1) For DS-1005K keyboard, after stopping patrol / starting patrol, the patrol icon will change and the tip text swill change.
- 2) The target detection bar under the preview interface can be operated by keyboard.



 Real-time playback can control the positioning, pause, start and exit functions of time points.

#### 2. [Optimize Thermal Camera Access]

1) Support VCA behavior analysis configuration on NVR.

Note: Login web of NVR, Go to Configuration -> VCA-> Behavior Analysis -> Select Thermal Channel and configure (Only support on Web of NVR)

Same type of VCA event for the same channel, the linkage after triggering the alarm can only be set to the same types. For example, if you set two line crossing events on the same channel, the linkages of them should be the same.

If the following low probability situation occurs, the VCA function rule configured on the web of thermal cannot be modified on the Web of NVR, please delete the rule and reconfigure it.

HI	<b>K</b> VISION	Live View	Playback	Picture	Application Co	onfiguration	
Ţ	Local	Camera	[D4]	Thermal 2136	~		
	System						
Ð	Network	Rule Arming S	chedule Alam	n Linkage Shield Re	gion Overlay & Capture	Camera Calibration	
0.	Video/Audio	Rule List					+
14	Image	Enable	No.	Rule Na	me	None	1
圁	Event		1	show rule		Line Crossing Intrusion	×
	Storage	Filter by	Pixel	~	Duration(s)	Region Entrance Region Exiting	
R	Vehicle Detection	Max. Size	934	• 981	Sensitivity	50	
63	VCA	Min. Size	30	* 64	Detection Target	Human & Vehicle 🗸	
	Behavior Analysis		2	line		Line Crossing	
	Face Capture						
	Multi-Target-Type Detection						
36	Human Body Capture		-				
107	IOT Channel Settings	TT .					
		0					
					Max		
			Min		мах	A	
				a a state de la seconda de			
				1999 - Alexandria			
						Camera	<b>0</b> 1
						Curior a	~ <b>T</b>
		🗎 s	ave				



	Camera	[D4] Thermal 2136 V		
	Camera			
System	Rule Arming Schedule	Alarm Linkage Shield Region	Overlay & Capture Camera Calib	ration
Network	Rule List			
Video/Audio	No.	Rule Name	Rule Type	
Image	1	show rule	Intrusion	
Event	2	line	Line Crossing	
Storage	3	line2	Line Crossing	
Vehicle Detection	5	11102	Line crossing	
Ko VCA				
Behavior Analysis				
Face Capture				
Multi-Target-Type Detection	Normal Linkage	Trigger Alarm Output	Trigger Recording	PTZ Linking D1 🗸
Human Body Capture	Audible Warning	A->1	D1	Preset No.
IIIT IOT Channel Settings	Send Email	□ A->2	□ D2	1
	Notify Surveillance Cen		D3	Patrol No.
	Full Screen Monitoring	□ A->4	✓ D4	1
		D1->1		Pattern No.
		□ D2->1		1
		D2->2		
		D3->1		
		D4->1		
		□ D4->2		

2) Support Temperature Measurement, Fire Source Detection and VCA alarm.

