



Republic of Serbia

MINISTRY OF FINANCE**Department for Contracting and Financing of EU Funded Programmes (CFCU)**

Belgrade, 17 November 2022

CONTRACTING AUTHORITY'S CLARIFICATIONS No.1**Supply contract for the "Implementation of Automated Import System (AIS),
Automated Export System (AES) and Customs Decision System (CDS)"****Publication ref: NEAR/BEG/2022/EA-OP/0117**

No.	Question	Answer
1	Whom it concern. Interested. It looks awesome.	We acknowledge your comment.
2	<p>A. INSTRUCTIONS TO TENDERERS art. 4. Origin</p> <p>Dear Tender committee, You have requested EU origin of all items for the tender. The equipment included in those lots is of a large variety of enterprise hardware infrastructure. Please note that there are several assembling (not manufacturing) facilities for Desktop computers and Enterprise servers on the territory of EU only. There the vendors provide assembling and not manufacturing/production/growing activities.</p> <p>Products like servers, networking devices, etc., are manufactured in Asia (various countries). We are planning to offer the equipment as a bundle. That bundle will be preinstalled, preconfigured, and modified according to the customer's requirements at our production department. We will add value to each type of equipment at our facilities in Germany. We will provide a Certificate of Origin (with a country of origin Germany) verified by the German Chamber of Commerce. Please clarify if this document would be accepted. In order to provide an equal competitive environment, we would like to request derogation of the rule for origin for the equipment part of that tender.</p>	<p>Please note that in the interest of equal treatment of tenderers, the Contracting authority cannot give a prior opinion on the eligibility of particular product. For additional information about the origin of goods, please refer to the Practical guide (hereinafter: PRAG) sections 2.3.6 and 2.3.7, available on the following link: https://wikis.ec.europa.eu/display/ExactExternalWiki/ePRAG including PRAG annex a2a Rules on participation in procurement procedures and grants (Eligibility of programmes 2014-2020) available on: https://wikis.ec.europa.eu/display/ExactExternalWiki/Annexes.</p> <p>Derogations to the rule of origin are currently not envisaged under given tender procedure.</p>

No.	Question	Answer
3	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 8 and 10 Positions: 1.4 and 1.5, Section: Storage configuration It is requested "RAID controller with 4GB non-volatile cache memory". There are several ways to protect servers when power off occurs: • non-volatile cache memory, • battery backup, • capacitor backup. All of them provides data protection for cached data. Please confirm that any of mention system could be offered. If not, please, give us technical reason why not.</p>	<p>We confirm that any data protection technology can be used due to power failure on the raid controller, as long as the amount of memory - the cache for that purpose is at least 4GB</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
4	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 8, 11 and 12 Positions: 1.4, 1.5 and 1.6 Section: Network Interface Cards and Fiber Channel Host Bus Adapters It is requested "Embedded NIC: min. 2 x 1 GbE". On different servers with different purposes there are options to have embedded NICs. Please confirm that bids containing networking adapter which will be directly on motherboard (OCP card on OCP slot), which has same function as embedded networking adapter and without using any of free PCIe slots will be acceptable.</p>	<p>We confirm that any network adapter that does not occupy PCIe slots will be treated as an embedded networking adapter and will be acceptable.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
5	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 15 Positions: 1.8 Section: Shared SAN storage system It is requested "Platform: Unified storage platform for block, file and vVol data without additional devices". Please confirm that you will accept storage system which supports block protocols and vVols and doesn't have file and NVM/TCP protocols.</p>	<p>We will not accept storage system which supports block protocols and vVols and doesn't have file and NVM/TCP protocols support.</p> <p>We will accept Unified storage platform for block, file and vVol data, with or without utilising additional or external device.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
6	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 9, 11 and 13 Positions: 1.4, 1.5 and 1.6 Section: Embedded Management</p>	<p>Yes, we confirm possibility that bids containing management software for servers where there is at least HTML5 access to the virtual console for remote</p>

No.	Question	Answer
	<p>It is requested “ • Separate, integrated 1GB Base-T module for monitoring and management of server and its components. Support for local and remote access via Graphic Web Interface (GUI). A remote access license must be included in the offer. • Web-based HTML5 GUI. • Health Monitoring. • Power control, Boot control, • Virtual Media, Virtual Folders • Virtual Console, HTML5 access to Virtual Console • VNC connection to OS”. Please confirm possibility that bids containing management software for servers where there is at least one type of remote access to the server - ie: Virtual Console, HTML5 access to the virtual console or VNC connection to the OS will be acceptable.</p>	<p>access to the server console may be considered compliant with corresponding requirements. Please note however that actual decision about compliance can be made only upon verification of actual specifications offered against technical specifications and any other complementary information requested in tender dossier.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
7	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 15 Positions: 1.8 Section: Shared SAN storage system It is requested “Storage system must have an always-on mechanism of deduplication and data compression with hardware acceleration” and “CPUs per Storage system: min. 4 x Intel CPUs, 64 cores, 2.1 GHz”. Please confirm that will be acceptable to offer storage system with controllers that are based on AMD processor with 64 cores (two controllers, each with two AMD CPUs, and with total 128 cores per controller). Controllers of high core number has capability to handle all storage performance, deduplication, and compression. Please confirm that is possible to offer storage system based on AMD processors and without additional hardware for deduplication and compression.</p>	<p>AMD or CPUs produced by other manufacturers and/or using different architecture may be offered as long as being compliant with corresponding minimum requirements.</p> <p>Storage system must have always-on mechanism of deduplication and data compression with hardware acceleration. Hardware acceleration can be accomplished using hardware or combination of hardware and software. Hardware could be in form of card, chips or even additional CPU cores dedicated for compression and deduplication</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
8	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 15 Positions: 1.8 Section: Shared SAN storage system It is requested “Supported protocols for block: FC, NVMe-FC, iSCSI, NVMe/TCP, and VMware Virtual Volumes (vVols) 2.0.”. Using NVMe-FC protocol has only sense if</p>	<p>CAS (Customs Administration of the Republic of Serbia) is planning to use NVMe-FC block protocol in the required solution.</p> <p>All specified equipment: 32Gb FC HBAs in servers and 32Gb FC Switches, with current software/firmware versions, support NVMe-FC protocol.</p>

