Lok Sabha Secretariat

COMPUTER (HW &SW) MANAGEMENT BRANCH
(HARDWARE UNIT)
ROOM NO.FB-149, PARLIAMENT LIBRARY BUILDING
NEW DELHI-110001
Advertisement No. 3/CMB(HW)/2015

Tender Notice for Active Components of LAN &Wi-Fi

Sealed Tender for the procurement and installation of Active Components for LAN and Wi-Fi are invited under two bids system. The estimated cost of the project is about Rs.12 crore. The Tender Document can be downloaded from the website of Lok Sabha i.e. **www.loksabha.nic.in** under link "Tender". There is no fee for Tender Document. **Important dates/period for activities are as under:-**

Activity	Tentative date/period
Period for site inspection	**:17.03.2015 to 24.03.2015**
Last Date for furnishing the names for pre-bid conference	**:24.03.2015**
Date of Pre-bid Conference	**: 25.03.2015**
Last date for submission of suggestions	**: 26.03.2015**
Date of Publishing the corrigenda, if required, on Lok Sabha Website	**: 31.03.2015**
Last date for submission of Bids	**:15.04.2015**

2. The Tender, complete in all respects, should be submitted in sealed envelope addressed to the Director, Computer(HW&SW)Management Branch, Lok Sabha Secretariat, Room No. 514-A, Parliament House Annexe, New Delhi 110001 and be **dropped in the Tender Box** placed in the **Reception Office, Parliament Library Building (Opp. Gurudwara Rakabganj) on or before 15.04.2015 upto 1700 hrs**.

Director (EA&C)

Phone – 23035290/5328/4172
E-mail.:mqb-lss@sansad.nic.in

LOK SABHA SECRETARIAT
Computer (HW&SW) Management Branch
(Hardware Unit)

Tender No. 3/CMB(HW)/2015 **Dated: 17.03.2015**

Tender Document

Lok Sabha Secretariat invites Advertised Tender Enquiry from authorized partner of CISCO for procurement of Active Components of LAN & Wi-Fi i.e. Switches, Access Points(APs), LAN Controller, Network Access Validation Server and related software for installation in four buildings of Parliament House Complex. This tender is for supply, installation, testing, commissioning of Active Components of LAN and secured Wi-Fi.

Scope of work

Lok Sabha Secretariat intends to replace its present Local Area Network (LAN) with a new one in PH, PHA and PLB and install secured Wi-Fi facility at certain locations through separate Tender Enquiries for Active and Passive Components and their installation. Installation of LAN and secured Wi-Fi are to be undertaken taken afresh in new building of PHA. The LAN and Wi-Fi network will be physically separate. The work is to be executed in all the four building of Parliament House Complex, New Delhi in a phased manner**.** The Bidder will also have to dismantle the present Active Components of LAN and connect/integrate the new Active Components with the new Passive Components of LAN and Wi-Fi as per the timeline and phases formulated by LSS and NIC. The specifications of Active Components of above LAN and Wi-Fi, Bill of Material, are given at **Annexures- I to XII & XVII to XXV.**

2. Site Inspection

The site of above LAN and Wi-Fi Network will remain open for inspection from **17.03.2015 to 24.03.2015** during office hours. The interested bidders may visit the site during above period and also see the Network Design. The Network Design shall be available in the office of Lok Sabha Secretariat for perusal and study only. The interested bidder shall neither be given a copy thereof nor shall they reveal Network Design to any person who is not concerned with this project.

3. Pre-Bid Conference.

(i) A Pre-Bid Conference for the Bidders will also be held at 1500 hrs. onwards on **25.03.2015** in BPST Committee Room –C, Parliament Library Building for clarifying issues, clearing doubts and having suggestions, if any, regarding Tender. **The bidders shall have to send names of their representatives with a copy of certificate of authorized partner of CISCO Systems India Private Limited for**

attending the pre-bid conference latest by 24.03.2015 at mqb-lss@sansad.nic.in.

4. Suggestions of Bidders

(i) The interested bidders may offer suggestions on **mqb-lss@sansad.nic.in** regarding specifications, Bill of Material, Design of LAN and Wi-Fi, tender procedure and terms and conditions of this tender latest by **26.03.2015**. The suggestions so received will be considered by Lok Sabha Secretariat and if necessary, a corrigendum will be issued on the Website of Lok Sabha Secretariat (www.loksabha.nic.in) **latest by31.03.2015**.

(ii) If the bidder feels that any item/machine/component/ software/work which is essential for the working of above LAN and Wi-fi is not mentioned in this tender document then the bidder shall make a suggestion to that effect in the pre-bid conference or separately up to the last date of making suggestion ie.**26.03.2015** .

5. Building-wise/phase-wise completion and time schedule

Work shall be completed building-wise/phase-wise under technical supervision of NIC over a period of 6 Months. The work shall first be done in PH followed by PHA, PLB and New Building PHA. The bidder shall have to indicate time-line for each of these buildings and delivery of Active components therefor. He shall also be provided with space for storage of inventory. The list of inventory supplied shall be furnished to Lok Sabha Secretariat.

6. Eligibility Criteria

(i) The Bidders must have their Head office/Branch office/service centre/ OEM's service centre in Delhi/NCR and must conform to norms of the Government pertaining to registration and taxation.

(ii) Bidder should have minimum three year's experience of supply of items pertaining to this Tender Notice in bulk to Government Departments/PSUs/Autonomous organizations and should not have been blacklisted by any of them.

(iii) Bidders should have minimum turnover of Rs.**30** Crore during each of the last three consecutive financial years.

(iv) The Bidder should also fulfill the other eligibility criteria as mentioned in **Annexure – XIII** and submit the information as required.

7. Technical Bid

The Technical Bid shall comprise of two parts viz., Part - A and Part - B. Part - A of Technical Bid shall consist of documents pertaining to eligibility criteria as mentioned in **Annexure- XIII** Documents furnished in Part A of Technical Bid shall be serially numbered and indexed and placed in an envelope**.** Part - B regarding models, specifications, warranty etc., should be submitted in proforma given at **Annexure –XIV and XVI**. Both Parts of Technical Bid should be placed in separate envelope and superscribed as "Technical Bid - Part A" and "Technical Bid - Part B". Both these envelopes shall be placed in a bigger envelope with superscription, "Technical Bid for Active Components for LAN and Wi-Fi."

8. Financial Bid

The Financial Bid should have only Prices/Rates quoted by the Bidder in proforma enclosed as **Annexure-XXVI to XXXVI** The following points may also be noted:-

(i) The rates/prices shall be quoted in Indian Rupees only (in words as well as in figures). The rates/prices quoted should be inclusive of all taxes/packing/cartage etc. However, a break-up of price and applicable taxes should be mentioned therein.
(ii) The Bidder shall quote only one rate for one item as per specification.
(iii) The rate quoted shall be final.

9. Bid Validity

(i) The Bid shall remain valid for a period of 120 days from the date of opening of Technical Bid.
(ii) The rate quoted must be valid for **SIX months** from the date of opening of Financial Bid and bidder shall be bound to supply, install, commission on the rate till completion of project.

10. Submission of Bid

(i) The Bid shall be legible, typed/printed and be in English only. All the pages of the Bid should be serially numbered and signed.

(ii) The Bid prepared by the Bidder shall comprise of (i) Technical Bid and (ii) Financial Bid.

(iii) Bid may be submitted in the following manner:

(a) **Envelope No. 1-** Shall contain the Earnest Money Deposit (EMD)/Bid **Security**. The envelope must be superscribed as "EMD/ Bid Security for Active Component of LAN & Wi-Fi".

(b) **<u>Envelope No. 2</u>**- Shall contain Technical Bid with two separate envelopes superscribed as **Part A and Part B** as mentioned in para 7 above.

(c) **<u>Envelope No.3-</u>** Shall contain Financial Bid.

(d) **<u>Envelope No. 4-</u>** Shall be a bigger envelope containing envelopes 1, 2 & 3 as mentioned above.

All the envelopes must be sealed and superscribed as "Tender for supply and installation of Active Components of LAN & Wi-Fi" and addressed to **<u>The Director, Computer (HW&SW) Management Branch, FB-149, PLB New Delhi-110001. The Tender shall be dropped in the Tender Box placed in the Reception Office, Parliament Library Building (Opp. Gurudwara Rakabganj), New Delhi-110001 on or before the last date and time of submission of Tender, i.e. 15.04.2015 upto 1700 hrs.</u>** If the last date happens to be a holiday, the same would be accepted on next working day as per above schedule. Tender(s) received after due date and time and sent by email, fax, telegram or any other method will not be accepted. Tender Document shall be uploaded on website of Lok Sabha(www.loksabha.nic.in)

(iv) All the envelopes shall also indicate the name and address of the Bidder enabling the Bid to be returned, if required.

11. <u>Bid Security/Earnest Money Deposit (EMD)</u>

(i) An Earnest Money of **Rs.30 Lakhs** in the form of Account Payee Demand Draft/Fixed Deposit Receipt/Banker's Cheque/Bank Guarantee in favour of 'Drawing & Disbursing Officer', Lok Sabha, New Delhi must be furnished in a separate envelope as stated in para **10** (a) above. Earnest Money will not be accepted in the form of Money Order/Cash. The Bid Security shall remain valid for a period of 45 days from the last date of **Bid Validity Period**.

(ii) A Bid received without Earnest Money or with Earnest Money of lesser value will be outrightly rejected.

(iii) The EMD may be forfeited in the following cases:

(a) If a Bidder withdraws his/her bid during the period of Bid validity; or

(b) In the case of finally selected Bidder, if the Bidder fails: -

(i) to furnish contract performance security in accordance with Tender; or

(ii) if at any stage of the Tender process, the information or declaration furnished is found false; or

(iii) if the Bidder fails to execute a contract as per terms and conditions of Tender Notice.

(iv) The Earnest Money is not required to be submitted by the Bidder who is registered with the Central Purchase Organization, National Small Industries Corporation(NSIC). In such case, a copy of valid Registration Certificate issued by DGS&D/NSIC (for the quoted product) shall be furnished in place of Bank Draft/Bank Guarantee, etc. as per para **11(i)** above.

(v) Bid securities of the unsuccessful bidders shall be returned to them on expiry of the final bid validity or before the 30th day after the award of the contract whichever is earlier. **The EMD of finally selected Bidder will be discharged upon his/her signing the agreement for supply, installation, commissioning, warranty support etc. of goods which are subject matter of this tender and furnishing the Performance Security Deposit (PSD) before placing purchase order.**

12. Opening of Bid

(i) Envelope No.1 containing the Earnest Money/Bid Security/Registration certificate issued by DGS&D/NSIC shall be opened by Pay & Accounts Officer of Lok Sabha on **16.04.2015** at **1500 hrs**. in the presence of DDO, Lok Sabha, Networking expert/member and the Bidders or their Authorized Representatives. The Representatives are required to bring photo identity cards issued by the Bidder and also a copy of the authorization as given in **Annexure-XXXX**. A copy of the authorization may also be sent to this Secretariat separately at least three working days before the opening of the Bid.

(ii) Envelope No. 2 containing the Technical Bid shall then be opened on **16.04.2015** and serially numbered. Envelope containing Part A of the Technical Bid shall be opened first. After scrutiny of Part A of Technical Bid, Envelope containing part B of Technical Bid shall be opened. The date will be intimated to the participants bidders.

No query regarding Technical Bid/Bid Security shall be entertained after completion of Technical Bid opening.

