## No. Tender Inquiry: 12/2017-18 Due On 14-02-18

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**Sindh Institute of Ophthalmology &**

**Visual Sciences (SIOVS), Hyderabad**

## TENDER DOCUMENTS

**FOR**

**Purchase, installation ,Testing & Commissioning of Computer Networking on turnkey Basis.**

# *Invitation for Bids*

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**Sindh Institute of Ophthalmology &**

**Visual Sciences (SIOVS), Hyderabad**

**Invitation Bids**

Sealed tenders under procedure “Single Stage Two Envelop” are invited for the works mentioned below on turnkey basis from the specialized firms having valid registration with GST, ATL, Income Tax and Pakistan Engineering Council in relevant Category.

Interested firms should provide proof of valid GST, ATL, Income Tax and Pakistan Engineering Council Registration to be submitted along with the bid in local currency (Pak Rupees).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr.#** | **Name of Work** | **Earnest Money/ Bid** | **Tender Fee** |  |
| **Security** |
| **1** | Purchase, installation ,Testing & Commissioning of Computer Networking on turnkey Basis | **@ 2.5% of Bid Amount** | **Rs. 500/=** | **EE-07** |

2- Interested firms should meet the following eligibility criteria:

1. Bidders must be registered with G.S.T, ATL, Income Tax, SRB and Pakistan Engineering Council in relevant category.
2. Bidders must be authorized Agent/ Partner/ Re-seller.
3. Bidders must be authorized specifically for this project.
4. Bidder must have Annual Sales Volume / Gross Turnover of at least 50 million per annum.

3- Bidding documents containing detailed terms and conditions, will be issued upto **13-02-2018**

during office hours against written request along-with GST, ATL, Income Tax, SRB and PEC Registration Certificates copies and profile. The tender last date of submission up to **11:30 hrs on 14-02-2018**  and will be opened at 12:00 hrs in the office of undersigned on the same day in the presence of suppliers or their authorized representatives who may intend to be present.

3- Earnest money equivalent to 2% of the bid value shall be furnished with tender in shape of pay order in the name of Director Finance SIOVS.

**Purchase & Store Officer,**

Sindh Institute of Ophthalmology

& Visual Sciences, Hyderabad

# *Instructions to Bidders*

**A. GENERAL**

### 1. Scope of Bid & Source of Funds

* 1. SIOVS,invites sealed tenders under procedure “Single Stage Two Envelop” are invited for the works mentioned below on turnkey basis from the specialized firms having valid registration with GST, ATL, Income Tax and Pakistan Engineering Council in relevant Category. Interested firms should provide proof of valid GST, ATL, Income Tax and Pakistan Engineering Council Registration to be submitted along with the bid in local currency (Pak Rupees).
  2. A complete set of Bidding documents may be purchased by the interested eligible bidders on submission of a written application to Store & Purchase officer, SIOVS, along with Tender Fee Rs. 500 (Rupees Five Hundred only) on any working day from 09:00 am to 02:00 pm from 29th January 2018 to 13th February 2018 along-with copies of GST, ATL, Income Tax, SRB and PEC Registration Certificates and Corporate Profile of Firm.
  3. Clarification regarding TORs and BOQ and or anything else related to Bidding process or Specifications can be obtained through written letters at least 7 days prior to the date of opening of tenders.
  4. All bids must be accompanied by a Bid Security equal to 2.5% of their Financial Proposals in shape of Pay Order. Bids without Earnest Money will not be entertained. Earnest Money should be valid 28 days after validity of Bid
  5. Bids must be dropped in the tender box kept in the Committee Room on 14th February 2018 at 11.30 A.M. Bids will be opened on same day at 12.00 am in presence of representative of Bidders who choose to attend and the members of procurement committee.
  6. Conditional Bids, submitted through Fax, email, telegraph, not accompanied by bid security, Bids received after the specified date and time and the Bids submitted by the blacklisted firms will be rejected.
  7. The process of procurement shall be completed Procurement committeeduly approved by competent authority of the University.
  8. The SIOVS, reserves the right to reject all or any bid(s) subject to the relevant provisions of Sindh Public Procurement Rules 2010 as amended in 2013

1. **GENERAL TERMS AND CONDITIONS**

The following General Terms and Conditions apply to all the equipment/works under this tender.

The last date of receipt of Bids is as mentioned on face sheet of this document.

**Documents/Details Required.**

2.1 Each Documents should be properly signed and stamped by authorized person.

2.2. Detail of repair & maintenance facilities and Service centers

2.3. Affidavit to the effect that the firm has not been black listed by any Government/Semi

Government Organization.

2.4. The Bidder indemnify SIOVS against all third-party claims of infringement of patent, trade mark industrial design rights arising from use of the goods or any part thereof in Pakistan.

2.5. SIOVS or its representative shall have the right to inspect and/or to test the equipment to confirm their conformity to the contract specifications.

2.6. It is mandatory that the Bidders provide the following documents and information with respect to its relationship with Principal.

2.7. The Bidder/Vendor shall provide the following information with respect to its set up in Pakistan.

2.7.1. Number of Vendors offices and addresses, thereof, phone and fax numbers and e-mail address as well as names and designations of responsible persons.

2.7.2. Number of engineers and technical staff in Vendor's office

2.7.3. Profile of technical staff with relevant experience, resume and number of Customers and sites looked after/supported by each.

2.7.4. Problem reporting procedure and fault response time in hours for fault rectification, escalation procedures with respect to response or turnaround time in hours.

2.8. The Bidder shall provide following information with respect to its Company Profile

2.8.1. Registered Name of the Organization.

2.8.2. National Tax Number, Sales Tax Number ,ATL, PEC (attached copies).

2.8.3. Head Office address.

2.8.4. Name, Address with Telephone/Telex and Fax numbers of the contact Person

2.9. Financial status of the Vendor's/Bidder's Organization with supporting documents and last two years annual reports.

2.10. Provide your bank statement for a period for 3 Years

2.11. List of clients and their Acceptance of deliverables, showing separately the items provided and value thereof

2.12. SIOVS reserves the right to reject any or all Bids/Offers without assigning any reason or cancel the process at any time.

2.13. SIOVS reserves the right to increase/decrease the quantity of items/scope of the work. Bidder has no right to challenge the decision in Court.

2.14 Documentary evidence of claims made in proposal regarding experience, relationship with principal etc.

**3. PROPOSAL SUBMISSION REQUIREMENTS**

3.1. A bidder can submit bid for compete work on Turnkey Basis. Bidders who will quote portion of items/ quantity will not be considered.

3.2. Sealed Bid clearly marked as **"TECHNICAL TENDER" AND “FINANCIAL TENDER”.** Only **TECHNICAL TENDER** open on bid opening date and **“FINANCIAL TENDER”** kept with SIOVS unopened. Prices should be valid for **90 days** from the date of submission.

