












## A. Technical Specifications




Item No	Material Name	Specifications	Quantity	Unit	Reference Pictures
1.	Server	<p>Processor core available: min. 8 core</p> <p>Processor cache: min. 11 MB L3</p> <p>Processor Name: Intel® Xeon® Scalable 4110 (min. 8 core, 2.1 GHz, 11 MB, 85W)</p> <p>Processor number: min.1 processor</p> <p>Processor speed: min.2.1 GHz</p> <p>Memory type: HPE DDR4 Smart Memory</p> <p>Memory, standard: min.16 GB (1x 16 GB) RDIMM</p> <p>Included hard drives: None ship standard, 8 SFF drives supported</p> <p>Optical drive type: Optional</p> <p>Infrastructure management: HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download) (standard) HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, and HPE OneView Advanced (optional)</p> <p>Power supply type min.1 HPE 800W Flex Slot power supply</p> <p>Expansion slots: min. 4-slots (x16, x8, x16, x8) as standard for detail reference QuickSpecs.</p> <p>Network controller: HPE Ethernet 1Gb 4-port 369i Adapter</p> <p>Storage controller: 1 HPE Smart Array P408i-a SR Gen10 Controller</p> <p>System fan features: min. 2 standard fans Optional redundant fan cage kit (874572-B21, additional 4 fans)</p> <p>Form factor: 4U Tower</p> <p>Minimum dimensions (H x W x D): 46.25 (H) x 64.8 (D) x 17.4 (W) cm</p> <p>Weight: max. 21 kg</p>	1	pcs	
2.	Windows Server	<p>Windows SVR P73-07788-64 Bit English 16 core + 25 WinSvrCAL 2019 SNGL OLP NL UsrCAL</p>	1	pcs	

3.	Powersonic 3 kva Online UPS	<p>1 Phase Input &amp; Output Capacity: min. 3 kVA Output power factor approx. 0.9 min. True double-conversion Microprocessor control optimizes reliability Wide input voltage (110 V – 300 V) Programmable outlets for power management 50 / 60Hz frequency converter mode ECO mode energy saving Emergency power off (EPO) function High overload capability Smart SNMP works well with either USB or RS-232 together Two years warranty for UPS and one Year warranty for Battery</p>	1	pcs	
4.	Computer Monitor	<p>Screen Size: min. 24 inch Optimal Resolution: approx. 1920 x 1080 at 60 Hz Contrast Ratio: 1000: 1 (typical), Dynamic Contrast Ratio: 2 Million:1 (Max) Brightness: approx. 250 cd/m<sup>2</sup> (typical) Backlight Technology: LED Voltage Required:100 to 240 VAC / 50 or 60 Hz ± 3Hz / 1.5 A (Max) CONNECTIVITY: min. 1 Video Graphics Array (VGA) , 1 HDMI</p>	3	pcs	
5.	External hard disk	' 2 TB StoreJet M3 Military Drop Tested USB 3.0 External Hard Drive	1	pcs	
6.	Notebook	<p>'Processor: Up to 8th Gen Intel®Core™ i7-8565U Operating System: Up to Windows 10 Pro Display: 14" FHD Memory: min. 16GB DDR4 Battery: Up to 13.6 hours on a 45Whr battery* with Rapid Charge technology *Based on testing with Mobile Mark 2014. Battery life varies significantly with settings, usage, and other factors. Storage: min. SSD 256GB Integrated Intel® graphics Optional: Discrete AMD Radeon RX 550X 2 GB Security: Kensington lock slot Optional dTPM 2.0 Optional: Match-on-Host fingerprint reader with Windows Hello Audio: Dolby® Advanced Audio™ Skype-certified dual-array mic Camera: HD 720p</p>	3	pcs	

