



भारतीय प्रौद्योगिकी संस्थान मद्रास चेन्नै 600 036
INDIAN INSTITUTE OF TECHNOLOGY MADRAS Chennai 600 036
 भंडार एवं क्रय अनुभाग
STORES & PURCHASE SECTION
 दूरभाष: (044) 2257 8285 / 8286 / 8287 / 8288 फैक्स: (044) 2257 8292 / 2257 8082
 Telephone : (044) 2257 8293,8287,8285,8286
 email ID- adstores@iitm.ac.in



A.V. Sudarsanam

Dated : 02.04.2016

Deputy Registrar (Stores & Purchase)

Tender No. **SPS/CC/Network Core Switches/001/2016-17**

**Due Date – 25.04.2016
before 2.00 p.m**

Dear Sirs,

1. On behalf of the Indian Institute of Technology Madras, I invite you to tender for supply.

Item
“ Network Core Switches with Redundancy [2 units] under buy back scheme”

confirming to the specifications enclosed.

A.	LAST DATE for receipt of Tender	:	25.04.2016 before 2.00 p.m
	Submission of Tender	:	<p>Both Technical Bid & Price Bid should be in separate cover with specification on the cover as “Technical Bid” & “Price Bid” as the case may be.</p> <p>Both the independent covers should be placed in one big cover and sealed with the superscription on the left hand side OPEN TENDER FOR SUPPLY OF “Network Core Switches with Redundancy [2 units] under buy back scheme” due on 25.04.2016 at 2.00 p.m.</p> <p>The tender cover should be sent to:</p> <p style="text-align: center;">Ms. V.G. BHOOMA, IRPS REGISTRAR INDIAN INSTITUTE OF TECHNOLOGY MADRAS CHENNAI-600 036</p> <p>Right is reserved to ignore any tender which fails to comply with the above instructions. Tender should be sent either by REGISTERED POST ACKNOWLEDGEMENT DUE OR THROUGH MESSENGER. If the Tender is sent through Messenger, the same has to be dropped in the TENDER BOX marked Stores & Purchase kept for this purpose in the REGISTRAR’S OFFICE (1st Floor of Administrative Building) before 2.00 PM on due date 25.04.2016. If it is by post (Registered Post or Speed post only) the same should reach before 2.00 p.m. i.e on the last date 25.04.2016 otherwise it will be summarily rejected.</p> <p>THE INSTITUTE SHALL NOT BE RESPONSIBLE FOR THE LATE RECEIPT OF TENDER ON ACCOUNT OF POSTAL OR ANY OTHER DELAY. THE TENDER BOX WILL BE CLOSED EXACTLY AT 2 P.M. ON 25.04.2016 SHARP.</p>

	Pre bid meeting :	:	<p>Date and time : 08-04-2016 @ 03.00 pm Venue : Conference Room, Ground floor, Computer Centre Building If you need more clarification on this tender documents or specifications of the equipment, you are invited to attend the pre bid meeting.</p>
B.	Earnest Money Deposit (EMD)	:	<ul style="list-style-type: none"> ➤ EMD @ 2% of the equipment value quoted has to be paid by means of DD only along with the tender ➤ To be calculated based on the highest value quoted, among all configurations, by the bidder. ➤ Performance guarantee @3% of the equipment value quoted has to be submitted in addition to above 2% EMD by way of DD/ bank guarantee by the successful bidder only. ➤ Demand Draft may be drawn in favour of “The Registrar, IIT Madras” payable at Chennai. ➤ <u>The EMD should be put in a separate cover and should be enclosed in the technical bid cover only, else the bid is likely to be rejected due to non-enclosure of EMD.</u> The EMD cover will be opened along with the commercial bid only after technical evaluation of the bids
C.	Marking on Technical Bid	:	<ul style="list-style-type: none"> ➤ For each item/configuration separate Technical Bid envelope should be used. ➤ The technical bid cover of the various items should clearly be marked with the item name. ➤ The technical bid covers of the various items should be put into one big cover superscribed “Technical Bid”. ➤ All technical bid should have the page-wise heading as “Technical Bid” and page no. in all pages with seal and signature of authorized signatory. The total no. of pages should be mentioned at the last page of the documents. ➤ The technical bid should be enclosed in the format as specified in page # 11 to 18
D.	Marking on Price Bid	:	<ul style="list-style-type: none"> ➤ For each item/configuration separate Price Bid envelope should be used. ➤ The price bid cover of the various items should clearly be marked with the item name. ➤ The price bid covers of the various items should be put into one big cover superscribed “Price Bid”. ➤ All financial bid should have the page-wise heading as “Financial Bid” and page no. in all pages with seal and signature of authorized signatory. The total no. of pages should be mentioned at the last page of the documents.
E.	Agency Commission	:	<ul style="list-style-type: none"> ➤ The financial bid should clearly state (below the total price quoted) if the quoted amount includes agency commission. ➤ If yes, state the percentage of commission. ➤ This will be paid in INR only after satisfactory installation. ➤ The quote value + agency commission, if any, will be taken for comparison purpose. ➤ The L/C will be opened only for the balance amount. Hence this percentage should be stated clearly.

