Bid Number/बोली क्रमांक (बिड संख्या):
GEM/2023/B/3030501
Dated/दिनांक : 17-02-2023

Bid Document/ बिड दस्तावेज़

Bid Details/बिड विवरण	
Bid End Date/Time/बिड बंद होने की तारीख/समय	10-03-2023 15:00:00
Bid Opening Date/Time/बिड खुलने की तारीख/समय	10-03-2023 15:30:00
Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)	30 (Days)
Ministry/State Name/मंत्रालय/राज्य का नाम	Ministry Of Health And Family Welfare
Department Name/विभाग का नाम	Department Of Health And Family Welfare
Organisation Name/संगठन का नाम	International Institute For Population Sciences (iips)
Office Name/कार्यालय का नाम	Mumbai
Item Category/मद केटेगरी	Custom Bid for Services - WIFI equipment and cabling
Contract Period	1 Month(s) 1 Day(s)
Minimum Average Annual Turnover of the bidder (For 3 Years)/बिडर का न्यूनतम औसत वार्षिक टर्नओवर (3 वर्षों का)	100 Lakh (s)
Years of Past Experience Required for same/similar service/उन्हीं/समान सेवाओं के लिए अपेक्षित विगत अनुभव के वर्ष	3 Year (s)
Past Experience of Similar Services required	Yes
MSE Exemption for Years of Experience/अनुभव के वर्षों से एमएसई छूट/ and Turnover	No
Startup Exemption for Years of Experience/अनुभव के वर्षों से स्टार्टअप छूट/ and Turnover	No
Document required from seller/विक्रेता से मांगे गए दस्तावेज़	Experience Criteria,Bidder Turnover,Certificate (Requested in ATC),OEM Authorization Certificate *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Bid to RA enabled/बिड से रिवर्स नीलामी सक्रिय किया	No
Type of Bid/बिड का प्रकार	Two Packet Bid

Bid Details/बिड विवरण	
Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	2 Days
Estimated Bid Value/अनुमानित बिड मूल्य	2800000
Evaluation Method/मूल्यांकन पद्धति	Total value wise evaluation

EMD Detail/ईएमडी विवरण

Advisory Bank/एडवाईजरी बैंक	State Bank of India
EMD Amount/ईएमडी राशि	56000

ePBG Detail/ईपीबीजी विवरण

Advisory Bank	State Bank of India
ePBG Percentage(%)/ईपीबीजी प्रतिशत (%)	5.00
Duration of ePBG required (Months)/ईपीबीजी की अपेक्षित अवधि (महीने).	38

(a). EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy./जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित केटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज़ प्रस्तुत करने है। एमएसई केटेगरी के अंतर्गत केवल वस्तुओं के लिए विनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के दायरे से बाहर रखा गया है।

(b). EMD & Performance security should be in favour of Beneficiary, wherever it is applicable./ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए।

Beneficiary/लाभार्थी :

Director and Sr Prof.
Mumbai, Department of Health and Family Welfare, International Institute for Population Sciences (IIPS), Ministry of Health and Family Welfare
(Dr. K.s. James)

Splitting/विभाजन

Bid splitting not applied.

MII Compliance

MII Compliance	Yes

1. The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated above in the bid document. Documentary evidence in

the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3-year-old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.
2. Years of Past Experience required: The bidder must have experience for number of years as indicated above in bid data sheet (ending month of March prior to the bid opening) of providing similar type of services to any Central / State Govt Organization / PSU / Public Listed Company. Copies of relevant contracts / orders to be uploaded along with bid in support of having provided services during each of the Financial year.
3. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.
4. Past Experience of Similar Services: The Bidder must have successfully executed / completed at least one single order of 80 % of the Estimated Bid Value or 2 orders each of 50 % of the Estimated Bid Value or 3 orders each of 40 % of the Estimated Bid Value for similar service(s) in last three years to any Central / State Govt Organization / PSU / Public Listed Company. Copies of contracts / work orders and documentary evidence of successful execution / completion in support of Past Experience of Similar Services along with names, address and contact details of clients shall be uploaded with the bid for verification by the Buyer.

