भारतीय राष्ट्रीय भुगतान निगम
NATIONAL PAYMENTS CORPORATION OF INDIA

Request For Proposal for supply, installation & maintenance of Network components

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RFP Reference No: NPCI/RFP/2017-18/IT/06 dated 17.11.2017

National Payments Corporation of India
Unit no. 202, 2nd floor,
Raheja Titanium, CTS No. 201,
Western Express Highway,
Goregaon East, Mumbai 400 063
Email- itprocurement@npci.org.in
Website: www.npci.org.in

Disclaimer

The information contained in this Request for Proposal (RFP) document or information provided subsequently to Bidder or applicants whether verbally or in documentary form by or on behalf of National Payments Corporation of India (NPCI), is provided to the Bidder on the terms and conditions set out in this RFP document and all other terms and conditions subject to which such information is provided.

This RFP document is not an agreement and is not an offer or invitation by NPCI to any parties other than the Bidders/ applicants who are qualified to submit the Bids ("Bidders"). The purpose of this RFP document is to provide Bidder with information to assist the formulation of their Proposals. This RFP document does not claim to contain all the information each Bidder may require. Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this RFP document and where necessary obtain independent advice. NPCI makes no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this RFP document. NPCI may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this RFP document.

Note: Bids will be opened in the presence of the Bidders' representatives who choose to attend Bid opening meeting.

Checklist

The following items must be checked before the Bid is submitted:

1. Demand Draft / Pay Order Rs. 11,800 (Rs Eleven thousand eight hundred only inclusive of GST@18%) towards cost of Bid document in Envelope –'A'
2. Demand Draft / Banker's Cheque / Bank Guarantee of INR 5,00,000/-(Rupee Five Lakhs only) towards Bid Security in Envelope 'A'- Earnest Money Deposit (EMD)
3. Eligibility Criteria, Technical and Commercial Bids are prepared in accordance with the RFP document.
4. Envelope 'A'- Eligibility Criteria Response.
5. Envelope 'B'- Technical Response
6. Envelope 'C'- Indicative Commercial Bid.
7. All the pages of Eligibility Criteria Response, Technical Bid and Commercial Bid are duly sealed and signed by the authorized signatory.
8. RFP document duly sealed and signed by the authorized signatory on each page is enclosed in Envelope – 'A'.
9. Prices are quoted in Indian Rupees (INR).
10. All relevant certifications, audit reports, etc. are enclosed to support claims made in the Bid in relevant Envelopes.
11. All the pages of documents submitted as part of Bid are duly sealed and signed by the authorized signatory.

Abbreviations and Acronyms

The following abbreviations and acronyms defined in this RFP are as under

BG	Bank Guarantee
DC	Data Centre
EMD	Earnest Money Deposit
IPR	Intellectual Property Rights
LAN	Local Area Network
NPCI	National Payments Corporation of India
OEM	Original Equipment Manufacturer
RFP	Request for Proposal
PBG	Performance Bank Guarantee
SAN	Storage Area Network
SLA	Service Level Agreement
WAN	Wide Area Network
AT Checklist	Acceptance Test Checklist

Section 1 - Bid Schedule and Address

Sr. No.	Description	Detailed Information
1	Name of Project	RFP for supply, installation & maintenance of Network components
2	Tender Reference Number	NPCI/RFP/2017-18/IT/06
3	Date of release of this RFP	17.11.2017
4	Last date and time for receiving Bidder's Pre-Bid clarifications in writing	24.11.2017
5	Date and Time for Pre Bid Meeting	NA
6	Last date and time for Bid Submission	30.11.2017 05.00 p.m.
7	Address of Bid Submission	National Payments Corporation of India, Unit no. 202, 2nd Floor, Raheja Titanium, CTS No. 201, Western Express Highway, Goregaon East, Mumbai 400 063
8	Date and Time of Eligibility bid (Envelope A) and Technical bid (Envelope B) opening	30.11.2017 05.30 p.m.
9	Date and time of Commercial bid Opening (Envelope C)	Will be through Reverse Auction
10	Name and Address for Communication	Head - IT Procurement National Payments Corporation of India, Unit no. 202, 2nd Floor, Raheja Titanium, CTS No. 201, Western Express Highway, Goregaon East, Mumbai 400 063
12	Bid Related Queries	Mr. K Venkatesh Contact : 9094914151 Email: k.venkatesh@npci.org.in Mr. K Balasubramaniam Contact: 9382194911 Email: k.balasubramaniam@npci.org.in Mr. N Guruprasath Contact : 9790911476 Email: Guruprasath.narayana@npci.org.in Prashant Awale Contact: 8108108650 Email id : prashant.awale@npci.org.in Benny Joseph Contact: 8108122844 Email id : Benny.joseph@npci.org.in
13	Bid Cost	Rs.11,800/- (Rs.10,000.00 plus applicable GST@18%) (Bid cost should be in Indian Rupees only)
14	EMD/Bid Security	Rs 5,00,000 (Rupees Five Lakhs)

Note:

1. Bids will be opened in the presence of the Bidders' representatives who choose to attend.
2. Commercial evaluation will be through Reverse Auction.

Section 2 - Introduction

2.1 About NPCI

National Payments Corporation of India (NPCI) is a Company registered under Section 25 of the Companies Act, 1956 (corresponding to Section 8 of The Companies Act, 2013) with its Registered Office in Mumbai, India. NPCI was promoted by 10 banks in India under the aegis of the Indian Bank's Association with majority shareholding by Public Sector Banks. Presently 56 banks are shareholders of NPCI. Out of which 19 are Public Sector Banks (PSB), 17 Private Sector Banks, 3 Foreign Banks, 7 Multi State Cooperative Banks and 10 Regional Rural Banks.

The vision, mission and values of NPCI are: Vision - To be the best payments network globally, Mission - Touching every Indian with one or other payment services and to make our mission possible, we live and work by five core values: Passion for Excellence, Integrity, Customer Centricity, Respect and Collaboration.

2.2 Objective of this RFP:

The objective of this RFP is to identify a bidder for supply, installation & maintenance of Network components at NPCI Data Centers in Chennai and Hyderabad.

2.3 Cost of the RFP

The Bidder shall bear all costs associated with the preparation and submission of its bid and NPCI will, in no case, be held responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

The Bidders can submit the bid response at NPCI's office at Unit no. 202, 2nd floor, Raheja Titanium, CTS No. 201, Western Express Highway, Goregaon East, Mumbai 400 063, along with non-refundable amount of Rs. 11,800.00 (Rs Ten thousand plus GST@18%) in envelope A, payable in the form of Demand Draft/Pay Order from any scheduled commercial bank in India favoring "NATIONAL PAYMENTS CORPORATION OF INDIA" payable at Mumbai.

2.4 Due Diligence

The Bidders are expected to examine all instructions, terms and specifications stated in this RFP. The Bid shall be deemed to have been submitted after careful study and examination of this RFP document. The Bid should be precise, complete and in the prescribed format as per the requirement of this RFP document. Failure to furnish all information or submission of a bid not responsive to this RFP will be at the Bidders' risk and may result in rejection of the bid. Also the decision of NPCI on rejection of bid shall be final and binding on the bidder and grounds of rejection of Bid should not be questioned during/after the final declaration of the successful Bidder.

The Bidder is requested to carefully examine the RFP documents and the terms and conditions specified therein, and if there appears to be any ambiguity, contradictions, inconsistency, gap and/or discrepancy in the RFP document, Bidder should seek necessary clarifications by e-mail as mentioned in Section-1.

2.5 Ownership of this RFP

Section 3 – Scope of Work

3.1 Scope of work:
The scope of work includes

1. Supply, installation & maintenance of the network components for Spine & Leaf architecture and seamless integration with the existing NPCI Network Architecture.

2. The following AT Checklist needs to be completed by the Bidder post installation

Name of Test	Expected results
Installation & configuration of Spine & leaf switches	Successful
Seamless integration with existing environment	Successful

3. The successful Bidder shall execute back-to-back agreement for the required infrastructure and if required by NPCI, tri-party agreement should be signed between NPCI, Bidder and the OEM (in the event of Bidder and OEM being different)

4. The Successful bidder should prepare a detailed Project Plan, Action Plan and submit to NPCI within 15 days from the date of PO and initiate the Project kick-off meeting seven days from the date of submission of the Plans.

5. The Successful bidder has to provide Industry qualified and trained engineers at the NPCI Data Center during the process of network devices Installation and Configurations and ensure that the activity is carried out strictly in accordance with the Industry Best Followed Practices and guidelines.

6. The activity should be carried out during non-session/Non-peak/night hours, engineer support should be provided according to the requirement.

NPCI intends to procure the solution for Spine & Leaf architecture with the following terms

a. The devices, components & software should have comprehensive onsite support for a period of 5 years from the date of acceptance given to the Successful Bidder.
b. The software & hardware quoted by bidder should not be declared as End of Sale (EOS)by the OEM for two years from the date of installation. In the event of the supplied equipment being declared EOS within the mentioned period, the bidder has to replace the equipment with equipment having equivalent or higher configurations
c. The successful bidder(s) should ensure that the equipment proposed in this RFP, should not be declared as End of Life (EOL) or End of Support (EOS) by the OEM within the 5 years Purchase order / contract period. In the event of the supplied equipment being declared End of support/End of Life during the contract period of 5 years, the bidder has to replace the equipment with equipment having equivalent or higher configurations
d. The bidder should migrate to new setup with no/minimum possible downtime
e. The bidder should provide product training in Chennai & Hyderabad for one day each
f. Proactive replacement device should be arranged in case of any suspected hardware issues with the supplied equipment
g. There should be 24x7x365 TAC(Technical Assistance Center) support directly from OEM for any technical issue for all the supplied products through this RFP

h. Suitable operating system should be suggested for all the devices supplied by the bidder as per the requirement of NPCI & recommend the latest IOS if OEM identifies bug in the earlier recommended IOS
i. The bidder shall submit the project details in MS project (MPP based).

3.2 Single Point of Contact

The selected Bidder shall appoint a single point of contact, with whom NPCI will deal with, for any activity pertaining to the requirements of this RFP.

Section 4 - Instruction to Bidders

4.1 Eligibility Criteria

The Eligibility Criteria are furnished below:

1. The bidder should be a Company registered under the Companies Act since the last three years.
   a) In case the Bidding Company is the result of a merger / acquisition, at least one of the merging companies should have been in operation for at least 3 years as on date of submission of the bid.

   b) In case the Bidding Company is the result of a demerger / hiving off, at least one of the demerged company or resulting company.

2. The bidder should have minimum annual turnover of Rs.25 Crores during the three financial years i.e. 2014-15, 2015-16 and 2016-17 or calendar years 2014, 2015, 2016 or bidder's financial years.
   a. In case the Bidding Company is the result of a merger / acquisition, due consideration shall be given to the past financial results of the merging entity for the purpose of determining the net worth, minimum annual turnover and profit after tax for the purpose of meeting the eligibility criteria; should the Bidding Company be in operation for a period of less than 3 years. For this purpose, the decision of NPCI will be treated as final and no further correspondence will be entertained on this.

   b. In case the Bidding Company is the result of a demerger / hiving off, due consideration shall be given to the past financial results of the demerged company for the purpose of determining the net worth, minimum annual turnover and profit after tax for the purpose of meeting the eligibility criteria; should the Bidding Company be in operation for a period of less than 3 years. For this purpose, the decision of NPCI will be treated as final and no further correspondence will be entertained on this.

3. The bidder should be a profit (profit after tax) making company in any one of the three financial years i.e. 2014-15, 2015-16, 2016-17 or Calendar years 2014, 2015, 2016 or the Bidder's financial years.
   a) In case the Bidding Company is the result of a merger / acquisition, due consideration shall be given to the past financial results of the merging entity for the purpose of determining the net worth, minimum annual turnover and profit after tax for the purpose of meeting the eligibility criteria; should the Bidding Company be in operation for a period of less than 3 years. For this purpose, the decision of NPCI will be treated as final and no further correspondence will be entertained on this.

   b) In case the Bidding Company is the result of a demerger / hiving off, due consideration shall be given to the past financial results of the demerged company for the purpose of determining the net worth, minimum annual turnover and profit after tax for the purpose of meeting the eligibility criteria; should the Bidding Company be in operation for a period of less than 3 years. For this purpose, the decision of NPCI will be treated as final and no further correspondence will be entertained on this.

4. The bidder should not be currently blacklisted by any bank / institution in India or abroad.

5. The bidder should be authorized to quote for products and support by the OEM

6. The Bidder should have support centres in India.

Section 5 - Instruction to Bidders

A. The Bidding Document

5.1 RFP

RFP shall mean Request for Proposal. Bid, Tender and RFP are used to mean the same.

The Bidder is expected to examine all instructions, forms, terms and conditions and technical specifications in the Bidding document. Submission of a bid not responsive to the Bidding Document in every respect will be at the Bidders risk and may result in the rejection of its bid without any further reference to the bidder.

5.2 Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its bid, and NPCI will in no case be responsible or liable for those costs.

5.3 Content of Bidding Document

The Bid shall be in 3 separate envelopes, Envelope A, B and C.

5.4 Clarifications of Bidding Documents and Pre-bid Meeting

A prospective Bidder requiring any clarification of the Bidding Documents may notify NPCI in writing at NPCI's address or through email any time prior to the deadline for receiving such queries as mentioned in Section 1.

Bidders should submit the queries only in the format given below:

Sr. No.	Document Reference	Page No	Clause No	Description in RFP	Clarification Sought	Additional Remarks (if any)

Replies to all the clarifications, modifications received through mail and email will be posted on NPCI's website. Any modification to the bidding documents which may become necessary shall be made by NPCI by issuing an Addendum.

5.5 Amendment of Bidding Documents

1. At any time prior to the deadline for submission of bids, NPCI may for any reason, whether at its own initiative or in response to a clarification requested by a Bidder, amend the Bidding Documents.

2. Amendments will be provided in the form of Addenda to the Bidding Documents, which will be posted in NPCI's website. Addenda will be binding on Bidders. It will be assumed that the amendments contained in such Addenda had been taken into account by the Bidder in its bid.

3. In order to afford Bidders reasonable time to take the amendment into account in preparing their bids, NPCI may, at its sole and absolute discretion, extend the deadline for the submission of bids, in which case, the extended deadline will be posted on NPCI's website.

4. From the date of issue, the Addenda to the tender shall be deemed to form an integral part of the RFP.

B. Preparation of Bid

5.6 Bid Price

Prices would be exclusive of all taxes. The bidder shall meet the requirements of the applicable Goods & Services Tax (GST).

5.7 Earnest Money Deposit (EMD)

The Bidder is required to deposit Rs 5, 00,000/- (Rupees Five Lakhs only) in the form of a Demand Draft / Pay order in favor of "National Payments Corporation of India" payable at Mumbai or Bank Guarantee issued by a scheduled commercial bank valid for six months, with a claim period of 12 months after the expiry of validity of the Bank Guarantee as per the statutory provisions in this regard, as per format in Annexure A1 or A2.

No interest will be paid on the EMD.

5.8 Return of EMD

The EMDs of successful Bidder/s shall be returned / refunded after furnishing Performance Bank Guarantee as required in this RFP.

EMDs furnished by all unsuccessful Bidders will be returned on the expiration of the bid validity / finalization of successful Bidder, whichever is earlier.

5.9 Forfeiture of EMD

The EMD made by the bidder will be forfeited if:

a) Bidder withdraws its bid before opening of the bids.
b) Bidder withdraws its bid after opening of the bids but before Notification of Award.
c) Selected Bidder withdraws its bid / Proposal before furnishing Performance Bank Guarantee.
d) Bidder violates any of the provisions of the RFP up to submission of Performance Bank Guarantee.
e) Selected Bidder fails to accept the order within five days from the date of receipt of the order. However, NPCI reserves its right to consider at its sole discretion the late acceptance of the order by selected Bidder.
f) Bidder fails to submit the Performance Bank Guarantee within stipulated period from the date of acceptance of the Purchase Order. In such instance, NPCI at its discretion may cancel the order placed on the selected Bidder without giving any notice.

5.10 Period of Validity of Bids

Bids shall remain valid for a period of 180 days after the date of bid opening as mentioned in Section 1 or as may be extended from time to time. NPCI reserves the right to reject a bid valid for a period shorter than 180 days as non-responsive, without any correspondence.

5.11 Extension of Period of Validity

In exceptional circumstances, prior to expiry of the bid validity period, NPCI may request the Bidders consent to an extension of the validity period. The request and response shall be made in writing. Extension of validity period by the Bidder should be unconditional and irrevocable. The EMD provided shall also be suitably extended. A Bidder may refuse the request without forfeiting the bid Security.

5.12 Format of Bid

The bidder shall prepare two copies (one hard copy marked as ORIGINAL and one soft copy of the Technical Bid only). In case of any discrepancy between them, the original shall govern.

The commercial bid will be submitted as hard copy only.

5.13 Signing of Bid

The Bid shall be signed by the Bidder or a person or persons as the case may be, duly authorized to sign on behalf of the Bidder.

All pages of the bid, except for printed instruction manuals and specification sheets shall be initialed by the person or persons signing the bid.

