

**ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER**

**Contract title: “Supply of Equipment for Development of the Operational Integrated Administration a Control System (IACS) (I phase)” – IPA  
2021**

**LOT 3: Server and storage**

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**Publication reference:** EC-NEAR/BEG/2025/EA-OP/0003

**Columns 1-2 should be completed by the contracting authority**

**Columns 3-4 should be completed by the tenderer**

**Column 5 is reserved for the evaluation committee**

Annex III - the contractor's technical offer

The tenderers are requested to complete the template on the next pages:

- Column 2 is completed by the contracting authority shows the required specifications (not to be modified by the tenderer),
- Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words ‘compliant’ or ‘yes’ are not sufficient)
- Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offered specifications.

Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet.

LOT 3 Server and storage				
1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
3.1	<p><b><u>Server (2 pieces):</u></b></p> <p>Description:</p> <p>CPU: 16C 32T 150W 2.0GHz Processor (3.4Ghz turbo freq),          Extesions support: min 2 CPU, min 64 cores i 385W TDP-a,          min 64x PCIe 4.0 lan per CPU          OM: 512GB RAM (16x32GB) TruDDR5 5600MHz RDIMM.          Instalation support min 32x 5600MHz memory modul and support for          min 8TB OM. Supported RDIMM i 3DS RDIMM modules,          Main bord: with support for a processor with the above technical          characteristics,          RAID controler with support for installation for 2xM2 SSD disks for          OS included RAID level 1,          HD: 2xM2 480GB Read Intensive SATA 6Gp NHS SSD,          Network adapter: 1x 16G FC 2-port adapter 2x 10/25GbE SFP28 2-port          PCIe Ethernet Adapter with SFP modul,          PCI-e ports: Supports upgradeability to a minimum of 13 PCIe ports,          one should be internal OCP port,          Server shoud support installation at least 8 single-wide graphics cards          or 3 double-wide graphics cardsPower supply: 2x 1100 W, redudant, hot          swap, Platinum,          Server must support installation for min 2x 2600w „hot-swap“ Titanium          PS,          Ports: 5x USB 3.2 G1 (5 Gb/s), one should be internal          1x USB 2.0 for access to management interface          Ports: 1x VGA port (1 rear) and the possibility of installation 2. VGA          ports (1 front)          1 GbE 10/100/1000 Mbps RJ-45 connector for system administration 1x          M.2 connector for installation two SSD-a or NVMe in M.2 modul with          support for RAID-1.</p>			

	<p>Ability to install a DB-9 COM serial port.</p> <p>Graphics adapter: Integrated on the motherboard, min. 16 MB of dedicated RAM, supporting a minimum resolution of 1920x1200 at 60 Hz with 32 bits per pixel Housing: Minimum 2U, for installation in a 19" rack cabinet, sliding guides included</p> <p>Fans: The server must support the installation of a minimum of 6 "hot-swap" redundant high-performance fans.</p> <p>Monitoring and management: Adapter for remote server monitoring with the following features: Remote graphics console (KVM) functionality for up to six users Support for virtual media (ISO image mount). Possibility of remote installation of the operating system. The possibility of recording a video of the server starting (boot), recording a screen (screenshot), including the situation of the operating system being stopped. Failure prediction (PFA) on processors, memory, RAID controller, fans, power supply, drives, voltage regulators. The system supports connecting an external diagnostic panel with the ability to view active alerts, system vital product data (VPD), system firmware, ambient temperature, and CPU</p> <p>Supported OS: Microsoft Windows Server 2016/19/22, Red Hat Enterprise Linux 8.x,9.x, Ubuntu.VMware ESXi ( 7.0 U2, 7.0 U3, 8.0)</p> <p>Warranty: 3 years with free parts, dedicated technician and on-site service labor with Next Business Day (NBD, 9x5) response time for hardware.</p>			
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LOT 3 Server and storage				
1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
3.2	<p><b><u>Storage (2 pieces):</u></b>  Housing: 2U24 SFF (up to 24 disks), 2U rack mount for installation in a 19" cabinet; Controllers: Dual active-active controllers with automatic load balancing and failover; Controller memory: 128 GB per system (64 GB per controller), 16 GB battery-backed NVRAM per system (8 GB per controller) mirrored between controllers;  Drives: 12x 3.8TB NVMe SED drives included;  Disk technology: NVMe SSD. Total expandable up to 48 SFF hot-swap NVMe drives with the installation of an expansion module;  Possibility of installing 2x 100Gb NVMe RoCE 2-port HIC for expansion;  Host connection: Built-in 2x 4-port 16/32Gb FC adapters;  Supported protocols: NAS (File access): NFS, CIFS/SMB, SAN (Block access): iSCSI, FC, NVMe/FC;  Included functionalities: RAID-4, RAID-DP, and RAID-TEC data protection, SAN (Block access): iSCSI, FC, NVMe/FC, NAS (File access): NFS, CIFS/SMB, All Flash Array (AFA) capability, Thin provisioning, Compression, Compaction, Deduplication, Snapshots, Encryption, Balanced placement, Dynamic capacity expansion, Adaptive Quality of Service, SnapRestore, FlexClone, FlexVol, FlexCache, SnapMirror asynchronous replication, SyncMirror data protection, Trusted Platform Module (TPM) support , MetroCluster IP, NVMe over FC Protocol, NVMe over TCP Protocol, FlexGroup, ONTAP S3, ONTAP S3 SnapMirror, SnapLock data protection, Multitenant Key Management, Anti-ransomware Protection, SnapMirror Cloud; Warranty: 3 years with free parts, dedicated technician and on-site service labor with Next Business Day (NBD, 9x5) response time for hardware.</p>			

**Verification operations:**

Installation: Directorate for Agrarian Payments will be responsible for installation, configuration and start-up of the equipment.

Commercial warranty: minimum 12 months after issuance of FAC.

Response time: 3 working day (on-site response time within 3 working day from the date of the failure of equipment during minimum 12 months after issuance of FAC).

Repair time: 10 working days (10 working days repair time during minimum 12 months after issuance of FAC).

## Annex 1

### DISTRIBUTION LIST

Item	Quantity (pcs)	Place and address of delivery/acceptance
Item N° 3.1: Server Item N° 3.2: Storage	Item N° 3.1: 2 Item N° 3.2: 2	All equipment within Lot 3 will be delivered in the server room of the IT office (DAP server room).  Address: 4-6, Hajduk Veljkova Street, Šabac.