

Specificații tehnice

[Acest tabel va fi completat de către ofertant în coloanele 2, 3, 4, 6, 7, iar de către autoritatea contractantă – în coloanele 1, 5,]

Numărul procedurii de achiziție: ocds-b3wdpl-MD-1753881961729 din 15.09.2025						
Obiectul achiziției: Centru informațional de date						
Denumirea bunurilor/ serviciilor	Denumirea modelului bunului/serviciului	Țara de origine	Producătorul	Specificarea tehnică deplină solicitată de către autoritatea contractantă	Specificarea tehnică deplină propusă de către ofertant	Standarde de referință
1	2	3	4	5	6	7
COMPARTIMENTUL SERVERE						
Infrastructura Servere	UCSX 9508 M8 Modular ServerS	United States	CISCO	<p>Infrastructură computing:</p> <p>3 x Computing Servers with following configuration:</p> <p>2 x CPU min. 2.3GHz, min. 32Cores, min. 144MB cache, DDR5 RAM</p> <p>512GB DDR5-6400 RDIMM. min. 32 slots.</p> <p>Raid Controller with Raid 0, Raid 1 support.</p> <p>Boot disks min. 2 x 480GB SSD, used for hypervisor.</p> <p>Network card: 4 x 25Gb Intelligent Ethernet, RoCEv2 and NVMe/TCP support, with possibility to divide in logical ports.</p> <p>Security: TPM Module 2.0 included.</p> <p>Fans: Redundant fans.</p> <p>Power Supply, Redundancy: 6 x min. 2600W, Titanium Efficiency, hot swap, N+1. Power cords included.</p> <p>Network interconnect: Redundant network connectivity module, with min. 16 x 100Gb Ethernet ports, dedicated management ports, console.</p> <p>Management: Remote KVM for each server, centralized management for all servers from a single dashboard, updates (including firmware) policies, security policies, operation automation</p>	<p>Infrastructură computing:</p> <p>3x Computing Servers UCS 210c M8</p> <p>Compute Node with following configuration:</p> <p>2x CPU Intel I6530P 2.3GHz/225W 32C/144MB DDR5 6400MT/s DDR5 RAM.</p> <p>512GB DDR5-6400 RDIMM (8x 64GB DDR5-6400 RDIMM 2Rx4), 32 slots.</p> <p>Raid Controller with Raid 0, Raid 1 support.</p> <p>Boot disks 2x 480GB M.2 SATA SSD, used for hypervisor.</p> <p>Network card: Cisco VIC 15420 4x 25G mLOM X-Series w/Secure Boot Intelligent Ethernet, RoCEv2 and NVMe/TCP support, with possibility to divide in logical ports.</p> <p>Security: TPM 2.0 TCG FIPS140-2 CC+ Cert M7 Intel MSW2022 Compliant.</p> <p>Fans: UCS 9508 Chassis 2800V AC Dual Voltage PSU Titanium Redundancy: 6x 2800W, Titanium Efficiency, hot swap, N+1. Power cords included.</p> <p>Network interconnect: Redundant network connectivity module UCS X-Series Direct Fabric Interconnect 9108 100G, with 16x 100Gb Ethernet ports, dedicated management ports, console.</p>	

				<p>and orchestration, integration with 3rd party host OS and monitoring systems.</p> <p>Scalability: future computing node updates without additional cost for network components, PSU, FANs.</p> <p>Architecture: All components must be compatible, validated as an architecture with full interoperability.</p> <p>Warranty: 3 years for software updates, hardware replacement on-site. Equipment must be registered at vendor support portal and attached to company profile for at least future access to support renewals, updates, notification, recommendations.</p>	<p>Management: Remote KVM for each server, centralized management for all servers from a single dashboard, updates (including firmware) policies, security policies, operation automation and orchestration, integration with 3rd party host OS and monitoring systems.</p> <p>Scalability: future computing node updates without additional cost for network components, PSU, FANs.</p> <p>Architecture: All components will be compatible, validated as an architecture with full interoperability.</p> <p>Warranty: 3 years for software updates, hardware replacement on-site. Equipment will be registered at vendor support portal and attached to company profile for future access to support renewals, updates, notification, recommendations.</p>	
COMPARTIMENTUL STOCARE ȘI BACKUP						
Sistem de stocare All Flash	All Flash A20 HA System	USA, Hungary	NetApp	<p>All Flash Storage System, NVMe.</p> <p>Dual controller, with high availability and automatic failover.</p> <p>Chassis, 2U rackmount: dual controller and min. 24 x NVMe disk slots.</p> <p>Architecture: scalable and resilient architecture, clustered controllers with non-disruptive failover in case of failure or component updates. System must be scalable with more than 4 nodes.</p> <p>Disk included: min. 24 x 3.8TB NVMe disks, hot swap.</p> <p>Host ports per system: min. 6 x 10/25Gb Ethernet with support of NVMe/TCP, RDMA ; 8 x 32Gb FC.</p> <p>Storage protocols included: Block (at least iSCSI, FCP) and NAS (SMB, NFSv4).</p> <p>Storage features included: storage space efficiency mechanisms (data deduplication and compression), thin provisioning, LUN/Volume resize, LUN/Volume clone, LUN/Volume QoS,</p>	<p>NetApp AFF A20 End-to-End NVMe Storage System.</p> <p>Dual controller, with high availability and automatic failover.</p> <p>Chassis, 2U rackmount: dual controller and 24x NVMe disk slots.</p> <p>Architecture: scalable and resilient architecture, clustered controllers with non-disruptive failover in case of failure or component updates. System scalable with up to 6 nodes.</p> <p>Disk included: 24 x 3.8TB 3.8TB, NVMe4, SED disks, hot swap.</p> <p>Host ports per system: 16x 10/25Gb Ethernet with support of NVMe/TCP, RDMA; 8x 32Gb FC.</p> <p>Storage protocols included: FC, iSCSI, NVMe/FC, NVMe/TCP, NFS, NFSv4/RDMA, SMB, S3.</p>	

				<p>redirect on write snapshots and clones, replication (synchronous and asynchronous), antiransomware protection, MFA, multitenancy. All features must be covered with licenses. Redundancy: dual controller, redundant fans, power supply, management. Management and monitoring: Monitoring and management solution included for day one operation and activity, providing at least: performance indicators (latency, IOPS, throughput) for storage node, disks, cache, host ports, volumes/shares, headroom information, predictive information for performance and space grow, recommendations for system optimization or best proactive validation, alerts, proactive actions. Warranty: 3 years for software updates, hardware replacement on-site. Equipment must be registered at the vendor support portal and attached to the company profile for at least future access to support renewals, updates, notification, recommendations. ProActive support 24/7, up to 30-minute call to repair.</p>	<p>Storage features included: storage space efficiency mechanisms (Inline data deduplication and compression), thin provisioning, LUN/Volume resize, LUN/Volume clone, LUN/Volume QoS, redirect on write snapshots and clones, replication (synchronous and asynchronous), antiransomware protection for NAS Shares and SAN LUNs, MFA, multitenancy. All features are covered with licenses Ontap One. Integration with VMware vSphere, Veeam. Redundancy: dual controller, redundant fans, power supply, management. Management and monitoring: Monitoring and management solution included for day one operation and activity, providing: performance indicators (latency, IOPS, throughput) for storage node, disks, cache, host ports, volumes/shares, headroom information, predictive information for performance and space grow, recommendations for system optimization or best proactive validation, alerts, proactive actions. Warranty: 3 years for software updates, hardware replacement on-site. Equipment will be registered at the vendor support portal and attached to the company profile for at least future access to support renewals, updates, notification, recommendations. ProActive support 24/7, up to 30-minute call to repair.</p>	
COMPARTIMENTUL REȚEA ȘI CONECTIVITATE						
Switch rețea	Cisco Nexus 9300-FX3	China	CISCO	Data Center network switches Chassis: rackmount chassis 19" with included rackmount kit.	Data Center network switches Chassis: rackmount chassis 19" with included rackmount kit.	

				<p>Architecture: redundant, non-blocking ports, low latency performance with L2 and advanced L3 routing protocols included.</p> <p>Ports: total of 72x10/25Gbps SFP28 ports, with possibility of using aggregated min. 4x40/100Gbps QSFP ports.</p> <p>Included SFP: 24x10Gb SFP+ SR modules, 8x25Gb SFP SR modules</p> <p>Performance: 3.4Tbps, converged and lossless ethernet</p> <p>Included features: IEEE 802.1Qbb (Priority Flow Control); IEEE 802.1Qaz (Enhanced Transmission Selection); DCBX (Data Center Bridging Exchange Protocol); Routing included (BGP, OSPF, IS-IS) overlay included (VXLAN EVPN) VLAN tagg. (802.1Q), LACP; Trunking; STP, RSTP; Link Aggregation, vPC or equivalent; MACSec (AES-256) included; QoS.</p> <p>Management: dedicated console port, 1x100/1000Base-T out-of-band</p> <p>Redundancy: (1+1) hot swappable PSU, FANs (N+1).</p> <p>Warranty: 3 years for software updates, hardware replacement on-site. Equipment shall be registered at vendor support portal and attached to company profile for at least future access to support renewals, updates, notification, recommendations., certificat CE/ISO</p>	<p>Architecture: redundant, non-blocking ports, low latency performance with L2 and advanced L3 routing protocols included.</p> <p>Ports: total of 72x10/25Gbps SFP28 ports, with possibility of using aggregated 4x40/100Gbps QSFP ports.</p> <p>Included SFP: 24x10Gb SFP+ SR modules, 8x25Gb SFP SR modules</p> <p>Performance: 3.6Tbps, converged and lossless ethernet</p> <p>Included features: IEEE 802.1Qbb (Priority Flow Control); IEEE 802.1Qaz (Enhanced Transmission Selection); DCBX (Data Center Bridging Exchange Protocol); Routing included (BGP, OSPF, IS-IS) overlay included (VXLAN EVPN) VLAN tagg. (802.1Q), LACP; Trunking; STP, RSTP; Link Aggregation, vPC or equivalent; MACSec (AES-256) included; QoS.</p> <p>Management: dedicated console port, 1x100/1000Base-T out-of-band</p> <p>Redundancy: (1+1) hot swappable PSU, FANs (N+1).</p> <p>Warranty: 3 years for software updates, hardware replacement on-site. Equipment will be registered at vendor support portal and attached to company profile for at least future access to support renewals, updates, notification, recommendations., certificat CE/ISO</p>	
COMPARTIMENTUL INFRASTRUCTURĂ ȘI MATERIALE AUXILIARE						
UPS tip tower, 10 kW	Liebert ITA2 10kVA (3-phase)	China	Vertiv	<p>Modular UPS</p> <p>Characteristics: online, min. 10kVA 3-phase, double conversion eff. min. 96%.</p> <p>Autonomy: min. 11 minutes at 8KW load.</p> <p>Battery modules: min. 2 x 16x9Ah VRLA long life.</p>	<p>Modular Liebert ITA2 (3-phase)</p> <p>Characteristics: online, 10kVA 3-phase, double conversion eff. 96%.</p> <p>Autonomy: 11 minutes at 8KW load.</p> <p>Battery modules: 2 x 16x9Ah VRLA long life.</p>	

				Management: SNMP/Web. Formfactor: rackmount, up to 12U Warranty: 2 years, on-site with next business day parts replacement from local ZIP stock.	Management: SNMP/Web. Formfactor: rackmount, up to 12U Warranty: 2 years, on-site with next business day parts replacement from local ZIP stock.	
Rack server 42U	Vertiv VR Rack 42U	China	Vertiv	Rack server 42U, 19", min. 800x1000mm, perforated door, grounding kit, wheels, cable organizer, EN 61587-1/CE	Vertiv VR Rack 42U Rack server 42U, 19", 800x1000mm, perforated door, grounding kit, wheels, cable organizer, EN 61587-1/CE	
Filtru de alimentare pentru rack	Vertiv PowerGo Rack PDU	China	Vertiv	Power distribution unit Type: Rack PDU, Monitored on LAN, 0U space. Characteristics: 16A, 220V/380V with 3m x IEC60309, sockets min. 30xC13, additional 6 x C19. Warranty: 2 years.	Vertiv PowerGo Rack PDU, Monitored Power distribution unit Type: Rack PDU, Monitored on LAN, 0U space. Characteristics: 16A, 220V/380V with 3m x IEC60309, sockets 30x C13, additional 6x C19. Warranty: 2 years.	
Organizator de cabluri pentru rack	Vertiv VRA Horizontal/ Vertical Cable Organizer	China	Vertiv	Organizator cabluri frontal/vertical, compatibil rack 19", min. 12 treceri, CE/ISO	Organizator cabluri frontal/vertical, compatibil rack 19", 12 treceri, CE/ISO	
COMPARTIMENTUL LUCRĂRI ȘI SERVICII ASOCIATE						
Lucrări de instalare și configurare echipamente	BTS PRO S.R.L.	Moldova	BTS PRO S.R.L.	Instalare fizică a serverelor, rețelei, stocajului, montare în rack, conectare cabluri, testare, validare funcțională, configurare IP și management, etichetare, standard EN/ISO	Instalare fizică a serverelor, rețelei, stocajului, montare în rack, conectare cabluri, testare, validare funcțională, configurare IP și management, etichetare, standard EN/ISO	
Instruire personal IT	BTS PRO S.R.L.	Moldova	BTS PRO S.R.L.	Instruire tehnică pentru personal IT privind administrarea, monitorizarea și mentenanța platformei, certificat de participare, EN/ISO	Instruire tehnică pentru personal IT privind administrarea, monitorizarea și mentenanța platformei, certificat de participare, EN/ISO	
Suport tehnic post-implementare	BTS PRO S.R.L.	Moldova	BTS PRO S.R.L.	Suport la distanță/telefonice pentru întrebări, troubleshooting, consultanță timp de 12 luni după livrare, inclus în garanție, EN/ISO	Suport la distanță/telefonice pentru întrebări, troubleshooting, consultanță timp de 12 luni după livrare, inclus în garanție, EN/ISO	

Prenume Nume: Bogdan Gnidaș

Funcția în cadrul firmei: Administrator

Denumirea firmei și sigiliu: „BTS Pro” S.R.L.

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