The bid shall contain no interlineations, erasures, or overwriting, except to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.

The bid shall be signed by a person or persons duly authorized to bind the bidder to the contract. Such authority shall be either in the form of a written and duly stamped Power of Attorney (Annexure H) or a Board Resolution duly certified by the Company Secretary, which should accompany the Bid.

C. Submission of Bid

5.14 Envelope bidding process

The Bid shall be prepared in 3 different envelopes, Envelope A, Envelope B and Envelope C.

Each of the 3 Envelopes shall then be sealed and put into an outer envelope marked as **"Request for Proposal for supply, installation & maintenance of Network components".**

The inner and outer envelopes shall be addressed to NPCI at the address mentioned in Section 1.

The inner envelopes shall indicate the name and address of the Bidder.

If the outer envelope is not sealed and marked as indicated, NPCI will assume no responsibility for the bids misplacement or premature opening.

5.15 Contents of the 3 Envelopes

Envelope A - Eligibility Bid

The following documents as per the sequence listed shall be inserted inside Envelope A:

1. Bid cost in the form of Demand draft/Pay order
2. Bid Earnest Money in the form of Demand Draft **OR** Bid Earnest Money in the form of Bank Guarantee – format provided in Annexure A2
3. Bid Offer form (without price) – Annexure B
4. Bidder Information – Annexure C
5. Declaration of Clean Track Record by Bidder – Annexure D
6. Declaration of Acceptance of Terms and Conditions – Annexure E
7. Declaration of Acceptance of Scope of Work – Annexure F
8. Power of Attorney for signing of bid – Annexure G
9. Eligibility Criteria Matrix – Annexure H
10. OEM/Manufacturer Authorization Letter – Annexure I
11. Three years audited Balance Sheet and Profit and Loss Statements.
12. RFP document duly sealed and signed
13. All necessary supporting documents as per Annexures

Envelope B - Technical Bid

The following documents shall be inserted inside Envelope B:

1 Section 11 – Compliance to Technical Requirements duly completed - Annexure K
2 Client Details for **Annexure O**
3 Masked Price Bid(Annexure **M**, **N**)
4 Detailed Bill of Material for Hardware with line item details, giving quantity and functions (**Masked Annexure L**)

Technical Bid envelope shall not include any financial information. If the Technical Bid contains any financial information the entire bid will be rejected.

Envelope C - Commercial Bid (indicative)

1 Indicative Commercial Bid Form – Annexure M
2 Indicative Commercial Bid – Annexure N
3 Detailed Bill of Material– Annexure L

5.16 Bid Submission

The Bidder should bear all the costs associated with the preparation and submission of their bid and NPCI will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

Bids sealed in accordance with the instructions to Bidders should be delivered at the address as mentioned in the Section 1.

The offers should be made strictly as per the formats enclosed.

No columns of the tender should be left blank. Offers with insufficient/inaccurate information and offers which do not strictly comply with the stipulations given in this RFP, are liable for rejection.

5.17 Bid Currency

All prices shall be expressed in Indian Rupees only.

5.18 Bid Language

The bid shall be in English Language.

5.19 Rejection of Bid

The bid is liable to be rejected if the bid document:

a) Does not bear signature of authorized person.

b) Is received through Fax / E-mail.

c) Is received after expiry of the due date and time stipulated for Bid submission.

d) Is incomplete / incorrect.

e) Does not include requisite documents.

f) Is Conditional.

g) Does not conform to the terms and conditions stipulated in this Request for Proposal.

No bid shall be rejected at the time of bid opening including extensions, if any, except for late bids and those that do not conform to bidding terms.

5.20 Deadline for Submission
The last date of submission of bids is given in Section 1. However the last date of submission may be amended by NPCI and shall be notified through its website.

5.21 Extension of Deadline for submission of Bid
NPCI may, at its discretion, extend this deadline for submission of bids by amending the bidding documents which will be informed through NPCI website, in which case all rights and obligations of NPCI and Bidders will thereafter be subject to the deadline as extended.

5.22 Late Bid
Bids received after the scheduled time will not be accepted by the NPCI under any circumstances. NPCI will not be responsible for any delay due to postal service or any other means.

5.23 Modifications and Withdrawal of Bids
Bids once submitted will be treated, as final and no further correspondence will be entertained on this.

No bid will be modified after the deadline for submission of bids.

5.24 Right to Reject, Accept/Cancel the bid
NPCI reserves the right to accept or reject, in full or in part, any or all the offers without assigning any reason whatsoever.

NPCI does not bind itself to accept the lowest or any tender and reserves the right to reject all or any bid or cancel the Tender without assigning any reason whatsoever. NPCI also reserves the right to re-issue the Tender without the Bidders having the right to object to such re-issue.

5.25 RFP Abandonment
NPCI may at its discretion abandon the process of the selection of bidder at any time before notification of award.

5.26 Bid Evaluation Process
The Bid Evaluation will be carried out in 2 stages:

Stage 1 – Envelope 'A' i.e. Eligibility bid and **Envelope 'B'** i.e. Technical bid will be evaluated. Only those Bidders who have submitted all the required forms and papers and comply with the eligibility and technical criteria will be considered for further evaluation.

Stage 2 -Envelope 'C' of those Bidders who qualify the eligibility and technical criteria will be evaluated further for finalizing the start price for Reverse Auction.

5.27 Contacting NPCI
From the time of bid opening to the time of Contract award, if any Bidder wishes to contact NPCI for seeking any clarification in any matter related to the bid, they should do so in writing by seeking such clarification/s from an authorized person. Any attempt to contact NPCI with a view to canvas for a bid or put any pressure on any official of the NPCI may entail disqualification of the concerned Bidder and/or its Bid.

Section 6 - Bid Opening

6.1 Opening of Bids

Bids will be opened in 2 stages:

Stage 1 – In the first stage the Eligibility bid i.e. Envelope 'A' and Technical Bid i.e. Envelope 'B' will be opened.

Stage 2 – Indicative Commercial bids i.e. Envelope 'C' will be opened for qualified bidders only as part of the process for finalizing the start price for Reverse Auction.

6.2 Opening of Eligibility and Technical Bids

NPCI will open Technical bids (Envelope 'A') and Technical bid (Envelope 'B')in presence of Bidders or Bidders' representative(s) who choose to be present on the date, time and address mentioned in Section 1 or as amended by NPCI from time to time.

The representatives of the Bidders would be required to produce an authorization letter from the Bidder/ Identity Card to represent them at the time of opening of the bids. Only one representative will be allowed to represent each Bidder. In case the Bidder or its representative is not present at the time of opening of bids, the bids will still be opened at the scheduled time at the sole discretion of NPCI.

The bidder's representative who is present shall sign the register evidencing their attendance. In the event of the specified date of bid opening being declared a holiday for NPCI, the bids shall be opened at the appointed time and place on next working day.

6.3 Opening of Envelope C - Commercial Bids

Indicative Commercial bids will be opened only as part of the process for finalizing the start price for Reverse Auction.

Commercial evaluation will be done through Reverse Auction. Business Rules and Terms & Conditions and Procedures of Reverse Auction have been published on NPCI's website i.e. www.npci.org.in.

Section 7 - Bid Evaluation

7.1 Preliminary Examination of Eligibility Bids

NPCI will examine the bids to determine whether they are complete; whether the required information have been provided as underlined in the bid document; whether the documents have been properly signed and whether the bids are generally in order.

Eligibility and compliance to all the forms and Annexure would be the first level of evaluation. Only those Bids which comply to the eligibility criteria will be taken up for further technical evaluation.

NPCI may waive any minor informality, non-conformity or irregularity in a bid that does not constitute a material deviation provided such waiver does not prejudice or affect the relative ranking of any Bidder.

If a Bid is not substantially responsive, it will be rejected by NPCI and may not subsequently be made responsive by the Bidder by correction of the nonconformity. NPCI's determination of bid responsiveness will be based on the content of the bid itself. NPCI may interact with the Customer references submitted by Bidder, if required.

7.2 Examination of Technical Bids

The Technical Evaluation will be based on the following broad parameters:

a) Compliance to Technical Specifications as specified in the RFP.

b) NPCI reserves the right to call for presentation and discussions on the approach of execution of project etc., from the short-listed Bidders based on the technical bids submitted by them to make an evaluation. Such presentations and minutes of meetings will become part of the technical bid.

c) Review of written reply, if any, submitted in response to the clarification sought by NPCI, if any.

d) Submission of duly signed compliance statement as stipulated in Annexures. Details / Brochures containing details about the proposed hardware are to be enclosed.

e) To assist in the examination, evaluation and comparison of bids, NPCI may, at its discretion, ask any or all the Bidders for clarification and response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

f) NPCI may interact with the Customer references submitted by bidder, if required.

g) NPCI reserves the right to shortlist bidders based on technical evaluation criteria.

7.3 Evaluation of Commercial Bids:

Commercial bids (indicative) of technically qualified short-listed bidders will be opened only as part of the process to arrive at the start price for the reverse auction.

Evaluation of commercial bids will be done through Reverse Auction Process. Business Rules and Terms & Conditions and Procedures of Reverse Auction have been published on NPCI's website.

7.4 Successful Evaluated bidder:

The bidder with lowest commercial bid identified through reverse auction process will be declared as the successful bidder and will be called L1 bidder for the required quantity. NPCI reserves the right to place the order with the L2 bidder, in case the L1 bidder refuses to accept the order or otherwise gets disqualified as per the terms of the RFP, provided the L2 bidder matches the price quoted by the L1 bidder. In case the 2nd lowest bidder is unable to match the L1 price, NPCI reserves the right to place order with the shortlisted L3 bidder and so on.

Section 8 - Terms and Conditions

8.1 Notification of Award / Purchase Order

After selection of the L1 bidder, as given in Clause 7.4, and after obtaining internal approvals and prior to expiration of the period of Bid validity, NPCI will send Notification of Award / Purchase Order to the selected Bidder.

Once the selected Bidder accepts the Notification of Award the selected Bidder shall furnish the Performance Bank Guarantee to NPCI.

8.2 Term of the Order

The term of the Notification of Award/Purchase Order shall be for a period of five (5) years wherein the price of the Network equipment as specified in the RFP would be at a fixed rate.

8.3 Acceptance Procedure

- Within 5 days of receipt of Notification of Award/Purchase Order the successful Bidder shall send the acceptance.
- Failure of the successful Bidder to comply with the above requirements shall constitute sufficient grounds for the annulment of the award.

8.4 Performance Bank Guarantee

The Successful bidder shall, within 14 working days of receipt of Purchase Order, submit a Performance Bank Guarantee (PBG) equal to 10% of total value of the Purchase order (exclusive of taxes), valid for 5 years, with a claim period of 12 (twelve) months from the date of expiry of the validity period of the Bank Guarantee (BG), as per statutory provisions in force. In case the successful bidder is not in a position to submit the PBG for any reason, the successful bidder has to submit a Demand Draft drawn in favour of NPCI for equivalent amount or electronically transfer equivalent amount for credit in NPCI's account. Details of the NPCI's bank account will be furnished on request. In case the successful bidder does not submit the PBG/DD/Electronic fund transfer, NPCI shall withhold an amount equal to the value from the payments due to the bidder.

8.5 Taxes and Duties

All taxes deductible at source, if any, shall be deducted at as per then prevailing rates at the time of release of payments.

Prices shall be exclusive of all taxes, duties, charges and levies of State or Central Governments as applicable. Octroi, if any, shall be reimbursed to Bidder by NPCI at actual on production of original receipt.

The bidder shall meet the requirements of applicable Goods & Services Tax (GST).

8.6 Key Deliverables:

The bidder is expected to complete the following activities

a. Timely delivery of the components
b. Power-on check, rack mounting the equipment
c. Ensure that the necessary Operating System / Firmware loaded in the devices
d. Basic configuration required to establish management connectivity

e. Any additional configuration required for integration of this setup with the existing network environment without any operational impact.

Location	Equipment	Units
Chennai	Spine Switches	2
	Fiber optic leaf switches	12
	UTP leaf switches	2
	10G SFP	576
	40G QSFP	48
Hyderabad	Spine Switches	2
	Fiber optic leaf switches	8
	UTP leaf switches	2
	10G SFP	384
	40G QSFP	32

8.7 Delivery schedule

The networking component shall be delivered within 6 weeks of acceptance of the Purchase Order.

8.8 Delivery Address:

Chennai DC:
National Payments Corporation of India
C/o Reliance Communications Infrastructure Ltd,
Floor IDC Sha 1-A, Reliance House No.6,
Haddows Road, Nungambakkam Chennai - 600 006
Contact: Mr. M Ravi- 9962163390

Hyderabad DC:
National Payments Corporation of India,
C/o, Reliance Communications Plot No.20,
Survey No.64, opp. Mahindra Satyam
Hi-tech City Layout Madhapur, Hyderabad – 500081
Contact: Mr. Arulraj Somasundaram – 9908011905

8.9 Incentivizing the Service Providers

(i) Delivery of hardware / software / services – in case of delivery of the deliverables earlier than the stipulated delivery schedule as per the Purchase Order - 0.25% per week, for every week of early delivery, with a maximum of 2.5%, of the Order value of the respective component, i.e. hardware / software / services, as the case may be, provided the saving in delivery timeline / early delivery is not less than 20% of the prescribed delivery schedule, otherwise incentive will not be applicable. Vendors will not be eligible for any incentive if delivery happens as per the terms of the PO.

(ii) Incentive will not be applicable in case the original delivery schedule is extended for any reason.

(iii) Liquidated damages will continue to be levied for delays in delivery as per the terms of the PO, if the delays are attributable to the vendors.

8.10 Penalty for default in delivery

If the Bidder does not deliver the Goods as per the above delivery period, or such authorized extension of delivery period as may be permitted in writing by NPCI, NPCI shall impose a penalty @ 0.5% of the total value of the Purchase Order for each week's delay subject to a maximum of 5% of the total value of the Purchase Order, without prejudice to any other right or remedy available under purchase order.

In case of delay in compliance with the order beyond **30 days** of the stipulated time period, NPCI will have the right to cancel the order.

8.11 Warranties

The successful bidder shall provide comprehensive on-site warranty for 3 years for Networking components with back to back arrangements with OEM from the date of acceptance of the entire system as per RFP.

The services manageability should be governed by the SLA terms and conditions

Bidder shall also update necessary OS, Patches and should support the hardware and the software for the period of five years from the date of acceptance of the entire system,.

Any defective equipment /software supplied by successful shall be replaced as per the SLA terms, including all incidental cost like transport costs, etc. without any further cost to NPCI The upgrades, new releases (Minor/major) versions, bug fixes etc. for the hardware and system software will be supplied to NPCI at no extra cost, with the necessary documentation during contract period.

8.12 Support (AMC)

The successful bidder shall provide comprehensive on-site maintenance (AMC) of the hardware / software with back to back support with the OEM, for a period of 2 years, from the date of expiry of the warranty period of 3 years.

Cost of AMC should not be less than 10% of the solution cost.

The bidder should submit proof such as contract ID/valid number for availing AMC support/getting replacement from OEM. AMC amount will be released only after submission of such evidence.

For any outages triggered by a defect in the networking components, the RCA has to be provided within 3 working days by the OEM.

8.13 Service Level Requirements (SLA)

Critical Incidents

Critical incidents are defined as incidents that impact the availability of the NPCI Business applications to the NPCI member banks and across NPCI locations.

Some critical incidents (not restricted to) are

- Hardware or software failures of one or more components of the solution
- Connectivity, reachability issue of any of the applications hosted in the supplied switches
- Degraded performance in the applications hosted within the supplied switches

Non- Critical Incidents

- Any issue with the switch hardware / software which does not cause a production impact

Uptime SLA of the solution:

- A guaranteed uptime of 99.99% per annum.
- Uptime shall be calculated as per below mentioned formula:

Annual Uptime in % = (total min in a Annum-Downtime in min in a Annum) X 100 / total min in a Annum

Support SLAs:

- Critical incidents will be responded immediately and resolved within specified SLA
- Daily, Weekly, Monthly reports of all incidents (critical and non -critical) will have to be submitted to NPCI indicating – Date of Incident, Time of Incident, Incident Type, Description, Incident Status, Date of Resolution, Time of Resolution and other details.

Device SLAs

a) Device or spare parts replacements should be provided within 4 hours for Critical incidents
b) Device or spare parts replacements should be provided within Next Business day for Non-Critical incidents

It is the responsibility of Bidder to coordinate with OEM to provide replacement. NPCI will not involve in arranging the device.

b. All the software / hardware up gradation of the devices should be done along with the spare on field and with on-site engineer support (either OEM / SI)

Any defective networking equipment /software supplied by Bidder shall be replaced as per the SLA terms, including all incidental cost like transport costs, etc. The upgrades, new releases(Minor/major) versions, bug fixes etc. for the networking components will be supplied to NPCI at no extra cost, with the necessary documentation during contract period.

