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Government of Pakistan
PAKISTAN TELECOMMUNICATION AUTHORITY
[http:// www.pta.gov.pk](http://www.pta.gov.pk)

INVITATION TO BID
For the Supply of Centralized Wifi Network, including
Branded 10 G cat 6a cable etc and KVM Switches

Pakistan Telecom Authority, (a telecommunication regulator in Pakistan) invites sealed bids from the original manufacturers / authorized distributors / suppliers/Contractors etc. registered with Income Tax and Sales Tax Departments and who are on Active Taxpayers List of the Federal Board of Revenue for supply of following IT Equipment and with Software having three years of experience:

S.No.	Description	Quantity
A	Branded Centralized Wireless Network (IEEE 802.11 ac Wave 2 Standard PoE+) with complete mounting kit same brand	
	Access Points with power adapter	18
	Centralized Controller	1
	Branded 10GBase-T Ethernet copper cable Cat 6A (Branded (3000 feet approximately, (2 Nos) 24 Port Fiber ODF, (2 Nos) 24 port Cat 6A Patch panel, Galvanized Steep Duct 12 x 6 18 gauge, PVC pipe 2" etc (Further details are available in the Bidding Document)	Different, As per actual
B	SEPARATE HARDWARE REQUIRED	
	Branded 8 port IP based KVM Console Switch with KMM LED display (complete Solution) with 18.5 inch LED screen with Rack mountable-Sliding-Folding-tray, with all required cables for server connectivity, upgradable to Digital switch (2 IP KVM Switches with 2 KMM Integrated LED consoles) with 16 USB SIP module (cables) for server , switch and KMM connectivity..	2 KVM switch 2 LED Screen 16 Cables

Bidding documents, containing detailed terms and conditions, method of procurement, procedure for submission of bids, bid security, bid validity, opening of bid, evaluation criteria, clarification / rejection of bids, performance guarantee etc. are available at the office of the undersigned. Price of the bidding documents is Rs. 500/- (in shape of pay order / bank draft, in favor of PTA). Bidding documents can be downloaded from www.pta.gov.pk.

The bids, prepared in accordance with the instructions in the bidding documents, must reach at PTA Headquarters F-5/1, Islamabad on or before **5th December, 2017 by 10:30 AM**. Technical Bids will be opened the same day at **11:00 AM**. This advertisement is also available on PPRA website at www.ppra.org.pk.

Ahmed Bakhat Masood, Deputy Director (ICT-III)
PTA Headquarters, F-5/1, Islamabad.
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HEADQUARTERS F-5/1, ISLAMABAD.
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BIDDING DOCUMENTS

Sealed bids are invited from well reputed and authorized dealers having Tier-1 / Tier -2 level dealership, registered with Sales Tax and Income Tax Department, having at least 3 years of relevant business experience for the procurement of following items ,

S.No.	Description	Quantity
A	Branded Centralized Wireless Network (IEEE 802.11 ac Wave 2 Standard PoE+) with complete mounting kit same brand	
	Access Points with power adopter	18
	Centralized Controller Hardware	1
	Branded 10GBase-T Ethernet copper cable Cat 6A STP 3000 feet and (2 Nos) 24 Port Fiber ODF, (2 Nos) 24 port Cat 6A Patch panel	Around 3000 Feet. To be calculated as per actual
	Cable Steel Duct 70 Feet Galvanized, 12 X 6, 18" gage , purported, with cover	1
	PVC Pipe 2 inch white color with acc	600 Feet (As per actual)
	FP Dual Shutter	18
	Branded patch cord 1 meter	36
	Branded patch cord 3 meter	36
	Steel Flexible Bundle	3
	Cable installation and laying charges	1 job
B	IP BASED KVM SWITCHES (SEPARATE HARDWARE)	
	Branded 8 port IP based KVM Console Switch with KMM LED display (complete Solution) with 18.5 inch LED screen with Rack mountable-Sliding-Folding-tray, with all required cables for server connectivity, upgradable to Digital switch (2 IP KVM Switches with 2 KMM Integrated LED consoles) with 16 USB SIP module (cables) for server , switch and KMM connectivity.	2 KVM switch 2 LED Screen 16 Cables

Detailed specifications of above-mentioned items are provided at Annex-C of this document. Notice of the bids issued on PTA's/PPRA's websites is part of the bidding document.

