ND9441
ND9541

H.265 16-CH/32-CH Embedded NVR

H.265/H.264 · 4x HDD · ONVIF · Dual LAN · Fisheye Dewarp · HDMI/VGA Monitor Display · Storyboard Search · Mobile EZConnect

VIVOTEK's ND9441 and ND9541 are the brand new H.265 Linux-based embedded standalone NVRs. Equipped for up to 16-CH/32-CH network cameras, the NVRs feature well-built ONVIF compliant and scalable configuration with VAST CMS empowering users to set up and manage advanced IP surveillance systems with ease. Both NVRs also support remote and mobile access, via EZConnect and iViewer app, for both iOS and Android handheld devices, providing users an open, flexible and intelligent NVRs for seamless use in small to medium sized video surveillance applications.

With H.265 compression technology and embedded with 4 HDD design providing up to 24TB, the ND9441 and the ND9541 offer greater than 30% ~ 50% more recording capacity than systems employing H.264 compression. This advance gives users larger storage space for longer durations of video recording. In order to provide uninterrupted service even when the network is temporally disrupted, both NVRs are also equipped with dual Ethernet ports, as well as providing the flexibility to connect with network cameras in network failover situations.

Further enabling the recording of high-quality and detailed images, the ND9441 and the ND9541 support a maximum network camera resolution of 12-Megapixels. To intelligently manage bandwidth while maintaining this high-quality, the "Auto Adaptive Stream" function will adjust the display resolution automatically for each different layout type. Moreover, both NVRs support VIVOTEK's fisheye network camera "Fisheye Dewarp" function, which provides multiple de-warping modes in live view and playback, ensuring the correct angle of video view and detailed information for flexible usage. Further, to quickly and intuitively find any target event, the ND9441 and the ND9541 are equipped with "Story-Board Search" function, which provides a glimpse of past recordings over an intuitive timeline.

Finally, the ND9441 and the ND9541 support HDMI and VGA local video output, so users can control the GUI OSD interface via mouse & keyboard, eliminating the need for a separate PC to search video or playback from the NVRs. Moreover, the intuitive and friendly VIVOTEK GUI design gives users an even smoother experience of control than ever before.

Features

· H.265/H.264 Compression Technology
· Plug & Play One Button Auto Setup
· EZConnect by Scanning QR Code for 24/7 Mobile Viewing
· Intuitive, Elegant Interaction UI
· VIVOTEK Camera Configuration and VAST CMS Integrated

· Live and Playback Fisheye Dewarp
· Embedded Linux OS
· Story Board Event Search
· Up to 12MP Camera Liveview & Playback
· Dual Lan Network Ports with Failover Function
· ONVIF Open Platform (Project Support Function)

H.265 Compression Technology

To provide high-quality images and efficient video compression for today's surveillance applications, VIVOTEK presents these two NVRs. Endowed with H.265 technology; these NVRs offer more than 30% ~ 50% greater recording capacity than systems employing H.264 compression - effectively giving users larger storage capacity for longer durations of high-quality video recording.