<p>7.</p>	<p>Black and White Printer</p>	<p>Maximum copy resolution: 600 x 600 dpi                  Maximum print resolution: 1200 x 1200 dpi                  Print memory (standard): 2 GB standard                  Connectivity: Ethernet 10/100/1000 Base-T, High-speed USB 3.0, NFC Tap-to-Pair, Wi-Fi 802.11n and Wi-Fi Direct with optional Wi-Fi Kit (concurrent wired and wireless connections supported).                  Scan destinations: Scan to Email, Scan to Home, Scan to Network (Browse FTP or Browse SMB), Scan to USB                  Scan file formats                  JPG, Linearized PDF (set via embedded web server) and PDF/A, PDF (single and multi-page), Password-protected PDF, Searchable PDF, TIFF (single and multi-page), XPS (single and multi-page).                  Scan destinations: Scan to Email, Scan to Home, Scan to Network (Browse FTP or Browse SMB), Scan to USB.                  Scan file formats: JPG, Linearized PDF (set via embedded web server) and PDF/A, PDF (single and multi-page), Password-protected PDF, Searchable PDF, TIFF (single and multi-page), XPS (single and multi-page).                  Paper capacity:                  Tray (Bypass tray): 100 sheets                  Tray 1: 520 sheets                  Tray 2: 520 sheets                  Paper size:                  Tray (Bypass tray): Custom sizes: 3.5 x 3.9 in. to 11.7 x 17 in. (89 x 98 mm to 297 x 432 mm)                  Tray 1: Custom sizes: 5.5 x 7.2 in. to 11.7 x 17 in. (140 x 182 mm to 297 x 432 mm)                  Tray 2: Custom sizes: 5.5 x 7.2 in. to 11.7 x 17 in. (140 x 182 mm to 297 x 432 mm).</p>	<p>1</p>	<p>pcs</p>	
<p>8.</p>	<p>Toner cartridge</p>	<p>Black toner cartridge suitable to Item 7.</p>	<p>4</p>	<p>pcs</p>	

9.	Multifunction printer	<p>'Print Resolution: Output resolution: 1200 x 2400 dpi Data processing resolution: 600 x 600 dpi Color Capability: Full color Scan Resolution: Monochrome and greyscale: 600 x 600 dpi, 400 x 400 dpi, 300 x 300 dpi, 200 x 200 dpi, 150 x 150 dpi Color: 400 x 400 dpi, 300 x 300 dpi, 200 x 200 dpi, 150 x 150 dpi Scanning Speed: B / W: 24 ppm, Color: 19 ppm [Xerox standard paper (A4 LEF), 200 dpi] Paper Size: Max: A3, 11 x 17" Min: A5 (Bypass Tray: Non-standard size: 89 x 98 mm) Interface: Ethernet 100BASE-TX / 10BASE-T, USB 2.0</p>	2	pcs	
10.	Toner cartridge	<p>'1- Toner cartridge black (006R01693, 6R01693) suitable for Item 9 2- Toner cartridge cyan (006R01694, 6R01694) suitable for Item 9 3- Toner cartridge magenta (006R01695, 6R01695) suitable for Item 9 4- Toner cartridge yellow (006R01696, 6R01696) suitable for Item 9</p>	4	pcs	
11.	High format printer	<p>'Print: Line drawings: max. 28 sec/page on A1/D, 103 A1/D prints per hour Color images: approx. Fast: 41 m<sup>2</sup>/hr. (445 ft<sup>2</sup>/hr.) on coated media Best: approx. 3.1 m<sup>2</sup>/hr. (33.3 ft<sup>2</sup>/hr.) on glossy media Print resolution: Up to 2400 x 1200 optimized dpi Roll: approx. 5 x 5 x 5 x 5 mm (0.2 x 0.2 x 0.2 x 0.2 in) Sheet: approx. 5 x 17 x 5 x 5 mm (0.2 x 0.67 x 0.2 x 0.2 in) Ink types Dye-based (C, G, M, pK, Y); pigment-based (mK) Ink drop 6 pl (C, G, M, pK); 9 pl (mK, Y) Printheads 3 (G &amp; pK, mK &amp; Y, M &amp; C) Line accuracy +/- 0.1% Minimum line width 0.02 mm (0.0008 in) (HP-GL/2 addressable) Guaranteed minimum line width 0.06 mm (0.0024 in) (ISO/IEC 13660:2001(E)) Size: Rolls: 210 to 1118 mm (8.3 to 44 in) Sheets: 210 x 279 to 1118 x 1676 mm (8.3 x 11 to 44 x 66 in)</p>	1	pcs	

