

# ***ANNEX II + III :*      TECHNICAL SPECIFICATIONS + TECHNICAL OFFER (Which includes changes in Lot 2, 3 and 4)**

**Contract title:** Supporting Data Management

**p 1 /...**

**Publication reference:** EuropeAid/137646/DH/SUP/BA

**Columns 1-2 should be completed by the Contracting Authority**

**Columns 3-4 should be completed by the tenderer**

**Column 5 is reserved for the evaluation committee**

Annex III - the Contractor's technical offer

The tenderers are requested to complete the template on the next pages:

- Column 2 is completed by the Contracting Authority shows the required specifications (not to be modified by the tenderer),
- Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words “compliant” or “yes” are not sufficient)
- Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offered specifications.

## LOT 2: Server, storage systems and network equipment

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
<b>2.1</b> <b>QTY:</b> <b>1 pcs</b>	<b>Blade chassis</b> <ul style="list-style-type: none"> <li>- Need to accommodate minimum 10 dual processors servers offered in bellow item 2.2. Chassis can be offered as one or as multiple chassis. All chassis needed to accommodate this number of servers will be delivered in this lot;</li> <li>- Rack mounted, maximum 12U height;</li> <li>- Populated with redundant and hot swap power supplies, fully configured with all the power supplies for highest capacity;</li> <li>- Populated with redundant and hot swap fans, fully configured for highest capacity;</li> <li>- Redundant chassis management module with web access;</li> <li>- Dual redundant modules for LAN and SAN connections. Supported speed for all internal and external LAN connections of 10 Gbps, VNIC support, support for minimum 450 VLANs. Supported speed for all internal and external SAN connections of 8 Gbps, supported FCoE connections;</li> </ul> <b>Warranty:</b> Minimum: 1-Year Parts, 1-Year Labour, 1-Year Onsite support, maximum response time 1 business day, maximum time for repair 3 business days <ul style="list-style-type: none"> <li>- <b>Commercial warranty:</b> 3 years</li> <li>- All necessary parts and licenses needed for normal operation and connectivity to Cisco Nexus 5548UP.</li> <li>- Has to be compatible with 2.2</li> </ul>			
<b>2.2</b> <b>QTY:</b> <b>3 pcs</b>	<b>Blade server</b> <ul style="list-style-type: none"> <li>- Processor:               <ul style="list-style-type: none"> <li>o minimum number of processors: 2</li> <li>o minimum CPU passmark for single CPU: 14224</li> </ul> </li> <li>- Memory supported: min 768 GB;</li> <li>- Installed memory: min 256 GB;</li> </ul>			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	<ul style="list-style-type: none"> <li>- HDD (min): 2x SAS drives, 300 GB, 10000 rpm, RAID 0 or 1;</li> <li>- LAN (min): 2x 10Gb Ethernet Port, VNIC supported;</li> <li>- SAN (min): 8Gb Dual port FC HBA;</li> <li>- Supported OS: Windows Server 2012, Windows Server 2012 R2, VMware vSphere 5.5;</li> </ul> <p><b>Warranty:</b> Minimum: 1-Year Parts, 1-Year Labour, 1-Year Onsite support, maximum response time 1 business day, maximum time for repair 3 business days</p> <ul style="list-style-type: none"> <li>- <b>Commercial warranty:</b> 3 years</li> <li>- All necessary parts and licenses needed for normal operation and integration into offered chassis (item 2.1).</li> <li>- Has to be compatible with 2.1</li> </ul>			
<b>2.3</b> <b>QTY:</b> <b>1 pcs</b>	<p><b>Blade infrastructure</b> Rack based, factory preinstalled</p> <ul style="list-style-type: none"> <li>- Number of blade server slots: min 14</li> <li>- Populated with min 4 redundant and hot swap power supplies, fully configured with all the power supplies for highest capacity;</li> <li>- Converged switches: Min 2 x redundant switches, each with downlink to each blade of min 20Gb, min 4 x 10Gb uplink ports, min 4 x 8Gb FC ports, 4 x 8Gb FC SFPs included per switch.</li> <li>- Additional 4 x 1Gb RJ-45</li> </ul> <p>Has to be compatible with 2.4-2.7</p>			

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<b>2.4</b> <b>QTY:</b> <b>6 pcs</b>	<b>Blade Server</b> <ul style="list-style-type: none"> <li>- Processor: min 2 with Pass mark CPU Mark 21123 or higher per CPU</li> <li>- Min 256GB RAM</li> <li>- min 2 x 300GB SAS 2.5in Hot-plug Hard Drive (min 10K rpm)</li> <li>- RAID Controller with minimum 1 GB Cache</li> <li>- Min 2 x 20Gb ports (or 4 x 10Gb ports)</li> <li>- Min 4 x 1Gb ports</li> <li>- Has to be compatible with 2.3-2.7</li> </ul>			
<b>2.5</b> <b>QTY:</b> <b>1 pcs</b>	<b>Blade infrastructure management Software</b> <ul style="list-style-type: none"> <li>- Should manage all the blade servers offered</li> <li>- Supports dashboard view of the overall health of the data center</li> <li>- Software should have capability to create server profile</li> <li>- Should be able to collect CPU utilization information for all of the servers it manages.</li> <li>- Should collect port-level statistics for networking</li> <li>- Must have the capability of capturing and deploying OS images.</li> <li>- Must have the capability of configuring the hardware and changing system settings</li> <li>- Has to be compatible with 2.3-2.7</li> </ul>			
<b>2.6</b> <b>QTY:</b> <b>1 pcs</b>	<b>Storage system</b> <ul style="list-style-type: none"> <li>- Rack based, factory preinstalled</li> <li>- Min 2 storage controllers included</li> <li>- Min 40GB cache included</li> <li>- Min 1 x CPUs included per controller</li> </ul>			

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	<ul style="list-style-type: none"> <li>- Storage system supports min 100 HDDs in any combination SFF and LFF (supports 7.2k, 10k, 15k and Solid State Disks)</li> <li>- Min included min 32 x min 600GB 10k HDDs</li> <li>- Min included min 8 x min 450GB SSDs</li> <li>- Min 1 x 8Gb FC ports included per controller</li> <li>- Supports RAID levels 0, 1, 5, and 6</li> <li>- Thin Provisioning license included</li> <li>- Licenses for the Full copies (Clones) and snapshots of volumes must be included</li> <li>- License for integration with MS Hyper-V and MS SQL Server management tools</li> <li>- License for sub-level tiering of volumes</li> <li>- License for QoS on volume and host level</li> <li>- Support for synchronous and asynchronous replication to another storage system from the vendor</li> <li>- Storage monitoring platform included</li> <li>- Has to be compatible with 2.3-2.7</li> </ul>			
<b>2.7</b> <b>QTY:</b> <b>1 pcs</b>	<b>Rack</b> <ul style="list-style-type: none"> <li>- Standard Server rack.</li> <li>- 42U height</li> <li>- Side panels included</li> <li>- Lockable Back and rear door included</li> <li>- Stabilizer kit included</li> <li>- Rack grounding kit included</li> <li>- PDUs for all the offered equipment, fully redundant N+N</li> <li>- Has to be compatible with 2.3-2.6</li> </ul>			
<b>2.8</b> <b>QTY:</b> <b>1 pcs</b>	<b>Pre-Installation services</b> <ul style="list-style-type: none"> <li>- Platform should be pre-installed and cabled from the factory for items 2.3-2.7</li> </ul>			
<b>2.9</b> <b>QTY:</b> <b>1 pcs</b>	<b>Support services</b> <ul style="list-style-type: none"> <li>- Bidder should include 1y support services covering both hardware and software products offered for items 2.3-2.7</li> </ul>			
<b>2.10</b> <b>QTY:</b>	<b>Server 1:</b> Rack mount server <b>Processor:</b> 2 x minimum 14 cores processor, Pass mark CPU			