No.	Question	Answer
	<p>protocol is used from beginning to the end of communication. Since in tender there is no specific requirements for network adapters that support this protocol please confirm that storage with only FC and iSCSI protocols will be accepted.</p>	<p><i>Please refer to the existing Technical Specifications. Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet.</i></p>
9	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 15 Positions: 1.8 Section: Shared SAN storage system It is requested "Support for dynamic RAID that eliminates the need for a classic hot-spare disk, while allowing us to expand system with single-disk".</p> <p>Every vendor has its own way to expended RAID capacity (not only single disk expand) and it depends on storage architecture. Please confirm that it will be acceptable for every vendor to offer what is the best for their platform.</p>	<p>This feature is mandatory. Support for dynamic RAID means that a part of each disk in the array is used as a spare, so that the rebuild due to disk failure in the chain is much faster. Most storage vendors support this new way of creating RAID arrays. One of the benefits for the user is the possibility of expanding the RAID array with one disk each, which is more cost effective for customer.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
10	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 16 Positions: 1.8 Section: Shared SAN storage system It is requested "Power Supply: Dual 1800W (200-240V), includes C13/C14 Power Cords". Please confirm that storage system with power supplies including C13/C14 cords with less or more power will be accepted.</p>	<p>The tenderer is allowed to provide an offer with different power supply's as long as the offered power supply is sufficient to support the chassis with maximum loaded disks and IO controllers.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
11	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 16 Positions: 1.8 Section: Shared SAN storage system It is requested "Ability to monitor the system through a cloud (SaaS) based service via a mobile application (support for iOS and Android) and a web browser. The service must enable monitoring of performance (Latency, IOPS, Bandwidth, IO Size, Queue Depth), capacity utilization, storage system components as well as to perform predictive analysis and proactively monitor the correctness of the system".</p>	<p>Yes, we confirm that it is possible to offer storage system with capability to monitor the system through a cloud (SaaS) based service via a web browser (HTML Protocol).</p> <p>A mobile application (support for iOS and Android) is not required.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
	Please, confirm that is possible to offer storage system with capability to monitor system over cloud portal from any device using HTML protocol, not only from mobile phone.	
12	Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 17 Positions: 1.9 Section: Backup SAN storage It is requested "System memory: min. 8GB per controller Back-end: 12Gb SAS" and "Max drive count with expansion enclosures: 336". Please confirm that is possible to offer same capacity with different hard disk configuration like 56 x 6TB HDD 7.2K SAS and max number of disks 240 with up to 1,440 TB of RAW capacity.	The tenderer is allowed to provide the required capacity with different hard disk configuration, but the maximum capacity of a single hard disk must not exceed 6TB. Requirements for system memory remain unchanged. The maximum number of disks in the system must be expandable by at least three times the capacity of hard disks offered by tenderer. <i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i>
13	Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 17 Positions: 1.9 Section: Backup SAN storage It is requested "Power Supply: Redundant, 2200W, includes C13/C14 Power Cords.". Please confirm that storage system with power supplies including C13/C14 cords with less or more power will be accepted.	See Clarifications No.1 #10. <i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i>
14	Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 3 Section: Short Technical Description It is requested "Currently Customs is using the one "F5 VIPRION 2400" NLB with two blades VIPRION 2150. Offered Application Load balancers required below must be compliant with existing solutions and protocols. All rules and settings need to automatically be migrated to the new NLB's (export - import)." Do you plan to implement new and old equipment in some kind of cluster? If not, please, explain expected solution.	The required application load balancers will work in HA mode, in new cluster. Existing CAS applications will be transferred to them, and they will also serve for new ones to be created for CAS (AIS, AES & CDS) <i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i>