		Standard sheets: A4, A3, A2, A1, A0 (A, B, C, D, E) Thickness: Up to 0.8 mm (31.5 mil)			
12.	Toner cartridge for high format printer	'Genuine High Capacity 6 Color Cartridge Multipack - (C9403A/ C9370A/ C9371A/ C9372A/ C9373A/ C9374A). Suitable to Item 11.	4	pcs	
13.	Cad paper roll	'SIZE: 44 inches wide (borderless).	8	pcs	
14.	Handhole navigator	General 'Physical dimensions approx. 2.7" x 6.2" x 1.2" (6.9 x 15.7 x 3.0 cm) Display size approx. 1.6" x 2.2" (4.1 x 5.6 cm) Display resolution 120 x 160 pixels Display type min. 4 level gray LCD Weight approx. 7.7 oz (218 g) with batteries Battery 2 AA batteries Battery life 16 hours Water rating IPX7 Interface Serial  Maps & Memory Waypoints/favorites/locations 500 Routes 50 Track log approx. 2,048 points, min. 10 saved tracks  Outdoor Recreation Features Area calculation: Yes Hunt/fish calendar: Yes Sun and moon information: Yes	2		

15.	Switch	Planet Switch PoE 24 port, (Managed PoE+ Gigabit Switch with SFP)	1	pcs	
16.	Network cable	Cat 6 SFTP 305m.	1	pcs	
17.	Network cabinet 22 U	<p>Dimensions:                      Type 19-inch standard                      Size 22U                      Width 600 mm                      Height 1170mm                      Depth 1000 mm                      Gross Weight 86 KG (Including the packaging)                      Net Weight 83 KG                      Cabinet Features:                      19" mounting angles                      Front glass door with lock and handle                      Rear perforated metal door with lock                      Both the doors can be mounted to be opening from either side                      Lock on the front door with handle and rear door with duplicate keys                      Removable side panels                      Adjustable jacking feet                      Four fans fitted in a fan tray with cable for connection                      Extra cage nuts provided (30 Pieces)                      Earthing screw                      Technical Specifications                      All steel construction                      Frame made of 1.2 mm thick SPCC                      Fixed shelves made of 1.2 mm thick SPCC (Optional)                      Mounting angles made of 2.0 mm thick steel</p>	1	pcs	

		Strong structure of individually fabricated components Manufactured using CNC machine Surface Finish: Matt Black Epoxy Powder Coated Paint (RAL 9005) Power Distribution and cooling fan: Max Current: 13 Amps Max Output Power: 3250 Watts Rated voltage: 200 -250 Volts 50-60 HZ Six Outlet UK Type Cooling Fan: Lower noise, Less than 48db, Air flow 50 -110 CBM/H			
--	--	--	--	--	--

**B. DELIVERY TIME AND DELIVERY LOCATION**

- Supplier must specify delivery time in bid form.
- The Delivery Location is **Mosul / Directorate of Urban Planning.**
- The Items will be checked and confirmed by GIZ before Delivery in place.

**C. REMARKS AND CONDITIONS**

1. Catalogues/picture with details and specifications must be provide with the tender submission by bidder for the needed items and GIZ will physically check and approve.
2. All physical characteristics like weight, length, width etc. in the technical specification description are approximate not exact with minimum requirements.
3. Reference picture are indication to understand the item not to an indication for brands or models.

**D. Transportation**

- Supplying, loading, unloading, transportation is included.