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5 pcs	<p>Mark for each processor 19889 or higher</p> <p><b>Memory:</b> 192 GB or more RAM</p> <p><b>HDD:</b> Flash memory min 32GB for OS</p> <p><b>Connectivity:</b> min. 2 x 10Gb SFP+ ports, 4 x 1Gb RJ-45, 2 x 8Gb FC ports, 2 x 5m FC OM4 cable, 2 x 3m SFP+ to SFP+ 10 GbE cable</p> <p><b>Power supply and fans:</b> min. two hot swap redundant power supply modules with min. 600W each, including two or more hot swap and redundant fans</p> <p>Rack mounting kit and cable management arm for all 5 servers and one storage</p> <p>Management and monitoring software for servers and storage</p> <p><b>OS:</b> Licensed OS that supports installation unlimited number of virtual machines without any additional licensing for virtual machines operating systems</p> <p><b>Warranty:</b> Minimum: 1 year; 24x7 for HW and SW, max on-site response time 4 hours, equipment manufacturer guaranteed Installation and initial configuration of system functionalities by equipment manufactures authorized <b>Commercial warranty:</b> 3 years</p>			
2.11 QTY: 7 pcs	<p><b>SERVER 2</b> Server 2U rack mounts with rack mounting kit</p> <p><b>Processor:</b> min. 2 x 6 core processor, Passmark (CPU Mark for each processor) 10436 or higher</p> <p><b>Memory:</b> min. 64 GB (4x16GB) ECC. Supported up to 1.5 TB,</p> <p><b>HDD:</b> Min. 5 x 300GB/15K rpm 6GBPS SAS</p> <p><b>Raid support:</b> integrated 6 Gbps hardware RAID -0, -1, -5, -10</p> <p><b>Optical drive:</b> Internal SATA DVD-RW with Software.</p> <p><b>Connectivity:</b> min Network LAN: 8 × 1 GbE,</p> <p><b>Fibre Channel:</b> 8GB FC DUAL-PORT HBA or equivalent</p> <p><b>Systems management:</b> Integrated.</p> <p><b>Ports:</b> min. 4x USB2.0 (2x rear, 2x front), 2x USB 3.0 (1x front,</p>			

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	<p>2x rear), min. 1x internal USB port. min. 1xSerial, 1xVideo front, 1xVideo back.</p> <p><b>Power supply:</b> min. two hot swap redundant power supply modules with min. 750W each.</p> <p><b>Hot-swap components:</b> Power supplies, fan modules and hard disk drives</p> <p><b>OS support:</b> Microsoft Windows Server 2008/ 2012, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Hyper-V, Oracle Solaris.</p> <p><u><b>Warranty:</b> min. 1 year with next business day on-site response, spare parts and service included. Service support performed solely by service providers authorized by the manufacturer of the equipment, with a mandatory support from the manufacturer.</u></p> <p><u>Commercial warranty: 3 years</u></p> <p><b>Installation:</b> Full installation and configuration (HW, SW) with testing</p>			
<b>2.12</b> <b>QTY:</b> <b>3 pcs</b>	<p><b>SERVER 3</b></p> <p>Server 2U rack mount with rack mounting kit</p> <p><b>Processor:</b> min. 1 x 6 core processor, Pass mark CPU Mark 10436 or higher, Possibility of installation of second processor</p> <p><b>Memory:</b> min. 32 GB (2x16GB) ECC</p> <p><b>HDD:</b> Min. 3 x 600GB/15K rpm 6GBPS SAS</p> <p><b>Raid support:</b> integrated 6 Gbps hardware RAID -0, -1, -5, -10.</p> <p><b>Optical drive:</b> Internal SATA DVD-RW with Software.</p> <p><b>Connectivity:</b> min. Network LAN 8 × 1 GbE,</p> <p><b>Systems management:</b> Integrated <b>Ports:</b> min. 4x USB2.0 (2x rear, 2x front), 2x USB 3.0 (1x front, 2x rear), min. 1x internal USB port. min. 1xSerial, 1xVideo front, 1xVideo back.</p> <p><b>Power supply:</b> min. two hot swap redundant power supply modules with min. 550W each.</p> <p><b>Hot-swap components:</b> Power supplies, fan modules and hard</p>			

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	<p>disk drives</p> <p><b>OS support:</b> Microsoft Windows Server 2008/ 2012, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, VMware, Hyper-V, Oracle Solaris.</p> <p><b>Warranty: min. 1 year;</b> with next business day on-site response, spare parts and service included. Service support performed solely by service providers authorized by the manufacturer of the equipment, with a mandatory support from the manufacturer.</p> <p><u>Commercial warranty: 3 years</u></p> <p><b>Installation:</b> Full installation and configuration (HW, SW) with testing</p>			
<p><b>2.13</b></p> <p><b>QTY:</b></p> <p><b>14 pcs</b></p>	<p><b>SERVER 4</b></p> <p>Form factor: 19" rack with rack mounting kit, 2U max</p> <p><b>CPU:</b> processor with Passmark CPU Mark 9.900 or higher</p> <p>Possibility of installation of second processor</p> <p><b>Memory:</b> min. 64GB DDR4 with Advanced ECC</p> <p><b>HDD:</b></p> <p>min. 2x 100GB SSD</p> <p>min. 2x 900GB SAS 10k</p> <p>Storage controller: 12Gb/s SAS RAID controller with min. 2GB cache</p> <p>RAID support: min. RAID 0, 1, 5, 6, 10, 50</p> <p>Expansion Slot: min. 3x PCIe 3.0</p> <p><b>Network:</b> min. 4x 1Gb Ethernet, 2x 10GBASE-T adapter, 1Gb Remote Management Port</p> <p><b>Power:</b> min. two hot swap redundant power supply modules with min. 450W each.</p> <p><b>Fan:</b> min. 4x redundant hot swap fans.</p> <p>Hot swap units: power supplies, fans, HDDs</p> <p><b>System Management:</b> On-board remote management, remote access, health monitoring of key internal components: fans, hard drives, power supplies</p> <p><b>OS support:</b> Microsoft Windows Server 2008/ 2012, Red Hat</p>			



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	<p>Enterprise Linux, SUSE Linux Enterprise Server, VMware, Hyper-V, Oracle Solaris.</p> <p><b>Warranty:</b> min. 1 year; with next business day on-site response, spare parts and service included. Service support performed solely by service providers authorized by the manufacturer of the equipment, with a mandatory support from the manufacturer.</p> <p>Commerical warranty: 3 years</p> <p><b>Installation:</b> Full installation and configuration (HW, SW) with testing.</p>			
<b>2.14</b> <b>QTY:</b> <b>2 pcs</b>	<p><b>NAS storage 1</b></p> <p>Drive Bays: 6</p> <p><b>Drive type:</b> Hot swappable drive, compatible 2,5“ HDD SATA III, 3,5“ HDD SATA III, 2,5“ SSD SATA III</p> <p><b>Processor:</b> minimum dual core processor, Passmark CPU Mark 3929 or higher</p> <p><b>RAM:</b> min. 4 GB</p> <p><b>HDD:</b> min. SATA III 4x4 TB, Class NAS, Cache 64 MB, Compatible with NAS</p> <p><b>Hardware Encryption Engine:</b> min. AES or AES-NI</p> <p><b>Connectivity:</b> min. 2x 1Gb Ethernet, 2 x USB 3.0, 1 x eSATA,</p> <p><b>RAID:</b> JBOD, 0, 1, 5 6 10</p> <p><b>Commercial warranty:</b> 3 Years</p>			
<b>2.15</b> <b>QTY:</b> <b>1 pcs</b>	<p><b>STORAGE 2</b></p> <p>Storage 2U rack mount with rack mount kit</p> <p><b>Supported drives:</b> 24x 2,5” drives.</p> <p><b>Controller:</b> Dual controller.</p> <p><b>Host interface:</b> min. 8 Gb Fibre Channel connection servers (optional 1 Gbps iSCSI or 10 Gbps iSCSI/Fibre Channel over Ethernet).</p> <p><b>Host flexibility:</b> iSCSi, FCP, FCoE, SAS.</p> <p><b>Cache per controller:</b> min. 8GB</p> <p><b>Install HDD:</b> min. 16x600GB SAS 2,5”.</p> <p><b>Raid levels:</b> RAID 0,1,5,6 and 10.</p>			