(iii) Envelope No.3 containing the Financial Bids shall be opened only for technically qualified Bidders in the presence of P&AO, Lok Sabha, and the Bidders/their Authorized Representatives on a later date which would be intimated to technically qualified Bidders. Only summary of prices quoted by the Bidders will be read out.

(iv) Lok Sabha Secretariat reserves the rights to reject quotations not conforming to the Tender Document.

13. Technical Evaluation Process

A duly constituted Technical Evaluation Committee (TEC) will first select Bidders on the basis of eligibility criteria defined for this Tender. The Bids

conforming to the eligibility criteria only will be considered for further evaluation. If there is any lack of clarity in the submitted eligibility documents, TEC may seek further information or ask concerned Bidder's representative to be present physically to prove their eligibility.

(i) The TEC will short list the Technical Bids on the basis of Technical parameters.

(ii) Technical Bids will be evaluated as per **Annexures – XIII to XVI.**

(iii) The Active Components supplied shall be compatible with existing CISCO switches under warranty.

(iv) Lok Sabha Secretariat reserves the right to amend/modify the evaluation procedure anytime in its overall interest.

14. Determination of Lowest Bidder and award of contract

(a) Determination of Lowest Bidder (L-1)

The Criteria for evaluation of Lowest Bidder shall be as under:

(i) Lowest Bidder (L-1) will be the one whose total quoted rate for all the items **(i) Active Components of LAN for PH, (ii) Active Components of LAN for PHA, (iii) Active Components of LAN for PLB, (iv) Active Component for Wi-Fi in PH, (v) Active Component for Wi-Fi in PHA, (vi) Active Component for Wi-Fi in PLB, (vii) Active Components of LAN in A and B Block of New Building, PHA (viii) Active Components of Wi-Fi in A and B Block of New Building, PHA (X) WLAN Controller (X) Network Access Validation Server (XI) Network Management Software (XII) Cost of extended warranty for re-useable switches (XIII) Cost of hiring of service engineer for six months taken together is the lowes**t;

(ii) Lok Sabha Secretariat reserves the right to select any of the Lowest Bidder in case of tie.

(b) Award of contract

After selection, contract shall be awarded to the successful Lowest Evaluated Bidder. Such Lowest Evaluated Bidder shall have to execute an Agreement within 21 days of the issue of letter of acceptance on a stamp paper of Rs. 100/- (to be paid by Bidder) as per proforma to be provided by Lok Sabha Secretariat. **The Agreement will cover time-schedule, technical specifications, payment schedule, Phase-wise completion schedule, warranty, AMC after warranty, monitoring, penalty for delay and violation of terms and conditions of tender document** etc.

15. Price

(i) The price quoted shall be reasonable and consistent with the specifications and quality of the items supplied.

(ii) If the price falls due to reduction in cost or lowering of applicable taxes or otherwise between the date of submission of tender and date of supply of last installment of required goods, the benefit of reduced price shall be extended to Lok Sabha Secretariat.

(iii) The price charged for the stores supplied under the tender by the bidder shall in no event exceed the lowest price at which the bidder sells the stores or offer to sell stores of identical description to any other person(s)/organization(s) in india including the purchaser or any department of the Central Government or any statutory bodies of the Central or a State Government or any autonomous organization of the Government, as the case may be, during the period of twelve months from the date of submission of bid.

(iv) If during the period as mentioned at sub clause (iii) above, the bidder sells the goods, which is subject matter of this tender, below the price charged to Lok Sabha Secretariat then the benefit of such lower price shall also be extended to Lok Sabha Secretariat. If the bidder fails to do so, the difference of above prices shall be deducted from the Performance Security Deposit.

16. Fair Competition

(i) The bidder shall not do any act which deprives Lok Sabha Secretariat of the benefit of fair competition among the bidders.

(ii) The bidder shall not indulge on his own or in association with OEM or any person or firm or company or an organization in any unfair and restrictive trade practice including formation of cartel and collusive bidding.

(iii) The bidder shall not, by unlawful means, influence or try to influence the decision making process of Lok Sabha Secretariat to his/her advantage or to the advantage of any other bidder in whom he/she is interested.

(v) The violation of terms and conditions of this clause may result in forfeiture of EMD or PSD and may also be liable for blacklisting for doing business with Lok Sabha Secretariat besides other legal action that may be taken by Lok Sabha Secretariat.

17. Performance Security Deposit (PSD)

Before signing of agreement for supply and installation of Active Component and placing of Purchase Order, the successful Bidder shall have to furnish a Performance Security amounting to **8%** of value of the contract (L1) in the form of Account Payee Demand Draft, Fixed Deposit Receipt from a Commercial Bank, Bank Guarantee from a Commercial Bank in an

acceptable form safeguarding the purchasers interest in all respects in favour of "Drawing & Disbursing Officer, Lok Sabha" payable at New Delhi. The Performance Security shall also be furnished by the Bidders registered with DGS&D and NSIC. The Performance Security will remain valid for a period of **sixty days** beyond the date of completion of all contractual obligation of the supplier including warranty obligation. The Bid Security shall be returned to the successful bidder on receipt of Performance Security.

18. Re-useable Switches

The bidder shall have to utilize the existing LAN CISCO Switches which are under warranty. A list of re-useable switches is given at **Annexure-XXXVII. Further, the warranty of the existing CISCO Switches may be extended up to the period of warranty of new LAN CISCO Switches to be supplied.**

19. Warranty and complaint redressal

(i) The **Bidder** shall certify that the stores supplied to the Secretariat under Supply Order placed against this Tender are of best quality and workmanship and new in all respects and are strictly in accordance with the specifications and particulars mentioned in **Annexure – I to XII** to this Tender Document.

(ii) The warranty on network and Wi-fi Switches shall be smart net warranty(8X5XNBD) for a period of **five years.** The warranty shall start from the date of installation but not later **than 60 days from the date of supply.**

(iii) The warranty on Network Controller shall be comprehensive onsite warranty for a period of five years. The warranty shall start from the date of installation but not later **than 60 days from the date of supply. During the warranty period, the complaints must be attended to within 4 hours of lodging the same and must be resolved within 24 hours.**

(iv) For any deficiency in redressal of complaints pertaining to the networking and hardware items, a reasonable penalty equivalent to the loss caused to Lok Sabha Secretariat but not exceeding Rs.10000/- on each occasion may be imposed at discretion of Lok Sabha Secretariat. The penalty, if not paid, may be recovered from the Performance Security Deposit furnished or from any payable dues from LSS.

(v) The support on software shall also be for a period of five years from the date of installation but not later than 60 days from the date of supply.

(vi) During the warranty period, bidder shall be responsible for warranty support in time.

(vii) The bidder shall maintain enough spares so as to provide satisfactory onsite comprehensive maintenance services during the warranty period.

(viii) The bidder shall also supply spare parts and provide service support for a period of five years after warranty as required by LSS.

(ix) During the implementation of the above project, the bidder shall

post one Network Engineer having appropriate technical degree and experience at his/her own cost at the site of Parliament House Complex, New Delhi to ensure smooth implementation of the project and integration and commissioning of supplied items. Thereafter, the engineer shall remain available at the above site for a further period of **six months** from the date of commissioning of the whole site on payment basis.

(x) The bidder shall furnish OEM certification for warranty/ Smart net warranty.

20. <u>Supply and installation of Active Component and coordination with supplier of Passive Component.</u>

(i) A single purchase order for supply, installation, commissioning of all the Active components of LAN & Wi-Fi, Network Controller, Network Access Validation Server and related Software for Wi-fi including warranty support shall be given. However, the bidder shall have to execute the work in phase-wise/building-wise. The bill shall be raised on the basis of material supplied and installed, work done phase-wise/building-wise. The whole work is to be completed within 6 months of placement of purchase order as mentioned in para 5 above.

(ii) The procured items shall be delivered **Free on Board (FOB)** at the Lok Sabha Secretariat during office hours.

(iii) The supplied goods shall be free from damage or defect.

(iv) The Lok Sabha Secretariat shall have right to inspect the items under consideration before delivery/installation by itself or by an agency nominated by it. The Bidder(s) shall extend all reasonable facilities for the testing of the items.

(v) Before the delivery, the Bidder(s) shall satisfy that the items are as per terms and conditions of this Tender.

(vi) The successful bidder shall enter into a contract for execution of the work mentioning time schedules for completion of the work building-wise/phase-wise.

(vii) In case of delayed delivery upto 15 days without valid reason, a penalty of an amount equal to 0.5% of the total value will be imposed. Thereafter, a penalty at the rate of 1% of the value of the items upto one month will be imposed. Besides, the Purchase Order for remaining quantity may be considered for cancellation, if the delay is more than one month. The penalty, if not paid, shall be recovered from PSD.

(viii) Supply, Installation, testing, commissioning and handing over of the system shall be completed **within 6 months.** In case of any extension of period of completion, it shall be allowed only with prior written approval of LSS. In case of delay in installation, completion and commissioning with the system, the liquidated damage at the rate of 0.5% on the total value order of the actual cost of billing or part thereof, will be recovered from the final payment and or from the payable due to firm by LSS by any other account.

(ix) Wi-Fi shall be installed as per Standard Operating Procedure (SOP) and MHA Guidelines.

(x) The successful bidder shall have to ensure supply, installation,

integration, configuration, testing, commissioning, configuration and handing over of the system in coordination with the successful bidder of passive components. The decision of NIC technical team regarding dispute arising out of the responsibility of the said bidders in this respect shall be final and binding on parties.

21. Force Majeure

If at any time during the continuance of this Tender, the performance in whole or in part by either party of any obligation under this Tender shall be prevented or delayed by the reasons of any war, hostility, acts of the public enemy, epidemics, civil commotion, sabotage, fires, floods, explosion, quarantine restrictions, strikes, lockouts or act of God (hereinafter referred to as such acts) provided notice of happening of such event is given by one party to the other within 21 days from the date of occurrence thereof, neither party shall be by reasons of such event, be entitled to terminate this Tender nor shall either party have any claim for damages against the other in respect of such non-performance or the delay in performance, and deliveries and installation under the Tender shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of the Competent Authority as to whether the deliveries have been so resumed or not, shall be final and conclusive, provided further that if the performance in whole or part of any obligation under this Tender is prevented or delayed by reason of any such event for a period exceeding 60 days, either party may at its option terminate the Tender provided also that the purchaser shall be at liberty to take over from the Bidder at a price to be fixed by Competent Authority, which shall be final, all unused, undamaged and accepted material, bought out components and stores in course or manufacture in the possession of the contractor at the time of such termination or such portion thereof as the purchaser may deem fit excepting such materials, bought out components and stores as the Bidder may with the concurrence of the purchaser elect to retain**.**

22. Other General Terms and Conditions

(i) The individual signing the Tender Document or any other document forming part of the Tender on behalf of Proprietor/Company/Firm shall produce an authenticated copy of the resolution passed by the Company, or Power of Attorney duly executed in his favour stating that he has the authority to bind other such persons of the firm as the case may be in all matters pertaining to the Tender including the arbitration clauses. In case of Partnership firm, all the partners shall sign the Tender. In case any person signs the Agreement on behalf of any Limited Company or Firm, he will produce letter of authority/resolution passed by the Company empowering him to sign the Agreement on behalf of the Company or Firm.