3.2.1. **TECHNICAL INFORMATION**

3.2.1.1. Technical information must include the complete solution proposed by the Vendor with filled-in specification sheets.

3.2.1.2. After review of the Technical Proposal, all the participants will be informed through email or letter, only qualified Firms Financial Tenders will be open on date & time announced by the SIOVS, all other firms Financial Proposals will be returned unopened who not meet qualification marks.

3.2.1.3. Based on the Technical Proposal and Financial proposal on “Quality based selection method” as described in the selection & evaluation procedure.

Technical Information of Equipment should be in following format:

Attach Brochure of

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| S.No | items | Product name | Model | Make of Equipment | Part No | Country of Origin / Country of Shipment |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

3.2.2. **FINANCIAL INFORMATON**

3.2.2.1. Financial information will include the prices quoted on individual item/Equipment basis

3.2.2.2. The quoted prices must include all taxes, customs and freight charges for delivery at the required locations at own risk and cost.

3.2.2.3. This Equipment is required for educational institution. SIOVS, therefore, expects significant educational discounts.

3.2.2.4 The Bidder/Vendor shall furnish earnest money equal to 2%of the total value of Bid in the form of Bank Draft issued by a scheduled bank of Pakistan in favor or Sindh Institute of Ophthalmology & Visual Sciences (SIOVS) Hyderabadvalid for at-least **90 days**beyond the validity of bids.

3.3. **No Bid shall** be **entertained without earnest money.** Earnest money of the un-successful bidders will be released after award of contract to the successful bidder.

3.4. Bid security is required to compensate SIOVS, against the consequences of:

3.4.1. Subsequent unauthorized variations and/or modifications of the terms of bid.

3.4.2. Pre-mature withdrawal of the bid before the completion of the bid evaluation

3.4.3. Failure of the bidder to sign the resultant Contract, in the event of such Contract being awarded to it.

3.5. Successful bidder’S Earnest Money will be retained at least 90 days beyond completion / delivery and installation of computers.

3.6. Proposals sent to SIOVSby fax or email will not be accepted.

3.7. An effort by a Bidder to influence SIOVS directly or indirectly THROUGH UNFAIR MEANS may result in the rejection of Bidder's Proposal and black listing for any future tender of SIOVS.

3.8. Prices quoted will be firm for the entire period of Contract. All prices to be quoted in Pak Rupees OR foreign currency and must clearly state all applicable taxes which must be included in quoted price and / or C&F rates should include, Freight, customer clearing expenses, insurance expenses. SIOVS will provide necessary documents as required to customs authorities.

Bidder should provide Financial / Cost of Equipment as per following specimen.

Should be printed on the letter head of bidder.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.No | items Description including Product name Model Make of Equipment Part No and Unit of Material | Qty | Unit Price | Total Cost | Delivery Terms e.g. F.O.R / C&F |
| 01 |  |  |  |  |  |
| 02 |  |  |  |  |  |
| 03 |  |  |  |  |  |

**4.** **HARDWARE REQUIREMENTS**

Following are the minimum requirements which the bidder/vendor for the equipment:

4.1 The Vendor must supply and install all equipment and components and must ensure that the proposed equipment is fully operational and function properly at all variables.

4.2 Vendor must ensure that all systems are in first class working condition and free from any fault or defect.

**5. SELECTION & EVALUATION PROCEDURE**

5.1 SIOVS SBA, intends in issuing this **RFP** is to award a contract to the Qualified lowest and best responsive Vendor/Bidder who meets qualification in Technical Tender and required standard of specifications and other factors.

5.2 Bids will be evaluated as per evaluation criteria mentioned below.

# Technical Evaluation Criteria for Computer Networking

Company willbe assessedthrough Technical Evaluation Criteria.

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. #** | **Description** | **Marks of**  **Eligibility** | **Marks**  **Obtained** |
|  | **Mandatory Clauses:** |  |  |
| 1 | Bidders must be registered with G.S.T, ATL, Income Tax, SRB | 20 |  |
| 2 | Pakistan Engineering Council in relevant category and Principals Certified Partner/ Professional (10 Mark Each) | 20 |  |
| 3 | Authorized Distributor / Re-seller | 20 |  |
|  | **Other Clauses:** |  |  |
|  |  |  |  |
| 1 | 100% Technical Compliance Quoted Solution | 20 |  |
| 2 | AnnualTurnOvershouldbeatleast20Mor above in last three years  (Attach copies). | 10 |  |
|  |  |  |  |
| 4 | Taxreturns oflast 3years. | 10 |  |

Note: Please do attach documentary evidence in support of your claims in technical proposal. Minimum Qualification is 80 out of 100 points.

**(2)Financial Evaluation Criteria- Weightage 50%**

**6. DELIVERY & INSTALLATION**

Delivery and Installation should be at the Sites/Locations at the risk and cost of successful bidder.

**7. WARRANTY**

Following Warranty clauses are applicable:

The successful Bidders shall warrant the equipment and its components to be free from any sort of defects in material and workmanship for a minimum period of 1 year from date of completed installation and shall repair or replace on a timely basis any defective component, assembly or portion free of cost. Technical support should be available on call basis. Competent staff of bidder must attend every call within 3-4 hours of its notification either on phone or in writing during business hours (9am -5pm). Delay in attending the call and delay in rectification of fault will lead to consequential financial damages to the Vendor.

The Bidder should provide undertaking that the spare parts of supplied material will be available till 5 years.

**8. SERVICES**

8.1. SIOVS shall promptly notify the supplier in writing of any claims arising under this warranty and the Vendor/Supplier will repair/replace the defective stores at reasonable speed but within the specified period and time & without any additional cost. Specifications, and/or other Contract commitments

# *Section - III*

# *Forms of Bid*

FORM OF BID

(to be printed on the letterhead of bidder. Without this letter, bid will be rejected)

Dated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

To:

Purchase and StoreOfficer,

Sindh Institute of Ophthalmology & Visual Sciences,

Hyderabad.

**Sub: Procurement of Equipment for.**

With reference to your subject Tender, we have examined and understood the instructions including all annexure, terms and conditions, project scope forming part of the Tender, method of awarding tender, we hereby enclose our Bid for **“the subject procurement”** as mentioned in the Tender documents.

We agree to abide by the terms and conditions of this bid. In the event of acceptance of our bid by The Procuring Agency we undertake to supply, install and make operational the goods and material as per your purchase orders within the given time frame.

Our offer is valid till 90 days from the date of opening of bids and our offer shall remain binding upon us which may be accepted by the Procuring Agency any time before expiry of 90 days.

All the prices mentioned in our bid are in accordance with the terms as specified in the bidding documents.

We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.

We further confirm that the prices stated in our financial bid are in accordance with your Instruction to Bidders included in bidding documents.

