



MILLENNIUM FOUNDATION KOSOVO

**Project name: Procurement of Information Systems (Design, Supply and Installation) ICT
Systems for Public Access to Judicial Information
Reference: BD/CB/2021/014**

ADDENDUM #2

08 October 2021

A specific procurement notice was published on 09 September 2021 in dgMarket, UNDB Online, local newspapers, and MFK website. The changes, as indicated below, are effective on the date of issue of this Addendum. Except as expressly amended by this Addendum, all other terms and conditions of the BD Document - remain unchanged and shall remain in full force and effect in accordance with their terms.

In accordance with Section I, ITB Clause 9 of the bidding document (BD), this addendum no. 2 is issued to reflect the following changes to the referenced BD:

Reference in BD	The former text in the BD:	Addendum in BD
<i>Section II – Bid Data Sheets (BDS) – ITB 6.1. (a), Qualification requirements for Bidders: 1) Economic and financial capacity of tenderer</i>	EUR;	Shall read now: USD;
<i>Section II – Bid Data Sheets (BDS) – ITB 6.1. (a), Qualification requirements for Bidders: 2) Technical capacity of tenderer</i>	EUR	Shall read now: USD
<i>Section II – Bid Data Sheets (BDS) – ITB 20.1. (a), Qualification requirements for Bidders: 1) Economic and financial capacity of tenderer</i>	EUR;	Shall read now: USD;

<p>Section II – Bid Data Sheets (BDS) – ITB 20.1. (a), Qualification requirements for Bidders: <u>2) Technical capacity of tenderer</u></p>	<p>EUR</p>	<p>Shall read now: USD</p>
<p>Section V – Requirements of the Information System – Hardware and Infrastructure Page 152 – Paragraph 1</p>		<p>The following language shall be added to the BD: “Following are the suggested guidelines for the equipment distribution within the 3 (three) racks that are to be provided”</p>
<p>Section V – Requirements of the Information System – 10. Itemized Table of ToR requirements Page 205 – Table</p>		<p>The following language shall be removed from the BD: “1.7 Network Switch (qty 2)”</p>
<p>Section V – Requirements of the Information System Hardware and Infrastructure Technical Specification table, Item no. 1 – Server.</p>		<p>The following language shall be removed from the BD: “Rack based NVMe all-flash storage solution, compatible with offered infrastructure. HARDWARE - Must have redundant controllers, power supplies and fans (no single point of failure), with the ability to replace all those components non-disruptively. - Must be offered with a minimum of two storage controllers in a redundant active/active configuration with at least 128GB controller-based memory. - Supports non-disruptive controller upgrade to a newer generation. - Solution must support online firmware updates to controllers, disk modules, and ALL associated elements without unmounting/idling the file system. - All flash system that supports both NVMe and SCSI SSD drives.</p>

		<ul style="list-style-type: none"> - With two controllers, must support at least 48 NVMe drives. - Supports scale-out to 12 controllers/nodes in a single system/cluster for the same protocol (i.e. cannot be shared like 4 FC node and 4 NAS node), where the whole cluster needs to be a single logical system. - Supports scale out to 24 controllers/nodes in a single system/cluster for NAS only environments, where the whole cluster needs to be a single logical system. - Support for large NAS pools/file systems (20PB, 400 billion files/inodes)s - The process of adding new drives and disk shelves needs to be done in-line and non-disruptively. - Must include support for FC, iSCSI, NFS, pNFS, CIFS, NVMeOF and S3 protocols. - System must have: <ul style="list-style-type: none"> o At least 4-port 32Gbps FC (with included SFP+ modules if needed) for host connectivity o At least 4-port 10Gb Ethernet BASE-T for host connectivity - All supported protocols must be served without an external appliance. - System must be a unified solution, and support both SAN and NAS protocols at the same time, from the same host interfaces. - Offer must include the following physical capacity: <ul style="list-style-type: none"> o At least 16x 3.8TB SSD or bigger drives - Double disk failure protection to be set with flexibility (4+2 up to 18+2 or 26+2) and which does not affect performance – max 10-15% RAID penalty. - Supports option for triple disk failure protection.
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		<ul style="list-style-type: none"> - Capability to mix SSD sizes within a system/controller and mix SSD sizes within a single storage/capacity pool. - Supports thin provisioning on all protocols and for all available capacity. - Supports inline elimination of zero blocks, inline data compression and inline data deduplication on all protocols (+all media types, SSD and hard drives). - Supports built-in data-at-rest encryption of select data (encryption software to be included) and supports both system level and external key managers for encryption. - Supports snapshot without performance degradation (even when 100s or 1000s of snaps created). License for maximum number of snapshots must be included. - Supports instantaneous restores of files and LUNs from snapshots. - Supports copy-less recoveries of complete volumes from snapshot copies. - Supports creation of thin clones from snapshots, volumes directly and from other clones. - Support QoS to avoid the noisy neighborhood effect (set on LUN/Volume or tenant level) and on all protocols in the system. - Support for adaptive QoS (growing a volume to grow the performance limits). - Supports secure multitenancy to isolate tenant network, data and management. - Must support the following operating systems: Windows® 2000, Windows Server® 2003, Windows Server 2008, Windows Server 2012, Windows Server 2016, Linux®, Oracle® Solaris, AIX, HP-UX, Mac® OS, VMware®, ESX.
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		<ul style="list-style-type: none"> - Must support GUI and CLI based software management and monitoring tools, implemented on the controllers themselves. - Must be offered with at least 3 years of software and hardware warranty. - Warranty must include SSD wearing (replace under warranty even up to 6 years). - Both hardware and software that comprise the system, as well as their complete service support offering must be offered exclusively from the same vendor. - Vendor must have proprietary ownership of the software included in the system, as to avoid possible problems with future capabilities and functionalities. - Cloud integration with solutions from the same vendor, in all major cloud providers (AWS, Azure, Google Cloud Platform). - Supports phone home feature to improve support experience. - Supports multifactor authentication. - Supports Active Directory based authentication for the storage management. - Supports RBAC (role-based access control) to define multiple type of administrators. - Supports storage performance monitoring including storing historical data for long term access (at least 1 year). - Support tiering of cold data to object storage (cloud and on-premises). - Supports creation of cache volumes that caches active read datasets within a cluster and at remote sites.”
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End of document