F.	Tender document fee	:	<ul style="list-style-type: none"> ➤ The tender document fee of Rs.525/-(inclusive of VAT @ 5%) (Non-refundable) should be drawn in the form of DD (obtained on or after the date of advertisement) in favour of “The Registrar, IIT Madras” payable at Chennai, and the same should be enclosed only in the technical bid cover. ➤ No separate tender documents will be issued by us. The same can be downloaded from our institute website: http://tenders.iitm.ac.in
G.	For all the imported components	:	<ul style="list-style-type: none"> ➤ Quote should be in US dollars.
2.	<p>Preparation of Tender:</p> <p>a) The Schedule to the Tender form should be returned intact whether you are quoting for any item or not. Pages should not be detached and when items are not being tendered for, the corresponding space should be defaced by some such words as 'not quoting'.</p> <p>b) In the event of space on the schedule form being insufficient for the required purpose, you have to submit the rates in the letter head of your company clearly mentioning Sl.No. and other relevant particulars. Each such additional page must be numbered consecutively, bear the Tender Number and be fully signed by you. In such cases reference to the additional pages must be made in the tender form.</p> <p>c) If any modification of the schedule is considered necessary, you should communicate the same by means of a separate letter sent with the Tender within due date.</p> <p>d) You should quote your product as per our specification requirements by mentioning our requirements and your offer side by side and the rate should be in total as per our requirements. We will not make any calculation if you have mentioned the rates of items separately.</p> <p>e) In case, your product specification does not exactly match our requirements, you may quote for your product, but you must highlight the deviation in specification point by point.</p> <p>f) If you need to add any item to your system in order to meet our specification requirements, you are required to quote for your basic system separately and also to quote the total value of the system including the option required to suit our requirements. Otherwise, your tender will not be considered at all.</p> <p>g) Wherever applicable you are required to clearly indicate the Part No./Model No./Brand Name etc. If such details are not included, it will be presumed that your offer is not for branded item, but for generic only, and compared accordingly.</p> <p>h) The offer/bids should be submitted in two bid system i.e. Technical Bid and Price Bid in a separate cover. The technical bid should consist of all technical details along with catalogue, commercial terms and conditions. Financial bid should indicate item-wise price for all the items mentioned in the technical bid.</p> <p>i) The Technical bid cover will be first opened and evaluated. In the primary screening, technical bid of only those who satisfy the eligibility criteria will be evaluated. The Price bid of only those bidders whose technical bid is found to be technically adequate by the Committee will be opened.</p>		
3.	<p>Signing of Tender:</p> <p>The Tender is liable to be rejected if complete information is not given therein or if the particulars and date (if any) asked for in the schedule to the Tender are not fully filled in or not duly signed/authenticated. Specific attention is drawn to the delivery dates and important conditions referred to in Annexure enclosed herewith. Each page of the tender documents required to be signed and bears the official seal of the tenderers.</p>		

4.	<p>Period for which the offer will remain open:</p> <p>(i) Firms tendering should note the period for which it is desired that their offers should remain open for acceptance. If the firms are unable to keep their offers open for the specified period they should specifically state the period for which their offers are being considered provided, however, the day up to which the offer is to remain open being declared closed holiday for the Indian Institute of Technology Madras, the offer shall remain open for acceptance till the next working day.</p> <p>(ii) Quotations qualified by such vague and indefinite expressions such as 'subject to immediate acceptance', 'subject to prior sale' will not be considered.</p>
5.	<p>Opening of Tenders:</p> <p>You are at liberty to be present or authorize a representative to be present at the opening of the tender at the time and date specified in the Schedule.</p>
6.	<p>Prices:</p> <p>The prices quoted must be net per unit shown in the schedule and must include all packing and delivery charges and other statutory levies. Refund on account of returnable packages (if any) are to be separately specified. Price and refunds must be clearly shown in figures and worked in Indian currency. The prices quoted by the Tenderer should be inclusive of Sales Tax/VAT and other statutory levies (and should be clearly stated to be so) which will be paid by the Purchaser/if legally leviable at the rate ruling on the date of supply as specified in the Acceptance of Tender. The percentage of tax etc. included in the price should be indicated in clear terms. If the inclusive price is not given, we will treat your offered rate as inclusive rate and comparison be made with others. If at the time of comparison of your offer without taxes etc. is happen to be lowest, you are bound to supply as per the offered rate, i.e. without taxes etc.</p> <p>Hence you are requested to be careful while quoting for tender. The price should be without customs duty and excise duty since IIT Madras is fully exempted from payment of excise duties and also eligible for payment of concessional customs duty against submission of Essentiality Certificate. The customs duty will be payable / reimbursable by us at the time of clearance on production of necessary proof. Hence these duties need not be included in the price while quoting. Necessary document will be provided at appropriate time. No price revision, changes in the specification already given or changes in the terms and conditions etc. during the period is acceptable.</p> <p>We are eligible for concessional VAT/CST on submission of concessional certificate. The Institute is not authorized to issue C or D forms of Sales tax certificate. Hence VAT/CST should be charged at concessional rates as applicable to educational and research institutions run without profit motives, for which necessary certificate will be issued on demand at the time of retirement of documents/payment, wherever applicable.</p>
7.	<p>Terms of Delivery:</p> <p>Supply, Installation and Commissioning are required by date(s) specified in the Schedule of Tender. If, however, it is not possible for you to effect supply, installation and commissioning by the date(s), you should specify the date(s) by which you can guarantee supply, installation and commissioning in the prescribed schedule to the Tender.</p>
8.	<p>Right of Acceptance:</p> <p>IIT MADRAS reserves the right to reject the whole or any part of the Tender without assigning any reason or to accept them in part or full.</p>
9.	<p>Communication of Acceptance:</p> <p>Acceptance by the Purchaser will be communicated by Post, if required, and the Company's acceptance communicated to us formally in writing. In case where acceptance is communicated by Telegram or letter by Speed Post, the formal Acceptance of Tender will be forwarded to you as soon as possible but the</p>