If our bid is accepted, we will submit the Performance Security (in the format as prescribed by the Procuring Agency) for a sum equivalent to 10% of the value of the contract to the Bank valid for a period as provided in SPPRA Rules. We also understand that you are not bound to accept the lowest or any bid you may receive

Signature& Stamp

Name, Designation, CNIC #

on behalf of (Bidding Firm’s Name & Address)

Bank Guarantee No. \_\_\_\_\_\_\_\_\_\_

Date of Issue: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Valid up to: \_\_\_\_\_\_\_\_\_\_\_\_\_

Guarantee Amount Rs. \_\_\_\_\_\_\_\_\_

**PERFORMANCE SECURITY**

To,

Purchase & Store Officer

Sindh Institute of Ophthalmology & Visual Sciences,

Hyderabad.

Bidder’s Name

Where as M/S \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, hereinafter called “The Contractor” in purchase of supply Order Reference No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATED \_\_\_\_\_\_\_\_\_\_\_\_, to supply \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_required for Director Finance SIOVS, herein after called “the Contract”

Supply Order No.

Subject as mentioned in Tender

AND WHEREAS it has been stipulated by you in the said CONTRACT that CONTRACTOR shall furnish you with a 10% performance guarantee in shape of Bank Guarantee by a reputable bank for the sum specified herein as security for compliance with the Contractor’s performance obligation in accordance with the CONTRACT.

AND WHEREAS we have agree to give the CONTRACTOR guarantee.

THEREFORE WE \_\_\_\_\_\_\_\_\_\_Bank Ltd, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Branch, \_\_\_\_\_\_\_\_\_- hereby state that we are Guarantors and responsible to you, on behalf of the Contractor for a sum of Rs. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Rupees \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- only) and we undertake to pay you, upon your first written demand declaring that the Contractor to be in default under the Contract and without cavil argument, and sum of sums within the limit of Rs. \_\_\_\_\_\_\_\_\_\_\_\_\_/- (Rupees \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ only) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

City

Branch Name

Bank Name

Date / Month / Year

This Guarantee is valid up to \_\_\_\_\_\_\_\_\_\_\_\_\_\_, Claim if any under this guarantee must be lodged and received with us in writing during bank business hours on or before \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, failing which no claim shall be entertained by us and we shall be discharged and released of our liability hereunder. Upon expiry of this guarantee shall become null and void whether or not returned to us in original for cancellation

Date / Month / Year

Signature, Name, Designation, Seal, AddressOf Guarantor.

# *Section- IV*

# *Bill of Quantities “BOQ” & Specifications*

1. IT Infrastructure

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Item Description | Make | Qty |
| 1 | **HP, Dell or Equivalent**  42U Rack 600x1075mm AdvanceShock Rack with Basic 7.3KVA C13 PDUx2, 0x2x16 G3 KVM ConsoleSwitch, KVM USB Adapter x 10, 42U 1075mm Side Panel Kit, Rack H/wareKit, LCD 8500 1U Console Kit | Unit | 2 |
| 2 | **Servers HP, Dell or equivalent**  Processor: Intel 2x Xeon Processor 2.6v3 GHz with  12 Core each (64 Bit)   * CPU (Installed / Max): 2/2 * RAM: Smart Memory 128GB ECC DDR4 (1x 8GB) * Rack Mounted * Integrated Graphic Controller * RAID Controller With RAID Levels 0, 1, 10, 5, 50, 6, 60 With 1GB Cache * Hard Drive Bays: : 8x 2.5” (SFF) Hot-plug Drive to   Support SAS & SATA Drives   * 4x 900GB SAS 15K RPM HDD (Hot Swap) * Dual Port Fiber Channel HBA 8G * 1x Management Port * 4x 1 GbE Network Adapter * 1 x 2 Port 10GbE Network Adapter Ethernet * 2U Server Class chassis with Redundant Power   Supply   * Server class motherboard * Optical Drives: 1x DVD+R/RW * External Ports: 4 x USB , 1 x VGA * Accessories: Rack Rails, Cable Management Arm, Power Cords and PDU Interconnect Cords * Onboard Server Remote Management.   3 Years Comprehensive onsite warranty (DMR) | Unit | 2 |
| 3 | **Branded 10Kva UPS Chloride, Emerson or Equivalent**  10 KVA Rackmount UPS (30 Minutes Backup)  10000 VA/7000 W  Acceptable input voltage range (VAC) 176 to 276  Nominal input voltages (VAC) 200/208/220/230/240  Input frequency 50/60 Hz ±5, auto-select, input frequency 40-70 Hz  Output current @ 208 V (Arms) 46  Output frequency 50/60 Hz ± 0.5%  Frequency tolerance, normal operation output frequency synchronized with mains frequency  Output waveform Sinusoidal  Overload capacity 104%: warning; 105-125%: 60 seconds: switches to bypass; 126-150%: 10 second, switches to bypass; >150%: 2 seconds: switches to bypass  Input connection HW  Output connection HW Attached PDU (Optional)  Internal battery (20) VRLA, 12V  Battery type sealed, maintenance-free lead acid, VRLA  Battery test Automatic, user selectable Battery recharge time to 90% available capacity 5 - 8 hours (internal batteries)  Communications slot COM) SNMP, Isolated Contact Card Interfaces COM A RS232 Interface, 9 pin SUB-D pin contacts Operating temperature 32°F to 104°F (0°C to 40°C) recommended 50°F to 77°F (10°C to 25°C) Storage temperature 5°F to 122°F (-15°C to 50°C) Relative humidity 20% to 90%, non-condensing Heat dissipation (max.) 1925 4350 Btu/hr | Unit |  |
| 4 | Microsoft Windows Data Center 2012 R2 | Microsoft | 1 |
| 5 | Microsoft Windows Standard 2012 R2 | Microsoft | 1 |
| 6 | Windows CALs | Microsoft | 100 |