Key Terms and Conditions

1. GENERAL INFORMATION:

- a. Bidding documents duly completed in all respect will be received on or before **5th December, 2017 up to 1030 AM**. The submission and evaluation of bids will be carried out under the “*Single Stage Two Envelop Procedure*”. Technical bids will be opened by Technical Evaluation Committee, at PTA HQs on the same day at **1100 AM**, in presence of bidder’s representative, who may choose to attend.
- b. Bid will comprise of single package containing two separate sealed envelopes. One envelop will contain the “Technical Proposal” and the second envelop will contain the “**Financial Proposal**”. Technically qualified bidders will be informed the date, time and venue for the opening of financial bids. Financial bids of technically disqualified bidders will be returned un-opened.
- c. Bids should be sent at the address of Deputy Director (ICT-III) Pakistan Telecommunication Authority (PTA), Headquarters F-5/1, Islamabad.
- d. Bidder can quote for any one, or all of the IT equipment mentioned above, depending on relevant dealership in each IT equipment. i.e. a vendor can participate for Wireless Network with 10G-Base-T Ethernet Cables or for IP KVM Console Switches or a Vendor can participate for all items, Wireless Network with 10G-Base-T cables with IP KVM Console Switches.
- e. Annex-A, Annex-B, Annex-C and Annex-D are integral part of technical and financial proposals, which may be read/filled carefully, signed and stamped by the bidders. Further, details of the annexures are mentioned below:
 - i. Annex-A consists of mandatory requirements for bidder(s)
 - ii. Annex-B consists of technical capabilities of bidder(s), which has total 100 marks, whereas minimum qualifying marks are 70%
 - iii. Annex-C consists of technical evaluation of the product and bidder(s) may quote higher specs, however, quoting lower specs shall disqualify the bidder
 - iv. Annex-D, comprises of financial bid format, to be followed by all bidders, The bidder should quote its rates clearly for each item, in the financial proposal in both figures and words without any ambiguity and evaluation will be completed separately for each item.

2. **BIDDER's INFORMATION**

- a. Name of Firm _____
- b. Date of establishment of business
(documentary proof of registration etc.) _____
- c. Address _____
- d. Telephone No _____ Fax No. _____
- e. GST Reg. No _____
- f. National Tax No _____

3. **EVALUATION CRITERIA**

- a. Technical bids shall be opened and evaluated by technical evaluation committee in view of Annex-A, Annex- B and Annex-C. Bidder, obtaining at least 70% out of 100 marks, shall be eligible for the participation in financial bid opening.
- b. Financial bids shall be opened and evaluated by procurement committee of PTA i.e. PC-I as the case may be, on the basis of criteria given in Annex-D.
- c. Work will be awarded to **financially lowest bidder against each item.**
- d. If two or more bidders quote equal lowest price in financial proposals, then the work will be awarded to the one having higher technical marks, in technical evaluation.
- e. Item A and B are completely independent of each other and the bidder should quote its rates clearly in the financial proposal both in figures and words against **each item separately**. Technical and Financial evaluation of the items will be independent of each other.

4. **EARNEST MONEY**

- f. Earnest money will be 2% of the bid amount and will be in the shape of pay order / demand draft in favor of Pakistan Telecommunication Authority, Headquarters, Sector F-5/1, Islamabad Earnest money **shall be attached with the financial proposal otherwise proposal** will not be accepted.
- g. **Bids without earnest money will be rejected without any right of appeal.**
- h. **Earnest money of successful bidder will be retained till the warranty / support period.** However, earnest money of unsuccessful bidders will be returned after award of supply order to successful bidder.
- i. In case of cancelation of Supply Order due to default of the supplier, the earnest money shall be forfeited in favor of PTA.