	instructions contained in the Telegram or Speed Post letter should be accepted upon immediately.
10.	The Institute shall not be responsible for the late receipt of tender documents due to postal and or any other delay.

Yours faithfully

**Deputy Registrar
(Stores & Purchase Section)**

Indian Institute of Technology Madras, Chennai 600 036

Stores & Purchase Section

SCHEDULE TO INVITATION OF TENDER NO	:	SPS / CC / Network Core Switches/ 001 / 2016-17
LAST DATE & TIME FOR RECEIPT OF TENDER	:	25.04.2016 at 2.00 p.m.
TIME & DATE OF OPENING OF TENDER	:	25.04.2016 at 3.00 p.m.

In the event of the date of opening of tender being declared a closed holiday for the Indian Institute of Technology Madras the due date for opening will be following working day.

The Tender shall remain open for acceptance/validity till: **31.07.2016**

S.No.	Description	Quantity	Price	
			US Dollars	In Indian Rupee

As per the eligibility criteria & specifications (page 11 to 18 and buy back switches details (page No. 19) at the end) and terms & conditions (page 8 to 10 and 18) at the end attached herewith.

IMPORTANT TO NOTE:

1. All tender documents should be filled in signed and returned.
2. Tenderer must state categorically whether or not his offer is exact to tender specifications and indicate deviations, if any failing which his offer will be ignored.
3. Your offer should be accompanied by catalogue of the equipments.
4. Delivery should be effected within the time frame as given in Important Condition No.8
5. **FAX/Email/Telegram quotations will not be accepted.**

NOTE: ONE AGENT CAN NOT REPRESENT FOR TWO SUPPLIERS OR QUOTE ON THEIR BEHALF AT ONE TIME IN THE SAME TENDER. In case of import all the particulars required for opening Letter of Credit should be furnished in clear terms. After opening of L/C, based on our tender, no more requests for amendment of L/C will be entertained. Total inclusive price to be quoted should be in nearest Rupee (Supply, installation and commissioning at IIT Madras).

IMPORTANT CONDITIONS:

The following instructions are to be followed meticulously **FAILING WHICH YOUR OFFER WILL NOT BE CONSIDERED:**

1.	Please mention the Part No., Model No. & Make wherever required and also CST/VAT No and Area Code failing which your quotation will be rejected. All of your future correspondences including Invoices should bear the CST/VAT No. and Area Code.
2.	Withdrawal of a Model quoted is acceptable ONLY IF accompanied by a certificate from the manufacturer to that effect. Correspondence in this connection must be addressed to DR (Stores & Purchase). The offer of higher configuration in lieu of withdrawal model will be accepted only if there is no change in the price offered.
3.	Quotations should be submitted in Arrack Sealed Cover (Sealing Wax). The quotation should be typed in the space provided in the downloaded format only. No manual entries are accepted and this will be rejected at the opening stage itself. Quotes given by the tenderers in their own format/letter heads will not be considered at all.
4.	Warranty should be in clear terms. Indicate price change (if any) for extra year warranty.
5.	In case of Import, the Insurance & Freight Charges should not exceed 6% of FOB Value. You are requested to quote FOB price as well as CIF, CHENNAI mentioning Freight & Insurance charges separately. No Ex-Works pricing is considered.

