infinique™

FortesNVR System Series

16, 36, 64 Channels, Rack Mountable 2U Chassis with Hot Swappable HDD Bays

Infinique offers a wide range of video management solutions for IP based video surveillance that are extremely easy to install, use and maintain. The hardware is optimized for video surveillance by consolidating disparate components into a single chassis which is energy efficient and greatly improves the total cost of ownership. The application software has an open architecture that comply to Onvif and industry standard protocols, making it future proof and providing peace of mind for your investment. From small to very large installations, Infinique's IP based video recorders are an ideal solution for today's high demanding video surveillance needs.

Maximum Performance

Infinique's FortesNVR System Series is designed with server class hardware and is preloaded with 64 bit Embedded Linux operating system and video management software. The performance is boosted by Dual Core 1.8GHz or Higher Processor and high capacity RAM to meet the demands of high security video surveillance with HD video recording and playback operations. The NVRs support recording and playback video streams ranging from 16, 36 and 64 channels and can be easily scaled to support additional channels by automatic bridging of multiple FortesNVRs.

FortesNVR functions as a stand-alone NVR and boasts a high throughput of recording and network bandwidth. However the total number of cameras supported depends on the desired frame rate, the number of simultaneous client connections, streams played back, and the available bandwidth.

Reliability

FortesNVRs high reliability is achieved by Linux® operating system and FortesVMS hosted on SSD system drive, as this provides high read-write speeds with no moving parts. It also ensures increased uptime and system response time, compared to systems which have the OS installed on conventional hard disk drives, the storage can also be expanded with external storage through an optional eSATA up to 4 HDDs.

Product Features

- Appliance NVR with Dual core 1.8GHz Processor, designed for enterprise video surveillance
- Stable 64 Bit Linux OS and X-Windows with 3D GUI by OpenGL.
- Available Configurations 16, 36 and 64 Channels
- Support Camera Resolutions up to 12 MP
- Simultaneous real time live view, recording and playback of up to 64 Channels in D1 is supported
- Storage Capacity 4 Hot Swappable HDD
- Open architecture ensures support for a large number of ONVIF Compliant IP Cameras
- Scalable solution offered by automatic bridging of multiple NVRs, to support additional IP Cameras
- Virtualization of multiple NVRs as a single logical unit is achieved through CMS, which enables centralized monitoring and management up to 4000+ channels from a single location
- Network Health and Event Monitoring
- Supports ONVIF and RTSP video protocols
- Energy efficient, has a very low power consumption
- Easy to install, comes with standard rack mountable chassis.

FortesVMS (Video Management Software)

FortesVMS brings in the stability and reliability which is essential for a video surveillance system. FortesVMS has all the functionality of an advanced video management system to cater any surveillance application needs. The Linux®-based operating system used utilizes an XFS file system for maintaining the video files and has automated defragmentation routines to keep the database from becoming fragmented. XFS has been widely proved to be a superior and stable file format for the data intensive video surveillance recording applications than the Windows® based recorders which come with their standard NTFS file system.