Set         Play         Information(Canters No., Alam Input 2019-05-011154-11         File Source Detection         Play         Information(Canters No., Alam Input 2019-05-011154-11           2019-05-011154-11         File Source Detection         >         D2 192.134-41           2019-05-011154-13         Temperature Measurement Pre         >         D2 192.134-41           2019-05-011154-13         Temperature Measurement Pre         >         D2 192.134-41	IKVISION
Time to Alarm         Alarm/Sucception         Play         Information/Camera No. Alarm Input           2019-05-01 11:54:10         Fire Source Detection         >         D2 192.134.41           2019-05-01 11:54:36         Temperature Measurement Pre         >         D2 192.134.41           2019-05-01 11:52:43         Temperature Difference Alarm         >         D2 192.134.41           2019-05-01 11:52:43         Temperature Measurement Pre         >         D2 192.134.41           2019-05-01 11:40:30         Temperature Measurement Pre         >         D2 192.134.41	
2019-05-01 11:54:11         Fire Source Detection         D2 192.134.41           2019-05-01 11:54:06         Temperature Measurement Pre         D2 192.134.41           2019-05-01 11:52:43         Temperature Measurement Pre         D2 192.134.41           2019-05-01 11:52:43         Temperature Measurement Pre         D2 192.134.41           2019-05-01 11:52:43         Temperature Ofference Alarm         D2 192.134.41           2019-05-01 11:50:43         Temperature Measurement Pre         D2 192.134.41           2019-05-01 11:40:30         Temperature Measurement Pre         D2 192.134.41	
2019-05-01         11:54:06         Temperature Measurement Pre         D         D2         192:1.94:41           2019-05-01         11:52:43         Temperature Measurement Pre         D         D2         192:1.94:41           2019-05-01         11:52:43         Temperature Measurement Airem         D         D2         192:1.94:41           2019-05-01         11:50:43         Temperature Measurement Airem         D         D2         192:1.94:41           2019-05-01         11:40:30         Temperature Measurement Pre         D         D         192:1.94:41	
2019-05-01 11:52:43         Temperature Measurement Pre         D2 192.134.41           2019-05-01 11:52:43         Temperature Difference Alarm         D 2 192.134.41           2019-05-01 11:50:06         Temperature Measurement Alarm         D 2 192.134.41           2019-05-01 11:48:30         Temperature Measurement Pre         D 2 192.134.41	
2019-05-01 11:52:43         Temperature Difference Alarm         D         D2 192.134.41           2019-05-01 11:50:06         Temperature Measurement Alarm         D         D2 192.134.41           2019-05-01 11:48:30         Temperature Measurement Pre         D         D2 192.134.41	
2019-00-01 11:40:30         Temperature Measurement Airm         D2 192:134:41           2019-05-01 11:40:30         Temperature Measurement Airm         D2 192:134:41	
2019-05-01 11:48:30 Temperature Measurement Pre ► D2 192.1:94.41	KVISION
2019-05-01 11:49:23 Infrusion D2 192.1.94.41	
2019-05-01 11:48:02 Temperature Measurement Pre D2 192:1:34:41	
2019-05-01 11:48:02 Intrusion D2 192:1.94.41	
2019-05-01 11:47:39 Intrusion D2 192:1.94.41	KVISION
2019-05-01 11:47:37 Temperature Measurement Pre D2 192:1:94:41	
2019-05-01 11:45:58 Intrusion D2 192:1.94.41	
2019-05-01 11:40:54 Infrusion D2 192:1:94:41	
	KVISION

 Support set arming schedule & linkage of real-time temperature measurement and fire source detection on NVR local.

Note: The configuration above is available after enabling the related function on web of Thermal Camera.



33	General		Camera		[D4] T	herm Tem Mea	perature surement	Alarm	-	Sav	ve VCA Pic	ture					
	User		Audio Exc	eption	Temperat	ure Ten	perature	D)									
	Network																
	Event																
	Normal Event		Arming So	hedule	Linkage	Action											
			Contin	nuous	None											Edit	
2	Live View	×		0	2	4	6	8	10	12	14	16	18	20	22	24	
Ş	RS-232		Mon													1	
Ē	Holiday		Tue													2	
	POS		Wed													3	
			Thu													4	
			Fri													5	
			Sat													6	
			Sun					1								7	
			"Note: On	eration	is invalid v	when the n	umber of I	ime seam	ents exceel	ds the limi	t (8).						

4) Support display rule on NVR local

Note: This function is implemented by Thermal camera which firmware version should be

HIKVISION	Live View Pla	ayback Picture	Configuration
🖵 Local	Video Audio RC	DI metadata Settings	
System	Stream Type	Main Stream(Normal)	$\checkmark$
Network	Video Type	Video Stream	$\sim$
Video/Audio	Resolution	384*288	$\checkmark$
Image	Bitrate Type	Constant	$\sim$
Event	Video Quality	Medium	$\sim$
Storage	Frame Rate	25	✓ fps
VCA	Max. Bitrate	2048	Kbps 🥑
Temperature Measuremen		H.264	~
-	H.264+	OFF	<b>~</b>
	Profile	Main Profile	
	SVC	OFF	⊘
	Smoothing		50 [Clear<->Smooth ]
	Display VCA Info By	Player Video	
	🛱 Save		



Channel Tergel Celebran		14	Lap.	8	<u>,</u>
	- T				5
					1
				Camera 01	L .

