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Corrigendum No. 1 to the Tender Dossier

Publication reference: EuropeAid/139465/DH/SUP/BA

Tender No: EC/BIH/TEN/18/002

Subject: Enhance the quality and safety of information exchange among LEAs in

BiH

The tender dossier is modified as follows:

Annex II + III Technical Specifications + Technical Offer

Lot 1: Computers and peripheral hardware devices

Items 1.1: Monitor

a) The requirement: "Size - min 22" " is deleted and now reads:

" **Display size** - min 21.5" "

b) The requirement: " **Ports** - min HDMI or DisplayPort and VGA, 2 x USB" is deleted and now reads:

Items 1.2: Desktop computer type 1

a) The requirement: "Case – Tower/Midi Tower" is deleted and now reads:

"Case – max.dimensions 50cm x 50cm x 25cm"

b) The requirement: "Graphic card –VGI + HDMI or DVI" is deleted and now reads:

c) The requirement: "**Sound card** – min. 5.1 (Rear: 3 x Audio jacks; Front: 1 x Microphone jack, 1 x Headphone jack)" is deleted and now reads:

"Sound card – min. 5.1 (Rear: 2 x Audio jacks; Front: 1 x Microphone jack, 1 x Headphone jack)"

Item 1.3: Desktop Computer type

a) The requirement: "Case – Tower/Midi Tower" is deleted and now reads:

"Case - max.dimensions 50cm x 50cm x 25cm"

b) The requirement: "**Sound card** – min. 5.1 (Rear: 3 x Audio jacks; Front: 1 x Microphone jack, 1 x Headphone jack)" is deleted and now reads:

"Sound card – min. 5.1 (Rear: 2 x Audio jacks; Front: 1 x Microphone jack, 1 x Headphone jack)"

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[&]quot; Ports - min HDMI or DisplayPort and VGA "

[&]quot; Graphic card –VGA + (HDMI or DVI) "

Item 1.4: Notebook

The requirement: "Battery: Li-Ion battery 50 Wh" is deleted and now reads:

Item 1.6 - Handheld barcode reader

- a) The requirement: "Print contrast ratio: better than 35%" is deleted and now reads:
- "Print contrast ratio: max 35%"
- b) The requirement: " **Light source:** min. 4800 lux" is deleted and now reads:

Item 1.7: Multifunctional printer

The requirement: "Size: ADF: max 216x356mm, Flatbed: min. 216x297mm" is deleted and now reads:

"Size: ADF: max 216x356mm, Flatbed: 216x297mm + / - 1 %"

Lot 2: Server and storage equipment and network equipment

Item 2.1: Server type 1

- a) The requirement: "Memory: min.128 GB. Supported up to 1.5 TB " is deleted and now reads:
- "Memory: min.128 GB DDR4 ECC, supported up to 1.5 TB, with support to NVDIMM modules (Non-volatile Memory)"
- b) The requirement: "**Raid support**: integrated 6 Gbps hardware RAID -0, -1, -5, -10" is deleted and now reads:
- "Raid support: integrated min. 6 Gbps hardware RAID -0, -1, -5, -10"
- c) The requirement: "**Fibre Channel:** 8Gb FC DUAL-PORT HBA or equivalent with 2 SFP transceivers " is deleted and now reads:
- "Fibre Channel: min. 8Gb FC DUAL-PORT HBA or equivalent with 2 SFP transceivers"
- d) The requirement: " **OS support:** Microsoft Windows Server 2012/ 2016, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Hyper-V, Oracle Solaris." is deleted and now reads:
- "OS support: Microsoft Windows Server 2012/2016, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Hyper-V"

Item 2.2: Server type 2

- a) The requirement: " **OS support:** Microsoft Windows Server 2012/ 2016, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Hyper-V, Oracle Solaris." is deleted and now reads:
- "OS support: Microsoft Windows Server 2012/2016, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Hyper-V"