Additional Qualification/Data Required

Introduction about the project /services being proposed for procurement using custom bid functionality:1675664452.pdf

Instruction To Bidder:1675838931.pdf

Scope of Work:1675664598.pdf

Special Terms and Conditions (STC) of the Contract:1676614061.pdf

Service Level Agreement (SLA):1675917159.pdf

Payment Terms:1675664747.pdf

Project Experience and Qualifying Criteria Requirement:1675664782.pdf

GEM Availability Report (GAR):1674551113.pdf

QCBS Doucment elaborating detailed QCBS Crieteria pertaining to Services / Project Procurement if any as per applicable norms:1675839969.pdf

This Bid is based on Quality & Cost Based Seleletion (QCBS) . The technical qualification parameters are :-

Parameter Name	Max Marks	Cutoff Marks	Qualification Methodology Document
Previous experience , Service support, Engineer's strength	100	60	View File

Total Minimum Qualifying Marks for Technical Score: 60

QCBS Weightage(Technical:Financial):50:50

Custom Bid For Services - WIFI Equipment And Cabling (1)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification	Values
Core	
Description /Nomenclature of Service Proposed for procurement using custom bid functionality	WIFI equipment and cabling
Regulatory/ Statutory Compliance of Service	YES
Compliance of Service to SOW, STC, SLA etc	YES
Addon(s)	

Additional Specification Documents/अतिरिक्त विशिष्टि दस्तावेज़

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	The quantity of procurement "1" indicates Project based or Lumpsum based hiring.	Additional Requirement
1	Manjiri Mangesh Rane	400088,International Institute For Population Sciences Govandi station Road , Govandi east, Deonar, Mumbai -400088	1	N/A

Buyer Added Bid Specific Terms and Conditions/क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें

1. **Buyer Added Bid Specific Scope Of Work(SOW)**

   Text Clause(s)

SCOPE OF WORK

The International Institute for Population Sciences (IIPS) serves as a regional Institute for Training & Research in Population Studies. I t has established itself as the premier Institute for training and res earch in Population Studies. The Institute is in the process of enha ncing the wireless internet connectivity for the students and other s in its premises at Deonar, Mumbai -400088, for which the followi ng equipment and service are required.

The detailed specifications and scope of work is given belo w:

Sr.No	Particular	Qty	Specifications
1	Wireless Dual Band Multi-Gigabit Ceiling Mount Access Point(Indoor) for Library Building	10	Annexure-1
2	Wireless MU-MIMO Gigabit Ceiling Mount Access Point (Indoor) for H ostels	85	Annexure-2
3	WiFi Controller Hardware/ Softwar e (Supporting upto 500 AP)	1	Annexure-3
4	Gigabit Smart Switch with 24-Port PoE+ (250 W)	8	Annexure-4
5	24-Port Gigabit L2 Managed Switc h with 4 SFP Slots	2	Annexure-5
6.	Wall Mount 6 U Rack	7	
7	Passive cabling work from POE sw itch to hostel room floor wise	NA	ANNEXURE-6

ANNEXURE-1

Technical Specifications of

Wireless Dual Band Multi-Gigabit Ceiling Mount Access Point(Indoor) for Librar y Building

Sr. no	Specifications	Yes/ No	Deviation if any
1	AP shall have hardened enclosures for indoor deployment and shall have a robust design fo r durability		
2	It shall have dual radios for concurrent dual b and (5 GHz / 2.4 GHz) operation		

3	It shall have Simultaneous 1148Mbps on 2.4G Hz and2402 Mbps on 5GHz Wi-Fi speeds		
4	Minimum one number of 2.5 Gbps Ethernet p ort RJ-45.		
5	AP shall support UL/DL Mu-MIMO with OFDMA		
6	AP Shall Support 1024 QAM for More Data Enc oding		
7	AP Shall Support BSS Coloring and TWT (Targ et Wake Time)		
8	AP Shall Support support WPA-PSK /WPA2 -PS K /WPA3PSK Wireless Security		
9	AP shall support Outfitted with the latest 802. 11ax technology		
10	The AP shall comply with IEEE 802.11ac at a minimum and be backwards compatible to IE EE 802.11a/b/g/n/ac standards.		
11	AP shall operate at least in full 4x4:4 MIMO or more mode without any loss of features or ca pabilities		
12	AP shall Support PoE 802.3at and DC Jack for convenient and affordable installation		
13	AP must support 20 MHz, 40 MHz and 80 MHz channels.		
14	Each AP must support minimum 500+ concur rent clients in total (including both 2.4GHz an d 5GHz radios).		
15	The AP shall provide a minimum of 20 dBm EI RP for both 2.4 GHz and and 23 dBm for 5 GH z frequencies. Field deployment shall be with EIRP as per regulatory guidelines.		
16	AP shall support WDS or MESH networking*		
17	AP shall support QoS and WMM latest technol ogy		
18	AP shall support Multiple operating modes including managed AP and standalone AP mo de		