HIK	VISION	Live View	Playback	k Pic	ture A	Application	Configuration	
-	Local	Camera	[	[D4] Thermal 21	36 🔪	-		
	System Network	Rule Arm	ning Schedule	Alarm Linkage	Shield Region	Overlay & Ca	pture Camera Ca	alibration
	Video/Audio Image		on Stream lay VCA Info. on S	Stream				
	Event	Display	on Picture					
_	Storage Vehicle Detection		lay Target Info. on lay Rule Info. on A					
	VCA	Snapsh	ot Settings					
	Behavior Analysis Face Capture Multi-Target-Type Detection	Vplo Picture	ad JPEG Image to Quality	o Center High		~		
	Human Body Capture IOT Channel Settings		🖹 Save					

# 3. [Virtual Host]

 All models of I series including POE and non-POE NVR, can enable virtual host function, and generate connecting links.

Note: Go to Configuration->Network->Advanced Settings->Other (see the pic below)

 After opening the virtual host, both POE and non-POE NVR can generate jump links for POE and non-POE channels.



Note: Go to Configuration->System->Camera Management->IP Camera (see the pic)

#### 3) Support skipping the website of third-party camera.

	VISION		Live Viev	v P	layback	Pictu	ire /	Applicati	ion	Configur	ation	
_			SNMP	Email F	Platform Access	Networ	k Service 0	ther	Integration	Protocol	Smooth	Streaming
9	Local								- 3			9
	System		Alarm	Host IP								
Ð	Network		Alarm	Host Port	0							
	Basic Settings		Multio	ast Address								
	Advanced Settings		Video	Download Bar	idwidth 26214	4		Kbps				
0.	Video/Audio		<b>√</b> E	nable Virtual Ho	ost							
10	Image		<b>√</b> E	nable IP Camei	a Occupation [	Detection						
	-											
	Event			💾 Save								
B	Storage											
FQ.	Vehicle Detection											
6	VCA											
33	Human Body Capture											
TOT	IOT Channel Settings											
IDT	IOT Channel Settings											
		15		District and	Distant	<b>A</b> == 15==	tion 0 and					
	IOT Channel Settings	Live Vi	ew	Playback	Picture	Applica	tion Config	guration				
HIK				Playback Camera	Picture	Applica	tion Config	guration				
HIK	VISION	PoE			Picture	Applica			uick Add	Custom Pr	otocol	ctivation
нік 	<b>VISION</b> Local	PoE C	Channel IP		Picture IP Address					Custom Pr Status	otocol A Protocol	ctivation
	<b>VISION</b> Local System	PoE C	Channel IP IP Camera Channel No.	Camera		Add	Modify De	lete C	ity		Protocol	Connect
	VISION Local System System Settings Live View Settings Maintenance		Channel IP IP Camera Channel No. D1 D2	Camera Camera Name	IP Address 10.7.68.2 10.7.68.25	Add Channel No.	Modify De Management Port 8000 8000	lete C Securi Weal Weal	k k	Status Online Online	Protocol HIKVISION HIKVISION	Connect http://10 ://10.7.68.27: http://10
	VISION Local System System Settings Live View Settings Maintenance Security		Channel IP IP Camera Channel No. D1 D2	Camera Camera Name ANPR	IP Address 10.7.68.2	Add Channel No. 1	Modify De Management Port 8000	lete C Securi Weal	k k	Status Online	Protocol	Connect http://10 ://10.7.68.27: http://10
	VISION Local System System Settings Live View Settings Maintenance		Channel IP IP Camera Channel No. D1 D2	Camera Camera Name ANPR IPdome	IP Address 10.7.68.2 10.7.68.25	Add Channel No. 1	Modify De Management Port 8000 8000	lete C Securi Weal Weal	k k	Status Online Online	Protocol HIKVISION HIKVISION	Connect http://10 ://10.7.68.27: http://10
	VISION Local System System Settings Live View Settings Maintenance Security Camera Management		Channel IP IP Camera Channel No. D1 D2	Camera Camera Name ANPR IPdome	IP Address 10.7.68.2 10.7.68.25	Add Channel No. 1	Modify De Management Port 8000 8000	lete C Securi Weal Weal	k k	Status Online Online	Protocol HIKVISION HIKVISION	Connect http://10 ://10.7.68.27: http://10