(ii) In the event of failure to supply whole or part of the purchase order or failure to complete the work as per terms of tender/agreement, LSS is free to order the whole or part of the stores/work to the L2 or any other source at the cost and risk of L-1. In the event of non-supply by such L1, the Performance Security or Earnest Money so

deposited by the Bidder shall be forfeited and other legal action may also be initiated. Further, the Bidder shall be blacklisted for non-supply of any item to the Secretariat.

(iii) The Bidder shall indemnify the Lok Sabha Secretariat against all damages/charges and expenses on account of the negligence of the Firm or his servants or damages to the property of any member of the public or any person or in executing the work or otherwise.

(iv) The decision of Lok Sabha Secretariat arrived during the various stages of the evaluation of the Bids will be final & binding on all bidders. Any representation towards these shall not be entertained by Lok Sabha Secretariat.

(v) In case, the bidder is found in-breach of any condition(s) of Tender or Supply Order, at any stage during the course of supply/installation/commissioning or warranty period, the legal action as per laws shall be taken.

(vi) Any additional condition other than mentioned in Tender Document will not be binding on Lok Sabha Secretariat.

(vii) No deviations from terms and conditions of Tender will be accepted. Any violation thereof will lead to the rejection of the Bid.

(viii) Upon verification, evaluation/assessment, if in case any information furnished by the bidder is found to be false/incorrect, their total Bid shall be summarily rejected and no correspondence on the same shall be entertained.

(ix) Lok Sabha Secretariat will not be responsible for any misinterpretation or wrong assumption by the bidder, while responding to this Tender.

(x) The successful Bidder shall have to enter into Service Level Agreement (SLA) with LSS for maintenance during warranty in accordance with terms and conditions of this Tender Enquiry.

(xi) The quantity of items may increase/decrease as per the requirement of LSS. Further, the repeat order(s) may be issued.

(xii) Execution of the work and Entry/Exit of the workers of the firms shall be subject to security norms of LSS.

(xiii) The Lok Sabha Secretariat reserves the rights to terminate the Tender without assigning any reason thereof at any stage.

23. <u>Bill Payment</u>

(i) Detailed Invoice showing Sales Tax/VAT Registration Nos., TIN/PAN etc. along with delivery challan shall be submitted to this Secretariat for payment. **Building-wise payment shall be made on recommendation of NIC for completion of work for that phase**.

(ii) Payment will be made only after certificate of installation/commissioning of all ordered items as per this tender by NIC and satisfaction of performance by Computer Management Branch.

(iii) No advance payment will be made.

(iv) All bills shall be raised in Indian Rupees and payments shall also be made in Indian Rupees.

24. <u>Dispute Redressal</u>

(i) All disputes, differences and questions arising out of the Tender shall be referred to the sole Arbitrator appointed by the Secretary-General, Lok Sabha. The arbitration shall be in accordance with the Arbitration and Conciliation Act, 1996. All disputes shall be subject to jurisdiction of courts of Delhi only.

(ii) The terms and conditions of this Tender Notice or Contract to be concluded with the successful Bidder shall be interpreted in accordance with the Indian laws.

ANNEXURE – I

Tender for Active Components for LAN and Wi-Fi

	Technical Specification – Core Switch for LAN
	General Requirements
1.	The Switch should be Modular 13 Slots chassis with passive back-plane and 11 Payload slots with each slot capable of accomodating 48 port 10/100/1000/mbps.
2.	The Switch should be equiped with two Supervisor/Management/Fabric Modules for redundancy.
3.	The Switch should be equiped with minimum of two power supplies for full power redundancy and load sharing.
4.	The Switch should support a minimum of 80 Gbps (Half Duplex) switching capacity per slot thru a distributed switching architecture. Switch architecture should support aggregate data forwarding rates of 700 million packets per second (Mpps) fo Ipv4 and 650 Mpps Ipv6 traffic.
5.	The Switch should support online insertion and removal of the Supervisor and linecards and support support hot-swappable fan trays and power supplies.
6.	The Switch should support 1 Gbps and 10 Gbps interfaces.
	Performance
7.	The Switch should run at a 1 Tbps backplane capacity even in the even of failure of one supervisonr module.
	Layer 2 Features
8.	The Switch should support Layer 2 switch ports.
9.	Secure VTP or equivalent protocol to reduce administrative burden of configuring VLANs on multiple switches in turn eliminating the configuration errors & troubleshooting.
10.	The switch should be able to discover the neighboring device thus helping in troubleshooting connectivity problems or equivalent.
11.	The Switch should support a mechanism to detect connectivity issues with both fiber and copper cabling to ensures that a partially failed link is shut down on both sides.
12.	The Swtich should support Layer 3 trace route, debugging to ease troubleshooting by identifying the path that a packet takes from source to destination
13.	The Switch shall have IEEE compliance for 802.1Q VLAN, 801.2p, 802.1d STP, 802 3ad, 802.1w RSTP, 802.1s MSTP, 802.3ad LACP, IEEE 802.1ab Link Layer Descovery Protocol.
14.	The Switch should support Rapid Spanning Tree Protocol & Multiple Spanning Tree Protocol.
	Layer 3 Features from Day – 1
15.	The Switch should support basic Routing-Static IP routing, RIP v1/v2, RIPng and policy based routing.
16.	The Switch should support hardware enabled advance IP routing protocols OSPF, OSPFv3, BGPv4, PIM-SIM, PIM-DM, PIM-SSM etc.
17.	The Switch should support HSRP/VRRP, LACP.
	Routing from Day -1
18.	The Switch should support 256 K Ipv4 & 128 K Ipv6 Routes, 120K Ipv4 and Ivp6 Multicast Routes, RFC 1771-BGPv4, RFC 1745-BGP/Open Shortest Path First (OSPF)

	Interaction, RFC 2439-Route flap dampening, RFC 1583, RFC 2328-OSPFv2, RFC 1850-OSPFv2 Management Information Base (MIB) traps, RFC 1723-RIPv1, RFC 2453-RIPv2, IGMPv1,v2,v3, IGMP v1,v2,v2 Snooping (in hardware), PIM, MLDv2 snooping (in hardware), RFC 1075-DVMRP v3-07/PIM or equivalent, Multicast Source Discovery Protocol (MSDP)
19.	The Switch should support MPLS in hardware without the addition of special modules to achieve that forwarding
	Ipv6
20.	The switch should support IPV6 in hardware without the addition of special modules to achieve that forwarding
21.	The Switch pps performance should not degrade for Ipv6 packets and should be atleast 350million packets per second (Mpps) for Ipv6 traffic
22.	The Switch should support Router Advertisement (RA), Neighbor Discovery (ND), Port-Based Access Control List (PACL), Ipv6 ACL, Routing Information Protocol (RIP) enhancements for Ipv6-RFC 2080, OSPFv3 as defined in RFC 2740, IS-IS for Ipv6, Multiprotocol BGP for Ipv6, Policy-based routing (PBR) or equivalent for Ipv6, PIM
23.	The switch should support limiting maximum amount of ipv6 address that can be bound to a single mac address
	MPLS
24.	The Switch should support MPLS in hardware qithout the addition of special modules to achieve that forwarding
25.	The Switch should support RFC 2547-MPLS Vpn, Provider/Provider edge functionality, MPLS mVPN (multicast VPN), MPLS class of services (Cos), MPLS-DS-TE, MPLS-RSVP-TE, VRF aware services (telnet, ICMP, DHCP, IPSec, Syslog), should support static LSP's, LDP based signalling of LSP's, MPLS Netflow or equivaleant, VRF aware operational contexts, IPV6 Provideer edge, Class based TE Tunnel selection for 6PE.
	QoS
26.	The Switch should support Per-port-VLAN policies, Diff Serv QoS on all ports, minimum eight queues per port in hardware, distributed policing (upto 4k policies), egress/ingress policing.
27.	The Switch should support Congestion Avoidance: WRED
28.	The Switch should support Strict-Priority Queue (protects mission-critical, delay-sensitive traffci), Weighted Round Robin (WRR)/Equivalent, Priority queueing, Weighted Random Early Detection (WRED)
	NetFlow/Sflow
29.	The Switch should spport NetFlow/Sflow/Jflow
	Security
30.	The Switch should suppor IEEE 802.1x
31.	The Switch should support 50K ACL's
32.	The Switch should support VLAN ACLs, Router ACLs, port based ACLs.
33.	The Switch should support Shall have TACACS+/RADIUS enabled.
34.	The switch should support Management Access Filter (Access Policies)
35.	The Switch should be tested and cetified for EAL-2 OR NDPP or above under Common Criteria Program for security related functions.
36.	The switch should support insertion of intelligent modules like firewall, Network Analysis and Wireless LAN controller modules, as and when required.

	Redundancy
37.	Should support redundancy protocol like VRRP, transparent failover between two devices. Failover should be transparent to other networking devices.
38.	Should support both deployment modes (Active-passive & Active-Active) with automatic configuration synchronization.
39.	Should support configuration roll back for quick correction of mis-configs
40.	The switch should support virtualization by working as single virtual switch and should eliminate the dependence on First Hop Redundancy Protocol (FHRP) and Spanning Tree Protocol.
	Management & Monitoring:
41.	Switch should have console port interface and out of band management port for configuration and diagnostic purposes.
42.	Swicht should support Ipv6 switch management, DNS, Syslog from day one. Switch should support DHCP server and client, SNMP Version 1, 2 and 3, TELNET and SSH Version-2 for Command Line Management, 4 groups of embedded RMON.
43.	Switch should support system and event logging functions as well as forwarding of these logs to multiple syslog servers.
44.	Switch should support on-line software reconfiguration to implement changes without rebooting.
45.	The Switch should support Shall have SSHv2, SNMPv1, SNMPv2, SNMPv3, Web Based GUI, Telnet and NTP support
	Minimum Configuration deliverable
46.	Switch should support atleast 48 port tX, 48 port SFT and 8 port 10 GE modules
47.	Product should be offered with 5 year same day replacement warranty be OEM. Pat code for same to be quoted in the detailed BOQ.