FortesMonitor - Centralized Monitoring

Advanced feature rich FortesMonitor provides centralized monitoring, control and management of multiple servers installed at different locations. A single instance of FortesMonitor installed on a high performance PC can support up to 4000+ cameras. In a single live monitor window up to 32x32 or 1024 live channels from multiple servers can be monitored, and multiple such windows can be managed simultaneously. This easy to use software, helps security professionals manage and interact with high definition video in the most efficient way.
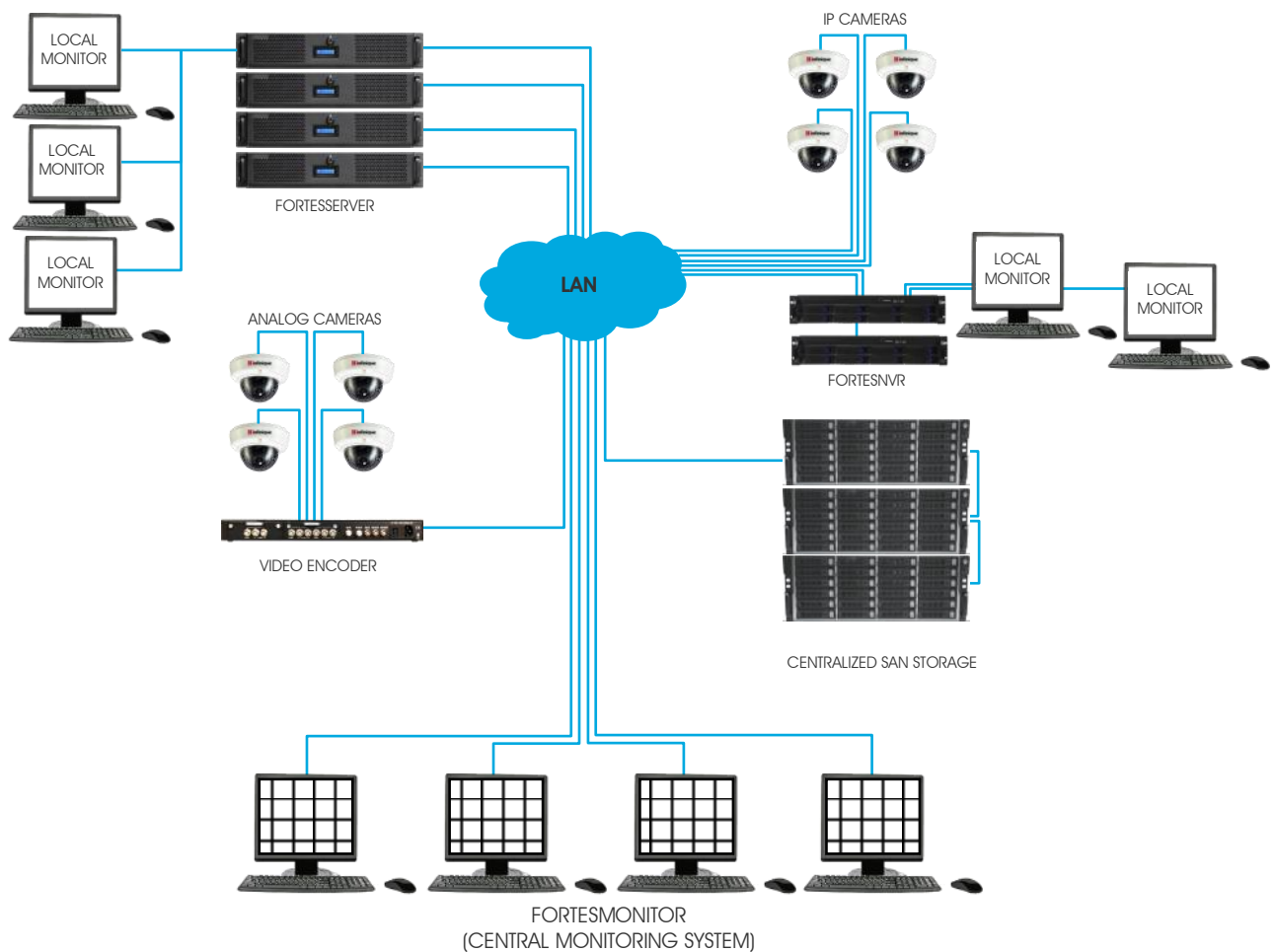
FortesNVR System Series

16, 36, 64 Channels, Rack Mountable 2U Chassis with Hot Swappable HDD Bays

Open Architecture

FortesNVR is ONVIF compliant and provides a true open architecture that ensures support for a large number of IP cameras and encoders from various manufacturers. The system is also compatible with different video compression formats such as H.264 and H.265. It is built using industry open standard hardware and operating system which has been integrated for easy commissioning of IP video surveillance. This optimized integrated solution offered by Infinique provides peace of mind and removes the compatibility risks and unavailability of prompt support associated with solutions where VMS software and the hardware are sourced from different vendors. Third party system integration such as access control and building management systems are supported through a comprehensive SDK. All these features combined, makes FortesNVR a truly open architecture platform.