6.	<p>Quotations will be accepted only from manufacturers for branded items. If they are not in a position to quote, any Platinum/Gold/Silver/Premier certified partners of OEM may quote along with proof for authorization.</p> <ol style="list-style-type: none"> 1. Two bid processes (separate sealed envelopes of technical and financial bids in the cover) is open to original equipment manufacturers (OEMs) only. Each OEM can, however, nominate third party agents (TPA) to represent them during the bidding process. Either the Indian Agents on behalf of principal / OEM or the principal itself can bid but both cannot bid simultaneously for the same item / product in the same tender. 2. Documentary evidence for the following shall be included along with the covering letter. <ol style="list-style-type: none"> a) TPA shall produce authorization from the OEM they represent. b) OEM / TPA shall be an ISO certified company.
7.	<p>The Vendor / Supplier / Manufacturer shall provide detailed service and users manual for the standardized components like PC, Power Supply , etc. The list is indicative and not exhaustive.</p>
8.	<p>Delivery Period for Import & Indigenous Items:</p> <p>For Indigenous Items: Items should be delivered within a week. For Imports - Items should be delivered within a reasonable time. The actual time to be specified clearly. No further extension of time will be allowed.</p> <p>For Import Items: The order acknowledgement should be issued by Fax within 3 days, and the item should be airlifted within 15 days from the date of receipt of the Letter of Credit copy / copy of DD, as the case may be.</p> <p>Non delivery of items will lead to cancellation of Purchase Order without any notice. In addition, action may be taken for removing them from our mailing list in respect of future enquiry.</p>
9.	<p>IIT Madras is exempted from the Payment of Excise Duty and also eligible for payment of concessional customs duty against submission of Essentiality Certificate. I.I.T. will make necessary arrangements for the clearance of imported goods at Airport. Hence, the price should not include the above charges.</p>
10.	<p>No Advance Payment will be made for Indigenous purchase. 100% Payment against Delivery on satisfactory installation for local purchase can be agreed to. Normally for more than USD 2001, payment will be made by Letter of Credit only. 90% payment will be made initially by Letter of Credit and balance 10% will be paid only after satisfactory installation and commissioning on the same LC. Demurrage charges (if any) will be deducted from the balance 10%. Initial opening of Letter of Credit charges will be borne by us. If any amendment is requested for, the charges for the amendment will be borne by the supplier only. Hence, care should be taken in all respects before opening of Letter of Credit. In respect of Import of less than USD 2001 Wire Transfer at 90% can be made against Proforma Invoice on an undertaking from the principal that the items will be exported within 10 days. The balance 10 % will be made by wire transfer after satisfactory installation of the systems. Demurrage charges (if any) will be deducted from the balance 10% .</p>
11.	<p>Item should be commissioned immediately after receipt of item failing which legal action will be taken against the successful bidder.</p>
12.	<p>You must give an undertaking to the effect that “in case of downward price movements during the period, the firm promises to pass on the advantage to IIT Madras”. Your quotation will be summarily rejected, if the undertaking does not accompany the quotation.</p>
13.	<p>In terms of Rule 160 (ii) of General Financial Rules, 2005 the bidder shall be at liberty to question the bidding conditions, bidding process and / or rejection of its bid.</p>

**Deputy Registrar
(Stores & Purchase)**

**ANNEXURE
INSTRUCTIONS & SPECIAL CONDITIONS**

(To be returned by Tenderer along with the Tender duly signed)

1.	<p>GENERAL:</p> <p>Tenderer should furnish a clear declaration as follows: We declare that I am/we are</p> <ul style="list-style-type: none"> i) Accredited Agents of the suppliers aboard; ii) Authorized Agents of the Projects & Equipment Corporation of India Ltd., iii) Eligible for import of Scientific Equipment from East European Countries; iv) Holders in stock of the stores tendered for <p>(Strike out whichever is not applicable)</p>
2.	<p>CONDITIONS OF CONTRACT:</p> <p>Printed or cyclostyled or such terms and conditions of the tenderer, not appearing in the body of the tender will not be considered as forming part of the tender. Tenderer should quote on the basis of the conditions referred to in Para of the invitation to tender and tender papers. In case these terms and conditions are not acceptable to the tenderer, he should specifically state the deviation(s) there from in the body of the tender.</p>
3.	<p>DEVIATION FROM SPECIFICATIONS:</p> <p>It is in the interest of the tenderer to study the specifications in the tender schedule thoroughly before quoting so that, if any deviations are made by the tenderer, the same are prominently brought out in the body of the tender. If you need to add any optional items to your system in order to meet our specifications, you are requested to quote for the total including the option required to suit our requirements; otherwise, your tender will not be considered at all.</p>
4.	<p>PRICE:</p> <ul style="list-style-type: none"> i) Prices must be in Rupees if the import is from the East European Countries. For import from General Currency Area, the price may be indicated in foreign Currency (both F.O.B. & C.I.F. CHENNAI by Air/Sea). The price should be without Customs Duty and Excise Duty since IIT Madras is exempted from the payment of Excise Duties and also eligible for concessional Customs Duty against submission of Essentiality Certificate. ii) AGENCY COMMISSION [(Refer page no.2 (E))] iii) The unit prices should be for the same unit as indicated in the Schedule to tender enquiry and not for any other unit. iv) Prices quoted should be for supply, installation and commissioning in I.I.T. Madras. v) Discount, if any, should be indicated prominently. vi) Offers should normally be on firm price basis. If the tenderer cannot quote firm prices, variable prices with a ceiling have to be indicated. If the variation price be lower than the price stated in the quotation, the purchaser should have the benefit of lower price.
5.	<p>TRANSIT INSURANCE: The Purchaser will not pay separately for Transit Insurance.</p>
6.	<p>PAYMENT:</p> <ul style="list-style-type: none"> i) Payment will be made only after completion of supply, installation and commissioning of the systems to the entire satisfaction of the Purchaser. ii) If the payment is desired to be made to their Principals directly, the same will be made against Irrevocable Letter of Credit only. For more details, see the accompanying note on "Important Conditions". iii) No Advance Payment will be made either for Indigenous Purchase or Import. iv) Advance dispatch details like Invoice copy, Airway Bill No., Packing List and flight No. should be sent immediately after shipment for early clearance and also make suitable arrangements for sending Cargo Arrival Notice (CAN) in time. Demurrage charges, if any, on account of delay in receipt of above will be debited to supplier's account.