19	AP shall support Band Steering, Beamforming , Airtime Fairness and Load Balance features		
20	AP shall support rogue access point detection		
21	AP shall have dual-Band Omni-directional Ant enna, either internal or external.		
22	AP should be compatible for Simple mounting on any wall or ceiling surface		
23	AP should support management VLAN and SSI D VLAN		
24	AP should support Captive portal and Rate li mit feature		
25	AP shall support Reboot Schedule, Wireless S chedule and Wireless Statistics based on SSID /AP/Client		
26	Intelligent RF control plane for self-healing, an d selfoptimization		
27	AP Shall support Wireless Mac Address Filterin g, Wireless Isolation Between Clients and SSID t o VLAN Mapping		
28	AP shall support 802.1X authentication and ex ternal radius server		
29	AP shall be able to assign end User the IP add ress as received from backend core DHCP Ser ver.		
30	AP shall support Hardware controller or softw are controller and must be SDN Ready		
31	AP Shall support ZTP (Zero Touch Provisioning) for seamless Installations		
32	Shall support L3 management, SNMP, Email n otification and Telnet feature		
33	Shall support Operating Temperature of 32℉ ~144℉		
34	Device OEM must be ISO 9001 and 14001 Ce rtified		

35	Device OEM must be Gartner Magic Quadrant for Enterprise Wired and Wireless LAN Infrastructure in Last 4 Quarter		

ANNEXURE-2

Technical Specifications of

Wireless MU-MIMO Gigabit Ceiling Mount Access Point (Indoor) for Hostels

r. n	Specifications	Yes/No	Deviation if any
1	AP shall have hardened enclosures for indoor deployment and shall have a robust design for durability		
2	It shall have dual radios for concurrent dual band (5 GHz / 2.4 GHz) operation		
3	It shall have Simultaneous 450Mbps on 2.4GHz and 1300Mbps on 5GHz totals 1750 Mbps Wi-Fi speeds		
4	Minimum 2 number of 1 Gbps Ethernet port RJ-45.		
5	AP shall support Multi user MIMO		
6	AP shall support Outfitted with the latest 802.11ac Wave 2 technology		
7	The AP shall comply with IEEE 802.11ac at a minimum and be backwards compatible to IEEE 802.11a/b/g/n standards.		
8	AP shall operate at least in full 3X3:3 MIMO or more mode without any loss of features or capabilities		

9	AP shall Support PoE 802.3af and passive PoE for convenient and affordable installation		
10	AP must support 20 MHz, 40 MHz and 80 MHz channels.		
11	Each AP must support minimum 80 concur rent clients in total (including both 2.4GHz and 5GHz radios).		
12	The AP shall provide a minimum of 20 dB m EIRP for both 2.4 GHz and and 23 dBm for 5 GHz frequencies. Field deployment s hall be with EIRP as per regulatory guideli nes.		
13	AP shall support QoS and WMM latest tec hnology		
14	AP shall support Multiple operating modes including managed AP and standalone AP mode		
15	AP shall support Band Steering, Beamfor ming, Airtime Fairness and Load Balance f eatures		
16	AP shall support rogue access point detec tion		
17	AP shall have dual-Band Omni-directional Antenna, either internal or external. Field deployment shall be with EIRP as per the WPC guideline.		
18	AP should be compatible for Simple moun ting on any wall or ceiling surface		
19	AP should support management VLAN		
20	AP should support Captive portal and Rat e limit feature		
21	AP shall support Reboot Schedule, Wireles s Schedule and Wireless Statistics based o n SSID/AP/Client		
22	Intelligent RF control plane for self-healing , and selfoptimization		

23	AP Shall support Wireless Mac Address Filtering, Wireless Isolation Between Clients and SSID to VLAN Mapping		
24	AP shall support 802.1X authentication and external radius server		
25	AP shall be able to assign end User the IP address as received from backend core DHCP Server.		
26	AP shall support Hardware controller or software controller		
27	Shall support Operating Temperature of 32 ~144		
28	Device OEM must be ISO 9001 and 14001 Certified		
29	Device OEM must be Gartner Magic Quadrant for Enterprise Wired and Wireless LAN Infrastructure in Last 4 Quarter		