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	<p><b>Fans and Power supply:</b> fully redundant, hot swappable.</p> <p><b>Connections:</b> min. Dual 8GB FC 4-PORT Host Interface with 8Gb FC SW SFP Transceivers.</p> <p><b>Cables:</b> min. 4 x 5M FIBER OPTIC CABLE LC-LC.</p> <p><b>Compatibility:</b> compatible with item 2.11 SERVER 2, connection with 8 Gb Fibre Channel</p> <p><b>Warranty:</b> min. 1 year ; with next business day on-site response, spare parts and service included. Service support performed solely by service providers authorized by the manufacturer of the equipment, with a mandatory support Commercial warranty: 3 years</p> <p><b>Installation:</b> Full installation and configuration (HW, SW) with testing</p> <p>Storage must be configured with above mentioned servers (2.11)</p>			
<b>2.16</b> <b>QTY:</b> <b>1 pcs</b>	<p><b>Storage 3</b></p> <ul style="list-style-type: none"> <li>- Rack based, factory preinstalled</li> <li>- Min 2 storage controllers included</li> <li>- Min 20 GB cache per controller included</li> <li>- Min 2 x CPUs per controller included <b>or min. 1x industry standard CPU + 1x ASIC per controller</b></li> <li>- Storage system supports min 100 HDDs in any combination SFF and LFF (supports 7.2k, 10k, 15k and Solid State Disks)</li> <li>- Min. included 22 x min 600GB 10k HDDs</li> <li>- Min. included 4 x min 450GB SSDs</li> <li>- Min <b>4</b> x 8Gb FC ports included per controller,</li> <li>- Supports RAID levels 0, 1, 5, and 6</li> <li>- Thin Provisioning license included</li> <li>- Licenses for the Full copies (Clones) and snapshots of volumes must be included</li> <li>- Licenses for min 32 hosts</li> <li>- License for Application integration with VMware and Hyper-V</li> <li>- License for sub-level tiering of volumes</li> </ul>			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	<ul style="list-style-type: none"> <li>- License for QoS on volume and host level</li> <li>- Support for synchronous and asynchronous replication to another storage system from the vendor</li> <li>- Storage monitoring platform included</li> </ul> Storage must be configured with above mentioned servers (2.10)			
<b>2.17</b> <b>QTY:</b> <b>17 pcs</b>	<b>NAS storage 4</b> <b>12-Bays</b> Processor: minimum 4 cores processor, Pass mark CPU Mark 6922 or higher Memory: min. 24 GB RAM Flash memory: min. 512MB Supported: min.12 x 3.5" or 2.5" SATA HDD or SSD, 12 x hot-swappable and lockable tray min. 4 x Gigabit RJ-45 Ethernet port (Optional dual-port 10 Gb and 1 Gb network card are supported), 3x USB port Support USB printer, pen drive, USB hub, and USB UPS.  Support min. 4TB NAS Hard Drive, Enterprise RAID  Included HDD: min. 8 x 4 TB SATA III , Class NAS, Cache 64 MB, Compatible with NAS			
<b>2.18</b> <b>QTY:</b> <b>1 pcs</b>	<b>SAN Storage 5:</b>  2U rack mount with minimum 24 drive bays <b>Controller:</b> Dual redundant controllers. <b>Supported Capacity:</b> up to 256 TB native capacity with optional disk enclosures Supported Drives (with expansion): 96 LFF/199 SFF <b>Cache:</b> min. 8 GB read/write cache <b>Cache Backup:</b> cache data protection / back up to non-volatile memory for indefinite backup <b>Total LUNs:</b> min 512 <b>Thin Provisioning:</b> enabled.			

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	Management Interface: provision of status and activity RAID Support: 0, 1, 5, 6, 10, 50 <b>Host Ports:</b> support up to four connections with options of 16Gb, 8Gb FC and 10GbE, 1GbE iSCSI per controller <b>Disk included:</b> min. 12x 1.2TB 6GB SAS 10k SFF dual port, hot swap <b>Connectivity:</b> fiber channel connectivity, min. 1x16 GB FC, 1x8GB FC, 1x10 Gbe per controller <b>Warranty:</b> min. 1 year			
<b>2.19</b> <b>QTY:</b> <b>2 pcs</b>	<b>SAN Storage 6</b> <b>Dual controller storage</b> <b>Supported Maximum Capacity:</b> up to 238 TB native capacities using additional Disk Enclosures with SFF disks. <b>Controller Cache:</b> min. 4 GB transportable read/write cache per controller. <b>Total LUNs:</b> min 512 <b>Thin Provisioning:</b> enabled. <b>Supported Drives (with expansion):</b> min. 96 LFF/199 SFF <b>User Interface:</b> Status and activity provided via management interfaces <b>RAID Support:</b> 0, 1, 5, 6, 10, 50 <b>Cache Backup:</b> ECC protection with back up to flash memory (indefinite backup) <b>Upgradeable Firmware:</b> yes <b>Snapshots:</b> included license for min. 64 snapshots <b>Disk Drive and Enclosure Protocol Support:</b> 6 Gb SAS - Serial Attached SCSI <b>Host Ports:</b> support up to four connections with options of 16Gb, 8Gb FC and 10GbE, 1GbE iSCSI per controller <b>Disk included:</b> 24x 1.2TB 6GB SAS 10K SFF DP ENT HDD <b>Connectivity ports:</b> min. 1x8GB FC, 1xGbE iSCSI per controller <b>Warranty:</b> min. 1 year			

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2.20 QTY: 3	<p><b>Server rack 42 U</b>  <b>Type:</b> pre-assembled  <b>Front door:</b> Sheet metal perforated, Swing handle 3point  <b>Rear door:</b> Sheet metal double door perforated, Swing handle 3point  <b>Side panel:</b> Remove able with Lock  <b>Tilt protection:</b> Yes  <b>Dimension:</b> Min. 42U, 600 mm width x 1000 mm depth  Including assembly set with all necessary assembly parts  <b>PDU type 1, 1 pcs</b>  · Minimum 6 Socket outlets 250VAC 50/60Hz / 16A / 4000W  · Illuminated switch - protected against accidental power off  · Cable: Min. 2m · compatible with server rack</p> <p><b>PDU type 2, 2 pcs</b>  · Minimum 9 IEC C13 Socket outlets 250VAC 50/60Hz / 10A / 2500W  · Overload protection  · Cable: Min. 2 m  · IEC C14 plug  · compatible with server rack</p> <p><b>Horizontal Cable arranger, 4 pcs</b>  · Min. 5 cable clamps, 40x60 mm (1U), 80x60 mm (1U)  · compatible with server rack</p> <p><b>Vertical Cable arranger, 2 pcs</b>  · Inclusive fixing for mounting on the profile  · as the server rack</p> <p><b>Patch panel, 2 pcs</b>  · Manufactured for up to 250MHz, EN 50173 and ISO/IEC 11801  · Shielded RJ45 jacks</p>			

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	<ul style="list-style-type: none"> <li>· Cable installation via LSA strips, color codes based on EIA/TIA 568 A &amp; B</li> <li>· Category: CAT 6</li> <li>· Ports: 24</li> <li>· compatible with server rack</li> </ul> <p><b>KVM Console</b>, 1 pcs</p> <ul style="list-style-type: none"> <li>· Control panel with min. 17", keyboard, touchpad, and built-in KVM switch</li> <li>· Non-reflective and break-proof monitor min. 17"</li> <li>· Optimum resolution: Minimum 1280x1024 at 60 Hz</li> <li>· thin keyboard</li> <li>· Mouse touch board with two function button</li> </ul> <p>Maximum 1U height</p> <ul style="list-style-type: none"> <li>· compatible with server racks</li> </ul>			
<b>2.21</b> <b>QTY:</b> <b>4 pcs</b>	<p><b>SAN Switch</b></p> <p><b>Fibre Channel Port Bandwidth:</b> Min. 8 Gbit/sec</p> <p><b>Aggregate device bandwidth:</b> 256 - 384 Gbit/Sec full duplex</p> <p><b>FC Ports:</b> Min. 24 Ports with 16 Ports Enabled and 8x 8Gb Short Wave SFP+ incl.</p> <p><b>Form factor:</b> max. 1U</p> <p><b>Zoning Software:</b> Included</p> <p><b>Fabric latency:</b> 700 nanoseconds with no content, cut-through routing at 8 Gbit/sec</p> <p><b>USB:</b> Min. one USB port for system log file downloads or firmware upgrades</p> <p><b>Data traffic types:</b> Fabric switches supporting unicast, multicast (min. 255 groups), and broadcast</p> <p><b>Media types:</b> B-Series Branded Small Form-Factor Pluggable (SFP)</p> <p><b>Management access:</b> 10/100 Ethernet (RJ-45), serial port</p> <p><b>Fiber channel cables:</b> fiber channel cables: min. 24x LC/LC multi-mode FC cables, length 1.5m-5m</p> <p><b>Warranty:</b> min. 1 years</p>			

