



# March Networks Command Enterprise and Command Professional Specification Sheet





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# March Networks Command Solution Feature Overview

## March Networks Command™ Key Features

**E = Enterprise** – features available in March Networks Command Enterprise

**P = Professional** – features available in March Networks Professional

### Sophisticated, World-Class Web-Client: E, P

The Command Client offers a simple, flexible, yet sophisticated browser-based client interface that is customizable and easy-to-use.

### Centralized Management: E, P

All management can be done centrally using a simple browser-based tool called Command Config. This tool allows all server management functionality to be done without loading software onto your computer.

### Central Health Monitoring: E

Single-point health monitoring provides a clear view of the health of the enterprise system from within the Command Client.

### Server-to-Server Video Gateway: E

We have built on our IT heritage with this unique feature that allows organizations to reduce their network costs significantly by limiting video traffic across the WAN. It essentially reduces the number of live streams from a recording server to a video gateway server, which then passes the live stream to Command clients. This technology can help reduce WAN bandwidth traffic by as much as 90%.

### Mass Management: E

Video surveillance system deployment and management can be complex. Command Enterprise's mass management capability allows organizations to manage complex surveillance systems with ease.

### Shadow Archive Synchronization: E, P

March Networks has developed a unique capability to ensure that our customers never lose video — even when the network goes down. Shadow Archive™ not only enables users to use the Command Client interface to access video from March Networks IP cameras, encoders and NAS devices when a network fails, it also synchronizes that video seamlessly onto a centralized recording server once the network is back online. Shadow Archive with video synchronization is a key feature in March Networks' true end-to-end solution.

### Unparalleled Recording Redundancy: E, P

Redundancy options for recording servers/recorders in addition to Shadow Archive and video synchronization ensures maximum availability of recorded video.

### Central User Management: E

Using LDAP and Microsoft® Active Directory credentials offers global user management and controlled access to appropriate functionality and system resources.

### Solution Flexibility: E, P

Unlike software-only solutions, Command is a highly-flexible offering that allows organizations to choose the right solution for their needs; whether it is a hybrid networked video recorder, IP cameras and encoders recording to NAS, a Command recording server running in a virtualized environment, video wall software, thick-client or easy to use web-client software.

## March Networks Command Enterprise Solution Overview

March Networks Command Enterprise is a fully distributed solution designed for large multi-site and multiple recording server/recorder installations. Command Enterprise offers edge device support from various vendors as well as seamless support for March Networks edge devices. Command Enterprise consists of the following main components:

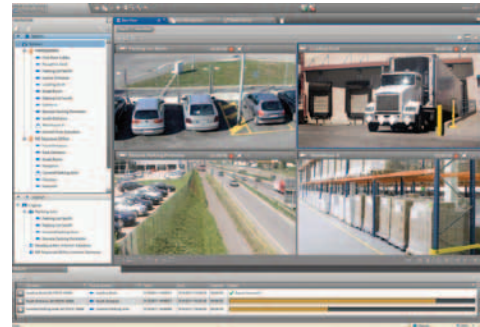
**Command Enterprise Server** software is the center of the Command solution.

Stores the surveillance system's configuration in a relational database, either on the management server computer itself or on the customer's existing SQL Server on the network. The Enterprise Server also handles global user authentication, user rights and hosts the web services for Command's web client. The Enterprise Server software can run on most commercial-off-the-shelf (COTS) servers from leading server manufacturers or it can run in a VMware® virtual machine.



**Command Client** is the primary browser-based user interface for Command.

Offers an intuitive user interface that allows administrators and users alike to manage their Command video surveillance network. The user interface is the unified client tool that can be opened on any Windows® XP or later browser or Mac® OSX browser interface. In the Command Enterprise environment, the Command Client is hosted from the Enterprise Server. Command Client can see video from March Networks' 7532 Hybrid NVR, 4000 C Series NVRs and 3000 Series DVRs, as well as Command Recording Servers.



**Command Recording Server (CRS)** software is the primary archive engine for Command Enterprise.

The Recording Server software is the primary archiving component of the Command Enterprise solution. The software is designed to run separately from the Enterprise Server software. It can be installed directly on any COTS servers or can be purchased from March Networks running on Dell® platforms. Another option for the recording server software is to run it on a VMware virtual machine (VM) to support up to 128 cameras per recording server. Command Enterprise can support up to 128,000 camera connected to March Networks hybrid NVRs and DVRs. The maximum number of recorders/recording servers supported in a single system is 10,000. Two types of recording servers include:



- **the Primary Recording Server** is the primary archiving component of the CRS architecture
- **the Recording Server** is the redundant/failover archiving component of the CRS architecture

**Command Config** is a browser-based server administration client for configuration and management.

Hosted on Command Recording Servers, Command Config is a 100% browser-based management console for Command Recording Servers. It allows users to manage servers, add cameras, create storage, and perform other important tasks related to a specific recording server.



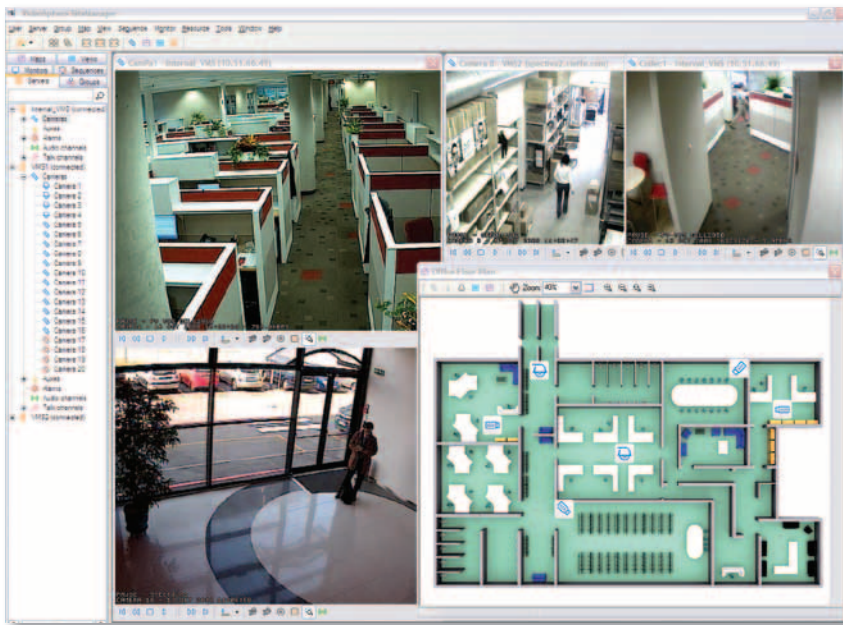
## Optional Command Enterprise Components

**March Networks' SiteManager** 3.5.0 is Command's thick-client software option for video management control.

Although not a required component of Command Enterprise, SiteManager software does offer some functionality that the web-client does not offer today, such as March Networks DecodeStation VX control, video analytics, license plate recognition (LPR), mapping and several other items that will be added later in the Command Client. SiteManager 3.5.0 works with Command Recording Servers and 7532 Hybrid NVRs, however it does not directly interface with the Command Enterprise Server.



SiteManager



**DecodeStation VX** is the primary video wall control software for Command solutions.

The DecodeStation VX is a software-based virtual matrix that delivers video transmission, control, monitoring and management for any video surveillance environment. It is supported in the Command solutions environment, however it requires the use of SiteManager 3.5.0. The DecodeStation VX delivers cost-competitive video wall management in a software-only package that organizations can install on COTS computers.



DecodeStation VX



## March Networks Command Professional Solution Overview

March Networks Command Professional is a single server solution, designed for small to medium-sized opportunities with up to 128 cameras. Command Professional offers edge device support for various vendors as well as seamless support for March Networks edge devices. Command Professional consists of the following main software components:

**Command Recording Server (CRS)** software is the primary archive engine for Command Professional.

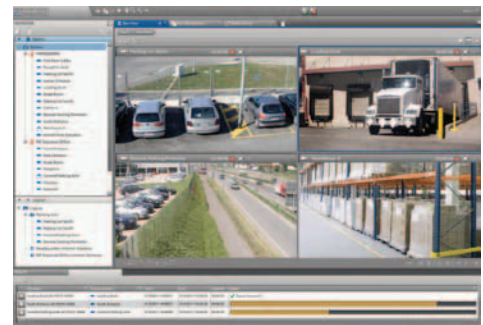
The recording server software is the primary archiving component of the Command Professional solution. The recording server software is designed to run separately from the Professional Server software. It can be installed directly on any COTS servers or can be purchased as a bundled solution from March Networks running on Dell platforms. Another option for the recording server software is to run it on a VMware virtual machine (VM). Up to 128 cameras are supported on a single Command Recording Server when operating as part of Command Professional.



- **The Primary Recording Server** is the primary archiving component of the CRS architecture
- **The Redundant Recording Server** is the redundant/failover archiving component of the CRS architecture

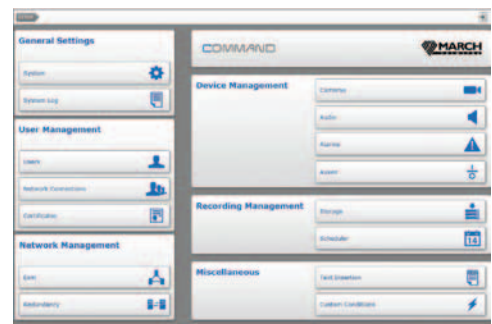
**Command Client** is the primary browser-based user interface for Command.

Offers an intuitive user interface that allows administrators and users alike to manage their Command video surveillance network. The user interface is the unified client tool that can be opened on any Windows XP or later browser or Mac OSX browser interface. In the Command Professional environment, the Command Client is hosted from the Professional server.



**Command Config** is a browser-based server administration client for configuration and management.

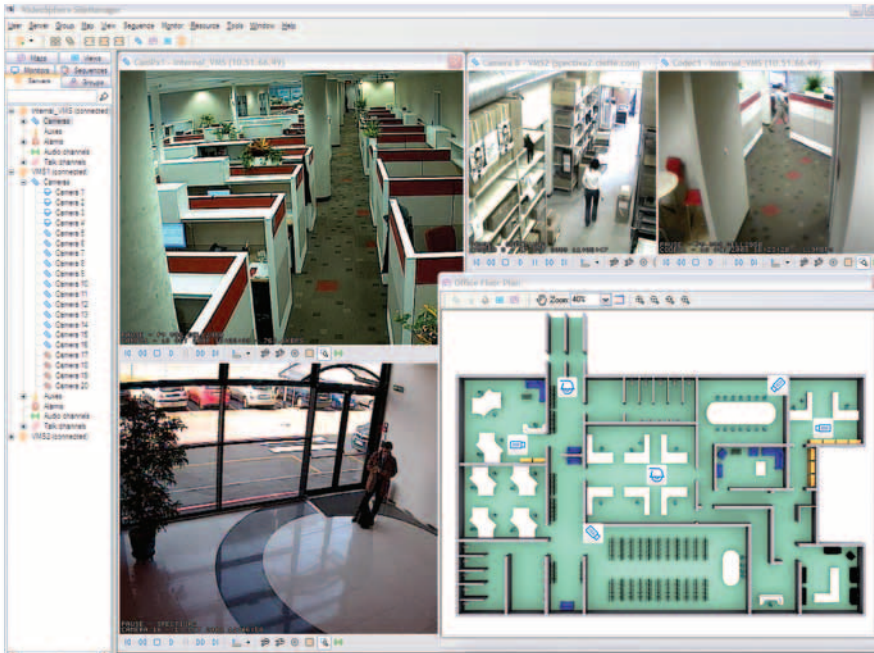
Hosted on Command Recording Servers, this is a 100% browser-based management console for Command Recording Servers. Command Config allows users to manage servers, add cameras, create storage, and perform other important tasks related to a specific recording server.



## Optional Command Professional Components

**March Networks' SiteManager 3.5.0** is Command's thick-client software option for video management control.

Although not a required component of Command Professional, SiteManager software does offer some functionality that the web-client does not offer today, such as March Networks' DecodeStation VX control, video analytics, license plate recognition (LPR), mapping and several other features that will be added later in the Command Client. SiteManager 3.5.0 works with Command Professional's Recording Server software.



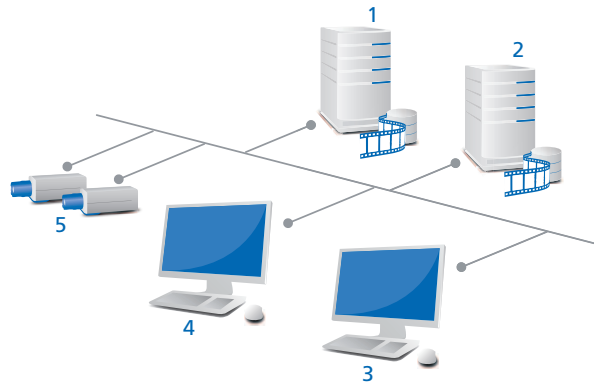
**March Networks DecodeStation VX** is the primary video wall control software for Command solutions.

The DecodeStation VX is a software-based virtual matrix that delivers video transmission, control, monitoring and management for any video surveillance environment. It is still supported in the Command solutions environment; however it requires the use of SiteManager 3.5.0 to take advantage of the great capabilities it offers. The DecodeStation VX delivers cost-competitive video wall management in a software-only package that organizations can install on COTS computers.





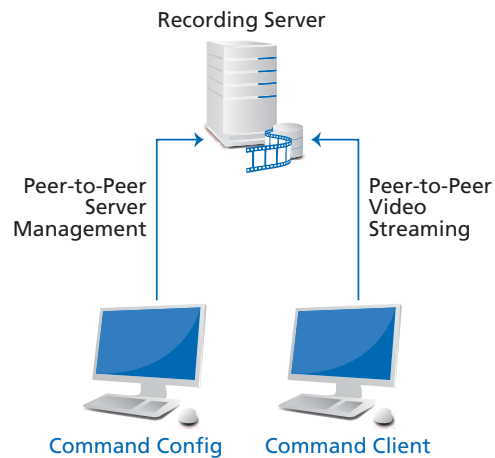
## March Networks Command Professional Solution Diagram



### Command Professional Component Legend:

1. Command Recording Server (up to 128 cameras)
2. Redundant Command Recording Server (redundant recording for up to 128 cameras)
3. Web-Based Command Client and Command Config
4. SiteManager 3.5.0 or later
5. IP Edge Devices (Encoders and IP Cameras)

## How Does Command Professional Communication Work?



### Benefits of Command Professional's Communication Architecture:

- All communications are made directly to the Recording Server
- Command Config and Command Client are hosted by the Recording Server
- Video streaming connections are made peer-to-peer
- Licensing is managed using a hardware USB dongle
- Recording server management using Command Config is made peer-to-peer

## March Networks 7532 Hybrid NVR Solution Overview

The March Networks 7532 Hybrid NVR is a single recorder that supports 16 analog cameras and 16 IP cameras or any combination up to 32 IP cameras (maximum 16 analog). It is designed for small to medium-sized opportunities with up to 32 cameras per recorder, while offering the flexibility to become part of the Command Enterprise Solution. The 7532 Hybrid NVR offers edge device support for various vendors as well as seamless support for March Networks edge devices. The 7532 consists of the following main components:

NOTE: The 7532 Hybrid NVR does not run Command Professional.

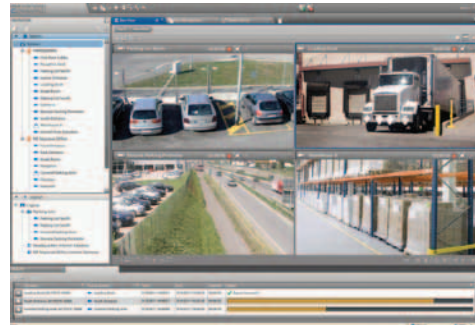
**Command Recording Server (CRS)** software is the primary archive engine for the 7532 Hybrid NVR.

The recording server software is the primary archiving component of the 7532 Hybrid NVR. The recording server software runs directly on the hybrid recorder. It is designed to manage and record video from up to 16 analog connections on the back of the unit and up to 16 IP cameras. It also supports a combination of both analog and IP cameras, or up to 32 IP cameras on a single recorder. The recorder offers all the same proven reliability and performance that March Networks recorders are known for, including an innovative docking station architecture that reduces installation and maintenance costs significantly.



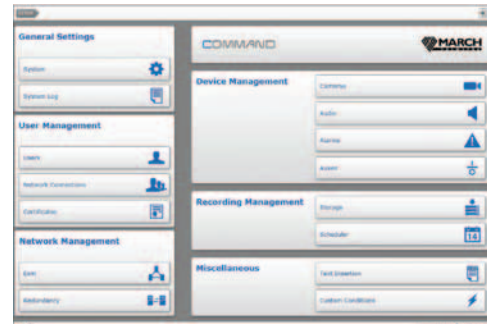
**Command Client** is the primary browser-based user interface for Command.

Offers an intuitive user interface that allows administrators and users alike to manage their 7532 Hybrid NVR. The user interface is the unified client tool that can be opened on any Windows XP or later browser or Mac OSX browser interface. When a 7532 Hybrid NVR is registered to a Command Enterprise Server, the web pages are hosted by the Enterprise server rather than the local recorder.

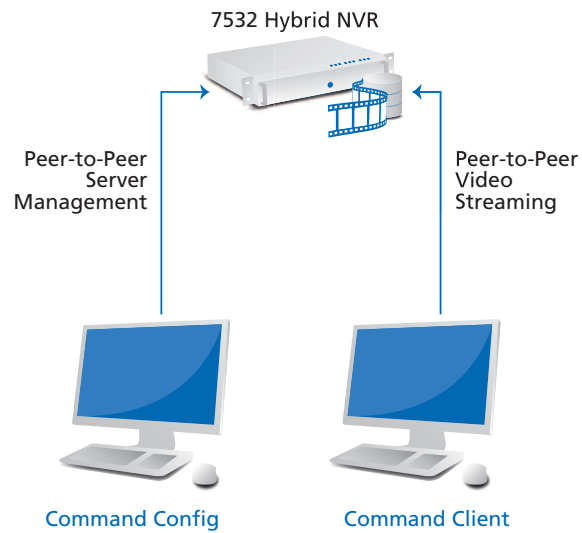


**Command Config** is a browser-based server administration client for configuration and management.

Hosted on Command Recording Servers, this is a 100% browser-based management console for Command Recording Servers. Command Config allows users to manage servers, add cameras, create storage, and perform other important tasks related to a specific recording server.



## How Does the 7532 Hybrid NVR Communication Work?



### Benefits of the 7532 Hybrid NVR Communication Architecture:

- Works standalone or as part of the Command Enterprise Solution
- Runs the Command Recording Server as its recording platform
- Hosts the web pages for the Command Config and Command Client
- Supports optional SiteManager 3.5.0 software
- Uses the Command Config for configuration and management
- Offers basic live and archived video playback from the local recorder through Command Client

## Comparing Command Product Options

Features/Support	Command Professional	Command Enterprise
Supported Server Operating System	Windows 2008 Server R2	Windows 2008 Server R2
Archive/Recording Server Component	Command Recording Server	Command Recording Server
Maximum Number of Recording Servers	1	10,000
Configuration & Management Tool	Command Config	Command Config
Supported Web-Client	Command Client	Command Client
SQL Database Support	No	Yes (Java DB included)
Web-Services Support	None	Yes (Glassfish v2.1 included)
Upgrade from VMS 2.1.1	Yes	Recording Server Only
Site Manager 3.5.0 Support	Yes	Yes
DecodeStation VX Support	Yes	Yes
Hardware Decode Station Support	Upgrade Required	Upgrade Required
Number of Cameras per Recording Server	128	128
Maximum Number of Cameras	128	128,000
Server Virtualization	•	•
ONVIF Device Support	•	•
Video Compression (multiple streams supported)	H.264, MPEG-4, M-JPEG	H.264, MPEG-4, M-JPEG
Recording on Motion	•	•
Synchronized Audio Recording	•	•
Network Attached Storage Recording	•	•
PTZ Control (manual control, tours, presets auto-tracking)	•	•
Record on Schedule	•	•
Record on Alarm/Event	•	•
Alarm Input/Output (Aux)	•	•
Maps and Floor Plans	•	•
March Networks Video Analytics	•	•
Video Walls	•	•
Support of Release 5.5.1 or later 3000/4000 C Series Recorders		•
Support for 7532 Hybrid NVR		•
System Management	Command Professional	Command Enterprise
Microsoft Active Directory/LDAP	•	•
Central User Management		•
Central Health Monitoring		•
Central License Management		•
Mass Management – Device Configurations		•
Mass Management – Firmware Management		•
Server-to-Server Video Gateway	•	•
Web-Based Server Configuration and Management	•	•

Integrations	Command Professional	Command Enterprise
Access Control	•	•
Mass Notification	•	•
License Plate Recognition (LPR)	•	•
Central Management Systems	•	•
Server API/SDK	•	•
Core Command Client (Web) Features	Command Professional	Command Enterprise
Supported Operating Systems	Windows XP, Windows 7, Mac OS X	Windows XP, Windows 7, Mac OS X
Supported Browsers	Firefox, Internet Explorer, Safari, Chrome	Firefox, Internet Explorer, Safari, Chrome
Number of Concurrent Connections	Unlimited	Unlimited
System Navigation Tree	•	•
Logical Navigation Tree		•
Ability to Save Views Centrally		•
Graphical Time Line	•	•
Snap Shot of Live/Archived Video	•	•
Export Video	•	•
Multiple Camera Playback	•	•
Support of Multiple Recorders		•
Side-by-Side Live and Archive Viewing	•	•
Calendar Archive Search	•	•
Frame-by-Frame	•	•
Instant Replay (10 seconds)	•	•
Health Monitoring	•	•
User Access	Command Professional	Command Enterprise
Default User Profiles	•	•
Restrict Access by Logical Folders		•
Restrict Access by Camera	•	•
Restrict Access by Views	•	•
Restrict Access by Schedule	•	•
Restrict Access by Alarm Console		•
Licensing	Command Professional	Command Enterprise
License Mechanism	USB Dongle	Software Licenses
Per Camera License	•	•
Per 7532 Hybrid NVR License		•
Per 3000/4000 C Series Recorder License		•
Per Client License	None	None

## System Strengths and Capabilities

### Web-Based Interface

- Cross-platform browser user interface
- Modular interface based on user type
- Up to 36 live and archived streams per screen
- Interface focused on functional tasks
- Central system and user management

### Central Health Monitoring

- Monitors for problems on recording platforms
- Command Recording Server monitoring
- 7532 Hybrid NVR monitoring
- 3000 / 4000 C recorder monitoring

### System Security

- Multi-level, user-access privileges
- HTTPS secure web access
- LDAP/Windows Active Directory
- Authenticated user rights
- User activity logs
- Server activity logs

### System Deployment

- Recorder configuration import/export
- Device configuration copy
- Edge device firmware management
- Device miss-match monitoring
- Recorder device discovery

### Redundancy

- Command Recording Server failover
- Command Recording Server redundancy
- Shadow Archive edge failover SDHC
- Shadow Archive edge failover NAS
- Shadow Archive synchronization
- Multi-sector recording capability
- Virtualization support
- Distributed architecture

### Live And Recorded Video Monitoring

- H.264, MPEG-4, M-JPEG video compression
- NTSC/PAL resolutions supported
- Side-by-side archived and live video
- Synchronized audio/video playback and export
- Graphical video timeline during playback
- Standardized playback icons
- Digital zoom for improved video identification
- Move/pan within digital zoomed video
- Save and print video snapshots
- 10 second instant replay
- Standard playback controls, including playback speed, loop, frame-by-frame, reverse playback
- Onscreen PTZ controls
- Real-time video up to 30 fps per camera
- Export video using public formats
- User-selectable video export
- Multi-sector playback
- Full screen viewing
- Timeline search including simple calendar
- Timeline scale, one hour to 24 hours
- 16:9 aspect ratio support
- 4:3 aspect ratio support

### PTZ Camera Support

- Network PTZ control
- Onscreen PTZ control
- Go to preset
- Joystick support using SiteManager

### Integrations

- Access control systems
- Mass notification systems
- Incident management systems
- Virtualized server solutions

### Video Recording and Archive

- 128 cameras/512 Mbps per recorder
- COTS server support
- Recording schedules per device
- Multiple sector recording per device
- Continuous video recording
- Recording on motion
- Recording on event/alarm
- Shadow Archive edge recording SDHC
- Shadow Archive edge recording to NAS
- NAS, SAN, iSCSI, SAS recording support

### Video Networking and Transmission

- Utilizes standard TCP/IP protocols
- Strong WAN transmission capabilities
- Video multi-streaming
- Automatic resolution adjustment

### DecodeStation VX / SiteManager

- Multiple monitors per DecodeStation VX
- Send resources to monitor/video wall
- Send customized video views
- Send maps to monitor
- Virtual matrix remote/local control
- Graphical mapping
- Alarm/event monitoring and management
- License plate recognition search

### Licensing

- Central license management
- License fee per edge device
- License fee per 7532 Hybrid NVR
- License fee per 3000 / 4000 C Series hybrid recorder
- Serve disconnect license policy

## General Technical Specifications

### General

<b>Included Accessories</b>	Software CD
<b>Licensing</b>	Enterprise Server
<b>License Registration</b>	Contact March Networks Customer Operations, ext 6599
<b>Optional Accessories</b>	DecodeStation VX, SiteManager

### Command Client Interface (Thin Client)

<b>Operating Systems Supported</b>	Windows XP, Windows 7, Mac OSX
<b>Browsers Supported</b>	Internet Explorer, FireFox, Safari (Mac OSX only), Chrome
<b>Multi-Camera Viewing</b>	Up to 36 cameras per browser connection
<b>Active Directory Support</b>	Yes, via LDAP
<b>Web-Based Interface Security</b>	Multi-level password protection via LDAP authentication, HTTPS encryption

### SiteManager (Thick Client)

<b>Operating Systems Supported</b>	Windows XP, Windows 7
<b>Multi-Camera Viewing</b>	Up to 64 cameras per monitor, multiple monitors supported
<b>Multi-Monitor Support</b>	Automatic
<b>Security</b>	Multi-level password authentication

### Enterprise Server Specifications

<b>Operating Systems Supported</b>	Windows 2008 R2 Server
<b>Native Enterprise Database</b>	Java DB (included)
<b>Supported SQL Databases</b>	MSSQL 2008, Oracle 10g, MySQL
<b>Command Web Server</b>	Glassfish Server v.2.1.1 (included)
<b>User Management Server</b>	Microsoft® Active Directory

### Video

<b>Video Compression</b>	H.264, MPEG-4, M-JPEG
<b>Frame Rate</b>	Up to 30 fps
<b>Maximum Resolution</b>	Up to 5MP

### Enterprise Server Requirements

<b>Minimum Processor</b>	1x Dual Core Intel Xeon 2.0 GHz or greater
<b>Minimum Memory</b>	16GB, 1333Mhz
<b>Minimum Hard Drive</b>	500GB (RAID 1)
<b>Operating System</b>	Windows Server® Standard 2008 64Bit
<b>Network Interface</b>	Dual 1GigE

### Recording Server Requirements

<b>Minimum Processor</b>	1x Quad Core Intel Xeon 2.0 GHz or greater
<b>Minimum Memory</b>	8GB 1333Mhz (0-32 devices) 16GB, 1333Mhz (32 -128 devices)
<b>Minimum Hard Drive</b>	150GB
<b>Operating System</b>	Windows Server Standard 2008 (64 bit)
<b>Maximum Cameras per Server</b>	128
<b>Recommended RAID Configuration</b>	RAID 5
<b>Network Interface</b>	Dual 10/100/1000 (0 - 64 devices) Quad 10/100/1000 (65 -128 devices)

### Recording Redundancy

<b>Recording Server Redundancy</b>	Yes
<b>Shadow Archive with Synchronization</b>	Yes

### IP Camera Support

<b>ONVIF Compliant Device Support</b>	Yes
<b>PSIA Compliant Device Support</b>	Future Release

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