OE-MT GEN 2 A&E SPECIFICATIONS
OPENEYE NVR CLOUD-MANAGED SERVER
[www.openeye.net](http://www.openeye.net)

**DIVISION 28 -** ELECTRONIC SAFETY AND SECURITY

**Section 28 00 00** Electronic Safety and Security

**Section 28 20 00** Video Surveillance

**Section 28 05 19** Storage Appliances for Electronic Safety and Security

**Section 28 23 00** Video Management System

**PART 1 GENERAL**

* 1. SUMMARY
1. This section includes the minimum requirements for NVR Server as a Service platform comprised of, but not limited to, the following components:
	1. Network Video Recorder Hardware
	2. Network Video Management Software
	3. Online Web Services
2. References

28 05 00 Common Work Results for Electronic Safety and Security

28 05 25 Cloud Based Storage for Electronic Safety and Security

28 05 19.11 Digital Video Recorders

28 05 19.13 Hybrid Digital Video Recorders

28 05 19.15 Network Video Recorders

28 23 13 Video Management System Interfaces

* 1. SUBMITTALS
1. Manufacturer’s data sheets in digital or printed form.
2. Manufacturer’s installation and operations manuals in digital or printed form.
	1. QUALIFICATIONS
3. Manufacturer
	1. Manufacturer shall have been in business for more than 10 years.
4. Installer
	1. All installation, configuration, setup and related work shall be performed by an authorized technician certified by the manufacturer.
	2. All installation shall be performed by a technician licensed to install and service video surveillance and security equipment as mandated by the authority having jurisdiction.
	3. WARRANTY & SUPPORT
5. The Network Video Recorder shall come with a minimum 3-year manufacturer’s warranty with the 1st year including advance replacement service.
6. The Network Video Recorder shall come with a heroic customer service support structure, including a 1-888 number for technical service, pre and post sales assistance, and full access to online technical support as well as online sales support.
7. Technical support shall be available for 24 hours per day 7 days per week to all integrators and dealers free of charge.
8. System updates and patches shall be available free of charge.

- END OF SECTION -

PART 2 PRODUCTS

* 1. DOCUMENT SUMMARY
1. This document specifies the minimum criteria for the design and performance of the OE-MT NVR Server.
	1. STANDARDS
2. The Network Video Recorder meets or exceeds the following requirements of the following publications and organizations.
	1. Joint Photographic Experts Group (JPEG)
	2. Moving Picture Experts Group (MPEG) (H.264/MPEG-4 Part 10 AVC)
	3. National Television System Committee (NTSC)
	4. SYSTEM DESCRIPTION
3. The Network Video Recorder shall offer the latest in digital recording technology, product reliability, security, ease of use, and customer support structure.
4. The Network Video Recorder shall be offered in configurations up to 96 channels with a system wide recording bitrate of up to 300Mbps.
5. The Network Video Recorder shall come equipped with the capability of supporting megapixel HD IP video.
	1. OPERATING SPECIFICATIONS
6. Environmental Conditions: the Network Video Recorder shall be designed to operate under the following environmental specifications:
	1. Operating Temperature: 40°F to 104°F (5°C to 40°C) non-condensing.
7. Power Requirements: Recorder shall have the following electrical specifications:

A. Power Requirement: 100 – 240 VAC

1. Max Power Consumption: 250W
2. Product Label Requirements:
	1. The Network Video Recorder shall have the FCC and UL certifications clearly marked on the product and box label.
		1. Dimensions: W: 17.25 x H: 3.75 x D: 11.80in (438 x 95.25 x 300mm).
		2. Weight: 12.5lbs (5.7kg)
	2. OPERATIONAL REQUIREMENTS
3. NVR Cloud-Managed Server – The network video recorder shall include, as a minimum, the following features/functions/specifications. The network video recorder shall:
	* + 1. Be assembled in the U.S.A.
			2. Include an Intel i3 processor with the ability to upgrade to an Intel i5 processor.
			3. Include 16 Gigabytes with the ability to upgrade to 32 Gigabytes of DDR4 system memory.
			4. Include dual 10/100/1000 Network Interface connections.
			5. Provide one dedicated Intel GbE network port for Client Networks and one dedicated Intel GbE network port for Camera Networks.
			6. Be optimized for and support the Linux Embedded Operating System, and with an optional upgrade, the Windows Operating System.
			7. Provide recording support for high resolution Megapixel HD IP video.
			8. The NVR shall include remote capabilities including free VMS and mobile applications for Apple and Android devices.
			9. Include the ability to unlock additional IP camera licenses offering up to a combined total of 96 IP cameras per NVR with a maximum recording throughput of 300Mbps.
			10. Support static IP and DHCP IP addressing through user configurable TCP/IP settings.
			11. Be capable of recording up to 30 IPS on a single channel in an environment where all channels are being utilized.
			12. Offer four Alarm Sensor Inputs and four Digital Relay outputs .
			13. Come standard with a single Solid State Drive (SSD) exclusively dedicated to the Operating System. No Video will be allocated to the SSDs for the purposes of video storage or archiving.
			14. Offer the following on-board hard drive capacity options with internally installed, large capacity HDD support:
				1. 4.0 Terabytes
				2. 8.0 Terabytes
				3. 12.0 Terabytes
				4. 18.0 Terabytes
				5. 24.0 Terabytes
				6. 32.0 Terabytes
				7. 48.0 Terabytes
				8. 64.0 Terabytes
				9. 96.0 Terabytes
			15. Only use high performance Video Surveillance rated hard drives engineered for reliability and 24x7 “always on” environments.
			16. Be housed in a compact 2.5U form factor chassis.
			17. Provide internal cooling through two PWM enabled, side-mounted 80mm chassis fans.
			18. Provide a full auto-switching power supply rated at 250W.
			19. Support up to 4K maximum display resolution.
			20. Have the ability to easily backup important video to an external cloud-managed location, or a USB device. The recorder must not stop recording during the backup process. To ensure the integrity of data, the cloud-managed appliance shall use a proprietary viewer that can detect image tampering.
			21. Include a minimum of the following front panel controls:
				1. Two 3.0 USB ports
			22. Include a minimum of the following rear-panel connectors:
				1. One Power input
				2. Four USB 3.2 Gen 1 inputs
				3. Two USB 2.0 inputs
				4. One HDMI connector with a maximum 4K display resolution
				5. One DisplayPort connector with a maximum display resolution of 4096x2160
				6. One D-Sub connector with a maximum 1080P display resolution
				7. One VGA connector with a maximum 1080P display resolution
				8. One 10/100/1000 RJ-45 Network Port
				9. One 10/100/2500 RJ-45 Network Port
			23. Include the following components:
				1. USB Mouse
				2. Power Cord
				3. Rack Mount Installation Kit
				4. Sensor / Relay Terminal Block
			24. Include the following upgrades:
				1. OE-ZL2WUPG-MT2
				2. OE-ZPRFUPG-MM2
				3. OE-CONVW2L-FLD
				4. OE-ZPRFUPRAM-16
4. LIST OF SUPPORTED MODELS
	1. The Network Video Recorder shall be one of the following models or an approved equivalent:

|  |  |
| --- | --- |
| OE-MTX04\* | Micro Server w/ Linux OS, and 4TB |
| OE-MTX08\* | Micro Server w/ Linux OS, and 8TB |
| OE-MTX12\* | Micro Server w/ Linux OS, and 12TB |
| OE-MTX18\* | Micro Server w/ Linux OS, and 18TB |
| OE-MTX24\* | Micro Server w/ Linux OS, and 24TB |
| OE-MTX32\* | Micro Server w/ Linux OS, and 32TB |
| OE-MTX48\* | Micro Server w/ Linux OS, and 48TB |
| OE-MTX64\* | Micro Server w/ Linux OS, and 64TB |
| OE-MTX96\* | Micro Server w/ Linux OS, and 96TB |

 \* (Appliance Software and OWS Licensing Sold Separately)

**PART 3 EXECUTION**

* 1. INSTALLATION
1. Installer shall comply with all instructions and best practices specified by the hardware and software manufacturer.
2. Installer shall comply with all applicable state and local regulatory requirements.
	1. STORAGE
3. Equipment shall be stored in environmental conditions within the stated temperature and humidity ranges specified by the hardware manufacturer.
	1. COMISSIONING
4. The manufacturer shall offer the option for factory pre-configuration of all hardware and software purchased from the manufacturer as an additional paid service.
5. The manufacturer shall offer the option for remote or in person system commissioning as an additional paid service.

- END OF SECTION -

END OF DOCUMENT