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	It must be compatible with items 2.18 and 2.19			
<b>2.22</b> <b>QTY:</b> <b>1</b>	<b>Firewall 1</b> 1U rack mountable, Graphic LCD display for management IP address and image management, <b>Connectivity:</b> Min. 6x10/100/1000Base-T RJ45 ports, Two USB port, Console port RJ45, <b>HDD: min.</b> 250 GB <b>Maximum Number of Virtual Systems:</b> 3 <b>Firewall Throughput:</b> Min 3 Gbps <b>IPS Throughput:</b> Min 300 Mbps <b>Concurrent connections:</b> Min 1.2 Million <b>Connections per second:</b> Min 25,000 <b>Features Included:</b> Firewall, VPN, Advanced Networking and Clustering, Identity Awareness, Mobile Access, IPS, Application Control (min 6400 Web 2.0 application and min 300 000 widget application), Anti-Virus (min 4.5 million malware and min 300,000 malicious websites), Network Policy Management, Logging and Status. <b>Upgradeable to support following functionalities:</b> URL Filtering (min 200 000 000 web sites and min 64 category), Anti-Bot, Anti-Spam and Email Security <b>High Availability:</b> Active/Active, Active/Passive <b>Warranty:</b> min 1 year Include training for 1 participant			
<b>2.23</b> <b>QTY:</b> <b>17 pcs</b>	<b>Firewall 2</b> Firewall throughput – min. 1.7 Gbps IPsec VPN 3DES/AES throughput – min. 300 Mbps Concurrent sessions - min. 200.000 Connections per Second - min. 2100 Interfaces - min. 16x 10/100/1000 Memory – min. 2 GB DRAM, 2 GB flash Support for L2 switching (802.1x, LLDP, 802.1ad (Q-in-Q), IGMP Snooping, 802.3ad (LACP) ) Layer 3 and L4 DDoS and DoS protection			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	brute force attack mitigation, SYN flood attacks resistance, zone-based spoofing, malformed packet protection IPsec VPN tunnels - min. 900 Support for Auto VPN, Intrusion Prevention System (IPS)/ Application Security / UTM with optional licence User Authentication and Access Control RADIUS, RSA SecureID, LDAP User Firewall: Integrated Routing OSPF, MPLS, Multicast Multiple WAN, WLAN, LAN options High Availability Expansion min. 1 I/O slot Support for NAT Measurement, and Monitoring - real time performance monitoring Support for Centralized management <b>Warranty:</b> min. 1 years			
<b>2.24</b> <b>QTY:</b> <b>98</b>	<b>Firewall 3</b> Firewall throughput – min. 650 Mbps IPsec VPN 3DES/AES throughput – min. 65 Mbps Concurrent sessions – min. 32.000 Connections per Second - min. 1800 Interfaces – min. 8x10/100 Memory – min 2 GB DRAM, 2 GB flash Support for L2 switching (802.1x, LLDP, 802.1ad (Q-in-Q), IGMP Snooping, 802.3ad (LACP) ) Layer 3 and L4 DDoS nad DoS ptotection brute force attack mitigation, SYN flood attacks resistance, zone-based spoofing, malformed packet protection IPsec VPN tunnels - min. 128 Support for Auto VPN, Intrusion Prevention System (IPS)/ Application Security / UTM with optional licence User Authentication and Access Control RADIUS, RSA SecureID, LDAP User Firewall: Integrated			



1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	Routing OSPF, MPLS, Multicast Multiple WAN, WLAN, LAN options High Availability Support for NAT Measurement, and Monitoring – real time performance monitoring Support for Centralized management <b>Warranty:</b> min. 1 years			
2.25 QTY: 1	<b>Firewall 4</b> <b>Hardware Specifications</b> NGFW Firewall  <b>Ports:</b> min. 20 x 10/100/1000Base-T  min 1x USB Port min 1x Console Port  min 1x Management 10/1000/1000BaseT <b>Internal Storage</b> min 32 GB <b>System Performance:</b> Firewall Throughput -min. 2,5Gbps Concurrent Sessions min 2,5 Million New Sessions/Sec min 20,000 IPSec VPN Tunnels min 2,000 Intrusion/Threat Prevention Throughput min 900 Mbps  IPSec VPN Tunnels min. 2000  Virtual Domains: min 5 High Availability Form Factor Rack MountPower Required 100 - 240 VAC, 50 - 60 Hz <b>Licenses included</b> (min. 1 year):			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	8x5 hardware support: Hardware Replacement. Firmware and General Upgrades,  8x5 Software Support: Antivirus, Web Content Filtering/URL Filtering, Antispam.			
<b>2.26</b> <b>QTY:</b> <b>1</b>	<b>Training for firewall 2 and firewall 3</b> Training needs to cover the basics of networking including configuration methods, operations and maintenance, routing policies and firewall filters, and more. For 26 participants (15 FPA, 1 SPS, 10 MoI of RS)			
<b>2.27</b> <b>QTY:</b> <b>7</b>	<b>Network Switch 1</b> <b>Managed</b>  Managed L3 switch <b>Ports:</b> - min 44 x RJ-45 10/100/1000 ports - uplink <b>min. 4</b> x10 GbE <b>(SFP+) ports with compatible transceivers</b> - 1 management RJ-45 <b>Forwarding:</b> min. 130 Mpps  <b>Switching capacity:</b> min. 170 Gbps  <b>Memory:</b> min. 512 MB (S)DRAM min. 512 MB flash Warranty: -1 year Advance hardware replacement with next-business-day delivery.			
<b>2.28</b> <b>QTY:</b> <b>13</b>	<b>Network Switch 2</b> <b>PoE</b> <b>Switching capacity:</b> Min. 17 Gbps			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	<b>Throughput:</b> Min. 13 Mpps <b>Ports:</b> min. 48 RJ-45 10/100 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3at PoE+) Media Type: Auto-MDIX Duplex: half or full; 2 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only; 2 fixed Gigabit Ethernet SFP ports; 1 dual-personality (RJ-45 or USB micro-B) serial console port <b>Modules:</b> min. 2x1G SFP LC LX Transceiver <b>PoE capability:</b> Min. 370 W <b>Form factor:</b> max.1U height			
2.29 QTY: 1	<b>Network Switch 3 L3</b> <b>Routing/switching capacity:</b> Min. 150 Gbps <b>Throughput:</b> Min. 100 Mpps <b>Ports:</b> min 24 RJ-45 10/100/1000 ports; min 4 fixed Gigabit Ethernet SFP ports; 2 SFP + 10GbE ports; 2 port expansion module slots <b>Modules:</b> 2x 10G SFP+ to SFP+ 3m Direct Attach Copper Cable <b>Stacking:</b> stacking modules (ports) and cables included <b>Power consumption:</b> Max. 150 W <b>Stacking capabilities:</b> min 4 switches <b>Latency:</b> Max. 1000 Mb Latency: < 5 µs; 10 Gbps Latency: < 3 µs <b>Memory and processor:</b> Min. 1 GB SDRAM; 512 MB flash			

## Installation

Full installation and configuration (HW, SW) with testing for items 2.1 – 2.25 and 2.27 – 2.29.

### LOT 3: Computer(s) and other equipment

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
3.1 QTY: 3	<b>Network scanner</b> <b>Type</b> - Sheet Fed Type Network Scanner <b>Optical resolution</b> – min 600dpi <b>Light source</b> - RGB LED <b>Scanning side</b> - Front / Back / Duplex <b>Interface</b> - min. LAN 10BaseT/ 100BaseTX <b>Scanning speed</b> - Black and White Min 25ppm / 40ipm, Color Min 15ppm / 15ipm <b>Output resolution</b> – min. 100 x 100dpi, 150 x 150dpi, 200 x 200dpi, 300 x 300dpi, 400 x 400dpi, 600 x 600dpi <b>Output mode</b> – min. B&W / Error Diffusion / Advanced Text Enhancement, 8bit (256 level) Grey scale, 24bit color <b>Daily duty cycle</b> – min 2000 scans/day <b>Operation panel</b> - LCD Touch Panel <b>Authentication</b> - Smart card <b>or other mechanism as long as it uses central LDAP v3 repository.</b> <b>Document Width</b> – min. 50.8 - 216mm <b>Document Length</b> – min. 53.9 - 355.6mm <b>OS support</b> – Win 7,8 and Linux			
3.2 QTY: 180	<b>Monitor</b> <b>Size</b> - min 22 " <b>Resolution</b> - min 1920x1080, 16: 9 format <b>Ports</b> - min HDMI and VGA, <b>Response time</b> - max 5 ms <b>Contrast</b> : min 2,000,000: 1dynamic, <b>Brightness</b> - 250 cd/m <sup>2</sup> <b>Other</b> - LED <b>Warranty</b> - min 12 months			
3.3 QTY:	<b>Desktop computer</b> <b>Case</b> - Tower			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
120	<b>CPU</b> - min 1 processor with Pass mark CPU Mark 8980 or higher <b>RAM</b> - minimum 8 GB 1600 MHz DDR3, expandable up to 16GB <b>Graphic card</b> – Integrated with HDMI and VGA <b>Hard drive</b> – min. 750GB SATA 7.200 rpm <b>Optical devices</b> – Without optical devices <b>Connectivity</b> – min. Ethernet 10/100/1000 <b>Sound card</b> – integrated <b>I/O ports</b> - min 6 x USB port, 1 x RJ45, <b>Expansion slots:</b> min. 1 x PCIe <b>Warranty:</b> 1 year; Commercial warranty: 3 years <b>Software</b> – Licensed Operating system which has to support integration with enterprise-class directory services MS Active Directory			
3.4 QTY: 25	<b>Notebook 1</b>  <b>CPU</b> – min 1 processor with Pass mark CPU Mark 4000 or higher <b>RAM</b> - min. 8 GB 1600 MHz DDR3 or better <b>Hard drive</b> – min. 256 GB SSD <b>Display</b> – min.12,5"/ max. 13,5" with minimum resolution 1920 x 1080 <b>I/O ports</b> – min. 1 x headphone/ microphone combo, 1 x Display Port, 3 x USB 3.0, 1 x VGA, 1 x RJ45, 1 x Media reader <b>Camera</b> –min. 720p <b>Connectivity</b> – min. Ethernet 10/100/1000; Wireless 802.11 a/b/g/b/ac; Bluetooth® 4.0 <b>Keyboard</b> - spill-resistant backlit keyboard with drain <b>Battery</b> – min. 6 hours autonomy <b>Warranty:</b> Minimum: 1 year			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	<p><b>Commercial warranty:</b> 3 years</p> <p>Operating system which has to support integration with enterprise-class directory services MS Active Directory</p>			
<p><b>3.5</b> <b>QTY:</b> <b>25</b></p>	<p><b>1 Thin client computer</b></p> <p><b>Operating system:</b> Desktop operating system with office packet</p> <p><b>Supported protocols:</b> supported protocol for use with the offered solution for virtualization of terminal and applications;</p> <p><b>Processor:</b> Minimum Dual-Core 1GHz x64;</p> <p><b>RAM Memory:</b> Minimum 1 GB DD3;</p> <p><b>SSD :</b> Minimum 2 GB <b>or SLC min. 4 GB;</b></p> <p><b>Graphics chipset:</b> with minimum 256 MB of shared memory;</p> <p><b>Video Output:</b> Minimum 2 outputs (DVI, VGA, or HDMI)</p> <p><b>Supported resolution:</b> 2x 1920x1200 Minimum;</p> <p><b>Network:</b> min.10/100/1000 Base-T;</p> <p><b>Audio Ports:</b> Minimum 1x audio output, 1x microphone output;</p> <p><b>Speakers:</b> min.1x built-in speaker;</p> <p><b>USB ports:</b> Minimum 2x USB 2.0 + minimum 2x USB 3.0;</p> <p>1x keyboard;</p> <p><b>Kensington Lock:</b> 1x;</p> <p><b>Cooling:</b> Without the fans;</p> <p><b>Support for peripherals:</b> Support for USB keyboard, mouse, smart card reader; VESA carrier</p> <p><b>Connection to the systems:</b></p> <p>a) VMware View Horizon (PCoIP)</p> <p>b) Microsoft RDS (RemoteFX)</p> <p>c) Citrix XenApp, XenDesktop (ICA / HDX)</p> <p>d) Red Hat Enterprise Virtualization for Desktop (SPICE)</p> <p><b>2 Desktop/Thin Client converter</b></p> <p><b>Description:</b> software to transform PC into "thin clients"</p>			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	<p>intoLinux or Window based operating system which is operated remotely.</p> <p><b>Supported platform:</b> x86;</p> <p><b>Driver support:</b> Minimal support for:</p> <ul style="list-style-type: none"> <li>a) Storage Controller (IDE/SATA)</li> <li>b) Network Controller</li> <li>c) Graphics card (VESA mode)</li> <li>d) Sound Card</li> </ul> <p><b>3 Control software (for item 1 and 2)</b></p> <p>The control software must support a minimum of:</p> <ul style="list-style-type: none"> <li>a) Management and monitoring of inventory</li> <li>b) SSL communications with clients</li> <li>c) Allocation of access rights based on AD group</li> <li>d) Local client certificates</li> <li>e) Backup &amp; Restore functionality</li> <li>f) Failsafe upgrade functionality</li> <li>g) Remote access to thin and zero clients to assist users</li> </ul> <p><b>Warranty:</b> min 1 year;</p>			
<b>3.6</b> <b>QTY:</b> <b>4</b>	<p><b>UPS</b></p> <ul style="list-style-type: none"> <li>-minimum output Power Capacity 5400 Watts / 6000 VA</li> <li>-Nominal Output Voltage 230V</li> <li>-Nominal Input Voltage 230V +/- 10%</li> <li>-Network management interface</li> <li>-Rack mounting</li> </ul>			
<b>3.7</b> <b>QTY :</b> <b>6</b>	<p><b>UPS 2</b></p> <ul style="list-style-type: none"> <li>-minimum output Power Capacity 2100 Watts / 3000 VA</li> <li>-Nominal Output Voltage 230V</li> </ul>			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	-Nominal Input Voltage 230V +/-10% -Network management interface -Rack mounting			
<b>3.8</b> <b>QTY:</b> <b>15</b>	<b>Notebook 2</b> minimum 14" inch display (diagonal) Specification: Processor: passmark CPU mark 4034 or higher Memory: min. 8 GB 1600 MHz DDR3 SDRAM or better Storage: Minimum 512GB <b>SATA-3 Solid State Drive</b> Graphics: Minimum 2 Gb Display: Minimum 14", anti-glare slim LED-backlit Ports: Minimum 2x USB 3.0, charging port, 1x DisplayPort or HDMI port, 1x headphone/microphone combo Camera: Minimum 720p Wireless: 802.11a/b/g/n/ac Keyboard: <b>Spill-resistant keyboard and drain</b> Battery – min. 6 hours autonomy Gigabit Ethernet Operating system:Licenced Notebook bag <b>Warranty:</b> Minimum: 1-Year Parts, 1-Year Labour, 1-Year Onsite support, maximum response time 1 business day, maximum time for repair 3 business days <b>Commercial warranty: 3 years</b>			
<b>3.9</b> <b>QTY:</b> <b>15</b>	<b>External Hard Drive</b> <b>with built in Wi-Fi</b> Capacity: Minimum 2 TB Battery life: minimum 8 hours Interface: USB 3.0 Web based management access Drive size 2,5 inch Able to synchronize with cloud technologies support Wi-Fi 802.11			



1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
3.10 QTY: 30 pcs	<b>Tablet</b> <b>Screen:</b> min. 9.7inch - max 12.2 inch <b>Resolution:</b> min. 2048x1536 (min. 247ppi pixel density) <b>Processor:</b> min. Pass mark CPU Mark 17000 or higher <b>RAM:</b> min. 2 GB <b>Memory:</b> Internal min. 32GB <b>Connectivity:</b> Wi-Fi 802.11 a/b/g/n/ac, dual band Bluetooth v4.0, A2DP A-GPS, GLONASS GPRS, EDGE, 2G/3G/4G <b>Ports:</b> 3.5mm jack, micro USB v2.0 <b>Battery:</b> min. 6000mAh (minus 3-4% tolerance) <b>Camera:</b> min. primary 8Mpix, secondary 1.2Mpix <b>Tablet Case</b> <b>OS:</b> Licensed <b>Warranty:</b> 1 year			
3.11 QTY: 2	<b>Multifunction instrument for LAN cabling testing and verification</b>  <b>LAN cabling verification to CAT6E</b> Support standards EN50173, TIA/EIA 658B, ISO/IEC 11801 Intuitive user interface Connectivity with UTP, STP, ScTP, FTP cables;			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	Professional TDR with integrated TDR NEXT function; Tabular or graphic presentation of test results; Includes software for test reporting, <b>Instrument for LAN cabling verification should contain</b> minimum:2x Instrument Multi LAN, 2x Permanent Link adapter, 2x Chanel Link adapter, 4x Locators, Attenuation calibration module, 2x Power supply adapter, 2x Headphones, 2x Carrying bag, Link with USB or RS232 cables, <b>Calibration certificate</b> Warranty: min. 1 year			
<b>3.12</b> <b>QTY:</b> <b>21</b>	<b>Network Toolkit</b> Toolkit should contain: <b>Datacomm Hand Tools:</b> Professional Grade Crimpers, Termination tools, Wire Strippers, Wire and Kevlar Scissors, etc. <b>Test and Trace:</b> Professional Cable tester, Psiber CABLETRACKER Network ID KIT for port and cable tracing. <b>Tool Case</b> <b>Datacomm Hand Tools:</b> Professional Grade Crimpers, Termination tools, Wire Strippers, Wire and Kevlar Scissors, etc. Utility: - Telescoping mirror - high end LED light - loupe			
<b>3.13</b> <b>QTY:</b> <b>32</b>	PC Toolkit Toolkit should contain: - Gauge, Thickness, .0015-.025, 26 Leaves - Hex Key Set, Fold-Up, .050-3/16", 9 pieces; 1.5mm-66, 7 pieces - Case, Wheeled, Black w/Blue Trim			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	<ul style="list-style-type: none"> <li>- Hammer, Plumbers, Ball Pein, 4 oz., 10-1/2" OAL</li> <li>- Luggage Tag, Reflex Blue</li> <li>- Plier, Groove Joint, 1-18" Jaw Capacity, 7" OAL</li> <li>- Plier, Tongue &amp; Groove, Straight Jaw, 10" OAL</li> <li>- Wrench, Adjustable, 1/2" Jaw, Chrome, 4" OAL; 1/8" Jaw, Chrome, 8" OAL</li> <li>- Soldapullt, Low Static, Standard, Metric</li> <li>- File Set, Needle, Precision Swiss Pattern, 3 pieces</li> <li>- Multimeter, Digital, Pen Style, Logic Test</li> <li>- Oiler, Needle Point, w/All Purpose Lubricant</li> <li>- Solder Aid Tool, Reamer &amp; Scraper, 6-1/2" OAL</li> <li>- Center Punch, 5/32", 4" OAL</li> <li>- Driver Pin Punch, 1/8", 4" OAL</li> <li>- Pocket Magnifier, 2.5X, w/Case</li> <li>- Punch, Drive Pin. 1/16" Diameter, 3/4 Dr Length, 4" OAL</li> <li>- Ruler, 6", 15/32"W, Flexible, Stainless Steel</li> <li>- Scratch Awl, 3-3/4" Blade, 6-1/2" OAL</li> <li>- Burnishers, Contact, 3 pieces</li> <li>- Pocket Pak Solder, Sn60 Pb40, .031", 1/2 oz.</li> <li>- Screwdriver, Offset, Slotted, #2-#6, 3" OAL</li> <li>- Tape Measure, Combo Metric/English, 3m/10ft.</li> <li>- Flashlight, Mini, 5-3/4" OAL</li> <li>- Screwdriver Set, Slotted &amp; Cross Recess, 6 pieces</li> <li>- Dip Clip, 16 Leads, Nickel Silver, Closed, .3"</li> <li>- Knife, #1, w/#11 Blade, Aluminum, w/Safety Cap</li> <li>- Dip Inserter, 14-16 Pin Cap.</li> <li>- Extractor, Dip, Anti-Static ABS, 4-48 Pins</li> <li>- Field Service Kit, 2 Pockets, 24" x 24", Red</li> <li>- Alignment Kit, 6-K</li> <li>- Brush, Solder</li> <li>- Cleaning Brush, 3/8" Nylon Bristles, 6" OAL</li> <li>- Holder, Straight, Ratchet Lock Handles, 5-1/2" OAL</li> <li>- Key Cap Puller</li> </ul>			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	<ul style="list-style-type: none"> <li>- Knife, Electrician's, w/Screwdriver</li> <li>- Mini Potentiometer Trimmer, Alignment Tool, ESD</li> <li>- Plier, Retaining Ring, Convertible, .047" Tip</li> <li>- Ratchet Socket Set, Field Service, SAE/Metric, 50 pieces</li> <li>- Scissor, Electrician's, Nickel Plated, 5" OAL</li> <li>- Service Tool, Cut/Crimp/Strip, 22-10 AWG, 7-1/2"</li> <li>- Spring Hook, Double End, Pull &amp; Lift, 8"</li> <li>- Tweezer, Filament Holder, 6" OAL</li> <li>- Tweezer, Reverse Action, Self Locking, 4-1/2"</li> <li>- Wash Bottle, Unbreakable, 2 oz., 6"</li> <li>- Wire Stripper/Crimper, 5-In-1, 10-22 AWG</li> <li>- Wire Stripper w/Cutter, Up to 10 AWG, 5" OAL</li> <li>- Wrench Set, Open End, Ignition, Metric, 8 pieces</li> <li>- Wrench Set, Open End, SAE, Ignition, 8 pieces</li> <li>- Desolder Braid, No Clean, 5' Spool, #4, Blue</li> <li>- Parts Box, Large, 6 Compartments, Clear</li> <li>- Parts Box, Medium, 17 Compartments, Clear</li> <li>- Locking Plier, Long Nose, w/Wire Cutter, 6"</li> <li>- Soldering Iron, Pencil</li> <li>- Magnetic Pick-Up Tool, Telescopic, 4-1/2"-19-1/2"</li> <li>- Nutstarter, Fits 4-40 to 5/16" Thread</li> <li>- Pocket Mirror, 7/8" Diameter, Ball Joint, 7-1/2" OAL</li> <li>- Screwstarter, Double Ended, Aluminum, 6-1/4" OAL</li> <li>- Cutter, Diagonal, Midget, SF, To 18 AWG, 4" OAL</li> <li>- Cutter, Diagonal, Slim Tapered, Flush, 4" OAL</li> <li>- Extension, Handle, 4", Interchangeable</li> <li>- Handle, Regular, 1-1/16" X 4-1/8"</li> <li>- Hex Nutdriver Blade, 1/2", 1/4", 10mm, 11/32", 11mm, 3/16", 3/8", 4 mm, 4.5mm, 5.5mm, 5/16", 5mm, 6mm, 7/16", 7/32", 7mm, 8mm, 9/32", 9mm</li> <li>- Plier, Long Nose, w/Cutter, Serrated, 5-1/2" OAL</li> <li>- Screwdriver Blade, phillips, #1 and #2</li> <li>- Screwdriver Blade, Slotted, 1/8", 8" Blade, 10-5/8"</li> </ul>			

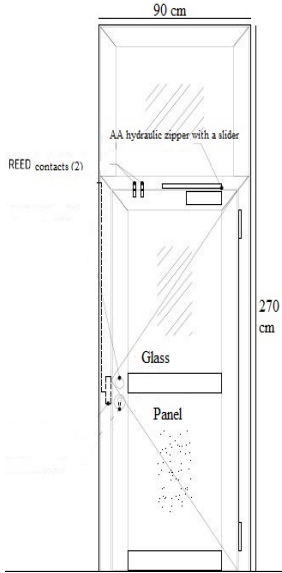
1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	OAL; 1/4", 1/8", 3/16" - Screwdriver Blade, Torx, T10, T15, T20, T25, T6, T8 - Screwdriver, phillips, #0, 2" Blade, 4-5/8" OAL - Screwdriver, phillips, Stubby, #2, 3-3/8" OAL; Slotted, 3/32", Pocket Style, 4-1/4"; 5/16", 6" Blade, 10-1/2" OAL; 5/32", 4" Blade, 6-5/8" OAL; Stubby, 1/4", 3-1/4" OAL.			
<b>3.14</b> <b>QTY:</b> <b>17</b>	<b>Label printer (Hard Case Kit)</b>  Meets all ANSI and TIA/EIA 606-A Max.15mm tape Runs on included lithium-ion rechargeable battery pack with AC adapter or optional 6 AA batteries PC connectivity via USB cable Software to create labels on PC and transfer them to the label printer One-Touch, Power-Assisted Cutter Hot Keys memory storage for minimum 800 of the labels include minimum 12 label tapes compatible with label printers			

