March Networks Command
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 Command Professional
L = Lite – features available in March Networks Command Lite

Sophisticated, World-Class Interface: E, P, L

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

Central Health Monitoring: E

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

Encoder Pass-Through (E-Pass): E, P, L

This encoder pass-through feature provides customers with an additional layer of redundancy and significant WAN bandwidth savings by enabling any March Networks recorder or Command Recording Server (CRS) to stream to other CRS's in the surveillance network.

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, L

March Networks' 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.

Unparalleled Redundancy and Monitoring: E, P

March Networks Command offers a wide range of redundancy features to ensure maximum availability of recorded video. Recording server redundancy is coupled with Enterprise server VMware high availability and a full set of system overview tools that monitor configuration, recording and streaming status, in addition to relevant data rates right down to the single camera level.

Central User Management: E

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

Openness and Scalability: E, P, L

Command supports 12 different recording platforms, more than 600 IP edge devices through proprietary protocol, and thousands of IP edge devices through ONVIF Profile S integration. It also supports from 4 to 128 channels of video per recording platform, making it ideal for use in small branch sites up to large corporate buildings and campuses.

Solution Flexibility: E, P, L

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 recorder, IP cameras and encoders recording to NAS, a Command recording server running in a virtualized environment, video wall software, or easy-to-use 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 the Command 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 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 user workstation running a Windows environment. Command Client can see video from March Networks' recorders, 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 recorders. 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 Redundant Recording Server** is the redundant/failover archiving component of the CRS architecture

Command Config is a server administration client for configuration and management.

Command Config 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' Command™ Center is Command's alternate software option for video wall display and alarm management.

Although not a required component of Command Enterprise, Command Center provides powerful real-time incident assessment and resolution. The software integrates with March Networks recorders and Command Enterprise VMS to equip users with an operations center environment. Get a fully functioning video wall solution without the need for controller wall hardware.

**March Networks Command Mobile** is a smartphone app that allows you to view live and recorded video on your mobile device; it works seamlessly with the cameras on your Command Enterprise Server, Command Recording Server, or March Networks recorder. The March Networks Command Mobile smartphone app runs on iPhones, iPads, and Android devices, and can be downloaded for free from the App Store or Google Play.

March Networks Command Enterprise Solution Diagram
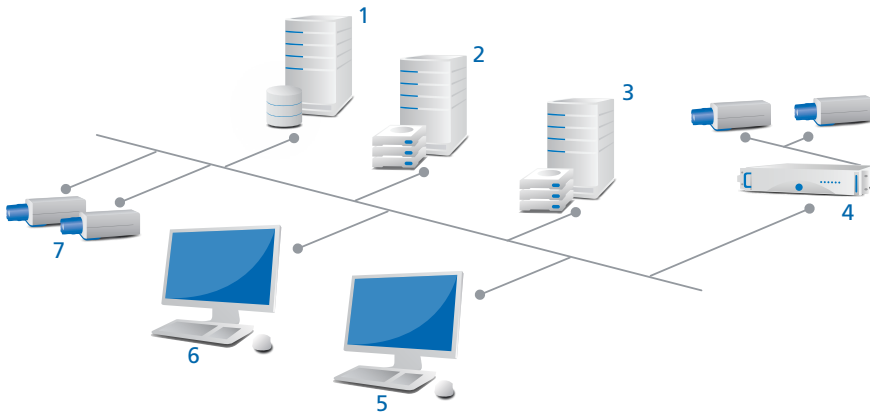
Command Enterprise Component Legend:

1. Enterprise Server Software (Including SQL Server)
2. Command Recording Server
3. Command Redundant Recording Server
4. March Networks recorder with Analog Cameras
5. Command Client and Command Config
6. Optional Command Center software
7. IP Edge Devices (Encoders and IP Cameras)

March Networks Command Enterprise Application Communications
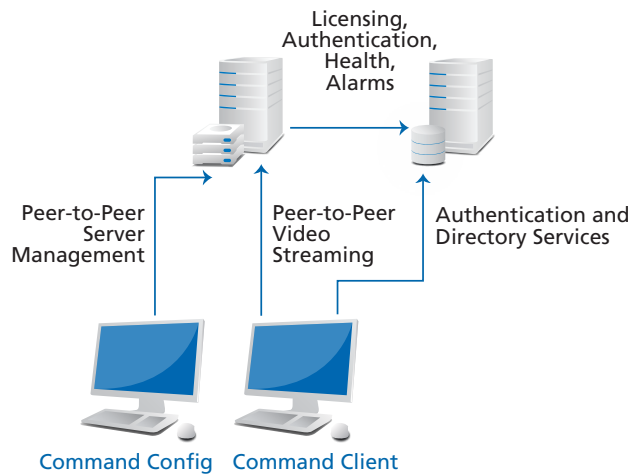
Benefits of Command Enterprise's Communication Architecture:

- Video streaming connections are made peer-to-peer, reducing unnecessary communication to the Enterprise Server
- Recording Servers DO NOT make constant connections to the Enterprise Server
- Licensing is managed through the Enterprise Server
- Mass Management is made through the Enterprise Server
- Recording Server Management using Command Config is made peer-to-peer

March Networks Command Professional Solution Overview

March Networks Command Professional is a single server solution, designed for small to medium-sized architectures 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. 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 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 user workstation running a Windows environment.
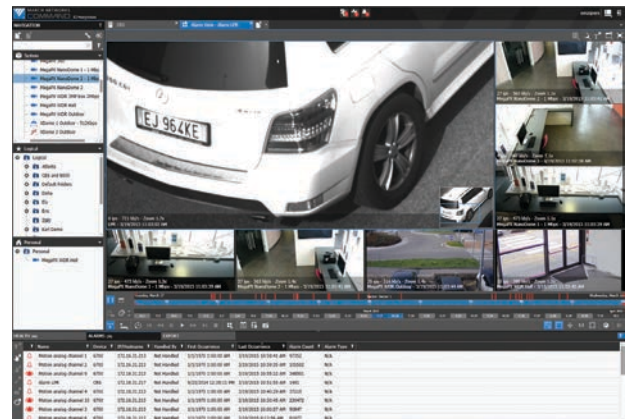
Command Config is a server administration client for configuration and management.

> 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' Command Center is Command's alternate software option for video wall display and alarm management.

> Although not a required component of Command Enterprise, Command Center provides powerful real-time incident assessment and resolution. The software integrates with March Networks recorders and Command Enterprise VMS to equip users with an operations center environment. Get a fully functioning video wall solution without the need for controller wall hardware.

March Networks Command Mobile is a smartphone app that allows you to view live and recorded video on your mobile device; it works seamlessly with the cameras on your Command Enterprise Server, Command Recording Server, or March Networks recorder. The March Networks Command Mobile smartphone app runs on iPhones, iPads, and Android devices, and can be downloaded for free from the App Store or Google Play.

March Networks Command Professional Solution Diagram
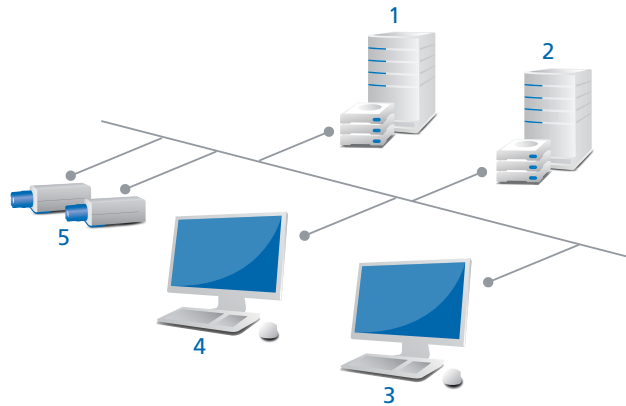
Command Professional Component Legend:

1. Command Recording Server (up to 128 cameras)
2. Redundant Command Recording Server (redundant recording for up to 128 cameras)
3. Command Client and Command Config
4. Optional Command Center Software
5. IP Edge Devices (Encoders and IP Cameras)

How Does Command Professional Communication Work?
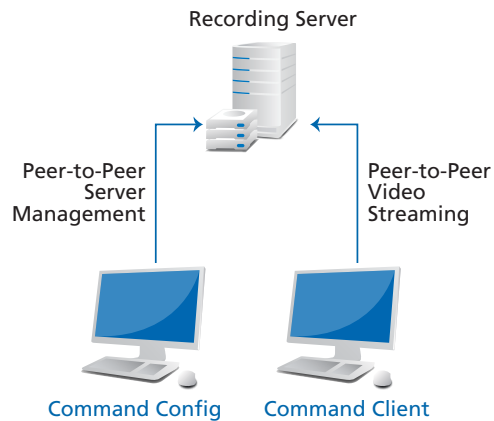
Benefits of Command Professional's Communication Architecture:

• All communications are made directly to the Recording Server
• Video streaming connections are made peer-to-peer
• Recording server management using Command Config is made peer-to-peer

March Networks Command Lite Solution Overview

March Networks Command Lite is a free-of-charge, single server solution designed for small businesses and offices with up to 6 cameras. Command Lite offers edge device support for various vendors as well as seamless support for March Networks edge devices. Command Lite consists of the following main software components:

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

> The recording server software is designed to run as standalone software. It can be installed directly on any COTS servers or high performance personal computer. Another option for the recording server software is to run it on a VMware virtual machine (VM). Up to 6 cameras and seven days of video retention are supported on a single Command Recording Server when operating as part of Command Lite.

Command Client is the primary 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 user workstation running a Windows environment.
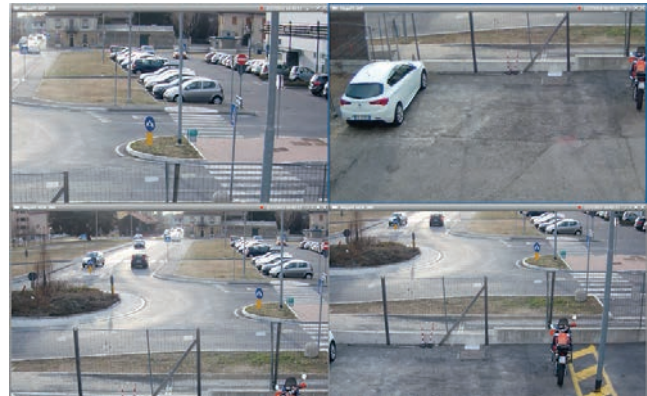
Command Config is a server administration client for configuration and management.

> Command Config allows users to manage servers, add cameras, create storage, and perform other important tasks related to a specific recording server.

How Does Command Lite Communication Work?

Command
Recording Server

Peer-to-Peer
Server
Management

Peer-to-Peer
Video
Streaming

Command Config

Command Client
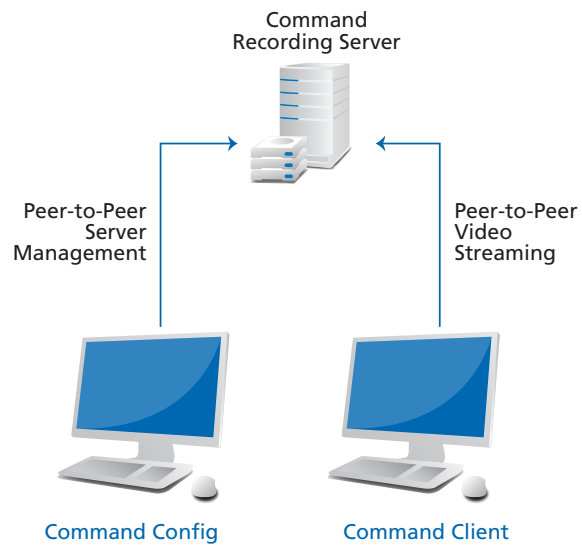
Benefits of the Command Lite Communication Architecture:

- All communications are made directly to the Recording Server
- Video streaming connections are made peer-to-peer
- Licensing is not required
- Recording server management using Command Config is made peer-to-peer
- Command Lite can be easily upgraded to full featured Professional or Enterprise CRS versions

System Strengths and Capabilities

Intuitive 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
- Different tasks can be performed on separate monitors

Central Health Monitoring

- Monitors for problems on recording platforms
- Device overview
- System diagnostics
- Device connection/communication monitoring

System Security

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

System Deployment

- Device configuration import/export
- NVR firmware management
- Edge device firmware management
- Device mis-match monitoring
- Recorder device discovery

Redundancy

- VMware high availability for Command Enterprise Server
- 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
- Smart search capabilities
- Graphical timeline during playback
- Video archive thumbnails
- Digital zoom with intuitive zoom assistant
- Motion histograms
- Graphical interactive mapping
- Save and print video snapshots
- 10 second instant replay
- Multi-sector playback
- Calendar timeline search
- Timeline scale, minutes to months
- 16:9 – 4:3 aspect ratio support
- Alarm monitoring and searching
- MP4, CME, and PDF export options

Command Player

- Proprietary export format (.cme)
- Case management support
- Virtual PTZ capabilities
- Portable and installable versions

PTZ Camera Support

- Network PTZ control
- Presets and tours configuration
- Go to preset
- Joystick and keyboard support

Integrations

- Access control systems
- Third-party IP edge devices
- ONVIF-S compliant edge devices
- 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
- Support for multi-encoding

Command Center video wall and alarm management

- Multiple monitors supported
- Send resources to monitor/video wall
- Send customized video views
- Send maps to monitor
- Graphical mapping
- Event monitoring and management

Licensing

- Central license management
- License fee per video channel
- Server disconnect license policy

Supported Languages

- English
- Spanish
- Chinese
- French
- Italian
- Finnish
- Portuguese

Comparing Command Product Options

System	Command Lite	Command Professional	Command Enterprise
Maximum Number of Concurrent Connections	32	64	Unlimited
Maximum Number of Recording Servers	1	1	10,000
Maximum Number of Cameras	6	128 (32-channel max. on 32-bit OS)	128,000
SQL Database Support			•
Server Virtualization	•	•	•
Device Discovery	•	•	•

System Management	Command Lite	Command Professional	Command Enterprise
Microsoft Active Directory/LDAP	•	•	•
Central User Management			•
Central Health Monitoring			•
Central License Management			•
Mass Management – Device Configurations			•
Mass Management – Firmware Upgrade			•
Device Overview			•
System Diagnostics	•	•	•
E-Pass (Encoder Pass-Through)	•	•	•
Configuration and Management	•	•	•
Logical Navigation Tree			•
Personal Navigation Tree	•	•	•

Integrations	Command Lite	Command Professional	Command Enterprise
Server API/SDK	•	•	•
ONVIF-S Support	•	•	•
Third Party Cameras Support	•	•	•
Access Control Integration	•	•	•
Text Insertion Support		•	•

Alarm Management	Command Lite	Command Professional	Command Enterprise
Alarm Inbox		•	•
Alarms/Outputs Management		•	•
Alarm Acknowledgement Procedure		•	•
Automated Email Notification on Alarm		•	•
March Networks Video Analytics		•	•
Customizable Alarms		•	•

Comparing Command Product Options

Live Monitoring	Command Lite	Command Professional	Command Enterprise
PTZ Control	•	•	•
Tours and Presets	•	•	•
Support for CCTV Keyboards		•	•
Text Overlay		•	•
Privacy Masking	•	•	•
Megapixel/HD Video Support	•	•	•
Virtual Matrix		•	•
Video Grids (Views)	•	•	•
Carousel/Sequence		•	•
Interactive Mapping	•	•	•
Multiple Monitors Support		•	•
Video Wall Management		•	•

Investigation	Command Lite	Command Professional	Command Enterprise
Alarm Search & Playback		•	•
Smart search	•	•	•
Graphical Timeline	•	•	•
Timeline Visual Finder	•	•	•
Archive Thumbnails	•	•	•
Frame-by-Frame	•	•	•
Instant Replay	•	•	•
Side-by-Side Live and Archive Viewing	•	•	•
Calendar Archive Search	•	•	•
Motion Histograms	•	•	•
Snapshot of Live/Archived Video	•	•	•
Video Export (MP4, proprietary CME)	•	•	•
Command Player	•	•	•
Synchronized Playback	•	•	•
Snapshot/Exported Video Authentication	•	•	•

User Management	Command Lite	Command Professional	Command Enterprise
Default User Profiles			•
Restrict Access by Customizable Folders			•
Restrict Access by Camera	•	•	•
Restrict Access by Schedule		•	•
Smartcard/USB Token Support		•	•
Connection Management	•	•	•
IP Address Filtering	•	•	•

Comparing Command Product Options

Storage & Recording	Command Lite	Command Professional	Command Enterprise
Video Retention Time	Max 7 days	Unlimited	Unlimited
Video Retention Policies	•	•	•
Multi Sector Archiving	•	•	•
Edge Recording (Shadow Archiving™)	•	•	•
Network Storage Support	•	•	•
Edge Recording Synchronization	•	•	•
Synchronized Audio Recording	•	•	•
Recording on Analytics Alarm	•	•	•
Recording on Physical Alarm	•	•	•
Motion Recording	•	•	•
Pre and Post Alarm Recording	•	•	•
Recording on Schedule	•	•	•
Redundant/Failover Recording		•	•

General Technical Specifications

Command Client Interface

Operating Systems Supported	Windows 7, Windows 8, Windows 8.1, Windows 10
Multi-Camera Viewing	Up to 36 cameras per browser connection
Active Directory Support	Yes
Security	Multi-level password protection via Microsoft® Active Directory authentication

SiteManager

Operating Systems Supported	Windows 7, Windows 8, Windows 8.1
Multi-Camera Viewing	Up to 64 cameras per monitor, multiple monitors supported
Multi-Monitor Support	Automatic
Security	Multi-level password protection via Microsoft® Active Directory authentication

Enterprise Server Specifications

Operating Systems Supported	Windows Server 2008 R2 SP1, Windows Server 2012, Windows Server 2012 R2
Native Enterprise Database	MS SQL Server Express
Certified SQL Databases	MS SQL 2008, MS SQL 2012, MS SQL 2014
User Management Server	Microsoft® Active Directory

Video

Video Compression	H.264, MPEG-4, M-JPEG
Frame Rate	Up to 30 fps
Maximum Resolution	Device dependant

Recording Redundancy

Recording Server Redundancy	Yes
Shadow Archive with Synchronization	Yes

IP Camera Support

ONVIF-S Compliant Device Support	Yes
Third-Party Device Support	List available on marchnetworks.com

Recommended System Requirements

Enterprise Server Requirements

IMPORTANT: For installations consisting of more than 2500 CRS or recorders, please contact March Networks Sales Engineering or Technical Support for specific system requirements.

	Small < 10 CRS or recorders	Mid 10-100 CRS or recorders	Large up to 2,500 CRS or recorders
Operating System	Windows Server 2008 R2 SP1, Windows Server 2012, Windows Server 2012 R2	Windows Server 2008 R2 SP1, Windows Server 2012, Windows Server 2012 R2	Windows Server 2008 R2 SP1, Windows Server 2012, Windows Server 2012 R2
Processor	Quad Core Intel Xeon	Quad Core Intel Xeon	Eight Core Intel Xeon
HDD Space	50 GB	50 GB	80 GB
Network Interface	Gigabit Ethernet	2 x Gigabit Ethernet	2 x Gigabit Ethernet
Memory	6 GB	6 GB 1333 MHz	12 GB 1333 MHz

Recording Server Requirements

	Small < 32 cameras	Mid 32 - 64 cameras	Large up to 128 cameras
Operating System	Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, Windows 7, Windows 8, Windows 8.1, Windows 10	Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, Windows 7 (64 bit), Windows 8 (64 bit), Windows 8.1 (64 bit), Windows 10 (64 bit)	Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, Windows 7 (64 bit), Windows 8 (64 bit), Windows 8.1 (64 bit), Windows 10 (64 bit)
Processor	Dual Core Intel i5	Quad Core Intel i7	Quad Core Intel Xeon
HDD Space	25 GB (minimum)	25 GB (minimum)	25 GB (minimum)
Network Interface	Gigabit Ethernet	2 x Gigabit Ethernet	2 to 4 x Gigabit Ethernet
Memory	4 GB	6 GB	8 GB 1333 MHz

Command Client Requirements

	Command Client Command Client 2.1 Minimum Specs	Command Client 2.1 Optimal Performance
Task	Minimum video access, one or two simultaneous stream playback and export.	Dedicated Command Client workstation with up to four monitors for many simultaneous live streams, playback and export. Max number of simultaneous streams depends on total FPS and bit rate of all viewed cameras.
Operating system (OS)	Windows 7, Windows 8, Windows 8.1, and Windows 10 with Microsoft .NET Framework 4.5.2 installed	Windows 10 64-bit with Microsoft .NET Framework 4.5.2 installed.
Processor (CPU)	Intel i3 or equivalent (minimum)	Intel i7 with 8 Cores
HDD space for Clients	200 MB	200 MB
Network interface	Ethernet	Gigabit Ethernet
Memory	2 GB (minimum)	8 GB
Video card	Intel HD 4000 video card (minimum) or an equivalent video card compatible with Microsoft DirectX 11 and Direct3D	1GB Dedicated video card for every monitor. Microsoft DirectX 11 and Direct3D

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