ANNEXURE-3

Technical Specifications of

WiFi Controller Hardware/ Software (Supporting upto 500 AP)

Sr. no	Specifications	Yes/ No	Deviation if any
1	Controller must have 2× 10/100/1000 Mbps Ethernet Ports and 1× USB 3.0 Port		
2	Controller support WDS or MESH networking*		

3	Controller shall support QoS and WMM latest technology		
4	Controller Supports Free Authentication Policy and Captive Portal Advertisement		
5	Controller shall support Band Steering, Beamforming, Airtime Fairness and Load Balance features		
6	Controller shall support rogue access point detection		
7	Controller Must Support Support 15000 Clients		
8	Controller should support management VLAN		
9	Controller should support Captive portal and Rate limit feature		
10	Controller shall support Reboot Schedule, Wireless Schedule and Wireless Statistics based on SSID/Controller/Client		
11	Intelligent RF control plane for self-healing, and self-optimization		
12	Controller Shall support Wireless Mac Address Filtering, Wireless Isolation Between Clients and SSID to VLAN		
13	Controller shall support 802.1X authentication and external radius server		
14	Controller shall be able to assign end User the IP address as received from backend core DHCP Server.		
15	Controller shall support Cloud Managebility and SDN Ready		
16	Controller shall come with atleast 500 Devices Including Switches , Gateways and AP from Day 1		
17	Controller shall come with life time no Recurring or renewal cost		
18	Controller Support authentication method like SMS and Facebook authentication		
19	Supports Layer 3 Adoptation		
20	Controller shall Manage Multiple Sites over Web with the Centralized Controller in a Single Location		
21	Controller shall Intuitive Real Time Monitoring and data usage		
22	Controller shall support remote upgrade and access control features		
23	Controller Shall support L3 management, SNMP, Email notification		
24	Controller Shall Support Auto-backup via USB		

25	Controller shall support smooth operation on 50 Deg eree Celsius		
26	Controller shall support Rack Mounting		
27	Controller shall have CE, FCC, RoHS		
28	Device OEM must be must be ISO 9001 & 14001 Cert ified at the time of bidding		
29	Device OEM must be Gartner Magic Quadrant for Ent erprise Wired and Wireless LAN Infrastructure in Last 4 Quarter		

ANNEXURE-4

Technical Specifications of

Gigabit Smart Switch with 24-Port PoE+ (250W)

Sr.No.	Technical Specification	(Yes / No)	Deviation if any
1	Physical Specification:		
2	The LAN switch shall be rack mountable with 24 Nos. 10/100/1000 Base-T ports with 4 Nos. 10/100/ 1000 BaseT/1000 Base-X ports.		
	General Specification:		
3	The LAN switch shall be available with minimum 56 Gbps Switching Fabric.		
4	The LAN switch shall have minimum packet forwarding rate of 41 million packets per second at 64 byte packet length.		
5	The LAN switch shall support minimum 8K MAC addresses.		
6	There shall be 1000 IGMP groups.		
7	The Switch must Support 24 802.3at/af-compliant PoE+ ports with a total power supply of 250 W		
8	The switch shall be able to work on both IPv4 and IPv6 (dual stack) from day one.		
9	All ports in the switch shall operate at wire-speed / line-rate.		
10	The switch shall be capable of working with AC Power Supply with a voltage varying from 170-240Volts at 50 +/-2 Hz.		
11	The switch shall support 19 inch rack mounting.		
	Layer - 2 Features:		
12	The LAN switch shall support IEEE 802.1Q VLAN encapsulation. Maximum 4K VLAN Groups.		
13	It shall support for Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors.		
14	It shall support 802.1d, 802.1p, 802.1Q, 802.1s, 802.1w, 802.1x, 802.1ab,802.3ad.		

15	It shall support spanning-tree root guard or any other industry standard protocol to prevent oth er edge switches becoming the root bridge.		
16	It shall support IGMP snooping v1, v2 and v3.		
17	It shall support Link Aggregation Protocol (LACP).		
18	It shall be able to discover the neighboring devi ce of the same vendor giving the details about t he platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.		
19	It shall support for Switch port auto recove ry (err disable) to automatically re- enable a link that is disabled because of a network err or.		
20	It shall support Multicast VLAN registration.		