	VISION Local System System Settings Live View Settings Maintenance Security Camera Management User Management		Channel IP IP Camera Channel No. D1 D2	Camera Camera Name ANPR IPdome	IP Address 10.7.68.2 10.7.68.25	Add Channel No. 1	Modify De Management Port 8000 8000	lete C Securi Weal Weal	k k	Status Online Online	Protocol HIKVISION HIKVISION	Connect http://10 ://10.7.68.27: http://10
	VISION Local System System Settings Live View Settings Maintenance Security Camera Management User Management Network		Channel IP IP Camera Channel No. D1 D2	Camera Camera Name ANPR IPdome	IP Address 10.7.68.2 10.7.68.25	Add Channel No. 1	Modify De Management Port 8000 8000	lete C Securi Weal Weal	k k	Status Online Online	Protocol HIKVISION HIKVISION	Connect http://10 ://10.7.68.27: http://10
	VISION Local System System Settings Live View Settings Maintenance Security Camera Management User Management User Management Video/Audio		Channel IP IP Camera Channel No. D1 D2	Camera Camera Name ANPR IPdome	IP Address 10.7.68.2 10.7.68.25	Add Channel No. 1	Modify De Management Port 8000 8000	lete C Securi Weal Weal	k k	Status Online Online	Protocol HIKVISION HIKVISION	Connect http://10 ://10.7.68.27: http://10
	VISION Local System System Settings Live View Settings Maintenance Security Camera Management User Management User Management Network Video/Audio Image		Channel IP IP Camera Channel No. D1 D2	Camera Camera Name ANPR IPdome	IP Address 10.7.68.2 10.7.68.25	Add Channel No. 1	Modify De Management Port 8000 8000	lete C Securi Weal Weal	k k	Status Online Online	Protocol HIKVISION HIKVISION	Connect http://10 ://10.7.68.27: http://10
	VISION Local System System Settings Live View Settings Maintenance Security Camera Management User Management User Management Network Video/Audio Image Event		Channel IP IP Camera Channel No. D1 D2	Camera Camera Name ANPR IPdome	IP Address 10.7.68.2 10.7.68.25	Add Channel No. 1	Modify De Management Port 8000 8000	lete C Securi Weal Weal	k k	Status Online Online	Protocol HIKVISION HIKVISION	Connect http://10 ://10.7.68.27: http://10
	VISION Local System System Settings Live View Settings Maintenance Security Camera Management User Management User Management User Management Video/Audio Image Event Storage		Channel IP IP Camera Channel No. D1 D2	Camera Camera Name ANPR IPdome	IP Address 10.7.68.2 10.7.68.25	Add Channel No. 1	Modify De Management Port 8000 8000	lete C Securi Weal Weal	x Construction of the second s	Status Online Online	Protocol HIKVISION HIKVISION HIKVISION	Connect http://10 //10.7.68.27 http://10
	VISION Local System Settings Live View Settings Live View Settings Maintenance Security Camera Management User Management User Management Video/Audio Image Event Storage Vehicle Detection		Channel IP IP Camera Channel No. D1 D2	Camera Camera Name ANPR IPdome	IP Address 10.7.68.2 10.7.68.25	Add Channel No. 1	Modify De Management Port 8000 8000	lete C Securi Weal Weal	x Construction of the second s	Status Online Online Online	Protocol HIKVISION HIKVISION HIKVISION	Connect http://10 //10.7.68.27 http://10

# 4. [Array & Group mode are mutually exclusive]

 It can be detected when NVR is booting if Array and group mode coexist. If coexist, the local GUI will prompt "Quota mode provides higher data safety, and is recommended over array mode for HDD group". Select "Yes" and then the NVR will restart.



