



EUROPEAN UNION

Delegation of the European Union to Bosnia and Herzegovina

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CLARIFICATION No. 1 to the Tender Dossier

"Supply of IT equipment for four tax administrations in BiH"

Publication reference: EuropeAid/ 139834/DD/SUP/BA; Tender No: EC/BiH/TEN/18/009

Question 1:

The specification for Item 1.5 Firewall Type 2:

The specified system with 8x 10/100 ports out of which 2 are PoE ports is no longer available on the market from any vendor. Is it possible to offer the Firewall which doesn't have PoE ports? The other option is to offer the firewall with PoE injectors as an option for these two ports. Is any of these a viable option for the purchaser?

Answer 1:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 2:

The specification for Item 1.6 Blade server type 1:

The CPU specified are from an older generation which are no longer available on the market. Since we need to offer an equivalent can we offer any CPU which has a higher Passmark CPU score than specified since the CPU architecture has changed and cache memory is lower on newer CPU generations.

The memory protection modes specified are: Independent, Mirror Channel, Rank Spare and Performance Mode. Could you please provide more details about Independent and Performance mode since these aren't industry standards. These are trademarked names of a single vendor so we will have to provide equivalents. In order to do that we need the technical requirements for these modes according to industry standards.

Answer 2:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 3:

The specification for Item 1.9 Server type 2:

The CPU specified are from an older generation which are no longer available on the market. Since we need to offer an equivalent can we offer any CPU which has a higher Passmark CPU score than specified since the CPU architecture has changed and cache memory is lower on newer CPU generations.

Answer 3:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 4:

The specification for Item 1.10 Blade chassis type 1:

The L2 switch with minimum 18 internal ports doesn't make sense in a server chassis that supports just 8 blade servers. There is only one vendor on the market (Fujitsu) that produces this type of switches which limits competition. Since one internal switch port is used by one server this is technically unnecessary as well. Please remove the 18 internal ports request and lower it according to real technical needs of the system. Since there are just 8 servers the switch should support 8 downlink ports.

The same problem is with the 8 Gbps passthrough module. 18 downlink ports are only needed when the server has 18 servers. Since there are just 8 servers in the chassis there is no technical need for 18 downlink ports.

Answer 4:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 5:

Item 1.6 - Blade server type 1

It is required that offered processor model has „min. TLC: 25 MB cache memory, min PassMark points 13.500 per single CPU and min. 10 cores“

This specification corresponds to Intel Xeon E5 v4 Processor Family.

All server hardware vendors are using this type of Processor Family in previous generation server models. Most recent server models use Intel Xeon Scalable Processors Family. It is also possible to specify the processor with PassMark benchmark points and minimum core count, that will allow to offer equivalent processor models of both generations.

Please consider to revise the required cache amount to reflect the changes in most recent processor generation and technology?

Answer 5:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 6:

Item 1.8 - Blade server type 2

It is required to offer “two-processor server, minimum PassMark points 19000“.

Please clarify if PassMark points 19000 is required reference point for single or both processors?

Answer 6:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 7:

Item 1.8 - Blade server type 2

It is required to offer blade server s with „minimum 2x PCI express 3.0 x16 slots for additional mezzanine cards“.

Some of leading hardware vendors have blade server models with 2x PCI express 3.0 x8 mezzanine slots. PCI Express 3.0 Theoretical Max Bandwidth is shown in the following table.

	PCI-e 3.0 Theoretical Max Bandwidth
X8	7.880 MB/s (> 60Gb/s)
X16	15.760 MB/s (>120Gb/s)

PCI express 3.0 x8 slots with provided bandwidth are fully able to support all leading expansion cards including:

- Fiber Channel 16 Gb dual port
- Mellanox Connect InfiniBand 56Gb Mezz Card

Please consider to change the PCIe mezzanine slot requirement for improved competitiveness to „Minimum 2x PCIe 3.0 x16 mezzanine slots to 2x PCI express 3.0 x8 mezzanine slots“ as the same is required for item 1.6 Blade server type 1.

Answer 7:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 8: Item 1.9 - Server type 2

Please clarify the request:

“Minimum one service LAN with remote access license *switchable to full standard 1Gb port*”

Answer 8:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 9:

Item 1.9 - Server type 2

It is required to offer servers with „*support OS: MS Windows server 2016, Linux, Unix*“.