21	It shall support LLDP / LLDP-MED including client location information. It shall exchange link and d evice information in multi vendor networks.		
22	It shall support configuration rollback to repla ce current configuration with any saved config uration file.		
23	It shall support configurable maximum tra nsmission unit (MTU) of up to 9000 bytes, with a maximum Ethernet frame size of 9216 bytes (Jumbo frames) for bridging on Gigabit Ethernet ports.		
24	It shall support auto sensing speed on 10/10 0/1000 ports, auto negotiating half/full-duplex on all ports and Auto-MDIX.		
	QoS Features:		
25	The LAN switch shall have per-port broadcast , multicast, and unicast storm control.		
26	It shall have standard 802.1p CoS and DSCP clas sification using marking and reclassification on a per-packet basis by source and destinatio n IP address, source and destination MAC addr ess, or Layer 4 TCP or UDP port number.		

27	There shall be eight egress queues per port to e nable differentiated management of up to eight t raffic types.		
28	There shall be weighted round robbin (WRR) or a ny other industry standard protocol to provide c ongestion avoidance.		
29	There shall be strict priority queuing mechanism s.		
30	There shall be support for Asynchronous data flo ws upstream and downstream from the end stati on or on the uplink using ingress policing and egr ess shaping.		
31	There shall be support for Automatic Quality of S ervice for easy configuration of QoS features for critical applications.		
	Network Security Features:		
32	The LAN switch shall support IEEE 802.1x to allow dynamic, port-based security, providing u ser authentication.		
33	The LAN switch shall support for Admission Control features to improve the network's ab ility to automatically identify, prevent, and r espond to security threats and also to enable t he switches to collaborate with third-party soluti ons for security-policy compliance and enforc ement before a host is permitted to access t he network.		
34	It shall support port-based ACLs (PACLs) for Layer 2 interfaces to allow application of sec urity policies on individual switch ports. It sh all also support VLAN based filters.		
35	It shall support unicast MAC filtering to p revent the forwarding of any type of pac ket with a matching MAC address. It shal l support Unicast and Multicast MAC addre sses and associated VLANs.		
36	It shall support unknown unicast and multicast po rt blocking to allow tight control by filtering pack ets that the switch has not already learned how t o forward.		

37	It shall support IGMP filtering which shall provide multicast authentication by filtering out no subscribers and limits the number of concurrent multicast streams available per port.		
38	It shall support for SSHv2, SNMPv3 to provide network security by encrypting administrator traffic during Telnet and SNMP sessions.		
39	The switch shall support 2 session of Port Mirroring based on port basis / VLAN basis to support intrusion prevention system deployment in different VLANs. It shall support bidirectional data on mirror port which allows IDS to take action when an intruder is detected.		
40	It shall support RADIUS authentication to enable centralized control of the switch and restrict unauthorized users from altering the configuration.		
41	It shall support MAC address notification to allow administrators to be notified of users added to or removed from the network / It shall support SNMP Trap for new MAC notification.		
42	It shall support DHCP snooping to allow administrators to ensure consistent mapping of IP to MAC addresses. This can be used to prevent attacks that attempt to poison the DHCP binding database, and to rate limit the amount of DHCP traffic that enters a switch port.		
43	It shall support port security to secure the access to an access or trunk port based on MAC address. After a specific timeframe, the aging feature should remove the MAC address from the switch to allow another device to connect to the same port.		
44	It shall support multilevel security on console access to prevent unauthorized users from altering the switch configuration.		
45	It shall support BPDU Guard feature, to shut down Spanning Tree Protocol Port Fast-enabled interfaces when BPDUs are received to avoid accidental topology loops.		
46	It shall support Spanning-Tree Root Guard (STRG) to prevent edge devices not in the network administrator's control from becoming Spanning Tree Protocol root nodes.		
47	It shall support for up to 512 access control entries (ACEs).		