- Array mode: It doesn't support Group mode when enabling Array. Group mode button is putting ash in local GUI, and there is no Group mode option in drop-down box in 4200.
- Group mode: It doesn't support enabling Array when selecting Group mode. Enable RAID button is ash and cannot be selected, and array configuration page is hidden in 4200.

NVR 4.0 💰	2 0 0	x 🗆 🛢	මේ ව	°> ==	포 🤹 🛛   🖰
Schedule > Storage Device RAID > Storage Mode	Mode Camera Used Record Capacity Used Picture Capacity	Quota     Q	-		
<ul> <li>Auto Backup</li> <li>Advanced</li> </ul>	HDD Capacity (GB) Max. Record Capacity (GB)	0			
	Max. Picture Capacity (GB)				
		Copy to			

## 5. [Optimize Search Speed of Hik–Connect Playback]

The Hik-connects receives the alarm, and the alarm video can be played back after 5-15s.

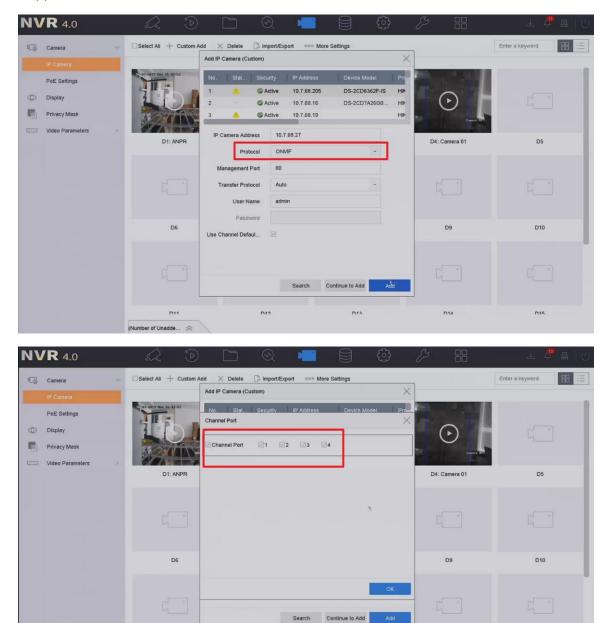
### 6. [Vehicle Detect black/white/other list support PTZ linkage]

- PTZ linkage can be set in local and remote black and white list and other lists in vehicle detection and alarm.
- When the vehicle detection alarm is triggered, the local trigger corresponding PTZ linkage item.



# 7. [Optimize Onvif Access]

- Optimize the access logic of video stream to reduce the problem that camera can't be accessed or access disordered caused by parameters
- 2) Support multi-channel camera access.



D12

D11

(Number of Unadde.

D13

D14

D15



 Pull-Point Notification is supported by default, and Base Notification is used if the device does not support Pull-Point Notification.

#### Related product list:

I series NVR	DS-9600NI-I16, DS-9600NI-I8
	DS-7700NI-I4(/P), DS-7732NI-I4/24P
	DS-7700NI-I4(B)(/P), DS-7600NI-I2(/P)

#### **Customer Impact and Recommended Action**

This new firmware upgrade is to improve product performance, and will take effect automatically after upgrading from previous versions. We'd like to inform you the above changes. Also, we are sorry for any possible inconvenience of use-habit changes caused by this action.

Note:

- Hikvision has all rights to alter, modify and cancel this notice.
- Hikvision doesn't give any guarantee for old models' stock.
- Hikvision is not liable for any typing or printing errors.
- For special model's change details, please contact our local technical support team.