7.	<p>TENDERER SHALL SUBMIT ALONG WITH HIS TENDER:</p> <ul style="list-style-type: none"> I. Submission of Income Tax clearance certificate is not required. However, they have to quote their PAN No. II. Name and full address of the Banker and their swift code. III. Proof of having ISO 9002 or other equivalent certification given by appropriate authorities. IV. Proof of registration with sales tax /VAT authorities like registration number, range etc. in clear terms.
8.	<p>EARNEST MONEY DEPOSIT (EMD): Refer page no.2 (B)</p> <ul style="list-style-type: none"> ➤ This Earnest Money will be returned to the unsuccessful tenderers after the final disposal of the tenders. EMD will not carry any interest. ➤ The EMD along with Performance Guarantee will be retained in the case of successful tenderers till the warranty period. ➤ EMD will not be waived under any circumstances. ➤ EMD will be forfeited in the case of non-execution of the order within the due date. ➤ Non submission of EMD will lead to rejection of tender at the opening stage itself.
9.	<p>DISTRIBUTORSHIP CERTIFICATE:</p> <p>Sole selling Agents/Distributors of a particular make should submit a Certificate from their Principals to the effect that they are the authorized Agents of the Manufacturers and that they are authorized to import and supply the equipment to IIT Madras.</p>
10.	<p>GUARANTEE:</p> <p>The tenderer has to declare that the goods sold to the buyer under this contract shall be of the best quality and workmanship and shall be strictly in accordance with the specifications. Tenderer should indicate the period for which the said goods/articles would continue to confirm to the specifications.</p>
11.	<p>JURISDICTION:</p> <p>All questions, disputes, or differences arising under, out of or in connection with the contract, if concluded, shall be subject to the exclusive jurisdiction at the place from which the acceptance of Tender is issued.</p>

ACKNOWLEDMENT

It is hereby acknowledged that we have gone through all the points listed under “Instructions & Special Conditions” outlined above, and those in the accompanying note on “Important Conditions”, and we agree to abide by them under the penalty of permanent disqualification for Tender participation and for related penal actions for non-abidance of the conditions.

**SIGNATURE OF TENDERER ALONG
WITH SEAL OF THE COMPANY WITH DATE**

TERMS & CONDITIONS for Rupee quote

1.	Sales tax	IIT will issue concessional sales Tax certificate for purchase of scientific and research items. IIT is not eligible to issue "C" or "D" form. Percentage of tax if applicable- may be mentioned.
2.	Validity	Quotation Validity should be till 31st July 2016
3.	Service charges	Extra, if applicable
4.	Freight charges	Extra, if applicable
5.	Customs duty	IIT is eligible for concessional customs duty. The necessary certificate will be issued for clearance.
6.	Excise duty	IIT is fully exempted from excise duty. The necessary certificate will be issued for clearance.
7.	Discount	Should be stated in clear terms / percentage of discount should be stated.
8.	Warranty	5 years Warranty & Support for hardware & Software with troubleshooting assistance. (Refer Pg. No. 18)
9.	Payment terms	May be stated clearly
10.	Delivery period	May be stated clearly
11.	AMC	May be stated clearly.
12.	Any other details	Separate sheet may be attached.

TERMS & CONDITIONS for Foreign quote

1.	Price	Please state whether the price quoted by you is Ex-works / FOB / CIF / CIP / FCA etc. For quote received in Ex-works / FOB / FCA etc. value, for freight, insurance etc. additional 10% of quote value will be added and comparison will be made accordingly for CIF / CIP at the prevailing exchange rate on the date of opening of tender (i.e.) on 25.04.2016 .
2.	Validity	Quotation Validity should be till 31st July 2016
3.	Customs duty	IIT is eligible for concessional customs duty. The necessary certificate will be issued for clearance.
4.	Discount	Should be stated in clear terms / percentage of discount should be stated.
5.	Warranty	5 years Warranty & Support for hardware & Software with troubleshooting assistance. (Refer Pg. No. 18)
6.	Payment terms	May be stated clearly
7.	Delivery period	May be stated clearly
8.	AMC	May be stated clearly.
9.	Any other details	Separate sheet may be attached.

Technical Specifications for “Network Core Switches with Redundancy”, IIT Madras

Quantity Requirements : 2 Units				
S.No.	Specifications	Compliance (Yes / No)	Public Ref. Link with Page No.	Remarks
I	Generic Requirements			
1	The OEM must be in the Leaders quadrant of Wired and Wireless LAN Infrastructure Gartner Report for the past 3 years.			
2	The Switch should have compatibility and interoperability with the existing network environment containing various models of Cisco switches			
3	OEM / Bidder Should have sales and Support office at Chennai with experts/specialists to handle Installation, Configuration and solving all types of issues in time.			
4	Bidder Must be Platinum/Gold / Silver / Premier Certified Partners of OEM and the certificate should be enclosed			
5	The Switch should have support for Virtual switching / Virtual clustering (bundling two physical switches for single point of management with high availability) from day one			
6	The Switch should be Modular chassis based with Minimum 7 or more slots			
7	The Switch should support a distributed switching architecture			
8	Switch should have one Management supervisor or Route Switch processor capable of redundant processor with 4 GB memory			
9	Switch should have N+1 power supply redundancy from day one			
10	The Switch should maintain the performance and Throughput without any performance degradation in the event of failure of the supervisor			
11	The switch Should support dual 40G connectivity between two physical switches with 10 mtr. Fiber cable to support Virtual switching / Virtual clustering			
12	The Switch Should support for IPv4 and IPv6 routing, OSPFv3, BGPv6, IS-ISv6, IPv6 First Hop Security, IPv4 & IPv6 uRPF, Dynamic ARP inspection, IP source guard, Multicast Routing from Day one			
13	The Switch should support an in built packet level and protocol level analyzer to capture packets for troubleshooting without the need of SPAN traffic to external connected PC/laptop.			
14	The Switch should support Jumbo frames Up to 9216 bytes			
15	The Switch should have support for in service software upgrade without any loss in the production network			