ANNEXURE – II

Tender for Active Components for LAN and Wi-Fi

	Technical Specification – Distribution Switch for Wi-Fi
1.	Switch Should have minimum 24 Ports, IG SFP and minimum 1 modular slot for uplink. Modular uplink slot should support 4x1Gig SFP port or to 2x10Gig ports, should support internal redundant, modular, hot swapable power supplies and fans.
2.	Minimum of 88 Gbps of switching capacity, forwarding rate of 65 Mpps, 24,000 unicast routes.
3.	Should support stacking of 9 units with dedicated Stacking bandwidth of 160 Gbps.
	Layer 2 Features:
4.	802.1Q VLAN on all ports with support for minimum 1000 active VLANs and 4k VLAN IDs, 32 k MAC addresses, Jumbo frames up to 9000 bytes, Port mirroring functionality for measurements using a network analyzer, Self learning of unicast & multicast Mac addresses and associated VLANs.
5.	Shoulr support STP, Per-VLAN STP, MSTP, RSTP, BPDU Guard, Root Guard.
6.	Support for Unidirectional Link Detection Protocol (UDLD) or equivalent to detect unidirectional links caused by incorrect fiber-optic wiring or port faults and disable on fiber-optic interfaces.
7.	Should be able to discover the neighboring device.
	IP unicast routing protocols and fearers: (Any License for Ipv6 should be given from Day -)
8.	Should provide OSPF, BGPv4, Policy-Based Routing (PBR) and Ipv6 unicast capability static, RIP, ISIS and OSPF protocols.
9.	Multicast: upport for Protocol Independent Multicast (PIM)-PIM-SM, PIM-DM, PIM-SSM IGMP snooping v1, v2 and v3
10.	QoS: Support for four a queues per port. Rate limiting support based upon source and destination ip address, source and destination mac address, Layer 4 TCP and UDP information or any combination of these fields.
	Security Features:
11.	IEEE 802.1x to allow, port-based security, providing user authenication.
12.	VLAN ACLs (VACLs) on all VLANs, Port-based ACLs (PACLs) for Layer 2 interfaces and should have Ipv6 ACL, first hop ipv6 security/filtering.
13.	“Multilevel security on console access to prevent unauthorized users from altering the switch configuration. AAA integration with RADIUS, TACACS+ or equivalent.
14.	Should support DHCP snooping, Dynamic ARP Inspection (DAI).
15.	The Switch should be tested and certified for EAL-2 OR NDPP or above under Common Criteria Program for security related functions.
16.	Switch should support Ipv6 First Hop Security with Ipv6 snooping, Ipv6 FHS Binding, Neighbour Discovery protocol (NDP) gleaning, Ipv6 data address gleaning, Ipv6 dynamic host configuration protocol (DHCP) address.
	Management & Monitoring:
17.	Switch should have a console port interface and out of band management port for configuration and diagnostic purposes.
18.	Switch should support Ipv6 switch management and neighbour discovery, SNMP,

	DNS, Syslog from day one. Switch should support DHCP server and client, SNMP Version 1, 2 and 3, TELNET and SSH Version-2 for Command Line Management, 4 groups of embedded RMON.
19.	Switch should support system and event logging functions as well as forwarding of these logs to multiple syslog servers.
20.	Switch should support on-line software reconfiguration to implement changes without rebooting.
21.	Switch should suppoort NTP
22.	Product should be offered with 5 year same day replacement warrany by OEM, Part code for same to be quoted in the detailed BOQ.

ANNEXURE – III

Tender for Active Components for LAN and Wi-Fi

S No.	Technical Specification - 24 port Access Switch for LAN
	Switch Architecture and Performance
1	Switch should have 24 Nos. 10Base-T/100Base-Tx/1000Base-T auto-sensing ports supporting auto negotiation on each port and additional 4 Nos. of 1G SFP ports. Switch should support power supply redundancy.
2	Switch should provide stacking of upto 4 Switches. Switch should support stacking through a dedicated port without using uplink port. The switch should support stacking bandwidth of minimum 80 Gbps with dedicated stacking ports.
3	"Switch should have non-blocking wire-speed architecture, forwarding rate of 41 Mpps for 64 byte packet
4	Switch should provide 56 Gbps of backplane throughput.
	Layer 2 Features
5	802. 1Q VLAN on all ports with support for minimum 1023 active VLANs and 4k VLAN IDs, 16k MAC addresses, Jumbo frames up to 9000 bytes, Port mirroring functionality for measurements using a network analyzer, Self learning of unicast & multicast MAC addresses and associated VLANs.
6	Protocols as per IEEE 802.1d, IEEE 802.1s, IEEE 802.1w, IEEE 802.3ad, IGMP v1,v2,v3 and IGMP v1,v2,v3 snooping.
	Quality of Service (QoS) Features
7	Configuration of QoS on per switch port basis, classification, marking and scheduling as per IEEE 802.1P, and DSCP on all ports, DiffServ as per RFC 2474/RFC 2475, four hardware queues per port.
8	Switch should provide traffic shaping and rate limiting features for specified Host, network, Applications etc.
	Security Features
9	Switch should support MAC address based filters and Port as well as VLAN based Filters / ACLs. Switch should support first hop ipv6 security/filtering.
10	Switch should support RADIUS/ TACACS+ for access restriction and authentication, Switch should support Multiple privilege levels to provide different levels of access.
11	SSHv2, http and DoS protection, ARP spoofing, static ARP, Proxy ARP, DHCP snooping and IP source guard.
12	IEEE 802.1x to allow port-based security.
13	Switch should support Ipv6 First Hop Security with Ipv6 snooping, Ipv6 FHS Binding, Neighbour Discovery protocol (NDP) gleaning, Ipv6 data address gleaning, Ipv6 dynamic host configuration protocol (DHCP) address
	Management Features of IPv4 and IPv6
14	Switch should have a console port Interface and out of band management port for configuration and diagnostic purposes.
15	Switch should support IPv4 and IPv6 switch management and neighbour discovery, SNMP, DNS, Syslog from day one. Switch should support DHCP server and client, SNMP Version 1, 2 and 3, TELNET and SSH Version-2 for Command Line Management, 4 groups of embedded RMON, ACLs
16	Switch should support system and event logging functions as well as forwarding of these logs to multiple syslog servers.
17	Switch should support on-line software reconfiguration to implement changes without rebooting.
18	Switch should support NTP

	Standards
19	RoHS Compliant.
20	The Switch should be tested and certified for EAL-2 OR NDPP OR above under Common Criteria Program for security related functions.
21	All the switches should be from same OEM and should have same CLI for the purpose of ease of management and integration
22	The switch may support Energy Efficient Ethernet (EEE) (IEEE 802.3az standard) to reduce power consumption in Ethernet networks during idle periods.
	Minimum Configuration deliverable
23	Product should be offered with 5 year same day replacement warranty by OEM. Part code for same to be quoted in the detailed BOQ

ANNEXURE –IV

Tender for Active Components for LAN and Wi-Fi

S No.	Technical Specification - 48 port Access Switch for LAN
	Switch Architecture and Performance
1	Switch should have 48 Nos. 10Base-T/100Base-Tx/1000Base-T auto-sensing ports supporting auto negotiation on each port and additional 4 Nos. of 1G SFP ports . Switch should support power supply redundancy.
2	Switch should provide stacking of upto 4 Switches. Switch should support stacking through a dedicated port without using uplink port. The switch should support stacking bandwidth of minimum 80 Gbps with dedicated stacking ports.
3	"Switch should have non-blocking wire-speed architecture, forwarding rate of 77 Mpps for 64 byte packet
4	Switch should provide 104 Gbps of backplane throughput.
	Layer 2 Features
5	802. 1Q VLAN on all ports with support for minimum 1023 active VLANs and 4k VLAN IDs, 16k MAC addresses, Jumbo frames up to 9000 bytes, Port mirroring functionality for measurements using a network analyzer, Self learning of unicast & multicast MAC addresses and associated VLANs.
6	Protocols as per IEEE 802.1d, IEEE 802.1s, IEEE 802.1w, IEEE 802.3ad, IGMP v1,v2,v3 and IGMP v1,v2,v3 snooping.
	Quality of Service (QoS) Features
7	Configuration of QoS on per switch port basis, classification, marking and scheduling as per IEEE 802.1P, and DSCP on all ports, DiffServ as per RFC 2474/RFC 2475, four hardware queues per port.
8	Switch should provide traffic shaping and rate limiting features for specified Host, network, Applications etc.
	Security Features
9	Switch should support MAC address based filters and Port as well as VLAN based Filters / ACLs. Switch should support first hop ipv6 security/filtering.
10	Switch should support RADIUS/ TACACS+ for access restriction and authentication, Switch should support Multiple privilege levels to provide different levels of access.
11	SSHv2, http and DoS protection, ARP spoofing, static ARP, Proxy ARP, DHCP snooping and IP source guard.
12	IEEE 802.1x to allow port-based security.
13	Switch should support Ipv6 First Hop Security with Ipv6 snooping, Ipv6 FHS Binding, Neighbour Discovery protocol (NDP) gleaning, Ipv6 data address gleaning, Ipv6 dynamic host configuration protocol (DHCP) address
	Management Features of IPv4 and IPv6
14	Switch should have a console port Interface and out of band management port for configuration and diagnostic purposes.
15	Switch should support IPv4 and IPv6 switch management and neighbour discovery, SNMP, DNS, Syslog from day one. Switch should support DHCP server and client, SNMP Version 1, 2 and 3, TELNET and SSH Version-2 for Command Line Management, 4 groups of embedded RMON, ACLs
16	Switch should support system and event logging functions as well as forwarding of these logs to multiple syslog servers.
17	Switch should support on-line software reconfiguration to implement changes without rebooting.
18	Switch should support NTP
	Standards
19	RoHS Compliant.

20	The Switch should be tested and certified for EAL-2 OR NDPP OR above under Common Criteria Program for security related functions.
21	All the switches should be from same OEM and should have same CLI for the purpose of ease of management and integration
22	The switch may support Energy Efficient Ethernet (EEE) (IEEE 802.3az standard) to reduce power consumption in Ethernet networks during idle periods.
	Minimum Configuration deliverable
23	Product should be offered with 5 year same day replacement warranty by OEM. Part code for same to be quoted in the detailed BOQ

ANNEXURE –V

Tender for Active Components for LAN and Wi-Fi

SL.no.	Technical Specifications 8 Port Access Switch (PoE)
1	**Switch Architecture and Performance**
2	Switch should have 8 X 10/100/1000Base-T autosensing ports complying to IEEE 802.3,IEEE 802.3u and 802.3ab standard, supporting half duplex mode, full duplex mode and auto negotiation on each port with 2 x 1G Fiber and 2 x 1G copper uplink ports. The switch should support stacking bandwidth of minimum 80 Gbps with dedicated stacking ports.
3	The switch should have 124W of Available PoE Power and should support both POE and POE+ standard.
9	Switch should have non-blocking wire-speed architecture.
10	Switch should support IPv4 and IPv6 from day One
11	Switch should have forwarding bandwidth of 12 Gbps and forwarding rate of 17.9 mpps.
13	**Layer 2 Features**
14	IEEE 802.1Q VLAN tagging with support for minimum 255 active VLANs and 4k VLAN ids
15	Should support for minimum 16k MAC addresses
16	Should support Spanning Tree Protocol as per IEEE 802.1d, Multiple Spanning-Tree Protocol as per IEEE 802.1s, Rapid Spanning-Tree Protocol as per IEEE 802.1w
17	Switch should support IGMP v1/v2/v3.
18	**Quality of Service (QoS) Features**
19	Switch should support classification and scheduling as per IEEE 802.1 P on all ports.
20	Switch should support DiffServ as per RFC 2474/RFC 2475.
21	Switch should support QoS configuration on per switch port basis and support upto 8 hardware queues per port.
22	**Security Features**
24	Switch should support MAC address based filters / access control lists (ACLs) on all switch ports.
25	Switch should support Port as well as VLAN based Filters / ACLs.
26	Switch should support RADIUS and TACACS+ for access restriction and authentication.
27	Secure Shell (SSH) Protocol, HTTP.
28	Should support DHCP snooping and Dynamic ARP Inspection (DAI)
29	RADIUS change of authorization and downloadable ACLs for comprehensive policy management.
30	Switch should Support Ipv6 First hop Security with IPv6 first-hop security with Binding Integrity Guard, RA Guard, and DHCP Guard.
31	Switch should support Ipv6 First Hop Security with Ipv6 snooping, Ipv6 FHS Binding, Neighbour Discovery protocol (NDP) gleaning, Ipv6 data address gleaning, Ipv6 dynamic host configuration protocol (DHCP) address
32	**Management, Easy-to-Use Deployment and Control Features**
33	Switch should have a console port with RS-232 Interface for configuration and diagnostic purposes.
34	Switch should be SNMP manageable with support for SNMP Version 1, 2 and 3.
35	Switch should support TELNET and SSH Version-2 for Command Line Management.
36	Switch should support 4 groups of embedded RMON (history, statistics, alarm and events).
37	Should support DHCP Server feature to enable a convenient deployment option for the assignment of IP addresses in networks that do not have without a dedicated DHCP server.