No.	Question	Answer
15	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 3 Section: Short Technical Description It is requested "Currently Customs is using the one "F5 VIPRION 2400" NLB with two blades VIPRION 2150. Offered Application Load balancers required below must be compliant with existing solutions and protocols. All rules and settings need to automatically be migrated to the new NLB's (export - import). " With "automatically be migrated to the new NLB's" you limit solution to only one existing vendor (F5) and automatically that vendor is favorized. Please, make this request open for other vendors and allow non- automatically migration.</p>	<p>The bidder/tenderer is allowed to provide non - automatically migration to the newly offered solution.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
16	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 3 Section: Short Technical Description It is requested "Currently Customs is using the one "F5 VIPRION 2400" NLB with two blades VIPRION 2150. Offered Application Load balancers required below must be compliant with existing solutions and protocols. All rules and settings need to automatically be migrated to the new NLB's (export - import). "</p> <p>Please, explain, what you mean about compliance with existing equipment.</p>	<p>See Clarifications No.1 #14.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
17	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 24 Section: Application load balancers It is requested: "- Support for "full-proxy" mode" Please, describe with details "full-proxy" mode?</p>	<p>A full proxy creates a TCP client connection along with a separate TCP server connection with a little gap in the middle. The client connects to the proxy on one end and the proxy establishes a separate, independent connection to the server. This is bi-directional on both sides.</p> <p>The full proxy intelligence is in that OSI Gap. With a half-proxy, it is mostly client-side traffic on the way in during a request while with a full proxy, client can manipulate, inspect, drop, do what is needed to the traffic on both sides and in both directions.</p>

No.	Question	Answer
		<p><i>Please refer to the existing Technical Specifications. Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet.</i></p>
18	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 23 Section: Application load balancers It is requested: “- Possibility of administrator authentication using external authentication mechanisms (LDAP, RADIUS, AD, RSA SecureID, user certificates)” RSA SecureID is a vendor specific solution, so you favorized only one vendor. Please, make this request open for other vendors and Open Authentication or other standard based solution.</p>	<p>We confirm that any professional two-factor authentication mechanisms (not only RSA SecureID) for administrator authentication may be considered acceptable.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
19	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 15 Positions: 1.8 Section: Shared SAN storage system It is requested “Support for dynamic RAID that eliminates the need for a classic hot-spare disk, while allowing us to expand system with single-disk.” Every vendor has its own way to expend RAID capacity (not only single disk expand) and it depends on storage architecture. Please confirm that it will be acceptable for every vendor to offer what is the best for their platform.</p>	<p>See Clarifications No.1 #9.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
20	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 16 Positions: 1.8 Section: Shared SAN storage system It is requested “Networking Cables: 4 x SFP28 to SFP28, 25GbE, Active Optical Cable, 7 Meter (compatible with TOR switches Item No. 1.2).” AOC/DAC cables should be only possible when there is connection of hardware from same vendor. Please confirm that will be acceptable to offer storage system that has network</p>	<p>The tenderer is allowed to provide an offer for storage system that has network transceivers and cables on both sides of communication.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
	transceivers and cables on both sides of communication.	
21	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 15 Positions: 1.8 Section: Shared SAN storage system It is requested "Platform: Unified storage platform for block, file and vVol data without additional devices." Please confirm regarding defined storage requirements that you can also accept storage system which support only block protocols and vVols. There are no real requirements for file and NVE/TCP protocol.</p>	<p>See Clarifications No.1 #5.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
22	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 16 Positions: 1.8 Section: Shared SAN storage system It is requested "Ability to monitor the system through a cloud (SaaS) based service via a mobile application (support for iOS and Android) and a web browser."</p> <p>Please, confirm that is possible to offer storage system with capability to access and monitor system over cloud portal from any device using HTML protocol, not only from mobile phone.</p>	<p>See Clarifications No.1 #11.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
23	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 17 Positions: 1.9 Section: Backup SAN Storage It is requested " Disk drives support: SSD, 15K, 10K and NLSAS drives (including FIPS-certified SEDs)." SAS 15K drivers are almost outdated.</p> <p>Please confirm that storage systems which support SSD, SAS 10k and NL-SAS drives will be accepted.</p>	<p>The tenderer is allowed to provide an offer for Backup SAN Storage system which support SSD, SAS 10k and NL-SAS drives.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
24	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 17 Positions: 1.9 Section: Backup SAN Storage It is requested “Max drive count with expansion enclosures: 336” and “System must be delivered with minimum: 84 x 4TB HDD 7.2K SAS12”</p> <p>Please confirm that is possible to offer same capacity with different hard disk configuration like 56 x 6TB HDD 7.2K SAS and max number of disks 240 with up to 1,440 TB of RAW capacity what is equal to requested capacity.</p>	<p>See Clarifications No.1 #12.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
25	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 17 Positions: 1.9 Section: Backup SAN Storage It is requested “ RAID support: RAID 0, 1, 5, 6, 10, 50 or Adapt (Distributed erasure coding that reduces rebuild times when drive failures occur).”</p> <p>Please confirm that is possible to offer storage system that supports Distributed RAID 1,5 and 6 because RAID 0 is not protecting data and it is not recommended for production purposes.</p>	<p>The tenderer is allowed to provide an offer for Backup SAN Storage system which support RAID 1, 5, 6, 10, 50 or Adapt (Distributed erasure coding that reduces rebuild times when drive failures occur)</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
26	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER Item 1.15 GENERAL REQUIREMENTS</p> <p>Team, you have specified the requirement: The Contractor will be responsible for integration of the supplies delivered with the existing infrastructure. Is it integrating to the LAN networks? Is it integrating the new IT system to the existing mainframe/applications?</p> <p>Please clarify the integration that you require. Please provide as many details as possible.</p>	<p>Detailed requirements are listed in Item number 1.14 – “HW and SW Installation and configuration”.</p> <p><i>Please refer to the existing Technical Specifications. Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet</i></p>