5. PRICES:

- a. **The bidder should quote its rates clearly in Pak Rupees** inclusive of all applicable taxes i.e. GST etc. **in the financial proposal and amount in both figures and words as per format attached at Annex-D**
- b. The rates quoted shall remain valid for 90 days from the date of opening of Technical Proposal, and, any raise in dollar/foreign currency against Pakistani rupees should not be applicable, and, any increase in price shall be borne by the Bidder.
- c. PTA will not bear transportation/carriage charges.

6. PAYMENT PROCEDURE

- a. No advance payment shall be made against the supply of equipment / software mentioned in the bidding document.
- b. Payment shall be made on provision of invoice/bill, after delivery of the equipment /software at PTA Headquarters and issuance of satisfactory completion/stock verification/physical inspection certificate by PC-I.
- c. Payment shall be subject to withholding of applicable taxes as per government rules.

7. EQUIPMENT / SOFTWARE

- a. IT equipment should be new, not used or refurbished. The components of the equipment should be assembled by the manufacturer and shall be verifiable at principal manufacturer website.
- b. IT equipment / software should be arranged through the legal channels by clearing all customs/duties/taxes (if any) levied by Government.

8. DELIVERY PERIOD

- a. Delivery of items shall be made within eight (8) weeks' time after issuance of supply order.
- b. Vendor will be responsible for the safe supply of equipment / software at PTA H/Qs Islamabad with the provision of warranty / support as mentioned in the bidding agreement.

9. AUTHORIZED DEALERPARTNER

Bidder shall be an authorized dealer//partner, having Tier 1 or Tier 2 partnership / dealership of the quoted brand. Certificate of dealership / partnership from principle manufacturer is required in the name of the authorized dealer / partner of the manufacturer with Authorization letter Wireless network and KVM switch only.

10. WARRANTY/SUPPORT/INSTALLATION

- a. Vendor will be responsible for the provision of **free onsite warranty / support / free Software** updates with labor and parts as per detail below;
 - i. Centralized Wireless Network with central controller: **Three years or manufacturer warranty period whichever is higher**, with Three years free software updates including firmware and signatures updates, and **three years free support**.
 - ii. IP KVM Console switches: **Three Years or manufacturer warranty period** whichever is higher, with one year free support/software updates.
- b. The warranty period will be considered from the date of actual date of delivery of IT equipment.
- c. Installation and deployment of the Wireless Network with 10 G cables will be the responsibility of the vendor, as per deployment design laid down by PTA.

11. PENALTY

- a) If the supplier fails to supply equipment within due time of eight weeks, mentioned in this document and supply order, then a penalty of 1% per week will be charged upto maximum period of four weeks. (Days less than six will be considered as one week). Thereafter, supply order will be cancelled and earnest money will be forfeited. PTA may issue supply order to the next lowest bidder subject to submission of earnest money (if released earlier) and willingness for the supply within eight (08) weeks of supply order, with extended time of four (04) weeks with 1% fine as mentioned above.
- b) In case 2nd lowest bidder also failed to ship the equipment, work order shall be canceled and deposited earnest money shall be forfeited.
- c) A penalty of **1% of the earnest money per day** will be charged if the faulty hardware replacement time exceeds the time mentioned, in the certificate provided as per Annex-B- part B-(3), during the warranty period.

12. DISQUALIFICATIONS

Proposals will be liable to be rejected if any deviation is found from the instructions as laid down in the bid document i.e.

- a. Financial bid is submitted without the required earnest money.
- b. Offers are received after specified date and time.
- c. Specification and other requirements are not properly adhered to or different from those given in the bidding documents.
- d. GST and NTN certificates are not attached.
- e. Service centre is not in Islamabad/Rawalpindi.
- f. Supplier is not an authorized dealer/partner and warranty provider of the principal manufacturer for Pakistan as per section 9 of this document.
- g. Any inferior product / spec / requirement that mentioned at Annex-C.
- h. Bidder shall quote **only one option**, bids with multiple options will be rejected without any right of appeal.

13. AFFIDAVIT

Affidavit on **Judicial Paper** to the effect that the firm has not been black listed by any government/semi government/autonomous body or company.

14. RIGHTS RESERVED

Pakistan Telecommunication Authority Islamabad reserves the rights to cancel the bid, accept or reject any bid as per PPRA Rules.