Bitrate

Bandwidth Saving:
Up to 30% ~ 50%

Compression

H.264   H.265
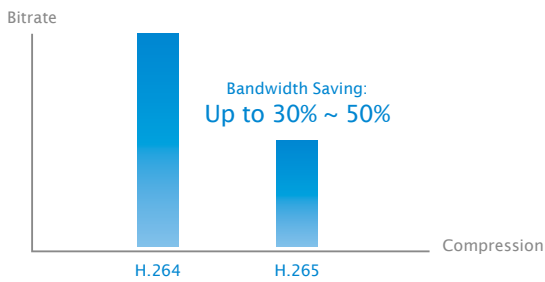
Intuitive UI

With a friendly and elegant interactive design, users can enjoy the benefit of simple operation and a UI that's easy on the eyes.
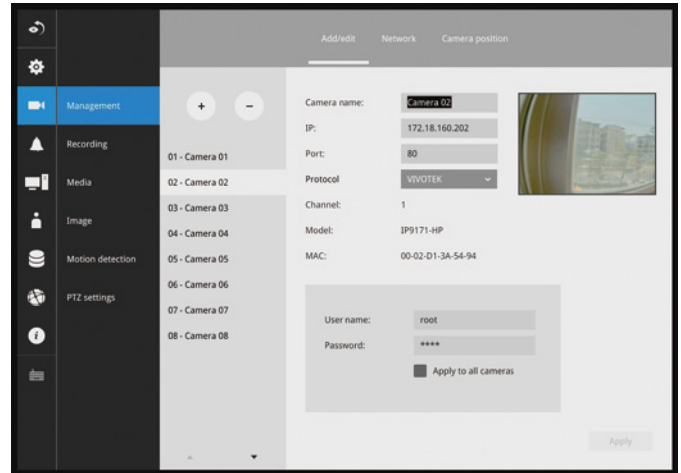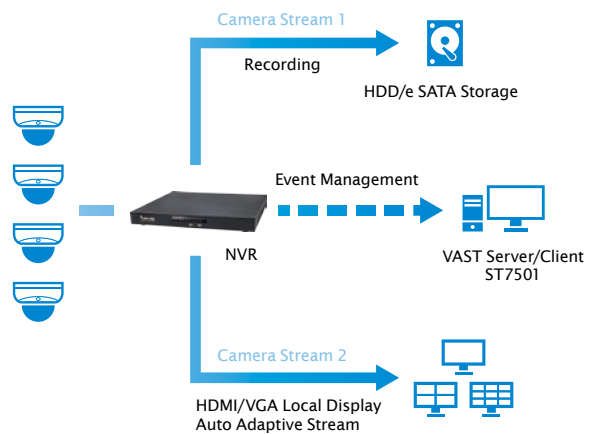
One Button Setup

In order to provide users a highly intuitive experience, VIVOTEK's NVRs provide Auto- Wizard for convenient system set-up, which takes less than 2 minutes to finish it.

Start   Insert Cameras   Create Volumes   Finish

Step 1
Date/Time

Step 2
Cameras

Step 3
HDDs
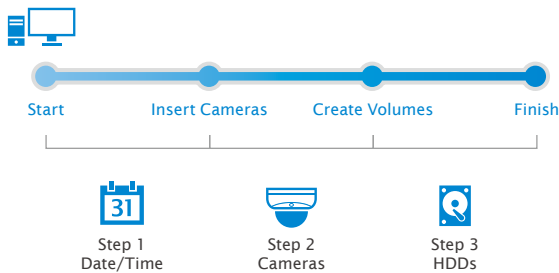
Auto Adaptive Stream

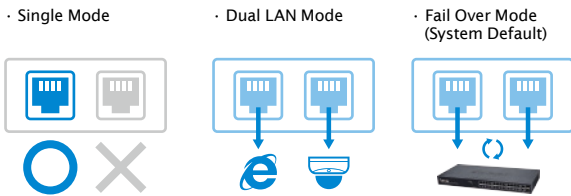With the "Automatic Adaptive Stream" function, the resolution of a Camera's second Stream will be adjusted automatically according to the display layout selected, thus reducing network bandwidth and saving on total project costs.
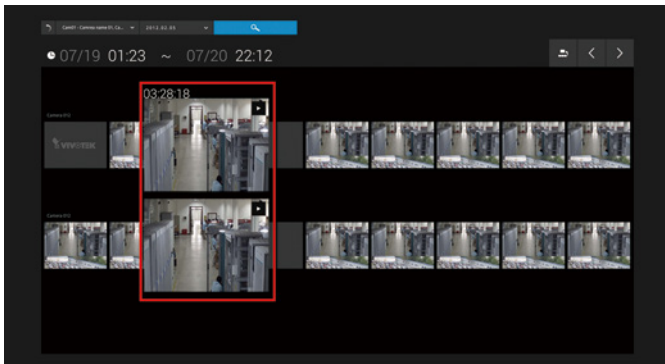
Camera Stream 1

Recording

HDD/e SATA Storage

Event Management

NVR

VAST Server/Client
ST7501

Camera Stream 2

HDMI/VGA Local Display
Auto Adaptive Stream

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Dual LAN Application

The ND9441 and the ND9541 are equipped with dual Ethernet ports, providing the flexibility to cope with a network failover situation, as well as load-balancing or multi-IP setting.

· Single Mode   · Dual LAN Mode   · Fail Over Mode (System Default)

CIL 5 (Camera Integration Level)

VIVOTEK's NVR provides a powerful camera integration to Level 5, which integrates the camera's streaming adjustment, camera I/O configuration, Image adjustment, and fisheye de-warp function application.