38	Switches should support Energy Efficient Ethernet (EEE) (IEEE 802.3az standard) to reduce power consumption in Ethernet networks during idle periods. The switch should provision to save power by entering low power idle (LPI) mode during periods of low utilization.
39	**Standards**
40	Should be RoHS Compliant.
41	Should support IEEE 802.1x support.
42	Should support IEEE 802.3x full duplex on 10BASE-T and 100BASE-TX ports.
43	Should support IEEE 802.3u 10 BaseT /100 Base Tx /1000 Base Tx.
44	The switch may support Energy Efficient Ethernet (EEE) (IEEE 802.3az standard) to reduce power consumption in Ethernet networks during idle periods.

ANNEXURE – VI

Tender for Active Components for LAN and Wi-Fi

Sl No.	Technical Specification - 24 port Access Switch (PoE)
	Switch Architecture and Performance
1	Switch should have 24 Nos. 10Base-T/100Base-Tx/1000Base-T auto-sensing PoE ports supporting auto negotiation on each port and additional 4 Nos. of 1G SFP ports . Switch should support power supply redundancy.
2	Switch should provide stacking of upto 4 Switches. Switch should support stacking through a dedicated port without using uplink port. The switch should support stacking bandwidth of minimum 80 Gbps with dedicated stacking ports
3	"Switch should have non-blocking wire-speed architecture, forwarding rate of 41 Mpps for 64 byte packet
4	Switch should provide 56 Gbps of backplane throughput.
	Layer 2 Features
5	802. 1Q VLAN on all ports with support for minimum 1023 active VLANs and 4k VLAN IDs, 16k MAC addresses, Jumbo frames up to 9000 bytes, Port mirroring functionality for measurements using a network analyzer, Self learning of unicast & multicast MAC addresses and associated VLANs.
6	Protocols as per IEEE 802.1d, IEEE 802.1s, IEEE 802.1w, IEEE 802.3ad, IGMP v1,v2,v3 and IGMP v1,v2,v3 snooping.
	Quality of Service (QoS) Features
7	Configuration of QoS on per switch port basis, classification, marking and scheduling as per IEEE 802.1P, and DSCP on all ports, DiffServ as per RFC 2474/RFC 2475, four hardware queues per port.
8	Switch should provide traffic shaping and rate limiting features for specified Host, network, Applications etc.
	Security Features
9	Switch should support MAC address based filters and Port as well as VLAN based Filters / ACLs. Switch should support first hop ipv6 security/filtering.
10	Switch should support RADIUS/ TACACS+ for access restriction and authentication, Switch should support Multiple privilege levels to provide different levels of access.
11	SSHv2, http and DoS protection, ARP spoofing, static ARP, Proxy ARP, DHCP snooping and IP source guard.
12	IEEE 802.1x to allow port-based security.
13	Switch should support Ipv6 First Hop Security with Ipv6 snooping, Ipv6 FHS Binding, Neighbour Discovery protocol (NDP) gleaning, Ipv6 data address gleaning, Ipv6 dynamic host configuration protocol (DHCP) address
	Management Features of IPv4 and IPv6
114	Switch should have a console port Interface and out of band management port for configuration and diagnostic purposes.
15	Switch should support IPv4 and IPv6 switch management and neighbour discovery, SNMP, DNS, Syslog from day one. Switch should support DHCP server and client, SNMP Version 1, 2 and 3, TELNET and SSH Version-2 for Command Line Management, 4 groups of embedded RMON, ACLs
16	Switch should support system and event logging functions as well as forwarding of these logs to multiple syslog servers.
17	Switch should support on-line software reconfiguration to implement changes without rebooting.
18	Switch should support NTP
	Standards
19	RoHS Compliant.

20	The Switch should be tested and certified for EAL-2 OR NDPP OR above under Common Criteria Program for security related functions.
21	All the switches should be from same OEM and should have same CLI for the purpose of ease of management and integration
22	The switch may support Energy Efficient Ethernet (EEE) (IEEE 802.3az standard) to reduce power consumption in Ethernet networks during idle periods.
	Minimum Configuration deliverable
23	Product should be offered with 5 year same day replacement warranty by OEM. Part code for same to be quoted in the detailed BOQ

ANNEXURE – VII

Tender for Active Components for LAN and Wi-Fi

	WLAN Controller Requirement
	WLAN Controller should be based on the following key requirements:
	General Standards:
1.	Must be complaint with IEEE CAPWAP for controller-based WLANs.
2.	WLAN Controller should support upto 250 Accesspoints and scalable to 500 as an when required through license.
	Compatibility
3.	Must not require a separate controller for Wireless Intrusion Prevention Access Points.
	High Availability:
4.	Must support both 1+1 and N+1 redundancy models.
5.	Must support Stateful failover functionality for all the Accesspoints from primary to backup WLC.
6.	Stateful failoverof accesspoints from primary to backup WLC should happen within ONE second.
7.	Must support redundant power supplies.
	RF Management:
8.	Must support an ability to dynamically adjust channel and power settings bases on the RF environment.
6.	Radio coverage algrothm must allow adjacent APs to operate on different channels, in order to maximize available bandwidth and avoid interference
10.	Must support interference detection and avoidance.
11.	Must support coverage hole detection and correction that can be adjusted on a per WLAN basis.
12.	Must support RF Management with 40 MHz channels with 802.11n.
	IPv6 features
13.	WLC should support L2 and L3 roaming of Ipv6 clients
14.	WLC should support Ipv6 access control lists, Switch should support first hop ipv6 securtiy/filtering.
	Performance:
15.	Controller performance must remain the same if encryption is on or off for wireless SSIDs.
16.	Should supoort ability to adjust Delivery Traffice Indicator Message (DTIM) on a per WLAN basis to improve performance for latency sensitive application.
	Security:
17.	Should adhere to the strictest level of security standards, including 802.11i Wi-Fi Protected Access 2 (WPA2), WPA, Wired Equivalent Privay (WEP), 802.1X with multiple Extensible Authentication Oprotocol (EAP) types, including Protected EAP (PEAP), EAP with Transport Layer Security (EAP-TLS), EAP with Tunneled TLS (EAP-TTLS)/Protected (EAP-TTLS).
18.	Must support setting Access Control Lists (ACLs).
19.	Should support Management frame protection for the authentication of 802.11

20.	management frames by the wireless network infrastructure. The Controller should support a acability to shun/block WLAN client in collaboration with wired IPS on detectinv malicious client traffic using 802.1x and standard protocol IF-MAP
	Quest Wireless
21.	Must support built-in web authentication.
	Functionality
22.	Must be able to set a maximum per-user bandwidth limit on a per-SSID basis.
23.	Must support user load balancing across Access Points.
24.	Controller must provide Mesh capability for Mesh supported AP.
	Monitoring
25.	Must be able to dedicate some Apz to monitor-only for Intrusion Prevention Services.
	Roaming:
26.	Must support client roaming across controllers separated bya layer 3 routed boundary.
27.	Solution proposed must support clients roaming across at least 500 APs.
	Operational:
28.	Should be able to classify over 20 severe different types of interference and channel should be changed.
29.	Should provide the overall severtiy of the interference with type of interefereces detected like source, RSSI, AP, radio and channel
30.	Should provide real-time charts showing interferers per access point, on a per-radio, per-channel basis.
	QOS:
31.	Must support 802.11e WMM
32.	Should have Voice Call Admission
33.	Should support Stream prioritization.
34.	Support for configuring media streams with different priority to identify specific video streams for preferential quality-of-service treatment.
35.	Should support multicast to unicast conversion for relaible media transmission to achieve optimization on badwidth between AP and controller.
36.	Should support Internet Group Management Protocol (IGMP) snooping and access point should transmits multicast packets only if a client associated to the access point is subscribed to the multicast group.
	Application visisbility Internal or External
37.	Wireless controller should classify applications using (DPI) techniques and provide application-level visibility and control into Wi-fi network.
38.	Wireless controller should have contoroll to allows Application traffic to either drop or mark the traffic
39.	Wireless controller should be able to detect more than 1000 applications
	Others
	Must support active clustering
	Must support real time location based services
	Must support encryption of control traffic.

ANNEXURE – VIII

Tender for Active Components for LAN and Wi-Fi

Access point specifications

Hardware:

1. Access Points proposed must include radios for both 2.4 GHz and 5 GHz.
2. Must have a robust design for durability, without visible vents
3. Must have an industrial design for durability, with steel cases, industrial grade antenna connectors, without visible vents, and with metal locking points.
4. Must include dual band antennas to support both the 2.4GHz and 5GHz operations simultaneously from single antenna.
5. Must support a variety of antenna options.

802.11n

6. Must support 3x3 or better multiple-input multiple-output (MIMO) with three spatial streams
7. Must support simultaneous 802.11n on both the 2.4 GHz and 5 GHz radios.
8. Must support datarates upto 450Mbps on 5Ghz radio and 216mbps on 2.4Ghz radio.
9. Must support 40 MHz wide channels in 5 GHz.
10. Must support upto 18-21 dbm of transmit power in both 2.4Ghz and 5Ghz radios.

RF

11. The Wireless AP should have the technology to improve downlink performance to all mobile devices including one-, two-, and three spatial stream devices on 802.11n. The technology should use advanced signal processing techniques and multiple transmit paths to optimize the signal received by 802.11 clients in the downlink direction without requiring feedback and should work with all existing 802.11 clients.
12. Should detect interference of non-Wi-Fi wireless transmissions while simultaneously serving network traffic
13. Should support configuring the access point as network connected sensor to access any network location covered by the access point to get real-time Spectrum analysis data.
14. Must support AP enforced load-balance between 2.4Ghz and 5Ghz band.
15. Must incorporate radio resource management for power, channel, coverage hole detection and performance optimization

Roaming

16. Must support Proactive Key Caching and/or other methods for Fast Secure Roaming.

Security

17. Must support Management Frame Protection.
18. Should support locally-significant certificates on the APs using a Public Key Infrastructure (PKI).
19. Must operate as a sensor for wireless IPS

Encryption

20. Access Points must support encryption/decryption model.
21. Access Point should support IETF CAPWAP Taxonomy
22. Must support the ability to serve clients and monitor the RF environment concurrently.
23. Same model AP that serves clients must be able to be dedicated to monitoring the RF

environment.

Flexibility:

24. AP model proposed must be able to be both a client-serving AP and a monitor-only AP for Intrusion Prevention services.
25. Should support mesh capabilities for temporary connectivity in areas with no Ethernet cabling.
26. Mesh support should support QoS for voice over wireless.
27. Must support 16 WLANs/ virtual profile per AP for SSID deployment flexibility.

Power:

28. Must support Power over Ethernet,, and power injectors.

Quality of Service:

29. 802.11e and WMM
30 WiFi Alliance Certification for WMM and WMM power save
31. Must support Reliable Multicast Video to maintain video quality
32. Must support QoS and Call Admission Control capabilities.

Others

33. Must support distibuted switching
34. Must support remote branch capabilities
35. Must support device finger printing

ANNEXURE –IX

Tender for Active Components for LAN and Wi-Fi

Sl. No.	Technical Specification - NMS
1.	NMS for 460 devices
2.	NMS should be an open, secure, and scalable software for optimizing network infrastructure and operations management through dynamic policy.
3.	NMS should have standards-based Device Management Interface (DMI) for zero day device support,
4.	Should support simple Web 2.0 user interface.
5.	Should support automated discovery of network topology (devices and interconnections)
6.	Should have tools for visualizing the discovered topology
7.	Should have tabular view for device-specific details
8.	Should support centralized device software installation for all managed devices
9.	Should have capability to enable device images to be uploaded from local file system, and deployed onto a device or onto multiple devices of the same device family in a single workflow
10.	Should support Image verification for accuracy.
11.	Should support configuration editor that provides the ability to view, edit, and delete all aspects of a device's configuration
12.	Should support audit log that captures all template deployment operations
13.	Should have ability to view a given device's configuration and edit add, or delete portions of that configuration
14.	Should support network-wide visibility and control
15.	Should support rapid deployment of switching, and security infrastructure
16.	Should support fast problem identification and resolution

ANNEXURE –X

Tender for Active Components for LAN and Wi-Fi

Converged Management Infrastructure

- The network management platform shall provide a single integrated solution for comprehensive lifecycle management of the wired/wireless access, campus, and branch networks, and rich visibility into end-user connectivity.
- The Network Management platform should support 500 numbers of wired/wireless devices devices through virtual or physical appliances.
- The platform shall support as many as fifteen thousand devices through virtual or physical appliances.
- The utility shall simplify and automate many of the day-to-day tasks associated with maintaining and managing the end-to-end network infrastructure from a single pane of glass thereby reducing the need for multiple tools, and lowering operating expenses and training costs.
- The platform would deliver all of the existing wireless capabilities for RF management, user access visibility, reporting, and troubleshooting along with wired lifecycle functions such as discovery, inventory, configuration and image management, automated deployment, compliance reporting, integrated best practices, and reporting.
- The platform shall be based on lifecycle processes that would align with the product functionality clearly describing the phases like design, deploy, operate, report and administer.
- The design functionality shall facilitate creation of templates used for monitoring key network resources, devices, and attributes. Default templates and best practice designs are provided for quick out-of-the-box implementation automating the work required to use OEM validated designs and best practices.
- The platform shall offer unified alarm displays with detailed forensics provide actionable information and the ability to automatically open service requests with the OEM's Technical Assistance Center
- The platform should have flexible virtual machine and physical appliance solution that would provide cost-effective, easy-to-install options for small to global enterprise-class networks.

Tender for Active Components for LAN and Wi-Fi

Wireless Security Specs.

1. Must provide native wireless IPS/IDS.
2. Must have the ability to detect and contain rogue AP devices on either the same or separate channel as data traffic while simultaneously providing client services with no performance impact.
3. System should provide historical tracking of attacks and mitigation processes.
4. Must be able to block traffic between clients on a per-SSID basis.
5. Must provide Management Frame Protection.
6. Must support an external RADIUS authentication server.
7. Must support an external RADIUS accounting server.
8. Must support local EAP authentication.
9. Must provide security vulnerability reports.
10. Should provide integration with a network security threat monitoring tool.
11. Must support rogue AP detection without requiring dedicated APs or controllers for this purpose.
12. Must support reporting on rogue APs
13. Must support locating rogue APs through location services and viewing them on a floor plan.
14. Must support rogue AP containment.
15. Must provide a report specific to PCI requirements.
16. Must support integration with a Network Access Control (NAC) product that does not require traffic always flow through the NAC product.
17. Must support WEP, WPA, WPA-PSK, WPA2, WPA2-PSK, 802.1x, 802.11i
18. Must support a variety of EAP types.
19. Must support “Event correlation”. Same security threats detected by multiple accesspoints and at different times should be consolidated into a single alert.
20. Must support the ability to capture the attack packets and display it as part of the alerts. Must support AP over-the-air packet capture for export to a tool such as Wireshark.
21. Must support full life cycle management for wireless

ANNEXURE –XII

Tender for Active Components for LAN and Wi-Fi

	Technical Specification for Network Access validation server
S No	Specifications
1	The solution should be sized for 1500 devices and provide flexible deployment options and redundancy
2	The Solution should provide a highly powerful and flexible attribute-based access control solution that combines authentication, authorization, and accounting (AAA); posture; profiling; and guest management services on a single platform.
3	The Solution should automatically discover and classify endpoints, provide the right level of access based on identity, and provide the ability to enforce endpoint compliance by checking a device's posture
4	It should allow enterprises to authenticate and authorize users and endpoints via wired, wireless, and VPN with consistent policy throughout the enterprise
5	Should provides guest provisioning and monitoring
6	Should discover, classify and control endpoints connecting to the network to enable the appropriate services per endpoint type
7	Should address vulnerabilities on user machines through periodic evaluation and remediation to help proactively mitigate network threats such as viruses, worms, and spyware
8	Should enforce security policies by blocking, isolating, and repairing noncompliant machines in a quarantine area without needing administrator attention
9	Should offer a built-in monitoring, reporting, and troubleshooting console to assist helpdesk operators and administrators streamline operations
10	Should utilize standard RADIUS protocol for authentication, authorization, and accounting
11	Should support a wide range of authentication protocols, including PAP, MS-CHAP, Extensible Authentication Protocol (EAP)-MD5, Protected EAP (PEAP), EAP-Flexible Authentication via Secure Tunneling (FAST), and EAP-Transport Layer Security (TLS)
12	Should Offer a rules-based, attribute-driven policy model for creating flexible and business-relevant access control policies. Attributes should be pulled from predefined dictionaries that include information about user and endpoint identity, posture validation, authentication protocols, profiling identity, or other external attribute sources/device finger priting. Attributes can also be created dynamically and saved for later use.
13	Should have predefined device templates for a wide range of endpoints such as IP phones, printers, IP cameras, smart phones and tablets.
14	Should support user defined device templates/ device finger printing which can be used to automatically detect, classify, and associate administrative-defined identities when endpoints connect to the network
15	Should support association of endpoint-specific authorization policies based on device type
16	Should have full guest lifecycle management whereby guest users can access the network for a limited time either through administrator sponsorship or by self-signing via a guest portal. Should support customization of portals and policies based on specific needs of the enterprise

17	Should verify endpoint posture assessment for all types of users connecting to the network. Should work via either a persistent client-based agent or temporal web agent to validate that an endpoint is conforming to the company's posture policies, such as having the latest operating systems patches and running an antivirus software package with current definition files. Should have powerful assessment rule logic which can check endpoints for such things as file variables (version, date, etc.), registry checks (key, value, etc), application and state, and antivirus/antispyware software status while allowing for simple or complex compound conditions. Should supports auto-remediation of the client as well as periodic reassessment to make sure the endpoint is not in violation of company policies
18	Should be available as a physical or virtual appliance
19	Should supports role-based access control (RBAC) and configuration of these roles and associated permissions, based upon the user or group
20	The solution architecture should support both stand-alone and distributed (also known as "high-availability" or "redundant") deployments where one machine assumes the primary role and another "backup" machine assumes the secondary role. Solution should feature distinct configurable personas, services, and roles, which allow you to create and apply services where they are needed in the network
21	It should allow authenticating and authorizing users and endpoints via wired, wireless, and VPN with consistent policy.
	Should support following protocol:
	Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling (EAP-FAST) and Protected Extensible Authentication Protocol (PEAP)—supports user and machine authentication and change password against Active Directory using EAP-FAST and PEAP with an inner method of Microsoft Challenge Handshake Authentication Protocol version 2 (MS-CHAPv2) and Extensible Authentication Protocol-Generic Token Card (EAP-GTC)
	Password Authentication Protocol (PAP)—supports authenticating against Active Directory using PAP and also allows you to change Active Directory user passwords.
	Microsoft Challenge Handshake Authentication Protocol version 1 (MS-CHAPv1)—supports user and machine authentication against Active Directory using MS-CHAPv1
	MS-CHAPv2—supports user and machine authentication against Active Directory using EAP-MSCHAPv2
	EAP-GTC—supports user and machine authentication against Active Directory using EAP-GTC
	Extensible Authentication Protocol-Transport Layer Security (EAP-TLS)— uses the certificate retrieval option to support user and machine authentication against Active Directory using EAP-TLS.
	Protected Extensible Authentication Protocol-Transport Layer Security (PEAP-TLS)—supports user and machine authentication against Active Directory using PEAP-TLS
22	LEAP -supports user authentication against Active Directory using LEAP
23	Should support machine authentication to provides access to network services to only those devices that are listed in Active Directory/radius
24	Should be able to retrieve user or machine groups from Active Directory/radius after a successful authentication
25	Supports different databases like: Internal Users, Internal Endpoints, Active Directory/ LDAP, RSA, RADIUS Token Servers, Certificate Authentication Profiles
26	Should be able to authenticate one IP phone and one or more host machines connected to the same switch port
27	The Solution Should support Flexible authentication methods like 802.1x, MAC and Web-Auth. The priority of each should be configurable
28	Should Support Client Provisioning resources like Persistent agents/Temporal Agent/ Agent Customization files/Agent profiles/compliance modules
29	Should support enforcement of dynamic vlans
30	Should support flexible deployment scenarios like standalone, distributed and Inline
31	Should support Radius Change of Authorization

ANNEXURE-XIII

Tender for Active Components for LAN and Wi-Fi

PROFORMA FOR PART – A OF TECHNICAL BID

1. Name of the Bidder:

2. Address of the Bidder:

3. Contact details of the Bidder:

   (a) Telephone Nos. (with STD Code)

   (b) FAX No._____

   (c) Mobile No._____

   (d) E-mail_____

   (e) Website _____

4. Name of Proprietor/Partner/Authorized Signatory

5. Copy of Registration Certificate(in case of Registered Firm/Company)

6. (a) Copy of Sales Tax/VAT/TIN Registration Certificate/Service Tax registration certificate.

   (b) PAN of Income Tax Department.

7. Copies of Income Tax Returns (ITR) for the last three consecutive years.

8. The Bidder should be an ISO:9001:2000 or ISO:9001:2008 Certified Company/Firm. Attach a copy of such certifications.

9. Copy of Balance Sheet/Profit and Loss Account duly certified by Chartered Accountant for each of last three years showing annual turnover of Rs.30 Crore and above. **The figure of annual turnover should be highlighted**.

10. Copy of certificate of authorized distributor/Sale and service partner of CISCO Systems India Private Ltd. (OEM) shall be attached (**Annexure- XXXVIII**).

11. The bidder must attach copies of at least two Purchase order for supply and installations of Active Components of LAN and Wi-fi totaling **Rs.3 Crore** or above each issued by Government Departments/PSUs/Autonomous organization of Government/Government corporations in last three years.