	traffic and control plane			
16	The Switch should be managed by single NMS platform			
17	The Switch should support online insertion and removal of line cards			
18	The Switch should support hot-swappable fan trays			
19	The Switch should support Redundant hot-swappable Power Supplies			
II	Port Requirements			
1	Switch Should have at least 2 x QSFP (40 G) Ports from day one			
2	Switch Should have at least 40 x SFP+ (10G) Ports from day one			
3	Switch Should have at least 48 x SFP (1G) Ports from day one			
4	Switch Should have at least 96 x 1G Copper Ports from day one			
5	24 Units of Transceiver Modules (1 G SFP, Single Mode) capable of supporting up to 5 Kms			
6	16 Units of Transceiver Modules (10 G SFP +, Single Mode) capable of supporting up to 5 Kms from day one			
III	Performance			
1	The Switch should be capable of delivering 6 Tbps system bandwidth capacity with 400 Gbps of per-slot bandwidth for all slots			
2	The Switch should support 1/10/40/100 Gbps interface			
3	Switch should support 24 MB buffer per port or at least 240MB per slot / line card			
4	Switch should support at least 400 Gbps per slot			
5	Should have a provision to support at least 2 x 100Gbps uplinks in future			
6	The Switch should support at least 128 K mac entries			
7	The Switch should support at least 1000 K IPv4 routes			
8	The Switch should support at least 500 K IPv6 Routes			
9	The Switch should support at least 250 K ACL entries for QoS and Security control			
10	The Switch should support at least 100 K multicast ipv4/IPv6 routes			
11	The Switch should support atleast 100 K logical interfaces			
IV	Chassis Virtualization			
1	The Switch should support combining of two separate physical switch in a single logical unit over L2 & L3 Multipath to support dual bandwidth and active/active configuration for the connected network devices			

2	The Virtual Clustering switch should support the Supervisor in one chassis as the Active Supervisor and the Supervisor in the other chassis as the Standby supervisor, with the support of upto four supervisors across chassis			
3	The Virtual Clustering switch should support the Standby Supervisor to take over in the event of a failure on the Active Supervisor			
4	The Virtual Clustering switch should support Stateful Switch over in case of a failure of the Active Supervisor			
5	The Virtual Clustering switch Active Supervisor is responsible for the control plane of both the switches			
6	The Virtual Clustering switch data planes of both the physical switches should be active providing double the port bandwidth			
7	The switch should support In-Service OS upgrade mechanism with a minimal or no disruption of traffic through upgrade process.			
8	The Switch should support Extension of Fabric			
V	Layer 2 Features			
1	The Switch should support Layer 2 switch port and have IEEE 802.1Q VLAN encapsulation			
2	The Switch should support IEEE 802.3 ad Link port Trunking across line cards			
3	The Switch should support Secure trunking protocol with MD5 or equivalent protocol to reduce administrative burden of configuring VLANs on multiple switches in turn eliminating the configuration errors & troubleshooting in secure manner			
4	The Switch Should be able to discover the neighboring Cisco devices and giving the details about the platform, IP Address, Link connected through etc., thus helping in troubleshooting connectivity problems or equivalent			
5	The Switch should support mechanism to detect connectivity issues with both fiber and copper cabling to ensures that a partially failed link is shut down on both sides, to avoid L2/L3 protocol convergence issues			
6	The Switch should support Layer 2 trace route to ease troubleshooting by identifying the physical path that a packet takes from source to destination			
7	The Switch should support extensive debugging including layer 2 debugging for troubleshooting			
8	The Switch should support display and clear MAC address information in MAC Address Table			
VI	Layer 3 Routing Features			
1	The Switch should support VRRP or equivalent for High Availability			
2	The Switch should support VRF upto 2500 per switch			
3	The Switch should support RFC 1771 - BGPv4 with 4-byte ASN			