CIL 5. Advanced Function
CIL 4. Image Quality Setting
CIL 3. I/O Ports
CIL 2. Multiple Streaming
CIL 1. Live Streaming

Story Board Event Search

To quickly and intuitively find any target event, we provide a glimpse of past recording over an intuitive timeline, allowing users to direct playback and archive their video within 10 seconds.
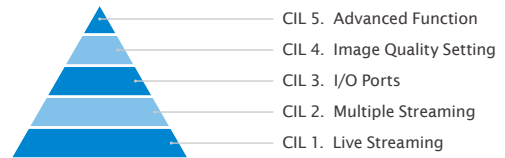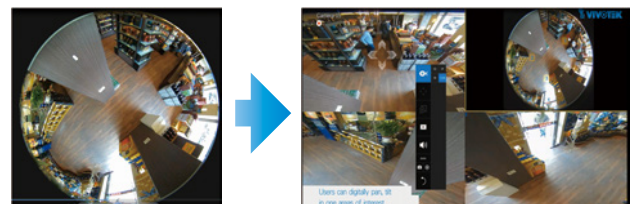
Fisheye Dewarp

VIVOTEK's NVR offers both LiveView and Playback modes for one fisheye network camera simultaneously. They also provide multiple fisheye de-warp display modes, including 1O, 1P, 1R, 1O3R, 1O8R, allowing users to monitor any angle, or to enjoy precise detailed images for a total surveillance experience.

*Support LiveView and Playback modes

EZConnect

EZConnect App provides users an unbeatable experience for mobile viewing NVR video via a mobile device from anywhere, at any time.

EZConnect

VAST CMS Integration

VIVOTEK's NVR is both CMS compliant and a totally scalable configuration thanks to VAST CMS. This powerful tool enables users to set up and manage advanced IP surveillance systems with ease.

· Camera Disconnection
· Motion Detection
· Camera Tempering Detection
· Camera Digital Input Trigger Event
· HDD Fail Events
· Camera Recording Status

NVR   NVR   NVR

VIVOTEK

Rich Performance
· H.265/H.264
· Fisheye Dewarp
· Story Board Search

High Reliability
· 12M IP Cam Support
· Dual Lan
· Network Fail Over

Scalable Solution
· ONVIF
· EZConnect
· VAST CMS

NVR

Department Store   Hotel   Commercial Building   Supermarket

Product - Order Information

Model	Description	Part Number
ND9441	H.265, 16-CH, 4HDD NVR	100139900G, US
		100139910G, EU
		100139920G, UK
		100139930G, AU
ND9541	H.265, 32-CH, 4HDD NVR	100139900G, US
		100139910G, EU
		100139920G, UK
		100139930G, AU

Accessory - Order Information

Model	Part Number
Surveillance HDD 1TB	900029300G
Surveillance HDD 2TB	900022500G
Surveillance HDD 3TB	900022400G
Surveillance HDD 4TB	900022300G
Surveillance HDD 6TB	900029100G
AM612 - Rack Mount Slide Rails	900030000G

PoE Switch - Order Information

Model	Description	Part Number
AW-FGT-260A-250	Unmanaged 24xFE PoE + 2xCombo GE Switch	100128200G, US
		100128210Z, UK
		100128220Z, EU
		100128230G, AU
		100128240G, JP
AW-FGT-180A-250	Unmanaged 16xFE PoE + 2xCombo GE Switch	100130900G, US
		100130920G, UK
		100130910G, EU
		100130940G, AU
		100130930G, JP
AW-GEV-264A-185	VivoCam L2 Managed PoE Switch 24xGE PoE + 2xCombo GE	100129600G, US
		100129620G, UK
		100129610G, EU
		100129630G, AU
		100129640G, JP

