



# Intransa VideoAppliance™ VA10 - VA20 - VA25as - VA30 - VA35as Server Appliance

A&E Specification

V3.1

A & E Specification



# VIDEO APPLIANCE PLATFORM WITH EXTERNAL STORAGE CAPACITY FOR VIDEO SURVEILLANCE NEEDS

## 1 GENERAL

- 1.1 The video appliance platform shall be a video-optimized server appliance, designed to interface with video-optimized, shared external storage, to eliminate the need for commodity IT servers and storage.
- 1.2 The video appliance shall be proven in use in supporting new all-IP surveillance needs for future-proof security installations.
- 1.3 All equipment and materials used in the video appliance platform shall be standard components that are regularly manufactured and used in the manufacturer's system.
- 1.4 All major components shall be enterprise- or server-grade devices, and not commodity- or PC-grade, ensuring improved performance and reliability.
- 1.5 The system shall have been thoroughly tested and proven in actual use with video surveillance, access control and video analytics systems for physical security, with customer examples.

## 2 VIDEO APPLIANCE PLATFORM - TECHNOLOGY

- 2.1 The video appliance platform shall feature video surveillance-optimization technology designed specifically for physical security and video surveillance needs. The video appliance platform shall:
  - 2.1.1 Set up in minutes, by connecting to cameras or other IP infrastructure, and provide tight integration to the server component for video management software (VMS), access control and/or video analytics applications.
    - 2.1.1.1 The video appliance shall eliminate the need for commodity servers.
    - 2.1.1.2 Provide choice of leading VMS, access control and/or video analytics application, preloaded on a USB media kit included with the video appliance.
    - 2.1.1.3 The application software can be configured immediately, without loading CDs, DVDs or accessing the Intranet, by entering basic system information and the software activation key provided by the application software vendor.
  - 2.1.2 Eliminate the need for commodity storage, by providing the external video optimized storage component tightly integrated with the video appliance platform.
    - 2.1.2.1 The video appliance and attached storage shall leverage video surveillance optimization technology that supports write-intensive, non-sequential, large block recording to the disk drives without fragmenting the recorded video.
    - 2.1.2.2 The video optimization will eliminate the risk of storage performance degradation and eventual failure with continued use that can impact commodity storage.
  - 2.1.3 Eliminate the need for commodity servers, by providing the server component as part of the video appliance device.
    - 2.1.3.1 The video appliance shall leverage physical security oriented technology that eliminates commodity servers on a one server per appliance basis for standard video recording.

- 2.1.4 Provide a simple, automated setup process from power up through to activation of the preloaded application software USB media kit without requiring access to the Intranet, CDs or DVDs.

### 3 VIDEO APPLIANCE PLATFORM

3.1 The video appliance platform server component shall feature at a minimum:

- 3.1.1 Base Performance 1U configurations with Standard Availability with:
  - 3.1.1.1 One Intel® Core™2 Duo® 3.0GHz CPU.
  - 3.1.1.2 2 or 4GB DDR2 ECC SDRAM memory.
  - 3.1.1.3 1444/1066MHz system bus.
  - 3.1.1.4 1 internal 250GB SATA-II hard drive for OS & application software offloading.
  - 3.1.1.5 ATI ES1000 (32MB graphics with 1440x900 maximum resolution) with 1 VGA port.
  - 3.1.1.6 1 1GbE ports, with optional upgrade to 3 1GbE ports.
  - 3.1.1.7 Internal CD/DVD read drive for data loading, with optional external CD/DVD read/write drive.
  - 3.1.1.8 300W AC power supply, 100-240V, 50-60Hz, 5 Amp.
  - 3.1.1.9 Preloaded video-optimized, virtualized storage OS.
  - 3.1.1.10 Preloaded Windows OS (customer choice of Microsoft Windows 7®, Windows Server 2003 or Windows Server 2008)..
  - 3.1.1.11 Preloaded Application Software USB media kit.
  - 3.1.1.12 Protective, locking front bezel.
- 3.1.2 Mid Range Performance 1U configurations with Fault Resilient Availability with:
  - 3.1.2.1 One Intel® Quad-Core Xeon® 2.33GHz CPU and optional upgrade to one Intel® Quad-Core Xeon® 3.0GHz CPU.
  - 3.1.2.2 4 to 12GB DDR2 ECC SDRAM memory.
  - 3.1.2.3 1444/1066MHz system bus.
  - 3.1.2.4 2 internal mirrored 250GB SATA-II hard drives for OS & application software offloading.
  - 3.1.2.5 ATI ES1000 (32MB graphics with 1440x900 maximum resolution) with 1 VGA port (optional graphics upgrade available with 2560x1600 maximum resolution with 4 DVI/HDMI ports).
  - 3.1.2.6 2 1GbE ports, with optional upgrade to 4 1GbE ports.
  - 3.1.2.7 Internal CD/DVD read drive for data loading, with optional external CD/DVD read/write drive.
  - 3.1.2.8 650W AC dual redundant power supplies, 100-240V, 60-50Hz, 8-4 Amp.
  - 3.1.2.9 Preloaded Windows OS (customer choice of Microsoft Windows 7®, Windows Server 2003 or Windows Server 2008).
  - 3.1.2.10 Preloaded Application Software USB media kit.
  - 3.1.2.11 Protective, locking front bezel.
- 3.1.3 Mid Range Performance PLUS 1U configurations with Fault Resilient Availability with:
  - 3.1.3.1 One Intel® Quad-Core Xeon® 5600 Series 2.4GHz CPU and optional upgrade to one Intel® Quad-Core Xeon® 5600 Series 2.66GHz CPU.
  - 3.1.3.2 6 to 12GB DDR2 ECC SDRAM memory.
  - 3.1.3.3 QPI 6.4GT/s system bus.
  - 3.1.3.4 2 internal mirrored 250GB SATA-II hard drives for OS & application software offloading.

- 3.1.3.5 Matrox G200eW (8MB) graphics, 1024x780 maximum resolution with 1 x VGA port. Optional graphics upgrade available with 2560x1600 maximum resolution with 1 DVI/HDMI port.
  - 3.1.3.6 2 1GbE ports, with optional upgrade to 4 1GbE ports or 2 1GbE ports and 2 10GbE ports.
  - 3.1.3.7 Internal CD/DVD read drive for data loading, with optional external CD/DVD read/write drive.
  - 3.1.3.8 650W AC dual redundant power supplies, 100-240V, 60-50Hz, 8-4 Amp.
  - 3.1.3.9 Preloaded Windows OS (customer choice of Microsoft Windows 7®, Windows Server 2003 or Windows Server 2008).
  - 3.1.3.10 Preloaded Application Software USB media kit.
  - 3.1.3.11 Protective, locking front bezel.
- 3.1.4 High Performance 1U configurations with Fault Resilient Availability with:
- 3.1.4.1 Two Intel® Quad-Core Xeon® 2.33GHz CPUs and optional upgrade to two Intel® Quad-Core Xeon® 3.0GHz CPUs.
  - 3.1.4.2 4 to 12GB DDR2 ECC SDRAM memory.
  - 3.1.4.3 1444/1066 MHz system bus.
  - 3.1.4.4 2 internal mirrored 250GB SATA-II hard drives for OS & application software offloading.
  - 3.1.4.5 ATI ES1000 (32MB graphics with 1440x900 maximum resolution) with 1VGA port (optional graphics upgrade available with 2560x1600 maximum resolution with 4 DVI/HDMI ports).
  - 3.1.4.6 2 1GbE ports, with optional upgrade to 4 1GbE ports.
  - 3.1.4.7 Internal CD/DVD read drive for data loading, with optional external CD/DVD read/write drive.
  - 3.1.4.8 650W AC dual redundant power supplies, 100-240V, 50-60Hz, 8-4 Amp.
  - 3.1.4.9 Preloaded Windows OS (customer choice of Microsoft Windows 7®, Windows Server 2003 or Windows Server 2008).
  - 3.1.4.10 Preloaded Application Software USB media kit.
  - 3.1.4.11 Protective, locking front bezel.
- 3.1.5 High Performance PLUS 1U configurations with Fault Resilient Availability with:
- 3.1.5.1 Two Intel® Quad-Core Xeon® 5600 Series 2.4GHz CPUs and optional upgrade to two Intel® Quad-Core Xeon® 5600 Series 2.66GHz CPUs.
  - 3.1.5.2 6 to 12GB DDR2 ECC SDRAM memory.
  - 3.1.5.3 QPI 6.4GT/s system bus.
  - 3.1.5.4 2 internal mirrored 250GB SATA-II hard drives for OS & application software offloading.
  - 3.1.5.5 Matrox G200eW (8MB) graphics, 1024x780 maximum resolution with 1 x VGA port. Optional graphics upgrade available with 2560x1600 maximum resolution with 1 DVI/HDMI port.
  - 3.1.5.6 2 1GbE ports, with optional upgrade to 4 1GbE ports or 2 1GbE ports and 2 10GbE ports.
  - 3.1.5.7 Internal CD/DVD read drive for data loading, with optional external CD/DVD read/write drive.
  - 3.1.5.8 650W AC dual redundant power supplies, 100-240V, 50-60Hz, 8-4 Amp.
  - 3.1.5.9 Preloaded Windows OS (customer choice of Microsoft Windows 7®, Windows Server 2003 or Windows Server 2008).
  - 3.1.5.10 Preloaded Application Software USB media kit.
  - 3.1.5.11 Protective, locking front bezel.

## 4 VIDEO SURVEILLANCE PLATFORM PERFORMANCE

- 4.1 Base Performance configurations with Standard Availability shall deliver, while running the selected VMS application and connected to the external storage component, at a minimum with standard CPU & memory:
- 4.1.1 MJPEG @ 4CIF @ 30fps 30Kbytes Frame Size 1-16 typical IP cameras;
  - 4.1.2 MPEG4 @ 4CIF @ 2,000Kbits/s Bit Rate 1-24 typical IP cameras;
  - 4.1.3 H.264 @ 4CIF @ 1,600Kbits/s Bit Rate 1-32 typical IP cameras;
- 4.2 Mid Range Performance configurations with Fault Resilient Availability shall deliver, while running the selected VMS application and connected to the external storage component, at a minimum with standard CPU & memory:
- 4.2.1 MJPEG @ 4CIF @ 30fps 30Kbytes Frame Size 1-32 typical IP cameras;
  - 4.2.2 MPEG4 @ 4CIF @ 2,000Kbits/s Bit Rate 1-64 typical IP cameras;
  - 4.2.3 H.264 @ 4CIF @ 1,600Kbits/s Bit Rate 1-72 typical IP cameras;
- 4.3 With optional 3GHz CPU upgrade:
- 4.3.1 MJPEG @ 4CIF @ 30fps 30Kbytes Frame Size 1-40 typical IP cameras;
  - 4.3.2 MPEG4 @ 4CIF @ 2,000Kbits/s Bit Rate 1-72 typical IP cameras;
  - 4.3.3 H.264 @ 4CIF @ 1,600Kbits/s Bit Rate 1-84 typical IP cameras;
- 4.4 Mid Range Performance PLUS configurations with Fault Resilient Availability shall deliver, while running the selected VMS application and connected to the external storage component, at a minimum with standard CPU & memory:
- 4.4.1 MJPEG @ 4CIF @ 30fps 30Kbytes Frame Size 1-38 typical IP cameras;
  - 4.4.2 MPEG4 @ 4CIF @ 2,000Kbits/s Bit Rate 1-78 typical IP cameras;
  - 4.4.3 H.264 @ 4CIF @ 1,600Kbits/s Bit Rate 1-86 typical IP cameras;
- 4.5 With optional 3GHz CPU upgrade:
- 4.5.1 MJPEG @ 4CIF @ 30fps 30Kbytes Frame Size 1-48 typical IP cameras;
  - 4.5.2 MPEG4 @ 4CIF @ 2,000Kbits/s Bit Rate 1-86 typical IP cameras;
  - 4.5.3 H.264 @ 4CIF @ 1,600Kbits/s Bit Rate 1-101 typical IP cameras;
- 4.6 High Performance configurations with Fault Resilient Availability shall deliver, while running the selected VMS application and connected to the external storage component, at a minimum:
- 4.6.1 MJPEG @ 4CIF @ 30fps 30Kbytes Frame Size 1-48 typical IP cameras;
  - 4.6.2 MPEG4 @ 4CIF @ 2,000Kbits/s Bit Rate 1-80 typical IP cameras;
  - 4.6.3 H.264 @ 4CIF @ 1,600Kbits/s Bit Rate 1-96 typical IP cameras;
- 4.7 With optional 3GHz CPU upgrade:
- 4.7.1 MJPEG @ 4CIF @ 30fps 30Kbytes Frame Size 1-64 typical IP cameras;
  - 4.7.2 MPEG4 @ 4CIF @ 2,000Kbits/s Bit Rate 1-96 typical IP cameras;
  - 4.7.3 H.264 @ 4CIF @ 1,600Kbits/s Bit Rate 1-128 typical IP cameras;
- 4.8 High Performance PLUS configurations with Fault Resilient Availability shall deliver, while running the selected VMS application and connected to the external storage component, at a minimum:
- 4.8.1 MJPEG @ 4CIF @ 30fps 30Kbytes Frame Size 1-58 typical IP cameras;
  - 4.8.2 MPEG4 @ 4CIF @ 2,000Kbits/s Bit Rate 1-96 typical IP cameras;
  - 4.8.3 H.264 @ 4CIF @ 1,600Kbits/s Bit Rate 1-118 typical IP cameras;
- 4.9 With optional 3GHz CPU upgrade:
- 4.9.1 MJPEG @ 4CIF @ 30fps 30Kbytes Frame Size 1-78 typical IP cameras;
  - 4.9.2 MPEG4 @ 4CIF @ 2,000Kbits/s Bit Rate 1-115 typical IP cameras;

4.9.3 H.264 @ 4CIF @ 1,600Kbits/s Bit Rate 1-154 typical IP cameras;

*Actual video throughput may vary slightly based upon video surveillance platform OS and VMS choices and cameras selected. Assumes no watermarking, live local viewing, encryption or motion activation.*

4.10 VMS applications that support and run local display on the appliance may deliver lower overall system throughput when active, due to CPU loading. This can be partially offset in Fault Resilient configurations with the optional graphics upgrade.

## 5 OPERATING SYSTEM AND PHYSICAL SECURITY APPLICATION CHOICES

5.1 The video appliance platform shall feature a choice of standard video management system (VMS), access control and video analytics applications on a preloaded USB media kit, and the server operating system, preloaded on the server appliance.

5.2 Standard Microsoft Windows environments will be supported by the video appliance platform server component.

5.2.1 Microsoft Windows 7® OS standard, Microsoft Windows Server 2003 Standard Edition and Microsoft Windows Server 2008 Standard Edition are required available choices, preloaded and ready to run.



5.3 Physical security software from industry leading vendors shall be available choices, preloaded & certified with the platform. The security operator may select one of:



Partner	Part No.	Preloaded Application Software*		
		VMS	Access Control	Video Analytics
Axis	Axis-Preload	Camera Station		
Bosch	Bosch-Preload	VMS		
Canon	Canon-Preload	VK		
exacq Technologies	Exacq-Preload	exacqVision		
Genetec	Genetec-Preload	Omnicast	Synergis	AutoVu
Infinias	Infinias-Preload		Intelli-M	
IPVision	IPVision-Preload	Virtual Video Recorder		
Isonas	Isonas-Preload		Access Control	
JDS	JDS-Preload	Softsite32		
Lenel	Lenel-Preload	Skypoint	OnGuard	
March Networks	March-Preload	VideoSphere		
Milestone	Milestone-Preload	XProtect		
OnSSI	OnSSI-Preload	NetDVMS & Ocularis		
OpenOptions	OpenOptions-Preload		DNA Fusion	
Paxton	Paxton-Preload		Net2	
Pelco	Pelco-Preload	Digital Sentry & DS4U		
Salient	Salient-Preload	CompleteView		
Sony	Sony-Preload	RealShot Manager		
VideoInsight	VideoInsight-Preload	VMS		

\*License key required for activation

## 6 CONNECTIVITY

The video appliance platform shall provide support of 1GbE (1 Gigabit Ethernet IP Network) or optional 10GbE (10 Gigabit Ethernet IP Network) infrastructures.

## 7 SYSTEM ARCHITECTURE

7.1 The video appliance platform shall support physical footprints in standard 19" rack mounting.

7.2 Video appliance systems shall be no more than 1U in form factor.

7.3 Each base system shall be capable of supporting multiple 1GbE or 10GbE connections.

## 8 ENVIRONMENTAL REQUIREMENTS & CERTIFICATIONS

8.1 The video appliance platform shall operate within standard environmental conditions common for physical security systems, including security operations centers, command centers, wiring closets, and similar environments.

8.2 Operating temperature range shall be 10 to 35°C (50 to 104°F).

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8.3 Operating humidity range shall be 8% to 90% non-condensing.

8.4 Standard equipment certifications shall be applicable to the video appliance platform, including RoHS compliant 5/6, UL (USA), CUL (Canada), TUV (Germany) EN 6095/IEC 60950 Compliant, CB Report, CCC Certification.

## 9 WARRANTY AND SUPPORT

9.1 All video appliance platforms and components shall be supported through a comprehensive three year manufacturer's hardware warranty for the appliance. Application software systems are covered separately by their manufacturer's warranty.

9.2 Coverage shall include telephone, web and email access to technical support, with web reporting and online incident tracking.

9.3 Coverage shall include next business day spares replacement.

9.4 Available upgrades shall included extended coverage, same day advanced spare replacement, and onsite assistance options.



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