Item 2.3: Server type 3

- a) The requirement: "Memory: min. 64 GB DDR4 with Advanced ECC" is deleted and now reads:
- "Memory: min. 64 GB DDR4 ECC, with support for NVDIMM modules"
- b) The requirement: "**HBA:** min. 2x 8Gbps FC ports" is deleted and now reads:
- "HBA: min. 2x 8 Gbps FC ports or min. 1x16Gbps FC dual ports"

[&]quot;Battery: Li-Ion battery 50 Wh min.50 Wh"

[&]quot;Light Immunity: min. 75,000 lux"

- c) The requirement: " **OS support:** Microsoft Windows Server 2012/ 2016, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Hyper-V, Oracle Solaris." is deleted and now reads:
- "OS support: Microsoft Windows Server 2012/2016, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Hyper-V"

Item 2.4: Server type 4

- a) The requirement: " **Power:** redundant (min. 2x) PSU; Platinum efficiency" is deleted and now reads:
- "Power: min. 2 power supply (Platinum efficiency) with min. 2000 W per power supply"
- b) The requirement: "**HBA:** min. 2x 8Gbps FC ports" is deleted and now reads:
- "HBA: min. 2x 8 Gbps FC ports or min. 1x16Gbps FC dual ports
- c) The requirement: " **OS support:** Microsoft Windows Server 2012/ 2016, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Hyper-V, Oracle Solaris." is deleted and now reads:
- "OS support: Microsoft Windows Server 2012/2016, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Hyper-V"

Item 2.5: Storage Type 1

The requirement: "RAID Support: 0, 1, 5, 6, 10, 50" is deleted and now reads:

Item 2.10 GPS NTP Server

- a) The requirement: "**Antenna:** Outdoor Antenna, Environmental IP67, Lightning Arrestors ,Cable length min. 50m" is deleted and now reads:
- "Antenna: Outdoor Antenna, Environmental min. IP66, Lightning Arrestors, Cable length min. 50m"
- b) The requirement: "1 Day Holdover Accuracy: Rubidium Oscillator $< 5 \mu s$ " is deleted and now reads:
- "I Day Holdover Accuracy: Oscillator < 5 µs"
- c) The requirement: " **Time Accuracy:** < 50 ns RMS to UTC at 1PPS output" is deleted and now reads:
- " Time Accuracy: < ± 50 ns RMS to UTC at 1PPS output"

Item 2.12 Network Switch L2 type 1

- a) The requirement: " **Stacking:** Supported, with min. 1x stacking module slot" is deleted and now reads:
- " **Stacking:** Supported, with min. 1x stacking module slot, **or** any other technical solution that creates stack switches with the same performance"

Item 2.15 Network Switch L3 type 2

- a) The requirement: " Stacking bandwidth: at least 160 Gbps with possibility to interconnect up to 9 switches as a single logical device. Min. one cable for stacking must be included" is deleted and now reads:
- " Stacking bandwidth: at least 160 Gbps with possibility to interconnect up to 9 switches as a single logical device. or any other technical solution that creates stack switches with the same performance. Min. one cable for stacking must be included."

[&]quot; RAID Support: 0, 1, 5, 6, 10"

Item 2.16: L3 Modular Network switch

The technical specifications are deleted and now read:

2.16 L3 Modular Network switch **QTY:** Chassis 1 **Total number of slots**: min. 7 Line-card slots: min. 5 **Supervisor engine slots**: support for min. 2 supervisor engine slots with min. 1 supervisor engine installed Maximum PoE per slot: 2800W Bandwidth scalability per line-card slot: Up to 480 Gbps on all slots Number of power supply bays: support for min. 8 power supply Power Supply: Min. 2x 3000W AC Power Number of fan-tray bays: Min. 1 Rack units (RU): Max. 10RU **Supervisor Engine** (1 pcs.) Capacity: Up to 1,4 Tbps Ports: min. 4x 10 Gigabit Ethernet and 1x 40 Gigabit Ethernet ports Forwarding rate: Up to 900 Mpps for IPv4 and up to 780 Mpps for IPv6 Routing entries: Min. 140000 for IPv4 and min. 55000 for IPv4 **Multicast routes**: Up to 16000 Layer 2 routes and up to 32000 Layer 3 routes Memory: Min. 16 GB DRAM and min 8GB flash SSD disk: Min. one 240 GB SSD disk installed for Supervisor Active VLANs: Min. 4096 **Stacking**: Support for advanced stacking technology that supports both access and distribution deployments through multiple topologies such as two nodes or a ring Features: Included support for RIP, PBR, Telemetry and visibility, VRRP, SPAN, RSPAN, and QoS. Support for BGP, VRF, IS-IS, application hosting (in Containers/VMs), and MACsec-256 with additional license. Line card (1 pcs.) Ports: min. 24 GE SFP with min. 16x1GB SFP transceiver included Line card 2 (2 pcs.) Ports: min 48 10/100/1000 Gigabit Ethernet PoE Warranty: 1 year Commercial warranty: 3 years

Installation: Full installation and configuration (HW, SW) with testing

Item 2.17: Network Switch

The technical specifications are deleted and now read:

2.17	Network Switch
QTY:	Number of 10/100/1000 Base-T ports: min. 48
5	o Number of SFP ports: min. 2
	 Packet-Switching Capacities: at least 100 Gbps
	o Throughput : at least 104 Mpps
	o MAC addresses supported per system: Min. 16,000
	o VLAN: Min. 64 VLANs supported
	o High Availability : 802.3ad (LACP) support
	 Features: Included support for RIP, PBR, Advanced telemetry and visibility, VRRP, SPAN and QoS
	o Rack mount kit: Included
	o Power supply : AC power supply
	o Warranty: 1 year
	o Commerical warranty: 3 years
	o Installation : Full installation and configuration (HW, SW) with testing

Item 2.18 FC SAN Switch

a) The requirement: " **FC Ports:** Min. 24 Ports with 8 Ports Enabled and 8x 8Gb Short Wave SFP+ incl. " is deleted and now reads:

Lot 3: Server room equipping

Item 3.2: Rack cabinet 42U type 1

The requirement: " min. 4 KVM USB Cable" for "KVM Console" is deleted and now reads:

Item 3.5: Micro Data Centar Rack

The technical specifications are deleted and now read:

3.5	Micro Data Centar Rack
QTY:	Dimension : max. 1200 x1800x2450 mm(WxDxH)
1	Weight: max. 890 kg.
	The following elements are included in the Micro Data Center:
	Structure
	o 42U cabinet (min. 36U of usable IT space Power)
	 Fully assembled in factory with interior cabling installed
	o Min. 8kVA Smart-UPS with min. 5 minutes runtime at 8000W,
	o Power distribution unit with min. 3pcs with following specifications: In=16A,
	Voltage =230V, min. 7xC13 and 1XC19 outlet
	Smart UPS
	o Includes: Rack Mounting brackets, Rack Mounting support rails, Temperature
	Probe, Web/SNMP Management Card
	 Min. output power capacity 8000 Watts / 8 kVA
	o Recharge time max 2 hour(s)
	• Doors

[&]quot;FC Ports: Min. 24 Ports with 8 Ports Enabled and 8x 16Gb Short Wave SFP+ incl."

