enVigil NVS (Network Video Server)
Features, Functionality and Specification

Data Security

- **Linux based Server:** Linux operating system and enVigil server software reside on a Solid State Drive (SSD) to achieve higher robustness and reliability. Hard disks are used only for storing video data.
- **Built-in VPN:** System comes with built-in VPN capability for secure access over LAN and WAN (internet).
- **Local and Remote Archiving:** On-demand continuous archiving, on both local and remote storage.
- **Tamper-proof recording**: All recordings are tamper-proofed. Application software is available to detect whether video has been tampered with.
- **RAID 1, 5 and 6 Support:** Special models available with Multi-drive system supporting RAID to prevent loss of data in the event of a hard drive failure.

Ease of Installation

- **Easy Network Installation:** The system is made easily accessible on the internet without the need for port-forwarding or configuring the router in any way.
- **Easy Camera Setup:** Parameters of Camera's can be setup locally and remotely.
- **Distributed Sensors and Relays:** Relay and sensor boxes can be physically distributed wherever needed and connected using RS485 serial link to the server.

Lower Cost of Ownership

- **Remote Administration:** enVigil NVS can be fully administered remotely using CradeWatch client.
- **Hard Disk Failure Notification:** Automatically monitors hard disk performance using S.M.A.R.T and reports possible failure of hard disks.

Functional Capability

- **Multi-Site/Multi-Server Operation**: enVigil NVS supports multi-location operation. Each NVS supports up 8 and 16 cameras. Multiple enVigil NVS deployed at multiple locations can be operated remotely from a single location.

- **Central Management System (CMS):** Flexible way to view selected cameras from different locations into on unified group. Flexibility to define as many groups as needed.
- **Multiple Video and Audio Streams:** Supports multiple video and audio streams to enable simultaneous live access from multiple locations both on LAN and on the internet.
- **Live Remote Access:** CradleWatch client provides remote access and administration from Windows XP, Windows 7 PCs and OS/X MAC computers. Peer-to-Peer (P2P) technology is used to connect CradleWatch client to enVigil NVS.
- **Two-way Audio**: Listen to live and recorded audio remotely. Also, talk back to the server from a remote location.
- **Live iPhone and PDA access**: Live display on iPhone and PDA with ability to select camera and matrix of live view.
- **Automatic Bandwidth Adaptation**: Monitors available bandwidth and automatically adjusts live preview to give smooth live display by adapting video stream to the available bandwidth. Live smooth remote video access is possible over mobile wireless broadband.
- **Independent Record and Display Resolution**: Frame rate and resolution of recorded data and live display are independently set and controlled.
- **Private Camera Support:** Designate selected cameras as private cameras with per-user access control and ability to exclude selected cameras from shared matrix view.
- **NAS Storage Support:** enVigil NVS can be configured to keep all video data on a NAS (Networked Attached Storage).
- **Intelligent Video Analytics**: Various video analytics can be supported on the system such as motion detection, blind detection and video loss. Additional Video Analytics modules such as intrusion detection, people counting, face capture, wrong way entry etc. can be added.
- **Intelligent PTZ**: PTZ camera control possible from the client software from a remote location.

- **Intuitive Graphic Interface**: Intuitive graphic interface for setting up recording schedule featuring continuous recording, motion based recording and sensor triggered recording. Users can define the recording schedule for each camera.
- **Multiple Monitor Support:** Supports multiple monitor based PCs to centrally manage and monitor multiple enVigil NVS.
- **Flexible I/O boxes:** Connect through RS485 to provide contact and sensor inputs and relay output. A total of 8 I/O boxes each with 4 contact inputs and 4 relay outputs can be connected to each enVigil NVS.
- **I/O Control**: Easy to use input and output control panel to remotely trigger digital outputs and monitor input status.
- **Event Log:** Access recording by event log or directly by specifying camera number, date and time.
- **Video Export:** Export a section of the video in AVI format. Video can be exported either locally or remotely.
- **Log Export**: Server log of user actions like configuration changes, login/logout etc. can also be exported.
- **Auto Recycle:** Automatically recycles and reuses disk when the disks gets full. Separate recycle schedule between recordings and log files.
- **User Authority Management:** Supports customizable user privilege for each user.

