NVR 20

16 IP Channel Network Video Recorder

Overview

The TruVision™ NVR 20 (TVN 20) is a network video recorder designed to support video streams from IP video cameras. IP camera support includes resolutions from VGA/4CIF to 5 Megapixel from Interlogix and third party IP camera manufacturers. The NVR 20 also supports the Interlogix UltraView™ Encoder 10 H.264 for integrating existing analog cameras.

Up to 16 video inputs may be configured and internal hard drive capacity ranging from 2TB-16TB makes the TVN 20 ideal for extended storage or megapixel camera applications. Additionally, hard drives may be configured to provide redundant recording for multiple cameras.

Recording options include Continuous, Motion, and Alarm or combined scheduled recording modes. Motion recording utilises an IP camera's built-in motion detection events. Alarms can be triggered from any of the 16 on-board alarm inputs or from alarm inputs that reside on the IP camera.

Software connectivity allows remote access to the full capabilities of the recorder via Web browser or TruVision Navigator. The TVN 20 is easy to configure through IP device auto-discovery tools, and embedded processor technology allows device administration as a network appliance.

Standard Features

IP Camera Support

- Up to 16 IP cameras based upon model
- UltraView™ 2 IP, UltraView IP plus TruVision 1.3 and 2.0 megapixel cameras
- H.264 Axis, Arecont, ACTi and other IP camera manufacturers (VGA and Megapixel)
- UltraView Encoder 10 Single-Channel H.264 Encoder

Recording Capabilities

- Continuous, motion or scheduled recording modes
- Event recording based upon native IP camera activity detection or via unit alarm input
- Video is stored in the native IP camera format (no transcoding)
- Audio recording with capable IP cameras
- Redundant camera recording or independent storage groups for different durations

Hardware

- Compact rack mountable - 2 RU
- Up to 16TB of internal storage front accessible drives
- GB ethernet connectivity
- 16 on-board alarm inputs and 4 configurable alarm outputs
- Local USB archive Off

Simple to configure and install

- TruVision device finder (auto-discovery of select TruVision DVRs/NVRs and IP cameras)
- IP Camera auto-discovery
- Configuration and viewing via TVN20 browser of TruVision Navigator software
- No IP camera licensing

Specifications

Physical	
Dimensions (W x H x D)	450mm x 450mm x 95mm
Weight	16 Ch 2TB (9.97kgs); 16 Ch 4 TB (10.67kgs); 16 Ch 16 TB (14.87kgs)
Input Voltage	100-240VAC, 6.3A, 50-60Hz
Power Consumption	16 Ch 16 TB (16 IP Cameras): 29.07W to 57.67W
Operating Temperature	0⁰ - 40⁰ C
Hard Drives	16 Ch; 2, 4, 8 HDD SATA @ 2TB per drive
Mounting	Rack Mount 19" - 2U (rack mount ears included)

Network & Connectors	
Type	10/100/1000 Base-T, RJ-45
Protocol	TCP, IP, UDP, ARP, RARP, PPP, PPPoE, DHCP, SNMP
Alarm Input	16 programmable NO/NC (Rear)
Alarm Output	Change over contact
USB	USB 2+, (2) Unit Front - for local archive-off
eSata	Future Use (Rear
RS-232	RJ-45 (troubleshooting only)
RS-485	Future Use (Rear)
Audio	No Connectors - from IP Camera (record only, if supported)

Video & Record Parameters	
# of Channels	16 Channel (based upon model)
Supported IP Compression	H.264, MPEG4 (depending on supported IP camera models)
Supported Resolutions	4CIF, VGA, SVGA, XGA, SXGA, UXGA, QXGA (depending on supported IP camera model)
Recording Modes	Continuous, Motion Activated or Scheduled (Motion activated recording based upon internal IP camera activity detection for supported models)

Miscellaneous	
NVR 20 Operating System	Linux
Health Monitoring	Various conditions including: HDD Fault/Failure, IP Adress Conflicts, IP Camera Off-Line Notification, HDD Read/Write Failures, Network Fault
User Rights	3-Levels: Administrator, Operator, Guest
Remote Browser PC Requirements	**Processor** Intel E6550 Dual Core 2.33 Ghz, 4MB Cache (Minimum); Intel I5 750 Quad Core 2.66 Ghz, 8MB Cache (Recommended) **Memory** 1GB RAM (Minimum) 4GB RAM (Recommended) **Graphics Card** HD Video with 256 M HD Video with 1GB **Operating System** Windows 2000, Windows XP, Windows Vista **Browser Environment** Internet Explorer 6+ (ONLY - Internet Explorer)

IP Camera Support - Refer to TVN 20 IP Camera Compatibility Chart for latest updates	
Interlogix	UltraView Encoder 10, UltraView IP, TruVision 1.3/2.0 MpX
Axis	216MFD, M1114, M3011, M3014, P1346E, P3301, P3304, P3343, P3344 (plus ONVIF firmware versions)
Arecont	AV1305, AV1315, AV1355, AV2105DN, AV2155, AV2805DN, AV2851, AV3150, AV3155, AV5105, AV5155
ACTi	TCM4301, TCM5311, TCM5611, TCM7411
Panasonic	NS201A, NS954, WV-NF285, WV-NP244, WV-NW484S

Typical capacity configurations

Examples for a single type of camera	16 Channel
Max # of cams using VGA/4CIF only	16
Max # of cams using 1.3 MPX only	8
Max # of cams using 2.0 MPX only	4
Max # of cams using TruVision 2.0 MPX only	4
Recommended Storage *	
10 days	4TB
20 days	8TB
40 days	16TB

Examples for Mixed Camera types - Standard Definition and 1.3 MPX Cameras	16 Channel								
# of VGA/4CIF cams/encoders	16	14	12	10	8	6	4	2	0
# of 1.3 MPX cams	0	1	2	3	4	5	6	8	8
Total Cameras	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**10**	**8**
Recommended Storage *									
10 days					4TB				
20 days					8TB				
40 days					16TB				

Examples for Mixed Camera types - Standard Definition and 2.0 MPX Cameras	16 Channel				
# of VGA/4CIF cams/encoders	16	12	8	4	0
# of 2.0 MPX cams	0	1	2	4	4
Total Cameras	**16**	**13**	**10**	**8**	**4**
Recommended Storage *					
10 days			4TB		
20 days			8TB		
40 days			16TB		

* Storage estimates based on settings below may vary by actual configuration and installation.

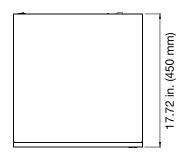|		
VGA/4CIP	25fps, Bit Rate: 2Mbps	
1.3 MPX	25fps, Bit Rate: 4Mbps	
2.0 MPX	12.5fps, Bit Rate: 2Mbps	

Additional performance possible when using TruVision 2.0 MPX Cameras	16 Channel				
# of 2.0 MPX cams 12.5 fps/15fps or fewer Bit Rate: 4 Mbps	0	2	4	6	8

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Dimensions

17.72 in. (450 mm)

3.74 in. (95 mm)

17.72 in. (450 mm)

Ordering Information

TVN-2016-2T	TruVision NVR 20: 16 Ch IP Camera Network Video Recorder, 2TB Storage
TVN-2016-4T	TruVision NVR 20: 16 Ch IP Camera Network Video Recorder, 4TB Storage
TVN-2016-8T	TruVision NVR 20: 16 Ch IP Camera Network Video Recorder, 8TB Storage
TVN-2016-16T	TruVision NVR 20: 16 Ch IP Camera Network Video Recorder, 16TB Storage
Accessories (to be ordered separately)	
TVR-RK-1	TruVision Line Rack-mount Kit

UltraView IP Cameras

UVD-IPEVRDNRVA2P	1/3"color540TVL HAD2.8~10.5mm. D/N AI UTPRuggedDomeIP camera, DC12V/AC24V/PoE,12w,pal
UVD-IPEVRDNRVA9P	1/3"color540TVL HAD9~22mm. D/N AI UTPRuggedDomeIP camera, DC12V/AC24V/PoE,12w,pal
UVD-IPXP3DNRVA2P	1/3"color540TVLWD CMOS2.8~10.5 mm; D/N AI UTP Rugged Dome IP camera, DC 12V/AC24V/PoE 11W,
UVD-IPXP3DNRVA9P	1/3" color 540TVL WD CMOS 9~22 mm; D/N AI UTP Rugged Dome IP camera, DC 12V/AC24V/PoE 11W,

TruVision IP Cameras

1.3 Megapixel	
TVD-M1120V-3-P	TruVision™ 1.3MPX Progressive Scan CCD Vandal Proof Dome Camera, True D/N, VF 3.3-12MM, PAL, PoE, SDHC Card Slot, IP66
TVC-M1120-1-P	TruVision™ 1.3MPX Progressive Scan CCD Full body Camera, True D/N, PAL, PoE, SDHC Card Slot
2.0 Megapixel	
TVD-M2110-2-P	TruVision™ 2MPX Progressive Scan CMOS Dome Camera, digital D/N, VF 2.8-11MM, PAL, PoE, SDHC Card Slot
TVD-M2110V-3-P	TruVision™ 2MPX Progressive Scan CMOS Vandal Proof Dome Camera, digital D/N, VF 3-9MM, PAL, PoE, SDHC Card Slot, IP66
TVC-M2110-1-P	TruVision™ 2MPX Progressive Scan CMOS Full Body Camera, digital D/N, PAL, PoE, SDHC Card Slot

Camera Accessories (to be ordered separately)

Power Supplies	
MPP168	Power Supply, 12VDC, 1AMP 2.5MM Stripped
T2450S/T	Power supply, 24V AC 500mA with Strip / Tin end

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