4	The Switch should support IPv4 and IPv6 Multicast Stateful Switch Over			
5	The Switch should support Multicast Only Fast Re Route			
6	The Switch should support QoS, Security, Flow based Monitoring and Control Plane Protection for Multicast Traffic			
VII	IPv6			
1	The switch should support IPV6 in hardware without the addition of special modules to achieve that forwarding			
2	The Switch should support aggregate data forwarding rates up to 300 million packets per second (Mpps) for IPv6 traffic			
3	The Switch should support IPv6 uRPF for up to 16 paths			
4	The Switch should support Separate IPv6 and IPv4 interface statistics on egress and ingress			
5	The Switch should support Stateful switchover for inter-chassis redundancy			
6	The Switch should support Neighbor Discovery Inspection and Port-Based Access Control List (PACL)			
7	The Switch should support IPv6 for EIGRP and IS-IS			
8	The Switch should support OSPFv3 as defined in RFC 2740			
9	The Switch should support the capability to run multiple OSPFv3 instances of the routing process on a single link			
10	The Switch should support Multiprotocol BGP for IPv6			
11	The Switch should support Static Route for IPv6			
12	The Switch should support Policy-based routing (PBR) or equivalent for IPv6			
13	The Switch should support Unicast Reverse Path Forwarding (uRPF) for IPv6			
14	The Switch should support limiting the maximum amount of IPv6 addresses that can be bound to a single MAC-address			
15	The Switch should support configuration of Allowed/Disallowed ports for receiving RA-guard messages			
16	The Switch should support configuration of Allowed/Disallowed IP source addresses of RA-sender			
17	The Switch should support configuration of Allowed Prefix list and Prefix ranges			
18	The Switch should support configuration of Control Router Preference			
19	The Switch should support IPv6 over IPv4 (IPv6IP) Manually Configured Tunnels			
20	The Switch should support Intra-Site Automatic Tunnel Addressing Protocol (ISATAP)			
21	The Switch should support MLDv2 Snooping for IPv6 in hardware			

VIII	QoS			
1	The Switch should support sophisticated QoS and Traffic Management			
2	The Switch should support QoS Classification, Marking, Policing from day one			
3	The Switch should support QoS for IPv6 unicast and multicast traffic			
4	The Switch should support Per-port -per-VLAN policies			
5	The Switch should support Distributed policing (up to 4 K policers)			
6	The Switch should support Packet or byte-based policing			
7	The Switch should support Diff ServQoS on all ports			
8	The Switch should support Advance security – DOS and NAT			
9	The Switch should support priority queuing and 8 Queues			
10	The Switch should support IP differentiated service code point (DSCP) and IP precedence			
11	The Switch should support classification and marking based on full Layer 3, 4 headers			
12	The Switch should support input and output policing based on Layer 3, 4 headers			
13	The Switch should support Traffic Classification: Physical Port, IP DA/SA, IP DA/SA/L4 Port			
14	The Switch should support Admission Control: IP DA/SA, IP DA/SA L4, RSVP			
15	The Switch should support Traffic Marking: IEEE 802.1Q/P COS, IPv4 ToS, via ACLs			
16	The Switch should support Congestion Avoidance: WRED, multiple Queue Thresholds			
17	The Switch should support Scheduling IP precedence, 802.1p and ISL priority, three transmit queues on a per port basis, WRR, Strict Priority Queue TOS<->COS mapping			
18	The Switch should support Micro-Flow Policing (limits BW of specific user/application)			
19	The Switch should support Aggregate-Flow Policing (dedicated BW per customer SLA)			
20	The Switch should support Excess-Rate Policing (permits traffic bursts, enables granular priority values/service-level)			
21	The Switch should support Strict-Priority Queue (protects mission-critical, delay-sensitive traffic)			
22	The Ethernet ports must support Shaped round robin (SRR), Deficit weighted round robin (DWRR) and Weighted Round Robin (WRR)			
23	The Switch should support automatic QoS			
IX	Flow based Application Monitoring			
1	The Switch should support Flow based Application Monitoring in Hardware			
2	The Switch should support a minimum of 1000 K Flow			

	entries			
3	The Switch should support Egress Flow for collecting flow statistics for packets prior to transmission out the egress interface or interfaces			
4	The Switch should support Sampled Flow for records to be created based on a sample of the traffic matching the flow			
5	The Switch should support Sampled Flow in hardware with atleast 1000 global samplers			
6	The Switch should support Flow lookups for IPv4 / IPv6 based packets to be performed using the Layer 2 header			
7	The Switch should support Flow field options for collection of IPv6 and multicast information in a Flow record			
X	Security			
1	The Switch should have Filters/Access-List on all ports			
2	The Switch should have support for hardware assisted NAT services			
3	The Switch should have support for VPN-Aware NAT services			
4	The Switch should have support for IEEE802.1AE MACsec encryption and role-based ACL			
5	The Switch Should support enforcement of identity based access policies			
6	The Switch should support IEEE 802.1x and 802.1x extensions			
7	The Switch should support 802.1x accounting			
8	The Switch should support VLAN ACLs, Router ACLs, Port based Acls, and Role based ACL from day one			
9	The Switch should support packet classification by tagging packets on ingress to the network so that they can be properly identified for the purpose of applying security and other policy criteria along the data path			
10	The Switch should support secured communication on the links between devices in the network with a combination of encryption, message integrity check, and data-path replay protection mechanisms			
11	The Switch should support ACL dry run and hitless commit			
12	The Switch should support CPU rate limiters for control plane protection			
XI	Management			
1	The Switch should support the revised IP-MIB that includes statistics collection for IPv6			
2	The Switch should have TACACS+/RADIUS enabled.			
3	The Switch should have SSHv1 , SSHv2, SNMPv1, SNMPv2, SNMPv3 and NTP support			
4	The Switch should have Management Access Filter (Access Policies)			