	Management:		
48	The LAN switch shall have CLI support to provide a common user interface and command set with all routers and switches of the same vendor.		
49	It shall have Remote Monitoring (RMON v1 and v 2) software agent to support for enhanced traffic management, monitoring, and analysis.		
50	It shall have support for RMON groups through th e use of a mirrored port, which permits traffic mo nitoring of a single port, a group of ports, or the e ntire switch from a single network analyzer or RM ON probe.		
51	It shall support Simple Network Time Pro tocol/Network Timing Protocol (SNTP/NTP) to provide an accurate and consistent timesta mp to all intranet switches.		
52	It shall support RMON v1 and v2 standards.		
53	It shall support SNMPv1, SNMPv2, and SNMPv3 a nd Telnet interface to deliver comprehensive in-b and management, and a CLI-based management console to provide detailed out-ofband managem ent.		
54	It shall support IPV6 management. ACL and QoS and IPv6 Neighbor Discovery.		
55	Device shall support Hardware controller or Soft ware controller and Zero-Touch Provisioning (ZT P)‡, Centralized Cloud Management, and Intellige nt Monitoring.		
56	Device OEM must be must be ISO 9001 & 14001 Certified at the time of bidding		
57	Device OEM must be Gartner Magic Quadrant for Enterprise Wired and Wireless LAN Infrastructure in Last 4 Quarter		

ANNEXURE-5

Technical Specifications of

24-Port Gigabit L2 Managed Switch with 4 SFP Slots

SR.No	Technical Specification	Compliance (yes / No)	Deviation if any
	Physical Specification:		
1	The LAN switch shall be rack mountable with 24 Nos. 10/100/1000 Base-T ports with 4 Nos. SFP + Ports		
	General Specification:		
2	The LAN switch shall be available with minimum 56 Gbps Switching Fabric.		
3	The LAN switch shall have minimum packet forwarding rate of 41 million packets per second at 64 byte packet length.		
4	The LAN switch shall support minimum 16K MAC addresses.		
5	There shall be 1000 IGMP groups.		
6	The switch shall be able to work on both IPv4 and IPv6 (dual stack) from day one.		
7	All ports in the switch shall operate at wire-speed / linerate.		
8	The switch shall be capable of working with AC Power Supply with a voltage varying from 170240Volts at 50 +/-2 Hz.		

9	The switch shall support 19 inch rack mounting.		
	Layer - 2 Features:		
10	The LAN switch shall support IEEE 802.1Q VLAN encapsulation. Maximum 4K VLAN Groups.		
11	It shall support for Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors.		
12	The Switch Must Support L2PT (Layer 2 Protocol Tunneling)		
13	It shall support 802.1d, 802.1p, 802.1Q, 802.1s, 802.1w, 802.1x, 802.1ab,802.3ad.		
14	It shall support spanning-tree root guard or any other industry standard protocol to prevent other edge switches becoming the root bridge.		
15	It shall support IGMP snooping v1, v2 and v3.		
16	It shall support Link Aggregation Protocol (LACP).		
17	It shall Support 802.3ah Ethernet Link OAM for Detection of Unidirectional links and to disable them to avoid problems such as spanning tree loops and support Unidirectional Link Detection (UDLD) or equivalent.		
18	It shall be able to discover the neighboring device of the same vendor giving the details about the platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.		
19	It shall support for Switch port auto recovery (err disable) to automatically re- enable a link that is disabled because of a network error.		
20	It shall support Multicast VLAN registration.		
21	It shall support LLDP / LLDP-MED including client location information. It shall exchange link and device information in multi vendor networks.		
22	It shall support configuration rollback to replace current configuration with any saved configuration file.		
23	It shall support configurable maximum transmission unit (MTU) of up to 9000 bytes, with a maximum Ethernet frame size of 9218 bytes (Jumbo frames) for bridging on Gigabit Ethernet ports.		
24	It shall support auto sensing speed on 10/100/1000 ports, auto negotiating half/full-duplex on all ports and Auto-MDIX.		
	QoS Features:		
25	The LAN switch shall have per-port broadcast, multicast, and unicast storm control.		