CHECKLIST

- a. Earnest money in shape of bank draft/pay order. (Yes/No)
(cheques are not acceptable)
- b. Relevant documents for Annex A-C(Yes/No)
- c. List of such projects handled with copies of supply order. (Yes/No)
- d. List of clients with telephone numbers and addresses. (Yes/No)
- e. List of employees including technical staff for this project. (Yes/No)
- f. Affidavit on legal paper for not being black listed. (Yes/No)
- g. Copies of authorized dealership/partnership etc. of the principal manufacturer for Pakistan. (Yes/No)
- h. Specification and other requirements are met (Yes/No)
- i. Service centre is at Islamabad/Rawalpindi (Yes/No)

Deputy Director (ICT-III)

General Evaluation- Part-A

Annex-A

Part A) Mandatory Requirement *	
1	Firm has to produce Sales Tax and Income Tax Registration.
2	Firm has to produce Authorization dealer/MAF, partner, etc Certificate of the principal/manufacture for Pakistan as per section 9 of this bidding document. Tier 1 and Tier 2 partners only with authorization letter for wireless and KVM switch only.
3	Firm shall be authorized warranty provider on behalf of manufacturer. Documentary proof required.
4	Minimum Three years of relevant experience of the vendor
5	Sales and Service Centers at Islamabad / Rawalpindi
6.	Firm is in active tax payer list of the FBR
7.	Minimum of two Supply orders shall be provided by the participating vendors for Centralized Wireless Network Solution and IP KVM switch..
8.	Bidder must Provide Letter from Local representative of Manufacturer or Distributor that the equipment provided will be genuine and imported through legal channels
9.	At least copies of two supply orders against Annex B , S.No.6

Technical Capabilities of Bidder- Part-B

Annex-B

Part B) General Evaluation*				
Sr. #	Attributes	Max. Score	Points Earned	Criteria
1	Detail of Offices	10		Firm has sales and services offices at four (4) provincial headquarters. Two and half (2.5) points for each p.h.q.
2	Spare Parts Availability	10		Firm has Spare Parts of the quoted model Depot/facility at Islamabad / Rawalpindi.
3	Replacement time for faulty under warranty equipment/parts (Certificate has to be produced) (Clause 11(c) referred)	25	25	1-3 working days
			15	4-7 working days
			05	7-14 working days
4	Total strength of relevant Technical Staff at Rawalpindi / Islamabad (List shall be attached with name, designation, qualification and related experience).	10	10	Firm has ten(10) or more relevant technical staff in Islamabad / Rawalpindi.
			7	Firm has more than seven (7) or more up to nine (9) relevant technical staff in Islamabad / Rawalpindi
			5	Firm has five (5) or more upto six(6) relevant technical staff in Islamabad / Rawalpindi
5	Firm Experience (minimum Five years' experience required)	20		(4) points will be given for each year of experience, beyond 3 years of mandatory requirement.
6	Projects completed of similar nature (documentary proof be provided i.e. Supply Orders etc.)	25		Five points will be awarded for each project of same nature on provision of supply order/certificate i. Supply of Centralized Wireless Solution with minimum 10 Access Points or more with central controller in single supply order. (Max Five Supply orders, minimum (2)) ii. Supply of 01 or above IP KVM console Switches in single supply order. (Max Five Supply orders, Minimum (2))
Sub Total		100		
Minimum qualifying marks are 70% in above table whereas Annex "C" shall be compulsory. All supporting Documents to be attached for all relevant pages of Annex-B.				