8.14 Penalty on non-adherence to SLAs:
The following penalty clauses are applicable to critical and non-critical incidents:

a) Penalty for critical incidents - Any violation in meeting the above SLA requirements which leads to critical incident, NPCI shall impose a penalty of INR 2000/ - (Indian Rupees two thousand only) per hour for delay up to 4 hours, beyond 4 hours penalty would be INR 5000 (Indian Rupees Five thousand only) per hour.

b) Penalty for non-critical incidents: Any violation in meeting the above SLA requirements which leads to non-critical incident, NPCI shall impose a penalty of INR 1000/ - (Indian Rupees One Thousand only) per hour.
c) Any critical incidents caused by software defect will attract a penalty of INR 2000/- INR 2000/ - (Indian Rupees two thousand only) per hour for delay in resolution up to 4 hours, beyond 4 hours penalty would be INR 5000 (Indian Rupees Five thousand only) per hour till resolution
d) Maximum penalty: 5% of the cost of the Individual Equipment Penalty will be applicable for breach of SLAs during warranty and AMC period. Penalty will be calculated and recoverable on Annual basis

8.15 Prices

Price shall remain fixed for a period of two (2) years from the date of Notification of award / 1st Purchase Order. There shall be no increase in price for any reason whatsoever and therefore no request for any escalation of the cost / price shall be entertained.

8.16 Repeat Order:

NPCI reserves the right to place Purchase Orders with the selected bidder(s) for any or all of the goods and/or services at the agreed unit rate for individual categories of purchase order during the period of 2 years from the date of award / 1st Purchase Order.

8.17 Product Upgrades

Notwithstanding what is contained and provided in Clause 8.11 herein above, at any time during term of the purchase order / performance of the Contract, should technological advances be introduced by the OEM/ Bidder for information technologies originally offered by the supplier in its bid and still to be delivered, the bidder shall be obliged to offer to NPCI the latest version of the available technologies having equal or better performance or functionality throughout the contract period.

During performance of the Contract, the bidder shall offer to NPCI all new versions, releases and updates of standard software, as well as related technical support within 30 days of their availability from the OEM.

8.18 Payment Terms:

Payment Schedule

a) 20 % of the hardware cost will be paid on delivery of hardware.

b) 80 % of the hardware cost will be paid after acceptance of the solution.

AMC

AMC charges shall be paid quarterly in arrears. In case the successful bidder desires to get payment of AMC charges in advance, Bank Guarantee equivalent to the value of the AMC charges for the respective year, with action period of 12 months, shall be submitted before 14 days of commencement of the period of maintenance.

Payment will be released within 30 days of receipt of correct invoices along with necessary documents / certificates duly signed by authorized NPCI official.

a) The Recurring Service Charges will be paid quarterly in arrears after submission of necessary invoice and submission of monthly reports including SLA and after deduction of penalties if any.
b) For the purpose of payment, the end of the quarter will be June, Sept, Dec and March.
c) The quarterly bills for the solution should be submitted to NPCI within 10 days of the last day of the relevant quarter.
d) Invoice shall contain all details regarding PAN & registration number for service tax, VAT etc.

Payment will be released within 30 days of receipt of correct invoices along with necessary documents / certificates duly signed by authorized NPCI official.

8.19 Migration activities for change of location:
In case NPCI wishes to shift the devices from one place to another anywhere in the country, adequate support will be made available by the bidder by arranging field engineer for the purpose of dismantling of Networking devices supplied by Service provider & hand-over to the concerned Officials or Data Center, pre-shifting inspection, post-shifting inspection, re-installation etc. of all devices supplied by Service provider. All migration related activities to be done after Business / session hours /according to business convenience & the engineer have to be deployed as per the requirements. NPCI will bear all expenses for packing, shifting, insurance and other incidentals at actual. NPCI will not be responsible or liable for any losses, damages to the items of equipment's, tools and machinery while such dismantling, pre-shifting inspection, post-shifting inspection, and re-installation etc. is being carried out. Bidder shall make available adequate alternative arrangement to ensure that the system functioning is neither affected nor dislocated during the shifting process. It is the responsibility of field engineer to integrate devices delivered at required location or Data Center & coordinate with NPCI NOC to extend the reachability.

8.20 Confidentiality
The Bidder shall treat the details of the documents as secret and confidential. The Successful Bidder shall execute separate NDA on the lines of the draft provided in the **Annexure Z** hereof.

In the event of disclosure of Confidential Information to a third party in violation of the provisions of this Clause, bidder shall use all reasonable endeavors to assist NPCI in recovering and preventing such third party from using, selling or otherwise disseminating of such information.

The Parties' obligations under this Section shall extend to the non-publicizing of any dispute arising out of this Agreement.

The terms of this clause shall continue in full force and effect for a period of five (5) years from the date of disclosure of such Confidential Information.

In the event of termination of this Agreement, upon written request of the NPCI, the bidder shall immediately return the Confidential Information of NPCI, or at the NPCI's option destroy any remaining Confidential Information and certify that such destruction has taken place.

8.21 Indemnity
The bidder shall indemnify, protect and save NPCI and hold NPCI harmless from and against all claims, losses, costs, damages, expenses, action suits and other proceedings, (including reasonable attorney fees), relating to or resulting from any act or omission or negligence or misconduct of the bidder and its employees and representatives, breach of the terms and conditions of the agreement or purchase order, false statement by the bidder, employment claims of employees of the bidder,

third party claims arising due to infringement of intellectual property rights, death or personal injury attributable to acts or omission of bidder, violation of statutory and regulatory provisions including labour laws, laws related to information technology and intellectual property rights, breach of confidentiality obligations, breach of warranty, etc.

Indemnity would be limited to court or arbitration awarded damages and shall exclude indirect, consequential and incidental damages and compensation. Bidder shall indemnify NPCI, provided NPCI promptly notifies the Bidder in writing of such claims and the Bidder shall have the right to undertake the sole defense and control of any such claim.

8.22 Bidder's Liability

The selected Bidder will be liable for all the deliverables.

The Bidder's aggregate liability in connection with obligations undertaken under the purchase order, regardless of the form or nature of the action giving rise to such liability (whether in contract, tort or otherwise), shall be at actual and limited to the value of the contract/purchase order.

The Bidder's liability in case of claims against NPCI resulting from willful and gross misconduct, or gross negligence, fraud of the Bidder, its employees, contractors and subcontractors, from infringement of patents, trademarks, and copyrights or other Intellectual Property Rights or breach of confidentiality obligations shall be unlimited.

8.23 Obligations of the Bidder

Standard of Performance: The Bidder shall perform the services and carry out their obligations with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment materials and methods. The Bidder shall always act in respect of any matter relating to this Contract or to the services as faithful advisor to NPCI and shall at all times support and safeguard NPCI's legitimate interests in any dealings with third parties.

Prohibition of Conflicting Activities: The Bidder shall not engage and shall cause their personnel not to engage in any business or professional activities that would come in conflict with the activities assigned to them under this RFP.

8.24 Exit option and contract re-negotiation

a) NPCI reserves its right to cancel the order in the event of happening of one or more of the situations as mentioned in the "Order Cancellation" clause 8.26 herein under

b) Notwithstanding the existence of a dispute, and/or the commencement of arbitration proceedings, the Bidder should continue to provide the facilities to NPCI at NPCI's locations.

c) Reverse transition mechanism would be activated in the event of cancellation of the contract or exit by the bidders prior to expiry of time for awarding the final bid / the contract. The Bidder should perform a reverse transition mechanism to NPCI or its selected vendor. The reverse transition mechanism would facilitate an orderly transfer of services to NPCI or to an alternative 3rd party / vendor nominated by NPCI. Where NPCI elects to transfer the responsibility for service delivery to a number of vendors, NPCI will nominate a service provider who will be responsible for all dealings with the Bidder regarding the delivery of the reverse transition services.

d) The reverse transition services to be provided by the Bidder shall include the following:

1. The Bidder shall suitably and adequately train NPCI or its designated team for fully and effectively manning, operating the Networking Devices.

2. Bidder shall provide adequate documentation thereof.

3. The Bidder shall jointly manage the Networking Devices with NPCI or designated team for a reasonable period of time

e) Knowledge Transfer: The Bidder shall provide such necessary information, documentation to NPCI or its designee, for the effective management and maintenance of the Deliverables under this RFP/Purchase Order/contract. Bidder shall provide documentation (in English) in electronic form where available or otherwise a single hardcopy of all existing procedures, policies and programs required for supporting the Services.

f) Warranties:

1. All the warranties held by or in the name of the bidder shall be assigned or transferred as-is, in the name of NPCI. The bidder shall execute any and all such documents as may be necessary in this regard.

2. The bidder shall return confidential information and will sign off and acknowledge the return of such confidential information.

3. The bidder shall provide all other services as may be agreed by the parties in connection with the reverse transition services. However, in case any other services, in addition to the above are needed, the same shall be scoped and priced.

4. The bidder recognizes that considering the enormity of the assignment, the transition services listed herein are only indicative in nature and the bidder agrees to provide all assistance and services required for fully and effectively transitioning the services provided by the bidder under the scope, upon termination or expiration thereof, for any reason whatsoever.

g) The rates for availing services during reverse transition period would be the same as payable during the contract period for the respective services as contained and provided in this RFP.

h) During which the existing Bidder would transfer all knowledge, know-how and other things necessary for NPCI or new bidder to take over and continue to manage the services. The Bidder agrees that the reverse transition mechanism and support during reverse transition will not be compromised or affected for reasons whatsoever is for cancellation.

i) NPCI shall have the sole and absolute discretion to decide whether proper reverse transition mechanism over a period of 6 months, has been complied with. In the event of the conflict not being resolved, the conflict will be resolved through Arbitration.

j) NPCI and the successful bidder shall together prepare the Reverse Transition Plan. However, NPCI shall have the sole decision to ascertain whether such Plan has been complied with.

k) The Bidder agrees that in the event of cancellation or exit or expiry of the RFP/Purchase Order/contract it would extend all necessary support to NPCI or its selected vendors as would be required

8.25 Extension of Contract

The bidder shall be required to consistently execute, in a successful and professional manner, the jobs assigned under this RFP or subsequent Purchase Order / Contract, as shall be entered by NPCI

with the Bidder, to the satisfaction of and as decided by the NPCI up to a period of five (5) years (completion period) reckoned from the date of commencement of the services and may be extended for further period on satisfactory performance by bidder. However even in case, the bidder is not interested to extend the Contract for a further period, bidder shall be essentially required to execute the work at least for next 6 months period on the same rates and terms & conditions of the Contract. NPCI has right to alter (increase or decrease) the number of resources. NPCI has right to place repeat order to the bidder for any resources mentioned in the Contract. The contract shall be co-terminus with the Purchase orders issued unless extended by NPCI.

8.26 Order Cancellation

NPCI reserves its right to cancel the order in the event of one or more of the following situations, that are not occasioned due to reasons solely and directly attributable to NPCI alone;

i. Delay in delivery is beyond the specified period as set out in the Purchase Order before acceptance of the product; or,

ii. Serious discrepancy in the quality of service expected.

iii. If a Bidder makes any statement or encloses any form which turns out to be false, incorrect and/or misleading or information submitted by the bidder turns out to be incorrect and/or bidder conceals or suppresses material information.

In case of order cancellation, any payments made by NPCI to the Bidder for the particular service would necessarily have to be returned to NPCI with interest @ 15% per annum from the date of each such payment. Further the Bidder would also be required to compensate NPCI for any direct loss incurred by NPCI due to the cancellation of the Purchase Order and any additional expenditure to be incurred by NPCI to appoint any other Bidder. This is after repaying the original amount paid.

8.27 Termination of Purchase Order/Contract

For Convenience: NPCI, by written notice sent to Bidder, may terminate the Purchase Order/ contract in whole or in part at any time for its convenience giving three months prior notice. The notice of termination may specify that the termination is for convenience the extent to which Bidder's performance under the contract is terminated and the date upon which such termination become effective. NPCI shall consider request of the bidder for pro-rata payment till the date of termination.

For Insolvency: NPCI at any time may terminate the contract by giving written notice to Bidder, if Bidder becomes bankrupt or insolvent. In this event, termination will be without compensation to Bidder, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to NPCI.

For Non-Performance: NPCI reserves its right to terminate the contract in the event of Bidder's repeated failures (say more than 3 occasions in a calendar year to maintain the service level prescribed by NPCI).

8.28 Effect of Termination

- The Bidder agrees that it shall not be relieved of its obligations under the reverse transition mechanism notwithstanding the termination of the assignment.

- Same terms (including payment terms) which were applicable during the term of the contract should be applicable for reverse transition services

- The Bidder agrees that after completion of the Term or upon earlier termination of the assignment the Bidder shall, if required by NPCI, continue to provide facility to NPCI at no less favorable terms than those contained in this RFP. In case NPCI wants to continue with the

Bidder's facility after the completion of this contract then the Bidder shall offer the same terms to NPCI.

- NPCI shall make such prorated payment for services rendered by the Bidder and accepted by NPCI at the sole discretion of NPCI in the event of termination, provided that the Bidder is in compliance with its obligations till such date. However, no payment for "costs incurred, or irrevocably committed to, up to the effective date of such termination" will be admissible. There shall be no termination compensation payable to the Bidder.

- NPCI may make payments of undisputed amounts to the Bidder for services rendered till the effective date of termination. Termination shall be without prejudice to any other rights or remedies NPCI may be entitled to hereunder or at law and shall not affect any accrued rights or liabilities or either party nor the coming into force or continuation in force of any provision hereof which is expressly intended to come into force or continue in force on or after such termination.

- Upon cancellation of contract/completion of period of service, the Bidder should peacefully handover the legal possession of all the assets provided and obtains discharge from NPCI. NPCI also reserves the right to assign or allot or award the contract to any third party upon cancellation of the availed services.

8.29 Force Majeure

If either party is prevented, restricted, delayed or interfered by reason of: a) Fire, explosion, cyclone, floods, droughts, earthquakes, epidemics; b) War, revolution, acts of public enemies, blockage or embargo, riots and civil commotion; c) Any law, order, proclamation, ordinance or requirements of any Government or authority or representative of any such Government, including restrictive trade practices or regulations; d) Strikes, shutdowns or labor disputes which are not instigated for the purpose of avoiding obligations herein; Or e) Any other circumstances beyond the control of the party affected; then notwithstanding anything here before contained, the party affected shall be excused from its performance to the extent such performance relates to prevention, restriction, delay or interference and provided the party so affected used its best efforts to remove such cause of non-performances, and when removed the party shall continue performance with the utmost dispatch.

Each of the parties agrees to give written notice forthwith to the other upon becoming aware of an Event of Force Majeure, the said notice to contain details of the circumstances giving rise to the Event of Force Majeure. If the Event of Force Majeure shall continue for more than twenty (20) days either party shall be entitled to terminate the Agreement at any time thereafter without notice.

Notwithstanding the provisions of the RFP, the successful bidder or NPCI shall not be liable for penalty or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the RFP/Purchase Order/contract is the result of Force Majeure. For purposes of this clause, "Force Majeure" means an event beyond the control of the successful bidder and not involving NPCI or the successful bidder"s fault or negligence and not foreseeable. Such events may include, but not restricted to wars, revolutions, epidemics, natural disasters etc.

If force majeure situation arises, the successful bidder shall promptly notify NPCI in writing of such condition and cause thereof. Unless otherwise directed by NPCI in writing, the successful shall continue to perform its obligations under contract as far as possible.
Neither party shall have any liability to the other in respect of the termination of this Agreement as a result of an Event of Force Majeure.

8.30 Resolution of Disputes

All disputes or differences between NPCI and the bidder shall be settled amicably. If, however, the parties are not able to resolve them, the same shall be settled by arbitration in accordance with the applicable Indian Laws, and the award made in pursuance thereof shall be binding on the parties. Any appeal will be subject to the exclusive jurisdiction of courts at Mumbai.

NPCI and the successful Bidder shall make every effort to resolve amicably by direct informal negotiation; any disagreement or dispute arising between them under or in connection with this RFP.

If, however, NPCI and successful Bidder are not able to resolve them, following dispute resolution mechanism shall be applied:

1. In case of Dispute or difference arising between NPCI and the successful Bidder relating to any matter arising out of or connected with this RFP, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal shall consist of 3 arbitrators, one each to be appointed by NPCI and the successful Bidder. The third Arbitrator shall be chosen by mutual discussion between NPCI and the successful Bidder.
2. Arbitration proceedings shall be held at Mumbai, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English;
3. The decision of the majority of Arbitrators shall be final and binding upon NPCI and Successful Bidder. The cost and expenses of Arbitration proceedings will be paid as determined by mutual chosen third Arbitrator. However, the expenses incurred by each party in connection with the preparation, presentation, etc., of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself; and
4. Where the value of the contract is Rs.1.00 Crore and below, the disputes or differences arising shall be referred to the Sole Arbitrator. The Sole Arbitrator should be appointed by mutual consent between the parties.
5. Any appeal will be subject to the exclusive jurisdiction of courts at Mumbai.

8.31 Compliance with Applicable Laws of India

The Bidder confirms to NPCI that it complies with all Central , State, Municipal laws and local laws and rules and regulations and shall undertake to observe, adhere to, abide by, comply with and notify NPCI about compliance with all laws in force including Information Technology Act 2000, or as are or as made applicable in future, pertaining to or applicable to them, their business, their employees or their obligations towards them and for all purposes of this RFP, and shall indemnify, keep indemnified, hold harmless, defend and protect NPCI and its officers/staff/personnel/representatives/agents from any failure or omission on its part to do so and against all claims or demands of liability and all consequences that may occur or arise for any default or failure on its part to conform or comply with the above and all other statutory obligations arising there from.