The most representative Unix OS implementation is Oracle Solaris. The vendor publishes the officially supported hardware models as “Hardware compatibility list”:

https://www.oracle.com/webfolder/technetwork/hcl/data/s11ga/systems/views/all_servers_all_results.page1..html

The most recent operating system version is tested and officially supported on previous generations of servers for most vendors like:

- Fujitsu Primergy RX2530 M2
- Dell PowerEdge R830
- HPE ProLiant DL360 Gen9
- Lenovo System (IBM) x3550 M5 and ThinkServer RD430
- Cisco UCS C220 M3

Most recent generation of server models are commonly tested and officially supported in near future, but for this tender and at this time this is not the case.

Please remove the request for Unix support to be able to offer most recent generation of servers with their technical innovations and performance benefit.

Answer 9:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 10:

Item 1.11 - Chassis for blade server type 2

The requirements are: „2x 10 Gbps internal cross connects for redundancy and stacking. VLAN Tagging, Pass-Thru and Link Aggregation supported on all uplinks“.

Please consider revision of specification to allow stacking and redundancy over external ports in order to be able to offer blade systems from leading vendors.

Answer 10:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 11:

Item 1.7 – Rack mount server

It is required to offer “Rack mount: min 42U rack mount with min 4 appropriate C13 power strips, or better “.

Please clarify is it necessary to offer “server rack mount kit (rails for installation in rack cabinet) with min 4 appropriate C13 power strips, or better” or it is necessary to offer “rack cabinet 42U with min 4 appropriate C13 power strips, or better”?

Answer 11:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 12:

Is it required to offer firewall that support:

- Maximum IPsec VPN tunnels L2L: 2000 (Gateway to Gateway IPSEC tunnels) or more
- Maximum IPsec VPN tunnels: 10000 (Client to Gateway IPSEC tunnels) or more

It seems that typographical error has occurred, because it does not make sense to request firewall with support „**Maximum** IPsec VPN tunnels or **more**“ in same sentence.

Please change this request to:

- Minimum IPsec VPN tunnels L2L: 2000 (Gateway to Gateway IPSEC tunnels) or more
- Minimum IPsec VPN tunnels: 10000 (Client to Gateway IPSEC tunnels) or more

Answer 12:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 13:

Item 1.5 - Firewall type 2

Is it required to offer firewall with “Integrated Ethernet ports: min 8 ports 10/100 (2 ports with PoE)”.

Today, there is just one or two firewall manufacturers that have PoE ports on firewall, because this is traditionally switch functionality. So please remove this request from specification or if PoE functionality is mandatory, is it acceptable to offer firewall that meets all other requirements and additional PoE adapter to provide Power over Ethernet functionality?

Answer 13:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 14:

Item 1.10 - Chassis for blade server type 1

Provided technical specification is describing in detail Fujitsu BX400 blade chassis that is only able to provide all requirements.

Please consider revision of specification to be able to offer blade chassis from other leading vendors.

Answer 14:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 15:

General inquiry

Please provide "06) TS supply of IT equipment for 4 tax administrations in BiH.pdf in editable format (ie. Word) to be able to fill in required columns since there is no space or possibility in this PDF version for filling in.

Answer 15:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER" in editable format).

Question 16:

Item 1.10 - Chassis for blade server type 1

The described chassis with combination of 6U height and 18 downlinks internal Ethernet switch corresponds to only one model of one manufacturer. This model is currently end of life.

Current models of blade chassis are with bigger height (e.g. 10U) and with different internal switch configurations (generally 16).

Would you accept technical proposal with blade chassis of 10U height and with blade switch and internal ports corresponds to the internal architecture of the blade chassis with same or higher than required redundancy, availability and performance?

Answer 16:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 17:

Item 1.14 - Desktop computer with monitor (BD)

Please confirm that is acceptable to offer Desktop computer with following video ports: 1x digital DisplayPort, 1x analog VGA (D-SUB).

Answer 17:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 18:

Item 1.10 - Chassis for blade server type 1

This Item is describing only one vendor and model that can fulfill all requirements, Fujitsu PRIMERGY BX400.