TECHNICAL EVALUATION-PART-C

(To be included in Technical Proposal)

Annex-C

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Detailed Specification of Centralized Wifi (Access Points and Central Controller)	
Features	Descriptions For APs and Central Controller
Hardware Scalability	Enterprise Dual Radio / Dual Band Access point supporting comprehensive feature set
	Support for 4x4:4 spatial streams
	Support for 802.11ac wave 2
	Support for MU-MIMO
	Support for PoE+/PoE Injector and power adapters
	Support for 1,733 Mbps data rate in 5 Ghz and 800 Mbps data rate in 2.4 Ghz
	Polarization Diversity with Maximum Radio Combining Antenna (PD-MRC)
	Minimum number of Users Supported Per Ap 500
	Adaptive antenna array: 4,000+ Pattern
	2 ports, auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45
	Transmit Power 28 dBm on 2.4 GHz; 28 dBm on 5 GHz
	Antenna must support 3 dBi physical antenna gain and 6- 5dB (TX/RX) Additional Gain. Maximum Overall Strategic gain of Access Point should be 8 dBi.
	Interference mitigation: up to 15 dB
	24 antennas elements per Access Point divided by 12 Antenna Elements per band
	Access Point should support Space time Block coding (STBC), Low Density Parity Check (LDPC), and Maximum Likelihood Decoding (MLD) for Better Downlink and Uplink Transmission.
	Access Point should be quoted with Mounting Bracket which should have pad-lock support.
	BeamFlex SINR Tx gain upto 6db, BeamFlex SINR Rx gain: up to 3-5 dB
Application Assurance	Should provide Ap Survivability
	IPv4, IPv6, dual-stack
	802.1Q (1 per BSSID or dynamic
	Per User Based On Radius
	Authenticator and Supplicant
	Support for Band Steering ,Support for Airtime fairness
	L2TP, PPPoE
	Support for Layer 2 and Layer 3 roaming,
	Support for Mesh
	256 QAM Support on 2.4Ghz, 80 MHz Channelization with 256 QAM Support.

	Controller should be able to support up to 1024 access points and 3000 Access Points in Cluster configuration and minimum License support for 20 APs for PTA
	Support Cluster of 3 + 1 Controller
Features	Description
General	Centralized WLAN architecture with Access Point and centralized controllers, and integrated network management
	Wi-Fi Alliance Certification for 802.11 a/b/g/n/ac (wave 1 and wave 2)
	Controller should support up to 25,000 concurrent users session and 60,000 in Cluster configuration.
	Controller should be able to present a customizable dashboard
	Controller must support integrated Captive portal
	Support automatic channel adjustment on the Basis of Background scanning and Channel Throughput
	Controller must support 4 x Ethernet Giga bit (100/1000) ports.
	Controller should support Location based Services
	Support 2000 WLAN SSID on Single Controller
	Controller should support Local MAC architecture.
	Controller should check version matching automatically when the system is running.
	Controller should support 2 Mode (Flat Management Domain Mode or Multi Domain Mode)
	Controller should support GRE and GRE+UDP mode.
	Controller should Support HotSpot 2.0 services or Support WISPr, Wi-Fi CERTIFIED, Pass point.
	WISPr Configuration support Internal/external URL, walled garden, redirection URL.
	Integrated of External SMS Solution for Guest User Password assignment
	Controller should support authentication via LDAP, Active Directory and RADIUS sever along with attributes of Radius.
	Controller should support Guest network and policies, Guest portal must support integrated login page with guest policy disable.
	Controller must be Compatible with Apple Devices or iOS also support Bonjour Gateway.
	Controller should support device based policy, controlling window, android, IOS, MAC OS and Linux etc.
	Controller should support WEP, WPA-TKIP, WPA2-AES, 802.11i.
	Controller should be Compatible to Support Location based Services by the same Manufacturer Software if required
	Implement Wi-Fi alliance standards WMM, WMM-PS, 802.11d, 802.11h and 802.11e.
	Controller must store Network and Client data for 30 days on integrated drive even on reboot and support TR-69 for remote monitoring and management
	Device must have Integrated Element Management System or External EMS may be proposed.
	License should be easily Transferable to similar Models in case of hardware upgrades.

