VIVOTEK

core+

Advanced Firmware for Network Video Recorders

MADE IN TAIWAN
VIVOTEK

core+

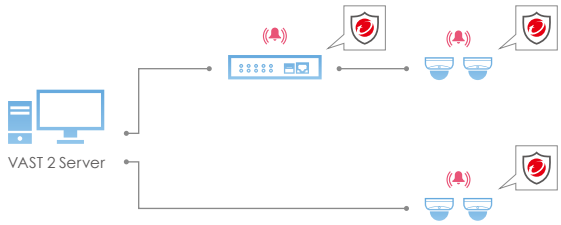
The New Generation NVR Firmware

VIVOTEK Core+ 3.0 is the new generation ND series network video recorder firmware, embedded with VIVOTEK's latest technology including features such as cybersecurity management, Smart VCA event search, Smart Search II functions, and counting solutions. Upgrade your network video recorder's ability to Core+ 3.0 for a smarter, safer and smoother user experience.

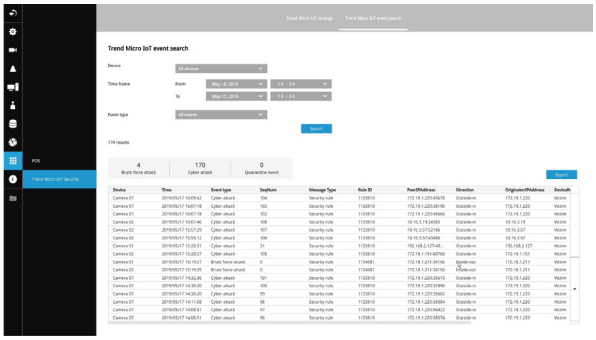
Cybersecurity Management

In alliance with world-renowned cybersecurity company Trend Micro, Core+ 3.0 NVRs support Trend Micro IoT Security, empowering the NVRs to automatically detect and prevent credential-based attacks and to block suspicious events. VIVOTEK network cameras that support Trend Micro IoT Security can also connect in series with Core+ 3.0 NVRs, enabling the NVRs to receive instant notifications of the security events from the cameras and to understand the type and status of cyber-attacks, as well as to acquire attack information from cameras. In addition, VAST 2 (VMS) receives information on security protection attacks from Core+ 3.0 NVRs and VIVOTEK cameras.

Cybersecurity Management Solution



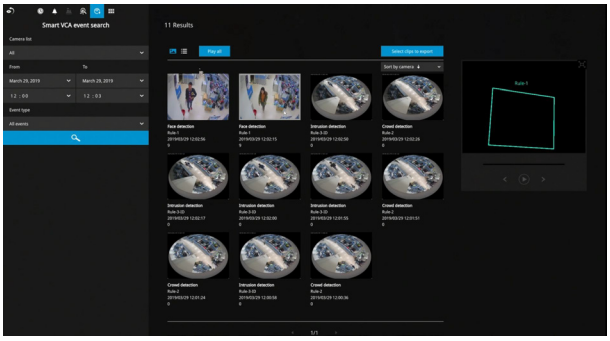
Event Search by Device, Time, and Type



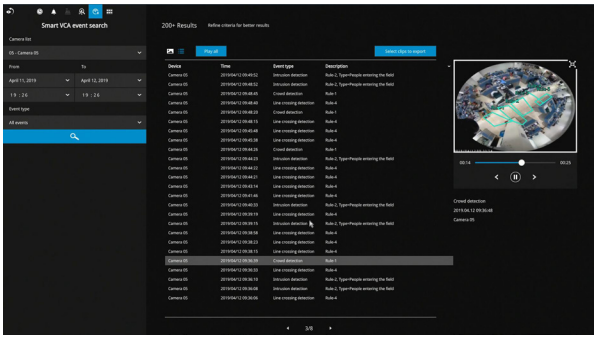
Smart VCA Event Search

The Core+ 3.0 NVRs support alarm management and event search of VIVOTEK's deep-learning video analytics technology, Smart VCA and Smart 360 VCA. VCA rules and information such as people-tracking frames and motion-detection frames can be shown on live or playback video display. The user can search by single or multiple event types, playback triggered events and then export these search results to video clips.