No.	Question	Answer
27	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER Item number 1.13 Application load balancers • Support for "full-proxy" mode</p> <p>Is it necessary full-proxy or it can be an option, especially if it is a mandatory forward-proxy</p>	<p>Support for "full-proxy" mode is not necessary feature.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
28	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER Item number 1.13 Application load balancers • Support for transparent failover while retaining all existing connections (Connection mirroring)</p> <p>Is it necessary Connections Mirroring or it can be an option? It is considered insecure to mirror SSL sessions so we have opted that the client would need to re-establish on a secondary unit.</p>	<p>Connection mirroring feature will be removed from technical specifications.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
29	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER-1.13 Application load balancers</p> <p>„Ability to use templates to quickly launch applications” Can you confirm that this is optional feature and enable more vendors to offer competitive solutions?</p>	<p>Ability to use templates to quickly launch applications will be removed from technical specifications.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
30	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.13- Application load balancers</p> <p>„Support for "full-proxy" mode” Is it acceptable that offered application load balancer which supports following operation modes which are typically used by application LB in networks: one arm-mode (Proxy with X-forwarded for support), Router mode, Transparent mode (switch) and High Availability, and that full-proxy is optional requested feature?</p>	<p>It is acceptable to offer device which supports one arm mode, router mode, transparent mode and high availability, while full-proxy feature will be removed from technical specifications.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
31	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER-1.13 Application load balancers</p> <p>“Support for traffic translation between IPv4 and IPv6 protocols and vice versa” Is it enough to offer application load balancer which supports following Packet Forwarding Methods: NAT46 and NAT64?</p>	<p>It is acceptable to offer device which supports packet forwarding methods NAT46 and NAT64, for the purpose of traffic translation between IPv4 and IPv6 protocols.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
32	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER-1.13 Application load balancers</p> <p>„Support for transparent failover while retaining all existing persistence sessions (persistence mirroring)” Is it enough to offer application load balancer which supports following HA synchronization: Layer-4 persistence table, and Layer-7 persistence table (Source Address Persistence table only)? On this way you will enable more vendors to offer competitive solutions with better ratio features vs. price, while keeping the most of initial requested feature.</p>	<p>It is acceptable to offer device which supports HA synchronization Layer-4 persistence table, and Layer-7 persistence table, while the “persistence mirroring” feature is not mandatory feature and as such will be removed from technical specifications.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
33	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER-1.13 Application load balancers</p> <p>„ Support for transparent failover while retaining all existing connections (Connection mirroring)” Is it enough to offer application load balancer which supports following HA synchronization Layer-4 TCP connection state? On this way you will enable more vendors to offer competitive solutions with better ratio features vs. price, while keeping the most of initial requested feature.</p>	<p>It is acceptable to offer device which supports HA synchronization Layer 4 TCP connection state, while the “connection mirroring” feature is not mandatory feature and as such will be removed from technical specifications.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
34	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.13 Application load balancers</p> <p>“- The system must support for static and dynamic NAT / PAT”, and on the page 24 is stated following: “Support for NAT and PAT” Is it enough to offer application load balancer which supports static NAT and dynamic NAT, while PAT is the optional requested feature? PAT is not typically supported on Application load balancers since each server must have unique 1-1 NAT.</p>	<p>PAT is required feature. LB must be able to accept request on one port and forward to services on other ports.</p> <p><i>Please refer to the existing Technical Specifications. Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet.</i></p>
35	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.13 Application load balancers</p> <p>“- Possibility of administrator authentication using external authentication mechanisms (LDAP, RADIUS, AD, RSA SecureID, user certificates)”</p> <p>Is it enough to offer application load balancer which supports LDAP, RADIUS and professional two-factor authentication mechanisms as mandatory, while user certificates are the optional requested feature? On this way you will enable more vendors to offer competitive solutions with better ratio features vs. price, while professional two-factor authentication provides high level of security for authentication.</p>	<p>It is acceptable that device supports LDAP, RADIUS and any professional two-factor administrator authentication.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
36	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.13 Application load balancers</p> <p>“- Ability to analyze problems on the system using the following methods: - DNS lookup - PING - traceroute - ping - packet capture” Instead of requested “DNS lookup” is it acceptable</p>	<p>It is acceptable that NLB device supports nslookup feature instead of DNS feature as they are considered an equivalent features.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
	that NLB device support nslookup feature since it the equivalent feature?	
37	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.13 Application load balancers</p> <p>„- L7 requests per second: min. 1.250.000”</p> <p>Taking into consideration requested other similar performances (L4 connections per second: min. 800.000) is it acceptable to offer L7 requests per second: min. 800.000 (or min. 900.000), and on that way to make better alignment between requested L4 and L7 requests/connections values?</p>	<p>It is acceptable to offer device with min. 800.000 L7 requests per second.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
38	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.13 Application load balancers -</p> <p>“Possibility of administrator authentication using external authentication mechanisms (LDAP, RADIUS, AD, RSA SecureID, user certificates)” Can you please be more precise about the last part of this request and give what “user certificates” are requested (protocols)?</p>	<p>User certificates are not mandatory feature and as such it will be removed from technical specifications. Bear in mind that professional two-factor administrator authentication is mandatory.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
39	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.13 Application load balancers</p> <p>- Possibility of administrator authentication using external authentication mechanisms (LDAP, RADIUS, AD, RSA SecureID, user certificates). Since AD and LDAP are usually connected items (LDAP is a protocol not exclusive to Microsoft that allows users to query an AD and authenticate access to it) is it acceptable to offer NLB device which supports LDAP protocol without mentioning AD in requirements?</p>	<p>It is acceptable to offer NLB device which supports LDAP protocol but any professional two-factor administrator authentication is mandatory.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
40	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.13 Application load balancers</p> <p>- 10 Gigabit capable Fiber Ports (SFP+): min. 8 (SR or LR or 10G copper direct attach) - 40 Gigabit capable Fiber Ports (QSFP+): min. 4 (SR4 or LR4 or QSFP+ optical breakout cable assemblies available to convert to 10G ports). Please provide information about distance which requested cables length (copper direct attach, optical breakout cable or optical patch cables) since length of cables depends on the equipment position and requested number of cables and transceivers?</p>	<p>In case that offered device has 40G ports, for DAC-BO cables consider distances up to 5m (two rack cabinets with CORE switches).</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
41	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER - 1.13 Application load balancers</p> <p>• 10 Gigabit capable Fiber Ports (SFP+): min. 8 (SR or LR or 10G copper direct attach) • 40 Gigabit capable Fiber Ports(QSFP+): min. 4 (SR4 or LR4 or QSFP+ optical breakout cable assemblies available to convert to 10G ports)</p> <p>• Throughput L4: min. 60Gbps • Throughput L7: min. 35 Gbps</p> <p>Taking into consideration requested throughput performances (60 Gbps for L4, and 35Gbps for L7 traffic) is it acceptable to offer min. 8 x 10G and 4 x 1G ports or to offer min. 12 x 10G ports, instead of requested 8 x 10G and 4 x 40G ports, which is obviously oversized value for types and number of ports.</p>	<p>The tenderer is allowed to provide an offer for Application load balancers with min. 8 x 10G SFP+ ports.</p> <p>With each application load balancer, it is necessary to deliver two passive DAC cables of 5 m compatible with the CORE switches (Item No 1.12) or corresponding SFP+ transceivers on both sides and an LC-LC multimode optical cable of 5 m.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier</i></p>
42	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.9 Backup SAN Storage, RAID support: RAID 0, 1, 5, 6, 10, 50 or Adapt (Distributed erasure coding that reduces rebuild times when drive failures occur).</p> <p>Different storage vendors are using different ways to protect the data.</p>	<p>See Clarifications No.1 #25.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
	<p>Some of them are doing this through so called distributed RAID system which also contain rebuild areas that are used to maintain redundancy after a drive fails. Distributed RAID arrays solve rebuild bottlenecks in non-distributed array configurations because rebuild areas are distributed across all the drives in the array. Beside this, RAID 0 is not recommended to use in production purposes because it does not protect data. According to this, please confirm that you will accept offers of storage systems that supports Distributed RAID 1, 5, and 6.</p>	
<p>43</p>	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.9 Backup SAN Storage, Disk drives support: SSD, 15K, 10K and NLSAS drives f(including FIPS-certified SEDs).</p> <p>If we take in mind that it is requested to offer 1,344TB of HDD 7.2K SAS12, then the SAS 15k drives are almost outdated, and the flash drives have very good ratio: price vs. capacity, please confirm that it will be accepted to offer storage systems which supports SSD, SAS 10k, and NLSAS drives as this could be logical upgrade of the system.</p>	<p>See Clarifications No.1 #23.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
<p>44</p>	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.8 Shared SAN Storage System- Networking Cables: 4 x SFP28 to SFP28, 25GbE, Active Optical Cable, 7 Meter</p> <p>It is very important to state, that using AOC/DAC cables should be only possible when there is connection of hardware from same vendor. In cases when there is connection between hardware of different vendors, it might be a problem that connection won't work. But bigger problem is that on which side support will be</p>	<p>The tenderer is allowed to provide an offer for Shared SAN Storage System that has network SFP28, 25GbE transceivers on both sides of communication and LC FC cables.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
	<p>raised when there is some problem on the connected ports. Should cables be possible reason for malfunction, or ports on both side of connection? Please confirm that you will accept storage systems that has network transceivers and cables on both sides of communication. There is much more flexibility, stability, and security in this case.</p>	
<p>45</p>	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.8 Shared SAN Storage System, Platform: Unified storage platform for block, file and vVol data without additional devices</p> <p>Storage vendors have different approaches when using block and file protocols for communication with application on servers' infrastructure in the same storage platform and it is not that common that same platform supports both. Based on TS documentation and system topology, platform will be using block protocols using FC/NVMe-FC or iSCSI in rear cases. Because of that, please confirm that is acceptable to offer storage system which has block protocols and vVols supported OR solution that enables NAS functionality using additional HW or Virtual components that enables NAS access.</p>	<p>See Clarifications No.1 #5</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
<p>46</p>	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.8 Shared SAN Storage System, Supported protocols for block: FC, NVMe-FC, iSCSI, NVMe/TCP, and VMware Virtual Volumes (vVols) 2.0.</p> <p>In the Technical specification's topology, it is suggested that NVMe-FC will be used along with a supported SAN Switch platform. Having in mind NVMe/TCP protocol will not be used beside NVMe-FC they should not be required. Please confirm that you will accept storage system which has not file and</p>	<p>See Clarifications No.1 #5.</p>