S.No.	Feature	Requirements For Aps
1.	Max PHY Rate	1733 Mbps (5GHz) 800 Mbps (2.4GHz)
2.	Wifi Technology	802.11ac (5GHz)802.11n (2.4GHz)
3.	Concurrent Users	512
4.	Radia Channel-Streams	4x4:4 SU-MIMO4x4:3 MU-MIMO
5.	Antenna Pattern- Per band	4000+
6.	Beam Flex Gain	6 dB Tx / 3-5dB Rx
7.	Interference Mitigation	15db
8.	PD-MRC	Yes
9.	RX Sensitivity 2.4/5 Ghz	-104dbm
10.	Channelfly	Yes
11.	Smart Meshing	Yes
12.	USB	Yes
13.	Ethernet Ports	2 X 1Gbe
14.	WLAN Control and Management	Zone Director/SmartZone/Cloud Wifi/unleashed
15.	Warranty	3 Years for Hardware with Free Software Updates and Support
S.No	Feature	Requirement for Central Controller
1.	Number of Aps Supported	1024
2.	Client Support	25,000
3	Ethernet Ports	4 x 1GbE ports
4.	Authentication Support	802.1x, Local database, Active Directory, RADIUS, LDAP
5.	Guest Network/ Captive Portal	Yes
6.	DHCP Server	Assigned or External
7.	AP Discovery and Control	L2/L3
8.	SSID/WLAN Support	2,048
9.	Management Interface	Web Gui/CLI
10.	Remote Management	Yes
11.	Management Protocol	SNMPv3, Restful Json
12.	VLAN Support	Dynamic VLAN
13	Data Plane	Tunneling or Local Breakout
14.	Power Supply	DC or AC
15.	Fans	3 X redundant Fans.
16.	Part Number	1GE: P01-S104-XX00
17.	Warranty	3 Years for Hardware with free Software Updates and free onsite Support
18.	Simplified, Intuitive GUI	Yes
19.	Installation Wizard	Yes
20.	SPoT LBS Location support	Yes
21.	WIDS/WIPS (Rogue AP Detection/Prevention)	Yes

22.	Bonjour Gateway (at AP)	Yes	Page 4/4
23.	Capacity-based client admission control	Yes	
24.	Band Balancing	Yes	
25.	Internal Captive Portal (Radius, AD, LDAP, Local DB)	Yes	
26.	AP Survivability for Guest, Captive Portal	Yes	
27.	Zero-IT (using 802.1x)	Yes	
28.	WLAN Time Scheduling	Yes	
29.	User Roles	Yes	
30.	Device Policy Control	Yes	
31.	Per WLAN ACL Support (L2 white/black list, L3, L4)	Yes	
32.	Multi-hop SpeedFlex for mesh testing	Yes	
33.	Force DHCP	Yes	
34.	ZoneFlex AP discovery	Yes	
35.	Restful/JSON API	Yes	
36.	Simplified, Intuitive GUI	Yes	
37.	Installation Wizard	Yes	
38.	SPoT LBS Location support	Yes	
39.	WIDS/WIPS (Rogue AP Detection/Prevention), Evil-twin/AP spoofing detection Ad hoc detection	Yes	
40.	Bonjour Gateway (at AP)	Yes	
41.	Capacity-based client admission control	Yes	
42.	Band Balancing	Yes	
43.	Internal Captive Portal (Radius, AD, LDAP, Local DB)	Yes	

Any inferior Specifications of Wireless Network will be rejected

Bidder shall quote only one option, bids with multiple options will be rejected without any right of appeal.

Authorized Signature of bidder with seal stamp

TECHNICAL EVALUATION-PART-C

(To be included in Technical Proposal)

Annex-C

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Detailed Specifications of 8 ports IP KVM console Switches with Integrated LED console KMM solution (Same Brand) upgradable to Digital Switch		
S.No.	Feature	Requirements
1.	LED Console Screen	Integrated KMM solution with 18.5 inch LED/LCD, 1 U, Display-Sliding-folding
2.	LED Console Display Type	18.5" TFT LED – LCD module
3.	LED Foldable Screen	Yes (integrated with IP KVM Switch, KMM solution)
4.	LED Back Lighting	Yes
5.	LED Mode Support	Both Legacy Server and Widescreen video modes
6.	LED VGA connector	15
7.	Multiple Windows support	Yes
8.	Vesa modes	Up to 28 Vesa mode with, Vesa DPMS power management and plug and play function
9.	Switch Ports Network	16 ARI ports for connecting SIPs, with cascading up to 256 servers ACI support with all essential cables
10.	Rail mounting support (included)	ReadyRails static rails for toolless 1U mounting in 4-post racks with square or unthreaded round holes or tooled mounting in 4-post threaded and 2-post (Telco) racks
11.	Operating system Support	Windows, Linux, MAC, Unix etc
12.	Resolution	1680 X 1050 or above
13.	Sliding Rail and mounting kit	Yes, for both LED and KVM switch
14.	KVM remote IP user	1 or above
15.	Chassis	1 U
16.	Communication	TCP/IP
17.	Management	On board Web interface via browser
18.	Switch access	USB Keyboard/Mouse, VGA Video
19.	Device access	USB, PS2, SUN
20..	Virtual media support	Yes, with MPUIQ-VMCHS
21	Common access card capability	Yes, with MPUIQ-VMCHS
17.	LDAP	Yes, with DRAK-Key and DSView
18.	Video Support	Analog VGA, SVGA, and XGA, 16:10 widescreen, up to 1680 x 1050 4:3 standard, up to 1600 x 1200
19.	Switch Dimensions	1.72 x 17.00 x 9.20 in (4.39cm x 43.18 x 23.69)
20.	Local users	2 via usb, remote 1 authentic remote user using AES encryption
21.	Authentication	OBWI or DSview or IP over KVM
22.	Upgradable	Upgradable to Digital Switch via Key (Included)
23	Security	Ensure multi-factor authentication over USB and Ethernet with CAC support and provide encrypted remote access through the OBWI.
24.	Warranty	Three years or manufacturer whichever is greater

Any inferior specifications of IP KVM console Switches with LED console (KMM) will be rejected

Bidder shall quote only one option, bids with multiple options will be rejected without any right of appeal.

Authorized Signature of bidder with seal stamp

Date _____

Company Name _____

Required Specification	Quoted Specification (With Brand Name)	Unit Price Inclusive of GST	Qty	Total Price Inclusive of GST
Branded Centralized Wireless Network (IEEE 802.11 ac Wave 2 Standard PoE+) with complete mounting kit, with 18 Aps and 1 Central controller, same brand			18 Access points +1 Controller	
Branded 10GBase-T Ethernet copper cable Cat 6A or Cat7/7A (Branded (2 Nos) Boxes-STP 1500 feet per box) and (2 Nos) 24 Port Fiber ODF, (2 Nos) 24 port Cat 6A/7A Patch panel			2 Cable rolls 2 Fiber ODF 2 10 G patch panels	
Cable Steel Duct 70 Feet Galvanized, 12 X 6, 18" gage , purported, with cover			1	
PVC Pipe 2 inch white color with acc			600 Feet	
FP Dual Shutter			18	
Branded patch cord 1 meter			36	
Branded patch cord 3 meter			36	
Steel Flexible Bundle			3	
Cable installation and laying charges			1 job	
Total				

Amount in words: (Rupees-----)

Any inferior specifications will be rejected

FINANCIAL BID not accompanied with earnest money will be rejected without any right of appeal.

Bidder shall quote only one option, bids with multiple options will be rejected without any right of appeal.

Authorized Signature of bidder with seal stamp

Financial Proposal (Bid Format) IP KVM Switches**Annex-D**

Date _____

Company Name _____

Required Specification	Quoted Specification (With Brand Name)	Unit Price <i>Inclusive of GST</i>	Qty	Total Price Inclusive of GST
Branded 8 port IP based KVM Console Switch with KMM LED display (complete Solution) with 18.5 inch LED screen with Rack mountable-Sliding-Folding-tray, with all required cables for server connectivity, upgradable to Digital switch (2 Nos IP KVM Switches with 2 KMM Integrated LED consoles) with 16 USB SIP module (cables) for server , switch and KMM connectivity.			2 KVM switch 2 LED Screen 16 Cables	
Total				

Amount in words: (Rupees-----)

Any inferior specifications will be rejected

FINANCIAL BID not accompanied with earnest money will be rejected without any right of appeal.

Bidder shall quote only one option, bids with multiple options will be rejected without any right of appeal.

Authorized Signature of bidder with seal stamp