

13	Operating Humidity - 5 to 95% Noncondensing	
14	ESD/EMP Protection - Air: ±24 kV, Contact: ±24 kV	
15	Mounting - Rack-Mountable or Wall-Mountable	
16	Shocks and vibration - Must conform with ETSI300-019-1.4 Standard	
17	Certifications - CE, FCC, IC	
18	Brand/Standard - The technology or brand must either be American or European for a more Global Standard compliance.	
19	Local Support - The brand must have local 2nd level support via its distributor that is compliant with global standard like ISO or Duns and Bradstreet to maintain a quality-of-service (QOS) delivery.	
	<b>24-Port PoE Switch + 2 SFP Ports (2 Units)</b>	
1	Network Interface - Proposed switch must have (24) 10/100/1000 Mbps RJ45 Ethernet Ports (2) 1 Gbps SFP Ethernet Ports	
2	Management Interface - (1) RJ45 Serial Port Out-of-Band, Ethernet In-Band	
3	Non-Blocking Throughput - Must at least provide 26 Gbps	
4	Switching Capacity - Must at least provide 52 Gbps	
5	Forwarding Rate - Must at least provide 38.69 Mbps	
6	Maximum Power Consumption - The network switch must have a maximum power of at least 250W including PoE output and at least 30W excluding PoE output.	
7	Max. PoE Wattage - At least 34.2 W per port	
8	Max. Passive PoE - At least 17W per port	
9	Voltage Range 802.3at Mode - Must have at least 50-57V	
10	24V Passive PoE Voltage Range - Must have at least 20-27V	
11	Power Supply - AC/DC, Internal, 250W DC	
12	Operating Temperature - -5 to 40° C (23 to 104° F)	
13	Operating Humidity - 5 to 95% Noncondensing	
14	ESD/EMP Protection - Air: ±24 kV, Contact: ±24 kV	
15	Mounting - Rackmount	
16	Shocks and vibration - Must conform with ETSI300-019-1.4 Standard	
17	Certifications - CE, FCC, IC	
18	Software Management - The switch must have a wireless network management software solution that allows to manage multiple wireless networks using a web browser.	
19	Brand/Standard - The technology or brand must either be American or European for a more Global Standard compliance.	



20	Local Support - <i>The brand must have local 2nd level support via its distributor that is compliant with global standard like ISO or Duns and Bradstreet to maintain a quality-of-service (QOS) delivery.</i>	
	<b>48-Port PoE Switch + 4 SFP Ports (1 Unit)</b>	
1	Network Interface - <i>Proposed switch must have (48) 10/100/1000 Mbps RJ45 Ethernet Ports (2) 1/10 Gbps SFP+ Ethernet Ports (2) 1 Gbps SFP Ethernet Ports</i>	
2	Management Interface - <i>(1) RJ45 Serial Port Out-of-Band, Ethernet In-Band</i>	
3	Non-Blocking Throughput - <i>Must at least provide 70 Gbps</i>	
4	Switching Capacity - <i>Must at least provide 140 Gbps</i>	
5	Forwarding Rate - <i>Must at least provide 104.16 Mbps</i>	
6	Maximum Power Consumption - <i>The network switch must have a maximum power of 64W excluding PoE output; 500 W including PoE output</i>	
7	PoE Interfaces - <i>PoE+ IEEE 802.3af/at (Pins 1, 2+; 3, 6-), 24VDC Passive PoE (Pins 4, 5+; 7, 8-)</i>	
8	Max. PoE Wattage - <i>At least 34.2 W per port</i>	
9	Max. Passive PoE - <i>At least 17W per port</i>	
10	24V Passive PoE Voltage Range - <i>Must have at least 20-27V</i>	
11	Voltage Range 802.3at Mode - <i>Must have at least 50-57V</i>	
12	Power Supply - <i>AC/DC, Internal, 500W DC</i>	
13	Operating Temperature - <i>-5 to 40° C (23 to 104° F)</i>	
14	Operating Humidity - <i>5 to 95% Noncondensing</i>	
15	ESD/EMP Protection - <i>Air: ±24 kV, Contact: ±24 kV</i>	
16	Mounting - <i>Rackmount</i>	
17	Shocks and vibration - <i>Must conform with ETSI300-019-1.4 Standard</i>	
18	Certifications - <i>CE, FCC, IC</i>	
19	Brand/Standard - <i>The technology or brand must either be American or European for a more Global Standard compliance.</i>	
20	Local Support - <i>The brand must have local 2nd level support via its distributor that is compliant with global standard like ISO or Duns and Bradstreet to maintain a quality-of-service (QOS) delivery.</i>	
	<b>SFP Transceiver (32 units)</b>	
1	Supported Media - <i>Single-Mode Fiber</i>	
2	Connector Type - <i>(1) LC</i>	
3	TX Wavelength - <i>Blue: 1310nm; Yellow: 1550nm</i>	
4	RX Wavelength - <i>Blue: 1550nm; Yellow: 1310nm</i>	

5	Data Rate - 1.25 Gbps SFP
6	Max. Power Consumption - 0.66 W
7	Cable Distance - 3km
8	Operating Temperature - 0° to 70°C (32° to 158°F)

**Fiber Backbone Materials**

Item	UoM	Description	Qty
1	mtr	Fiber Optic Cable 12 Core Single Mode	3,000
2	set/s	Fiber Panel LC Loaded 12 port	16
3	set/s	Fiber Panel LC Loaded 24 port	1
4	set/s	Fiber Patch Cord 3m LC-LC Single Mode (pieces)	42
5	set/s	Fiber Optic Pigtail Single Mode (pieces)	216
6	set/s	Protection Sleeve	216
<b>CONCRETING</b>			
7	lot	Cement	1
8	lot	Sand	1
9	lot	Gravel	1
10	pcs	PVC Pipe 2"	650
<b>MANHOLE</b>			
11	lot	Cement	1
12	lot	Sand	1
13	lot	Gravel	1
<b>SERVICE ENTRANCE CONDUIT</b>			
14	pcs	PVC Pipe 1 1/2"	130
15	pcs	PVC Elbow 1 1/2"	20
16	pcs	PVC Coupling 1 1/2"	30
17	pcs	PVC Connector w/Locknut 1 1/2"	50
18	pcs	Pull Box 12"x12"x4"	10
19	pcs	Plastic Junction Box 4"x4"	12
20	kgs	G. I. Wire #16	15
21	pcs	Metal Clamp 1 1/2" 2 hole	100
22	pcs	Tox & Screw #6	200
<b>GROUNDING SYSTEM</b>			
23	pcs	Grounding Rod 5/8 x 5'	10
24	pcs	Grounding Clamp 5/8"	10
25	bxs	Grounding Wire 3.5mm2 (Green)	2
26	pcs	Terminal Lugs 3.5mm2	10

**Building Materials**

Item	UoM	Description	Qty
1	set/s	Amco Box	177
2	set/s	Data Cabinet 12RU	24
3	set/s	Data Cabinet 42RU	1
4	mtr	Electrical Flatcord #16	570
5	pcs	Electrical Tape	15.1
6	set/s	Expansion Bolt and shield	100
7	set/s	Face Plate Duplex	177
8	mtr	Fiber Optic Cable 8 Core Single Mode	900
9	set/s	Fiber Optic Pigtail Single Mode (pieces)	144
10	set/s	Fiber Panel SC Loaded 12 port (unit)	18
11	set/s	Fiber Patch Cord 3m SC-LC Single Mode (pieces)	36

12	kgs	G. I. Wire #16	36.6
13	set/s	Information Outlet CAT6	177
14	pc	Male Plug	19
15	pcs	Masking Tape	12.1
16	pcs	Metal Clamp 1 1/2" 2 hole	360
17	pcs	Metal Clamp 1/2" 2 hole	208
18	pcs	No Nail Adhesive	18.9
19	pcs	Plastic Junction Box 4"x4"	55
20	pcs	Plastic Moulding 1"	341
21	pck	Plastic Tie Wrap 10"	3.5
22	pcs	Pull Box 8"x8"x4"	24
23	pcs	PVC Connector w/Locknut 1/2"	144
24	pcs	PVC Connector w/Locknut 1 1/2"	114
25	pcs	PVC Coupling 1 1/2"	114
26	pcs	PVC Coupling 1/2"	150
27	pcs	PVC Elbow 1 1/2"	108
28	pcs	PVC Elbow 1/2"	150
29	pcs	PVC Pipe 1/2"	555
30	pcs	PVC Pipe 1 1/2"	335
31	can	PVC Sealant	6.6
32	pcs	RJ45 Connector	119
33	pcs	RJ45 Rubber Boot	119
34	pcs	Tox & Screw #6	658
35	rolls	UTP Cable CAT6	19.53

**I hereby certify that the statement of compliance to the foregoing technical specifications are true and correct, otherwise, if found to be false during bid evaluation or post-qualification, the same shall give rise to automatic disqualification of our bid.**

\_\_\_\_\_  
Name of Company

\_\_\_\_\_  
Signature over Printed Name of  
Authorized Representative

\_\_\_\_\_  
Date