5	The Switch should support Web based, Telnet based and TFTP based access			
6	The Switch should support RMON - Remote Monitoring (RMON) with 4 RMON groups (history, statistics, alarms, and events).			
7	The Switch should support SNMP agent - SNMPv1, SNMPv2c, SNMPv3.			
8	The Switch should support collection of Top-N to analyze data for each physical port on a switch			
9	The Switch should support collection of Top-N details for Number of input/output broadcast packets, buffer overflow and bytes			
10	The Switch should support collection of Top-N details for Number of input/output multicast packets			
11	The Switch should support collection of Top-N details for Number of buffer overflow			
12	The Switch should support collection of Top-N details for Utilization			
13	The Switch should support Layer 2 traceroute to identify the Layer 2 path that a packet takes from a source device to a destination device			
XII	Administration and Troubleshooting			
1	The Switch should support email-based and web-based notification of critical system events			
2	The Switch should support utilization of vendor services for direct case generation with their Technical Operation Center			
3	The Switch should support features to deliver alerts to multiple recipients, each with configurable message formats and content categories.			
4	The Switch should support message formats for optimal compatibility with standard email or XML-based automated parsing applications			
5	The Switch should support Multiple message categories including configuration, diagnostics, environmental conditions, inventory and syslog events.			
6	The Switch should support Continuous device health monitoring and real-time diagnostics alerts			
7	The Switch should support Automatic Service Request generation, including detailed diagnostic information to speed problem resolution			
8	The Switch should support each of the CPUs to report events to the management processor using an out-of-band interface and log the event in nonvolatile memory with a time stamp			
9	The Switch should support Backplane Traffic Monitoring to monitor the backplane and fabric-channel traffic utilization at a configured interval and threshold			

XIII	Warranty and Support			
1	Support: 5 years next business day Warranty & Support for hardware & Software with troubleshooting assistance, SLA directly from the OEM			
2	The Switch should be capable of migrating the Licenses & Software to latest hardware			

Buyback Switches:

We have the following models of cisco switches (C6513, C6509) with us. These switches have to be taken under buyback basis. The buyback value and the net payable are to be shown separately. Both the cost of the new switches and buy back value should be in the same currency only.

(a) Working Cisco C6513 Switch Details:					
Mod	Ports	Card Type	Model	Serial No.	
6	16	SFM-capable 16 port 1000mb GBIC	WS-X6516A-GBIC	SAL09190XMH	
7	2	Supervisor Engine 720 (Active)	WS-SUP720-BASE	SAD090508F5	
8	2	Supervisor Engine 720 (Hot)	WS-SUP720-BASE	SAD09050861	
9	48	CEF720 48 port 10/100/1000mb Ethernet	WS-X6748-GE-TX	SAL0904150D	
10	4	CEF720 4 port 10-Gigabit Ethernet	WS-X6704-10GE	SAL090415MA	
11	4	CEF720 4 port 10-Gigabit Ethernet	WS-X6704-10GE	SAL1052C06L	
Mod	Sub-Module	Model	Serial	Hw	Status
7	Policy Feature Card 3	WS-F6K-PFC3A	SAD0901025B	2.4	Ok
7	MSFC3 Daughterboard	WS-SUP720	SAD09010CXX	2.4	Ok
8	Policy Feature Card 3	WS-F6K-PFC3A	SAD08510A7V	2.4	Ok
8	MSFC3 Daughterboard	WS-SUP720	SAD090505N3	2.4	Ok
9	Distributed Forwarding Card	WS-F6700-DFC3A	SAL08517KCO	2.2	Ok
10	Distributed Forwarding Card	WS-F6700-DFC3A	SAL0852891D	2.2	Ok
11	Centralized Forwarding Card	WS-F6700-CFC	SAL1103EDLD	2.1	Ok
(b) Faulty Cisco C6509 Switch Details:					
Mod	Ports	Card Type	Model	Serial No.	
1	48	CEF720 48 port 10/100/1000mb Ethernet	WS-X6748-GE-TX	SAD0903052U	
2	4	CEF720 4 port 10-Gigabit Ethernet	WS-X6704-10GE	SAL0902077R	
4	16	SFM-capable 16 port 1000mb GBIC	WS-X6516A-GBIC	SAL081233YC	
5	2	Supervisor Engine 720 (Active)	WS-SUP720-BASE	SAD085100V8	
6	2	Supervisor Engine 720 (Hot)	WS-SUP720-BASE	SAD090605G2	
9	16	SFM-capable 16 port 1000mb GBIC	WS-X6516A-GBIC	SAL09190XRL	
Mod	Sub-Module	Model	Serial	Hw	
1	Distributed Forwarding Card	WS-F6700-DFC3A	SAL0847635P	2.2	
2	Distributed Forwarding Card	WS-F6700-DFC3A	SAL08476371	2.2	
5	Policy Feature Card 3	WS-F6K-PFC3A	SAD084901NC	2.4	
5	MSFC3 Daughterboard	WS-SUP720	SAD0840022L	2.4	
6	Policy Feature Card 3	WS-F6K-PFC3A	SAD090606X2	2.4	
6	MSFC3 Daughterboard	WS-SUP720	SAD090505FJ	2.4	