No.	Question	Answer
	NVMe/TCP protocols supported since there is no true requirement for them.	
47	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.8 Shared SAN Storage System, Storage system must utilize dual active-active storage nodes (controllers) and a container-based software architecture</p> <p>Different storage vendors have different approach to software architecture of their platforms and strategy of implementing new features. Some of them rely on container-based software architecture when designing their platforms but most of them does not. Hence controller architecture does not affect feature availability (it only affects how Vendor implements new feature). Please confirm that you will accept storage platform that satisfy technical request (features that are needed) regardless off the way vendor implement controller software (traditional vs container-based).</p>	<p>Tenderer may offer storage system that meets performance requirements specified in technical specifications regardless of controller software architecture meaning that controller container-based software architecture is not mandatory.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
48	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER 1.8 Shared SAN Storage System • Storage system must utilize dual active-active storage nodes (controllers) and a container-based software architecture.</p> <p>Can you please tell us are both features obligatory? Is it mandatory that it is container-based software architecture?</p>	<p>See Clarifications No.1 #47.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
49	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER 1.8 Shared SAN Storage System • Support for dynamic RAID that eliminates the need for a classic hot-spare disk, while allowing us to expand system with single-disk.</p> <p>Our solution has that feature supported, but not with the mentioned</p>	<p>The tenderer may offer Shared SAN Storage System that has Support for dynamic RAID or equivalent technology, that eliminates the need for a classic hot-spare disk, while allowing user to expand system with single-disk.</p>

No.	Question	Answer
	suffix 'Dynamic'. In other words, is the 'Dynamic' binding attribute, since we can already provide you to expand the system with a single disk?	<i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i>
50	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER 1.8 Shared SAN Storage System • Support for adding storage class memory (SCM) based disks for permanent data storage.</p> <p>Is support for adding SCM essential, since it comes with a price premium early in the adoption curve?</p>	<p>Support for adding storage class memory (SCM) in Shared SAN Storage System is mandatory.</p> <p><i>Please refer to the existing Technical Specifications. Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet.</i></p>
51	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER 1.8 Shared SAN Storage System • Storage system Memory Capacity: 1 TB (512 GB Per Node/Controller)</p> <p>Would 512GB (256 GB Per Node/Controller) be sufficient for this request?</p>	<p>Amount of storage system memory: 1 TB (512 GB Per Node/Controller) in Shared SAN Storage System is mandatory.</p> <p><i>Please refer to the existing Technical Specifications. Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet.</i></p>
52	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER 1.8 Shared SAN Storage System • Power Supply: Dual 1800W (200-240V), includes C13/C14 Power Cords</p> <p>Since different vendors are configuring core characteristics of their SAN Storage System on various ways, can PSU have a different value than the requested one? Also, these days it is more valuable if the vendor has a solution that is fulfilling its job with less power than the industry average.</p>	<p>See Clarifications No.1 #10.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
53	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER 1.8 Shared SAN Storage System • Networking Cables: 4 x SFP28 to SFP28, 25GbE, Active Optical Cable, 7 Meter</p> <p>Would 5m cables with the required features be sufficient for this request?</p>	<p>Due to the planned location of the equipment in racks and the distance from the ToR switches, any length between 5m and 10m, including 5m and 10m may be considered commensurate.</p> <p>Also, see Clarifications No.1 #44.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier..</i></p>
54	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER 1.9 Backup SAN Storage • Disk drives support: SSD, 15K, 10K, and NLSAS drives (including FIPS-certified SEDs)</p> <p>Is support for 15K disk drives imperative, since SSDs are already supported for high-speed use demands?</p>	<p>See Clarifications No.1 #23.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
55	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER 1.9 Backup SAN Storage • RAID support: RAID 0, 1, 5, 6, 10, 50 or Adapt (Distributed erasure coding that reduces rebuild times when drive failures occur)</p> <p>Which of the mentioned RAID features are a must?</p>	<p>See Clarifications No.1 #25.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
56	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER 1.9 Backup SAN Storage • Thin provisioning: Active by default on all volumes, operates at full performance across all features</p> <p>Would be acceptable if Thin provisioning operates at full performance across all features, but is not active by default?</p>	<p>The tenderer may offer Backup SAN Storage if Thin provisioning operates at full performance across all features, but is not active by default.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier</i></p>
57	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER 1.9 Backup SAN Storage • Power Supply: Redundant, 2200W, includes C13/C14 Power Cords.</p>	<p>See Clarifications No.1 #10.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
	<p>Since different vendors are configuring core characteristics of their SAN Storage System on various ways, can PSU have a different value than the requested one? Also, these days it is more valuable if the vendor has a solution that is fulfilling its job with less power than the industry average.</p>	
58	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 3 Section: Short Technical Description and Ref: Additional-information-contract-notice-en Pages: 4 Section: Selection Criteria, Professional capacity It is requested: a) Tenderer is a licensed or authorized partner for the sale of the offered goods. Authorization is to be proven by a letter or contract or license or certificate issued to the tenderer by the manufacturer or an authorized importer of the goods for the Republic of Serbia; From tender experience in Serbia in recent years some vendors give authorization letter just to one partner. Since the required conditions can be filled just by equipment of one vendor (F5) only one partner will be able to have such a document and be able to submit an offer which, will not be the case of a fair competition. We suggest changing technical requirement in a way that some other vendor could fulfil the requested requirements as well.</p>	<p>Please note that criterion in question does not impose limitation concerning country in which tenderer has obtained status of licenced or authorized partner for offered goods. Only in case of attesting status of licenced or authorised partner through an importer of offered goods, said importer should have status of authorised importer of goods for the Republic of Serbia.</p> <p>Market analysis conducted prior to tender launch confirmed that market for requested goods is indeed open and competitive.</p> <p>Contracting Authority also draws attention to modifications introduced via Corrigendum No.1 to Tender Dossier concerning technical specifications, allowing more diverse solutions.</p>
59	<p>Ref: ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER, Pages: 8 Section: Storage configuration and Ref: Additional-information-contract-notice-en Pages: 4 Section: Selection Criteria, Professional capacity It is requested: a) Tenderer is a licensed or authorized partner for the sale of the offered goods. Authorization is to be proven by a letter or contract or license or certificate issued to the tenderer by the manufacturer or an authorized importer of the goods for the Republic of Serbia; From tender experience in Serbia in recent years some vendors give authorization letter just to one partner. Since the required conditions can be filled just by equipment of one vendor</p>	<p>See clarification No.1 #58 .</p>