The Bidder shall promptly and timely obtain all such consents, permissions, approvals, licenses, etc., as may be necessary or required for any of the purposes of this RFP or for the conduct of their own business under any applicable Law, Government Regulation/Guidelines and shall keep the same valid and in force during the term of the RFP, and in the event of any failure or omission to do so, shall indemnify, keep indemnified, hold harmless, defend, protect and fully compensate NPCI and its employees/officers/staff/personnel/ representatives/agents from and against all claims or demands of liability and all consequences that may occur or arise for any default or failure on its part to conform or comply with the above and all other statutory obligations arising there from.

8.32 Legal Compliances:
The Bidder confirms to NPCI that its personnel/ employees/staff are covered under the provision of various Acts enacted for the protection and benefits of workmen /employees /staff or otherwise such as Employees State Insurance Act and Employees Provident Fund Miscellaneous Provision Act etc. and such other Acts like Profession Tax Act etc. as applicable and that Bidder is duly registered under the provisions of the said Acts and is complying with the provisions of the Acts.

The Bidder shall allow NPCI as well as regulatory authorities to verify books in so far as they relate to compliance with the provisions of these Acts and shall provide on demand by NPCI & regulatory authorities such documentary proof as may be necessary to confirm compliance in this regard. NPCI shall not be responsible in any event to the employees of Bidder for any of their outstanding claims or liability in that regard. NPCI shall not be responsible for any claim or demand made by such personnel for their dues outstanding against Bidder. Bidder indemnifies and shall keep NPCI indemnified from any of such claims/ losses/ damages and demands by any of its personnel, if any, raised on NPCI raised on NPCI.

8.33 Intellectual Property Rights:
All rights, title and interest of NPCI in and to the trade names, trademark, service marks, logos, products, copy rights and other intellectual property rights shall remain the exclusive property of NPCI and Bidder shall not be entitled to use the same without the express prior written consent of NPCI. Nothing in this RFP including any discoveries, improvements or inventions made upon with/by the use of the Bidder or its respectively employed resources pursuant to contract shall either vest or shall be construed so that to vest any proprietary rights to the Bidder. Notwithstanding, anything contained in this RFP, this clause shall survive indefinitely, even after termination of this Purchase Order.

8.34 Applicable Law and Jurisdiction
Applicable Law**:** The Agreement shall be governed by and interpreted in accordance with the Indian Law. The jurisdiction and venue of any action with respect to the subject-matter of this Agreement shall be the Courts of Mumbai in India and each of the parties hereto submits itself to the exclusive jurisdiction and venue of such courts for the purpose of any such action.

8.35 Solicitation of Employees
Both NPCI & successful Bidder the Parties should agree not to hire, solicit, or accept solicitation (either directly, indirectly, or through a third party) for their employees directly involved in this during the period of the contract and one year thereafter, except as the parties may agree on a case-by-case basis. The parties should agree that for the period of the contract and one year thereafter, neither party will cause or permit any of its directors or employees who have knowledge to directly or indirectly solicit of this contract for employing the key personnel working on the project contemplated in this proposal except with the written consent of the other party. The above restriction would not apply to either party for hiring such key personnel who (i) initiate discussions regarding such employment without any direct or indirect solicitation by the other party (ii) respond to any public advertisement placed by either party or its affiliates in a publication of general circulation or (iii) has been terminated by a party prior to the commencement of employment discussions with the other party.

8.36 Facilities provided by NPCI:
NPCI shall provide seats, with required facilities like internet, intranet & LAN Connectivity free of cost for official work. These facilities shall not be used for any personal use. In case of any misuse of the facilities, penalty as deemed fit shall be imposed and recovered from the pending bills of Bidder.

8.37 No Damage of NPCI Property
Bidder shall ensure that there is no loss or damage to the property of NPCI while executing the Contract. In case, it is found that there is any such loss/damage due to direct negligence/non-

performance of duty by any personnel, the amount of loss/damage so fixed by NPCI shall be recovered from Bidder.

8.38 Fraudulent and Corrupt Practice

"Fraudulent Practice" means a misrepresentation of facts in order to influence a procurement process or the execution of the project and includes collusive practice among Bidder's (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the NPCI of the benefits of free and open competition.

"Corrupt Practice" means the offering, giving, receiving or soliciting of anything of value, pressurizing to influence the action of a public official or a NPCI official in the process of project execution. NPCI will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for, or in executing the project.

8.39 Governing Language

All correspondences and other documents pertaining to this Agreement shall be in English only.

8.40 Addresses for Notices

Following shall be address of NPCI and Bidder
NPCI address for notice purpose:
Managing Director& CEO
National Payments Corporation of India
1001A, B wing 10th Floor,
'The Capital', Bandra-Kurla Complex,
Bandra (East), Mumbai - 400 051
Supplier's address for notice purpose: (To be filled by supplier)

Section 9 - Technical Specifications

Scope of Technical Functions

In Chennai we require 2 spine switches, 12 fiber optic leaf switches and 2 UTP leaf switches. In Hyderabad we require 2 spine switches, 8 fiber optic leaf switches and 2 UTP leaf switches. We are planning to use Spine & leaf architecture. All these switches should be compatible with SDN (Software Defined Networking) architecture which is planned in near future.

The Spine switches will be uplinked to the existing NPCI core infrastructure which is having Cisco Nexus 9504, Cisco Nexus 9508 Cisco Nexus 93108 & Cisco Nexus 9372 switches. The Spine switches should have transceivers which are compatible to enable this connectivity.

The Technical specifications are given below. It should be noted that the list is indicative & the Bidder should include any other item/software/service, which is necessary to meet the end objectives as detailed in this section.

	Spine Switch Specification **Quantity: 4 Units**
S.No	**General Requirement**
1	The spine layer switches should have hardware level redundancy (1+1) in terms of data plane and control plane. Issues with any of the plane should not impact the functioning of the switch
2	The switch should have redundant CPUs working in active-active or active-standby mode. CPU fail over/change over should not disrupt/impact/degrade the functioning the switch
3	The Switch should support non-blocking Layer 2 switching and Layer 3 routing
4	The switch should not have any single point of failure like CPU, supervisor, switching fabric power supplies and fans etc. should have 1:1/N+1 level of redundancy
5	Switch should support in line hot insertion and removal of different parts like modules/power supplies/fan tray etc. This should not require rebooting of the switch or create disruption in the working/functionality of the switch
6	Switch should support the complete STACK of IP V4 and IP V6 services
7	Switch with different modules should function line rate and should not have any port with oversubscription ratio applied
8	Switch should support in service software upgrade of the switch without disturbing the traffic flow. There should not be any impact on the performance in the event of the software upgrade/downgrade. It should support in service patching of selected process/processes only without impacting other running processes
9	Switch should support non-blocking, wire speed performance per line card
10	Switch should be compatible with SDN architecture of all the OEM in future without any additional cost / hardware
11	Switch should be compatible with all the required parameters of Spine & leaf architecture
	Hardware and Interface Requirement
12	Switch should have minimum 35 nos. of line rate and Non - Blocking 40/100G ports.
13	Switch should have console port for local management
14	Switch should have management interface for Out of Band Management
15	Switch should be rack mountable and support side rails, if required
16	Switch should have adequate power supplies for the complete system usage with all slots populated and used, providing N+1 redundancy
17	Switch should have hardware health monitoring capabilities and should provide different parameters through SNMP
18	Switch should support VLAN tagging (IEEE 802.1q)

19	Switch should support IEEE Link Aggregation and Ethernet Bonding functionality to group multiple ports for redundancy
20	Switch should have the capability of holding multiple OS images to support resilience & easy rollbacks during the version upgrades etc. and should support in service software upgrade including: A. Multiple System image B. Multiple system configuration C. Option of Configuration roll-back
21	Switch should support for different logical interface types like loopback, VLAN, SVI/RBI, Port Channel/LAG, multi chassis port channel etc.
	Performance
22	The switch should support 50000 IPv4 and IPv6 routes entries in the routing table with multicast routes
23	Switch should support Graceful Restart for OSPF, BGP etc.
24	Switch should support minimum 1000 VRF instances
25	The switch should support uninterrupted forwarding operation for OSPF, BGP etc. routing protocol to ensure high-availability during primary controller failure
26	The switch should support hardware based load balancing at wire speed using LACP and multi chassis ether channel/LAG
27	Switch should have wire rate switching capacity including the following services A. Switching B. IP Routing (Static/Dynamic) C. IP Forwarding D. Policy Based Routing E. QoS F. ACL and Other IP Services G. IPv6 host and IPv6 routing
	Virtualization Features
28	Switch should support Network Virtualization using Virtual Over Lay Network using VXLAN (RFC 7348)/NVGRE as per RFC 2890
29	Switch should support VXLAN and EVPN for supporting Spine - Leaf architecture to optimize the east - west traffic flow inside the data center
30	Switch should support Open Flow/Open Day light/Open Stack controller
31	Switch should support Data Center Bridging
32	Switch should support multi OEM hypervisor environment and should be able to sense movement of VM and configure network automatically
	Layer2 Features
33	Spanning Tree Protocol (IEEE 802.1D, 802.1W, 802.1S
34	Switch should support VLAN trunking (802.1q) and should support 4096 VLAN
35	Switch should support basic Multicast IGMP v1, v2, v3
36	Switch should support minimum 160,000 no. of MAC addresses
37	Switch should support 16 Nos. of link or more per Port channel (using LACP) and support 200 port channels or more per switch
38	Switch should support Industry Standard Port/Link Aggregation for All Ports across any module or any port
39	Switch should support multi chassis Link Aggregation for All Ports across any module or any port
40	Switch should support Jumbo Frames up to 9K Bytes
41	Support for broadcast, multicast and unknown unicast storm control to prevent degradation of switch performance from storm due to network attacks and vulnerabilities
42	Switch should support Link Layer Discovery Protocol as per IEEE 802.1AB for finding media level failures

	Layer3 Features
43	Switch should support all physical ports to use either in Layer2 or Layer 3 mode and also should support layer 3 VLAN Interface and Loopback port Interface
44	Switch should support basic routing feature i.e. IP Classless, default routing and Inter VLAN routing
45	Switch should support static and dynamic routing using the following A. Static routing B. OSPF V.2 using MD5 Authentication C. ISIS using MD5 Authentication D. BGP V.4 using MD5 Authentication E. Should support route redistribution between these protocols F. Should be compliant to Multiprotocol Extensions for BGP-4 (Desirable)
46	Switch should re-converge all dynamic routing protocol at the time of routing update changes i.e. Non-Stop forwarding/Non Stop Routing for fast re-convergence of routing protocols
47	Switch should support multi instance MPLS routing using VRF, VRF Edge routing and should support VRF Route leaking functionality
48	Switch should be capable to work as DHCP server and relay
49	Switch should provide multicast traffic reachable using the following A. PIM-SM B. PIM-SSM C. Bi-Directional PIM D. IGMP V.1, V.2 and V.3
50	Switch should support Multicast routing of minimum 16 way Equal Cost Multi Path load splitting
	Availability
51	Switch should have provisioning for connecting to 1:1/N+1 power supply for usage and redundancy
52	Switch should provide gateway level of redundancy in IPv4 and IPv6 using HSRP/VRRP
53	Switch should support for BFD For Fast Failure Detection as per RFC (5880) H Quality of Service
	Quality of Service
54	Switch system should support 802.1P classification and marking of packet using A. CoS (Class of Service) B. DSCP (Differentiated Services Code Point) C. Source physical interfaces D. Source/destination IP subnet E. Protocol types (IP/TCP/UDP) F. Source/destination TCP/UDP ports
55	Switch should support methods for identifying different types of traffic for better management and resilience
56	Switch should support for different type of QoS features for real time traffic differential treatment using A. Weighted Random Early Detection B. Strict Priority Queuing
57	Switch should support to trust the QoS marking/priority settings of the end points as per the defined policy
58	Switch should support Flow control of Ethernet ports to control traffic rates during congestion by allowing congested nodes to pause link operation at the other end for receiving traffic as per IEEE 802.3x/ IEEE 802.1Qbb
	Security
59	The switch should support for deploying different security for each logical and physical interface using Port Based access control lists of Layer-2 to Layer-4 in IPv4 and IPv6 and logging for fault finding and audit trail

60	Switch should support control plane i.e. processor and memory Protection from unnecessary or DoS traffic by control plane protection policy
61	Switch should support for external database for AAA using A. TACACS+ B. RADIUS
62	Switch should support MAC Address Notification on host join into the network for Audit trails and logging
63	Switch should support to restrict end hosts in the network. Secures the access to an access or trunk port based on MAC address. It limits the number of learned MAC addresses to deny MAC address flooding
64	Switch should support for Role Based access control (RBAC) for restricting host level network access as per policy defined
65	Switch should support to prevent edge devices in the network not administrator's controlled from becoming Spanning Tree Protocol root nodes
66	Switch should support unicast and/or multicast blocking on a switch port to suppress the flooding of frames destined for an unknown unicast or multicast MAC address out of that port
67	Switch should support Spanning tree BPDU protection
68	Switch should support for MOTD banner displayed on all connected terminals at login
	Manageability
69	Switch should support for embedded RMON/RMON-II for central NMS management and monitoring
70	Switch should support for sending logs to multiple centralized syslog server for monitoring and audit trail
71	Switch should provide remote login for administration using: A. Telnet B. SSH V.2
72	Switch should support for capturing packets for identifying application performance using local and remote port mirroring for packet captures
73	Switch should support for management and monitoring status using different type of Industry standard NMS using: A. SNMP V1 and V2 B. SNMP V3 with encryption C. Filtration of SNMP using Access list D. SNMP MIB support for QoS
74	Switch should support for basic administrative tools like: A. Ping B. Trace route
75	Switch should support central time server synchronization using Network Time Protocol NTP V.4/PTP
76	Switch should support for providing granular MIB support for different statistics of the physical and logical interfaces
77	Switch should support for predefined and customized execution of script for device mange for automatic and scheduled system status update for monitoring and management
78	Switch should provide different privilege for login in to the system for monitoring and management
79	Switch should support Real time Packet Capture using Wireshark in real time for traffic analysis and fault finding
	IPv6 features

80	Switch should support for IPv6 connectivity and routing required for network reachability using different routing protocols such A. OSPF V3 B. BGP with IPv6 C. IPv6 Policy based routing D. IPv6 Dual Stack etc. E. IPv6 Static Route F. IPv6 Default route G. Should support route redistribution between these protocols
81	Switch should support multicast routing in IPv6 network using PIMv2 Sparse Mode/MLD
82	Switch should support for QoS in IPv6 network connectivity
83	Switch should support for monitoring and management using different versions of SNMP in IPv6 environment such as A. SNMPv1, SNMPv2c, SNMPv3 B. SNMP over IPv6 with encryption support for SNMP Version 3
84	Switch should support syslog for sending system log messages to centralized log server in IPv6 environment
85	Switch should support NTP to provide an accurate and consistent timestamp over IPv6 to synchronize log collection and events
86	Switch should support for IPv6 different types of tools for administration and management such as A. Ping B. Traceroute C. VTY D. SSH E. TFTP F. DNS Lookup

Leaf switch (Fiber) Specification Quantity: 20 Units	
S.No	**General Requirement**
1	The Switch should support non-blocking Layer 2 switching and Layer 3 routing
2	There switch should not have any single point of failure like power supplies and fans etc should have 1:1/N+1 level of redundancy
3	Switch support in-line hot insertion and removal of different parts like modules/power supplies/fan tray etc. should not require switch reboot and disrupt the functionality of the system
4	Switch should support the complete STACK of IP V4 and IP V6 services
5	The Switch and different modules used should function in line rate and should not have any port with oversubscription ratio applied
6	Switch should be compatible with SDN architecture of all the OEM in future without any additional cost / hardware
7	Switch should be compatible with all the required parameters of Spine & leaf architecture
Hardware and Interface Requirement	
8	Switch should have the following interfaces A. 48 x 10G/25G Multi Mode Fiber Interface B. 2 x 40/100GbE QSFP ports
9	Switch should have console port
10	Switch should have management interface for Out of Band Management
11	Switch should be rack mountable and support side rails if required