## Installation

Full installation and configuration (HW, SW) with testing for items 3.1 – 3.14

#### LOT 4: Server room equipping

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
4.1 QTY: 1	<p><b>Server room renovation</b></p> <ul style="list-style-type: none"> <li>Removing the existing indoor and outdoor air conditioning units (3 pcs.)</li> <li>Removing and taking out the old landfill site raised floor (38 m²)</li> <li>Installation of the new raised floor area of 38 m² with an entrance metal ramp. Raised conductive floor is 30 cm high with a steel suspension constructions and boards size (60 * 60 cm - height <b>min 38,5 mm</b>) . <b>Raised floor panels are made of calcium sulphate and must comply with minimum 6A capacity category or minimum 9 kN ie. 917 kg / panels surface area of raised-floor.</b> This raised floor is able to withstand all the static requirements of modern server rooms with high-density rack cabinets and storage systems. The final layer provides antistatic characteristic whose resistance is <math>5 \cdot 10^4 \leq R_t \leq 10^6</math>. By using such a floor it is possible to place all of the power cables in channels below the raised floor and low voltage cables (network, system of technical protection). The raised conductive floor must be grounded with PF cable cross section 16 mm² through grounding in the control cabinet located in the server room.</li> <li>Removing the existing front door with fanlight</li> <li>Installation of fireproof and security doors with fire resistance factor F60. It is necessary to install aluminum, single-glazed doors, with the fire resistance of the T-60. The door is equipped with the necessary fittings, door handles ,stainless steel</li> </ul>			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	<p>sphere, AA hydraulic zipper with a slider,lock and cylinder with three keys. The door is equipped with a system of mutual control of movement and reed contacts. Glazing is done with FIRE PROTECTION glass in class F-60.</p> 			
<b>4.2</b> <b>QTY:</b> <b>1</b>	<p><b>Server room fire suppression system</b></p> <ul style="list-style-type: none"> <li>• A system for the automatic detection and extinguishing system for approximately 124 m3</li> <li>• Set for automatic fire extinguishing system with gas Novec 1230, consisting of the following elements: <ul style="list-style-type: none"> <li>○ bout 120L / 42bar, empty</li> <li>○ Valve of bottle with protective cap</li> </ul> </li> </ul>			

1. Item Number	2. Specifications Required	3. Specifications Offered	4. Notes, remarks, ref to documentation	5. Evaluation Committee's notes
	<ul style="list-style-type: none"> <li>○ Combined pressbox with switch (indicator) of pressure</li> <li>○ Flexible hose 1 1/4 "</li> <li>○ Fixation set for cylinder</li> <li>○ Protective caps for RAIL fixation set</li> <li>○ Safety belt for bottle</li> <li>○ Electrical Valve 24V DC</li> <li>○ Manual and pneumatic actuator</li> <li>○ Test Valve</li> <li>○ The original connection hoses 600mm, 300mm</li> <li>○ Red manifold pipe</li> <li>○ Junction box for electric cables</li> <li>○ Connecting cable for electric valve</li> <li>○ Switch (indicator) flow</li> </ul> <p>All complete set for a bottle of 120L</p> <ul style="list-style-type: none"> <li>● Extinguishing agent, Min. 102,6 kg</li> <li>● One extinguishing nozzle for raised floor BFFP 1/2“ <ul style="list-style-type: none"> <li>○ Material: brass plated nickel</li> <li>○ Max. operating pressure 60bar</li> </ul> </li> <li>● Two extinguishing nozzle for raised floor <ul style="list-style-type: none"> <li>○ Material: brass plated nickel</li> <li>○ Max. operating pressure 60bar</li> </ul> </li> <li>● Creating hydraulic calculation per VdS standard before ordering equipment: <ul style="list-style-type: none"> <li>○ Pipe dimensions, calculation amount of gas, the number and size of cylinders, number of nozzles, calculation of type and size of nozzles, calculation concentrations of gases after discharge extinguishing agents, the list of components, etc.</li> </ul> </li> <li>● 14 meters of pipe for extinguishing system: galvanized seamless high-pressure pipes, max. operating pressure 90bar NO25</li> </ul>			



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	<ul style="list-style-type: none"> <li>• 8 meters of pipe for extinguishing system: galvanized seamless high-pressure pipes, max. operating pressure 90bar NO15</li> <li>• Galvanized fittings required when installing the pipes, miscellaneous, max. operating pressure 90bar</li> <li>• The material required for fixing the pipe wall and ceiling (carriers of pipelines, suspension equipment, rubber collars, etc.)</li> <li>• The label warning with the inscription "ALARM GAS PLEASE LEAVE THE ROOM" After the release of gas in room can be entered only after a complete ventilation and permission of the responsible person.</li> <li>• Mounting pipe installation: <ul style="list-style-type: none"> <li>○ Mounting suspension (rubber clamp, threaded rods, beams)</li> <li>○ Mounting galvanized pipes and pipe's fittings, together with the installation of nozzles</li> <li>○ Purging the installation and testing for leaks in accordance with ISO 14520</li> </ul> </li> <li>• Mounting mechanical equipment of fire extinguishing system (wall mounting RAIL bracket for cylinder, placing and fixing cylinder in prepared mounts, installation the valve and flexible tube to cylinder, installation switches and discharge pressure Pressbox and mounting of BORA box with corresponding bundle for connection. Commissioning of system , functional testing of systems, training of user's staff, issuing of the protocol, warranty and operating instructions</li> <li>• Documentation of executed state for embedded system: isometrics of pipe network, layout with marked electrical and mechanical elements, block diagram of the electrical part of the system and hydraulic calculation</li> <li>• Delivering of control unit for fire extinguishing system with the following characteristics:</li> </ul>			

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	<ul style="list-style-type: none"> <li>○ control one extinguishing sector</li> <li>○ control unit combines fire alarm and fire fighting management</li> <li>○ the ability to manage remote alarm</li> <li>○ possible connecting the solenoid or pyrotechnic actuator for extinguishing</li> <li>○ 3 detection lines (two for automatic detectors in space for extinguishing and one for areas which isn't covered by extinguishing)</li> <li>○ 4 supervised inputs</li> <li>○ 5 supervised control lines</li> <li>○ 8 outputs to activate relays</li> <li>○ access with a password or key switch</li> <li>○ automatic calibration for lines of extinguishing activator</li> <li>○ backup power supply 2x4,5/12V, for continuous operation for 30 hours after loss main power supply</li> <li>○ in accordance with EN12094 and EN54 standard</li> <li>○ power supply 220VAC, 50 Hz</li> <li>● Delivery of multicriterial addressable fire detector with combined processing of temperature and smoke signals, possibility of transmitting standard and high sensitive signal to central device, with-two built-in optical smoke sensors with different scattered light angles for reduction of false alarms, with two thermal sensors, with loop failure isolator installed into the detector, high humidity resistance, embedded light indicator for alarm signalization at site, type OOH740 with base DB721 for flush or n/f mounting</li> <li>● Delivery of light indicator for automatic fire detector which are difficult to access/hardly visible, activation immediately after activation of detector, on detector can be connected max. 1 indicator, IP40 protection</li> <li>● Delivery of the manual call point yellow color, for manual activation of extinguishing system, with the inscription</li> </ul>			