No.	Question	Answer
	<p>(EMC Dell) only one partner will be able to have such a document and be able to submit an offer, which will not be the case of a fair competition.</p> <p>We suggest changing technical requirement in a way that some other vendor could fulfil the requested requirements as well.</p>	
60	<p>1.8 Shared SAN Storage System In the document “Annex II + III: technical specifications + technical offer”, on page 15 (position 1.8), it is requested for Shared SAN Storage System Platform: Storage system must utilize dual active-active storage nodes (controllers) and a container-based software architecture Storage vendors have different storage systems with different controller architectures. In the market, there are two different controller architectures which are giving 100% performance, active/active and active/hot standby. Both of those two architectures are giving the same storage performance. In case of active/active architecture storage system is created to use only 50% of each controller. This need to be accomplished when one controller is broken, so the second one can use other 50% of its performance, which give 100% in total. In this case we had situation that headroom and load on each controller are 50%. Compared to this, active/hot standby architecture has differences. One controller is planned to give 100% while other has 100% headroom. So both architectures give the same maximum performance. According to all above mentioned, please confirm that offer of storage system which has active/hot standby architecture will be accepted?</p>	<p>For Shared SAN Storage System Platform, feature: “Storage system must utilize dual active-active storage nodes (controllers) is mandatory.</p> <p><i>Please refer to the existing Technical Specifications. Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet.</i></p>
61	<p>In the document “Annex II + III: technical specifications + technical offer”, on page 15 (position 1.8), it is requested that Shared SAN Storage System Platform has: Supported protocols for block are: FC, NVMe-FC, iSCSI, NVMe/TCP, and</p>	<p>See Clarifications No.1 #5.</p>

No.	Question	Answer
	<p>VMware Virtual Volumes (vVols) 2.0. NVMe/TCP protocol is used only in systems that are using storage file protocols.</p> <p>Required solution architecture includes storages connected to FC SAN switches over FC connection.</p> <p>According to all mentioned, NVMe/TCP protocol should not be required. Please confirm that you will accept storage system which supports block protocols and vVols and doesn't have file and NVMe/TCP protocols.</p>	
62	<p>In the document "Annex II + III: technical specifications + technical offer", on page 15 (position 1.8), it is requested that Storage system must have an always-on mechanism of deduplication and data compression with hardware acceleration and CPUs per Storage system: min. 4 x Intel CPUs, 64 cores, 2.1 GHz. Different versions and types of CPUs storage platforms can be used by storage vendors. Please confirm that it will be acceptable to offer storage system which controllers are based on AMD processor with 64 cores (two controllers, each with two AMD CPUs, and with total 128 cores per controller). In this way offered storage controllers with embedded AMD processors will have much more cores (256 cores compared to requested 64 cores) and higher frequency.</p> <p>Because of the extremely high number of cores which controllers have, all storage performance predictions are created with deduplication and compression in use. Please confirm that you will accept offers of storage system based on AMD processors with high performance, without additional hardware for deduplication and compression.</p>	<p>See Clarifications No.1 #7.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>
63	<p>In the document "Annex II + III: technical specifications + technical offer", on page 15 (position 1.8), it is requested that Supported protocols for block are: FC, NVMe-FC,</p>	<p>See Clarifications No.1 #8.</p> <p><i>Please refer to the existing Technical Specifications. Unless otherwise</i></p>

