LIST OF ITEMS FOR TENDER 2023-2024

436 items

S.NO	NAME OF ITEM	SPECIFICATION AND WARRANTY PERIOD REQUIRED	MODEL QUOTED BY FIRM AGAINST SPECIFICATION	RATE
1.	Core™ i9 Laptop	13th Gen Core™ i9 Processor Min 4.6 GHz, 36 MB L3 cache, Screen: 15.6 INCHES 1080p with Genuine win 11 Pro 24 cores, 32 threads 16 GB DDR5-5600 MHz RAM 512 GB PCIe® NVMe™ TLC M.2 SSD NVIDIA® GeForce RTX™ Laptop GPU (12 GB)		
2.	Core™ i7 Laptop	13th Gen Core™ i7 Screen: 15.6 INCHES 1080p with Genuine win 11 Pro Processor Min 4.4 GHz with Turbo Boost Technology, 12 MB L3 cache, 10 cores, 12 threads 8 GB DDR4-3200 MHz RAM 512 GB PCIe® NVMe™ M.2 SSD		
3.	Core™ i5 Laptop	13th Gen Core™ i5-1335U Screen: 15.6 INCHES with Genuine win 11 Pro Processor Min: 4.2 GHz with Turbo Boost Technology, 12 MB L3 cache 10 cores, 12 threads 16 GB DDR4-3200 MHz RAM		
4.	Core™ i7 All-in-One PC	13th Gen Core™ i7 Processor Min: 4.6 GHz with Turbo Boost Technology, 12 MB L3 cache, 10 cores, 12 threads 16 GB DDR4-3200 MHz RAM 512 GB PCIe® NVMe™ M.2 SSD 23.8" diagonal, FHD (1920 x 1080) Audio Chip: High Definition (HD) Audio, Realtek® ALC256 codec Speakers: 3Wx2 Camera: HD 720p Microphone: 2x, Array Power Supply: 90W 89% Adapter Complete Compute Set with Wireless Keyboard Mouse		
5.	Core™ i7 PC	13th Gen Core™ i7 Processor Min: 4.6 GHz with Turbo Boost Technology, 30 MB L3 cache 16 cores, 24 threads 16 GB DDR4-3200 MHz RAM 512 GB PCIe® NVMe™ M.2 SSD Integrated 10/100/1000 GbE LAN NVIDIA® GeForce RTX™ (8 GB GDDR6 dedicated) 22-inch LED Monitor Complete Computer Set.		
6.	Core™ i7 PC	12th Generation Core™ i7 Processor Min: 3.6 GHz Min 8 GB DDR4 RAM 256 GB M.2 SSD 22-inch LED Monitor		

		Complete Computer Set.		
7.	Core™ i7 PC	12th Generation Core™ i7 Processor Min: 3.2 GHz Min 4 GB DDR4 RAM 128 GB M.2 SSD 22-inch LED Monitor Complete Computer Set.		
8.	Core™ i5 All-in-One PC	13th Generation Core™ i5-13400T Processor Min: 4.6 GHz with Turbo Boost Technology, 8 GB DDR4-3200 MHz RAM 256 GB PCIe® NVMe™ M.2 SSD 23.8" diagonal FHD display Audio Chip: High Definition (HD) Audio, Realtek® ALC256 Speakers: 3Wx2 Camera: HD 720p Microphone: 2x, Array Power Supply: 90W 89% Adapter Complete Compute Set With wireless keyboard mouse		
9.	Core™ i5 PC	13th Generation Core™ i5 Processor Min: 4.6 GHz with Turbo Boost Technology, 16 GB DDR4-3200 MHz RAM 512 GB PCIe® NVMe™ M.2 SSD 22-inch LED Monitor Complete Computer Set		
10.	Core™ i5 PC	12th Generation Core™ i5 Processor Min: 4.6 GHz with Turbo Boost Technology, 1 8 GB DDR4-3200 MHz RAM 256 GB PCIe® NVMe™ M.2 SSD 22-inch LED Monitor Complete Compute Set		
11.	Core™ i5 PC	12th Generation Core™ i5 Processor Min: 4.6 GHz with Turbo Boost Technology, 1 4 GB DDR4-3200 MHz RAM 128 GB PCIe® NVMe™ M.2 SSD 22-inch LED Monitor Complete Compute Set		
12.	Core™ i3 All-in-One PC	12th Generation Core™ i3-1200 Processor Min:3.3 GHz with Turbo Boost Technology Memory: 1x 4GB SO-DIMM DDR4-3200 Max Memory: Up to 16GB DDR4-3200 Graphics: Integrated UHD Graphics 256 GB PCIe® NVMe™ M.2 SSD Audio Chip: HD Audio, Realtek® ALC256 Speakers: 3Wx2, Camera: HD 720p, Microphone: 2x, Array Power Supply: 90W 89% Adapter 22-inch LED Monitor Complete Compute Set With wireless keyboard mouse		
13.	Core™ i3 PC	12th Generation Core™ i3 Processor Min:4.3 GHz with Turbo Boost Technology 16 GB DDR4-2933 MHz RAM 512 GB PCIe® NVMe™ M.2 SSD 22-inch LED Monitor		

		Complete Compute Set		
14.	Core™ i3 PC	12th Generation Core™ i3-12100T Processor Min 3.2GHz w/Boost 8GB DDR4-2933 MHz RAM 256 GB PCIe® NVMe™ M.2 SSD 20/22-inch LED Monitor Complete Compute Set		
15.	Core™ i3 PC	12th Generation Core™ i3-12100T Processor Min 3.2GHz w/Boost 4GB DDR4-2933 MHz RAM 128 GB PCIe® NVMe™ M.2 SSD 20/22-inch LED Monitor Complete Compute Set		
16.	Dell Power Edge r730 CPU	Dell Power Edge R730 Processor E5-2699 v4 2.2 GHz 22 cores		
17.	DELL 8TB SAS 3.5inch	DELL 8TB SAS 3.5inch 10K RPM 12Gbps		
18.	DELL 8TB SAS 2.5inch	DELL 8TB SAS 2.5inch 10K RPM 12Gbps		
19.	Server Caddies	2.5-inch Hard Drive caddie		
20.	Server Caddies	3.5-inch Hard Drive caddie		
21.	Cash Drawer	**Quality Cash Drawer** 1. Thick gauge cold rolled steel 2. 3-Position lock cash box with 2 media slots 3. 5 bills with metal wire clips/ 8 coin; adjustable sections 4. Thick gauge cold rolled steel & SECC 5. Polyurethane for smooth & stable operation		
22.	Currency Counter and Detector	Counterfeit money detector Double-notes detecting <with IR (infrared ray) detection system> Automatic detecting with UV (ultraviolet) and MG (magnetic) while counting Suitable for most currencies in the world Automating start, stop and clearing With batching, adding and self-examination functions Automatic half-note detection With front and side display Counting speed: ≥ 900 pcs/min		
23.	Wireless printer	**Compact & Sleek Design** **Print speed:** 22 ppm (A4) / 23 ppm (Letter) **Technology:** Electro photographic monochrome laser **Resolution(dpi):** Min, 1,200×1,200		
24.	Mono Laser printer	**Min Printing speed** : 40ppm **Connection Method** : USB+NET+WIFI **Basic Function:** Print **Special function:**		

		1. One step driver installation 2. Automatic duplex printing 3. Metal frame inside 4. 2*550 pages' optional paper tray 5. Optional 15,000 pages' toner cartridge 6. Dual-band Wi-Fi (2.4G/5G) support		
25.	HP LaserJet Wireless Printer	**Functions**: Print, copy, scan **Print Speed** - Black (normal): Up to 21 ppm **Resolution** (black): Up to 600 x 600 x 2 dpi **Print Technology**: Laser **Connectivity**: Hi-Speed USB 2.0 port; Built-in Wi-Fi 802.11b/n/g **Memory**: 64 MB **Media sizes supported**: A6; A5; A4; Letter; No.10 Env; C5 Env; DL Env; B5(JIS); Oficio 216 x 340; Legal; 105 x 148.5 mm to 216 x 356 mm **With 2 cartridges**		
26.	HP LaserJet Printer	**Print Speed**: 40ppm(A4)/42ppm (Letter) **Print resolution**: Min.1200*1200 dpi **Processor speed**: 1.2 GHz **Memory**: 512 MB **Duplex printing**: Yes Mobile printing capability Air print Mopria iOS App/Android App NFC function: Yes **Paper input tray**: Standard paper tray: 250 Pages, Optional Paper Tray: PT-511H. 550 Pages (Maximum:2) Media Sizes: A4, A5, JIS B5, ISO B5, A6, Letter, Wi-Fi (2.4G/5G)		
27.	HP LaserJet Printer Heavy Duty	**Monthly duty cycle**: Up to 275,000 pages **Print Technology**: Laser **Processor speed**: 1.2 GHz **Connectivity**: 1 Hi-Speed USB 2.0 Device; 2 Hi-Speed USB 2.0 Host; 1 Gigabit Ethernet 10/100/1000 **Memory**: 512 MB **Display**: Color Graphics Display (CGD) with touchscreen; rotating (adjustable angle) **Paper trays**: 3 **With 2 cartridges**		
28.	Thermal Printer	**Internal Power Supply** **High Throughput**: 22 RPM (Receipts per Minute) **Printing Method**: Direct Thermal **Interface**: USB & Ethernet (10M/100M) **All Accessories Included**		
29.	Barcode Label Printer	6-button LCD (advanced model) control panel Easily adjustable sensors Print head pressure adjustment knobs Min 400-meter ribbon capacity with Flexible firmware structure Min 203 dpi resolutions		

		Up to 4 Gigabyte Flash memory expansion using SD Flash memory Fast label throughput		
30.	Heavy-Duty Label Printer	**Industrial thermal printer** Fast 536 MHz processor **Faster print speed** - up to 18 ips Available in 203 dpi, 300 dpi and 600 dpi resolutions 512 MB Flash and 512 MB SDRAM memory 600-meter ribbon capacity High quality label printing		
31.	Heavy-Duty Scanner	**Scanner Type:** Flatbed ADF **Scan Resolution Optical:** Up to 600 dpi (color and monochrome, ADF); Up to 1200 dpi (color and monochrome, flatbed Bit depth: 24-bits external 48-bits internal Automatic document feeder capacity: Standard, 50 sheets Produce up to 50 images (25 pages) per minute with two-sided scanning. Connectivity, standard: Hi-Speed USB 2.0 and USB 3.0 Automatic document feeder scan speed Up to 25 ppm/50 ipm (300 dpi)		
32.	Smart Projector	**Ultra-portable** LED projector. Smart Wi-Fi & Bluetooth connectivity Integrated stereo speakers Up to 6 hours of battery life supports 1080p analog video output Display Color 1.07 billion Colors Lens F=1.7, f=5.5mm Local Storage Total: in 16GB HDTV Compatibility: 480i, 480p, 576i, 576p, 720p, 1080i, 1080p HDMI 1, (HDMI 1.4/ HDCP 1.4) USB Type C 1 (5V/ 2A) Audio-in (Bluetooth) 1 (BT4.2) Audio out (3.5mm) 1 Audio-out (Bluetooth) 1 (BT4.2) Speaker3W Cube x2 Battery: 12000mAh (4000mAh 3.7Vx3), (2.5hrs@Normal, 3hrs@Eco)		
33.	Audio Conference System	Venue Size: 12m in length, 8m in width Number of Participants: 10-15 people.		
34.	Projector Screen	Fine Quality Easy to use 1:1 widescreen format built-in L bracket for easy ceiling or wall mounting high quality multilayer matte white with a black backing smooth transitioning into desired screen height 72 Inch Manual **6x6 Feet 1:1mw**		

35.	Photo paper	Basis Weight: Min 68 lb. (252 g/m²) Thickness: Min: 10.4 mil ISO Brightness: 92 Opacity: 97% Surface Finish: High Gloss Core Size: A4		
36.	LED 4K 60 inches	Aspect ratio: 16:9 Diagonal screen size (inch): 60 inches Display: LED Full HD Panel resolution: Minimum 1920x1080p		
37.	LED 4K Smart 55 inch	Aspect ratio: 16:9 Diagonal screen size (inch): 55 inches Display: LED Full HD		
38.	LED 4K Smart 46 inch	Aspect ratio: 16:9 Diagonal screen size (inch): 46 inches Display: LED Full HD		
39.	Extension Board	Best quality electric extension		
40.	Office 365 License	Email license for office 365		
41.	Win 11 Pro	License for windows 11 Pro version		
42.	Win 10 Pro	License for windows 10 Pro version		
43.	Radian Viewer	License for radian viewer		
44.	Kaspersky security center 14 License	Kaspersky Anti-virus License		
45.	SOPHOS License	Sophos antivirus license		
46.	SOPHOS Anti-virus and Anti-Malware Lic	Sophos Anti-Virus for Windows and Linux		
47.	24 Inch Curved LED	**24 Inch Curved LED** **Full HD Resolution** **Refresh Rate: 60 Hz** Size/Curvature: 24" **Resolution: 1920x1080 FHD** **Panel form factor: Curved R1500** **Display Color/Color Gamut: 16.7million display** colors,230cd/m2 brightness		
48.	Laptop Trolley	Height adjustable working area is comfortable for sitting or standing users Pull-out keyboard storage Cables can go through the arm This model is fitted with wheels for easy movement and 4pcs with lock while working. Help to improve workflow efficiency and upgrade patient care Install a single LCD arm to have the monitor in a better viewing position. Monitor can be tilted and swiveled. Meets with VESA standard 75/100mm.		

		Weight capacity including monitor: 2-7kgs.		
49.	Ultra Flat Wall Mount Computer Station	LARGE MONITOR MOUNT: VESA 75x75mm/100x100mm compatible heavy-duty monitor arm for a single large 32" or 43" Full motion articulation & matte black finish WIDE RANGE OF MOTION: Articulating ergonomic monitor arm increases comfort & productivity w/ +/-90 tilt, +/-90 swivel, 90 rotating screen (landscape/portrait), & 360 rotating computer monitor arm EASY INSTALLATION: C-clamp or grommet mount by hand to a desk (10 mm to 80 mm); detachable VESA plate w/ quick release clip makes mounting displays easy; tools incl. to adjust articulation tension SMALL FOOTPRINT: Aluminum desk mount monitor arm w/ space-saving design enhances the work area & cable management channels keep cables organized.		
50.	Splicing Machine	Splicing Machine Applicable Fibers: SM (ITU-T G.652&G.657) / MM (ITU-T G.651) / DS (ITU-T G.653) / NZDS (ITU-T G.655) Compatible Fiber / Cable :0.25~3.0 mm / Indoor Cable Cleaved Length Diameter: 0.125~1 mm / Cleave Length: 8~16 mm Splicing Mode: Preset 7 modes / Max 128 modes Typical Splice Loss SM: 0.02dB / MM:0.01dB / DS:0.04dB / NZDS: 0.04dB / G.657: 0.02dB (ITU-T Standard) Return Loss :>>60dB Splicing Time Auto mode: 9 sec / Quick modes: 7 sec Estimated Splice Loss: Available Protection Sleeve Length: 20~60 mm Heating Time Typical heating time: 35 sec Results Storage: The last 2000 results Tension Test :1.96~2.25N Operating Condition Operating Altitude: 0~5000m above sea level, 0~95% relative humidity, -10~50°C, Max Wind 15m/s Storage Condition: 0~95% relative humidity, -40~80°C Display: 90° bi-directional view, 5.0" Color High Resolution Display Fiber View & Magnification: X, Y, XY, X/Y: 520X Magnification Power Supply: AC Input 100-240V, DC Input 9-14V No. of Splice / Heating with Battery :4200mAh Battery Capacity, Typical 170 times (Splice Heat) Operating Methods: Button / Touch screen Automatic Calibration: Automatic arc calibration by air pressure and temperature Electrode Life: 3500 arcs, can be extended by using an electrode grinder Terminal USB: 2.0 / MINI USB / HDMI Core alignment splicing (DACAS Digital Analysis Core Alignment System)		

		The highest 520X magnification and resolution 5" Color LCD touch screen Double tapping (zoom in & out) Detachable SOC holder and heating oven for splice-on connectors Bright LEDs for dark environments Ceramic clamp for improved durability Easy to replace electrodes Mirrorless design for easy maintenance		
51.	128 Gb SSD	Branded Original SSD 128GB Solid State Drive Capacity 128 Gb SSD SATA II - Maximum bandwidth of 3Gb/s or 384 MB per second. SATA III - Maximum bandwidth of 6Gb/s or 768 MB per second. PCI-E Gen 3 - Maximum bandwidth of 8GT/s or 8 GB per second. M.1 drives, Max read speed: 500 mb/s. Max write speed: 400mb/s.		
52.	256 Gb SSD	Branded Original SSD 256GB Solid State Drive Capacity 256 Gb SSD SATA II - Maximum bandwidth of 3Gb/s or 384 MB per second. SATA III - Maximum bandwidth of 6Gb/s or 768 MB per second. PCI-E Gen 3 - Maximum bandwidth of 8GT/s or 8 GB per second. M.1 drives, Max read speed: 500 mg/s. Max write speed: 400mb/s.		
53.	500 Gb SSD	Branded Original SSD 500GB Solid State Drive Capacity 500 Gb SSD SATA II - Maximum bandwidth of 3Gb/s or 384 MB per second. SATA III - Maximum bandwidth of 6Gb/s or 768 MB per second. PCI-E Gen 3 - Maximum bandwidth of 8GT/s or 8 GB per second. M.1 drives, Max read speed: 500 mb/s. Max write speed: 400mb/s.		
54.	1 TB SSD	Branded Original SSD 1TB Solid State Drive Capacity 1Tb SSD SATA II - Maximum bandwidth of 3Gb/s or 384 MB per second. SATA III - Maximum bandwidth of 6Gb/s or 768 MB per second. PCI-E Gen 3 - Maximum bandwidth of 8GT/s or 8 GB per second. M.1 drives, Max read speed: 500 mb/s. Max write speed: 400mb/s.		

55.	2TB External HDD	Portable SSD 2TB USB 3.2 Gen 2, USB-C 2 TB Interface USB 3.2 Gen 2 Connector USB-C		
56.	16GB Server Ram DDR3 / DDR4	Max Speed: 1333MT/s (1600MT/s will clock down) Compatible with Dell Power Edge R710/R730/R740/R440/T440		
57.	32GB Server Ram DDR4	Max Speed: 1333MT/s (1600MT/s will clock down) Compatible with Dell Power Edge R710/R730/R740/R440/T440		
58.	64GB Server Ram DDR4	Max Speed: 1333MT/s (1600MT/s will clock down) Compatible with Dell Power Edge R710/R730/R740/R440/T440		
59.	128GB Server Ram DDR4	Max Speed: 1333MT/s (1600MT/s will clock down) Compatible with Dell Power Edge R710/R730/R740/R440/T440		
60.	RAM (8 GB) DDR4	8GB DDR4 Ram Speed - DDR4-2666 Technology - DDR4 PC speed - PC4-21300		
61.	RAM (4 GB) DDR4	8GB DDR4 Ram Speed - DDR4-2666 Technology - DDR4 PC speed - PC4-21300		
62.	RAM (8GB) DDR3	8GB DDR4 Ram DDR3 1333 MHz Technology - DDR4		
63.	RAM (8GB) DDR3	4GB DDR4 Ram DDR3 1333 MHz Technology - DDR4		
64.	Semis Cell	Semis Cell for PC		
65.	Mouse	Branded Mouse Optical sensor Blue/RED LED Technology Cable Length 1.2m Resolution 1,600 dpi Connectivity USB, wired System Requirements Windows® XP, Windows® Vista, Windows® 7, Windows® 8, Windows® 10 Windows® 11 Mac USB port		
66.	Mouse PAD	Smooth Cloth Surface; Easy Cleaning and Maintenance Non-Skid Base Securely Holds the Mouse Pad in Place Machine Washable.		

67.	Keyboard	Branded Keyboard • Product Dimensions: 6 x 17 x 2 inches • Item Weight: 1.4 pounds • Shipping Weight: 1.4 pounds (View shipping rates and policies) • Manufacturer: Dell Computers • ASIN: B008C4JA66 • Origin: Made in USA or Imported • Connectivity USB interface • Cable length 1.8 m (5.90 ft) • Switches Function lock switch • Access the special function keys without having to first press on the Fn key • On (Green) • Performs the action as depicted in the icon • Off (Red) • Hold the Fn key and the numeral function key to perform the action as depicted in the icon • Available USB port • Windows 7, Windows 8.x, Windows 10 and Window 11		
68.	Wireless Keyboard Plus Mouse	Branded Wireless Keyboard Plus Mouse Easily operation from 10-meter distance. Wireless frequency is 2402MHZ-2408MHZ.		
69.	Branded Power Cable	Branded Power Cable for Computer/Monitor with Fuse 3 pin Socket Sport 3 Pin Supply Voltage: 250V		
70.	VGA Cable	Branded VGA Cable Compatible with laptops, monitors & LCD. Copper Cable		
71.	VGA Cable 15M	VGA Branded Cables 15M VGA to HDMI cable supports resolution up to 1920 x 1080 (60Hz).		
72.	VGA splitter	Cable Type DisplayPort; VGA Connector A DISPLAYPORT (MALE) Connector B (3) HD15 (FEMALE) Ports 5, Input 1, output 4		
73.	HDMI to VGA Converter	Universal HDMI to VGA Cable Converter HDMI to VGA cable resolution up to 1920 x 1080 (60Hz).		
74.	DVD R/W	Best Quality DVD-R/W 4.7 GB		
75.	LAN CARD USB	USB LAN 3.0 To RJ45 Lan Network Ethernet Adapter		
76.	PCI LAN CARD	PCI Slot for LAN (Network) card 10/100/1000Mbps PCIe Adapter* 32-bit PCIe interface, saving the finite chassis space Wake-on-LAN, convenient to manage over LAN PCIe Gigabit Network Adapter		
77.	Network Adapter	IEEE 802.3, 802.3u, 802.3ab, 802.3x, 802.1q, 802.1p, CSMA/CD, TCP/IP 10/100/1000Mbps RJ45 port		

	Gigabit PCI Express			
78.	PRINTER DATA Cable	Branded Printer Cable Brand Ultra Spec Cables Connector Type USB 2.0 Cable Type USB Compatible Devices Scanner, Personal Computer, Printer Special Feature High Speed		
79.	HDMI Cable	HDMI 25-meter Cable Cable type Standard (Category 1) recourse 1080i or 720p bandwidth 4.95 Gb/s		
80.	HDMI to VGA Converter	HDMI to VGA Converter Features: Converts an HDMI digital signal to a VGA analog video Enjoy high-definition images on a VGA monitor, projector or other display device; supports 1080p analog video output Fully shielded to reduce EMI and other interference sources Gold-plated contacts for best performance Molded PVC boot and strain relief Micro-USB port if additional power is required Specifications: Standards and Certifications • UL20276 • HDMI 1.3		
81.	HDMI to DVI Converter	INPUT 1 / 3 Cable Length (ft.) 6 Cable Length (m) 1.8 PHYSICAL Cable Jacket Rating VW-1 Cable Outer Diameter (OD) 5.5mm Color Black Material of Construction PVC Shipping Dimensions (hwd / cm) 1.27 x 17.78 x 22.86 Shipping Dimensions (hwd / in.) 0.50 x 7.00 x 9.00 Shipping Weight (kg) 0.13 Shipping Weight (lbs.) 0.28 Unit Packaging Type Polybag Wire Gauge (AWG) 30AWG ENVIRONMENTAL Operating Temperature Range 32 to 113°F (0 to 45°C) Storage Temperature Range 14 to 158°F (-10 to 70°C) Operating Humidity Range 10% to 85% RH, Non-Condensing Storage Humidity Range 5% to 90% RH, Non-Condensing CONNECTIONS Side A - Connector 1 HDMI (MALE) Side B - Connector 1 DVI-D SINGLE LINK (MALE) Connector Plating Gold		

		Contact Plating Gold **FEATURES & SPECIFICATIONS** Max Supported Video Resolution 1920 x 1080 @60Hz (1080p) HDMI Specification 1.3 HDCP Specification 1.3 Technology DVI; HDMI		
82.	Zoom Conference Camera Including Audio	**Zoom Conference Camera:** **Connectivity Technology**: USB **Flash Memory Type:**Micro SD **Screen Size**: 2.2 Inches **Camcorder type:** Video Camera **Video Capture Resolution:** 8K **Minimum Focal Length:**28 Millim Built-in MIC		
83.	Laptop Adopter Power Cable pool cable	Laptop Adapter/Charger Power Cable with Fuse Voltage: 250V 10A Length: 1.0M Compatible for most 3-port power adapter		
84.	05 Volt Adopters	**COMPATIBLE WITH:** Devices Having 3.5mm/1.35mm OD/ID Connector Size. (Please confirm your device require Connection Size Outside - 3.5mm, Inside - 1.35mm Power Plug) Input Voltage: AC 100-240V (Worldwide AC Input), DC Output: 5V DC at 2A		
85.	12-volt Adopters	**12-volt Adopters** Input 100-240V AC Output 12V 2A DC Plug Standard: 2.1/5.5mm plug		
86.	USB 32GB 3.0	**Branded USB 32GB 3.0** USB 3.0 Flash memory Capacity: 32GB USB		
87.	TSC ME-240 Ribbon	TSC ME-240 Ribbon		
88.	LQ ribbons LQ 350/300	Epson LQ-350 Ribbon Cartridge for Epson LQ-350 and LQ 300 Dot Matrix Printers		
89.	External CD Rom	USB external DVD ROM with data and power cable box pack		
90.	Fargo HDP5000 Printer Ribbons	Fargo HDP5000 Printer Ribbons		
91.	Fargo HDP5000 Retransfer Film	Fargo HDP5000 Retransfer Film		

92.	HP LaserJet scanner 2500 Power board	HP LaserJet scanner 2500 Power board		
93.	HP 147 A Tonner	HP 147 A Black LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
94.	HP 106 A TONNER	HP 106 A Black LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
95.	HP 80A Tonner	HP 80A Black LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
96.	HP 107A Tonner	HP 107A Black LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
97.	HP 37A Tonner	HP 37A Black LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
98.	HP 76A Tonner	HP 76A Black LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
99.	HP 105 A Tonner	HP 105A Black LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
100.	HP 05A Tonner	HP 05A Black LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
101.	HP 85A Tonner	HP 85A Black LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
102.	HP 17A Tonner	HP 17a Black LaserJet Toner Cartridge		

		Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
103.	HP 19a Imaging Drum	HP 19A Original LaserJet Imaging Drum Imaging drums with Jet Intelligence provide professional-quality results and are precisely tuned to match the powerful performance Page yield (black and white): 12,000 pages		
104.	HP 90A Tonner	HP 90A Black LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
105.	HP M252 color printer Black, Cyan, Yellow, Magenta Tonner	HP Color LaserJet Pro M252dw Printer Toner Cartridges Color: Black Color: Cyan Color: Yellow Color: Magenta Cartridge yield (approx.): 2,800 pages HP Printer compatibility: HP Color LaserJet Pro M252, M277		
106.	HP 49A Tonner	HP 49A Black LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
107.	HP 53A Tonner	HP 53A Black l LaserJet Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
108.	HP 79A Black Compatible Toner Cartridge	HP 79A Black Compatible Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
109.	HP 81A Tonner	Compatible HP 81A Black Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results. Page yield (black and white): 2,500 pages		
110.	HP 83A Tonner	Compatible HP 83A Black Toner Cartridge Cartridges comprise up to 70% of the total imaging system, ensuring consistent results. Specially formulated toner produces clear, sharp results.		

		Page yield (black and white): 2,500 pages		
111.	HP pro 400 Printer Fuser	HP LaserJet Pro 400 M401n Fuser Full Unit Full Fuser Assembly		
112.	HP 1320 Printer Fuser	HP LaserJet 1320 Fuser Unit Full Fuser Assembly		
113.	HP 2015 Printer Fuser	HP LaserJet P2015 Fuser Unit Full Fuser Assembly		
114.	HP 1102 Printer Fuser	LaserJet Pro P1102w Fuser / Delivery Unit Full Fuser Assembly		
115.	Printer Clutch for printers (all models)	Printer Clutch for printers (all models) 1320, 2015, 2055, 1102, M12a, pro-400, 102a		
116.	Pressure Roller printers (all models)	Pressure Roller printers (all models) 1320, 2015, 2055, 1102, M12a, pro-400, 102a		
117.	Heater printers (all models)	Heater printers (all models) 1320, 2015, 2055, 1102, M12a, pro-400, 102a		
118.	Formative Card (all models) printers	Formative Card (all models) printers 1320, 2015, 2055, 1102, M12a, pro-400, 102a		
119.	HP pro400 printer Paper picker	HP pro400 printer Paper picker Upper and down page picker		
120.	HP 1320 printer Paper picker	HP 1320 printer Paper picker Upper and down page picker		
121.	HP 1102 printer Paper picker	HP 1102 printer Paper picker		
122.	HP 107 A Printer picker	HP 107 A Printer picker		
123.	HP LaserJet M611 paper Printer picker	HP LaserJet M611 paper Printer picker		
124.	HP LaserJet M611 Printer Fuser With maintenance Kit	HP LaserJet M611 Printer Fuser With maintenance Kit		
125.	HP 107 A Printer picker	HP 107 A Printer picker		
126.	Black copper Thermal Printer	Black copper Thermal Printer head 95Ac, 85Ac		

No.	Item	Description		
127.	TSC me 240 Label Sticker Printer Head	TSC me 240 Label Sticker Printer Head Section		
128.	HP pro 400 printer heat sleeve	For HP LaserJet Pro 400 M401 M425 M401d M401dn M425dn M425dw Fuser Film Sleeves, For HP M401 M425 400 M 401 425 Fixing Film		
129.	HP 1102 printer heat sleeve	10X HP LaserJet P1102 P1606 M1536 M401 M425 P2035 P2055 1213NF Fuser Film Sleeve		
130.	HP 1102 printer Fuser Roller	Compatible NEW for HP P1102W P1560 P1566 P1102 P1536 P1606dn Fuser Pressure Roller Lower sleeve roller LPR-1102-000 LPR-1102		
131.	HP pro400 printer Fuser Roller	Pressure Roller Lower sleeve roll		
132.	HP 1320 printer heat sleeve	FILM1320 Fuser Film Sleeve, OEM for HP LaserJet 1320		
133.	Magnet for tonner	Magnet for tonner		
134.	HP Enterprise M553 toners	HP Enterprise M553 toners		
135.	Drums for HP Pro400, 1320, 1102, 1109, M604 etc. for tonners	Drums for HP pro400, 1320, 1102, 1109, M604 etc. for tonners		
136.	Toner powder INK 80a ,85a	Refill Toner powder 280A 80A 80X 280X 280 CF280X CF280A For HP LaserJet pro 400 401 452 printer		
137.	Toner powder INK 17A	Refill Toner powder INK 17A		
138.	Multimedia Projector along with wall screen	Poly-silicon TFT active-matrix Resolution: 1920x1080 PXRefresh rate: 60Hz Response time: 5 MS Panel type: TN, Lens= 1.80 Color reproduction Full color, 16.77 million colors		
139.	Tape Cable 2 pin	Branded Tape Cable 2 pin		
140.	Electric Soldering Iron	Electric Soldering Iron		
141.	Heat gun	Heat Gun Machine Heavy Duty		
142.	DVD	Re writeable DVD's Best Quality		
143.	Color Paper	Best quality color paper Size: A4		

		Weight: 80 G		
144.	Kyocera Printer Ink	Kyocera Printer Compatible Cartridges Ink Kyocera 4100 printer Compatible Cartridges Ink		
145.	LED for Computers 22 inches	Supported 1,920 by 1,080 pixels 22 inch led monitor VGA - DVI PORT FULL HD DISPLAY 60 HZ		
146.	Hammer	Best Quality Hammer		
147.	Solder Sucker Removal Tool	De soldering Pump Zd205 Solder Sucker Removal Tool		
148.	Wire Stripper	Wire Stripper With a die-cast blade pre-marked for wires ranging from 8-18AWG, this Automatic Wire Stripper makes quick work by holding, cutting and stripping wires in a single step. When the tool is released, a recoil spring releases the blade and the tool is ready again for use.		
149.	Stairs	Stairs 6 Feet Aluminum Folding Stair, 5 Steps		
150.	Dual Mode Biometric Time and Attendance	Dual Mode Biometric Time and Attendance Terminal 1200 facial templates • 2000 fingerprint templates • Up to 10,000 cards • Up to 100,000 stored punches		
151.	Biometric Time and Attendance	Capacity Users 10,000 Face Template 10,000 Fingerprints 10,000 ID Cards 10,000 Transactions 1,000,000 Hardware High Performance Android Industrial CPU / 2GB DDR3 RAM / 16GB ROM / Z-ID Fingerprint Sensor / 7-inches Touch Screen, 1280*800 Pixel / 2NP Binocular Camera Communication TCP/ IP/USB Host /Wiegand Input / Wiegand Output Standard Functions ID Card / Work Code / ADMS/ DST / Schedule Bell / Automatic Status Switch / Record Query / Photo ID Optional Functions: 13.56MHz IC Card Additional Info Algorithms ZKFace V10.0 & ZKFinger V12.0 Working Temperature 0°C~+50°C Working Humidity <90% Dimensions 264*120*51mm Facial Recognition Speed ≤1s Facial Recognition Distance 0.5m~3m Power DC12V 3A Access Control Interface Lock Relay Output / Exit Button /Alarm Output /Door Sensor /External Bell		

		Special Functions Enhanced Visible Light Facial Recognition / Liveness Face Detection / Multiple Biometric Verification Modes (Time Attendance) Power Supply: 5V DC 2 hrs. minimum power backup		
152.	USB Fingerprint Scanner	USB Fingerprint Scanner • Stable operation under strong light • Support live fingerprint detection function • Large fingerprint capture area and high image performance		
153.	Electric Lock	Electric Lock High Quality Product Size 393.8*74.2*58.6 mm Net Weight 4.2kg Power Supply Mode 2480mAh lithium-ion battery (7.2V), USB-C emergency power supply (5V) Wireless Protocols Zigbee, Bluetooth 5.0, NFC Operating Humidity 0-93% RH, non-condensing		
154.	Magnetic door lock	Import material, high quality and reliability Unlock when power off, no residual magnetism, convenient to escape No noise, environmental-friendly and Energy-saving Anti-rust processes, anti-corrosion and wear-resistant, easy to repair Unlock by key, manual, controller, intelligent sensor Fit for electric door, escape door, fire door, glass door, wooden door, etc.		
155.	Door Lock Button	Switch Button Stainless Steel Rectangle 12V DC Exit Push Release Button Switch for Electric magnetic Lock Door Access Control		
156.	Laptop Adopter	HP, Dell, Acer, Toshiba, Lenovo or another Brand		
157.	Laptop Batteries	HP, Dell, Acer, Toshiba, Lenovo or another Brand		
158.	12 Channel Wireless Microphone System	input 2 x Mic: -60dB*, 600 ohms, unbalanced, phone jack 3 x AUX: -20 dB*, 10k ohms, unbalanced, phone jack output 1 x Line: -20dB*, unbalanced, phone jack 2 x Recording: -20dB*, 10k ohms, unbalanced, phone jack/RCA pin jack		

		1 x Headphone: mini jack external EQ
		Input: -20dB*, 10k ohms, RCA pin jack
		Output: -20dB*, 10k ohms, RCA pin jack
		No. of connectable Chairman/Delegate Unit 192
		External Control Terminal
		D-sub connector (9P, male)/USB-B selectable
		Function Switch
		Speaker restriction: set to 1,2,3 and 4
		Mic-off function: off or on (selectable)
		Speech priority selector A/B/C
		A: First-in-first-out, B: Last-in-first-out, C: Fixed for the first unit and last-in-last out for the subsequent units
		FBS selection: External/Off/Auto/Manual
		Dimensions 359(W) x 118.8(H) x 184.7(D) mm (14.13" x 4.68" x 7.27") Weight 2.8 kg (6.17 lb)
159.	Table MIC	Best Quality Table MIC
		Audio Patterns: Bidirectional, Cardioid, Omnidirectional, Stereo Four directional patterns
		High sound quality
160.	Stereo Cable	Stereo Cable
161.	Stereo Cable Extension	Stereo Cable Extension
162.	Radiant Viewer	Radiant Viewer Com Viewer Licensing
		Plan: 5Years
		10 Nods
163.	Queue management for Hospital	Queuing Machine for 10 terminals including all advanced features:
		Standing Queuing machine for 10 terminals
		The users can get ticket with their ID code and the system can automatically recognize all of the user's information, so that the system can provide Emergency or old citizen services according to the users
		Teller display made of advanced indoor single/double Primary color LED screen, and the front panel durable and excellent feature.
		Teller display for the proceedings and integrated display for queuing number display.
		for example, "in process", "pause", "welcome", "No. A181, please come to counter 1".
		The display is featured with the advantages of high brightness, wide visual angle, quick response speed, long visual range and common appliance.
		Control System: For queuing number calling repeat, and transferring. And for management (e.g. staff levels as per rights) of the system as per user rights
		Back stage software:

		• Operation system: Microsoft Windows 7/8/10/11 • Support VC, C++, JAVA development language • Application software: WOSA/XFS Dimensions • Lobby style • Height:1540mm • Width: 470mm•Depth : 865mm
164.	Image scanner	Scanner type Flatbed color Photoelectric device Color CCD line sensor Effective pixels 40,800 × 56,160 pixels at 4800 dpi Scanning area may be restricted if resolution setting is large. Document size Reflective: 216 × 297 mm (8.5 × 11.7 inches) A4 or US letter size Transparent: 35 mm film strip: 6 frames at a time 35 mm slides: up to 4 slides at a time Scanning resolution 4800 dpi (main scan) 9600 dpi with Micro Step (sub scan) Output resolution 50 to 6400, 9600, and 12800 dpi (50 to 6400 dpi in 1 dpi increments) Image data 16 bits per pixel per color internal 16 bits per pixel per color external (maximum) Interface One USB 2.0 Hi-speed port Light source White LED
165.	Hp G280 /240 Power supply	Hp G280 /240 Power supply
166.	Cat 6A Cable	Cat6A cable with 23 AWG
167.	Labor Rate for installation of CAT6/Fiber Cable /meter including Duct	
168.	Labor Rate for installation of Electric Cable Per meter	
169.	Fire Extinguisher	Capacity: 2kg Extinguishing Medium: Halotron Propellant Gas: Argon Fire Rating: 8A/55B/C Design Pressure: 8.63 Bar Design Temperature: -20 deg C to 60 deg C
170.	RJ 45 Connectors	3 Prong Gold plated Pins Compatible insulation and diameters from 0.095-1.15 mm Suitable for cable jacket diameter up to 7.30 mm
171.	JOINTER	Best Quality
172.	Clamping Tool	Best Quality
173.	Tagging machine	Best Quality Tagging Machine

174.	Tagging machine cassettes	Best Quality 9mm		
175.	Splicing Machine	Best Quality		
176.	Patch panel	24-port CAT6 patch panel. BLANK KEYSTONE 1U PATCH PANEL: The 24-Port Blank Keystone 1U Patch Panel supports standard sized Cat6 keystone jacks.		
177.	Cable Manager	Cable Manager best quality Rack Mount Rack Unit: 1RU		
178.	Internet load balancer latest Model	Five or more Ethernet ports with DHCP, Nating etc. URL filtering with SSL +HTTPS traffic blocking User rights		
179.	Dell server Rack 42U	Height 78.7" (1999mm) Width 23.8" (605mm) Depth 42.1" (1070mm) Weight 298 lbs (135 kg)		
180.	Cat 6 Cable	Best copper Cat6 cable 305-meter Cat6A cable with 24 AWG		
181.	Digital Meter	Digital meter cable testing Length measurement Length broken detected		
182.	Cat 6A cable	Best copper Cat6 cable 305 meters		
183.	HDF Fargo 5000	Tonner		
184.	Power Supply	DIFFERENT MODLES		
185.	Cable Tie 4"	100 pcs Cable tie		
186.	Cable Tie 6"	100 pcs Cable tie		
187.	Cable Tie 8"	100 pcs Cable tie		
188.	Cable Tie 10"	100 pcs Cable tie		
189.	Turk Plast Pipe 1"	Turk Plast Pipe 1" L10'		
190.	Turk Plast Pipe 2"	Turk Plast Pipe 2" L10'		
191.	Metal U Clip 1"	Metal U Clip for Pipe		
192.	Metal U Clip 2"	Metal U Clip for Pipe		
193.	pigtail sc to sc	Connector type: SC Length: 1 m		
194.	pigtail lc to sc	Connector type: LC to SC Length: 1 m		
195.	patch panel 24	Copper Patch Panel 24-Port High-Density Multimedia Unloaded		
196.	PDU	Power Distribution Units 8 port		
197.	KJ nut	For Switch Hang		

198.	PVC Cable Duct 1"	1 inch		
199.	PVC Cable Duct 2"	2 inches		
200.	PVC Duct Cutter	Best Quality		
201.	Cat6 Connector Cover	Best quality Connector Cover Color White		
202.	Tagging Machine	Label Printer makes it easy to print labels Easy to use QWERTY keyboards make creating labels simple and fast. Includes a 16-digit, 2 lines, LCD display with one built-in font and 24-character sizes. With a resolution of 200 DPI.		
203.	i/o punching tool	i/o punching tool		
204.	RJ45 CAT6E Lan I/O	RJ45 CAT6E Lan I/O		
205.	I/O Face Plate	I/O 3X3 1M Dual Face Plate		
206.	Pigtails	High Quality Fiber Optic Pigtail		
207.	SFP module	SFP module		
208.	SFP transceiver Modules	SFP transceiver Modules		
209.	Wi-Fi Router (Short Range)	Network Speed 5 GHz: 4804 Mbps (802.11ax, HE160), 2.4 GHz: 1148 Mbps (802.11ax) Network Standard IEEE 802.11ax/ac/n/a 5 GHz, IEEE 802.11n/b/g 2.4 GHz Antenna 8× Fixed High-Performance Antennas Buttons Wi-Fi On/Off Button, Power On/Off Button, LED On/Off Button, WPS Button, Reset Button Protocols IPv4, IPv6 Warranty 1 Year Warranty		
210.	Wi-Fi Antenna	External Outdoor Wi-Fi Antenna Long Range Omni-Directional 2.4G/5.8G 12dBi for Wi-Fi Trail Spy Point Security Camera Antenna/Wi-Fi Routers/Wi-Fi Hotspot Antenna External Outdoor Wi-Fi Antenna Brand SIGNALPLUS Color Silver, White		

		Impedance 50 Ohm Maximum Range 10000 Meters Item Dimensions LxWxH 1.18 x 1.18 x 30.71 inches	
211.	Long range Wi-Fi router	Complies with IEEE 802.11 a/b/g/n/ac standards Dual-Band Speed up to 2.4GHz 150Mbps, 5GHz 433Mbps Weatherproof RJ45 Connector, Integrated Passive Power over Ethernet (PoE) Passive PoE Support for Flexible Deployment Provides high performance at a Long-Range Links, depending on its antenna Features up to 1000mW of power and an enhanced receiver design Robust weatherproof case withstands harsh outdoor conditions Operation Modes: Router, AP, Repeater Maximum Security with WAP, and WPA2 Support 3 LEDs Wireless Signal Strength Build in lightning arrester (15kV ESD)	
212.	RJ 45 Connector	RJ 45 steel Connector and simple	
213.	RJ 11 connector	RJ 11 connectors	
214.	Network Digital Metter	Digital Network Cable Tester Meter with Length Measurement with Battery	
215.	IT-Tech Network Toolkit	Electrical adhesive tape CRV red black Rubber plastic screwdriver 5*100(-) Crystal box 22pc (8p:10pcs 6p:6pcs 4p:6pcs CRV red black Rubber plastic hand Shank screwdriver 5*100(+) Precision screw drivers 2.4(-) 2.4(+) Digital electrical pen test 12-250v Long flat nose pliers wire stripper Network pliers Wire cutter Network tester	
216.	Window 10 License	Window 10 License	
217.	Window 11 License	Window 11 License	
218.	Humidity control set	For Data Centre	
219.	Temperature control set	For Data Centre	
220.	RFID Cards	Best Quality RFID Cards	

221.	Fire Fighting Kit	For Data Centre		
222.	Ultra Flat Wall Mount Computer Station	LARGE MONITOR MOUNT: VESA 75x75mm/100x100mm compatible heavy-duty monitor arm for a single large 32" or 43" Full motion articulation & matte black finish WIDE RANGE OF MOTION: Articulating ergonomic monitor arm increases comfort & productivity w/ +/-90 tilt, +/-90 swivel, 90 rotating screen (landscape/portrait), & 360 rotating computer monitor arm EASY INSTALLATION: C-clamp or grommet mount by hand to a desk (10 mm to 80 mm); detachable VESA plate w/ quick release clip makes mounting displays easy; tools incl. to adjust articulation tension SMALL FOOTPRINT: Aluminum desk mount monitor arm w/ space-saving design enhances the work area & cable management channels keep cables organized & hold incl. tool for articulation tension adjustment. Picture is Annexed for reference at Annex A		
223.	TSC ME-240 label	Label for TSC ME-240 head and power board		
224.	Power Board	HP LaserJet scanner 2500 Power board		
225.	Fuser Unit	HP LaserJet Pro 400 M401n Fuser full Unit Full Fuser Assembly		
226.	Fuser Unit	HP LaserJet 1320 Fuser Unit Full Fuser Assembly		
227.	Fuser Unit	HP LaserJet P2015 Fuser Unit Full Fuser Assembly		
228.	Fuser Unit	LaserJet Pro P1102w Fuser / Delivery Unit Full Fuser Assembly		
229.	Printer Clutch	Printer Clutch for printers (all models) 1320, 2015, 2055, 1102, M12a, pro-400, 102a		
230.	Pressure Roller	Pressure Roller printers (all models) 1320, 2015, 2055, 1102, M12a, pro-400, 102a		
231.	Heater Printer	Heater printers (all models) 1320, 2015, 2055, 1102, M12a, pro-400, 102a		
232.	Formative Card	Formative Card (all models) printers 1320, 2015, 2055, 1102, M12a, pro-400, 102a		
233.	Paper picker	Hp pro400 printer Paper picker Upper and down page picker		
234.	Fuser Unit	HP LaserJet Pro 400 M401n Fuser full Unit Full Fuser Assembly		
235.	Paper picker	Hp 1320 printer Paper picker Upper and down page picker		
236.	Paper picker	Hp 1102 printer Paper picker		
237.	Paper picker	HP 107 A Printer picker		
238.	Paper picker	HP LaserJet M611 paper Printer picker		

239.	Printer Fuser	HP LaserJet M611 Printer Fuser With maintenance Kit		
240.	Paper picker	HP 107 A Printer picker		
241.	Paper picker	HP LaserJet M611 paper Printer picker		
242.	Thermal Printer Head	Black copper Thermal Printer head 95Ac, 85Ac		
243.	Printer Head Section	TSC me 240 Label Sticker Printer Head Section		
244.	Printer Head Section	Black copper Thermal Printer head 95Ac, 85Ac		
245.	Fuser Film Sleeves	For HP LaserJet Pro 400 M401 M425 M401d M401dn M425dn M425dw Fuser Film Sleeves, For HP M401 M425 400 M 401 425 Fixing Film		
246.	Fuser Film Sleeves	10X HP LaserJet P1102 P1606 M1536 M401 M425 P2035 P2055 1213NF Fuser Film Sleeve		
247.	Pressure Roller	Compatible NEW for HP P1102W P1560 P1566 P1102 P1536 P1606dn Fuser Pressure Roller Lower sleeve roller LPR-1102-000 LPR-1102		
248.	Pressure Roller	Pressure Roller Lower sleeve roll		
249.	Fuser Film Sleeves	FILM1320 Fuser Film Sleeve, OEM for HP LaserJet 1320		
250.	Tonner Magnet	Magnet for tonner		
251.	Tonner M553	Hp Enterprise M553 toners		
252.	Drums for Tonner's	Drums for HP pro400, 1320, 1102, 1109, M604 etc. for tonners		
253.	Soldering	Electric Soldering Iron		
254.	Heat Gun	Heat Gun Machine Heavy Duty		
255.	Power Supply	Hp G280 /240 Power supply		
256.	9U Rack	- Front Door - Vented Mesh (locking) - Rear Door - Swing Gate / Solid with knockouts - Side Panels - Solid (removable, locking) 90-degree swing-out - Removable laser knockouts for fans / cable slots - Mounting Depth: 22.5" 150 lb. weight capacity 19" EIA 310-D compliant - Made in thre USA 5-Year Limited Warranty		
257.	Pigtail SC-SC	Pigtail SC-SC		
258.	SC-LC Patch Cord (1 Meter)	SC-LC Patch Cord (1 Meter)		
259.	Duct 60 x 60 (Each 10ft Length)	Duct 60 x 60 (Each 10ft Length)		
260.	Duct 40 x 40 (Each 10ft Length)	Duct 40 x 40 (Each 10ft Length)		

No.	Item	Description			
261.	Duct 16 x38 (Each 10ft Length)	Duct 16 x38 (Each 10ft Length)			
262.	PVC Pipe 1 1/2 Inch for Ethernet Cabling	PVC Pipe 1 1/2 Inch for Ethernet Cabling			
263.	PVC Pipe 1 Inch for Power & Fiber (Each 10ft Length)	PVC Pipe 1 Inch for Power & Fiber (Each 10ft Length)			
264.	40/76 Power Cable (ft)	40/76 Power Cable (ft)			
265.	Power distribution unit Branded	Power distribution unit Branded			
266.	100Amp Breaker for Control Room with DB	100Amp Breaker for Control Room with DB			
267.	10Amp Breaker	10Amp Breaker			
268.	HD Pipe 1 Inch (ft)	HD Pipe 1 Inch (ft)			
269.	Digging and Filling for Optical Fiber (ft)	Digging and Filling for Optical Fiber (ft)			
270.	OFDF 6 Ports	OFDF 6 Ports			
271.	UTP Cat-VI Patch Cord 1 Meter	UTP Cat-VI Patch Cord 1 Meter			
272.	27U Rack	➢ 27 U Rack ➢ Floor Standing ➢ Perforated Dual Compartment Door ➢ 2 Fixed Tray and 1 sliding tray ➢ 4 Fans ➢ Fan kit and PDU			
273.	42U Rack	➢ 42 U Rack ➢ Floor Standing ➢ Perforated Dual Compartment Door ➢ 2 Fixed Tray and 1 sliding tray ➢ 4 Fans ➢ Fan kit and PDU			
274.	CAT VI Cable Roll	CAT-VI (A) network cable Roll			
275.	Cable Tagging	Cable tracing, labeling / tagging and management of 6,000 Feet Cable.			
276.	UPT I/O Installation Termination	Installation, Configuration & commissioning charges: * Installation and Termination of UTP I/O			

277.	Installation / Termination of Patch Panel	Installation and Termination of Patch Panel		
278.	Installation /Termination of OFDF	Installation and Termination of OFDF		
279.	Installation /fixation of Data Cabinet	Installation and fixation of Data Cabinet		
280.	Installation /Configuration of Switches,	Installation and Configuration of Switches,		
281.	Installation and Configuration of Access Points,	Installation and Configuration of Access Points,		
282.	Installation and Configuration of, Access Point Controller	Installation and Configuration of, Access Point Controller		
283.	Installation and Configuration of Firewalls	Installation and Configuration of Firewalls		
284.	Installation / configuration services of Electronic Device/equipment	Relevant installation / commissioning configuration services of quoted Electronic Device/equipment with Free servicing / minor repairs to 1 x years warranty period.		
285.	RJ45 Connectors	Best quality		
286.	JOINTER	Best Quality		
287.	Clamping tool	Best Quality		
288.	Splicing Machine	Splicing Machine Applicable Fibers: SM (ITU-T G.652&G.657) / MM (ITU-T G.651) / DS (ITU-T G.653) / NZDS (ITU-T G.655) Compatible Fiber / Cable :0.25~3.0 mm / Indoor Cable Cleaved Length Diameter: 0.125~1 mm / Cleave Length: 8~16 mm Splicing Mode: Preset 7 modes / Max 128 modes Typical Splice Loss SM: 0.02dB / MM:0.01dB / DS:0.04dB / NZDS: 0.04dB / G.657: 0.02dB (ITU-T Standard) Return Loss :>>60dB Splicing Time Auto mode: 9 sec / Quick mode: 7 sec Estimated Splice Loss: Available Protection Sleeve Length: 20~60 mm Heating Time Typical heating time: 35 sec		

Results Storage: The last 2000 results
Tension Test :1.96~2.25N
Operating Condition Operating Altitude: 0~5000m above sea level, 0~95% relative humidity, -10~50°C, Max Wind 15m/s
Storage Condition: 0~95% relative humidity, -40~80°C
Display: 90° bi-directional view, 5.0" Color High Resolution Display
Fiber View & Magnification :X, Y, XY, X/Y: 520X Magnification
Power Supply: AC Input 100-240V, DC Input 9-14V
No. of Splice / Heating with Battery :4200mAh Battery Capacity, Typical 170 times (Splice + Heat)
Operating Methods: Button / Touch screen
Automatic Calibration: Automatic arc calibration by air pressure and temperature
Electrode Life: 3500 arcs, can be extended by using an electrode grinder
Terminal USB: 2.0 / MINI USB / HDMI

1. 1. Core alignment splicing (DACAS Digital Analysis Core Alignment System)
2. 2. The highest 520X magnification and resolution
3. 3. 5" Color LCD touch screen
4. 4. Double tapping (zoom in & out)
5. 5. Detachable SOC holder and heating oven for splice-on connectors
6. 6. 3 Bright LEDs for dark environments
7. 7. Ceramic clamp for improved durability
8. 8. Easy to replace electrodes
9. 9. Mirrorless design for easy maintenance

289.	Patch panel	24-port CAT6 patch panel. BLANK KEYSTONE 1U PATCH PANEL: The 24-Port Blank Keystone 1U Patch Panel supports standard sized Cat6 keystone jacks.		
290.	Cable Manager	Cable Manager best quality Rack Mount Rack Unit: 1RU		
291.	Fiber optic cable installation	12core Per meter		
292.	Internet load balancer latest Model	Five or more Ethernet ports with DHCP, nating etc. URL filtering with SSL + HTTPS traffic blocking User rights		
293.	Dell server Rack 42U	Height 78.7" (1999mm) Width 23.8" (605mm) Depth 42.1" (1070mm) Weight 298 lbs (135 kg)		
294.	Cat 6A cable	Best Quality Cat6 A cable Oxygen free copper (99.97% purity)		

		305.0 m (1000 ft) power over Ethernet, compatible 24AWG		
295.	Digital Meter	Digital meter cable testing Length measurement Length broken detected		
296.	Cable Tie 4"	100 pcs Cable tie		
297.	Cable Tie 6"	100 pcs Cable tie		
298.	Cable Tie 8"	100 pcs Cable tie		
299.	Cable Tie 10"	100 pcs Cable tie		
300.	Turk Plast Pipe 1"	Turk Plast Pipe 1" L10'		
301.	Turk Plast Pipe 2"	Turk Plast Pipe 2" L10'		
302.	Metal U Clip 1"	Metal U Clip for Pipe		
303.	Metal U Clip 2"	Metal U Clip for Pipe		
304.	pigtail sc to sc	Connector type: SC Length: 1 m		
305.	pigtail lc to sc	Connector type: LC to SC Length: 1 m		
306.	patch panel 24	Copper Patch Panel 24-Port High-Density Multimedia Unloaded		
307.	PDU	Power Distribution Units 8 port		
308.	KJ nut	For Switch Hang		
309.	PVC Cable Duct 1"	1 inch		
310.	PVC Cable Duct 2"	2 inches		
311.	PVC Duct Cutter	Best Quality		
312.	Cat6 Connector Cover	Best quality Connector Cover Color White		
313.	Tagging Machine	Label Printer makes it easy to print labels Easy to use QWERTY keyboards make creating labels simple and fast. Includes a 16-digit, 2 lines, LCD display with one built-in font and 24-character sizes. With a resolution of 200 DPI.		
314.	Tagging machine cossets	Best Quality 9mm		

315.	i/o punching tool	i/o punching tool		
316.	RJ45 CAT6E Lan I/O	RJ45 CAT6E Lan I/O		
317.	I/O Face Plate	I/O 3X3 1M Dual Face Plate		
318.	Pigtails	High Quality Fiber Optic Pigtail		
319.	SFP module	SFP module		
320.	SFP transceiver Modules	SFP transceiver Modules		
321.	Network Cable	Cat-6 A STP High quality Cable		
322.	Wi-Fi long Range CPE	Long range CPE outdoor Passive PoE supports to allow flexible deployment and convenient installation Interface: 1 10/100/1000 Mbps Shielded Ethernet Port (LAN/POE), 1 Reset Button Power Supply: Passive Power over Ethernet via LAN (+4,5pins; -7,8pins), Voltage range: 16-27V DC Enclosure: Material: Outdoor PC stabilized plastic, Weatherproof: IP65 water and dust proof design Wireless Standards: IEEE 802.11a/n/ac Frequency: 5.15~5.85 GHz System-level Optimizations: Optimized IGMP Snooping / Proxy for multicast applications Input: 100-240VAC, 50/60Hz Output: 24VDC, 0.5A Max, +4, 5pins; -7, 8pins. (Support up to 60m Power over Ethernet) Efficiency: > 84.29% 3dBi high-gain directional 2×2 MIMO, ideal for long-distance application Excellent beam directivity, improved latency and noise cancellation Innovative snap-lock parts make for fast assembly and a sturdy structural design keeps CPE710 stable even in strong winds Durable IP65 weatherproof enclosure along with 15kV ESD and 6kV lightning protection ensures all-weather suitability		

		Pharos Control gives administrators a free, centralized management system		
		Passive PoE supports to allow flexible deployment and convenient installation		
323.	Wi-Fi Router (Long Range)	Long range 360-degree Wi-Fi router		
		Dual-Band Wi-Fi speed boosted by 1024QAM deliver astonishing wireless speed up to 5952 Mbps: 4804 Mbps (5 GHz) and 1148 Mbps (2.4 GH)		
		1 × 2.5Gbps WAN port, 8 × Gigabit LAN ports, and 2 × USB 3.0 in Type A and Type C		
		1.8 GHz Quad-Core CPU and 2 co-processors eradicate latency and deliver stable performance		
		Band Steering directs clients to less congested band and Airtime Fairness optimizes the time usage		
		8 high-gain external antennas deliver a strong Wi-Fi signal throughout your home. BSS Color technology ensures smooth and stable connections by eliminates signal interference probably from your neighbors, while beam forming and Range boost deliver stronger and far-reaching network.		
324.	RJ 45 Connector	RJ45 steel Connector and simple		
325.	Jointer	RJ45 jointer		
326.	Network Digital Metter	Digital Network Cable Tester Meter with Length Measurement with Battery		
327.	IT-Tech Network Toolkit	Electrical adhesive tape CRV red black Rubber plastic screwdriver 5*100(-) Crystal box 22pc (8p:10pcs 6p:6pcs 4p:6pcs CRV red black Rubber plastic hand Shank screwdriver 5*100(+) Precision screwdrivers 2.4(-) 2.4(+) Digital electrical pen test 12-250v Long flat nose pliers wire stripper Network pliers Wire cutter Network tester		
328.	KVM Switch Over IP	KVM Switch Over IP 24 port High video resolution - up to 1600 x 1200 @ 60Hz - 32 bit		

329.	Slotted Cable Duct	Slotted Cable Duct 33mm x 33mm	
330.	Network Firewall AI Based	Next Generation AI Based Network Firewall... Offered Firewall Brand must be at least in Challengers category in Gartner Magic Quadrant for 2021 *Performance parameters required* • Stateful firewall throughput (1,518 B packet size) in Mbps = 19,500 + • Next-generation firewall throughput in Mbps = 2,450 + • IPsec VPN throughput (1,400 B packet size) in Mbps = 4,300 + • Routing with packet mode throughput (1,518 B packet size) in Mbps = 9,850 + • Application visibility and control throughput in Mbps = 5,900 + • IPS throughput in Mbps = 1,950 • Secure Web Access firewall throughput in Mbps = 1,800 • Route table size (RIB/FIB) (IPv4 or IPv6) = 1Million • Maximum concurrent sessions (IPv4 or IPv6) = 375,000 + • Maximum security policies = 3,950 + • Connections per second = 49,500 • Maximum NAT rules = 2,950 + • MAC table size = 15,500 + • IPsec VPN tunnels = 2,000 + • Number of remote access/SSL VPN (concurrent) users = 500 • GRE tunnels = 2,000+ • Maximum number of security zones = 125+ • Maximum number of virtual routers = 125+ • Maximum number of VLANs = 2,950+ • AppID sessions = 62,000+ • IPS sessions = 62,000+ • URLF sessions = 62,000+ *WAN and Wi-Fi Interface Support ONLY* • 1 port T1/E1 module • 1 port VDSL2 Annex A/M module • 4G / LTE module (Up to 300 Mbps download and 50 Mbps upload) • 802.11ac Wave 2 Wi-Fi module (Up to 850+ Mbps at 5GHz / 300 Mbps at 2.4GHz) *Hardware Specifications* • Total onboard ports = 20 (16x1GbE RJ-45, 4x10GbE SFP+) • MACsec-capable ports = All	

- Out-of-band (OOB) management ports = 1GbE RJ-45
- Mini Interface Module Slots = 4
- Console RJ-45 + miniUSB = 1
- USB 3.0 Port(s) = 1
- PoE+ Ports = 16
- Memory (RAM) = 4GB
- Storage = 100GB SSD
- Power Supply = 1+1 hot-swappable AC PSU
- Maximum PoE power = 480watt
- Meantime between failures (MTBF) = 28+Years
- FCC Classification = Class A
- RoHC Compliance = RoHC 2

Software Specifications / Features

Routing Protocols:
- IPv4, IPv6, ISO, CLNS
- Static Routes
- RIP v1 / v2
- OSPF / OSPF v3
- BGP with Route Reflector
- IS-IS
- IGMP v1 /v2, PIM SM / DM / SSM / SDP / DVMRP / MSDP / RFF
- Encapsulation: VLAN, PPP, Frame Relay, HDLC, Serial, MLPPP, MLFR, PPPoE
- Virtual Routes
- Policy Based Routing, Sourced based Routing
- Equal Cost Multipath (ECMP)

QoS Features:
- Support 802.1p, DSCP, EXP
- Classification based on VLAN, DLCI, interface or multifield filters
- Marking, policing and shaping
- Classification and scheduling
- Weighted and maximum bandwidth
- Guaranteed and maximum bandwidth
- Ingress traffic policing
- Virtual channels
- Hierarchical shaping and policing

Switching Features:
- ASIC-based Layer 2 Forwarding
- MAC address learning
- VLAN addressing and integrated routing and bridging (IRB) support
- Link aggregation and LACP
- LLDP and LLDP-MED
- STP, RSTP, MSTP
- MVRP
- 802.1X authentication

Firewall Services
- Stateful and stateless firewall

- Zone-based firewall
- Screens and distributed denial of service (DDoS) protection
- Protection from protocol and traffic anomaly
- Integration with Pulse Unified Access Control (UAC)
- Integration with Aruba Clear Pass Policy Manager
- User role-based firewall
- SSL Inspection (Forward-proxy)

Network Address Translation (NAT)

- Source NAT with Port Address Translation (PAT)
- Bidirectional 1:1 static NAT
- Destination NAT with PAT
- Persistent NAT
- IPv6 address translation

VPN Features

- Tunnels: Site-to-Site, Hub and Spoke, Dynamic Endpoint,
- AutoVPN, ADVPN, Group VPN (IPv4/ IPv6/ Dual Stack)
- Juniper Secure Connect: Remote access / SSL VPN
- Configuration payload: Yes
- IKE Encryption algorithms: Prime, DES-CBC, 3DES-CBC, AECCBC, AES-GCM, SuiteB
- IKE authentication algorithms: MD5, SHA-1, SHA-128, SHA-256, SHA-384
- Authentication: Pre-shared key and public key infrastructure (PKI) (X.509)
- IPsec (Internet Protocol Security): AH / ESP protocol
- IPsec Authentication Algorithms: hmac-md5, hmac-sha-196, hmac-sha-256
- IPsec Encryption Algorithms: Prime, DES-CBC, 3DES-CBC, AEC-CBC, AES-GCM, SuiteB
- Perfect forward secrecy, anti-reply
- Internet Key Exchange: IKEv1, IKEv2
- Monitoring: Standard-based dead peer detection (DPD) support, VPN monitoring
- VPNs GRE, IP-in-IP, and MPLS

Network Services

- DHCP client/server/relay
- DNS proxy, dynamic DNS (DDNS)
- Real-time performance monitoring (RPM) and IPmonitoring
- flow monitoring
- Bidirectional Forwarding Detection (BFD)
- Two-Way Active Measurement Protocol (TWAMP)
- IEEE 802.3ah Link Fault Management (LFM)
- IEEE 802.1ag Connectivity Fault Management (CFM)

High Availability Features

- Virtual Router Redundancy Protocol (VRRP)
- Stateful high availability, Dual box clustering, Active/passive and Active/active

- Configuration synchronization
- Firewall session synchronization
- Device/link detection
- In-Band Cluster Upgrade (ICU)
- Dial on-demand backup interfaces
- IP monitoring with route and interface failover

Management, Automation, Logging, and Reporting
- SSH, Telnet, SNMP
- Smart image download
- CLI and Web UI
- Cloud based AI Simplified management
- OS Space and Security Director
- OS event, commit, and OP script
- Application and bandwidth usage reporting
- Auto installation
- Debug and troubleshooting tools
- Zero-Touch Provisioning with Contrail Service Orchestration

Advanced Routing Services
- Packet mode
- MPLS (RSVP, LDP)
- Circuit cross-connect (CCC), translational cross-connect (TCC)
- L2/L3 MPLS VPN, pseudowires
- Virtual private LAN service (VPLS), next-generation multicast VPN (NG-MVPN)
- MPLS traffic engineering and MPLS fast reroute

Application Security Services Capability:
- Application visibility and control
- Application-based firewall
- Application QoS
- Application-based advanced policy-based routing
- Application quality of experience (AppQoE)

Enhanced SD-WAN Services
- Application-based advanced policy-based routing (APBR)
- Application-based link monitoring and switchover with
- Application quality of experience (AppQoE)

Threat Defense and Intelligence Services
- Intrusion prevention
- Antivirus
- Antispam
- Category/reputation-based URL filtering
- Protection from botnets (command and control)
- Adaptive enforcement based on GeoIP
- Juniper Advanced Threat Prevention to detect and block zero day attacks
- Adaptive Threat Profiling
- Encrypted Traffic Insights

		• SecIntel to provide threat intelligence Warranty: • Next Business Day support • Hardware Replacement		

331.	Network Switches	**Network Switches**
		Offered Network Switches Brand must be at least in Challengers category in Gartner Magic Quadrant for 2021
		- 24-port 10/100/1000BaseT, 4 x 10G SFP/SFP+ (All ports enabled, no license requirement)
		- 48-port 10/100/1000BaseT, 4 x 10G SFP/SFP+ (All ports enabled, no license requirement)
		Hardware Specifications
		• Switching Engine Model = Store and forward
		• DRAM = 2 GB
		• Flash = 2 GB
		• CPU = 1.25GHz or equivalent
		• Backplane: 80 Gbps Chassis interconnect to link up to 4 switches as a single logical device
		Physical Layer
		• Physical port redundancy: Redundant trunk group (RTG)
		• Cable diagnostics for detecting cable breaks and shorts
		• Auto MDI/MDIX (medium-dependent interface/medium dependent interface crossover) support
		• Port speed downshift/setting maximum advertised speed on
		   • 10/100/1000BASE-T ports
		   • Digital optical monitoring for optical ports
		Packet-Switching Capacities (Maximum with 64-Byte Packets)
		• 24 Port Switch: 64 Gbps (unidirectional)/128 Gbps (bidirectional)
		• 48 Port: 88 Gbps (unidirectional)/176 Gbps (bidirectional)
		Throughput (Mpps) (Maximum with 64 Byte Packets)
		• 24 Port: 95 Mpps (wire speed)
		• 48 Port: 130 Mpps (wire speed)
		Layer 2 Features
		• Maximum MAC addresses in hardware: 16,000
		• Jumbo frames: 9216 bytes
		• Number of VLANs supported: 4093 (2044 active VLAN)
		• Range of possible VLAN IDs: 1-4094
		• Port-based VLAN
		• MAC-based VLAN		

- Voice VLAN
- Layer 2 Protocol Tunneling (L2PT)
- IEEE 802.1ak: Multiple VLAN Registration Protocol (MVRP)
- Compatible with Per-VLAN Spanning Tree Plus (PVST+)
- RVI (Routed VLAN Interface)
- IEEE 802.1AB: Link Layer Discovery Protocol (LLDP)
- LLDP-MED with VoIP integration
- IEEE 802.1ad Q-in-Q tunneling
- IEEE 802.1br: Bridge Port Extension
- IEEE 802.1D: Spanning Tree Protocol
- IEEE 802.1p: CoS Prioritization
- IEEE 802.1Q: VLAN Tagging
- IEEE 802.1Q-in-Q: VLAN Stacking
- IEEE 802.1s: Multiple Spanning Tree Protocol (MSTP)
- Number of MST instances supported: 64
- Number of VSTP instances supported: 253
- IEEE 802.1w: Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1X: Port Access Control
- IEEE 802.3: 10BASE-T
- IEEE 802.3u: 100BASE-T
- IEEE 802.3ab: 1000BASE-T
- IEEE 802.3z: 1000BASE-X
- IEEE 802.3af: PoE
- IEEE 802.3at: PoE+
- IEEE 802.3ad: Link Aggregation Control Protocol (LACP)
- IEEE 802.3x: Pause Frames/Flow Control
- IEEE 802.3az: Energy Efficient Ethernet

Layer 3 Features: IPv4

- Maximum number of ARP entries: 1,500
- Maximum number of IPv4 unicast routes in hardware: 512 prefixes; 4,096 host routes
- Maximum number of IPv4 multicast routes in hardware: 2,048 groups; 2,048 multicast routes
- Routing Protocols: RIP v1/v2, OSPF v1/v2
- Static routing
- Routing policy
- Bidirectional Forwarding Detection (BFD) with slow timers (> 3sec)
- IP directed broadcast

Layer 3 Features: IPv6

- Maximum number of Neighbor Discovery (ND) entries: 1,500
- Maximum number of IPv6 unicast routes in hardware: 512 prefixes; 2,048 host routes
- Maximum number of IPv6 multicast routes in hardware: 1,024 groups; 1,024 multicast routes

- Neighbor discovery, system logging, Telnet, SSH, SNMP, NTP, DNS
- Static routing
- Routing protocols: RIPng, OSPF v3, Multicast Listener Discovery, Multicast Listener Discovery v2

Access Control Lists (ACLs)
- Port-based ACL (PACL)—256 ingress; 256 egress
- VLAN-based ACL (VACL)— 256 ingress; 256 egress
- Router-based ACL (RACL)—256 ingress; 512 egress
- ACL entries (ACE) in hardware per system: 2,000
- ACL counter for denied packets
- ACL counter for permitted packets
- Ability to add/remove/change ACL entries in middle of list (ACL editing)
- L2-L4 ACL

Access Security
- MAC limiting
- Allowed MAC addresses—configurable per port
- Sticky MAC (persistent MAC address learning)
- Dynamic ARP inspection (DAI)
- Proxy ARP
- Static ARP support
- DHCP snooping
- 802.1X port-based
- 802.1X multiple supplicants
- 802.1X with VLAN assignment
- 802.1X with authentication bypass access (based on host MAC address
- 802.1X with VoIP VLAN support
- 802.1X dynamic ACL based on RADIUS attributes
- 802.1X Supported EAP types: Message Digest 5 (MD5), Transport Layer Security (TLS), Tunneled Transport Layer Security (TTLS), Protected Extensible Authentication Protocol (PEAP)
- IPv6 RA Guard
- IPv6 Neighbor Discovery Inspection
- Captive Portal
- Static MAC authentication
- MAC-RADIUS
- Control plane DoS protection
- Fallback authentication
- Trusted Network Connect (TNC) certified

High Availability
- Link aggregation
- 802.3ad (LACP) support:
  - Number of LAGs supported: 128
  - Maximum number of ports per LAG: 8
- Tagged ports support in LAG
- Uplink Failure Detection

Quality of Service (QoS)

- Layer 2 QoS
- Layer 3 QoS
- Ingress policing: one-rate two-color; two-rate three-color markers
- Hardware queues per port: 8
- Scheduling methods (egress): Strict Priority (SP), shaped deficit weighted round-robin (SDWRR)
- 802.1p, DSCP /IP precedence trust and marking
- L2-L4 classification criteria: Interface, MAC address, EtherType, 802.1p, VLAN, IP address, DSCP/IP precedence, TCP/UDP port numbers
- Congestion avoidance capabilities: Tail drop and WRED Multicast
- IGMP snooping entries: 2,000
- IGMP: v1, v2, v3
- IGMP snooping
- PIM-SM, PIM-SSM, PIM-DM
- MLD snooping

Management and Analytics Platforms
- Cloud Based Wired Assurance for Campus
- Cloud Based Network Director for Campus
- Cloud Management

Device Management and Operations
- OS CLI
- Web interface
- Out-of-band management: Serial, 10/100BASE-T Ethernet
- ASCII configuration
- Rescue configuration
- Configuration rollback
- Image rollback
- Simple Network Management Protocol (SNMP): v1, v2c, v3
- Remote monitoring (RMON) (RFC 2819) Groups 1, 2, 3, 9
- Network Time Protocol (NTP)
- DHCP server
- DHCP client and DHCP proxy
- DHCP relay and helper
- RADIUS authentication
- TACACS+ authentication
- SSHv2
- Secure copy
- HTTP/HTTPs
- DNS resolver
- System log logging
- Temperature sensor
- Configuration backup via FTP/secure copy
- Interface range

Supported RFCs

RFC 768 UDP, RFC 783 Trivial File Transfer Protocol (TFTP), RFC 791 IP, RFC 792 Internet Control Message Protocol (ICMP), RFC 793 TCP, RFC 826 ARP, RFC 854 Telnet client and server, RFC 894 IP over Ethernet, RFC 903 Reverse ARP (RARP), RFC 906 Bootstrap Loading using TFTP, RFC 951, 1542 BootP, RFC 1027 Proxy ARP, RFC 1058 RIP v1, RFC 1122 Requirements for Internet Hosts, RFC 1256 IPv4 ICMP Router Discovery (IRDP), RFC 1492 TACACS+, RFC 1519 Classless Inter-domain Routing (CIDR), RFC 1591 Domain Name System (DNS), RFC 1812 Requirements for IP Version 4 routers, RFC 2030 Simple Network Time Protocol (SNTP), RFC 2068 HTTP/1.1, RFC 2131 BOOTP/DHCP relay agent and DHCP server, RFC 2138 RADIUS Authentication, RFC 2139 RADIUS Accounting, RFC 2267 Network Ingress Filtering, RFC 2453 RIP v2, RFC 2474 DiffServ Precedence, including 8 queues/port, RFC 2597 DiffServ Assured Forwarding (AF), RFC 2598 DiffServ Expedited Forwarding (EF), RFC 2710 Multicast Listener Discovery Version (MLD) for IPv6, RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations, RFC 3176 sFlow, RFC 3579 RADIUS Extensible Authentication Protocol (EAP), support for 802.1X, RFC 5176 Dynamic Authorization Extensions to RADIUS, LLDP Media Endpoint Discovery (LLDP-MED), ANSI/TIA1057, draft 08

Troubleshooting
- Debugging: CLI via console, telnet, or SSH
- Diagnostics: Show and debug command statistics
- Traffic mirroring (port)
- Traffic mirroring (VLAN)
- ACL-based mirroring
- Mirroring destination ports per system: 4
- LAG port monitoring
- Multiple destination ports monitored to 1 mirror (N:1)
- Maximum number of mirroring sessions: 4
- Mirroring to remote destination (over L2): 1 destination VLAN
- Encapsulated Remote Switched Port Analyzer (ERSPAN)
- IP tools: Extended ping and trace
- Commit and rollback

Safety Certifications
- UL-UL60950-1 (Second Edition)
- C-UL to CAN/CSA 22.2 No.60950-1 (Second Edition)
- TUV/GS to EN 60950-1 (Second Edition)
- CB-IEC60950-1 (Second Edition with all country deviations)
- EN 60825-1 (Second Edition)

332.	AI Driven Wireless LAN Access Points	Offered WLAN **Brand** must be at least in Challenger's category in Gartner Magic Quadrant for 2021	
		Wi-Fi Standard	802.11ax (Wi-Fi 6), including support for OFDMA,1024-QAM, MU-MIMO, Target Wake Time (TWT), Spatial Frequency Reuse (BSS Coloring). Backwards compatibility with 802.11a/b/g/n/ac
		Combined Highest Supported Data Rates	3.0Gbps
		2.4 GHz	2x2: 2 802.11b/g/n/ac up to 400 Mbps data rate; 2x2: 2 802.11ax up to 575 Mbps data rate
		5 GHz	4x4: 4 802.11ax up to 2,400 Mbps data rate
		MIMO Operation	Four spatial stream SU-MIMO for up to 2,400 Mbps wireless data rate to individual 4x4 HE80Four spatial stream MU-MIMO for up to 2,400 Mbps wireless data rate to up to four MU-MIMO-capable client devices simultaneously
		Dedicated Third Radio	2.4GHz and 5GHz dual-band WIDS/WIPS, spectrum analysis, synthetic client and location analytics radio
		Internal Antennas	Two 2.4GHz omnidirectional antennas with dBi peak gain Four 5GHz omnidirectional antennas with 6 dBi peak gain
		Bluetooth 5.0	Omnidirectional Bluetooth antenna Support superbeacon mode with iBeacon and Eddystone
		Beam Forming	Transmit Beamforming and Maximal Ratio Combining
		Power Options	802.3at PoE, 802.3bt PoE
		Mean Time Between Failures (MTBF)	Indoor MTBF in hours is 846,297
		USB	USB 2.0 support interface
		EtherNet	10/100/1000Base-T; RJ45
		Reset	Reset to the factory default settings
		Mounting Options	WallMount, CeilingMount
		Cloud Services	• Predictable and Measurable Wi-Fi • Service-Level Expectation (SLE) Support • WxLAN Policy Fabric for Role-Based Access • Customizable Guest Wi-Fi Portal • Radio Resource Management

		Virtual Assistant	• AI-Powered Virtual Network Assistant • Natural Language Processing Conversational Interface • Anomaly Detection • Client SLE Visibility and Enforcement • Data Science-Driven Root-Cause Analysis		
		Bluetooth Cloud Services	• Identification of Assets by Name and View Location • Zonal/Room Accuracy for Third-Party Tags • Historical Analytics for Asset Tags • Telemetry for Asset Tags (temperature, motion and other data) • APIs for Viewing Assets and Analytics		
		Analytics Cloud Services	• Baseline Analytics Features Come Included with Wi-Fi Assurance, Mobile Engagement, and Asset Visibility Subscriptions • End-to-End Network Visibility • Orchestrated Networking and Application Performance Queries • Simplified Network Transparency • Baseline Analytics Features Come Included with Wi-Fi Assurance, Mobile Engagement, and Asset Visibility Subscriptions • Customer Segmentation and Reporting Based on Visitor Telemetry • Correlated Customer-Guest Traffic and Trend Analysis		
			• All the feature mentioned above must be part of the proposed solution. • The proposed solution must not be put to End of Life (EOL) by the principal within the next five years' time • The bidder must have minimum (10) five years relevant experience in the field.		
333.	WLAN Controller / Management		AI-Driven Cloud Based WLAN Management System *Automation for Deployment and Provisioning*: The Cloud based controller platform must be programmable, using open APIs, for full automation and seamless integration with complementary products across LAN, WAN, security, engagement, and asset location domains. *Comprehensive Network Performance and SLE Dashboard Analytics:* The Cloud based controller platform must provide a daily and weekly trend of the SLE metrics reports, which should provide unprecedented visibility over the last week for longer-term trend analysis into anomalies seen at the AP, device, application, and OS levels. Required set of available SLEs are: Time to Connect, Successful Connects,		

Throughput, Roaming, Coverage, Capacity, AP Uptime, WAN.

Simple Root-Cause Analysis and Remediation:
The Cloud based controller platform must collect information from all endpoints and correlates it for quick wireless, wired, and device problem identification. More than 150 state changes must be captured for each client device and access point every few seconds. Predictive recommendations and automated workflows for quick remediation of problems or for prevention these entirely.

Network Rewind and Dynamic Packet Capture:
The Cloud based controller service must automatically detect and start capturing packets when an anomaly is detected. With the record, one should be able to rewind back in time to see what was going on exactly when the event occurred to eliminates hours or even days of guesswork or time spent trying to reproduce an issue.

Client Profiling:
The Cloud based controller must profile clients for device types, operating systems, applications, location, and user role, to enable WxLAN to autodetect printers, Apple TVs, and other IoT devices and to categorize them for security and audit reasons, without requiring any manual database management.

Risk Profiling Driven by Mist AI:
The Cloud based controller must have Risk Profiling solution, which should bring network security to the distributed network edge. Risk Profiling must provide visibility into infected wired or wireless clients that must be observable within the cloud and shall assigns a threat score determined by the cloud. From within the cloud one can geospatially locate infected devices and take one-touch mitigation actions like ban or deauthenticate.

AI-Driven Radio Resource Management:
The Cloud based controller must use data science and cumulative SLE performance to learn and improve radio settings to assure performance, while also instantaneously adapting to intermittent outside interference. The required AI-driven Radio Resource Management must proactively feed coverage and capacity anomalies based on client experience (SLE metrics) into RF decisions so that RF planning continues to improve and adapt.

Policy Creation and Enforcement:
The Cloud based controller must deliver operational simplicity by allowing to create policies for role, device type, and user-based access on the network. Global labels must be created for physical and logical resources (users, WLAN, AP, IP addresses, IP subnets, and applications) enable policies to be enforced at the edge on access points.

Personal WLAN

The Cloud based controller must Create personal wireless network (with personalized preshared key) through a self-serve portal. This feature can be used to secure IoT and guest traffic as well as provide a scalable solution for multitenant networks.

Guest Portal:

The Cloud based controller must be capable to create custom guest portals that can optionally include: terms of service, email/text login, or even social media login to help boost customer engagement.

334.	Core Network Switches	Offered Network Switches Brand must be at least in Challenger's category in Gartner Magic Quadrant for 2021		

- 24 SFP+/SFP ports, 4 QSFP+ ports, 2 expansion slots, redundant, fans, 2 AC power supplies, 2 power cords, 4-post rack mount kit, and front to back airflow

Hardware Specifications:
- Switching capacity: 720 Gbps (unidirectional)/1.44 Tbps (bidirectional)
- Layer 2/Layer 3 throughput (maximum with 64 byte packets): 1,071 Mpps (wire speed)
- • Switching mode: Cut-through and store-and-forward
- Front-to-back airflow
- Management and rear console port connections
- Predicted mean time between failures (MTBF): 150,000 hours
- Predicted FIT rate: 4,987

Interface Options:
- 1GbE SFP: 24
- 10GbE SFP+: 24
- 40GbE QSFP+: 4
  - Each fixed QSFP+ port can be configured as a 4x10GbE interface
  - Each QSFP+ port can be configured as a 40 Gbps port
- USB port
- Console port
- 2 management ports: 1 RJ-45 and 1 SFP
- Supported transceiver and direct attach cable

Power Supply and Fan Modules
- Dual redundant (1+1) and hot-pluggable 110-240 V single phase AC power supplies
- Redundant (N+1) and hot-pluggable fan modules for front-to-back airflow

Performance Scale (Unidimensional)
- MAC addresses per system: 287,000+
- VLAN IDs: 4,000+

- Number of ports per LAG: 30+
- IPv4 unicast routes: 128,000 prefixes; 208,000 host routes
- IPv4 multicast routes: 103,000+
- IPv6 multicast routes: 50,000+
- IPv6 unicast routes: 63,000+ prefixes
- Address Resolution Protocol (ARP) entries: 47,000+
- Jumbo frame: 9,216 bytes

Access Control Lists (ACLs)

- Port-based ACL (PACL): Ingress and egress
- VLAN-based ACL (VACL): Ingress and egress
- Router-based ACL (RACL): Ingress and egress
- ACL entries (ACE) in hardware per system:
  - Ingress ACL: 1,530+
  - Egress ACL: 1,020+
- ACL counter for denied packets
- ACL counter for permitted packets
- Ability to add/remove/change ACL entries in middle of list (ACL editing)
- L2-L4 ACL
- IPv6 ACL
- Firewall filter on loopback interface
- Firewall filter on management interface

Spanning Tree Protocol (STP)

- Multiple Spanning Tree Protocol (MSTP) instances: 60+
- VLAN Spanning Tree Protocol (VSTP) instances: 250+

Traffic Mirroring

- Mirroring destination ports per switch: 3+
- Maximum number of mirroring sessions: 3+
- Mirroring destination VLANs per switch: 3+

Layer 2 Features

- STP—IEEE 802.1D (802.1D-2004)
- Rapid Spanning Tree Protocol (RSTP) (IEEE 802.1w); MSTP(IEEE 802.1s)
- Bridge protocol data unit (BPDU) protect
- Loop protect
- Root protect
- RSTP and VSTP running concurrently
- VLAN—IEEE 802.1Q VLAN trunking
- Routed VLAN interface (RVI)
- Port-based VLAN
- MAC address filtering
- GRE tunneling
- QinQ
- VLAN translation
- Static MAC address assignment for interface
- Per VLAN MAC learning (limit)
- MAC learning deactivate

- Link Aggregation and Link Aggregation Control Protocol (LACP) (IEEE 802.3ad)
- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
- MAC notification
- MAC address aging configuration
- MAC address filtering
- Persistent MAC (sticky MAC) Link Aggregation

Link Aggregation

- Multichassis link aggregation (MC-LAG) - Layer 2, Layer 3, VRRP, STP
- Redundant trunk group (RTG)
- LAG load sharing algorithm—bridged or routed (unicast or multicast) traffic:
- IP: SIP, Dynamic Internet Protocol (DIP), TCP/UDP source port, TCP/UDP destination port
- Layer 2 and non-IP: MAC SA, MAC DA, Ethertype, VLAN ID, source port

Layer 3 Features (IPv4)

- Static routing
- Routing policy
- Routing protocols (RIP, OSPF, IS-IS, BGP, MBGP)
- Virtual Router Redundancy Protocol (VRRP)
- Bidirectional Forwarding Detection (BFD) protocol
- Virtual router
- Dynamic Host Configuration Protocol (DHCP) relay
- Proxy Address Resolution Protocol (ARP)
- Multicast Features
- Internet Group Management Protocol (IGMP): v1, v2, v3
- IGMP snooping: v1, v2, v3
- IGMP filter
- PIM-SM
- Multicast Source Discovery Protocol (MSDP)
- Security and Filters
- Secure interface login and password
- RADIUS
- TACACS+
- Ingress and egress filters: Allow and deny, port filters, VLAN filters, and routed filters, including management port filters
- Filter actions: Logging, system logging, reject, mirror to an interface, counters, assign forwarding class, permit, drop, police, mark
- SSH v1, v2
- Static ARP support
- Storm control, port error deactivate, and autorecovery
- Control plane denial-of-service (DoS) protection
- Dynamic ARP inspection (DAI)
- Sticky MAC address
- DHCP snooping

- Filter based forwarding
- IP directed broadcast traffic forwarding
- IPv4 over GRE (encap and decap)

Layer 3 Features (IPv6)
- Static routing
- Routing protocols (RIPng, OSPF v3, IS-IS v6, BGP v6)
- Virtual Router Redundancy Protocol (VRRP v3)
- IPv6 CoS (BA, MF classification and rewrite, scheduling based on TC)
- IPv6 over MPLS LSPs (6PE)
- IPv6 ping
- IPv6 traceroute
- Neighbor discovery protocol
- Path MTU discovery
- SNMP, NTP, DNS, RADIUS, TACACS+, AAA
- Virtual router support for IPv6 unicast

Quality of Service (QoS)
- L2 and L3 QoS: Classification, rewrite, queuing
- Rate limiting:
  - Ingress policing: 1 rate 2 color, 2 rate 3 color
  - Egress policing: Policer, policer mark down action
  - Egress shaping: Per queue, per port
- 12 hardware queues per port (8 unicast and 4 multicast)
- Strict priority queuing (LLQ), smoothed deficit weighted round robin (SDWRR), weighted random early detection (WRED), weighted tail drop
- 802.1p remarking
- L2 classification criteria: Interface, MAC address, Ether type, 802.1p, VLAN
- Congestion avoidance capabilities: WRED
- Trust IEEE 802.1p (ingress)
- Remarking of bridged packets
- Priority-based flow control (PFC)—IEEE 802.1Qbb

Virtual Chassis
- 40GbE and 10GbE as Virtual Chassis port
- Virtual Chassis Routing Engine (RE) election
- Virtual Chassis pre-provisioning (plug and play)
- Auto-LAG formation of Virtual Chassis ports
- Mixed Virtual Chassis support between different model switches of same brand (in data center only)
- QoS on Virtual Chassis ports
- Local designated forwarding
- Nonstop routing (NSR)
- Nonstop bridging (NSB)
- Monitor distributed aggregate interface
- Control plane protection for virtual RE

High Availability
- Bidirectional Forwarding Detection (BFD)
- Uplink failure detection (UFD)

		- Uninterested bridging in Virtual Chassis configuration - Uninterested routing in Virtual Chassis configuration - Uninterested software upgrade in Virtual Chassis configuration **Traffic Mirroring** - Port-based - LAG port - VLAN-based - Filter-based - Mirror to local - Local/L2 remote analyzer (SPAN, RSPAN for IPv4 and IPv6 frames) - Mirror to remote destinations (L2 over VLAN) - Insight Technology (microburst monitoring and statistics reporting) **Device Management and Operations** - Web Software - Role-based CLI management and access - CLI via console, telnet, or SSH - Extended ping and traceroute - OS configuration rescue and rollback - Image rollback - SNMP v1/v2/v3 - XML management protocol - sFlow v5 - DHCP server - DHCP relay on L2 VLAN & L3 interfaces (with option 82) - DHCP local server support - High frequency statistics collection - Beacon LED for port and system - Automation and orchestration - Zero touch provisioning (ZTP) - OpenStack Neutron Plug-in - OS event, commit, and operations scripts Ability to execute scripts written in Python/TCL/Perl		
335.	L2 Managed distributive Switch	L2 Managed Distributive Switch with1GB 48 x Ethernet Ports + 4 SFP Ports. 1. Powerful Processing Capacity Perfect Security Control Strategy Perf Reliability Protection Mechanism 2. Switching Capacity 500Gbps 3. Packet Forwarding Rate 120 Mpps 4. VLAN 4K Port-based VLAN 802.1Q Standard VLAN MAC-based VLAN Protocol-based VLAN planning Tree STP RSTP MSTP Loop Protection ERPS Loopback Detection 5. Support Security Features Hardware 6. supports IP ACL, MAC ACL, VLAN ACL Hardware supports IP+MAC binding based on port		

		7. Support IP Source Guard Support ARP Detection
		8. Support IEEE802.1x port authentication
		9. Support Radius authentication
		10. Support the user classification management and password protection network Management WEB (http and https protocol) CLI. Telnet SSH 2.0 SNMP RMON LLDP
		11. Support the NTP client
		12. Working Temperature -10~55°C
		13. Convenient Management and Maintenance. Spanning Tree Protocol, Routing, VLAN Function, Link Aggregation, IEEE 802.3x Flow Control, Multicast, Reliability, ARP, DHCP Function, Security, IPv6, Equipment Management
336.	L3 Managed distributive Switch	L3 + MANAGED CORE/ AGGRIGATION SWITCH @ 16×1 GB SFP PORTS @ 4×10 GB SFP PORTS @ 8 × 1 GB ETHERNET PORT. 1. Switching Capacity minimum 560 Gbps. 2. Packet Forwarding Rate minimum 120 Mpps. 3. Packet Buffer Size 1.3Mbyte. 4. Ethernal Port Speed 10/100/1000 Mbps. 5. MAC Table size 14K. 6. IPv4 Routes 10K Dynamic ARP 4K. 7 Rack mount. 8. Rack mount. 9. CE/FCC/UL
337.	SFP Transceiver	1 Gigabit pluggable single mode 25G SFP transceiver 1310 / 1550nm, 20km LC.
338.	PowerEdge R750xs Server	Intel Xeon Silver 4310T (2)/ Chassis with up to 8 x 3.5"/ 16GB RDIMM, 3200MT/s, 900GB 15K RPM SAS/ PERC H745/ iDrac9, Enterprise + Open Manage Ent Advanced /DVD+/-RW, SATA/ Dual, Hot-plug, Redundant Power Supply (1+1), 800W
339.	SERVER (Power edge T140)	SERVER (Power edge T140) Intel ® Xeon ® E-2200 product family, intel Pentium ®, Intel Core i3 ® Intel Celeron ® 4x DDR DIMM slots, RAID 3 x 1TB. Which Supports UDIMMs, speeds up to 2666MT/s 64 GB? IDRAC9.Open Manage Enterprise. RAID 3 x 1 TB. Minimum 4x 3.5 cabled bays
340.	2 Core Power cable for centralized power distribution	2 Core Power cable for centralized power distribution 1. ISO certified brand, 2. Two Core 2.5 mm 3. pure copper, 4. flexible, (Rate Per Feet)
341.	ODF for outdoor use	Water / weather proof, edge DB for Poe switch, ODF for outdoor use Weather and rust proof power coated Built-in fiber splice box Built-in temperature control sheet inside 20 Ft extra OFC 12/24 core rolling option.

		operating temp -10 to +55 C, including fans for heat extraction, air filter with exhaust pocket removable tray with dual shelves and universal fittings built-in fiber in out holding clumps inside DB built-in earthling strip and electric connectors digital volt meter, 6 to 10A, 2 Pole, Schneider circuit breaker, power distribution board (minimum 4 port PDU) dual locks with keys, Dual mounting options ground and wall. Built in rain shedPermeant tagging plates			
342.	12 U Rack for Poe switch, ODF for indoor use	12 U Rack for Poe switch, ODF etc. for indoor use 1. Built-in fiber splice box 2. 20 Ft extra OFC 12/24 core rolling option. 3. including fans for heat extraction, air filter with exhaust pocket 4. removable tray with dual shelves and universal fittings 5. built-in fiber in out holding clumps inside DB 6. built-in earthling strip and electric connectors 7. digital volt meter, 8. 6 to 10A, 2 Pole, Schneider circuit breaker, 9. power distribution board (minimum 4 port PDU) 10. dual locks with keys, 11. Dual mounting options ground and wall. Permeant tagging plates			
343.	Networking Set	(Complete tools kit and Networking Set) 1. Complete Networking tools kit Set i.e. (cable stripper, Y key professional Network crimping tool, high quality LAN / Network cable tester having ability to Check line voltage on RJ45 (PoE), cable tracer 2. digital laser tape measure 3. 02 Nos room temperature + humidity meter / Tester, 4. tagging machine with 02 Nos Tap 5. 02 optical fiber testing laser light (Specially designed for OFC testing) 6. Digital soldering station (Qawia Set with its related accessories), 7. Digital SMD Hot Air Rework Station (Heat gun), 8. Glue Guns Set 9. tools carrying bag 10. aluminum 02 Nos sliding + folding stairs 11. original screw driver set, 12. Nuts opining / spanner type wrench keys set, Earthling tester.			
344.	PVC Duct Pipe	1. ISO Certified brand Duct / PVC-U pipe 2. including delivery, 3. Accessories like sockets, bends, elbows, wall clamps etc. Complete in all respect In RFT.			
345.	12 port ODF	1. 12 Ports ODF full loaded with all accessories			
346.	24 port ODF	2. 24 Ports ODF full loaded with all accessories			
347.	Optical Fiber Cable	3. Single Mode 12 core Optical fiber cable,			

348.	Optical Fiber Cable	4. Single Mode 24 core Optical fiber cable,		
349.	Optical Fiber Cable	5. Single Mode 48 core Optical fiber cable,		
350.	Node Box	ISO Certified / UL listed brand Node box 1. I/O RJ-45 Female connector 2. Face plate 6. Back box		
351.	SFP Module	SFP Module to RJ-45 Cat6 etc.		
352.	RH-45 interface	Fixed Rj-45 interface with metallic shield		
353.		1. US / EU / ISO certified 2. online 1 KVA standard backup time UPS, Rack mounted.		
354.		1. 5~8 Feet Leader for Complaint		
355.		2. SFP+ 10GBASE-SR 10-Gigabit Ethernet Optics, 850 nm for up to 300 m transmission on multimode fiber optic (MMF)		
356.		Smart-UPS 20 kilo Watt 400V UPS A Category with 2-hour Long Backup. Industrial grade online double conversion ups ➤ Power Factor: 0.8, 0.9 & 1 (as required) ➤ Phase: Three Phase ➤ Model: ES2033 ➤ Display: Digital Display ➤ Communication Interface: ➤ Voltage Range: 380/400/415V Adjustable ➤ Frequency Handling: 10% Adjustable ➤ Soft Start: 0-100% 5Secs ➤ DC: 348V ➤ Charge Current: 10-25A Adjustable ➤ Transfer Time: ➤ Temperature: 0-50 degree ➤ Humidity: <95 % when 20 degree ➤ Noise: 63 db 3. 100 ah X 32 batteries+ external batteries bank and cables		
357.	SFP Transceiver	SFP Transceiver module		
358.	UTP Cat-VI I/O	UTP Cat-VI I/O		
359.	Faceplate	Faceplate		
360.	Back Box	Back Box		
361.	24 Port Patch Panel	24 Port Patch Panel Fully Loaded		
362.	9U Rack	• Front Door - Vented Mesh (locking) • Rear Door - Swing Gate / Solid with knockouts • Side Panels - Solid (removable, locking) • 90-degree swing-out • Removable laser knockouts for fans / cable slots • Mounting Depth: 22.5" • 150 lb. weight capacity		

		• 19" EIA 310-D compliant • Made in thre USA 5-Year Limited Warranty			
363.	Pigtail SC-SC	1.	Pigtail SC-SC		
364.	SC-LC Patch Cord (1 Meter)	2.	SC-LC Patch Cord (1 Meter)		
365.	Duct 60 x 60 (Each 10ft Length)	3.	Duct 60 x 60 (Each 10ft Length)		
366.	Duct 40 x 40 (Each 10ft Length)	4.	Duct 40 x 40 (Each 10ft Length)		
367.	Duct 16 x38 (Each 10ft Length)	5.	Duct 16 x38 (Each 10ft Length)		
368.	PVC Pipe 1 1/2 Inch for Ethernet Cabling	6.	PVC Pipe 1 1/2 Inch for Ethernet Cabling		
369.	PVC Pipe 1 Inch for Power & Fiber (Each 10ft Length)	7.	PVC Pipe 1 Inch for Power & Fiber (Each 10ft Length)		
370.	40/76 Power Cable (ft)	8.	40/76 Power Cable (ft)		
371.	Power distribution unit Branded	9.	Power distribution unit Branded		
372.	100Amp Breaker for Control Room with DB	10.	100Amp Breaker for Control Room with DB		
373.	10Amp Breaker	11.	10Amp Breaker		
374.	HD Pipe 1 Inch (ft)	12.	HD Pipe 1 Inch (ft)		
375.	Digging and Filling for Optical Fiber (ft)	13.	Digging and Filling for Optical Fiber (ft)		
376.	OFDF 6 Ports	14.	OFDF 6 Ports		
377.	UTP Cat-VI Patch Cord 1 Meter	15.	UTP Cat-VI Patch Cord 1 Meter		
378.	27U Rack	➢ 27 U Rack ➢ Floor Standing			

		➤ Perforated Dual Compartment Door ➤ 2 Fixed Tray and 1 sliding tray ➤ 4 Fans 16. Fan kit and PDU			
379.	42U Rack	➤ 42 U Rack ➤ Floor Standing ➤ Perforated Dual Compartment Door ➤ 2 Fixed Tray and 1 sliding tray ➤ 4 Fans 1. Fan kit and PDU			
380.	CAT VI Cable Roll	2. CAT-VI (A) network cable Roll			
381.	Cable Tagging	3. Cable tracing, labeling / tagging and management of 6,000 Feet Cable.			
382.	UPT I/O Installation Termination	4. Installation, Configuration & commissioning charges:* Installation and Termination of UTP I/O			
383.	Installation / Termination of Patch Panel	5. Installation and Termination of Patch Panel			
384.	Installation /Termination of OFDF	6. Installation and Termination of OFDF			
385.	Installation /fixation of Data Cabinet	7. Installation and fixation of Data Cabinet			
386.	Installation /Configuration of Switches,	8. Installation and Configuration of Switches,			
387.	Installation and Configuration of Access Points,	9. Installation and Configuration of Access Points,			
388.	Installation and Configuration of, Access Point Controller	10. Installation and Configuration of, Access Point Controller			
389.	Installation and Configuration of Firewalls	11. Installation and Configuration of Firewalls			
390.	Installation / configuration services of Electronic	12. Relevant installation / commissioning configuration services of quoted Electronic Device/equipment with Free servicing / minor repairs to 1 x years warranty period.			

	Device/equipment			
391.	RJ45 CONNECTORS	13.	Best quality	
392.	JOINTER	14.	Best Quality	
393.	Clamping tool	15.	Best Quality	
394.	Splicing Machine	Splicing Machine Applicable Fibers: SM (ITU-T G.652&G.657) / MM (ITU-T G.651) / DS(ITU-T G.653) / NZDS(ITU-T G.655) Compatible Fiber / Cable :0.25~3.0 mm / Indoor Cable Cleaved Length Diameter: 0.125~1 mm / Cleave Length: 8~16 mm Splicing Mode: Preset 7 modes / Max 128 modes Typical Splice Loss SM: 0.02dB / MM:0.01dB / DS:0.04dB / NZDS: 0.04dB / G.657: 0.02dB(ITU-T Standard) Return Loss :>>60dB Splicing Time Auto mode : 9 sec / Quick mode : 7 sec Estimated Splice Loss :Available Protection Sleeve Length: 20~60 mm Heating Time Typical heating time: 35 sec Results Storage :The last 2000 results Tension Test :1.96~2.25N Operating Condition Operating Altitude: 0~5000m above sea level, 0~95% relative humidity, -10~50°C, Max Wind 15m/s Storage Condition : 0~95% relative humidity, -40~80°C Display: 90° bi-directional view, 5.0" Color High Resolution Display Fiber View & Magnification :X, Y, XY, X/Y : 520X Magnification Power Supply :AC Input 100-240V, DC Input 9-14V No. of Splice / Heating with Battery :4200mAh Battery Capacity, Typical 170 times (Splice+Heat) Operating Methods :Button / Touch screen Automatic Calibration : Automatic arc calibration by air pressure and temperature Electrode Life : 3500 arcs, can be extended by using an electrode grinder Terminal USB : 2.0 / MINI USB / HDMI 10. 1. Core alignment splicing (DACAS Digital Analysis Core Alignment System) 11. 2. The highest 520X magnification and resolution 12. 3. 5" Color LCD touch screen 13. 4. Double tapping (zoom in & out) 14. 5. Detachable SOC holder and heating oven for splice-on connectors 15. 6. 3 Bright LEDs for dark environments 16. 7. Ceramic clamp for improved durability 17. 8. Easy to replace electrodes 18. 9. Mirrorless design for easy maintenance			

		16.		
395.	Patch panel	24-port CAT6 patch panel. BLANK KEYSTONE 1U PATCH PANEL: The 24-Port Blank Keystone 1U Patch Panel supports standard sized Cat6 keystone jacks.		
396.	Cable Manager	Cable Manager best quality Rack Mount Rack Unit: 1RU		
397.	Fiber optic cable installation	12core Per meter		
398.	Internet load balancer latest Model	Five or more Ethernet ports with DHCP , nating etc. URL filtering with SSL +HTTPS traffic blocking User rights		
399.	Dell server Rack 42U	Height 78.7" (1999mm) Width 23.8" (605mm) Depth 42.1" (1070mm) Weight 298 lbs (135 kg)		
400.	Cat 6A cable	Best Quality Cat6 A cable Oxygen free copper (99.97% purity) 305.0 m (1000 ft) power over Ethernet, compatible 24AWG		
401.	Cat6 Cable	Best Quality Cat6 cable Oxygen free copper (99.97% purity) 305.0 m (1000 ft) power over Ethernet, compatible 23AWG		
402.	Digital Meter	Digital meter cable testing Length measurement Length broken detected		
403.	Cable Tie 4"	100 pcs Cable tie		
404.	Cable Tie 6"	100 pcs Cable tie		
405.	Cable Tie 8"	100 pcs Cable tie		
406.	Cable Tie 10"	100 pcs Cable tie		
407.	Turk Plast Pipe 1"	Turk Plast Pipe 1" L10'		
408.	Turk Plast Pipe 2"	Turk Plast Pipe 2" L10'		
409.	Metal U Clip 1"	Metal U Clip for Pipe		
410.	Metal U Clip 2"	Metal U Clip for Pipe		
411.	pigtail sc to sc	Connector type: SC Length: 1 m		
412.	pigtail lc to sc	Connector type: LC to SC Length: 1 m		
413.	patch panel 24	Copper Patch Panel 24-Port High-Density Multimedia Unloaded		

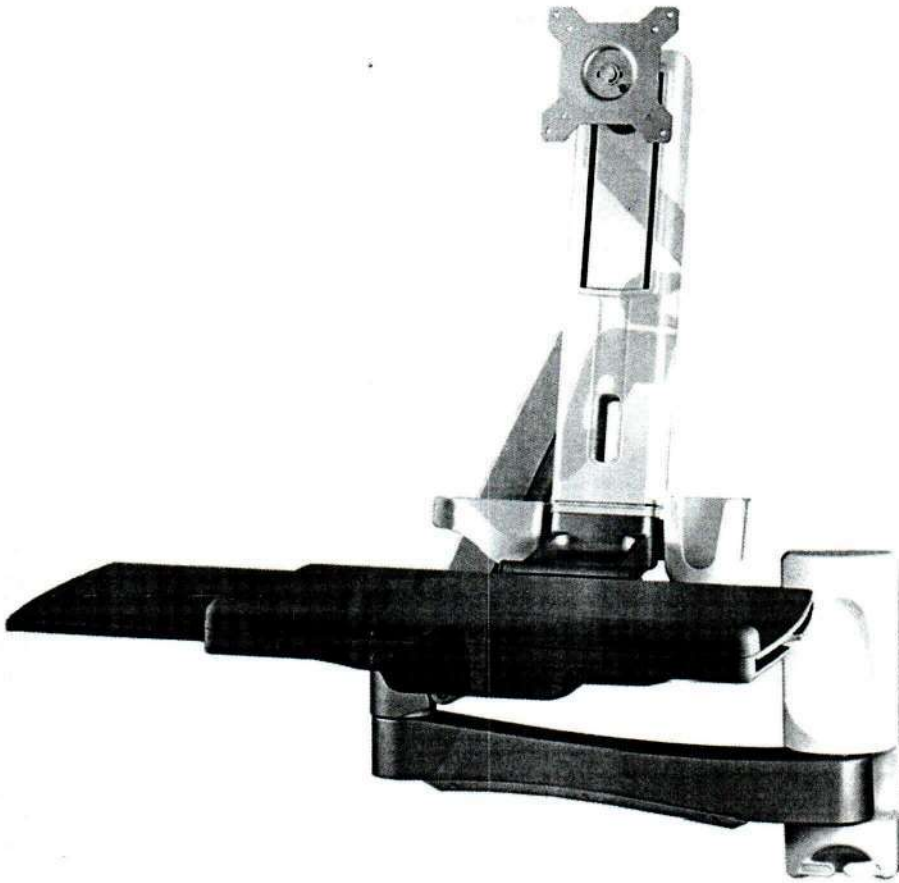| No.	Item	Description
414.	PDU	Power Distribution Units 8 port
415.	KJ nut	For Switch Hang
416.	Pvc Cable Duct 1"	1 inch
417.	Pvc Cable Duct 2"	2 inches
418.	PVC Duct Cutter	Best Quality
419.	Cat6 Connector Cover	Best quality Connector Cover Color White
420.	Tagging Machine	Label Printer makes it easy to print labels Easy to use QWERTY keyboards make creating labels simple and fast. Includes a 16-digit, 2 lines, LCD display with one built-in font and 24-character sizes. With a resolution of 200 DPI.
421.	Tagging machine cassits	Best Quality 9mm
422.	i/o punching tool	i/o punching tool
423.	RJ45 CAT6E Lan I/O	RJ45 CAT6E Lan I/O
424.	I/O Face Plate	I/O 3X3 1M Dual Face Plate
425.	Pigtails	High Quality Fiber Optic Pigtail
426.	SFP module	SFP module
427.	SFP transceiver Modules	SFP transceiver Modules
428.	Network Cable	Cat-6 A STP High quality Cable
429.	Wifi long Range CPE	Long range CPE outdoor Passive PoE supports to allow flexible deployment and convenient installation Interface: 1 10/100/1000 Mbps Shielded Ethernet Port (LAN/POE), 1 Reset Button Power Supply: Passive Power over Ethernet via LAN (+4,5pins; -7,8pins), Voltage range: 16-27V DC Enclosure: Material: Outdoor PC stabilized plastic, Weatherproof: IP65 water and dust proof design Wireless Standards: IEEE 802.11a/n/ac

		Frequency: 5.15~5.85 GHz
		System-level Optimizations: Optimized IGMP Snooping / Proxy for multicast applications
		Input: 100-240VAC, 50/60Hz
		Output: 24VDC, 0.5A Max, +4, 5pins; -7, 8pins. (Support up to 60m Power over Ethernet)
		Efficiency: > 84.29%
		3dBi high-gain directional 2×2 MIMO, ideal for long-distance application
		Excellent beam directivity, improved latency and noise cancellation
		Innovative snap-lock parts make for fast assembly and a sturdy structural design keeps CPE710 stable even in strong winds
		Durable IP65 weatherproof enclosure along with 15kV ESD and 6kV lightning protection ensures all-weather suitability
		Pharos Control gives administrators a free, centralized management system
		Passive PoE supports to allow flexible deployment and convenient installation
430.	Wifi Router (Long Range)	Long range 360 degree wifi router
		Dual-Band Wi-Fi speed boosted by 1024QAM deliver astonishing wireless speed up to 5952 Mbps: 4804 Mbps (5 GHz) and 1148 Mbps (2.4 GH)
		1 × 2.5Gbps WAN port, 8 × Gigabit LAN ports, and 2 × USB 3.0 in Type A and Type C
		1.8 GHz Quad-Core CPU and 2 co-processors eradicate latency and deliver stable performance
		Band Steering directs clients to less congested band and Airtime Fairness optimizes the time usage
		8 high-gain external antennas deliver a strong Wi-Fi signal throughout your home. BSS Color technology ensures smooth and stable connections by eliminates signal interference probably from your neighbors, while beam forming and Range boost deliver stronger and far-reaching network.

431.	Rj 45 Connector	Rj 45 steel Connector and simple		
432.	Jointer	Rj 45 jointer		
433.	Network Digital Metter	Digital Network Cable Tester Meter With Length Measurement With Battery		
434.	IT-Tech Network Toolkit	Electrical adhesive tape CRV red black Rubber plastic screwdriver 5*100(-) Crystal box 22pc (8p:10pcs 6p:6pcs 4p:6pcs CRV red black Rubber plastic hand Shank screwdriver 5*100(+) Precision screwdrivers 2.4(-) 2.4(+) Digital electrical pen test 12-250v Long flat nose pliers wire stripper Network pliers Wire cutter Network tester		
435.	KVM Switch Over IP	KVM Switch Over IP 24 port High video resolution - up to 1600 x 1200 @ 60Hz - 32 bit		
436.	Slotted Cable Duct	Slotted Cable Duct 33mm x 33mm		

Annex A

A