[&]quot; min. 4 KVM USB Cable, KVM cable length: min.3m "

- Front and back doors swing 180 deg.
- o Heavy duty steel hinges on the left side of doors
- Mechanical lock with 4 locking points to ensure a tight closing, physical security against vandalism and reduced deformation if the door is exposed to very high temperatures.
- Cooling
 - o Precision Cooling, min. 9.0kW, cooling capacity and In-Row system cooling type
 - o Flooded Receiver
 - o Condenser, 2 Fan, Single Circuit, 220/1/50
 - o Includes cabling and circuit breaker protection
- Fire Extinguishing System
 - Fully self-contained fire detection and suppression system
 - Detection and extinguishing right at the source of fire through a pressurized detection tube
 - o Extinguishing agent: Novec 1230
- Support monitoring for :
 - o Temperature and humidity
 - o Smoke
 - o Video surveillance
 - o Include Central Management System
- Security and Access Control
 - o Electronic lock.
 - o Rack access handle on front and rear doors
- Earth-bonding
- Protection against water and dust
- Cable gland for data/power, with min. capacity for 45 UTP cables.
- Warranty: 1 year

Installation: Full installation and configuration with testing

Item 3.11 Server room air conditioning system type 2

a) The following requirement is added to: "The internal air units in "InRow" design with the following general characteristics":

"Cooling capacity up to 23,5 kW at q=0,87 l/s, Tw=7,2/13,8°C; Ta=32,2°C"

- b) The requirement: "Minimum power 9,5 kW; 400/3/50" for "Chiller air / water (glycol) for outdoor installation with the following general characteristics (2 psc)" is deleted.
- c) The requirement: "**Dimensions**: max. 500x1500x1300 mm" for "Chiller air / water (glycol) for outdoor installation with the following general characteristics (2 psc)" is deleted and now reads:

"Dimensions: max. 650x2.500x1.500 mm"

- d) The requirement: "Dimension DN40 splitter with dual ball valves and check valves DN40" for "Cooling distribution unit with general characteristics and components of the cabinet as follows (1 psc)" is deleted and now reads:
- "Dimension DN40 or DN50 splitter with dual ball valves and check valves DN40 or DN50"
- e) The requirement: "Connections external piping on the top side, DN40" for "Cooling distribution unit with general characteristics and components of the cabinet as follows (1 psc)" is deleted and now reads:
- "Connections external piping on the top side, DN40 or DN50"
- e) The requirement: "Pipe fitting DN40 for removal impurity" for "Cooling distribution unit with general characteristics and components of the cabinet as follows (1 psc)" is deleted and now reads:

[&]quot;Pipe fitting DN40 or DN50 for removal impurity"

Item 3.13: Server room air conditioning system type 4

The technical specifications (except of electrical installation requirements which remain unchanged) are deleted and now read:

3.13 QTY: 2

Server room air conditioning system type 4

- Ceiling Model SUPER DIGITAL INVERTER (2 pcs.) with the following technical characteristics:
 - o Cooling capacity (cooling): Min. 6,8 kW
 - o Air power: Max. 24 m3/min
 - o Sound pressure level (cooling): Max 41 dB(A)
 - o Sound power level (cooling): Max. 56 dB(A)
- DIGITAL INVERTER OUTDOOR UNIT (2 pcs.) with the following technical characteristics:
 - o Cooling capacity (cooling): Min. 6,8 kW
 - o Air power: Max. 3.400 m3/h or 57 m3/min
 - o Sound pressure level (cooling): Max 48 dB(A)
 - o Sound power level (cooling): Max. 65 dB(A)
 - o Pipe length: Max. 50 m
 - o Height difference (outdoor unit higher/lower): 30 m
- Full system installation and user training for 2 person
- Warranty: 1 year
- Removing the existing indoor and outdoor air conditioning units

Item 3.14: Server room air conditioning system type 5

The technical specifications (except of electrical installation requirements which remain unchanged) are deleted and now read:

3.14 QTY: 1

Server room air conditioning system type 5

- Ceiling Model SUPER DIGITAL INVERTER (2 pcs.) with the following technical characteristics:
 - o Cooling capacity (cooling): Min. 6,8 kW
 - o Air power: Max. 24 m3/min
 - o Sound pressure level (cooling): Max 41 dB(A)
 - o Sound power level (cooling): Max. 56 dB(A)
- DIGITAL INVERTER OUTDOOR UNIT (2 pcs.) with the following technical characteristics:
 - o Cooling capacity (cooling): Min. 6,8 kW
 - o Air power: Max. 3.400 m3/h or 57 m3/min
 - o Sound pressure level (cooling): Max 48 dB(A)
 - o Sound power level (cooling): Max. 65 dB(A)
 - o Pipe length: Max. 50 m
 - o Height difference (outdoor unit higher/lower): 30 m
- Full system installation and user training for 2 person
- Warranty: 1 year
- Removing the existing indoor and outdoor air conditioning units

Item 3.15 Server room air conditioning system type 6

The technical specifications (except of electrical installation requirements which remain unchanged) are deleted and now read:

3.15
QTY:
1

Server room air conditioning system type 6

Ceiling Model - SUPER DIGITAL INVERTER (2 pcs.) with the following technical characteristics:

- o Cooling capacity (cooling): Min. 6,8 kW
- o Air power: Max. 24 m3/min
- o Sound pressure level (cooling): Max 41 dB(A)
- o Sound power level (cooling): Max. 56 dB(A)
- DIGITAL INVERTER OUTDOOR UNIT (2 pcs.) with the following technical characteristics:
 - o Cooling capacity (cooling): Min. 6,8 kW
 - o Air power: Max. 3.400 m3/h or 57 m3/min
 - o Sound pressure level (cooling): Max 48 dB(A)
 - o Sound power level (cooling): Max. 65 dB(A)
 - o Pipe length: Max. 50 m
 - o Height difference (outdoor unit higher/lower): 30 m
- Full system installation and user training for 2 person
- Warranty: 1 year
- Removing the existing indoor and outdoor air conditioning units

Item 3.16: Server room air conditioning system type 7

The technical specifications are deleted and now read:

3.16	Server room air conditioning system type 7			
QTY:	S.J.			
_	Cailing Model SUDED DICHTAL DIVEDTED (2 mgs) with the following technical			
3	• Ceiling Model - SUPER DIGITAL INVERTER (2 pcs.) with the following technical			
	characteristics:			
	 Cooling capacity (cooling): Min. 5 kW 			
	o Air power: Max.15 m3/min			
	 Sound pressure level (cooling): Max 38 dB(A) 			
	o Sound power level (cooling): Max. 54 dB(A)			
	• DIGITAL INVERTER - OUTDOOR UNIT (2 pcs.) with the following technical			
	characteristics:			
	o Cooling capacity (cooling): Min. 5 kW			
	o Air power: Max. 3.100 m3/h or 51m3/min			
	o Sound pressure level (cooling): Max 48 dB(A)			
	o Sound power level (cooling): Max. 64 dB(A)			
	o Pipe length: Max. 30 m			
	o Height difference (outdoor unit higher/lower): 20 m			
	• Full system installation and user training for 2 person			
	Warranty: 1 year			
	Removing the existing indoor and outdoor air conditioning units			

Item 3.17: Server room air conditioning system type 8

The technical specifications are deleted and now read:		
3.17	Server room air conditioning system type 8	
QTY:		
1	• Ceiling Model - SUPER DIGITAL INVERTER (2 pcs.) with the following technical characteristics:	
	o Cooling capacity (cooling): Min. 5 kW	
	o Air power: Max.15 m3/min	
	 Sound pressure level (cooling): Max 38 dB(A) 	
	 Sound power level (cooling): Max. 54 dB(A) 	
	• DIGITAL INVERTER - OUTDOOR UNIT (2 pcs.) with the following technical	
	characteristics:	
	 Cooling capacity (cooling): Min. 5 kW 	
	 Air power: Max. 3.100 m3/h or 51m3/min 	
	 Sound pressure level (cooling): Max 48 dB(A) 	
	o Sound power level (cooling): Max. 64 dB(A)	
	o Pipe length: Max. 30 m	
	 Height difference (outdoor unit higher/lower): 20 m 	
	Full system installation and user training for 2 person	

Warranty: 1 year
 Removing the existing indoor and outdoor air conditioning units

Item 3.26: System for access control, video surveillance, intruder detection and environment monitoring in server rooms type 1

a) The requirement: "Graphic card – Integrated with HDMI, DVI and VGA port "for "PC for Central Supervisory Control System and client application" is deleted and now reads:

b) The requirement: "Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI and DVI port" for "PC for Central Supervisory Control System and client application" is deleted and now reads:

Item 3.27: System for access control, video surveillance, intruder detection and environment monitoring in server rooms type 2

- a) The requirement: "Graphic card Integrated with HDMI, DVI and VGA port "for "PC for Central Supervisory Control System and client application" is deleted and now reads:
- " Graphic card Integrated with HDMI or DVI and VGA port "
- b) The requirement: "Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI and DVI port" for "PC for Central Supervisory Control System and client application" is deleted and now reads:

Item 3.28: System for access control, video surveillance, intruder detection and environment monitoring in server rooms type 3

- a) The requirement: "Graphic card Integrated with HDMI, DVI and VGA port "for "PC for Central Supervisory Control System and client application" is deleted and now reads:
- " Graphic card Integrated with HDMI or DVI and VGA port "
- b) The requirement: "Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI and DVI port" for "PC for Central Supervisory Control System and client application " is deleted and now reads:

Item 3.29: System for access control, video surveillance, intruder detection and environment monitoring in server rooms type 4

- a) The requirement: "Graphic card Integrated with HDMI, DVI and VGA port "for "PC for Central Supervisory Control System and client application" is deleted and now reads:
- " Graphic card Integrated with HDMI or DVI and VGA port "
- b) The requirement: "Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI and DVI port" for "PC for Central Supervisory Control System and client application" is deleted and now reads:

Item 3.30: System for access control, video surveillance, intruder detection and environment monitoring in server rooms type 5

a) The requirement: "Graphic card - Integrated with HDMI, DVI and VGA port "for "PC for Central

[&]quot; Graphic card – Integrated with HDMI or DVI and VGA port "

[&]quot; Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI or DVI port "

[&]quot; Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI or DVI port "

[&]quot; Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI or DVI port "

[&]quot; Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI or DVI port "

Supervisory Control System and client application " is deleted and now reads:

Item 3.32: System for access control, video surveillance, intruder detection and environment monitoring in server rooms type 7

- a) The requirement: "Graphic card Integrated with HDMI, DVI and VGA port "for "PC for Central Supervisory Control System and client application" is deleted and now reads:
- " Graphic card Integrated with HDMI or DVI and VGA port "
- b) The requirement: "Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI and DVI port" for "PC for Central Supervisory Control System and client application" is deleted and now reads:

Item 3.33: System for access control, video surveillance, intruder detection and environment monitoring in server rooms type 8

- a) The requirement: "Graphic card Integrated with HDMI, DVI and VGA port "for "PC for Central Supervisory Control System and client application" is deleted and now reads:
- " Graphic card Integrated with HDMI or DVI and VGA port "
- b) The requirement: "Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI and DVI port" for "PC for Central Supervisory Control System and client application" is deleted and now reads:

Item 6.1: Replication software

The requirement: "Compatible with VMware Essentials, VMware Enterprise and VMware Vcenter Standard" is deleted and now reads:

"Compatible with VMware vSphere Essentials Plus, VMware vSphere Enterprise and VMware vCenter Standard"

All other terms and conditions of the tender dossier remain unchanged. The above modifications to the Tender Dossier are integral part of the Tender Dossier.

[&]quot; Graphic card – Integrated with HDMI or DVI and VGA port "

b) The requirement: "Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI and DVI port" for "PC for Central Supervisory Control System and client application" is deleted and now reads:

[&]quot; Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI or DVI port "

[&]quot; Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI or DVI port "

[&]quot; Monitor: 2x 22" monitor min. resolution 1920x1080 with HDMI or DVI port "