26	It shall have standard 802.1p CoS and DSCP classificatio n using marking and reclassification on a per-packet basis by source and destination IP address, source a nd destination MAC address, or Layer 4 TCP or UDP port number.		
27	There shall be eight egress queues per port to enable dif ferentiated management of up to eight traffic types.		
28	There shall be weighted round robbin (WRR) or any othe r industry standard protocol to provide congestion avoid ance.		
29	There shall be strict priority queuing mechanisms.		
30	Granular Rate Limiting functions to guarantee bandwidth in increments shall be as low as 64 Kbps.		
31	Rate limiting support based on source and destination I P address, source and destination MAC address, La yer 4 TCP and UDP information, or any combin ation of these fields, using QoS ACLs (IP ACLs (IPv4 and IPv6) or MAC ACLs), class maps, and policy maps shall be available. ACL should be based on user defined pac ket content (Max. 6bytes length user defined).		
32	There shall be support for Asynchronous data flows upst ream and downstream from the end station or on the upl ink using ingress policing and egress shaping.		
33	There shall be support for Automatic Quality of Service f or easy configuration of QoS features for critical applicati ons.		
	Network Security Features:		
34	The LAN switch shall support IEEE 802.1x to allo w dynamic, port-based security, providing user auth entication.		
35	The LAN switch shall support for Admission Control features to improve the network's ability to automa tically identify, prevent, and respond to security thr eats and also to enable the switches to collaborate with third-party solutions for security-policy		
	compliance and enforcement before a host is permitt ed to access the network.		
36	It shall support port-based ACLs (PACLs) for Layer 2 interfaces to allow application of security policies o n individual switch ports. It shall also support VLAN b ased filters.		
37	It shall support unicast MAC filtering to prevent the forwarding of any type of packet with a matching MAC address. It shall support Unicast and Multicast MAC addresses and associated VLANs.		
38	It shall support unknown unicast and multicast port blocki ng to allow tight control by filtering packets that the switc h has not already learned how to forward.		

39	It shall support IGMP filtering which shall provide multicast authentication by filtering out no subscribers and limits the number of concurrent multicast streams available per port.		
40	It shall support for SSHv2, SNMPv3 to provide network security by encrypting administrator traffic during Telnet and SNMP sessions.		
41	The switch shall support 2 session of Port Mirroring based on port basis / VLAN basis to support intrusion prevention system deployment in different VLANs. It shall support bidirectional data on mirror port which allows IDS to take action when an intruder is detected.		
42	It shall support RADIUS authentication to enable centralized control of the switch and restrict unauthorized users from altering the configuration.		
43	It shall support MAC address notification to allow administrators to be notified of users added to or removed from the network / It shall support SNMP Trap for new MAC notification.		
44	It shall support DHCP snooping to allow administrators to ensure consistent mapping of IP to MAC addresses. This can be used to prevent attacks that attempt to poison the DHCP binding database, and to rate limit the amount of DHCP traffic that enters a switch port.		
45	It shall support DHCP Interface Tracker (Option 82) to augment a host IP address request with the switch port ID.		
46	It shall support port security to secure the access to an access or trunk port based on MAC address. After a specific timeframe, the aging feature should remove the MAC address from the switch to allow another device to connect to the same port.		
47	It shall support multilevel security on console access to prevent unauthorized users from altering the switch configuration.		
48	It shall support BPDU Guard feature, to shut down Spanning Tree Protocol Port Fast-enabled interfaces when BPDUs are received to avoid accidental topology loops.		
49	It shall support Spanning-Tree Root Guard (STRG) to prevent edge devices not in the network administrator's control from becoming Spanning Tree Protocol root nodes.		
50	It shall support for up to 512 access control entries (ACEs).		
	Management:		
51	The LAN switch shall have CLI support to provide a common user interface and command set with all routers and switches of the same vendor.		

52	It shall have Remote Monitoring (RMON v1 and v2) softwa re agent to support for enhanced traffic management, mo nitoring, and analysis.		
53	It shall have support for RMON groups through the use of a mirrored port, which permits traffic monitoring of a singl e port, a group of ports, or the entire switch from a single network analyzer or RMON probe.		
54	It shall have layer 2 trace route to ease troubleshoo ting by identifying the physical path that a packet takes from source to destination or it shall support OAM 802.3a h.		
55	It shall support Trivial File Transfer Protocol (TFTP) and Fi le Transfer Protocol (FTP) to reduce the cost of admi nistering software upgrades by downloading from a ce ntralized location.		
56	It shall support Simple Network Time Protocol/Network Timing Protocol (SNTP/NTP) to pr ovide an accurate and consistent timestamp to all intranet switches.		
57	It shall support RMON v1 and v2 standards.		
58	It shall support SNMPv1, SNMPv2, and SNMPv3 and Telnet interface to deliver comprehensive in-band management, and a CLI-based management console to provide detailed out-of-band management.		
59	It shall support IPV6 management. ACL and QoS and IPv6 Neighbor Discovery.		
60	It Shall Support SDN Platform and have Provision to be Work Standalone or Controller Based and support Zero-Touch Provisioning (ZTP)		
61	Devcie should certified by FCC, CE and RoHS		
62	Device OEM must be must be ISO 9001 & 14001 Certified at the time of bidding		
63	Device OEM must be Magic Quadrant for Enterprise Wired and Wireless LAN Infrastructure in last 3 Quarters		