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	<p>"ACTIVATE EXTINGUISHING"</p> <ul style="list-style-type: none"> <li>• Delivery lamps for optical and acoustic signaling in fire extinguishing system, LED technology, adjustable operating mode (continuous light, flashing) with the warning message printed with red flashing letters on a black background "EXTINGUISHING IN PROGRESS", with integrated audible alarm up to 85 dB, adjustable ton types (continuous, intermittent sound), the maximum consumption of 100 mA, the lamp is activated directly by the control panel for managing extinguishing</li> <li>• Delivery of alarm siren, multi-ton, 102 dB at 1 m, for outdoor and indoor use, IP 54</li> <li>• Delivery of alarm siren type ROLP/R/S, 102 dB at 1 m, with flash type SOL-LX-W-RW, frequency 1Hz, for outdoor or indoor use, IP 54</li> <li>• Delivery of Aspirating smoke detector for special applications. The detector works continuously drawing air from the protected area in the patterning holes in the pipe network. The air is filtered and passes into a chamber where light scattering technology detects the presence of very small amounts of smoke. It is used to protect small business-critical environments surfaces up to 400 m². Information on the status of the detector is shown on the detector display (display 4 alarm condition of detector, error, isolation, level of presence of smoke).</li> <li>• Installation of system elements (base of automatic fire detectors, housing of manual call points, etc.) and connecting cables on them, testing lines with universal instrument</li> <li>• Delivery and installation partly in flexible PVC pipes, partly in the area of raised floor self-extinguishing red cable type JBY (St) Y 2x2x0,8 mm. On average per statement placed 10m of cable</li> <li>• Connecting cables to the premounted mechanical elements</li> </ul>			

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	of extinguishing systems and control unit, programming of control unit, system testing, training of staff, issuing of the protocol, warranty and operating instructions			
4.3 QTY: 1	<p><b>Server room fire suppression system 2</b></p> <ul style="list-style-type: none"> <li>• A system for the automatic detection and extinguishing system hall with gas NOVEC 1230 for approximately 70 m3</li> <li>• The system must be designed on the basis of two detector system which means that you must have two sensors that send alarm headquarters in order to activate the release of gas.</li> <li>• The system must contain following : <ul style="list-style-type: none"> <li>- to provide transmission of the state of the system to reception of the building and offer repeater terminal</li> <li>- to provide overpressure flaps</li> <li>- to provide pipes and fitting that are certified to the pressure of 90 bar</li> <li>- to provide amount of agents for extinguishing according to the ISO 14520 standard</li> <li>- to provide detectors with remote indicators and nozzles for suspended ceiling and raised floor</li> <li>- to provide ASD</li> </ul> </li> <li>• Control unit will be installed aprox. 50m from the server room.</li> </ul> <p>Full system installation.</p> <p>User training for 2 persons.</p>			

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	<p>Full system installation.</p> <p>User training for 2 persons.</p>			
4.4 QTY: 1	<p><b>Professional air conditioning</b></p> <ul style="list-style-type: none"> <li>• Ceiling Model - SUPER DIGITAL INVERTER (2 pcs.) with the following technical characteristics: <ul style="list-style-type: none"> <li>○ Cooling capacity (cooling): Min. 14 kW</li> <li>○ Range of performance (cooling): 2,6-16 kW</li> <li>○ Power supply: <del>Max. 400V AC</del></li> <li>○ <del>Fusing: Max. 3x20 A</del></li> <li>○ Air power: Max. 2040 m3/h</li> <li>○ Sound pressure level (cooling): Max 46 dB(A)</li> <li>○ Sound power level (cooling): Max. 61 dB(A)</li> <li>○ Pipe length: Max. 75 m</li> <li>○ Height difference (outdoor unit higher/lower): 30 m</li> <li>○ Refrigerant, charged: Max. 3,10 kg</li> </ul> </li> <li>• DIGITAL INVERTER - OUTDOOR UNIT (2 pcs.) with the following technical characteristics: <ul style="list-style-type: none"> <li>○ Cooling capacity (cooling): Min. 14 kW</li> <li>○ Range of performance (cooling): 3-16 kW</li> <li>○ Power supply: <del>Max. 230V AC</del></li> <li>○ <del>Fusing: Max. 32 A</del></li> <li>○ Air power: Max. 6180 m3/h</li> <li>○ Sound pressure level (cooling): Max 51 dB(A)</li> <li>○ Sound power level (cooling): Max. 68 dB(A)</li> <li>○ Pipe length: Max. 50 m</li> </ul> </li> </ul>			

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	<ul style="list-style-type: none"> <li>○ Height difference (outdoor unit higher/lower): 30 m</li> <li>○ Refrigerant, charged: Max. 3,10 kg</li> <li>● High availability controller (1 pcs.) <ul style="list-style-type: none"> <li>○ If one of the two indoor units is in the fault state, the non-disturbed device is released. (100% redundancy)</li> <li>○ When exceeding the adjustable room temperature setpoint another indoor unit is required (two-step control). When falling below the adjustable room temperature setpoint of the indoor units is turned off</li> </ul> </li> <li>● Full system installation and user training for 2 person</li> </ul>			
<b>4.5</b> <b>QTY:</b> <b>1</b>	<b>Video Surveillance and Access Control System</b> <ul style="list-style-type: none"> <li>● Video Management Software <ul style="list-style-type: none"> <li>○ Unlimited recording database, limited only by disk space</li> <li>○ Flexible live view configuration</li> <li>○ Control of PTZ and dome cameras using mouse or joystick</li> <li>○ Search for recordings based on camera, Date and time Timeline visualization, Smart search, Bookmarks, Locking of prioritized recordings</li> <li>○ Manual and scheduled export, Digital signature on exported recordings</li> <li>○ Events triggered by video motion detection, Active Tampering Alarm</li> </ul> </li> <li>● Megapixel resolution camera including license compatible with video management software (2 pcs.)</li> </ul>			

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	<ul style="list-style-type: none"> <li>○ indoor fixed mini dome with dust- and vandal-resistant casing .</li> <li>○ Light sensitivity: 1.5-100000 lux, F2.8</li> <li>○ Camera angle adjustment: minimal Pan <math>\pm 170^\circ</math>, Tilt <math>56^\circ</math>, Rotation <math>\pm 170^\circ</math></li> <li>○ Password protection, IP address filtering, HTTPS encryption, IEEE 802.1X network access control, Digest authentication, User access log</li> <li>○ Video motion detection, Active tampering alarm</li> <li>○ Multiple, individually configurable H.264 and Motion JPEG streams; max HDTV 720p or 1 MP resolution at 30 fps.</li> <li>○ MicroSD/microSDHC memory card slot for optional local video storage.</li> <li>○ Video motion detection and active tampering alarm</li> <li>○ same manufacturer as the video management software</li> <li>● Network Door Controller (1 pcs.) <ul style="list-style-type: none"> <li>○ Support for minimum 2 doors per controller</li> <li>○ Configuration and basic access control management through Internet Explorer, Firefox, Chrome, or Safari</li> <li>○ same manufacturer as the video management software</li> </ul> </li> <li>● Card Readers (2 pcs.) <ul style="list-style-type: none"> <li>○ Entry Authentication: Card, Tag, PIN-code, Door code</li> <li>○ Illuminated Keypad: Always Active</li> <li>○ Reader Technology: Generic 13,56 MHz</li> </ul> </li> </ul>			

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	<ul style="list-style-type: none"> <li>○ same manufacturer as the video management software</li> <li>• Minimum 20 smart card configured for card reader</li> <li>• One rackmount PC or Server with monitor for video management software. PC or Server must have 2 hard disk configured in RAID1 and option to store recording video, for minimum 30 days</li> <li>• One rackmount PoE switch for 2 cameras and network door controller</li> <li>• Full system installation and user training for 2 person</li> </ul>			
<b>4.6</b> <b>QTY:</b> <b>1</b>	<b>System for the microclimate monitoring in IT cabinets</b> <ul style="list-style-type: none"> <li>• Central control unit of the system (1 pcs.) with the following technical characteristics: <ul style="list-style-type: none"> <li>○ Min. 18 ports for connecting sensors</li> <li>○ Min. 2 Extender for connecting sensors</li> <li>○ Power supply 220-240V AC for connection</li> <li>○ additional power supplies</li> <li>○ Mounting accessories for installation in 19 "rack</li> </ul> </li> <li>• Alarm rotation light compatible with central control unit (1 pcs.)</li> <li>• Sensor for early detection of liquids (spot fluid sensor) compatible with central control unit (3 pcs.)</li> <li>• Combined humidity and temperature sensor, with a display, compatible with central control unit (4 pcs.)</li> <li>• Full system installation and user training for 2 person</li> </ul>			