1. Network Active

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Item Description | Make | Qty |
| 1 | **Firewall**  **Make: Cisco,Fortinet, Palo Alto or Equivalent**  ·         Firewall should support UTM features including firewall, DPI, IPS, antivirus, anti-spam and content filtering services with one year subscription license.  ·         8 x GE (RJ-45) and 4 x GE optical interfaces (SFP) and at-least 2 I/O expansion slots for future expansion.  ·         Firewall performance: 4 Gbps or higher.  ·         IPS throughput: 2 Gbps or higher.  ·         IPSec VPN throughput: 3 Gbps or higher.  ·         Number of concurrent sessions: 4 Million or higher.  ·         Atleast 100 Virtual firewalls supported.  ·         Authentication methods (local, RADIUS, TACACS, SecureID, AD, CA, LDAP, and Endpoint Security)  ·         Recognition of viruses, Trojan horses, and malware hidden in applications through combination of application identification and virus scanning  ·         Defense against DDoS attacks, such as the SYN flood and UDP flood attacks  ·         VPN technologies: IPSec VPN, SSL VPN, L2TP VPN, MPLS VPN, and GRE  ·         IPv4: static routing, RIP, OSPF, BGP, and IS-IS  ·         IPv6: RIPng, OSPFv3, BGP4+, IPv6 IS-IS, IPv6 RD, and ACL  ·         Transparent, routing, or hybrid working mode and high availability (HA), including the Active/Active and Active/Standby mode.  ·         Should include 1 year NBD advanced replacement warranty | Unit | 1 |
| 2 | **WLAN Access Points**  **Make: HP,Cisco,Aruba or Equivalent**  ·         Fully comply IEEE802.11a/b/g/n/ac wave 2 standard, support working in both 2.4G and 5G meanwhile, data rate min 1.267Gbps, and support 2x2 MU-MIMO with 2 spatial streams  ·         Should support 5G prior access  ·         Smart roaming 802.11k , 802.11v and 802.11r technologies  ·         Min. Antenna Gain: Min 5dBi on 2.4GHz and 5dBi on 5GHz  ·         Should provide 23 dBm power on 2.4 and 5GHz and power increment should be min 1dB.  ·         Should be able to work in controller based and standalone mode.  ·         Should have 1 x GE port and one console port RJ-45.  ·         Must support at least 256 users.  ·         Wireless Intrusion Detection System (WIDS) and Wireless Intrusion Prevention System (WIPS), including rogue device detection and countermeasure, attack detection and dynamic blacklist, and STA/AP blacklist and whitelist  ·         802.1x authentication, MAC address authentication, and Portal authentication  ·         Should support smart application control technology and can implement visualized control on Layer 4 to Layer 7 applications, should be able to identify over 800 common applications  ·         DHCP snooping, Dynamic ARP Inspection (DAI), IP Source Guard (IPSG), Support STBC, LDPC, MLD & MRC.  ·         Should include 1 year NBD advanced replacement warranty | Unit | 6 |
| 3 | **WLAN Controller**  **Make: HP,Cisco,Aruba or Equivalent**  ·         Support IETF 5415 CAPWAP protocol  ·         Support 802.11a, 802.11b, 802.11g, 802.11n, 802.11e, 802.11d, 802.11ac, Support transmit rate selection and channel selection  ·         6 x GE electrical interface + 2 x GE Combo interface or higher with PoE+ support  ·         Number of managed APs ≥ 256, license included for 7 APs  ·         Packet forwarding capacity ≥ 4Gbps  ·         Minimum 2,000 users supported  ·         Support authentication based on MAC, 802.1x (EAP-PAP,EAP-MD5,EAP-PEAP,EAP-TLS,EAP-TTLS）Portal MAC+Portal  ·         Support built-in portal server and can support user number more than 2k  ·         Support both centralized forwarding and local forwarding  ·         Support automatic or manual channel and power adjustment  ·         Support load balancing based on traffic and user  ·         Support security of Local Forwarding. AP supports DHCP Snooping, DAI（Dynamic ARP Inspection）, IPSG（IP Source Guard）bogus DHCP server attack defense in local forwarding mode.  ·         Identifies the following interference sources: Bluetooth, microwave ovens, cordless phones, ZigBee, game controller, 2.4 GHz/5 GHz wireless audio and video devices, and baby monitors  ·         Rouge device scan, identification, defense, and countermeasures, which includes dynamic blacklist configuration and detection of rogue APs, STAs, and network attacks.  ·         Should support following backup techniques 1+1, N+1, and N+N  ·         Supports a Hotspot2.0, Supports IoT cards on the AP to converge the WLAN and IoT  ·         Support GUI-based web system management: and the web system supports local GUI-based configurations  ·         Should include 1 year NBD advanced replacement warranty |  |  |
| 4 | **Core Switch**  **Make: HP,Ciscoor Equivalent**  ·24 Ethernet 10/100/1000 ports, 4 x10 Gig SFP+ ports with dual power supply  ·         Switching capacity must be at-least 300Gbps and forwarding throughput of 95Mpps or higher  ·         Switch should support stacking of upto 8 switches.  ·         Must support more than 16K MAC address tables, Ethernet Ring Protection Switching, STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s), BPDU protection, root protection, and loop protection, Support Mac-based, Port-based, protocol-based, and IP subnet-based VLAN assignment, up to 4K active VLAN, Guest VLAN or equivalent, voice VLAN or equivalent.  ·         The equipment must support Static route, RIPv1, RIPv2, RIPng, ECMP, OSPF, OSPFv3, BGP, BGP4+, IS-IS, IS-ISv6, VRRP, and VRRP6.  ·         Equipment must support IGMP snooping v1/v2/v3, IGMP fast leave, MLD snooping v1/v2, multicast VLAN replication, PIM-DM, PIM-SM, and PIM-SSM.  ·         Must support ingress and egress traffic shaping and VLAN based traffic limit, flow mirroring, rate limiting, eight queues per port, WRR, DRR, SP, WRR + SP, and DRR + SP queue scheduling algorithms.  ·         The equipment must support bidirectional ACL, port-based ACL,VLAN-based ACL, automatic isolation of attack sources, CPU defense, DAI (Dynamic ARP Inspection), DHCP Snooping, IP Source Guard, port-based network access control according to IEEE 802.1x standard.  ·         The equipment must support SNMPv1/v2c/v3, Telnet, RMON, SSHv2, CLI, web management and automatic configuration. | Unit | 1 |
| 5 | **24 Port PoE Plus Access Switch.**  **Make: HP, Cisco or Equivalent**  ·24 x Ethernet 10/100/1000 Base-T PoE+ ports, 2 x 1Gig SFP ports, 2 x combo 10/100/1000 Base-T Ethernet ports, 370W PoE.  ·         Switching capacity must be at-least 250Gbps and forwarding throughput of 51Mpps or higher  ·         Switch should support stacking of upto 8 switches.  ·         Must support more than 16K MAC address tables, Ethernet Ring Protection Switching, STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s), BPDU protection, root protection, and loop protection, Support Mac-based, Port-based, protocol-based, and IP subnet-based VLAN assignment, up to 4K active VLAN, Guest VLAN or equivalent, voice VLAN or equivalent.  ·         The equipment must support Static route, RIPv1, RIPv2, RIPng, OSPF.  ·         Equipment must support IGMP snooping v1/v2/v3, MLD snooping v1/v2, multicast VLAN replication.  ·         Must support ingress and egress traffic shaping and VLAN based traffic limit, flow mirroring.  ·         The equipment must support bidirectional ACL, port-based ACL,VLAN-based ACL, automatic isolation of attack sources, CPU defense, DAI (Dynamic ARP Inspection), DHCP Snooping, IP Source Guard, port-based network access control according to IEEE 802.1x standard.  ·         The equipment must support SNMPv1/v2c/v3, Telnet, RMON, SSHv2, CLI, web management and automatic configuration. | Unit | 2 |
| 6 | **24 Port PoE Plus Access Switch.**  **Make: HP, Cisco or Equivalent**  ·48 x Ethernet 10/100/1000 Base-T PoE+ ports, 4 x 1Gig SFP ports, 370W PoE.  ·         Switching capacity must be at-least 250Gbps and forwarding throughput of 85Mpps or higher  ·         Switch should support stacking of upto 8 switches.  ·         Must support more than 16K MAC address tables, Ethernet Ring Protection Switching, STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s), BPDU protection, root protection, and loop protection, Support Mac-based, Port-based, protocol-based, and IP subnet-based VLAN assignment, up to 4K active VLAN, Guest VLAN or equivalent, voice VLAN or equivalent.  ·         The equipment must support Static route, RIPv1, RIPv2, RIPng, OSPF.  ·         Equipment must support IGMP snooping v1/v2/v3, MLD snooping v1/v2, multicast VLAN replication.  ·         Must support ingress and egress traffic shaping and VLAN based traffic limit, flow mirroring.  ·         The equipment must support bidirectional ACL, port-based ACL,VLAN-based ACL, automatic isolation of attack sources, CPU defense, DAI (Dynamic ARP Inspection), DHCP Snooping, IP Source Guard, port-based network access control according to IEEE 802.1x standard.  ·         The equipment must support SNMPv1/v2c/v3, Telnet, RMON, SSHv2, CLI, web management and automatic configuration.  ·         Should include 1 year NBD advanced replacement warranty·         Switch should support stacking of upto 8 switches.  ·         Must support more than 16K MAC address tables, Ethernet Ring Protection Switching, STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s), BPDU protection, root protection, and loop protection, Support Mac-based, Port-based, protocol-based, and IP subnet-based VLAN assignment, up to 4K active VLAN, Guest VLAN or equivalent, voice VLAN or equivalent.  ·         The equipment must support Static route, RIPv1, RIPv2, RIPng, OSPF.  ·         Equipment must support IGMP snooping v1/v2/v3, MLD snooping v1/v2, multicast VLAN replication.  ·         Must support ingress and egress traffic shaping and VLAN based traffic limit, flow mirroring.  ·         The equipment must support bidirectional ACL, port-based ACL,VLAN-based ACL, automatic isolation of attack sources, CPU defense, DAI (Dynamic ARP Inspection), DHCP Snooping, IP Source Guard, port-based network access control according to IEEE 802.1x standard.  ·         The equipment must support SNMPv1/v2c/v3, Telnet, RMON, SSHv2, CLI, web management and automatic configuration. | Unit | 6 |