12	Switch should have adequate power supply for the complete system usage with all slots populated and used and provide N+1 redundant
13	Switch should have hardware health monitoring capabilities and should provide different parameters through SNMP
14	Switch should support VLAN tagging (IEEE 802.1q)
15	Switch should support IEEE Link Aggregation and Ethernet Bonding functionality to group multiple ports for redundancy
16	Switch should support Configuration roll-back and check point
17	Switch should support for different logical interface types like loopback, VLAN, SVI/RBI, Port Channel/LAG, multi chassis port channel etc.
Performance Requirement	
18	The switch should support 12,000 IPv4 and IPv6 routes entries in the routing table including multicast routes
19	Switch should support Graceful Restart for OSPF, BGP etc.
20	Switch should support minimum 1000 VRF instances
21	The switch should support uninterrupted forwarding operation for OSPF, BGP etc. routing protocol to ensure high -availability during primary controller failure
22	The switch should support hardware based load balancing at wire speed using LACP and multi chassis ether channel/LAG
23	Switch should support minimum 3.2 Tbps including the following services A. Switching B. IP Routing (Static/Dynamic) C. IP Forwarding D. Policy Based Routing E. QoS F. ACL and Other IP Services G. IPv6 host and IPv6 routing
Advance Features	
24	Switch should support Network Virtualization using Virtual Over Lay Network using VXLAN /NVGRE
25	Switch should support VXLAN and EVPN or equivalent for supporting Spine - Leaf architecture to optimize the east - west traffic flow inside the data center
26	Switch should support Open Flow/Open Day light/Open Stack controller
27	Switch should support Data Center Bridging
28	Switch should support multi OEM hypervisor environment and should be able to sense movement of VM and configure network automatically.
Layer2 Features	
29	Spanning Tree Protocol (IEEE 8201.D, 802.1W, 802.1S)
30	Switch should support VLAN trunking (802.1q) and should support 4096 VLAN
31	Switch should support basic Multicast IGMP v1, v2, v3
32	Switch should support minimum 96,000 no. of MAC addresses
33	Switch should support 8 Nos. of link or more per Port channel (using LACP) and support 48 port channels or more per switch
34	Switch should support Industry Standard Port/Link Aggregation for All Ports across any module or any port
35	Switch should support multi chassis Link Aggregation for All Ports across any module or any port of the switch and Link aggregation should support 802.3ad LACP protocol for communication with downlink/uplink any third party switch or server
36	Switch should support Jumbo Frames up to 9K Bytes
37	Support for broadcast, multicast and unknown unicast storm control to prevent degradation of switch performance from storm due to network attacks and vulnerabilities

38	Switch should support Link Layer Discovery Protocol as per IEEE 802.1AB for finding media level failures
Layer3 Features	
39	Switch should support all physical ports to use either in Layer2 or Layer 3 mode and also should support layer 3 VLAN Interface and Loopback port Interface
40	Switch should support basic routing feature i.e. IP Classless, default routing and Inter VLAN routing
41	Switch should support static and dynamic routing using the following A. Static routing B. OSPF V.2 using MD5 Authentication C. ISIS using MD5 Authentication D. BGP V.4 using MD5 Authentication E. Should support route redistribution between these protocols F. Should be compliant to Multiprotocol Extensions for BGP-4 (Desirable)
42	Switch should re-converge all dynamic routing protocol at the time of routing update changes i.e. Non-Stop forwarding/Nonstop Routing for fast re-convergence of routing protocols
43	Switch should support multi instance MPLS routing using VRF, VRF Edge routing and should support VRF Route leaking functionality
44	Switch should be capable to work as DHCP server and relay
45	Switch should provide multicast traffic reachable using the following A. PIM-SM B. PIM-SSM C. Bi-Directional PIM D. IGMP V.1, V.2 and V.3
Availability	
46	Switch should have provisioning for connecting to 1:1/N+1 power supply for usage and redundancy
47	Switch should provide gateway level of redundancy in IPv4 and IPv6 using HSRP/VRRP
48	Switch should support for BFD For Fast Failure Detection as per RFC 5880
Quality of Service	
49	Switch system should support 802.1P classification and marking of packet using A. CoS (Class of Service) B. DSCP (Differentiated Services Code Point) C. Source physical interfaces D. Source/destination IP subnet E. Protocol types (IP/TCP/UDP) F. Source/destination TCP/UDP ports
50	Switch should support methods for identifying different types of traffic for better management and resilience
51	Switch should support for different type of QoS features for real time traffic differential treatment using A. Weighted Random Early Detection B. Strict Priority Queuing
52	Switch should support to trust the QoS marking/priority settings of the end points as per the defined policy
53	Switch should support Flow control of Ethernet ports to control traffic rates during congestion by allowing congested nodes to pause link operation at the other end for receiving traffic as per IEEE 802.3x
Security	
54	Switch should support for deploying different security for each logical and physical interface using Port Based access control lists of Layer-2 to Layer4 in IPv4 and IPv6 and logging for fault finding and audit trail

55	Switch should support control plane i.e. processor and memory Protection from unnecessary or DoS traffic by control plane protection policy
56	Switch should support for external database for AAA using A. TACACS+ B. RADIUS
57	Switch should support MAC Address Notification on host join into the network for Audit trails and logging
58	Switch should support to restrict end hosts in the network. Secures the access to an access or trunk port based on MAC address. It limits the number of learned MAC addresses to deny MAC address flooding
59	Switch should support DHCP Snooping
60	Switch should support Dynamic ARP Inspection to ensure host integrity by preventing malicious users from exploiting the insecure nature of the ARP protocol
61	Switch should support IP Source Guard to prevents a malicious hosts from spoofing or taking over another host's IP address by creating a binding table between the client's IP and MAC address, port, and VLAN
62	Switch should support for Role Based access control (RBAC) for restricting host level network access as per policy defined
63	Switch should support to prevent edge devices in the network not administrator's controlled from becoming Spanning Tree Protocol root nodes
64	Switch should support unicast and/or multicast blocking on a switch port to suppress the flooding of frames destined for an unknown unicast or multicast MAC address out of that port
65	Switch should support Spanning tree BPDU protection
66	Switch should support for MOTD banner displayed on all connected terminals at login
Manageability	
67	Switch should support for embedded RMON/RMON-II for central NMS management and monitoring
68	Switch should support for sending logs to multiple centralized syslog server for monitoring and audit trail
69	Switch should provide remote login for administration using: A. Telnet B. SSH V.2
70	Switch should support for capturing packets for identifying application performance using local and remote port mirroring for packet captures
71	Switch should support for management and monitoring status using different type of Industry standard NMS using: A. SNMP V1 and V2 B. SNMP V3 with encryption C. Filtration of SNMP using Access list D. SNMP MIB support for QoS
72	Switch should support for basic administrative tools like: A. Ping B. Traceroute
73	Switch should support central time server synchronization using Network Time Protocol NTP V4/PTP
74	Switch should support for providing granular MIB support for different statistics of the physical and logical interfaces
75	Switch should support for predefined and customized execution of script for device mange for automatic and scheduled system status update for monitoring and management
76	Switch should provide different privilege for login in to the system for monitoring and management
77	Switch should support Real time Packet Capture using Wireshark in real time for traffic analysis and fault finding

IPv6 features	
78	Switch should support for IPv6 connectivity and routing required for network reachability using different routing protocols such A. OSPF V3 B. BGP with IPv6 C. IPv6 Policy based routing D. IPv6 Dual Stack etc. E. IPv6 Static Route F. IPv6 Default route G. Should support route redistribution between these protocols
79	Switch should support for QoS in IPv6 network connectivity
80	Switch should support for monitoring and management using different versions of SNMP in IPv6 environment such as A. SNMPv1, SNMPv2c, SNMPv3 B. SNMP over IPv6 with encryption support for SNMP Version 3
81	Switch should support syslog for sending system log messages to centralized log server in IPv6 environment
82	Switch should support NTP to provide an accurate and consistent timestamp over IPv6 to synchronize log collection and events
83	Switch should support for IPv6 different types of tools for administration and management such as A. Ping B. Traceroute C. VTY D. SSH E. TFTP F. DNS Lookup

Type 2 Leaf switch (UTP) Specification Quantity: 4 units	
Solution Requirement	
1	The Switch should support non-blocking Layer 2 switching and Layer 3 routing
2	There switch should not have any single point of failure like power supplies and fans etc. should have 1:1/N+1 level of redundancy
3	Switch support in-line hot insertion and removal of different parts like modules/power supplies/fan tray etc. should not require switch reboot and disrupt the functionality of the system
4	Switch should support the complete STACK of IP V4 and IP V6 services
5	The Switch and different modules used should function in line rate and should not have any port with oversubscription ratio applied
6	Switch should be compatible with SDN architecture of all the OEM in future without any additional cost / hardware
7	Switch should be compatible with all the required parameters of Spine & leaf architecture
Hardware and Interface Requirement	
8	Switch should have the following interfaces A. 48 x 1G/10G Ethernet RJ45 Interface B. 2 x 40/100GbE QSFP ports + two additional ports
9	Switch should have console port
10	Switch should have management interface for Out of Band Management
11	Switch should be rack mountable and support side rails if required
12	Switch should have adequate power supply for the complete system usage with all slots populated and used and provide N+1 redundant

13	Switch should have hardware health monitoring capabilities and should provide different parameters through SNMP
14	Switch should support VLAN tagging (IEEE 802.1q)
15	Switch should support IEEE Link Aggregation and Ethernet Bonding functionality to group multiple ports for redundancy
16	Switch should support Configuration roll-back and check point
17	Switch should support for different logical interface types like loopback, VLAN, SVI/RBI, Port Channel/LAG, multi chassis port channel etc.
Performance Requirement	
18	The switch should support 12,000 IPv4 and IPv6 routes entries in the routing table including multicast routes
19	Switch should support Graceful Restart for OSPF, BGP etc.
20	Switch should support minimum 1000 VRF instances
21	The switch should support uninterrupted forwarding operation for OSPF, BGP etc. routing protocol to ensure high -availability during primary controller failure
22	The switch should support hardware based load balancing at wire speed using LACP and multi chassis ether channel/LAG
23	Switch should support minimum 3.2 Tbps including the following services A. Switching B. IP Routing (Static/Dynamic) C. IP Forwarding D. Policy Based Routing E. QoS F. ACL and Other IP Services G. IPv6 host and IPv6 routing
Advance Features	
24	Switch should support Network Virtualization using Virtual Over Lay Network using VXLAN /NVGRE
25	Switch should support VXLAN and EVPN or equivalent for supporting Spine - Leaf architecture to optimize the east - west traffic flow inside the data center
26	Switch should support Open Flow/Open Day light/Open Stack controller
27	Switch should support Data Center Bridging
28	Switch should support multi OEM hypervisor environment and should be able to sense movement of VM and configure network automatically.
Layer2 Features	
29	Spanning Tree Protocol (IEEE 8201.D, 802.1W, 802.1S)
30	Switch should support VLAN trunking (802.1q) and should support 4096 VLAN
31	Switch should support basic Multicast IGMP v1, v2, v3
32	Switch should support minimum 96,000 no. of MAC addresses
33	Switch should support 8 Nos. of link or more per Port channel (using LACP) and support 48 port channels or more per switch
34	Switch should support Industry Standard Port/Link Aggregation for All Ports across any module or any port
35	Switch should support multi chassis Link Aggregation for All Ports across any module or any port of the switch and Link aggregation should support 802.3ad LACP protocol for communication with downlink/uplink any third party switch or server
36	Switch should support Jumbo Frames up to 9K Bytes
37	Support for broadcast, multicast and unknown unicast storm control to prevent degradation of switch performance from storm due to network attacks and vulnerabilities

38	Switch should support Link Layer Discovery Protocol as per IEEE 802.1AB for finding media level failures
Layer3 Features	
39	Switch should support all physical ports to use either in Layer2 or Layer 3 mode and also should support layer 3 VLAN Interface and Loopback port Interface
40	Switch should support basic routing feature i.e. IP Classless, default routing and Inter VLAN routing
41	Switch should support static and dynamic routing using the following A. Static routing B. OSPF V.2 using MD5 Authentication C. ISIS using MD5 Authentication D. BGP V.4 using MD5 Authentication E. Should support route redistribution between these protocols F. Should be compliant to Multiprotocol Extensions for BGP-4 (Desirable)
42	Switch should re-converge all dynamic routing protocol at the time of routing update changes i.e. Non-Stop forwarding/Nonstop Routing for fast re-convergence of routing protocols
43	Switch should support multi instance MPLS routing using VRF, VRF Edge routing and should support VRF Route leaking functionality
44	Switch should be capable to work as DHCP server and relay
45	Switch should provide multicast traffic reachable using the following A. PIM-SM B. PIM-SSM C. Bi-Directional PIM D. IGMP V.1, V.2 and V.3
Availability	
46	Switch should have provisioning for connecting to 1:1/N+1 power supply for usage and redundancy
47	Switch should provide gateway level of redundancy in IPv4 and IPv6 using HSRP/VRRP
48	Switch should support for BFD For Fast Failure Detection as per RFC 5880
Quality of Service	
49	Switch system should support 802.1P classification and marking of packet using A. CoS (Class of Service) B. DSCP (Differentiated Services Code Point) C. Source physical interfaces D. Source/destination IP subnet E. Protocol types (IP/TCP/UDP) F. Source/destination TCP/UDP ports
50	Switch should support methods for identifying different types of traffic for better management and resilience
51	Switch should support for different type of QoS features for real time traffic differential treatment using A. Weighted Random Early Detection B. Strict Priority Queuing
52	Switch should support to trust the QoS marking/priority settings of the end points as per the defined policy
53	Switch should support Flow control of Ethernet ports to control traffic rates during congestion by allowing congested nodes to pause link operation at the other end for receiving traffic as per IEEE 802.3x
Security	
54	Switch should support for deploying different security for each logical and physical interface using Port Based access control lists of Layer-2 to Layer4 in IPv4 and IPv6 and logging for fault finding and audit trail

55	Switch should support control plane i.e. processor and memory Protection from unnecessary or DoS traffic by control plane protection policy
56	Switch should support for external database for AAA using A. TACACS+ B. RADIUS
57	Switch should support MAC Address Notification on host join into the network for Audit trails and logging
58	Switch should support to restrict end hosts in the network. Secures the access to an access or trunk port based on MAC address. It limits the number of learned MAC addresses to deny MAC address flooding
59	Switch should support DHCP Snooping
60	Switch should support Dynamic ARP Inspection to ensure host integrity by preventing malicious users from exploiting the insecure nature of the ARP protocol
61	Switch should support IP Source Guard to prevents a malicious hosts from spoofing or taking over another host's IP address by creating a binding table between the client's IP and MAC address, port, and VLAN
62	Switch should support for Role Based access control (RBAC) for restricting host level network access as per policy defined
63	Switch should support to prevent edge devices in the network not administrator's controlled from becoming Spanning Tree Protocol root nodes
64	Switch should support unicast and/or multicast blocking on a switch port to suppress the flooding of frames destined for an unknown unicast or multicast MAC address out of that port
65	Switch should support Spanning tree BPDU protection
66	Switch should support for MOTD banner displayed on all connected terminals at login
Manageability	
67	Switch should support for embedded RMON/RMON-II for central NMS management and monitoring
68	Switch should support for sending logs to multiple centralized syslog server for monitoring and audit trail
69	Switch should provide remote login for administration using: A. Telnet B. SSH V.2
70	Switch should support for capturing packets for identifying application performance using local and remote port mirroring for packet captures
71	Switch should support for management and monitoring status using different type of Industry standard NMS using: A. SNMP V1 and V2 B. SNMP V3 with encryption C. Filtration of SNMP using Access list D. SNMP MIB support for QoS
72	Switch should support for basic administrative tools like: A. Ping B. Traceroute
73	Switch should support central time server synchronization using Network Time Protocol NTP V4/PTP
74	Switch should support for providing granular MIB support for different statistics of the physical and logical interfaces
75	Switch should support for predefined and customized execution of script for device mange for automatic and scheduled system status update for monitoring and management
76	Switch should provide different privilege for login in to the system for monitoring and management
77	Switch should support Real time Packet Capture using Wireshark in real time for traffic analysis and fault finding

IPv6 features	
78	Switch should support for IPv6 connectivity and routing required for network reachability using different routing protocols such A. OSPF V3 B. BGP with IPv6 C. IPv6 Policy based routing D. IPv6 Dual Stack etc. E. IPv6 Static Route F. IPv6 Default route G. Should support route redistribution between these protocols
79	Switch should support for QoS in IPv6 network connectivity
80	Switch should support for monitoring and management using different versions of SNMP in IPv6 environment such as A. SNMPv1, SNMPv2c, SNMPv3 B. SNMP over IPv6 with encryption support for SNMP Version 3
81	Switch should support syslog for sending system log messages to centralized log server in IPv6 environment
82	Switch should support NTP to provide an accurate and consistent timestamp over IPv6 to synchronize log collection and events
83	Switch should support for IPv6 different types of tools for administration and management such as A. Ping B. Traceroute C. VTY D. SSH E. TFTP F. DNS Lookup

Section 10 - Documents forms to be put in Envelope A

Annexure A1 - Bidder's Letter for EMD

To

The Chief Executive Officer
National Payments Corporation of India,
1001A, B wing 10th Floor,
'The Capital', Bandra-Kurla Complex,
Bandra (East), Mumbai - 400 051

Subject: RFP # NPCI/RFP/2017-18/IT/06 dated 17.11.2017 for "Request for Proposal for supply, installation & maintenance of Network components".

We have enclosed an EMD in the form of a Demand Draft No.____ issued by the branch of the _____Bank, for the sum of Rs. _____ (Rupees _____). This EMD is as required by clause 5.7 of the Instructions to Bidders of the above referred RFP.

Thanking you,

Yours faithfully,

(Signature of the Bidder)
Printed Name:
Designation:
Seal:
Date:
Business Address:

Annexure A2 - Bid Security (Bank Guarantee)

_____
[Bank's Name, and Address of Issuing Branch or Office]

National Payments Corporation of India: _____

Date: _____

BID GUARANTEE No.: _____

We have been informed that_____ (hereinafter called "the Bidder") has submitted to you its bid dated (hereinafter called "the Bid") for the execution of _____under RFP No.

Furthermore, we understand that, according to your conditions, bids must be supported by a bank guarantee.

At the request of the Bidder, we _____ hereby irrevocably undertake to pay you without any demur or protest, any sum or sums not exceeding in total an amount of Rs._____/-(Rupees _____ only) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

(a) Has withdrawn its Bid during the period of bid validity specified by the Bidder in the Form of Bid; or

(b) having been notified of the acceptance of its Bid by NPCI during the period of bid validity, (i) fails or refuses to execute the Contract document; or (ii) fails or refuses to furnish the performance security, if required, in accordance with the Instructions to Bidders.

This guarantee will expire:

(a) If the Bidder is the successful bidder, upon our receipt of copies of the contract signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; or

(b) if the Bidder is not the successful bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful bidder; or (ii) twelve months after the expiration of the Bidder's Bid.

Consequently, any demand for payment under this guarantee must be received by us at the Office on or before that date.

_____
[Signature]

Annexure A3 - Bid Security

(PERFORMANCE BANK GUARANTEE FORMAT)

Date
Beneficiary: NATIONAL PAYMENTS CORPORATION OF INDIA
1001A, B wing 10th Floor,
'The Capital', Bandra-Kurla Complex,
Bandra (East), Mumbai - 400 051

Performance Bank Guarantee No:
We have been informed that----------(hereinafter called "the Supplier") has received the purchase order no. "----------" dated ---------- issued by National Payments Corporation of India (NPCI), for ---------- (hereinafter called "the Purchase Order").

Furthermore, we understand that, according to the conditions of the Purchase order, a Performance Bank Guarantee is required to be submitted by the Supplier to NPCI.
At the request of the Supplier, We ----------(name of the Bank , the details of its incorporation) having its registered office at ---------- ---------- and, for the purposes of this Guarantee and place where claims are payable, acting through its ---- branch presently situated at ---------- (hereinafter referred to as "Bank" which term shall mean and include, unless repugnant to the context or meaning thereof, its successors and permitted assigns),hereby irrevocably undertake to pay you without any demur or objection any sum(s) not exceeding in total an amount of Rs.---------- (in figures) (Rupees---------(in words)------- only) upon receipt by us of your first demand in writing declaring the Supplier to be in default under the purchase order, without caveat or argument, or your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

Please note that you may, if you so require, independently seek confirmation with –(Bank Name & Issuing branch address)----------, that this Bank Guarantee has been duly and validly issued.

Notwithstanding anything contained in the foregoing:
The liability of ---------- (Bank), under this Bank Guarantee is restricted to a maximum total amount of Rs. ---------- (Amount in figures and words).
This bank guarantee is valid upto ----------.
The liability of ---------- (Bank), under this Bank Guarantee is finally discharged if no claim is made on behalf of NPCI within twelve months from the date of the expiry of the validity period of this Bank Guarantee.
Our liability pursuant to this Bank Guarantee is conditional upon the receipt of a valid and duly executed written claim or demand, by ---------- (Bank)---------- -------- (Address), delivered by hand, courier or registered post, or by fax prior to close of banking business hours on ---------- (date should be one year from the date of expiry of guarantee) failing which all rights under this Bank Guarantee shall be forfeited and ---------- (Bank), shall stand absolutely and unequivocally discharged of all of its obligations hereunder.

This Bank Guarantee shall be governed by and construed in accordance with the laws of India and competent courts in the city of Mumbai shall have exclusive jurisdiction.
Kindly return the original of this Bank Guarantee to ---------- --------- (Bank & Its Address), upon (a) its discharge by payment of claims aggregating to Rs. -------- (Amount in figures & words); (b) Fulfillment of the purpose for which this Bank Guarantee was issued; or (c) Claim Expiry Date (date should be one year from the date of expiry of this Bank Guarantee).
All claims under this Bank Guarantee will be payable at ---------- ---------- (Bank & Its Address).

{Signature of the Authorized representatives of the Bank}

Annexure B - Bid Offer Form (without Price)

(Bidder's Letter Head)

OFFER LETTER

Date:

To

The Chief Executive Officer
National Payments Corporation of India
1001A, B wing 10th Floor,
'The Capital', Bandra-Kurla Complex,
Bandra (East), Mumbai - 400 051

Dear Sir,

Subject: RFP No. NPCI/RFP/2017-18/IT/06 dated 17.11.2017 for "Request for Proposal for supply, installation & maintenance of Network components".

We have examined the above referred RFP document. As per the terms and conditions specified in the RFP document, and in accordance with the schedule of prices indicated in the commercial bid and made part of this offer.
We acknowledge having received the following addenda / corrigenda to the RFP document.

Addendum No. / Corrigendum No.	Dated

While submitting this bid, we certify that:

1. Prices have been quoted in INR.
2. The prices in the bid have not been disclosed and will not be disclosed to any other bidder of this RFP.
3. We have not induced nor attempted to induce any other bidder to submit or not submit a bid for restricting competition.
4. We agree that the rates / quotes, terms and conditions furnished in this RFP are for NPCI and its Associates.

If our offer is accepted, we undertake, to start the assignment under the scope immediately after receipt of your order. We have taken note of Penalty clauses in the RFP and agree to abide by the same. We also note that NPCI reserves the right to cancel the order and order cancellation clause as per terms and condition would be applicable. We understand that for delays not attributable to us or on account of uncontrollable circumstances, penalties will not be levied and that the decision of NPCI will be final and binding on us.

We agree to abide by this offer till 180 days from the last date stipulated by NPCI for submission of bid, and our offer shall remain binding upon us and may be accepted by NPCI any time before the expiry of that period.

Until a formal contract is prepared and executed with the selected bidder, this offer will be binding on us. We also certify that the information/data/particulars furnished in our bid are factually

correct. We also accept that in the event of any information / data / particulars are found to be incorrect, NPCI will have the right to disqualify /blacklist us and forfeit bid security.

We undertake to comply with the terms and conditions of the bid document. We understand that NPCI may reject any or all of the offers without assigning any reason whatsoever.

As security (EMD) for the due performance and observance of the undertaking and obligation of the bid we submit herewith Demand Draft bearing no. _____dated _____ drawn in favor of "National Payments Corporation of India" or Bank Guarantee valid for ____days for an amount of Rs._____ (Rs. _____ only) payable at Mumbai.

Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name of Company/Firm:

Address

Annexure C - Bidder Information

(Bidder's Letter Head)

Details of the Bidder				
1	Name of the Bidder			
2	Address of the Bidder			
3	Constitution of the Company (Public Ltd/ Pvt Ltd)			
4	Details of Incorporation of the Company.	Date:		
		Ref#		
5	Valid Sales tax registration no.			
6	Valid Service tax registration no.			
7	Permanent Account Number (PAN)			
8	Goods & Services Tax (GST) Registration Numbers			
9	City			
10	State			
11	Pin Code / State Code			
12	GSTIN Number			
13	HSN Number			
14	Name & Designation of the contact person to whom all references shall be made regarding this tender			
15	Telephone No. (Cell # and Landline # with STD Code)			
16	E-Mail of the contact person:			
17	Fax No. (with STD Code)			
18	Website			
Financial Details (as per audited Balance Sheets) (in Cr)				
19	Year	2014-15	2015-16	2016-17
20	Net worth			
21	Turn Over			
22	PAT			

Annexure D - Declaration for Clean Track Record

(Bidder's Letter Head)

To

The Chief Executive Officer
National Payments Corporation of India
1001A, B wing 10th Floor,
'The Capital', Bandra-Kurla Complex,
Bandra (East), Mumbai - 400 051

Sir,

I have carefully gone through the Terms & Conditions contained in the RFP document for selection of vendor for **Request for Proposal for supply, installation & maintenance of Network components - RFP No. NPCI/RFP/2017-18/IT/06 dated 17.11.2017.** I hereby declare that my company has not been debarred/black listed by any Government / Semi Government / Private organizations in India / abroad. I further certify that I am competent officer and duly authorized by my company to make this declaration.

Yours faithfully,

(Signature of the Bidder)
Printed Name
Designation
Seal
Date:
Business Address:

Annexure E - Declaration for Acceptance of RFP Terms and Conditions

(Bidder's Letter Head)

To

The Chief Executive Officer
National Payments Corporation of India
1001A, B wing 10th Floor,
'The Capital', Bandra-Kurla Complex,
Bandra (East), Mumbai - 400 051

Dear Sir,

I have carefully gone through the Terms & Conditions contained in the RFP document for selection of vendor for **Request for Proposal for supply, installation & maintenance of Network components - RFP No. NPCI/RFP/2017-18/IT/06 dated 17.11.2017.** I declare that all the provisions of this RFP/Tender Document are acceptable to my company. I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)
Printed Name
Designation
Seal
Date:
Business Address:

Annexure F - Declaration for Acceptance of Scope of Work

(Bidder's Letter Head)

To

The Chief Executive Officer
National Payments Corporation of India
1001A, B wing 10th Floor,
'The Capital', Bandra-Kurla Complex,
Bandra (East), Mumbai - 400 051

Sir,

I have carefully gone through the Scope of Work contained in the RFP document for selection of vendor for **Request for Proposal for supply, installation & maintenance of Network components - RFP No. NPCI/RFP/2017-18/IT/06 dated 17.11.2017.** I declare that all the provisions of this RFP / Tender Document are acceptable to my company. I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)
Printed Name
Designation
Seal
Date:
Business Address:

Annexure G - Format Power of Attorney

(On Stamp paper of relevant value)

Know all men by the present, we _____ (name of the company and address of the registered office) do hereby appoint and authorize _____ (full name and residential address) who is presently employed with us holding the position of _____ as our attorney, to do in our name and on our behalf, deed and things necessary in connection with or incidental to our proposal for **Request for Proposal for supply, installation & maintenance of Network components - RFP No. NPCI/RFP/2017-18/IT/06 dated 17.11.2017** in response to the RFP by NPCI, including signing and submission of all the documents and providing information/responses to NPCI in all the matter in connection with our bid. We hereby agree to ratify all deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all deeds and things done by our aforesaid attorney shall always be deemed to have been done by us.

Dated this _____ day of _____ 2017.
For _____.

(Signature)

(Name Designation and Address)

Accepted

(Signature)
(Name Designation)
Date:
Business Address:

Annexure H - Eligibility Criteria Compliance

(Bidder's Letter Head)

Sr.No	Eligibility Criteria	Compliance Yes/No	Documentary proof to be attached
1	The bidder should be a Company registered under the Companies Act since the last three years. a) In case the Bidding Company is the result of a merger / acquisition, at least one of the merging companies should have been in operation for at least 3 years as on date of submission of the bid. b) In case the Bidding Company is the result of a demerger / hiving off, at least one of the demerged company or resulting company.		Documentary Proof should be submitted
2	The bidder should have minimum annual turnover of Rs.25 Crores during the three financial years i.e. 2014-15, 2015-16 and 2016-17 or calendar years 2014, 2015, 2016 or bidder's financial years. a. In case the Bidding Company is the result of a merger / acquisition, due consideration shall be given to the past financial results of the merging entity for the purpose of determining the net worth, minimum annual turnover and profit after tax for the purpose of meeting the eligibility criteria; should the Bidding Company be in operation for a period of less than 3 years. For this purpose, the decision of NPCI will be treated as final and no further correspondence will be entertained on this. b. In case the Bidding Company is the result of a demerger / hiving off, due consideration shall be given to the past financial results of the demerged company for the purpose of determining the net worth, minimum annual turnover and profit after tax for the purpose of meeting the eligibility criteria; should the Bidding Company be in operation for a period of less than 3 years. For this purpose, the decision of NPCI will be treated as final and no further correspondence will be entertained on this.		Standalone financial Audited balance sheets & Profit /loss statement, Statutory Auditor's Report, Notes to Accounts and Schedules forming part of accounts to be submitted.

3	The bidder should be a profit (profit after tax) making company in any one of the three financial years i.e. 2014-15, 2015-16, 2016-17 or Calendar years 2014, 2015, 2016 or the Bidder's financial years. a) In case the Bidding Company is the result of a merger / acquisition, due consideration shall be given to the past financial results of the merging entity for the purpose of determining the net worth, minimum annual turnover and profit after tax for the purpose of meeting the eligibility criteria; should the Bidding Company be in operation for a period of less than 3 years. For this purpose, the decision of NPCI will be treated as final and no further correspondence will be entertained on this. b) In case the Bidding Company is the result of a demerger / hiving off, due consideration shall be given to the past financial results of the demerged company for the purpose of determining the net worth, minimum annual turnover and profit after tax for the purpose of meeting the eligibility criteria; should the Bidding Company be in operation for a period of less than 3 years. For this purpose, the decision of NPCI will be treated as final and no further correspondence will be entertained on this.		Standalone financial Audited balance sheets & Profit /loss statement, Statutory Auditor's Report, Notes to Accounts and Schedules forming part of accounts to be submitted.
4	The bidder should not be currently blacklisted by any bank / institution in India or abroad.		Self-Declaration as per Annexure D on company letter head
5	The bidder should be authorized to quote for products and support by the OEM		Declaration from OEM
6	The Bidder should have support centers in India		Bidder to provide self-declaration to the effect on company letter head

Annexure I - OEM / Manufacturer's Authorization Letter

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its bid]

Date:

To:

WHEREAS

We_____, are official manufacturers/OEM vendors of_____. We_____ do hereby authorize M/S_____ to submit a bid the purpose of which is to provide the following Goods, manufactured by us _____, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty, with respect to the Goods offered by the above firm.

Signed by the Manufacturer/OEM Vendor:

Name:

Title:

Seal:

Dated on _____ day of _____, _____

Section 11 - Documents to be put in Envelope 'B'

(Bidder's Letter Head)

Annexure K - Technical Compliance

	Spine Switch Specification Quantity: 4 Units	Compliance Yes/No
S.No	**General Requirement**	
1	The spine layer switches should have hardware level redundancy (1+1) in terms of data plane and control plane. Issues with any of the plane should not impact the functioning of the switch	
2	The switch should have redundant CPUs working in active-active or active-standby mode. CPU fail over/change over should not disrupt/impact/degrade the functioning the switch	
3	The Switch should support non-blocking Layer 2 switching and Layer 3 routing	
4	The switch should not have any single point of failure like CPU, supervisor, switching fabric power supplies and fans etc. should have 1:1/N+1 level of redundancy	
5	Switch should support in line hot insertion and removal of different parts like modules/power supplies/fan tray etc. This should not require rebooting of the switch or create disruption in the working/functionality of the switch	
6	Switch should support the complete STACK of IP V4 and IP V6 services	
7	Switch with different modules should function line rate and should not have any port with oversubscription ratio applied	
8	Switch should support in service software upgrade of the switch without disturbing the traffic flow. There should not be any impact on the performance in the event of the software upgrade/downgrade. It should support in service patching of selected process/processes only without impacting other running processes	
9	Switch should support non-blocking, wire speed performance per line card	
10	Switch should be compatible with SDN architecture of all the OEM in future without any additional cost / hardware	
11	Switch should be compatible with all the required parameters of Spine & leaf architecture	
	Hardware and Interface Requirement	
12	Switch should have minimum 35 nos. of line rate and Non - Blocking 40/100G ports.	
13	Switch should have console port for local management	
14	Switch should have management interface for Out of Band Management	
15	Switch should be rack mountable and support side rails, if required	
16	Switch should have adequate power supplies for the complete system usage with all slots populated and used, providing N+1 redundancy	
17	Switch should have hardware health monitoring capabilities and should provide different parameters through SNMP	
18	Switch should support VLAN tagging (IEEE 802.1q)	
19	Switch should support IEEE Link Aggregation and Ethernet Bonding functionality to group multiple ports for redundancy	
20	Switch should have the capability of holding multiple OS images to support resilience & easy rollbacks during the version upgrades etc. and should support in service software upgrade including: A. Multiple System image B. Multiple system configuration	

	C. Option of Configuration roll-back	
21	Switch should support for different logical interface types like loopback, VLAN, SVI/RBI, Port Channel/LAG, multi chassis port channel etc.	
	Performance	
22	The switch should support 50000 IPv4 and IPv6 routes entries in the routing table with multicast routes	
23	Switch should support Graceful Restart for OSPF, BGP etc.	
24	Switch should support minimum 1000 VRF instances	
25	The switch should support uninterrupted forwarding operation for OSPF, BGP etc. routing protocol to ensure high-availability during primary controller failure	
26	The switch should support hardware based load balancing at wire speed using LACP and multi chassis ether channel/LAG	
27	Switch should have wire rate switching capacity including the following services A. Switching B. IP Routing (Static/Dynamic) C. IP Forwarding D. Policy Based Routing E. QoS F. ACL and Other IP Services G. IPv6 host and IPv6 routing	
	Virtualization Features	
28	Switch should support Network Virtualization using Virtual Over Lay Network using VXLAN (RFC 7348)/NVGRE as per RFC 2890	
29	Switch should support VXLAN and EVPN for supporting Spine - Leaf architecture to optimize the east - west traffic flow inside the data center	
30	Switch should support Open Flow/Open Day light/Open Stack controller	
31	Switch should support Data Center Bridging	
32	Switch should support multi OEM hypervisor environment and should be able to sense movement of VM and configure network automatically	
	Layer2 Features	
33	Spanning Tree Protocol (IEEE 802.1D, 802.1W, 802.1S	
34	Switch should support VLAN trunking (802.1q) and should support 4096 VLAN	
35	Switch should support basic Multicast IGMP v1, v2, v3	
36	Switch should support minimum 160,000 no. of MAC addresses	
37	Switch should support 16 Nos. of link or more per Port channel (using LACP) and support 200 port channels or more per switch	
38	Switch should support Industry Standard Port/Link Aggregation for All Ports across any module or any port	
39	Switch should support multi chassis Link Aggregation for All Ports across any module or any port	
40	Switch should support Jumbo Frames up to 9K Bytes	
41	Support for broadcast, multicast and unknown unicast storm control to prevent degradation of switch performance from storm due to network attacks and vulnerabilities	
42	Switch should support Link Layer Discovery Protocol as per IEEE 802.1AB for finding media level failures	

	Layer3 Features	
43	Switch should support all physical ports to use either in Layer2 or Layer 3 mode and also should support layer 3 VLAN Interface and Loopback port Interface	
44	Switch should support basic routing feature i.e. IP Classless, default routing and Inter VLAN routing	
45	Switch should support static and dynamic routing using the following A. Static routing B. OSPF V.2 using MD5 Authentication C. ISIS using MD5 Authentication D. BGP V.4 using MD5 Authentication E. Should support route redistribution between these protocols F. Should be compliant to Multiprotocol Extensions for BGP-4 (Desirable)	
46	Switch should re-converge all dynamic routing protocol at the time of routing update changes i.e. Non-Stop forwarding/Non Stop Routing for fast re-convergence of routing protocols	
47	Switch should support multi instance MPLS routing using VRF, VRF Edge routing and should support VRF Route leaking functionality	
48	Switch should be capable to work as DHCP server and relay	
49	Switch should provide multicast traffic reachable using the following A. PIM-SM B. PIM-SSM C. Bi-Directional PIM D. IGMP V.1, V.2 and V.3	
50	Switch should support Multicast routing of minimum 16 way Equal Cost Multi Path load splitting	
	Availability	
51	Switch should have provisioning for connecting to 1:1/N+1 power supply for usage and redundancy	
52	Switch should provide gateway level of redundancy in IPv4 and IPv6 using HSRP/VRRP	
53	Switch should support for BFD For Fast Failure Detection as per RFC (5880) H Quality of Service	
	Quality of Service	
54	Switch system should support 802.1P classification and marking of packet using A. CoS (Class of Service) B. DSCP (Differentiated Services Code Point) C. Source physical interfaces D. Source/destination IP subnet E. Protocol types (IP/TCP/UDP) F. Source/destination TCP/UDP ports	
55	Switch should support methods for identifying different types of traffic for better management and resilience	
56	Switch should support for different type of QoS features for real time traffic differential treatment using A. Weighted Random Early Detection B. Strict Priority Queuing	
57	Switch should support to trust the QoS marking/priority settings of the end points as per the defined policy	
58	Switch should support Flow control of Ethernet ports to control traffic rates during congestion by allowing congested nodes to pause link operation at the other end for receiving traffic as per IEEE 802.3x/ IEEE 802.1Qbb	
	Security	

59	The switch should support for deploying different security for each logical and physical interface using Port Based access control lists of Layer-2 to Layer-4 in IPv4 and IPv6 and logging for fault finding and audit trail	
60	Switch should support control plane i.e. processor and memory Protection from unnecessary or DoS traffic by control plane protection policy	
61	Switch should support for external database for AAA using A. TACACS+ B. RADIUS	
62	Switch should support MAC Address Notification on host join into the network for Audit trails and logging	
63	Switch should support to restrict end hosts in the network. Secures the access to an access or trunk port based on MAC address. It limits the number of learned MAC addresses to deny MAC address flooding	
64	Switch should support for Role Based access control (RBAC) for restricting host level network access as per policy defined	
65	Switch should support to prevent edge devices in the network not administrator's controlled from becoming Spanning Tree Protocol root nodes	
66	Switch should support unicast and/or multicast blocking on a switch port to suppress the flooding of frames destined for an unknown unicast or multicast MAC address out of that port	
67	Switch should support Spanning tree BPDU protection	
68	Switch should support for MOTD banner displayed on all connected terminals at login	
	Manageability	
69	Switch should support for embedded RMON/RMON-II for central NMS management and monitoring	
70	Switch should support for sending logs to multiple centralized syslog server for monitoring and audit trail	
71	Switch should provide remote login for administration using: A. Telnet B. SSH V.2	
72	Switch should support for capturing packets for identifying application performance using local and remote port mirroring for packet captures	
73	Switch should support for management and monitoring status using different type of Industry standard NMS using: A. SNMP V1 and V2 B. SNMP V3 with encryption C. Filtration of SNMP using Access list D. SNMP MIB support for QoS	
74	Switch should support for basic administrative tools like: A. Ping B. Trace route	
75	Switch should support central time server synchronization using Network Time Protocol NTP V.4/PTP	
76	Switch should support for providing granular MIB support for different statistics of the physical and logical interfaces	
77	Switch should support for predefined and customized execution of script for device mange for automatic and scheduled system status update for monitoring and management	
78	Switch should provide different privilege for login in to the system for monitoring and management	
79	Switch should support Real time Packet Capture using Wireshark in real time for traffic analysis and fault finding	
	IPv6 features	

80	Switch should support for IPv6 connectivity and routing required for network reachability using different routing protocols such A. OSPF V3 B. BGP with IPv6 C. IPv6 Policy based routing D. IPv6 Dual Stack etc. E. IPv6 Static Route F. IPv6 Default route G. Should support route redistribution between these protocols	
81	Switch should support multicast routing in IPv6 network using PIMv2 Sparse Mode/MLD	
82	Switch should support for QoS in IPv6 network connectivity	
83	Switch should support for monitoring and management using different versions of SNMP in IPv6 environment such as A. SNMPv1, SNMPv2c, SNMPv3 B. SNMP over IPv6 with encryption support for SNMP Version 3	
84	Switch should support syslog for sending system log messages to centralized log server in IPv6 environment	
85	Switch should support NTP to provide an accurate and consistent timestamp over IPv6 to synchronize log collection and events	
86	Switch should support for IPv6 different types of tools for administration and management such as A. Ping B. Traceroute C. VTY D. SSH E. TFTP F. DNS Lookup	

Leaf switch (Fiber) Specification	**Quantity: 20 Units**	**Compliance Yes/No**
S.No	**General Requirement**	
1	The Switch should support non-blocking Layer 2 switching and Layer 3 routing	
2	There switch should not have any single point of failure like power supplies and fans etc should have 1:1/N+1 level of redundancy	
3	Switch support in-line hot insertion and removal of different parts like modules/power supplies/fan tray etc. should not require switch reboot and disrupt the functionality of the system	
4	Switch should support the complete STACK of IP V4 and IP V6 services	
5	The Switch and different modules used should function in line rate and should not have any port with oversubscription ratio applied	
6	Switch should be compatible with SDN architecture of all the OEM in future without any additional cost / hardware	
7	Switch should be compatible with all the required parameters of Spine & leaf architecture	
Hardware and Interface Requirement		
8	Switch should have the following interfaces A. 48 x 10G/25G Multi Mode Fiber Interface B. 2 x 40/100GbE QSFP ports	
9	Switch should have console port	
10	Switch should have management interface for Out of Band Management	
11	Switch should be rack mountable and support side rails if required	

12	Switch should have adequate power supply for the complete system usage with all slots populated and used and provide N+1 redundant	
13	Switch should have hardware health monitoring capabilities and should provide different parameters through SNMP	
14	Switch should support VLAN tagging (IEEE 802.1q)	
15	Switch should support IEEE Link Aggregation and Ethernet Bonding functionality to group multiple ports for redundancy	
16	Switch should support Configuration roll-back and check point	
17	Switch should support for different logical interface types like loopback, VLAN, SVI/RBI, Port Channel/LAG, multi chassis port channel etc.	
Performance Requirement		
18	The switch should support 12,000 IPv4 and IPv6 routes entries in the routing table including multicast routes	
19	Switch should support Graceful Restart for OSPF, BGP etc.	
20	Switch should support minimum 1000 VRF instances	
21	The switch should support uninterrupted forwarding operation for OSPF, BGP etc. routing protocol to ensure high -availability during primary controller failure	
22	The switch should support hardware based load balancing at wire speed using LACP and multi chassis ether channel/LAG	
23	Switch should support minimum 3.2 Tbps including the following services A. Switching B. IP Routing (Static/Dynamic) C. IP Forwarding D. Policy Based Routing E. QoS F. ACL and Other IP Services G. IPv6 host and IPv6 routing	
Advance Features		
24	Switch should support Network Virtualization using Virtual Over Lay Network using VXLAN /NVGRE	
25	Switch should support VXLAN and EVPN or equivalent for supporting Spine - Leaf architecture to optimize the east - west traffic flow inside the data center	
26	Switch should support Open Flow/Open Day light/Open Stack controller	
27	Switch should support Data Center Bridging	
28	Switch should support multi OEM hypervisor environment and should be able to sense movement of VM and configure network automatically.	
Layer2 Features		
29	Spanning Tree Protocol (IEEE 8201.D, 802.1W, 802.1S)	
30	Switch should support VLAN trunking (802.1q) and should support 4096 VLAN	
31	Switch should support basic Multicast IGMP v1, v2, v3	
32	Switch should support minimum 96,000 no. of MAC addresses	
33	Switch should support 8 Nos. of link or more per Port channel (using LACP) and support 48 port channels or more per switch	
34	Switch should support Industry Standard Port/Link Aggregation for All Ports across any module or any port	
35	Switch should support multi chassis Link Aggregation for All Ports across any module or any port of the switch and Link aggregation should support 802.3ad LACP protocol for communication with downlink/uplink any third party switch or server	
36	Switch should support Jumbo Frames up to 9K Bytes	

37	Support for broadcast, multicast and unknown unicast storm control to prevent degradation of switch performance from storm due to network attacks and vulnerabilities	
38	Switch should support Link Layer Discovery Protocol as per IEEE 802.1AB for finding media level failures	
Layer3 Features		
39	Switch should support all physical ports to use either in Layer2 or Layer 3 mode and also should support layer 3 VLAN Interface and Loopback port Interface	
40	Switch should support basic routing feature i.e. IP Classless, default routing and Inter VLAN routing	
41	Switch should support static and dynamic routing using the following A. Static routing B. OSPF V.2 using MD5 Authentication C. ISIS using MD5 Authentication D. BGP V.4 using MD5 Authentication E. Should support route redistribution between these protocols F. Should be compliant to Multiprotocol Extensions for BGP-4 (Desirable)	
42	Switch should re-converge all dynamic routing protocol at the time of routing update changes i.e. Non-Stop forwarding/Nonstop Routing for fast re-convergence of routing protocols	
43	Switch should support multi instance MPLS routing using VRF, VRF Edge routing and should support VRF Route leaking functionality	
44	Switch should be capable to work as DHCP server and relay	
45	Switch should provide multicast traffic reachable using the following A. PIM-SM B. PIM-SSM C. Bi-Directional PIM D. IGMP V.1, V.2 and V.3	
Availability		
46	Switch should have provisioning for connecting to 1:1/N+1 power supply for usage and redundancy	
47	Switch should provide gateway level of redundancy in IPv4 and IPv6 using HSRP/VRRP	
48	Switch should support for BFD For Fast Failure Detection as per RFC 5880	
Quality of Service		
49	Switch system should support 802.1P classification and marking of packet using A. CoS (Class of Service) B. DSCP (Differentiated Services Code Point) C. Source physical interfaces D. Source/destination IP subnet E. Protocol types (IP/TCP/UDP) F. Source/destination TCP/UDP ports	
50	Switch should support methods for identifying different types of traffic for better management and resilience	
51	Switch should support for different type of QoS features for real time traffic differential treatment using A. Weighted Random Early Detection B. Strict Priority Queuing	
52	Switch should support to trust the QoS marking/priority settings of the end points as per the defined policy	
53	Switch should support Flow control of Ethernet ports to control traffic rates during congestion by allowing congested nodes to pause link operation at the other end for receiving traffic as per IEEE 802.3x	

Security		
54	Switch should support for deploying different security for each logical and physical interface using Port Based access control lists of Layer-2 to Layer4 in IPv4 and IPv6 and logging for fault finding and audit trail	
55	Switch should support control plane i.e. processor and memory Protection from unnecessary or DoS traffic by control plane protection policy	
56	Switch should support for external database for AAA using A. TACACS+ B. RADIUS	
57	Switch should support MAC Address Notification on host join into the network for Audit trails and logging	
58	Switch should support to restrict end hosts in the network. Secures the access to an access or trunk port based on MAC address. It limits the number of learned MAC addresses to deny MAC address flooding	
59	Switch should support DHCP Snooping	
60	Switch should support Dynamic ARP Inspection to ensure host integrity by preventing malicious users from exploiting the insecure nature of the ARP protocol	
61	Switch should support IP Source Guard to prevents a malicious hosts from spoofing or taking over another host's IP address by creating a binding table between the client's IP and MAC address, port, and VLAN	
62	Switch should support for Role Based access control (RBAC) for restricting host level network access as per policy defined	
63	Switch should support to prevent edge devices in the network not administrator's controlled from becoming Spanning Tree Protocol root nodes	
64	Switch should support unicast and/or multicast blocking on a switch port to suppress the flooding of frames destined for an unknown unicast or multicast MAC address out of that port	
65	Switch should support Spanning tree BPDU protection	
66	Switch should support for MOTD banner displayed on all connected terminals at login	
Manageability		
67	Switch should support for embedded RMON/RMON-II for central NMS management and monitoring	
68	Switch should support for sending logs to multiple centralized syslog server for monitoring and audit trail	
69	Switch should provide remote login for administration using: A. Telnet B. SSH V.2	
70	Switch should support for capturing packets for identifying application performance using local and remote port mirroring for packet captures	
71	Switch should support for management and monitoring status using different type of Industry standard NMS using: A. SNMP V1 and V2 B. SNMP V3 with encryption C. Filtration of SNMP using Access list D. SNMP MIB support for QoS	
72	Switch should support for basic administrative tools like: A. Ping B. Traceroute	
73	Switch should support central time server synchronization using Network Time Protocol NTP V4/PTP	
74	Switch should support for providing granular MIB support for different statistics of the physical and logical interfaces	

75	Switch should support for predefined and customized execution of script for device mange for automatic and scheduled system status update for monitoring and management	
76	Switch should provide different privilege for login in to the system for monitoring and management	
77	Switch should support Real time Packet Capture using Wireshark in real time for traffic analysis and fault finding	
IPv6 features		
78	Switch should support for IPv6 connectivity and routing required for network reachability using different routing protocols such A. OSPF V3 B. BGP with IPv6 C. IPv6 Policy based routing D. IPv6 Dual Stack etc. E. IPv6 Static Route F. IPv6 Default route G. Should support route redistribution between these protocols	
79	Switch should support for QoS in IPv6 network connectivity	
80	Switch should support for monitoring and management using different versions of SNMP in IPv6 environment such as A. SNMPv1, SNMPv2c, SNMPv3 B. SNMP over IPv6 with encryption support for SNMP Version 3	
81	Switch should support syslog for sending system log messages to centralized log server in IPv6 environment	
82	Switch should support NTP to provide an accurate and consistent timestamp over IPv6 to synchronize log collection and events	
83	Switch should support for IPv6 different types of tools for administration and management such as A. Ping B. Traceroute C. VTY D. SSH E. TFTP F. DNS Lookup	

Type 2 Leaf switch (UTP) Specification Quantity: 4 units	
Solution Requirement	
1	The Switch should support non-blocking Layer 2 switching and Layer 3 routing
2	There switch should not have any single point of failure like power supplies and fans etc. should have 1:1/N+1 level of redundancy
3	Switch support in-line hot insertion and removal of different parts like modules/power supplies/fan tray etc. should not require switch reboot and disrupt the functionality of the system
4	Switch should support the complete STACK of IP V4 and IP V6 services
5	The Switch and different modules used should function in line rate and should not have any port with oversubscription ratio applied
6	Switch should be compatible with SDN architecture of all the OEM in future without any additional cost / hardware
7	Switch should be compatible with all the required parameters of Spine & leaf architecture
Hardware and Interface Requirement	
8	Switch should have the following interfaces A. 48 x 1G/10G Ethernet RJ45 Interface B. 2 x 40/100GbE QSFP ports + two additional ports

9	Switch should have console port
10	Switch should have management interface for Out of Band Management
11	Switch should be rack mountable and support side rails if required
12	Switch should have adequate power supply for the complete system usage with all slots populated and used and provide N+1 redundant
13	Switch should have hardware health monitoring capabilities and should provide different parameters through SNMP
14	Switch should support VLAN tagging (IEEE 802.1q)
15	Switch should support IEEE Link Aggregation and Ethernet Bonding functionality to group multiple ports for redundancy
16	Switch should support Configuration roll-back and check point
17	Switch should support for different logical interface types like loopback, VLAN, SVI/RBI, Port Channel/LAG, multi chassis port channel etc.
Performance Requirement	
18	The switch should support 12,000 IPv4 and IPv6 routes entries in the routing table including multicast routes
19	Switch should support Graceful Restart for OSPF, BGP etc.
20	Switch should support minimum 1000 VRF instances
21	The switch should support uninterrupted forwarding operation for OSPF, BGP etc. routing protocol to ensure high -availability during primary controller failure
22	The switch should support hardware based load balancing at wire speed using LACP and multi chassis ether channel/LAG
23	Switch should support minimum 3.2 Tbps including the following services A. Switching B. IP Routing (Static/Dynamic) C. IP Forwarding D. Policy Based Routing E. QoS F. ACL and Other IP Services G. IPv6 host and IPv6 routing
Advance Features	
24	Switch should support Network Virtualization using Virtual Over Lay Network using VXLAN /NVGRE
25	Switch should support VXLAN and EVPN or equivalent for supporting Spine - Leaf architecture to optimize the east - west traffic flow inside the data center
26	Switch should support Open Flow/Open Day light/Open Stack controller
27	Switch should support Data Center Bridging
28	Switch should support multi OEM hypervisor environment and should be able to sense movement of VM and configure network automatically.
Layer2 Features	
29	Spanning Tree Protocol (IEEE 8201.D, 802.1W, 802.1S)
30	Switch should support VLAN trunking (802.1q) and should support 4096 VLAN
31	Switch should support basic Multicast IGMP v1, v2, v3
32	Switch should support minimum 96,000 no. of MAC addresses
33	Switch should support 8 Nos. of link or more per Port channel (using LACP) and support 48 port channels or more per switch
34	Switch should support Industry Standard Port/Link Aggregation for All Ports across any module or any port

35	Switch should support multi chassis Link Aggregation for All Ports across any module or any port of the switch and Link aggregation should support 802.3ad LACP protocol for communication with downlink/uplink any third party switch or server
36	Switch should support Jumbo Frames up to 9K Bytes
37	Support for broadcast, multicast and unknown unicast storm control to prevent degradation of switch performance from storm due to network attacks and vulnerabilities
38	Switch should support Link Layer Discovery Protocol as per IEEE 802.1AB for finding media level failures
Layer3 Features	
39	Switch should support all physical ports to use either in Layer2 or Layer 3 mode and also should support layer 3 VLAN Interface and Loopback port Interface
40	Switch should support basic routing feature i.e. IP Classless, default routing and Inter VLAN routing
41	Switch should support static and dynamic routing using the following A. Static routing B. OSPF V.2 using MD5 Authentication C. ISIS using MD5 Authentication D. BGP V.4 using MD5 Authentication E. Should support route redistribution between these protocols F. Should be compliant to Multiprotocol Extensions for BGP-4 (Desirable)
42	Switch should re-converge all dynamic routing protocol at the time of routing update changes i.e. Non-Stop forwarding/Nonstop Routing for fast re-convergence of routing protocols
43	Switch should support multi instance MPLS routing using VRF, VRF Edge routing and should support VRF Route leaking functionality
44	Switch should be capable to work as DHCP server and relay
45	Switch should provide multicast traffic reachable using the following A. PIM-SM B. PIM-SSM C. Bi-Directional PIM D. IGMP V.1, V.2 and V.3
Availability	
46	Switch should have provisioning for connecting to 1:1/N+1 power supply for usage and redundancy
47	Switch should provide gateway level of redundancy in IPv4 and IPv6 using HSRP/VRRP
48	Switch should support for BFD For Fast Failure Detection as per RFC 5880
Quality of Service	
49	Switch system should support 802.1P classification and marking of packet using A. CoS (Class of Service) B. DSCP (Differentiated Services Code Point) C. Source physical interfaces D. Source/destination IP subnet E. Protocol types (IP/TCP/UDP) F. Source/destination TCP/UDP ports
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74	Switch should support for providing granular MIB support for different statistics of the physical and logical interfaces
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83	Switch should support for IPv6 different types of tools for administration and management such as A. Ping B. Traceroute C. VTY D. SSH E. TFTP F. DNS Lookup

The bidder is required to provide exhaustive list of the hardware, software, etc to implement the project.

Dated this…… Day of……..2017

(Signature)

(Name) (In the capacity of)
Duly authorized to sign Bid for and on behalf of

Annexure O - Client Reference

(Bidder's Letter Head)

NPCI/RFP/2017-18/IT/06 dated 17.11.2017

Sr.No	Particulars	Details
1	Name of the Organization	
2	Contact Person Name and Designation	
3	Phone Number of the Contact person	
4	Email Address of the Contact person	

- **DOCUMENTARY EVIDENCE TO BE PROVIDED**

(Signature)

(Name) (In the capacity of)
Duly authorized to sign Bid for and on behalf of

Section 12 - Documents to be put in Envelope 'C'

Annexure M – Indicative Commercial Bid Form

(Bidder's Letter Head)

(To be included in Commercial Bid Envelope)

To

NPCI

Dear Sirs,

Re: RFP No. NPCI/RFP/2017-18/IT/06 dated 17.11.2017 for "Request for Proposal for supply, installation & maintenance of Network components".

Having examined the Bidding Documents placed along with RFP, we, the undersigned, offer to provide the required infrastructure in conformity with the said Bidding documents for the sum of Rs…….(Rupees_____) (exclusive of taxes) or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to provide _____ for the above purpose within the stipulated time schedule. We agree to abide by the Bid and the rates quoted therein for the orders awarded by NPCI up to the period prescribed in the Bid which shall remain binding upon us. Until a formal contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India.

We have complied with all the terms and conditions of the RFP. We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this…… Day of……..2017

(Signature)

(Name) (In the capacity of)

Duly authorized to sign Bid for and on behalf of

Annexure N - Commercial Bid (Indicative)
NPCI/RFP/2017-18/IT/06 dated 17.11.2017
RFP for supply, installation & maintenance of Network components
(Bidder's Letter Head)

Table A:

Hardware to be delivered

Sr.No	Description	Qty	Unit Price (Rs)	Total (Rs)
1	Spine Switch with 3 year warranty cost	4		
2	Leaf switch Type-1 Leaf switch (Fiber) Specification with 3 year warranty	20		
3	Leaf switch Type-2 Leaf switch (UTP) Specification with 3 year warranty	4		
4	40G QSFP with 3 year warranty cost	80		
5	10G SFP with 3 year warranty cost	960		
Total A				

Table B:
AMC Rates:

Sr. No.	Description	Unit	Unit Price (Rs)	Total Price (Rs)
A	**AMC for 4th year**			
1	Spine Switch	4		
2	Leaf switch Type-1 Leaf switch (Fiber) Specification	20		
3	Leaf switch Type-2 Leaf switch (UTP) Specification	4		
4	40G QSFP	80		
5	10G SFP	960		
B	**Hardware AMC for 5th year**			
6	Spine Switch	4		
7	Leaf switch Type 1 Leaf switch (Fiber) Specification	20		
8	Leaf switch Type-2 Leaf switch (UTP) Specification	4		
9	40G QSFP	80		
10	10G SFP	960		
Total B				

- Delivery Location: Chennai and Hyderabad (as per clause 8.8 of the RFP)
- AMC cost should not be less than **10%** of the cost of hardware / software
- The bidder shall meet the requirements of Goods & Services Tax (GST)

TCO = A + B

(Amount in Rs) All prices are exclusive of taxes.
Dated this…… Day of……..2017

(Signature)
(Name)
(In the capacity of)
Duly authorized to sign Bid for and on behalf of

Annexure – L Bill of Material

NPCI/RFP/2017-18/IT/06 dated 17.11.2017

(Bidder's Letter head)

Line Item Wise Prices

(Details of all line items of the Commercial Bid, including AMC charges)

Line Item	Item Name / Part No	Description	Unit Price including 3 year warranty	4th Year-AMC	5th Year-AMC	Sub Total	Quantity	Total Price
1								
2								
3								
4								
5								
6								

- Delivery locations would be as per clause 8.8 of the RFP

Annexure Z - Non-Disclosure Agreement

NON-DISCLOSURE AGREEMENT

This Agreement is made and entered on this -------- day of ----------, 201 (**"Effective Date"**) between

NATIONAL PAYMENTS CORPORATION OF INDIA, a company incorporated in India under Section 25 of the Companies Act, 1956 (Section 8 of the Companies Act, 2013) and having its registered office at **1001A, B Wing, 10th Floor, The Capital, Plot 70, Block G, Bandra-Kurla Complex, Bandra (East), Mumbai - 400 051, Maharashtra**, CIN: U74990MH2008NPL189067 (Hereinafter referred to as **"NPCI"**, which expression shall mean and include unless repugnant to the context, its successors and permitted assigns);

AND

_____, a company registered in _____and having its registered office at _____ (Hereinafter referred to as "-------", which expression shall mean and include unless repugnant to the context, its successors and permitted assigns).

The term "Disclosing Party" refers to the party disclosing the confidential information to the other party of this Agreement and the term "Receiving Party" means the party to this Agreement which is receiving the confidential information from the Disclosing Party.

NPCI and --------- shall hereinafter be jointly referred to as the "Parties" and individually as a "Party".

NOW THEREFORE

In consideration of the mutual protection of information herein by the parties hereto and such additional promises and understandings as are hereinafter set forth, the parties agree as follows:

Article 1: Purpose

The purpose of this Agreement is to maintain in confidence the various Confidential Information, which is provided between NPCI and ------ to perform the considerations (hereinafter called "Purpose") set forth in below:

(STATE THE PURPOSE)

Article 2: DEFINITION

For purposes of this Agreement, "**Confidential Information**" means the terms and conditions, and with respect to either party, any and all information in written, representational, electronic, verbal or other form relating directly or indirectly to the Purpose (including, but not limited to, information identified as being proprietary and/or confidential or pertaining to, pricing, marketing plans or strategy, volumes, services rendered, customers and suppliers lists, financial or technical or service matters or data, employee/agent/ consultant/officer/director related personal or sensitive data and any information which might reasonably be presumed to be proprietary or confidential in nature) excluding any such information which (i) is known to the public (through no act or omission of the Receiving Party in violation of this Agreement); (ii) is lawfully acquired by the Receiving Party from an independent source having no obligation to maintain the confidentiality of such information; (iii) was known to the Receiving Party prior to its disclosure

under this Agreement; (iv) was or is independently developed by the Receiving Party without breach of this Agreement; or (v) is required to be disclosed by governmental or judicial order, in which case Receiving Party shall give the Disclosing Party prompt written notice, where possible, and use reasonable efforts to ensure that such disclosure is accorded confidential treatment and also to enable the Disclosing Party to seek a protective order or other appropriate remedy at Disclosing Party's sole costs. Confidential Information disclosed orally shall only be considered Confidential Information if: (i) identified as confidential, proprietary or the like at the time of disclosure, and (ii) confirmed in writing within Seven (7) days of disclosure.

Article 3: NO LICENSES

This Agreement does not obligate either party to disclose any particular proprietary information; to purchase, sell, license, transfer, or otherwise dispose of any technology, services, or products; or to enter into any other form of business, contract or arrangement. Furthermore, nothing contained hereunder shall be construed as creating, conveying, transferring, granting or conferring by one party on the other party any rights, license or authority in or to the Confidential Information disclosed under this Agreement.

Article 4: DISCLOSURE

1. Receiving Party agrees and undertakes that it shall not, without first obtaining the written consent of the Disclosing Party, disclose or make available to any person, reproduce or transmit in any manner, or use (directly or indirectly) for its own benefit or the benefit of others, any Confidential Information save and except both parties may disclose any Confidential Information to their Affiliates, directors, officers, employees or advisors of their own or of Affiliates on a "need to know" basis to enable them to evaluate such Confidential Information in connection with the negotiation of the possible business relationship; provided that such persons have been informed of, and agree to be bound by obligations which are at least as strict as the recipient's obligations hereunder. For the purpose of this Agreement, Affiliates shall mean, with respect to any party, any other person directly or indirectly Controlling, Controlled by, or under direct or indirect common Control with, such party. "Control", "Controlled" or "Controlling" shall mean, with respect to any person, any circumstance in which such person is controlled by another person by virtue of the latter person controlling the composition of the Board of Directors or owning the largest or controlling percentage of the voting securities of such person or by way of contractual relationship or otherwise.

2. The Receiving Party shall use the same degree of care and protection to protect the Confidential Information received by it from the Disclosing Party as it uses to protect its own Confidential Information of a like nature, and in no event such degree of care and protection shall be of less than a reasonable degree of care.

3. The Disclosing Party shall not be in any way responsible for any decisions or commitments made by Receiving Party in relying on the Disclosing Party's Confidential Information.

Article 5: RETURN OR DESTRUCTION OF CONFIDENTIAL INFORMATION

The parties agree that upon termination of this Agreement or at any time during its currency, at the request of the Disclosing Party, the Receiving Party shall promptly deliver to the Disclosing Party the Confidential Information and copies thereof in its possession or under its direct or indirect control, and shall destroy all memoranda, notes and other writings prepared by the Receiving Party or its Affiliates or directors, officers, employees or advisors based on the Confidential Information and promptly certify such destruction.

Article 6: INDEPENDENT DEVELOPMENT AND RESIDUALS

Both parties acknowledge that the Confidential Information coming to the knowledge of the other may relate to and/or have implications regarding the future strategies, plans, business activities, methods, processes and or information of the parties, which afford them certain competitive and strategic advantage. Accordingly, nothing in this Agreement will prohibit the Receiving Party from developing or having developed for it products, concepts, systems or techniques that are similar to or compete with the products, concepts, systems or techniques contemplated by or embodied in the Confidential Information provided that the Receiving Party does not violate any of its obligations under this Agreement in connection with such development.

Article 7: INJUNCTIVE RELIEF

The parties hereto acknowledge and agree that in the event of a breach or threatened breach by the other of the provisions of this Agreement, the party not in breach will have no adequate remedy in money or damages and accordingly the party not in breach shall be entitled to injunctive relief against such breach or threatened breach by the party in breach.

Article 8: NON-WAIVER

No failure or delay by either party in exercising or enforcing any right, remedy or power hereunder shall operate as a waiver thereof, nor shall any single or partial exercise or enforcement of any right, remedy or power preclude any further exercise or enforcement thereof or the exercise of enforcement of any other right, remedy or power.

Article 9: DISPUTE RESOLUTION

If any dispute arises between the parties hereto during the subsistence or thereafter, in connection with or arising out of this Agreement, the dispute shall be referred to arbitration under the Indian Arbitration and Conciliation Act, 1996 by a sole arbitrator mutually agreed upon. In the absence of consensus about the single arbitrator, the dispute may be referred to joint arbitrators, one to be nominated by each party and the said arbitrators shall nominate a presiding arbitrator, before commencing the arbitration proceedings. Arbitration shall be held in Mumbai, India. The proceedings of arbitration shall be in the English language. The arbitrator's award shall be final and binding on the parties.

Article 10: GOVERNING LAW AND JURISDICTION

This Agreement shall be governed exclusively by the laws of India and jurisdiction shall be vested exclusively in the courts at Mumbai in India.

Article 11: NON-ASSIGNMENT

This Agreement shall not be amended, modified, assigned or transferred by either party without the prior written consent of the other party.

Article 12: TERM

This Agreement shall remain valid from the effective date until the termination of this Agreement. The obligations of each Party hereunder will continue and be binding irrespective of whether the termination of this Agreement for a period of three (3) years after the termination of this Agreement.

Article 13: INTELLECTUAL PROPERTY RIGHTS

Neither Party will use or permit the use of the other Party's names, logos, trademarks or other identifying data, or infringe Patent, Copyrights or otherwise discuss or make reference to such other Party in any notices to third Parties, any promotional or marketing material or in any press release or other public announcement or advertisement, however characterized, without such other Party's prior written consent.

Article 14: GENERAL

1. Nothing in this Agreement is intended to confer any rights/remedies under or by reason of this Agreement on any third party.

2. This Agreement and the confidentiality obligations of the Parties under this Agreement supersedes all prior discussions and writings with respect to the Confidential Information and constitutes the entire Agreement between the parties with respect to the subject matter hereof. If any term or provision of this Agreement is determined to be illegal, unenforceable, or invalid in whole or in part for any reason, such illegal, unenforceable, or invalid provisions or part(s) thereof shall be stricken from this Agreement.

3. Any breach of any provision of this Agreement by a party hereto shall not affect the other party's non-disclosure and non-use obligations under this Agreement.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement by their duly authorized representatives as of the Effective Date written above.

NATIONAL PAYMENTS CORPORATION OF INDIA	**TYPE COMPANY NAME**
By: Name:	By: Name:
Designation:	Designation: