



## EU 4 Border Security Project

### Updates to the Rapid Needs Assessment Report 11 August 2022

The technical specifications of the equipment for MD CS were adjusted to the current situation on market and follow below:

#	Type
1	<b>HDD storage (storage and server must be from the same manufacturer):</b>
	<ul style="list-style-type: none"><li>- 2 controllers with possibility of hot swapping (active-active);</li><li>- 24GB of memory per array;</li><li>- included storage 2x1.92GB SSD SAS Read Intensive 12Gbps 512 2.5in Hot-plug AG Drive;</li><li>- Support for SAS and NL-SAS, compatibility with different types in one system:<ul style="list-style-type: none"><li>o NL-SAS (7200 rpm, 3.5-inch): up to 18 TB;</li><li>o SAS (10,000 rpm): up to 2.4 TB;</li></ul></li><li>- I/O port with 4x 16Gbps FC ports for each controller;</li><li>- Support for direct connection up to 4 servers in high availability mode in two ways;</li><li>- SFP Module 4pcs. SFP Fiber Channel 16 Gbps;</li><li>- Cable 4pcs. multi-mode fiber cable LC-LC 2 meters;</li><li>- Automated storage up to 3 main levels, support for two-level storage;</li><li>- Support RAID RAID 0, 1, 5, 6, 10, 50 or other advanced data protection, a combination of different RAID levels;</li><li>- Snapshots Maximum number of snapshots per array 256, remote snap functionality;</li><li>- AC Power Supply 580W, Redundant, Flex;</li><li>- Additionally storage will be equipped: 1x storage with 6pcs. 12TB NLSAS 12Gbps 512e 3.5in Hot-plug Hard Drive; 2x storages with 10pcs. 12TB NLSAS 12Gbps 512e 3.5in Hot-plug Hard Drive; 1x storage with 18pcs. 12TB NLSAS 12Gbps 512e 3.5in Hot-plug Hard Drive;</li><li>- 60-month warranty; next business day service (NBD)</li></ul>

2	<b>Server for processing and recording video streams (storage and server must be from the same manufacturer):</b>
	<ul style="list-style-type: none"> <li>- Chassis with 2 and more 2.5 "Hot Plug Hard Drives (2CPU &amp; XGMI);</li> </ul>
	<ul style="list-style-type: none"> <li>- Processor 2 pcs. 3rd Generation Intel 16 cores with a frequency of at least 2.9GHz, 24M Cache or better;</li> </ul>
	<ul style="list-style-type: none"> <li>- Hardware encryption Trusted Platform Module 2.0; Full license for remote Manfgement;</li> </ul>
	<ul style="list-style-type: none"> <li>- RAM 64GB Dual Rank RDIMM, 3200MT/s;</li> </ul>
	<ul style="list-style-type: none"> <li>- Storage 2pcs min 480GB SSD SATA Read Intensive 6Gbps 512e 2.5in Hot Plug S4510 Drive, 1 DWPD, 876TBW;</li> </ul>
	<ul style="list-style-type: none"> <li>- Ports 4x 1GbE BASE-T, 2x 16Gb Fiber Channel HBA, 1x Gbps Dedicated Management;</li> </ul>
	<ul style="list-style-type: none"> <li>- Indoor module SD 32GB microSDHC / SDXC Card (SD card included);</li> </ul>
	<ul style="list-style-type: none"> <li>- PCI Config expansion slots PCIe 3.0;</li> </ul>
	<ul style="list-style-type: none"> <li>- Power supply 2 x 800 W;</li> </ul>
	<ul style="list-style-type: none"> <li>- ANPR software for 60 channels with no time limits, VMS software for 60 channels with no time limits. Graphics option: NVIDIA Quadro RTX 6000 Graphics Accelerator Meets equipment requirements. ANPR and VMS, compatible with the proposed solution.</li> </ul>
	<ul style="list-style-type: none"> <li>- Operating system: Meets software requirements, licensed or certified as required. Virtualization management system compatible with the proposed solution,</li> </ul>
	<ul style="list-style-type: none"> <li>- 60-month warranty, next business day service (NBD)</li> </ul>
3	<b>Camera for number plate recognition with bracket (supplier is responsible for selection of bracket and mounting box)</b>
	<p>Matrix 1 / 2.9 "Progressive Scan CMOS; Sensitivity in color (Lk) 0.01; Varifocal lens 4 - 9 mm; Focusing is manual, with fixing; Day / night ICR filter; IR illumination range, m 30; Main and additional flows 1920x1080 - 25k / s; Hardware image enhancement mode WDR, DNR noise reduction, ROI quality selection; H.265, H.265 + video compression standard; Network interface 1 RJ45 10 / 100Mb; ONVIF network functions (PROFILE S, G); Street type with built-in heating;</p>
	<p>Universal bracket (mounting on a rectangular column, vertical surface); Operating temperature conditions -30 ° C ~ + 60 ° C; PoE + power supply; Protection IP67, IK10; Warranty at least 12 months, (preferably 36 months)</p>
4	<b>Surveillance camera with bracket (supplier is responsible for selection of bracket and mounting box)</b>

Matrix 1 / 2.9 "Progressive Scan CMOS; Sensitivity in color / bw (Lk) 0.01 / 0,001; Lens Varifocal 2.8 - 9 mm; Focusing Automatic, manual, with fixation; Day / night ICR filter; IR illumination range, m 50; Main and additional flows 1920x1080 - 25k / s; Hardware image enhancement mode WDR, DNR noise reduction, ROI quality selection; H.265, H.265 + video compression standard; Network interface 1 RJ45 10 / 100Mb; ONVIF network functions (PROFILE S, G); Street type with built-in heating; Universal bracket (mounting on a rectangular or round pole, vertical surface or ceiling) with mounting box; Operating temperature conditions -30 ° C + 60 ° C; PoE + power supply; Protection IP67, IK10; Warranty at least 12 months, (preferably 36 months)

5 **48-port 10/100/1000 PoE Managed switch 1U**

48 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+);

4 SFP+ 1/10GbE ports;

Switching capacity min 170 Gbps

MAC address table size 16000 entries

PoE power 370 W; Maximum power rating 500W

Layer 2 switch (VLAN support and tagging, etc.) with Layer 3 routing (Static IP routing, RIP)

60-month warranty; next business day service (NBD)

6 **24-port 10/100/1000 PoE Managed switch 1U**

24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+);

4 SFP+ 1/10GbE ports;

Switching capacity min 120 Gbps

MAC address table size 16000 entries

PoE power 370 W; Maximum power rating 500W

Layer 2 switch (VLAN support and tagging, etc.) with Layer 3 routing (Static IP routing, RIP)

60-month warranty; next business day service (NBD)

7 **Network firewall Fortinet FortiGate-60E, or equivalent**

7 GE ports for RJ45 switching; 2 ports GE WAN RJ45 connections; full bandwidth 3 Gbps; full VPN bandwidth 2 Gbps; full SSL VPN bandwidth 150 Mbps;

Functions Switch / Firewall / IPSec and SSL VPN / WAN / Traffic shaping / NAC + BYOD / DLP;

Warranty 36 months

8 **FTP/UTP Patch-cord , 0.5m, Cat5e**

9 **FTP/UTP Patch-cord 1GbE, 1m, Cat6e**

10 **FC Patch-cord, 1.5m, 16Gbs**