No.	Question	Answer
	<p>iSCSI, NVMe/TCP, and VMware Virtual Volumes (vVols) 2.0. Usage of NVM-FC protocol has benefit only when NVM protocol is used from the begin to the end of communication. As it is not requested, that specific networking adapters in servers should support NVM-FC protocol as well, there is no real benefit when NVM-FC protocol is used only between storage and FC switches. Please confirm that storage system which do not support for NVM-FC protocol will be accepted</p>	<p><i>specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet</i></p>
<p>64</p>	<p>In the document “Annex II + III: technical specifications + technical offer”, on page 15 (position 1.8), it is requested: Support for dynamic RAID that eliminates the need for a classic hot-spare disk, while allowing us to expand system with single-disk. Storage vendors are using different ways for storage systems expansion. Expansion depends on storage architecture, number of controllers, number of additional drive enclosures, size of disk groups and RAID level. Please confirm that offers with other expansion models, which are appropriate and best fit for specific platform (single-disc or multi-disc), will be accepted.</p>	<p>See Clarifications No.1 #9.</p> <p><i>Please refer to the existing Technical Specifications. Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet</i></p>
<p>65</p>	<p>In the document “Annex II + III: technical specifications + technical offer”, on page 16 (position 1.8), it is requested following Networking Cables: 4 x SFP28 to SFP28, 25GbE, Active Optical Cable, 7 Meter (compatible with TOR switches Item No. 1.2). It is very important to state, that using AOC/DAC cables should be only possible when there is connection of hardware from same vendor. In case when there is connection between hardware of different vendors, it might be a problem that connection won't work. But bigger problem is that on which side support will be raised when there is some problem on the connected ports.</p>	<p>See Clarifications No.1 #44.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>

No.	Question	Answer
	<p>Should cables be possible reason for malfunction, or ports on both side of connection? So please accept storage systems that has network transceivers and cables on both sides of communication. There is much more flexibility, stability, and security in this case.</p>	
66	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.8 Shared SAN Storage System</p> <p>You are requesting that storage solution must have 4 x Intel CPUs, 64 cores, 2.1 GHz. Each storage platform utilize CPU in a specific way for that platform, thus number of cores does not implicate raw performance of a solution. Having this in mind will you accept solution that has less cores than requested that still has performance characteristics that you are asking?</p>	<p>The number of CPU Cores for Shared SAN Storage System is minimum.</p> <p><i>Please refer to the existing Technical Specifications. Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet</i></p>
67	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.8 Shared SAN Storage System,</p> <p>Your future Core Network solution is based upon 100Gbps capable network switches and for the Primary storage system you are requiring Front End ports minimum: 8 x 25 GBE Optical. Will you accept solution that offers 4 x 100GBE instead of 8 x 25GBE hence in this way we will provide greater throughput than initially asked and providing connectivity with Core network instead of TOR using 100GBE connections?</p>	<p>CORE switches and Shared SAN Storage Systems are not in the same rack, even not in the same server room. Also, one of the Shared SAN Storage Systems will be transferred to the Disaster Recovery location in Kragujevac in the future. We stand by the request for Front End ports minimum: 8 x 25 GBE Optical.</p> <p><i>Please refer to the existing Technical Specifications. Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet</i></p>
68	<p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER- 1.13 Application load balancers</p> <p>Is it required that offered application load balancers should support (for later activation via optional additional licenses), WAF security feature (Web Application Firewall) or any other security feature (for example: IP</p>	<p>It is required that offered application load balancers support specified features for later activation via optional additional licenses.</p> <p><i>Please refer to the existing Technical Specifications. Unless otherwise specified, the requirements in these Technical Specifications are presented</i></p>

No.	Question	Answer
	reputation, Intrusion Protection System, antivirus or similar)?	<i>as a minimum standard which the offered goods must meet</i>
69	<p>Clarification for ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER</p> <p>ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER Pages: 15</p> <p>Positions: 1.8 Section: Shared SAN storage system, It is requested “Storage system must have an always-on mechanism of deduplication and data compression with hardware acceleration” as well as “CPUs per Storage system: min. 4 x Intel CPUs, 64 cores, 2.1 GHz” is a request. In this request, this impose a blocking point and favour one vendor who uses this technology as well as Intel brand CPUs. Since different storage vendors have different solutions and technologies for realizing compression and deduplication with combination of hardware and software where hardware part is additional CPU cores dedicated for this functionality. Different storage vendors uses different CPU brands and models and Intel brand is a blocking point for most of the storage vendors. Is it acceptable that storage vendors who already have proven technology for realizing this functionality can offer additional CPU cores with corresponding software for compression and deduplication functionality as well as different CPU type or brand?</p>	<p>See Clarifications No.1 #7.</p> <p><i>This issue will be remedied by means of corrigendum no.2 to Tender Dossier.</i></p>