ANNEXURE-6
Technical Specifications of

Passive cabling work from POE switch to hostel room floor wise

	Floor	**Points each floor**	**Total Points**
OLD Hostel	3	8	24
NEW Hostel	5	12	60
Total Points			84
Avg Length 30 mtrs			

Sr.No	**Description (Supply & Labour)**	**Make**
	Supply	
	WIFI Cabling Boq	
1	Cat-6A UTP Cable - Box of 305 Mtrs	Legrand
2	Cat-6A Information Outlets	Legrand
3	1 Port Face Plate	Legrand
4	24 port straight unloaded jack panel	Legrand
5	Cat-6A Information Outlets	Legrand
6	Cat-6A Patch cord 7ft - for User end - Gray	Legrand
7	Cat-6A Patch cord 3ft - for Rack end - Gray	Legrand
8	PVC Surface box	Local

9	6U 600w x 600d wallmount with below config. • Horizontal 1u cable manager x 1qty • 90 cfm fan x 1qty • Hardware packet (pack of 10) x 1qty • 6 socket 5A PDU x 1qty	Valrack
10	9U 600w x 600d wallmount with below config. • Horizontal 1u cable manager x 1qty • 90 cfm fan x 1qty • Hardware packet (pack of 10) x 1qty • 6 socket 5A PDU x 1qty	Valrack
11	32mm PVC Conduit/flexible pipe with accessorie	ISI
12	50mm X 50mm box type capon casing	ISI
	Labour	
	WIFI Cabling Boq	
0	Supply	Labour
0	WIFI Cabling Boq	Labour
1	Cat-6A UTP Cable - Box of 305 Mtrs	Labour
2	Cat-6A Information Outlets	Labour
3	1 Port Face Plate	Labour
4	24 port straight unloaded jack panel	Labour
5	Cat-6A Information Outlets	Labour
6	Cat-6A Patch cord 7ft - for User end - Gray	Labour
7	Cat-6A Patch cord 3ft - for Rack end - Gray	Labour
8	PVC Surface box	Labour
9	6U 600w x 600d wallmount with below config. • Horizontal 1u cable manager x 1qty • 90 cfm fan x 1qty • Hardware packet (pack of 10) x 1qty • 6 socket 5A PDU x 1qty	Labour
10	9U 600w x 600d wallmount with below config. • Horizontal 1u cable manager x 1qty • 90 cfm fan x 1qty • Hardware packet (pack of 10) x 1qty • 6 socket 5A PDU x 1qty	Labour
11	Testing for data points and Documenation	Labour

2. **Buyer Added Bid Specific Scope Of Work(SOW)**

   File Attachment Click here to view the file.

3. **Buyer Added Bid Specific ATC**

   Buyer Added text based ATC clauses

Additional Terms and Conditions

In addition to the Terms and Conditions stipulated in the GeM, the following terms and conditions shall be part of the contract

1. The tendered work, when awarded, shall be carried out by the successful bidders and the same is not tra nsferrable.
2. The entire work shall be carried out within 30 days of awarding the GeM contract.
3. All the equipment supplied against this contract shall have a minimum warranty of 3 years from the date of successful installation/commissioning and acceptance.
4. The drawings attached with this bid are the sole proprietary of this institute and intended to give overall l ocational ideal about passive cabling and shall not be used for any other purpose.
5. The arbitration cases if any will be registered in the jurisdiction of Mumbai High Court only.
6. The service support as and when asked will be given on-site i.e. IIPS, Deonar, Mumbai.

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4. **Buyer Added Bid Specific ATC**

   Buyer uploaded ATC document Click here to view the file.

5. **Buyer Added Bid Specific SLA**

   File Attachment Click here to view the file.

Disclaimer/अस्वीकरण

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. Any clause(s) incorporated by the Buyer regarding following shall be treated as null and void and would not be considered as part of bid:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.

4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process.
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

This Bid is governed by the General Terms and Conditions/सामान्य नियम और शर्तें, conditons stipulated in Bid and Service Level Agreement specific to this Service as provided in the Marketplace. However in case if any condition specified in General Terms and Conditions/सामान्य नियम और शर्तें is contradicted by the conditions stipulated in Service Level Agreement, then it will over ride the conditions in the General Terms and Conditions.

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws./जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो।बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।

---Thank You/धन्यवाद---