1. Networking Passive

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Item Description | Make | Qty |
| 1 | **Branded**Installation, Commissioning, Testing 15U Data Cabinet Wall mount, Front Iron Door + Fans with  Horizontal PDU | Unit | 3 |
| 2 | **3M, Schneider or Equivalent**  Installation, Commissioning, Testing 12 Core Indoor Single Mode Single Jacket/Single Armor, Low Smoke  Zero Halogen (LSZH), Gel-Free, Stranded Loose Tube Cable. (Meter) | Unit | 350 |
| 3 | **3M, Schneider or Equivalent**  Installation, Commissioning, Testing 12 Port, 19-inch Optical Fiber Patch Panel, Flush Mount, 1 RU. Complete in all respect. | Unit | 7 |
| 3 | **3M, Schneider or Equivalent**  LC-LC - PIGTAIL 3 Feet with fiber sleeves (Single Mode) | Unit | 56 |
| 5 | **3M, Schneider or Equivalent**  Factory Certified Optical Fiber LC to LC type patch cords (Single Mode) - 3 Meter | Unit | 15 |
| 6 | **3M, Schneider or Equivalent**  Factory Certified Optical Fiber LC to LC type patch cords (Single Mode) - 5 Meter | Unit | 6 |
| 7 | **3M, Schneider or Equivalent**  CAT 6 Data Network Cable or equivalent supporting 1-Gigabit transmission over 90 meters | Unit | 1 |
| 7 | **3M, Schneider or Equivalent**  Installation, Commissioning, Testing 19 inch Fully Loaded Patch Panel – 24 ports (CAT 6 supported) | Unit | 3 |
| 9 | **3M, Schneider or Equivalent**  Installation, Commissioning, Testing 19 inch Fully Loaded Patch Panel – 48 ports (CAT 6 supported) | Unit | 6 |
| 10 | **3M, Schneider or Equivalent**  1U Height 19 Inch Cable Management Arm | Unit | 14 |
| 11 | **3M, Schneider or Equivalent**  Back Box | Unit | 200 |
| 12 | **3M, Schneider or Equivalent**  Installation, Commissioning, Testing Face Plate Single Gang | Unit | 200 |
| 13 | **3M, Schneider or Equivalent**  Installation, Commissioning, Testing RJ45 I/O CAT 6 | Unit | 200 |
| 14 | **3M, Schneider or Equivalent**  Installation, Commissioning, Testing Factory Certified UTP (1G supported) Patch Cord – 1 Meter | Unit | 200 |
| 15 | **3M, Schneider or Equivalent**  Installation, Commissioning, Testing Factory Certified UTP (1G supported) Patch Cord – 3 Meter | Unit | 300 |
| 16 | **3M, Schneider or Equivalent**  Installation, Commissioning, Testing 24 awgData Network CAT6 Cable | Feet | 27000 |
| 17 | **Cable Duct Jaddah**  16x25mm channel duct with fitting material | Feet | 2000 |
| 18 | **Cable Duct Jaddah**  25x38mm channel duct with all fitting material | Feet | 2000 |
| 19 | **Cable Duct Jaddah**  40x60mm channel duct with all fitting material | Feet | 1500 |
| 20 | **Cable Duct Jaddah**  40x40mm Channel duct with all fitting material | Feet | 1500 |
| 21 | **1.5 Ton AC Split** | Unit | 02 |

# Section-V

# *Conditions of Contract*

**CONDITIONS OF CONTRACT**

**CC.1 GENERAL PROVISIONS**

1.1 **Definitions**:

In the Contract as defined below, the words and expressions defined shall have the following meanings assigned to them, except where the context requires otherwise.

**The Contract**

* + 1. **“Contract”** means the Contract Agreement and the other documents listed in the Contract Data.
    2. **“Specifications”** means the document as listed in the Contract Data, including Procuring Agency‘s requirements in respect of design to be carried out by the Contractor (if any), and any Variation to such document.
    3. “Drawings” means the Procuring Agency‘s drawings of the Works as listed in the Contract Data, and any Variation to such drawings.

**Persons**

* + 1. “Procuring Agency” means the person named in the Contract Data and the legal successors in title to this person, but not (except with the consent of the Contractor) any assignee.
    2. “Contractor” means the person named in the Contract Data and the legal successors in title to this person, but not (except with the consent of the Procuring Agency) any assignee.
    3. ”Party” means either the Procuring Agency or the Contractor.

**Dates, Times and Periods**

* + 1. ”Commencement Date” means the date fourteen (14) days after the date the Contract comes into effect or any other date named in the Contract Data.
    2. “Day” means a calendar day
    3. “Time for Completion” means the time for completing the Works as stated in the Contract Data (or as extended under Sub-Clause 7.3), calculated from the Commencement Date.

**Money and Payments**

* + 1. “Cost” means all expenditure properly incurred (or to be incurred) by the Contractor, whether on or off the Site, including overheads and similar charges but does not include any allowance for profit.

**Other Definitions**

* + 1. “Contractor‘s Equipment” means all machinery, apparatus and other things required for the execution of the Works but does not include Materials or Plant intended to form part of the Works.
    2. ”Country” means the Islamic Republic of Pakistan.
    3. “Procuring Agency‘s Risks” means those matters listed in Sub-Clause 6.1.
    4. “Force Majeure” means an event or circumstance which makes performance of a Party‘s obligations illegal or impracticable and which is beyond that Party‘sreasonable control.
    5. “Materials” means things of all kinds (other than Plant) to be supplied and incorporated in the Works by the Contractor.
    6. “Plant” means the machinery and apparatus intended to form or forming part of the Works.
    7. “Site” means the places provided by the Procuring Agency where the Works are to be executed, and any other places specified in the Contract as forming part of the Site.
    8. “Variation” means a change which is instructed by the Engineer/Procuring Agency under Sub-Clause 10.1.
    9. “Works” means any or all the works whether Supply, Installation, Construction etc. and design (if any) to be performed by the Contractor including temporary works and any variation thereof.
    10. “Engineer” means the person notified by the Procuring Agency to act as Engineer for the purpose of the Contract and named as such in Contract Data.

**1.2 Interpretations**

Words importing persons or parties shall include firms and organizations. Words importing singular or one gender shall include plural or the other gender where the context requires.

**1.3 Priority of Documents**

The documents forming the Contract are to be taken as mutually explanatory of one another. If an ambiguity or discrepancy is found in the documents, the priority of the documents shall be in accordance with the order as listed in the Contract Data..

**1.4 Law**

The law of the Contract is the relevant Law of Islamic Republic of Pakistan.

**1.5 Communications**

All Communications related to the Contract shall be in English language.

***1.6 Statutory Obligations***

*The Contractor shall comply with the Laws of Islamic Republic of Pakistan and shall give all notices and pay all fees and other charges in respect of the Works.*

**CC.2 THE PROCURING AGENCY**

**2.1 Provision of Site**

The Procuring Agency shall provide the Site and right of access thereto at the times stated in the Contract Data

**Site Investigation Reports** are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface

**2.2 Permits etc.**

The Procuring Agency shall, if requested by the Contractor, assist him in applying for permits, licenses or approvals which are required for the Works

**2.3 Engineer’s/Procuring Agency’s Instructions.**

The Contractor shall comply with all instructions given by the Procuring Agency or the Engineer, if notified by the Procuring Agency, in respect of the Works including the suspension of all or part of the works

**2.4 Approvals**

No approval or consent or absence of comment by the Engineer/Procuring Agency shall affect the Contractor‘s obligations

**CC.3 ENGINEER’S/PROCURING AGENCY’S REPRESENTATIVES**

**3.1 Authorized Person**

The Procuring Agency shall appoint a duly authorized person to act for him and on his behalf for the purposes of this Contract. Such authorized person shall be duly identified in the Contract Data or otherwise notified in writing to the Contractor as soon as he is so appointed. In either case the Procuring Agency shall notify the Contractor, in writing, the precise scope of the authority of such authorized person at the time of his appointment.

**3.2 Engineer’s/Procuring Agency’s Representative**

The name and address of Engineer‘s/Procuring Agency‘s Representative is given in Contract Data. However the Contractor shall be notified by the Engineer/Procuring Agency, the delegated duties and authority before the Commencement of works.

**CC.4 THE CONTRACTOR**

**4.1 General Obligations**

The Contractor shall carry out the works properly and in accordance with the Contract. The Contractor shall provide all supervision, labour, Materials, Plant and Contractor‘s Equipment which may be required.

**4.2 Contractor’s Representative**

The Contractor shall appoint a representative at site on full time basis to supervise the execution of work and to receive instructions on behalf of the Contractor but only after obtaining the consent of the Procuring Agency for such appointment which consent shall not be withheld without plausible reason(s) by the Procuring Agency. Such authorized representative may be substituted/ replaced by the Contractor at any time during the Contract Period but only after obtaining the consent of the Procuring Agency as aforesaid.

**4.3 Subcontracting**

The Contractor shall not subcontract the whole of the works. The Contractor shall not subcontract any part of the works without the consent of the Procuring Agency.

**4.4 Performance Security**

The Contractor shall furnish to the Procuring Agency within fourteen (14) days after receipt of Letter of Acceptance a Performance Security at the option of the bidder, in the form of Payee‘s order /Bank Draft or Bank Guarantee from scheduled bank for the amount and validity specified in Contract Data.

**CC.5 DESIGN BY CONTRACTOR**

**5.1 Contractor’s Design**

The Contractor shall carry out design to the extent specified, as referred to in the Contract Data. The Contractor shall promptly submit to the Engineer/Procuring Agency all designs prepared by him, within fourteen (14) days of receipt the Engineer/Procuring Agency shall notify any comments or, if the design submitted is not in accordance with the Contract, shall reject it stating the reasons. The Contractor shall not construct any element of the works designed by him within fourteen (14) days after the design has been submitted to the Engineer/Procuring Agency or which has been rejected. Design that has been rejected shall be promptly amended and resubmitted. The Contractor shall resubmit all designs commented on taking these comments into account as necessary

**5.2 Responsibility for Design**

The Contractor shall remain responsible for his bided design and the design under this Clause, both of which shall be fit for the intended purposes defined in the Contract and he shall also remain responsible for any infringement of any patent or copyright in respect of the same. The Engineer/Procuring Agency shall be responsible for the Specifications and Drawings.

**CC.6 PROCURING AGENCY’S RISKS**

**6.1 The Procuring Agency’s Risks are:-**

1. war, hostilities (whether war be declared or not), invasion, act of foreign enemies, within the Country;
2. rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war, within the Country;
3. riot, commotion or disorder by persons other than the Contractor‘s personnel and other employees including the personnel and employees of Sub Contractors ,affecting the Site and /or the Works;
4. ionizing radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-activetoxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component of such an assembly, except to the extent to which the Contractor/Sub-Contractors may be responsible for the use of any radio-active material;
5. Pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds;
6. use or occupation by the Procuring Agency of any part of the Works, except as may be specified in the Contract;
7. late handing over of sites, anomalies in drawings, late delivery of designs and drawings of any part of the Works by the Procuring Agency‘s personnelor by others for whom the Procuring Agency is responsible;
8. a suspension under Sub-Clause 2.3 unless it is attributable to the Contractor‘s failure; and
9. physical obstructions or physical conditions other than climatic conditions, encountered on the Site during the performance of the Works, for which the Contractor immediately notified to the Procuring Agency and accepted by the Procuring Agency.

**CC.7 TIME FOR COMPLETION**

**7.1 Execution of the Works**

The Contractor shall commence the Works on the Commencement Date and shall proceed expeditiously and without delay and shall complete the Works, subject to Sub-Clause 7.3 below, within the Time for Completion;

**7.2 Programme**

Within the time stated in the Contract Data, the Contractor shall submit to the Engineer/Procuring Agency a programme for the Works in the form stated in the Contract Data

**7.3 Extension of Time**

The Contractor shall, within such time as may be reasonable under the circumstances, notify the Procuring Agency/Engineer of any event(s) falling within the scope of Sub-Clause 6.1 or 10.3 of these Conditions of Contract and request the Procuring Agency/Engineer for a reasonable extension in the time for the completion of works. Subject to the aforesaid, the Procuring Agency/Engineer shall determine such reasonable extension in the time for the completion of works as may be justified in the light of the details/particulars supplied by the Contractor in connection with the such determination by the Procuring Agency/Engineer within such period as may be prescribed by the Procuring Agency/Engineer for the same; and the Procuring Agency may extend the time for completion as determined

**7.4 Late Completion**

If the Contractor fails to complete the Works within the Time for Completion, the Contractor‘s only liability to the Procuring Agency for such failure shall be to pay the amount as liquidity damages stated in the Contract Data for each day for which he fails to complete the Works

**CC.8 TAKING OVER**

**8.1 Completion**

The Contractor may notify the Engineer/Procuring Agency when he considers that the Works are complete

**8.2 Taking – Over Notice**

Within fourteen (14) days of the receipt of the said notice of completion from the Contractor the Procuring Agency/Engineer shall either takeover the completed works and issue a Certificate of Completion to that effect or shall notify the Contractor his reasons for not taking-over the works. While issuing the Certificate of Completion as aforesaid, the Procuring Agency/Engineer may identify any outstanding items of work which the Contractor shall undertake during the Maintenances Period.

**CC.9 REMEDYING DEFECTS**

**9.1 Remedying Defects**

The Contractor shall for a period stated in the Contract Data from the date of issue of the Certificate of Completion carry out, at no cost to the Procuring Agency, repair and rectification work which is necessitated by the earlier execution of poor quality of work or use of below specifications material in the execution of Works and which is so identified by the Procuring Agency/Engineer in writing within the said period. Upon expiry of the said period, and subject to the Contractor‘s faithfully performing his aforesaid obligations, the Procuring Agency/Engineer shall issue a Maintenance Certificate whereupon all obligations of the Contractor under this Contract shall come to an end.

Failure to remedy any such defects or complete outstanding work within a reasonable time shall entitle the Procuring Agency to carry out all necessary worksat the Contractor‘s cost. However, the cost of remedying defects not attributable to the Contractor shall be valued as a Variation.

**9.2 Uncovering and Testing**

The Engineer/Procuring Agency may give instruction as to the uncovering and/or testing of any work. Unless as a result of an uncovering and/or testing it is established that the Contractor‘s design, materials, plant or workmanship are not in accordance with the Contract, the Contractor shall be paid for such uncovering and/or testing as a Variation in accordance with Sub-Clause 10.2.

**CC.10 VARIATIONS AND CLAIMS**

**10.1 Right to Vary**

The Procuring Agency/Engineer may issue Variation Order(s) in writing. Where for any reason it has not been possible for the Procuring Agency/Engineer to issue such Variations Order(s), the Contractor may confirm any verbal orders given by the Procuring Agency/Engineer in writing and if the same are not refuted/denied by the Procuring Agency/Engineer within ten (10) days of the receipt of such confirmation the same shall be deemed to be a Variation Orders for the purposes of this Sub-Clause

**10.2 Valuation of Variations**

Variations shall be valued as follows:

1. at a lump sum price agreed between the Parties, or
2. where appropriate, at rates in the Contract, or
3. in the absence of appropriate rates, the rates in the Contract shall be used as the basis for valuation, or failing which
4. at appropriate new rates, as may be agreed or which the Engineer/Procuring Agency considers appropriate, or
5. if the Engineer/Procuring Agency so instructs, at day work rates set out in the Contract Data for which the Contractor shall keep records of hoursof labour and Contractor‘s Equipment, and of Materials, used.

**10.3 Changes in the Quantities.**

1. If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Procuring Agency/Engineer shall adjust the rate to allow for the change and will be valued as per sub clause 10.2.
2. The Engineer shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Procuring Agency.
3. If requested by the Engineer, the contractor shall provide the Engineer with a detailed cost breakdown of any rate in the Bill of Quantities.

**10.4 Early Warning**

The Contractor shall notify the Engineer/Procuring Agency in writing as soon as he is aware of any circumstance which may delay or disrupt the Works, or whichmay give rise to a claim for additional payment.

To the extent of the Contractor‘s failure to notify, which results to the Engineer/Procuring Agency being unable to keep all relevant records or not takingsteps to minimise any delay, disruption, or Cost, or the value of any Variation, theContractor‘s entitlement to extension of the Time for Completion or additionalpayment shall be reduced/rejected.

**10.5 Valuation of Claims**

If the Contractor incurs Cost as a result of any of the Procuring Agency‘s Risks,the Contractor shall be entitled to the amount of such Cost. If as a result of any Procuring Agency‘s Risk, it is necessary to change the Works, this shall be dealt with as a Variation subject to Contractor‘s notification for intention of claim to the Engineer/Procuring Agency within fourteen (14) days of the occurrence of cause.

**10.6 Variation and Claim Procedure**

The Contractor shall submit to the Engineer/Procuring Agency an itemized detailed breakdown of the value of variations and claims within twenty eight (28) days of the instruction or of the event giving rise to the claim. The Engineer/Procuring Agency shall check and if possible agree the value. In the absence of agreement, the Procuring Agency shall determine the value.

**CC.11 CONTRACT PRICE AND PAYMENT**

**11.1 (a) Terms of Payments**

The amount due to the Contractor under C&F terms or under F.O.R. Terms will be released as per C&F conditions and for F.O.R. Interim Payment Certificate issued by the Engineer pursuant to this Clause, or to any other terms ofthe Contract, shall , subject to Clause 11.3, be paid by the ProcuringAgency to the Contractor within 30 days after such Interim PaymentCertificate has been jointly verified by Procuring Agency and Contractor,or, in the case of the Final Certificate referred to in Sub Clause 11.5,within 60days after such Final Payment Certificate has been jointlyverified by Procuring Agency and Contractor;

Provided that the Interim Payment shall be caused in thirty (30) days and Final Payment in 60 days in case of foreign funded project. In the eventof the failure of the Procuring Agency to make payment within 90 daysthen Procuring Agency shall pay to the Contractor compensation at the28 days rate of KIBOR+2% per annum in local currency and LIBOR+1%for foreign currency, upon all sums unpaid from the date by which thesame should have been paid.

**(b) Valuation of the Works**

The Works shall be valued as provided for in the Contract Data, subject to Clause 10.

**11.2 Monthly Statements**

The Contractor shall be entitled to be paid at monthly intervals:

1. the value of the Works executed less to the cumulative amount paid previously; and
2. value of secured advance on the materials and valuation of variations (ifany).

The Contractor shall submit each month to the Engineer/Procuring Agency a statement showing the amounts to which he considers himself entitled.

**11.3 Interim Payments**

Within a period not exceeding seven (07) days from the date of submission of a statement for interim payment by the Contractor, the Engineer shall verify the same and within a period not exceeding thirty (30) days from the said date of submission by the Contractor, the Procuring Agency shall pay to the Contractor the sum subject to adjustment for deduction of the advance payments and retention money.

**11.4 Retention**

Retention money shall be paid by the Procuring Agency to the Contractor within fourteen (14) days after either the expiry of the period stated in the Contract Data, or the remedying of notified defects, or the completion of outstanding work, all as referred to in Sub-Clause 9.1, whichever is the later.

**11.5 Final Payment**

Within twenty one (21) days from the date of issuance of the Maintenance Certificate the Contractor shall submit a final account to the Engineer to verify and the Engineer shall verify the same within fourteen (14) days from the date of submission and forward the same to the Procuring Agency together with any documentation reasonably required to enable the Procuring Agency to ascertain the final contract value.

Within sixty (60) days from the date of receipt of the verified final account from the Engineer, the Procuring Agency shall pay to the Contractor any amount due to the Contractor. While making such payment the Procuring Agency may, for reasons to be given to the Contractor in writing, withhold any part or parts of the verified amount.

**11.6 Currency**

Payment shall be in the currency stated in the Contract Data. If F.O.R. Terms then payments will be made in Pak Rupees currency through Crossed Cheque. If C&F/CFR then payment will be made in through Letter of Credit against the Proforma Invoice provided by the Contractor.

**CC.12 DEFAULT**

**12.1 Defaults by Contractor**

If the Contractor abandons the Works, refuses or fails to comply with a valid instruction of the Engineer/Procuring Agency or fails to proceed expeditiously and without delay, or is, despite a written complaint, in breach of the Contract, the Procuring Agency may give notice referring to this Sub-Clause and stating the default.

If the Contractor has not taken all practicable steps to remedy the default within fourteen (14) days after receipt of the Procuring Agency‘s notice, the Procuring Agency may by a second notice given within a further twenty one (21) days, terminate the Contract. The Contractor shall then demobilize from the Site leaving behind any Contractor‘s Equipment which the Procuring Agency instructs, in the second notice, to be used for the completion of the Works at the risk and cost of the Contractor.

**12.2 Defaults by Procuring Agency**

If the Procuring Agency fails to pay in accordance with the Contract, or is, despite a written complaint, in breach of the Contract, the Contractor may give notice referring to this Sub-Clause and stating the default. If the default is not remedied within fourteen (14) days after the Procuring Agency‘s receipt of this notice, the Contractor may suspend the execution of all or parts of the Works.

If the default is not remedied within twenty eight (28) days after the Procuring Agency‘s receipt of the Contractor‘s notice, the Contractor may by a second notice given within a further twenty one (21) days, terminate the Contract. The Contractor shall then demobilise from the Site.

**12.3 Insolvency**

If a Party is declared insolvent under any applicable law, the other Party may by notice terminate the Contract immediately. The Contractor shall then demobilize from the site leaving behind, in the case of the Contractor‘s insolvency, any Contractor‘s Equipment which the Procuring Agency instructs in the notice is to be used for the completion of the Works.

**12.4 Payment upon Termination**

After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the works executed and of the Materials and Plant reasonably delivered to the site, adjusted by the following:

1. any sums to which the Contractor is entitled under Sub-Clause 10.4,
2. any sums to which the Procuring Agency is entitled,
3. if the Procuring Agency has terminated under Sub-Clause 12.1 or 12.3, the Procuring Agency shall be entitled to a sum equivalent to twenty percent(20%) of the value of parts of the Works not executed at the date of thetermination, and
4. if the Contractor has terminated under Sub-Clause 12.2 or 12.3*,*the Contractor shall be entitled to the cost of his demobilisation together witha sum equivalent to ten percent(10%) of the value of parts of the worksnot executed at the date of termination.

The net balance due shall be paid or repaid within twenty eight (28) days of the notice of termination.

**CC.13 RISKS AND RESPONSIBILITIES**

**13.1 Contractor’s Care of the Works**

Subject to Sub-Clause 9.1, the Contractor shall take full responsibility for the care of the Works from the Commencement Date until the date of the Procuring Agency‘s/Engineer‘s issuance of Certificate of Completion under Sub-Clause 8.2. Responsibility shall then pass to the Procuring Agency. If any loss or damage happens to the Works during the above period, the Contractor shall rectify such loss or damage so that the Works conform with the Contract.

Unless the loss or damage happens as a result of any of the Procuring Agency‘s Risks, the Contractor shall indemnify the Procuring Agency, or his agents against all claims loss, damage and expense arising out of the Works.

**13.2 Force Majeure**

If Force Majeure occurs, the Contractor shall notify the Engineer/Procuring Agency immediately. If necessary, the Contractor may suspend the execution ofthe Works and, to the extent agreed with the Procuring Agency demobilize theContractor‘s Equipment.

If the event continues for a period of eighty four (84) days, either Party may then give notice of termination which shall take effect twenty eight (28) days after thegiving of the notice.

After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the Materials and Plantreasonably delivered to the Site, adjusted by the following:

1. any sums to which the Contractor is entitled under Sub-Clause 10.4,
2. the cost of his demobilization, and
3. less any sums to which the Procuring Agency is entitled.

The net balance due shall be paid or repaid within thirty five (35) days of thenotice of termination.

**14. INSURANCE**

14.1 **Arrangements**

The Contractor shall, prior to commencing the Works, effect insurances of the types,

in the amounts and naming as insured the persons stipulated in the ContractData except

for items (a) to (e) and (i) of the Procuring Agency‘s Risks under SubClause

6.1. The policies shall be issued by insurers and in terms approved by the

Procuring Agency. The Contractor shall provide the Engineer/Procuring Agency

with evidence that any required policy is in force and that the premiums have been

paid.

14.2 **Default**

If the Contractor fails to effect or keep in force any of the insurances referred to in

the previous Sub-Clause, or fails to provide satisfactory evidence, policies orreceipts,

the Procuring Agency may, without prejudice to any other right or

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