



عطاء رقم ٣/ل/٢٠١٩

توريد وتركيب وتشغيل أجهزة شبكات / كلية الزراعة

1. 20U Network Rack: (QTY:- 1 pieces)

1. Wall Mounted Type.
2. Dimension (H x W x D): 20U x 600 x 600.
3. Material: Steel.
4. Front Door: Glass.
5. Side Panels Type: Removable Steel and Lockable.
6. Fans: 2 Fans.
7. PDU: 6 Way, 13A

2. 15U Network Rack: (QTY:- 5 pieces)

1. Wall Mounted Type.
2. Dimension (H x W x D): 15U x 600 x 600.
3. Material: Steel.
4. Front Door: Glass.
5. Side Panels Type: Removable Steel and Lockable.
6. Fans: 2 Fans.
7. PDU: 6 Way, 13A

3. Cat6 U/UTP cable (Box 305 Mtr):- (QTY:- 37)

1. Cable Shall be Category 6 U/UTP cable.
2. Comply with ISO 11801 or EIA/TIA 568-B.2.
3. Frequency [MHz]: 250 MHz or above.
4. Flame Retardant Sheath (FR)
5. Cable Shall be LSZH.
6. The cable must support 1G.
7. 3rd party certificate.
8. Provide flexibility
9. Brand: Europe, Japan, Turkish or USA. Jordan

4. Category 6 U/UTP Patch Panel:- (QTY:- 15)

1. 24 Port Modular Patch Panel (Empty).
2. 1 rack unit height, 19" width.
3. Can get up to 24 Category 6 connectors.
4. Brand: Europe, Japan, Turkish or USA. Jordan



5. Patch cords guide panel :- (QTY:- 15)

1. 1 rack unit height.
2. Metal.
3. Box Type.
4. Same brand of the cabinet

6. Single Data Outlet :- (QTY:- 85)

1. Shall include one Cat6 RJ-45 unshielded Jack.
2. One faceplate with one holes for Module Jack.
3. RJ45 Module Female.
4. Category 6 connecter shall comply with ISO 11801 or EIA/TIA 568-B.2.
5. Back box 7cmx7cm inside wall.
6. Brand: Europe, Japan, Turkish or USA. Jordan

7. Dual Data Outlet :- (QTY:- 87)

7. Shall include two Cat6 RJ-45 unshielded Jack.
8. One faceplate with two holes for Module Jack.
9. RJ45 Module Female.
10. Category 6 connecter shall comply with ISO 11801 or EIA/TIA 568-B.2.
11. Back box 7cmx7cm inside wall.
12. Brand: Europe, Japan, Turkish or USA. Jordan

8. Cat 6 U/UTP Patch Cords 1m:- (QTY:- 260)

1. Cable Shall be Category 6 U/UTP cable.
2. 1 meter length.
3. Low-Smoke Zero Halogen.
4. Flame Retardant Sheath (FR).
5. Molded boots, Provide flexibility.
6. 250 MHz Frequency.
7. Brand: Europe, Japan, Turkish or USA. Jordan

9. Cat 6 U/UTP Patch Cords 3m:- (QTY:- 260)

1. Cable Shall be Category 6 U/UTP cable.
2. 3 meter length.
3. Low-Smoke Zero Halogen.
4. Flame Retardant Sheath (FR).
5. Molded boots, Provide flexibility.
6. 250 MHz Frequency.
7. Brand: Europe, Japan, Turkish or USA. Jordan



10. Category 6 U/UTP Connecters:- (QTY:- 520)

1. Cat6 RJ-45 unshielded Jack.
2. Tool less Type.
3. Category 6 connector shall comply with ISO 11801 or EIA/TIA 568-B.2.
4. Brand: Europe, Japan, Turkish or USA. Jordan

11. Fiber Optic Cable OM3 8 Core:- (QTY:- 400 meter)

1. Cable shall be OM3 multimode type.
2. Cable shall include 8 fiber cores.
3. Cable shall be metal free.
4. Cable shall have rodent protection feature.
5. Flame Retardant Sheath (FR).
6. Cable shall include glass armor.
7. Low Smoke Zero Halogen (LSZH) Sheath.
8. Brand: Europe, Japan, Turkish or USA. Jordan

12. Fiber Optic Patch Panel 24 SCD OM3:- (QTY:- 1)

1. Shall be spliced box type.
2. 19"/1U, extractable,
3. Shall include 24 SC Duplex Adapters.
4. Shall Include 48 Pigtail OM3 2 meter length
5. Shall include spliced tray & cover to mount splicing inside the Patch Panel.
6. Shall have two cable entry.
7. Brand: Europe, Japan, Turkish or USA. Jordan

13. Fiber Optic Patch Panel OM3 6SCD:- (QTY:- 5)

1. Shall be spliced box type.
2. 19"/1U, extractable,
3. Shall include 6 SC Duplex Adapters.
4. Shall Include 12 Pigtail OM3 2 meter length
5. Shall include spliced tray & cover to mount splicing inside the Patch Panel.
6. Shall have two cable entry.
7. Brand: Europe, Japan, Turkish or USA. Jordan

14. Fiber Optic Patch Cord OM3 2 Meter:- (QTY:- 20)

1. Fiber Optic Patch Cord OM3 2 Meter.
2. LSZH sheath.
3. 2 Meter Length.
4. OM3 Type.
5. Brand: Europe, Japan, Turkish or USA. Jordan



15. Fiber Optic Cable SM 12 Cores:- (QTY:- 850 meter)

1. Cable shall be SM singlemode type.
2. Cable shall include 12 fiber cores.
3. Cable shall corrugated steel tape.
4. Cable shall be rodent proof.
5. Shall include swelling tape.
6. Cable shall include glass armor.
7. High Density PE Sheath (HDPE).
8. Brand: Europe, Japan, Turkish or USA. Jordan

16. Fiber Optic Patch Panel SM:- (QTY:- 2)

1. Shall be spliced box type.
2. 19"/1U, extractable,
3. Shall include 6 SC Duplex Adapters.
4. Shall Include 12 Pigtail OS2 2 meter length
5. Shall include spliced tray & cover to mount splicing inside the Patch Panel.
6. Shall have two cable entry.
7. Brand: Europe, Japan, Turkish or USA. Jordan

17. Fiber Optic Patch Cord OS 2 Meter:- (QTY:- 4)

6. Fiber Optic Patch Cord OM3 2 Meter.
7. LSZH sheath.
8. 2 Meter Length.
9. SM Type.
10. Brand: Europe, Japan, Turkish or USA. Jordan

18. GI Steel pipe:- (QTY:- 500 meter)

1. Steel type.
2. Include all needed accessories (Adapters, L, Connections, etc....).
3. 25mm size.

19. Manholes:- (QTY:- 7)

1. Standard Manhole 60x60.
2. Steel cover.

20. Civil work:- (QTY:- 150 meter)

1. Civil work to create a path for fiber optic cable.
2. Include 2x4" pipes.
3. Standard with 60 cm deep.
4. Include the civil works to keep the roads, path as before.



- **Special Conditions:-**

1. 25 Years Warranty on Copper Solution from the Manufacture of the Structured Cabling System.
2. Fiber optic pigtail splicing with organizing, labeling (both sides), and testing (Testing shall be done using OLTS & OTDR).
3. Category 6 Connectors Termination Including organizing, labeling (both sides), and testing Using Fluke DTX 1800 ((the Fluke shall be calibrating from the mother company),
4. Testing report must be provided and testing results must comply with at least the minimum standards for tested components.
5. The team must have a certificate Network installation from same vendor.

Active Component Specification

21. Transceivers:

- 1G Multimode SFP Transceivers, Qty: 20
- 1G Single Mode SFP Transceivers, Qty: 1

22. Aggregation Switches, Qty (2)

- Each Switch shall provide 24 x SFP 1G Ports.
- Each Switch shall provide 2 x 40G Ports.
- Should be stackable switch and support up to 4 switches in the stack at least (no Stacking accessories required).
- Should support MACsec (Hardware enhance the services ready at least).
- Internal redundant power supply
- Switch Capacity: not less than 175Gbps
- Throughput: not less than 65 Mbps (wire speed)
- MAC Addresses: not less than 32000
- Support at least 4000 VLANs.
- AC Input
- Support both IPv4 & IPv6
- Layer 3 switch that support of Static route, RIPv1/2, multicast routing PIM-SM and PIM-SSM, and OSPF.
- Support QoS and SSH.
- Support Web GUI Management
- Non-Blocking architecture



- Warranty not less than 5 years
- **Brand: Shall be one of Leaders companies as per last Gartner report.**
- Professional (certified) training for 2 persons must be included.
 - Switches installation and configuration.
 - Management Software.
- All required licenses during warranty time must be included.

23. Access Switches 24 Port, Qty (15)

- 24 RJ-45, Support PoE+ on 24 ports (Min. 370 Watt).
- At least 4x10G SFP+ interfaces.
- Switch Capacity: not less than 128Gbps
- Throughput: not less than 95 Mbps
- MAC Addresses: not less than 16000
- AC Input
- Support both IPv4 & IPv6
- Layer 3 switch (Static route & RIP) and support OSPF in the future.
- Support QoS and SSH.
- Support Web GUI Management
- Non-Blocking architecture
- Warranty not less than 5 years
- **Brand: Shall be one of Leaders companies as per last Gartner report.**
- Professional (certified) training for 2 persons must be included.
 - Switches installation and configuration.
 - Management Software.
- All required licenses during warranty time must be included.

24. Management:

- Aggregation switches and Access switches should use the same Operating System.
- Management Software that support bulk configuration, backup and restore for all Aggregation switches and Access switches in this project should be included.
- All required licenses for all required number of nodes during warranty time must be included.