Central Monitoring
- **Central Server Support:** Central server located in the cloud monitors health of the enVigil NVS (Connected with Internet) and notifies interruption in operation through email and SMS messages to a designated person.
- **Central Server for Remote Support:** Cradle engineers can remotely log into enVigil server for diagnostics and support when access is granted.

Ease of Integration
- **Open Platform**: Linux based server.
- **Support for Integration with other systems**: APIs for integration with third-party systems such as access control, automation, burglar alarm, video analytics and others are available.
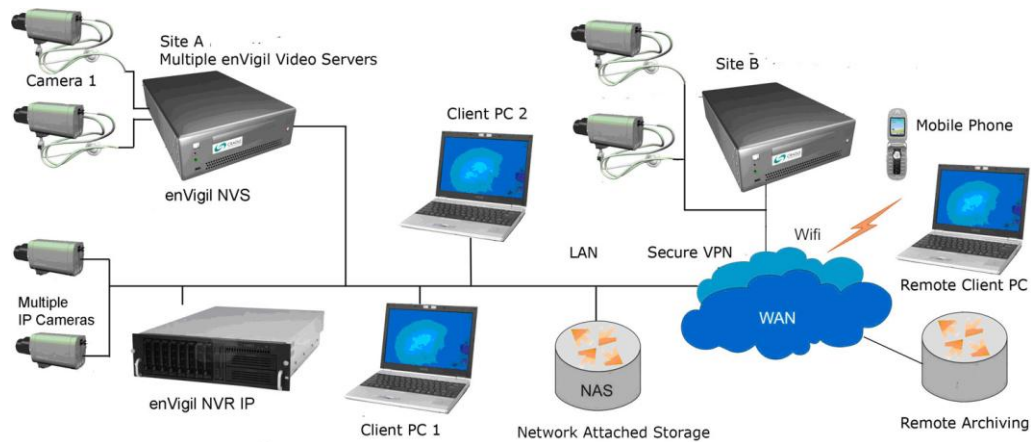
Technical Specification of enVigil NVS

Video	
Display Mode	1/ 4/ 6/ 8/ 9/ 10/ 13/ 16-channel display, sequential mode
Number of Channels Supported	8, 16
Compression Format	H.264 / MPEG-4
Video Setting	Resolution, Quality, Frame Rate
Recording	
Recording Mode	Continuous / Scheduled / Sensor Triggered
Buffer Storage for Alarm Images	Pre-recording: 60 sec / post–recording: up to 60 sec
Recording Performance	Up to 25 (PAL-fps) or 30 (NTSC) at full D1, ½ D1 and CIF
Archival File format	AVI
Playback	
Playback Mode	Play, pause, stop, reverse play, single-step, next / back with speed control
Display Mode	Single playback per window view. Multiple playback windows.
Search Mode	By date & time, timeline, event, and intelligent video analytics (IVA)
Intelligent Video analytics (IVA)	Motion detection
Playback Enhancement	Full screen display, video snapshot, digital zoom, digital watermark
Remote Archival	Continuous and Time based archival
Storage	
Disk Management	Easy addition and removal of Hard Drive, System and NVS software resides on Solid State Drive.
Network	
Support	Port forwarding or static IP not required for access from internet , built in VPN for secured communication on LAN / WAN
Security	
Operation System	Linux-embedded, free from PC crash and virus attack
On-line Users List	Record of the users currently logged on and previously logged on to the NVS
User Management	Camera access can be separately defined for each user
Alert Notification	E-mail, SMS
UPS	Support for APC
Event Logs	Detailed event logs, user login, configuration changes, system warning, hard disk error and UPS status
Hard Disk Failure	Automatic tracking of hard disk health and report failure
Client PC Requirements	
CPU	Pentium Dual-core 2.4 GHz or better
Memory	1 GB or above
Operation System	Windows XP/ Windows Vista/ Windows 7/ MAC OS X
Web Browser	Internet Explorer, FireFox
Network Interface	10/100 Mbps or above
View Resolution	Suggested 1024 x 768 pixels or above
Utility Software	
Tamper-Resistant Recording	Check if the recording files on enVigil NVS are modified or not (only for MPEG-4 and H.264 cameras)