Event Recording and Search



Event Information and Playback Video Clips

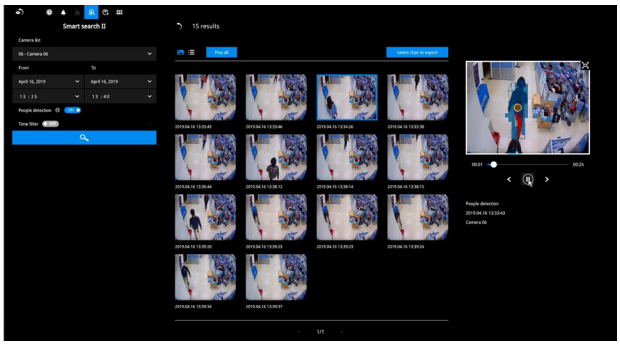


Smart Search II

Cameras supporting VIVOTEK Smart Motion Detection technology, which detects people activities, can also connect with Core+ 3.0 NVRs. Based on the camera metadata recorded on the hard drive of the NVRs, the NVRs can then deploy the advanced Smart Search II technology, activate the people detection function, and proceed to search the corresponding playback video. This allows for faster sorting through large amounts of evidence to find precisely what is needed.

Easy Setting for Search Area

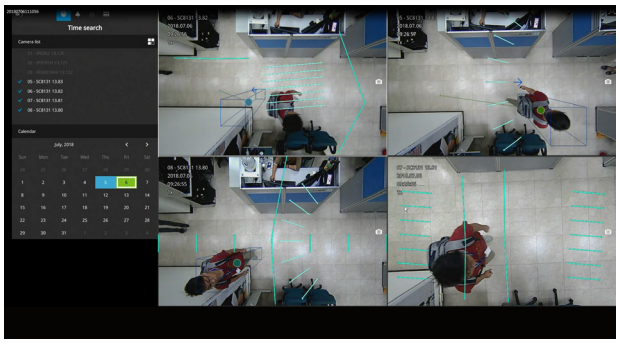
Intuitive Thumbnail Search Results



Counting Solution

The Core+ 3.0 NVRs support VIVOTEK's 3D people counting cameras and cloud service software – VIVOCloud. Counting rules can be shown on the NVR's video display from counting cameras. Besides, all of the counting data can be stored automatically to the NVR's hard drive as well as be acquired by VIVOCloud. Users can also build customized counting reports through the VIVOCloud interface. This enables tracking of in-store guest flow and benchmarking of campaign performance between different stores or across different time frames to make business more efficient.

Counting Rules Shown on Video Display



Connected with VIVOCloud

Supported Models

Category	16-CH 4bay	32-CH 4bay	16-CH 4bay PoE
Model	ND9441	ND9541	ND9441P
Video Format	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
LiveView Display	16 Channels Multi-layout Display: 1x1, 2x2, 3x3, 1P+3, 2P+3, 1M+5, 1P+6, 3V, 1M+12, 4x4	32 Channels Multi-layout Display: 1x1, 2x2, 3x3, 1P+3, 2P+3, 1M+5, 1P+6, 3V, 1M+12, 4x4, 1M+31	16 Channels Multi-layout Display: 1x1, 2x2, 3x3, 1P+3, 2P+3, 1M+5, 1P+6, 3V, 1M+12, 4x4
Decoding Resolution	Up to 4096x4096 (H.265) 8192x8192 (H.264)	Up to 4096x4096 (H.265) 8192x8192 (H.264)	Up to 4096x4096 (H.265) 8192x8192 (H.264)
Decoding Capability	3840x2160 @ 120 fps (4-CH) 1920x1080 @ 480 fps (16-CH)	3840x2160 @ 120 fps (4-CH) 1920x1080 @ 480 fps (16-CH)	3840x2160 @ 120 fps (4-CH) 1920x1080 @ 480 fps (16-CH)
Video Output	HDMI x1, VGA x1	HDMI x1, VGA x1	HDMI x1, VGA x1
Display Resolution	3840x2160, 1920x1080, 1280x720	3840x2160, 1920x1080, 1280x720	3840x2160, 1920x1080, 1280x720
RAID	RAID 0, 1, 5	RAID 0, 1, 5	RAID 0, 1, 5
HDD Devices	Internal x4 (3.5")	Internal x4 (3.5")	Internal x4 (3.5")
Recording Throughput	192 Mbps	192 Mbps	192 Mbps
Ethernet	10/100/1000Mbps Ethernet (RJ-45) x2	10/100/1000Mbps Ethernet (RJ-45) x2	10/100/1000Mbps Ethernet (RJ-45) x2
PoE	-	-	802.3at/af Compliant PoE Ports x 16 (Total Max. 160W)
Counting Solution	Supported	Supported	Supported
VCA Event Search	Smart VCA, Smart 360 VCA	Smart VCA, Smart 360 VCA	Smart VCA, Smart 360 VCA
Smart Search II	Supported	Supported	Supported
Cybersecurity Management	Supported	Supported	Supported

Supported Models

Category	32-CH 4bay PoE	8-CH 2bay PoE	16-CH 2bay PoE
Model	ND9541P	ND9322P-v2	ND9424P-v2
Video Format	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
LiveView Display	32 Channels Multi-layout Display: 1x1, 2x2, 3x3, 1P+3, 2P+3, 1M+5, 1P+6, 3V, 1M+12, 4x4, 1M+31	8 Channels Multi-layout display: 1x1, 3V, 2x2, 3x3, 1P+3, 1M+5, 1P+6	16 Channels Multi-layout display: 1x1, 3V, 2x2, 3x3, 1P+3, 1M+5, 1P+6, 1M+12, 4x4
Decoding Resolution	Up to 4096x4096 (H.265) 8192x8192 (H.264)	Up to 3840x2160	Up to 3840x2160
Decoding Capability	3840x2160 @ 120 fps (4-CH) 1920x1080 @ 480 fps (16-CH)	3840x2160 @ 30 fps (1-CH) 1920x1080 @ 120 fps (4-CH) 1280x720 @ 240 fps (8-CH)	3840x2160 @ 30 fps (1-CH) 1920x1080 @ 120 fps (4-CH) 1280x720 @ 240 fps (8-CH) 720x480 @ 480 fps (16-CH)
Video Output	HDMI x1, VGA x1	HDMI x1, VGA x1	HDMI x1, VGA x1
Display Resolution	3840x2160, 1920x1080, 1280x720	3840x2160, 1920x1080, 1280x720	3840x2160, 1920x1080, 1280x720
RAID	RAID 0, 1, 5	RAID 0, 1	RAID 0, 1
HDD Devices	Internal x4 (3.5")	Internal x2 (3.5")	Internal x2 (3.5")
Recording Throughput	192 Mbps	64 Mbps	96 Mbps
Ethernet	10/100/1000Mbps Ethernet (RJ-45) x2	10/100/1000Mbps Ethernet (RJ-45) x1	10/100/1000Mbps Ethernet (RJ-45) x1
PoE	802.3at/af Compliant PoE Ports x 16 (Total Max. 160W)	802.3at/af compliant PoE ports x 8 (Total Max. 120W)	802.3at/af compliant PoE ports x 16 (Total Max. 200W)
Counting Solution	Supported	Supported	Supported
VCA Event Search	Smart VCA, Smart 360 VCA	Smart VCA, Smart 360 VCA	Smart VCA, Smart 360 VCA
Smart Search II	Supported	Supported	Supported
Cybersecurity Management	Supported	Supported	Supported

* ND9322P/ND9424P can also support Core+ 3.0 firmware.

All specifications are subject to change without notice. © VIVOTEK INC. All rights reserved. Ver. 1
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