Mechanical Information

· Front View

LED Indicators
USB 2.0
DC Power In
RS485

· Back View

HDMI   VGA   8x Alarm Input

NET 1
NET 2
USB 3.0
Audio Out/In
4x Alarm Output
Reset

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Technical Specifications

	ND9441 16-CH H.265 Embedded NVR	ND9541 32-CH H.265 Embedded NVR
Model		
Hardware Information		
System		
OS	Embedded Linux	
CPU	ARM Processor	
Flash	256 MB	
RAM	2 GB	4 GB
Watchdog	Hardware + Software	
Power Restoration	System Restart Automatically after Power Recovery	
Storage		
HDD Devices	Internal x4	
HDD Max. Capacity	6 TB x4	
Disk Management	Create, Format and Remove Disk HDD S.M.A.R.T	
Video & Audio		
Video Output	HDMI x1, VGA x1	
Resolution	1920x1080, 1280x720	
Graphics Decoder	Hardware decoding	
Decoding Capacity	H.265/H.264: 2560x1920 @ 30 fps (1-CH) 1920x1080 @ 120 fps (4-CH) 1280x720 @ 240 fps (8-CH) 1280x720 @ 480 fps (16-CH)	H.265/H.264: 2560x1920 @ 30 fps (1-CH) 1920x1080 @ 120 fps (4-CH) 1280x720 @ 240 fps (8-CH) 1280x720 @ 480 fps (16-CH) 720x480 @ 960 fps (32-CH)
Camera Position	Change the viewcell position on the Live View screens	
External Interface		
USB Interface	Front: 2 (USB 2.0) Back: 1 (USB 3.0)	
Alarm In	8	
Alarm Out	4	
Audio	3.5 Phone Jack Audio Output x1 3.5 Phone Jack Audio Input (Reserved) x1	
RS485	1 Port (Reserved)	
Network		
Network Interface	10/100/1000Mbps Ethernet (RJ-45) x 2	
Protocols	IPv4, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, SMTP, FTP, DHCP, NTP, DNS, DDNS, IP Filter	
Power		
Power Input	DC 56V 2.5A	
Power Consumption	Max. 120 W	
LED Indicator		
LED Indicator	Status, Record, HDD1, HDD2, HDD3, HDD4, Net1, Net2	
Mechanic		
Form Factor	Desktop	
Operation Buttons	Power (Front) / Reset (Back)	
Dimensions	430 (W) x 400 (D) x 44.5 (H) mm	
Weight	3.87 kg (without HDD)	
Operating Temperature	0˚C ~ 40˚C (32˚F ~ 104˚F)	
Humidity	0 ~ 95%	
General		
Safety Certifications	CE, LVD, FCC, VCCI, UL	
Warranty	24 months	
Client PC Requirements		
Operating System	Microsoft Windows OS: XP/Vista/7/8/2008/2012	
CPU	Intel Celeron or above	
Memory	2 GB or above	
Ethenet	10/100Mbps	
Display Resolution	1024x768 pixels or above	
Web Browser	Internet Explorer 10 (32 bit) or above	
Software AP	Installation Wizard 2, ST7501, VAST	
Mobile/Tablet App	EZConnect (iOS/Android), iViewer (iOS/Android)	
Accessories		
CD	User's Manual, Quick Installation Guide (QIG), Installation Wizard 2	
Others	Power Adapter, Power Cord, Quick Installation Guide, 32 x H.D.D. Screws, 8 x H.D.D. Brackets, 1 x USB Mouse, 4 x SATA Cables	
Software Information		
Record		
Maximum Channel	16	32
Record Throughput (MB)	192 Mbps	192 Mbps
Network Throughput (MB)	96 Mbps	
Audio Format	G.711, G.726	
Video Format	MJPEG, H.264, H.265	
Video Resolution	VGA, 1MP, 2MP, 3MP, 5MP & 12MP Camera	
Recording Time (sec.)	Pre-Record: 5 (Max. 10) Post-Record: 20 (Max. 300)	
Recording Stream	Single	
Recording Mode	Continuous, Schedule, Manual, Event, Activity Adaptive Streaming	
Recording Setting	Recycle (unit: Day)	
Recording Path	Local Path	
Record Video Format	3GP	
LiveView (Local Display)		
Stream Application	Auto Adaptive Stream	
LiveView Display	16 Channels Multi Layout display: 1x1, 1x3 (Corridor View), 2x2, 3x3, 4x4, 1+5, 1+3, 1+12, 1+1+3 (1P), 1+3+3 (1P)	32 Channels Multi Layout display: 1x1, 1x3 (Corridor View), 2x2, 3x3, 4x4, 1+5, 1+3, 1+12, 1+1+3 (1P), 1+3+3 (1P), 1+31