Fujitsu PRIMERGY BX400 is 6U blade chassis for 8 blade servers.

It is required to offer:

- *1/10 Gbit (1/10Gbps) Ethernet L2 switch with min 18 internal 10Gbps, min 8 external ports SFP+ 10Gbps and min. 2 QSFP+ 40Gbps ports.*
- *8Gb FC pass-through switch with 4 installed optical transceivers 8Gbps....*

Each offered switch must provide a minimum of 18 downlink ports

Internal ports are used to provide connection to blade servers in proportion one to one. For blade chassis with max. 8 blade servers it makes sense to have max. 8 internal ports.

As Fujitsu has also PRIMERGY BX900 S1 blade chassis for 18 blade servers, it uses „Fujitsu Primergy BX Ethernet Switch 10/40Gbit/s 18/8+2“ that provides 18 internal ports and can be used in both blade chassis models.

The same applies to Fiber Channel Passt Thru model „Fujitsu Primergy BX Fibre Channel Pass Thru 8Gbit/s 18/18“

For example, leading blade system vendors are providing following blade systems:

- Lenovo Flex System chassis – 14 blade bays (14 internal connectors)
- HPE c7000 blade chassis – 16 blade bays (16 internal connectors)
- Dell M1000e blade chassis – 16 blade bays (16 internal connectors)

We will mention some more technical requirement that in summary correspond to only one vendor and model:

- 6U height
Only two (2) vendors can offer this type of blade chassis, common blade chassis height is 10U
- 8Gb FC pass-through module
This modules are obsolete and commonly replaced by 8Gb and 16Gb FC switches.
- SAS 6G switch
Only two (2) vendors can offer this type of module together with other requirements
- Ethernet L2 switch **18 internal ports**
- FC Pass-through or FC switch **18 internal ports**
- Management blade
This is Fujitsu terminology, common description for management module
- Minimum 2 LAN ports and 1 serial port - (requirement specific for Fujitsu Management blade)
- 2x USB and 1x Serial port from Front Panel - (requirement specific for Fujitsu Blade Chassis)

Please revise the specification for Chassis for blade server type 1 to open competitiveness for more than one vendor and model

Answer 18:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 19:

Item 1.11 - Chassis for blade server type 2

The requirements are: „2x 10 Gbps internal cross connects for redundancy and stacking. VLAN Tagging, Pass-Thru and Link Aggregation supported on all uplinks“.

This requirements is specific only for two vendors (HPE and Fujitsu). Please change the specification to allow redundancy and stacking over external ports to open competitiveness for more leading vendors of blade systems.

Answer 19:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 20:

Item 1.4 Firewall type 2

Is it possible to offer firewall without PoE functionality because it is obviously that this specification is mix between two Cisco ASA firewall (Cisco ASA 5505 and Cisco ASA 5506). Cisco ASA 5505 is End of Life device and its successor is Cisco ASA 5506. Cisco ASA 5506 does not have PoE ports. Also, all other firewall manufacturer has changed this approach, because PoE is standard switch functionality

Answer 20:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 21:

Regarding item 1.5 Firewall type 2

Among other options for this item, you asked for:

· *Integrated Ethernet ports: min 8 ports 10/100 (2 ports with PoE)*

PoE ports on a Firewall is an option considered as obsolete being delivered on some standard Firewall products which were positioned as End of Life few years ago.

As PoE is not a needed firewall technical characteristic, please revise your specification and exclude this option so we could offer you the new generation of firewalls.

Answer 21:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").

Question 22:

Regarding item 1.10 Chassis for blade server type 1

Among other options for this item, you asked for:

· *Up to 6U height and min 8 blade servers*

· *1/10Gbit (1/10Gbps) Ethernet L2 switch with min 18 internal 10Gbps,*

There was only one manufacturer on global market who could deliver these two options in one Blade Server Chassis. That manufacturer stopped delivering blade chassis from 1st of January 2018. Please clarify can we offer a 6U high chassis wit lower number of internal ports or could we offer a higher Blade Server Chassis?

Otherwise you will not receive a qualified quote as there is no blade chassis on the market that fulfills the requested specification.

Answer 22:

Please see Corrigendum no.3 to the Tender Dossier and its annex (revised "ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER").