Sarajevo,                2019

# Clarification no. 1 to the Tender Dossier

## Supply of IT equipment for four tax administrations in BiH (Re-launch)

## Publication reference: EuropeAid/ 139834/DD/SUP/BA

## Tender no: EC/BIH/TEN/18/009

**Question 1:**

Please provide us with detailed delivery location for every item with quantities, per Item and per location?

**Answer 1:**

**Please see attachment and Corrigendum no.2 to the Tender Dossier, Point 1).**

**Question 2:**

Item 1.1 - Switch type 1

It is required that offered switch support:

- Security: hardware based ACLs, ports and VLANs based ACLs, up to 2000 ACL entries, time- based ACL list, IP source guard

Please confirm that "*hardware based ACLs*" mean "**Drop or rate limit based on source and destination MAC address**"?

**Answer 2:**

**Hardware based ACL means that switch is doing drop or rate limiting of IP packets in hardware.**

**Question 3:**

Item 1.1- Switch type 1

It is required that offered switch support:

- Security: hardware based ACLs, ports and VLANs based ACLs, up to 2000 ACL entries, time- based ACL list, IP source guard

Please confirm that "*ports and VLANs based ACLs*" mean **"Drop or rate limit based on VLAN ID, IP address, protocol, port, etc..."?**

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**Answer 3:**

**We confirm that "ports and VLANs based ACLs" mean that drop or rate limit is based on protocol/port and VLAN ID.**


**Question 4:**

Item 1.2- Layer3 Switch

It is required that offered switch support:

- optional support for network module with 4 gigabit SFP based uplink ports
- optional support for network module with 2 ten gigabit SFP+ based uplink ports


Most of the leading network equipment manufacturers (HPE Aruba, Extreme Networks, Huawei, etc.) expect Cisco, always include network module with 4 SFP/SFP+ ports but without SFP/SFP+ transceiver included. This means that this type of switch has support for:

- 4 gigabit SFP based uplink ports, or
- 4 ten gigabit SFP+ based uplink ports, or
- 2 gigabit SFP based uplink ports and 2 ten gigabit SFP+ based uplink ports, or
- Any other SFP/SFP+ combination which is less than or equal to 4


In order to increase the competitiveness for more leading manufacturer's network equipment, please change this request to:

- support for min. 4 gigabit SFP based uplink ports or min. 2 ten gigabit SFP+ based uplink ports


**Answer 4:**

**The requirements stated in the Technical specifications for Item 1.2 related to two features in question (optional support for network module with 4 gigabit SFP based uplink ports and optional support for network module with 2 ten gigabit SFP+ based uplink ports) remain unchanged.**


**Question 5:**

Item 1.2 - Layer3 Switch

It is required that offered switch support:

- switch stacking support for data

Is it acceptable to offer switch with support for VSS (virtual switching system)?


This means that you can use existing 10G or additional 40G interface on switch for connection between two switches and you will have same functionality which you have if you are using switch with dedicated stack module? Most of the leading manufacturer's network equipment doesn't have dedicated stacking module and instead of that they have two 40G interface with dual purpose, for stacking or as uplink ports. The biggest advantage of using 40G interface for stacking is distance between switches in stack. With dedicated stacking module, cable for stacking can be up to 3m max. and from other side if you are using 40G interface for stacking, distance between switches can be 0,5m, 1m, 3m, 5m, 7m, etc. Also, bandwidth that can be achieved using stacking module is equal to bandwidth when you use 40G interfaces.

**Answer 5:**

**To ensure equal treatment of tenderers, the Contracting Authority cannot give a prior opinion on the acceptance of offered item. Please note that each offered item has to comply with minimum requirements.**

**Question 6:**

Item 1.2 – Layer 3 Switch

It is required that offered switch support:

- ipv6 routing in hardware

Please explain this request? Did you mean that offered switch must support IPv6 unicast and multicast routes in hardware?

**Answer 6:**

**Switch must support IPv6 unicast routes in hardware.**

**Question 7:**

Item 1.2 – Layer 3 Switch

It is required that offered switch support:

- ipv4 routes (including ARP) - Min. 4000

Please explain this request? Some of the leading network equipment manufacturer's for Layer 3 features define ARP entries, IPv4 unicast routes and IPv4 multicast routes. Please confirm, that is acceptable to offer switch with more than 4000 ARP entries and 2000 IPv4 multicast routes.

**Answer 7:**

**To ensure equal treatment of tenderers, the Contracting Authority cannot give a prior opinion on the acceptance of offered item. Please note that each offered item has to comply with minimum requirements.**

**Question 8:**

Item 1.2 – Layer 3 Switch

It is required that offered switch support:

- policy based routing

Policy based routing (PBR) is a technique:

- used to make routing decisions based on policies set by the network administrator,

or

- use filters in conjunction with forwarding classes and routing instances to control how packets travel in a network.

Some network equipment manufacturers for this technique use different term then PBR (policy based routing) and instead of that they use some of the above two descriptions. Please confirm that is acceptable to offer Layer3 Switch that support one of the above mentioned technique.

**Answer 8:**

**It is acceptable to offer policy based routing or any other technical solution which can ensure the same functionality. Please see Corrigendum no.2 to the Tender Dossier, Point 2a).**

**Question 9:**

Item 1.2 – Layer 3 Switch

It is required that offered switch support:

- Spanning Tree Protocol (IEEE 802.1 D), Per VLAN Spanning Tree Protocol, Rapid Per VLAN Spanning Tree Protocol, Multiple Spanning Tree Protocol (MSTP)

Please define exact IEEE standard for *Per VLAN Spanning Tree Protocol* and *Rapid Per VLAN Spanning Tree Protocol* because **Per VLAN Spanning Tree Protocol** is protocol implemented by Cisco manufacturers.

**Answer 9:**

**Per VLAN Spanning Tree Protocol is deleted, Rapid Per VLAN Spanning Tree Protocol is changed to Rapid Spanning Tree Protocol – RSTP defined as IEEE802.1w, and Multiple Spanning Tree Protocol (MSTP) is defined as IEEE802.1s. Please see Corrigendum no.2 to the Tender Dossier, Point 2b, 2c and 2d).**

**Question 10:**

Item 1.4 – firewall type 1

It is required to offer firewall that supports:

- Maximum IPsec VPN tunnels L2L: 2000 (gateway to gateway IPSEC tunnels) or more
- Maximum IPsec VPN tunnels: 2000 (Client to gateway IPSEC tunnels) or more
- IPSec VPN throughput: 3Gbps or more

Today, most of leading firewall vendors in technical specification for firewalls defines only IPSec VPN throughput, because number of IPSec VPN tunnels (Gateway to Gateway or Client to Gateway) only depends from throughput, so please consider removing:

- Maximum IPSec VPN tunnels L2L: 2000 (Gateway to Gateway IPSEC tunnels) or more
- Maximum IPSec VPN tunnels: 2000 (Client to Gateway IPSEC tunnels) or more from specification.

**Answer 10:**

**Offered firewall must support at least 2000 L2L and 2000 Client to Gateway tunnels. Please see Corrigendum no.2 to the Tender Dossier, Point 3). Requirement stated in the Technical specifications for Item 1.4 related to IPSec VPN throughput remains unchanged.**

**Question 11:**

Item 1.7 - Rack mount server

It is required to offer rack mount server with the following specification:

- Maximum form factor 2 RU.
- Minimum four processor system,
- Installed processors: minimum 4x processor with minimum PassMark points 19.500 per single CPU and minimum 12 cores per CPU
- Memory slots: min 48, support for min 6Tb, min 2600 MHz

• Support for NVDIMM capacity 192GB or better

The requested server is categorized as specialized server for critical workloads, high-density, high performance four-socket server. This specification corresponds to only one server vendor and model. Please consider revision of specification for maximum form factor to 3 RU (rack units) for improved competitiveness, to be able to offer high performance servers from other leading vendors.

**Answer 11:**

**Request "Maximum 2 RU" is deleted. Please see Corrigendum no.2 to the Tender Dossier, Point 4).**

**Question 12:**

Item 1.1 - Switch type 1

Please clarify the request:

• Security:        , ports and VLANs based ACLs,

Ports and VLANs based ACLs or PACL (Port ACL) and VACL (VLAN ACL) is often used by the Cisco network equipment manufacturer. Please confirm that "ports and VLANs based ACLs" means that switch have possibility to drop or rate limit based on port and VLAN ID.

**Answer 12:**

**We confirm that "ports and VLANs based ACLs" mean that drop or rate limit is based on protocol/port and VLAN ID.**

**Question 13:**

Item 1.2 - Layer3 Switch

Please clarify the request:

• switch stacking support for data

Is it acceptable to offer switch that support any other technical solution that creates stack between switches, such as VSS or other equivalent technology because you have that kind request in specification for Item 1.1 - Switch type 1.

**Answer 13:**

**To ensure equal treatment of tenderers, the Contracting Authority cannot give a prior opinion on the acceptance of offered item. Please note that each offered item has to comply with minimum requirements.**

**Question 14:**

Item 1.4 - Firewall type 1

It is specified that offered firewall must support:

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

This request is confusing, because you have "Maximum" and "or more" in the same sentence. Please consider to change this request to:

• IPsec VPN tunnels L2L: 2000 (Gateway to Gateway IPSEC tunnels) or more

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

**Answer 14:**

**Technical specification is changing to :**
- **Minimum IPsec VPN tunnels L2L: 2000 (Gateway to Gateway IPSEC tunnels) or more**
- **Minimum IPsec VPN tunnels: 2000 (Client to Gateway IPSEC tunnels) or more**

**Please see Corrigendum no.2 to the Tender Dossier, Point 3).**

**Question 15:**

Item 1.4 - Firewall type 1

It is specified that offered firewall must support:
- Maximum IPsec VPN tunnels L2L: 2000 (Gateway to Gateway IPSEC tunnels) or more
- Maximum IPsec VPN tunnels: 2000 (Client to Gateway IPSEC tunnels) or more

Leading firewall manufacturers don't have this info in firewall data sheet. Please clarify is it acceptable to provide an official firewall manufacturer's statement verifying that the offered device meets the requested technical specification?

**Answer 15:**

**It is acceptable to provide an official firewall manufacture's statement, which verifies that the offered device meets the requested technical specification.**

**Question 16:**

Item 1.5 - Firewall type 2

It is specified that offered firewall must support:
- IPSec VPN tunnels L2L: 95 or more
- Unlimited users/IP license

Leading firewall manufacturers don't have this info in firewall data sheet. Please clarify is it acceptable to provide an official firewall manufacturer's statement verifying that the offered device meets the requested technical specification?

**Answer 16:**

**It is acceptable to provide an official firewall manufacture's statement, which verifies that the offered device meets the requested technical specification.**

**Question 17:**

Item 1.14 - Desktop computer with monitor

Is it acceptable to offer computer and monitor from different manufacturers?

**Answer 17:**

**Yes, it is acceptable to offer computer and monitor from different manufacturers.**

**Question 18:**

Item 1.15 - OnLine UPS

Please specified UPS type, rack or tower or it must be convertible (rack and tower).


**Answer 18:**

**UPS type must be rack. Please see Corrigendum no.2 to the Tender Dossier, Point 5).**


**Question 19:**

Item 1.16 - Rack with additional equipment

It is specified that offered rack with additional equipment contains:

• 2x Power Distribution Unit, 3 Phase, 16A

Please, define type number and type of outlets (C14 or schuko socket) and confirm that you need "3 Phase" and not "Single-Phase" PDU.

**Answer 19:**

**Type of outlet is C13 and we confirm requirement "3 Phase". Please see Corrigendum no.2 to the Tender Dossier, Point 6).**


**Question 20:**

Places of Delivery

There is no information for delivery location for every Item. Please provide delivery location per Item and quantities per location?

**Answer 20:**

**Please see Answer 1 and Corrigendum no.2 to the Tender Dossier, Point 1).**