Conceptual Overview

LOCAL MONITOR

LOCAL MONITOR

LOCAL MONITOR

FORTESSERVER

ANALOG CAMERAS

VIDEO ENCODER

LAN

IP CAMERAS

LOCAL MONITOR

LOCAL MONITOR

FORTESNVR

CENTRALIZED SAN STORAGE

FORTESMONITOR
(CENTRAL MONITORING SYSTEM)

NOTE. The above network configuration is a conceptual overview only and is not intended to show a detailed network topology. The actual network requirements for your installation will differ based on the configuration, requiring changes or perhaps additional network equipment. Please contact Infinique representative to discuss your specific requirements.

FortesNVR System Series

16, 36, 64 Channels, Rack Mountable 2U Chassis with Hot Swappable HDD Bays

ONVIF

SYSTEM

Processor	Intel® XEON™ Dual Core 1.8GHz
Operating System	Linux 64 bit and X-Windows with OpenGL
OS Device	8GB mSATA or DiskOnModule
Memory	DDR3 SDRAM 8GB to 16GB based on the NVR model
User Interface	Fortes VMS (GUI direct from NVR)
Camera Channels	16 to 64 Channels
Hot Swappable HDD	4 x SATA HDDs
USB Interface	6x Ports - 2 Front and 4 Rear
PTZ Controller	USB Serial Port
Alarm Ports	8x Digital Inputs, 8x Digital Outputs
Ethernet Interface	Gigabit Ethernet Ports 1000Base-T
RAID	Optional RAID5 / RAID6 Controller Card
Cameras Supported	Infinique, ONVIF Compliant Cameras and Native Integration for major camera brands

Client Modules

FortesMonitor	Centralized Management and Monitoring
FortesMobile	Smart Phone App to watch live video
Web Client	Control and Watch Live from remote PC
VNC/SSH Client	NVR Remote Setup and Configuration

VIDEO AND AUDIO

Video System	NVidia 1GB Low Profile
Maximum Resolution	1920 x 1200 DVI, HDMI, VGA
Video Outputs	1x VGA, 1x HDMI Ports
Video Standards	NTSC 60 Hz, PAL 75 Hz
Video Decoding	MJPEG, MPEG4, H.264 and H.265
Audio Codec	G.711
Two way Audio	Yes, if supported by camera
Audio Port	1x Audio In, 1x Audio Out

FUNCTIONS SUPPORTED

Recording	Continuous, Scheduled and Event
Security	HTTPS, SRTP, IP Filtering
Events	Motion Detection, Sensor, Alarm, Video Loss, Video Recovery, Disk Failure, RAID Status Change
Event Handlers	Warning Message, Popup, Border Blink, Alarm, PTZ Link, Recording
Video Backup	AVI, JPG, BMP File Format
Digital Zoom	Up to 10X
Display	Triple Display: Clone or Expand
Miscellaneous	Free DDNS, Built-in NTP Server, HDD Health Monitoring using SMART

MECHANICAL

Form Factor	Industrial Grade 2U Rack Mount Chassis
Construction	Steel Cabinet with Metallic Black Finishing
Dimensions (mm)	482(w) x 89(h) x 400(d)
Weight (kg)	9

ELECTRICAL

Power Input	100-240VAC, 50/60hz, Auto Switching
Power Supply	Internal
Power Consumption	Max 4.74A @ DC 19V

ENVIRONMENTAL

Operating Temperature (℃)	5 to 40
Storage Temperature (℃)	-40 to 70
Operating Humidity	8% to 90% RH, non-condensing
Non-Operating Humidity	5% to 95%, non-condensing
Operating Altitude (m)	-16m to 3048 (-50ft to 10,000ft)

Note: The server room temperature can be affected by air conditioning system, floor layout, rack configuration, etc. The NVR air intake temperature, can be significantly higher than the room temperature. To prevent system and hard drive failure, make sure the air intake temperature of the Server is always within the operating temperature range.

ACCESSORIES SUPPLIED

Rack Mount Kit	Brackets, rails and connecting hardware
Power Cord	Based on country; 3 prong molded connector, 1.8 m (6 ft) Cord Length
USB Mouse	1 nos
Documentation	CMS Software CD, NVR Manual.

FORTESMONITOR CLIENT PC REQUIREMENTS

Web Browser	Microsoft® Internet Explorer® 6.x or later
Processor	2nd Generation Intel® Core™ i7 3.4 GHz or higher
Memory	4 GB DDR3 or higher
Video Card	PCI Express, DirectX 9.0c compliant with 128 MB RAM (Intel® GMA 900, NVIDIA® 6600, ATI X1300 or higher)
Network Interface	100 Mbps (minimum) 1 Gbps (recommended)
Graphics Card	512MB or more dedicated memory

STANDARDS COMPLIANCE

Emissions	FCC Part 15 Subpart B Class B EN 55022:2010 IC ICES-003 Class B
Immunity	EN 55024:2010
Safety	UL 609501, EU: 2001/95/EC GPSD

FortesNVR System Series

16, 36, 64 Channels, Rack Mountable 2U Chassis with Hot Swappable HDD Bays

MODELS COMPARISON CHART

Part Number	Description	Network Bandwidth	Live, Playback and Record Frame Rate
INR16-48F4E-2	System 16 Channel NVR	1 x 500 Mbps	Full HD, HD, D1 @480fps
INR36-108F4E-2	System 36 Channel NVR	2 x 500 Mbps	Full HD, HD, D1 @1080fps
INR64-192D4E-2	System 64 Channel NVR	2 x 500 Mbps	Full HD, HD, D1 @1920fps

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
INR16-48F4E-2	Infinique FortesNVR System Series, 16Ch Realtime Display and Recording, 500Mbps Network Bandwidth, 500Mbps Record Bandwidth, Recording @480fps in Full HD, HD, D1, H.264, H.265, 4 x Hot Swappable HDD Slots, 1 x RJ45 Gigabit Ethernet LAN Ports, 2U Rack Mountable, Hard Drive not included, No Camera Licensing Fee
INR36-108F4E-2	Infinique FortesNVR System Series, 36Ch Realtime Display and Recording, 500Mbps x 2 Network Bandwidth, 500Mbps Record Bandwidth, Recording @1080fps in Full HD, HD, D1, H.264, H.265, 4 x Hot Swappable HDD Slots, 2 x RJ45 Gigabit Ethernet LAN Ports, 2U Rack Mountable, Hard Drive not included, No Camera Licensing Fee
INR64-192D4E-2	Infinique FortesNVR System Series, 64Ch Realtime Display and Recording, 500Mbps x 2 Network Bandwidth, 500Mbps Record Bandwidth, Recording @1080fps in Full HD, 1920fps in D1, H.264, H.265, 4 x Hot Swappable HDD Slots, 2 x RJ45 Gigabit Ethernet LAN Ports, 2U Rack Mountable, Hard Drive not included, No Camera Licensing Fee
INR-4HDE1	E-SATA for up to 4 HDDs, Maximum Capacity 16TB
INR-8HDE2	Dual E-SATA up to 8 HDDs, Maximum 32TB
IFKB-RS232	Infinique RS-232 Keyboard Controller with RS-232 Gender Cable for PTZ Camera Control
INR-2ETHPRT	Dual RJ45 Gigabit Ethernet LAN Ports
IFSD-SC2	Infinique RS-485 Keyboard Controller for PTZ Camera Control
INR-HBA-SAN	SAN HBA- Host Bus Adapter Card
ICMS08	FortesMonitor License for 128 Cameras and 8 NVR's (Free of cost)
ICMS16	FortesMonitor License for 256 Cameras and 16 NVR's
ICMS64	FortesMonitor License for 1024 Cameras and 64 NVR's
ICMS256	FortesMonitor License for 4096 Cameras and 256 NVR's

Infinique, a Canadian company is a manufacturer of high performing end-to-end solutions in copper, fiber and video surveillance systems. For more information visit our website at www.infinique.com or email us at sales@infinique.com.