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Technical Specifications

Model	ND9441 16-CH H.265 Embedded NVR	ND9541 32-CH H.265 Embedded NVR
Monitor Enhancement	OSD Display (NVR), OSD Display (Camera), Camera Information, Remote I/O Control, Event Notification, Aspect Ratio, Fisheye Dewarp (1O,1P,1R,1O3R, 1O8R)	
PTZ Control	Panel Control	
PTZ Operation	Direction Control, Home, Iris, Preset, Patrol (Group), PiP Control	
Playback (Local Display)		
Playback Display	1 Channel Multi Layout Display: 1x1	
Playback Control	Regular (Play, Pause, Stop), Rewind, Next / Previous Frame, Speed Control, Calendar, Event, Timeline, Timeline Scale, Thumbnail (Storyboard)	
Video Search	By Calendar, Date/Time, and Alarm	
Thumbnail Explorer (Storyboard)	Listing the thumbnail of recorded video (Max. 2 CH)	
Monitor Enhancement	OSD Display (Camera), Event Notification, Aspect Ratio, PiP Control, Fisheye Dewarp (1O,1P,1R,1O3R, 1O8R)	
Snapshot	JPEG	
Video Clip Export	EXE	
LiveView (Remote)		
Stream Application	Stream Selection	
Audio Capability	One Way	
LiveView Display	16 Channels Multi Layout display: 1x1, 2x2, 3x3, 4x4, 1+3, 1+5, 1+12	32 Channels Multi Layout display: 1x1, 2x2, 3x3, 4x4, 1+3, 1+5, 1+12, 1+31
Monitor Enhancement	OSD Display (NVR), Drag & Drop, Image Freeze, Audio Control, Remote I/O Control, Event Notification, Bookmark, Fisheye Dewarp (1O, 1P, 1R)	
PTZ Control	Panel Control	
PTZ Operation	Direction Control, Home, Zoom, Focus, Iris, Preset, Patrol (Group), PiP Control	
Snapshot	JPEG	
Playback (Remote)		
Playback Display	4 Channels Multi Layout Display: 1x1, 2x2, 1+3	
Playback Control	Regular (Play, Pause, Stop), Next Frame, Speed Control, Calendar, Timeline, Timeline Scale, Bookmark	
Monitor Enhancement	OSD Display (NVR), Drag & Drop, Audio Control, PiP Control, Fisheye Dewarp (1O, 1P, 1R)	
Snapshot	JPEG	
Video Clip Export	EXE	
Alarm Management		
Schedule Type	Continuous, Schedule, Manual	
Event	Motion Detection, PIR Detection, Tampering Detection, Digital Input (Camera), Digital Output (Camera), Connection Abnormal, Storage Abnormal, Storage Full, Camera Network Loss, DI, DO	
Action	Record, Email (Text), Email (Snapshot), FTP, Buzzer, ePTZ Control (Go to Preset), NVR DO, Camera DO	
Recording Time (sec.)	Pre-Record: 5 (Max. 10), Post-Record: 20 (Max. 300)	
Backup		
Manual	USB Dongle (FAT Format)	
System		
User Management	User Account: 16 User Account Time Limit: 10 mins User Level: Administrator / Regular User User Feature Definition: By Camera	
Log	System, Recording, User, Error	
Date&Time	Time Zone, Manual, Automatic Sync NTP, Daylight Saving Time	
Firmware	Manual update	
Restore Default	Supported	
Backup/Restore (Configuration)	Supported	
Language	Czech, English, French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian, Spanish, Simplified Chinese, Traditional Chinese	
Camera Intergration		
Insert Camera	Manual, Search	
Video (Media) Setting	Compression, Resolution, FPS, Video Quality	
Image Setting	Image Display Image Adjustment	
PTZ Control	Panel Control	
PTZ Operation	Direction Control, Home, Preset, Patrol (Group)	
Motion Detection	Supported	
ONVIF Core Spec	Version 2.2 or above (By Project)	
ONVIF Stream	Video (H.264, MPEG4 & MJPEG)	
ONVIF Recording	Continuous, Schedule, Manual	
ONVIF Discover	Discover the other brand camera through "Insert Camera & Batch Insert"	
Device Intergration		
UPS	APC Model Compatible	

Dimensions

430 mm 44.5 mm

400 mm