12. Undertaking in the form of Affidavit duly attested by Executive Magistrate/Notary Public containing declaration of blacklisting or otherwise of the Bidder by the organizations in accordance with **Annexure- XXXIX.**

13. The Bidder must have infrastructure support in the form of direct service centre or franchisee or OEM's service centre in Delhi/NCR Region. The Bidder must submit details of his infrastructure with reference to location, Technical manpower and availability of inventory of spares etc. and also indicate his business model or business model of OEM for providing warranty and after sales support in the format given in **Annexure- XXXXI.**

***** Documents furnished must be serially numbered and indexed**.**

ANNEXURE-XIV

Tender for Active Components for LAN and Wi-Fi

Proforma for Technical Bid for Active Components of W*i-Fi* Network for Parliament House Complex

Sl. No.	Item		Specifications required	Specifications quoted by the Bidder	Deviation, if any	Whether deviation is to higher side or lower side	Model quoted by the Bidder
1.	Distribution Switch for *Wi-fi*		As Per Annexure-II of Tender Document				
2.	Access Switches for *Wi-fi*	8 Ports	As Per Annexure-V of Tender Document				
		24 Ports	As Per Annexure-VI of Tender Document				
3.	*Wi-fi* Access Points		As Per Annexure-VIII of Tender Document				
4.	SFP-10G-LR		10GBASE-LR SFP Module				
5.	GLC-T		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM				
6.	GLC-SX-MMD		1000BASE-SX SFP transceiver module, MMF/SMF, 850nm, DOM				
7.	GLC-LH-SMD		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM				
8.	Network Access validation Server		As Per Annexure-XII of Tender Document				

***the bidder must quote latest model conforming to given specifications**

ANNEXURE-XV

Tender for Active Components for LAN and Wi-Fi

Proforma for Technical Bid for Active Components of LAN for Parliament House Complex

Sl. No.	Item		Specifications required	Specifications quoted by the Bidder	Deviation, if any	Whether deviation is to higher side or lower side	Model quoted by the Bidder
1.	Core Switch for LAN		As Per Annexure-I. of Tender Document				
2.	Access Switches for LAN	24 Ports	As Per Annexure-III of Tender Document				
		48 Ports	As Per Annexure-IV of Tender Document				
3.	X2-10GB-LR		10GBASE-LRX2 Module				
4.	GLC-SX-MMD		1000BASE-SX SFP transceiver module, MMF/SMF, 850nm, DOM				
5.	GLC-LH-SMD		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM				
6.	LAN Controller		As Per Annexure –VII of Tender Document				

***the bidder must quote latest model conforming to given specifications**

ANNEXURE-XVI

Tender for Active Components for LAN and Wi-Fi

Proforma for Technical Bid for Software for LAN & Wi-fi Network of Parliament House Complex

Sl. No.	Item	Specifications required	Specifications quoted by the Bidder	Deviation, if any	Whether deviation is to higher side or lower side	Model quoted by the Bidder
1.	Network Management Software (NMS)	As Per Annexure -IX of Tender Document				
2.	License for Network Management Software	As Per Annexure -IX of Tender Document	_____	_____	_____	_____

***the bidder must quote latest model conforming to given specifications**

ANNEXURE-XVII

Tender for Active Components for LAN and Wi-Fi

Bill of Material of LAN Controller, Network Access Validation Server, Network Management Software (NMS) & Licence for NMS of LAN & Wi-Fi Network for Parliament House Complex (PHC)

Sl. No.	Item	Specification	Quantity	Unit
1.	LAN Controller	As Per Annexure- VII of Tender Document	1	Nos.
2.	Network Access Validation Server	As Per Annexure-XII of Tender Document	1	Nos.
3.	Network Management Software (NMS)	As Per Annexure-IX of Tender Document	460	Nos.
4.	License for NMS	As Per Annexure-IX of Tender Document	1	Nos.

ANNEXURE-XVIII

Tender for Active Components for LAN and Wi-Fi

Bill of Material of Active Components of W*i-Fi* for Parliament House (PH)

Sl. No.	Item		Specifications	Quantity	Unit
1.	Distribution Switch for *Wi-fi*		As Per Annexure-II of Tender Document	2	Nos.
2.	Access Switches for *Wi-fi*	8 Ports	As Per Annexure-V of Tender Document	12	Nos.
		24 Ports	As Per Annexure-VI of Tender Document	1	Nos.
3.	*Wi-fi* Access Points		As Per Annexure-VIII of Tender Document	73	Nos.
4.	SFP-10G-LR		10GBASE-LR SFP Module	2	Nos.
5.	GLC-LH-SMD		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	26	Nos.

ANNEXURE-XIX

Tender for Active Components for LAN and Wi-Fi

Bill of Material of Active Components of W*i-Fi* for Parliament Library Building (PLB)

Sl. No.	Item		Specifications	Quantity	Unit
1.	Distribution Switch for *Wi-fi*		As Per Annexure- II of Tender Document	2	Nos.
2.	Access Switches for *Wi-fi*	8 Ports	As Per Annexure-V of Tender Document	11	Nos.
		24 Ports	As Per Annexure-VI of Tender Document	0	Nos.
3.	*Wi-fi* Access Points		As Per Annexure-VIII of Tender Document	24	Nos.
4.	SFP-10G-LR		10GBASE-LR SFP Module	2	Nos.
5.	GLC-T		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	4	Nos.
6.	GLC-SX-MMD		1000BASE-SX SFP transceiver module, MMF/SMF, 850nm, DOM	21	Nos.

ANNEXURE-XX

Tender for Active Components for LAN and Wi-Fi

Bill of Material of Active Components of W*i-Fi* for Parliament House Annexe (PHA)

Sl. No.	Item		Specification	Quantity	Unit
1.	Distribution Switch for *Wi-fi*		As Per Annexure-II of Tender Document	2	Nos.
2.	Access Switches for *Wi-fi*	8 Ports	As Per Annexure-V of Tender Document	5	Nos.
		24 Ports	As Per Annexure-VI of Tender Document	2	Nos.
3.	*Wi-fi* Access Points		As Per Annexure-VIII of Tender Document	53	Nos.
4.	SFP-10G-LR		10GBASE-LR SFP Module	2	Nos.
5.	GLC-T		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	2	Nos.
6.	GLC-LH-SMD		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	17	Nos.

ANNEXURE-XXI

Tender for Active Components for LAN and Wi-Fi

Bill of Material of Active Components of W*i-Fi* for Parliament House Annexe (New Building)

Sl. No.	Item		Specification	Quantity	Unit
1.	Distribution Switch for *Wi-fi*		As Per Annexure-II of Tender Document	2	Nos.
2.	Access Switches for *Wi-fi*	8 Ports	As Per Annexure-V of Tender Document	0	Nos.
		24 Ports	As Per Annexure-VI of Tender Document	8	Nos.
3.	*Wi-fi* Access Points		As Per Annexure-VIII of Tender Document	122	Nos.
4.	SFP-10G-LR		10GBASE-LR SFP Module	1	Nos.
5.	GLC-LH-SMD		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	11	Nos.

ANNEXURE-XXII

Tender for Active Components for LAN and Wi-Fi

Bill of Material of Active Components of LAN for Parliament House (PH)

Sl. No.	Item		Specification	Quantity	Unit
1.	Core Switch for LAN		As Per Annexure-I of Tender Document	2	Nos.
2.	Access Switches for LAN	24 Ports	As Per Annexure-III of Tender Document	17	Nos.
		48 Ports	As Per Annexure-IV of Tender Document	11	Nos.
3.	X2-10GB-LR		10GBASE-LRX2 Module	12	Nos.
4.	GLC-LH-SMD		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	80	Nos.

ANNEXURE-XXIII

Tender for Active Components for LAN and Wi-Fi

Bill of Material of Active Components of LAN for Parliament Library Building (PLB)

Sl. No.	Item		Specification	Quantity	Unit
1.	Core Switch for LAN		As Per Annexure-I of Tender Document	2	Nos.
2.	Access Switches for LAN	24 Ports	As Per Annexure-III of Tender Document	15	Nos.
		48 Ports	As Per Annexure-IV of Tender Document	5	Nos.
3.	X2-10GB-LR		10GBASE-LRX2 Module	12	Nos.
4.	GLC-SX-MMD		1000BASE-SX SFP transceiver module, MMF/SMF, 850nm, DOM	148	Nos.
5.	GLC-LH-SMD		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	4	Nos.

ANNEXURE-XXIV

Tender for Active Components for LAN and Wi-Fi

Bill of Material of Active Components of LAN for Parliament House Annexe (PHA)

Sl. No.	Item		Specification	Quantity	Unit
1.	Core Switch for LAN		As Per Annexure-I of Tender Document	2	Nos.
2.	Access Switches for LAN	24 Ports	As Per Annexure-III of Tender Document	36	Nos.
		48 Ports	As Per Annexure-IV of Tender Document	10	Nos.
3.	X2-10GB-LR		10GBASE-LRX2 Module	6	Nos.
4.	GLC-LH-SMD		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	164	Nos.

ANNEXURE-XXV

Tender for Active Components for LAN and Wi-Fi

Bill of Material of Active Components of LAN for Parliament House Annexe (New Building)

Sl. No.	Item		Specification	Quantity	Unit
1.	Core Switch for LAN		As Per Annexure-I of Tender Document	2	Nos.
2.	Access Switches for LAN	24 Ports	As Per Annexure-III of Tender Document	0	Nos.
		48 Ports	As Per Annexure-IV of Tender Document	0	Nos.
3.	X2-10GB-LR		10GBASE-LRX2 Module	12	Nos.
4.	GLC-LH-SMD		1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	70	Nos.

ANNEXURE-XXVI

Tender for Active Components for LAN and Wi-Fi

Proforma for Financial Bid of LAN Controller, Network Access Validation Server, Network Management Software (NMS) & License for NMS of LAN & Wi-Fi Network for Parliament House Complex (PHC)

Sl. No.	Item	Model No.	Unit Price (in Rs.)	VAT/ Unit (in Rs.)	Total Price/ Unit (in Rs.)	Quantity	Total cost for full quantity (in Rs.)
1.	LAN Controller		1	Nos.		1	
2.	Network Access Validation Server		1	Nos.		1	
3.	Network Management Software (NMS)		460	Nos.		460	
4.	Lisence for NMS		1	Nos.		1	

***the bidder must quote latest model conforming to given specifications**

ANNEXURE-XXVII

Tender for Active Components for LAN and Wi-Fi

Proforma for Financial Bid of Active Components of W*i-Fi* for Parliament House (PH)

Sl. No.	Item		Model No.	Unit Price (In Rs.)	VAT/ Unit (In Rs.)	Unit Price for Five Years Smartnet Warranty (In Rs.)	Service Tax/ Unit (In Rs.)	Total Cost Price/ Unit (In Rs.)	Quantity	Total Cost for full quantity (In Rs.)
1.	*Wi-Fi* Access Points								73	
2.	Switches for *Wi-fi*	8 Ports							12	
		24 Ports							1	
3.	Distribution Switch for *Wi-fi*								2	
4.	SFP-10G-LR (10GBASE-LR SFP Module)								2	
5.	GLC-LH-SMD (1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM)								26	

***the bidder must quote latest model conforming to given specifications**

ANNEXURE-XXVIII

Tender for Active Components for LAN and Wi-Fi

Proforma for Financial Bid of Active Components of W*i-Fi* for Parliament Library Building (PLB)

Sl. No.	Item		Model No.	Unit Price (In Rs.)	VAT/Unit (In Rs.)	Unit Price for Five Years Smartnet Warranty (In Rs.)	Service Tax/ Unit (In Rs.)	Total Cost Price/Unit (In Rs.)	Quantity	Total Cost for full quantity (In Rs.)
1.	*Wi-fi* Access Points								24	
2.	Switches for *Wi-fi*	8 Ports							11	
		24 Ports							0	
3.	Distribution Switch for *Wi-fi*								2	
4.	SFP-10G-LR (10GBASE-LR SFP Module)								2	
5.	GLC-T (1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM)								4	
6.	GLC-SX-MMD (1000BASE-SX SFP transceiver module, MMF/SMF, 850nm, DOM)								21	

***the bidder must quote latest model conforming to given specifications**

ANNEXURE-XXIX

Tender for Active Components for LAN and Wi-Fi

Proforma for Financial Bid of Active Components of W*i-Fi* for Parliament House Annexe (PHA)

Sl. No.	Item		Model No.	Unit Price (In Rs.)	VAT/ Unit (In Rs.)	Unit Price for Five Years Smartnet Warranty (In Rs.)	Service Tax/ Unit (In Rs.)	Total Cost Price/ Unit (In Rs.)	Quantity	Total Cost for full quantity (In Rs.)
1.	*Wi-fi* Access Points								53	
2.	Switches for *Wi-fi*	8 Ports							5	
		24 Ports							2	
3.	Distribution Switch for *Wi-fi*								2	
4.	SFP-10G-LR (10GBASE-LR SFP Module)								2	
5.	GLC-T (1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM)								2	
6.	GLC-LH-SMD (1000BASE-LX/LH SFP transceiver module, **MMF/SMF, 1310nm, DOM**)								17	

***the bidder must quote latest model conforming to given specifications**

ANNEXURE-XXX

Tender for Active Components for LAN and Wi-Fi

Proforma for Financial Bid of Active Components of W*i-Fi* for Parliament House Annexe (New Building)

Sl. No.	Item		Model No.	Unit Price (In Rs.)	VAT/ Unit (In Rs.)	Unit Price for Five Years Smartnet Warranty (In Rs.)	Service Tax/ Unit (In Rs.)	Total Cost Price/ Unit (In Rs.)	Quantity	Total Cost for full quantity (In Rs.)
1.	*Wi-fi* Access Points								122	
2.	Switches for *Wi-fi*	8 Ports							0	
		24 Ports							8	
3.	Distribution Switch for *Wi-fi*								2	
4.	SFP-10G-LR (10GBASE-LR SFP Module)								1	
5.	GLC-LH-SMD (1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM)								11	

***the bidder must quote latest model conforming to given specifications**

ANNEXURE-XXXI

Tender for Active Components for LAN and Wi-Fi

Proforma for Financial Bid of Active Components of LAN for Parliament House (PH)

Sl. No.	Item		Model No.	Unit Price (In Rs.)	VAT/ Unit (In Rs.)	Unit Price for Five Years Smartnet Warranty (In Rs.)	Service Tax/Unit (In Rs.)	Total Cost Price/Unit (In Rs.)	Quantity	Total Cost for full quantity (In Rs.)
1.	Switches for LAN Access	24 Ports							17	
		48 Ports							11	
2.	Core Switch for LAN								2	
3.	X2-10GB-LR (10GBASE-LRX2 Module)								12	
4.	GLC-LH-SMD (1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM)								80	

***the bidder must quote latest model conforming to given specifications**

ANNEXURE-XXXII

Tender for Active Components for LAN and Wi-Fi

Proforma for Financial Bid of Active Components of LAN for Parliament Library Building (PLB)

Sl. No.	Item		Model No.	Unit Price (In Rs.)	VAT/ Unit (In Rs.)	Unit Price for Five Years Smartnet Warranty (In Rs.)	Service Tax/Unit (In Rs.)	Total Cost Price/ Unit (In Rs.)	Quantity	Total Cost for full quantity (In Rs.)
1.	Switches for LAN Access	24 Ports							15	
		48 Ports							5	
2.	Core Switch for LAN								2	
3.	X2-10GB-LR (10GBASE-LRX2 Module)								12	
4.	GLC-SX-MMD (1000BASE-SX SFP transceiver module, MMF/SMF, 850nm, DOM)								148	
5.	GLC-LH-SMD (1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM)								4	

***the bidder must quote latest model conforming to given specifications**

ANNEXURE-XXXIII

Tender for Active Components for LAN and Wi-Fi

Proforma for Financial Bid of Active Components of LAN for Parliament House Annexe (PHA)

Sl. No.	Item		Model No.	Unit Price (In Rs.)	VAT/ Unit (In Rs.)	Unit Price for Five Years Smartnet Warranty (In Rs.)	Service Tax/ Unit (In Rs.)	Total Cost Price/Unit (In Rs.)	Quantity	Total Cost for full quantity (In Rs.)
1.	Switches for LAN Access	24 Ports							36	
		48 Ports							10	
2.	Core Switch for LAN								2	
4.	X2-10GB-LR (10GBASE-LRX2 Module)								6	
5.	GLC-LH-SMD (1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM)								164	

***the bidder must quote latest model conforming to given specifications**

ANNEXURE-XXXIV

Tender for Active Components for LAN and Wi-Fi

Proforma for Financial Bid of Active Components of LAN for Parliament House Annexe (New Building)

Sl. No.	Item		Model No.	Unit Price (In Rs.)	VAT/ Unit (In Rs.)	Unit Price for Five Years Smartnet Warranty (In Rs.)	Service Tax/ Unit (In Rs.)	Total Cost Price/Unit (In Rs.)	Quantity	Total Cost for full quantity (In Rs.)
1.	Switches for LAN Access	24 Ports							0	
		48 Ports							0	
2.	Core Switch for LAN								2	
3.	X2-10GB-LR (10GBASE-LRX2 Module)								12	
4.	GLC-LH-SMD (1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM)								70	

***the bidder must quote latest model conforming to given specifications**

Proforma for Financial Bid for services of One Network Engineer (expert in active component) after up-gradation of LAN & Installation of Wi-Fi

Sl. No.	Description	Qualification	Experience	Charges Per Month	Service Tax per Month	Duration in (Months)	Total Charges (in Rs.)
1.	Network Engineer						

Proforma for Financial Bid for extension of Smart net Warranty of re-utilizable switches upto a period of 5 years from the date of completion of the project of up-gradation of LAN

Sl. No.		Date of Procurement	Quantity	Existing Smart net (8x5xNBD) warranty	Rate per Unit for extension Smart Net 8x5xNBD) Warranty (in Rs.)	Service Tax per unit for extended Warranty	Total Cost (in Rs.)
1.	CISCO-WS-C2960S-24TS-L	04.01.2011	6	5 Years			
2.	CISCO-WS-C2960S-24TS-L	26.05.2011	15	5 Years			
3.	CISCO-WS-C2960S-48TS-L	22.05.2012	10	5 Years			
4.	CISCO-WS-C2960S-48TS-L	15.10.2013	5	5 Years			
5.	CISCO-WS-C2960S-48TS-L	26.05.2014	5	5 Years			
Total Cost (in Rs.)							

ANNEXURE-XXXVII

Tender for Active Components for LAN and Wi-Fi

List of re-utilizable Access Switches of LAN under warranty

Sl. No.	Model	Date of Procurement	Quantity	Duration of Smart net (8x5xNBD) warranty
1.	CISCO-WS-C2960S-24TS-L	04.01.2011	6	5 Years
2.	CISCO-WS-C2960S-24TS-L	26.05.2011	15	5 Years
3.	CISCO-WS-C2960S-48TS-L	22.05.2012	10	5 Years
4.	CISCO-WS-C2960S-48TS-L	15.10.2013	5	5 Years
5.	CISCO-WS-C2960S-48TS-L	26.05.2014	5	5 Years

Annexure – XXXVIII

Tender for Active Components for LAN and Wi-Fi

To

_____

Sub: Authorization of OEM for supply, installation, warranty, services.

Sir,

I/We_____(OEM) having my/our registered office _____ (address of the OEM) am/are an established manufacturer of _____ (name of quoted items). I/we _____ (name of OEM) solely authorize _____(Name of the Bidders authorized partner) to supply, install and provide warranty support on our quoted product for above mentioned Tender. I/we certify that above authorized partner meet the Tender eligibility requirement of this Tender defined for OEM's authorized partners. I/we have also **entered into an agreement with our authorized partners** that they will supply, install and provide warranty support for this Tender on behalf of us.

2. Our full support is extended in all respects for supply, onsite warranty and maintenance of our products. I/we shall also ensure to provide the service support including supply of spare parts stores for the same for a further period of FIVE years after expiry of warranty under the terms and conditions of above Tender.

3. In case of default in execution of this Tender by our authorized distributor/Sale and Service Partner *viz*_____(name of the authorized partners), the _____(OEM) shall own responsibilities for successful execution of contract/warranty/maintenance/service support **through ourself or another Authorized partner**.

For _____(name of) Bidder/OEM

(Authorized signatory)

Name & Designation:_____

Note: This letter of authority should be **on the letterhead of the manufacturer** and should be **signed by legal head or Marketing Head or CS of (M/s CISCO India Ltd.)**. This may be enclosed with the Bid. Any modification done to the above format will not be acceptable.

ANNEXURE-XXXIX

Tender for Active Components for LAN and Wi-Fi

UNDERTAKING IN THE FORM OF AFFIDAVIT DULY ATTESTED BY EXECUTIVE MAGISTRATE/NOTARY PUBLIC

I/We undertake that: -

(i) The undersigned certifies that I/We have gone through the terms and conditions of the above Tender notice including services during warranty, complaint redressal and maintenance therefor and undertake to comply with the same. **The rates quoted by myself/ ourself are valid for six months from the last date of opening of Financial Bid.**

(ii) I/We _____ do hereby solemnly affirm and declare that the My/Our firm /company/business entity is not blacklisted by any Government Department/Autonomous Organization etc. or prosecuted by any court of law.

(iii) I/We also confirm that in the event of my/our Tender being accepted, I/We hereby undertake **to execute an agreement with Lok Sabha Secretariat for supply, installation, integration, commissioning, warranty maintenance etc. of items which is subject of this tender and to furnish Performance Security** in the form of Demand Draft/Fixed Deposit Receipt from a Commercial Bank/Bank Guarantee from a Commercial Bank in favour of "Drawing & Disbursing Officer, Lok Sabha" payable at New Delhi.

Dated:

Signature of Bidder/Authorized Signatory

(Rubber Seal)

Annexure -XXXX

Tender for Active Components for LAN and Wi-Fi

LETTER OF AUTHORIZATION FOR ATTENDING OPENING OF BID

Sub. Authorization for attending the opening of Technical Bid on ....and financial Bid on .... for procurement of . (i) Active Components of LAN for PH, (ii) Active Components of LAN for PHA, (iii) Active Components of LAN for PLB, (iv) Active Component for Wi-Fi in PH, (v) Active Component for Wi-Fi in PHA, (vi) Active Component for Wi-Fi in PLB, (vii) Active Components of LAN in A and B Block of New Building, PHA (viii) Active Components of Wi-Fi in A and B Block of New Building, PHA (IX) WLAN Controller X) Network Access Validation Server (XI) Network Management Software (XII) Cost of extended warranty for re-useable switches (XIII) Cost of hiring of service engineer for six months.

The under-mentioned person is hereby authorized to attend the Bid opening for the Tender mentioned above on behalf of..... .....(name of the Bidder)

Name specimen signature

Alternative representative

Name specimen signature

Name of the Bidder/ Authorized signatory

(Rubber seal)

Annexure -XXXXI

Tender for Active Components for LAN and Wi-Fi

Support (Infrastructure available with Bidder)

Sl No.	Name of State/Region	Contact details such as Names, Address, Phones, e-mails website etc.	Own/Franchisee/OEM Support Centers	Manpower
1	Delhi/NCR			