RFP for supply, installation & maintenance of Network components - NPCI/RFP/2017-18/IT/06 dated 17.11.2017							
Consolidated list of Replies to Pre-bid Queries							
S.No	Document Reference	Page No	Clause No	Description in RFP	Clarification Sought	Additional Remarks (if any)	NPCI Response
1	Section 9 - Technical Specifications	34	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	As Spines have capability to expand horizontally, do you want control plane/Data plane redundancy on your spine switches		Refer corrigendum
2	Section 9 - Technical Specifications	34	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	As Spines have capability to expand horizontally, do you want control plane/Data plane redundancy on your spine switches		Refer corrigendum
3	Section 9 - Technical Specifications	34	12	Switch should have minimum 35 nos. of line rate and Non - Blocking 40/100G ports	Please advise, Can we quote a 40G X 35 port switch or a 100G X 35 port switch ?		Refer corrigendum
4	Section 9 - Technical Specifications	34	Additional	Clause for Spine switches	Buffer space is a critical parameter to manage bursty traffic. Today's application have a high requirment for East west communication i.e. the within the data center. We request NPCI to advise on their expectations on the amount of buffer space.		Refer corrigendum
5	Section 9 - Technical Specifications	36	48	Switch should be capable to work as DHCP server and relay	Since this will be acting as Spine switch in DC, you will not require DHCP server functionality as server IP address will be static. Thus suggest you to delete this clause		Refer corrigendum
6	Section 9 - Technical Specifications	35	25	The switch should support uninterrupted forwarding operation for OSPF, BGP etc. routing protocol to ensure high-availability during primary controller failure	By this clause, we understand that Primary Controller is SDN controller which would be in future as per your RFP. Please confirm.		Yes
7	Section 9 - Technical Specifications	35	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	Kindly confirm on aggregate ACL entries count per switch		Minimum of 20000 ACLs sould be supported
8	Section 9 - Technical Specifications	35	29	Switch should support VXLAN and EVPN for supporting Spine - Leaf architecture to optimize the east - west traffic flow inside the data center	We hope by VXLAN, you mean switches to support VXLAN bridging as well as routing support from day one. Kindly Confirm		Yes
9	Section 9 - Technical Specifications	35	36	Switch should support minimum 160,000 no. of MAC addresses	Even With 35 nos. of leaf switches, we understand that max Mac addresses limit can go upto 70000 to 80000 across Spine and leaf. Thus, will request you to ammend this clause as " Switch should support minimum 70,000 no. of MAC addresses"		Refer corrigendum
10	Section 9 - Technical Specifications	37	75	Switch should support central time server synchronization using Network Time Protocol NTP V.4/PTP	Do you need support for both or only for NTP		Refer corrigendum
11	Leaf switch (Fiber) Specification	38	8	Switch should have the following interfaces A. 48 x 10G/25G Multi Mode Fiber Interface B. 2 x 40/100GbE QSFP ports	Can we propose a switch with either of these uplink combinations or combinations should be supported?		All Combinations should be supported by changing the optics only on the same switch. All proposed optics and proposed Switches must be from same OEM
12	Leaf switch (Fiber) Specification	38	8	Switch should have the following interfaces A. 48 x 10G/25G Multi Mode Fiber Interface B. 2 x 40/100GbE QSFP ports	Please advise the number of uplink ports tobe used for a) uplink b) peer to peer c)future growth		Refer corrigendum

13	Leaf switch (Fiber) Specification	39	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	Kindly confirm on aggregate ACL entries count per switch		Switch should support minimum of 5000 ACLs.
14	Leaf switch (Fiber) Specification	39	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	We hope by VXLAN, you mean switches to support VXLAN bridging as well as routing support from day one. Kindly Confirm		Already covered in S.no 8
15	Leaf switch (Fiber) Specification	41	73	Switch should support central time server synchronization using Network Time Protocol NTP V4/PTP	Do you need support for both or only for NTP		Already covered in S.no 10
16	Leaf switch (Fiber) Specification	38	Additional	Clause for Leaf UTP and Fiber switches	Buffer space is a critical parameter to manage bursty traffic. Today's application have a high requirment for East west communication i.e. the within the data center. We request NPCI to advise on their expectations on the amount of buffer space.		Already covered in S.no 4
17	Leaf switch (Fiber) Specification	40	44	Switch should be capable to work as DHCP server and relay	Since this will be acting as Spine switch in DC, you will not require DHCP server functionality as server IP address will be static. Thus suggest you to delete this clause		Already covered in S.no 5
18	Type 2 Leaf switch (UTP) Specification	42	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	Can we propose a switch with either of these uplink combinations or combinations should be supported?		Already covered in S.no 11
19	Type 2 Leaf switch (UTP) Specification	42	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	Please advise the number of uplink ports tobe used for a) uplink b) peer to peer c)future growth		Already covered in S.no 12
20	Type 2 Leaf switch (UTP) Specification	43	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	Kindly confirm on aggregate ACL entries count per switch		Already covered in S.no 13
21	Type 2 Leaf switch (UTP) Specification	43	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	Considering port requirements to achieve non-blocking speed you require 48*10 +100*4=1.76 Tbps. Thus, request you to ammend 3.2 to 1.76 Tbps		Refer corrigendum
22	Type 2 Leaf switch (UTP) Specification	43	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	We hope by VXLAN, you mean switches to support VXLAN bridging as well as routing support from day one. Kindly Confirm		Already covered in S.no 8
23	Type 2 Leaf switch (UTP) Specification	45	73	Switch should support central time server synchronization using Network Time Protocol NTP V4/PTP	Do you need support for both or only for NTP		Already covered in S.no 10
24	Type 2 Leaf switch (UTP) Specification	38	Additional	Clause for Leaf UTP and Fiber switches	Buffer space is a critical parameter to manage bursty traffic. Today's application have a high requirment for East west communication i.e. the within the data center. We request NPCI to advise on their expectations on the amount of buffer space.		Already covered in S.no 4
25	Type 2 Leaf switch (UTP) Specification	44	44	Switch should be capable to work as DHCP server and relay	Since this will be acting as Spine switch in DC, you will not require DHCP server functionality as server IP address will be static. Thus suggest you to delete this clause		Already covered in S.no 5

26	3.1 Scope of work:	10	6C	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	This contradicts with point no. 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"		Both clauses are valid and applicable
27	Additional Clause			Annexure H, Page 58, Additional Clause	The bidder should have supplied and maintained the devices from the proposed OEM at atleast 3 locations in Private/Public Companies in Financial Sector In india in last two years. DC, DR, NDR deployment for the same company would be considered a single reference.	Customer Declaration/PO Copy for proof	No change of RFP
28	Additional Clause			Annexure H, Page 58, Additional Clause	In order to ensure that the products quoted are of enterprise grade we request NPCI to advise if any references for existing deployment by the bidder need to be specified.	Customer Declaration/PO Copy for proof	No change of RFP
29	Additional Clause			Annexure H, Page 58, Additional Clause	In order to ensure that qualfied bidders who have relevant experience in the Data center space. We request NPCI to advise if NPCI would consider bidder qualifications and certifications as a measure to assess the bidder.	Certificate letter from OEM	No change of RFP
30	Section 11 - Annexure K	60	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	Request NPCI to consider Fixed Spine switch. Since with two Spine switch and a datacenter fabric hardware level redundancy is achieved in the network. Since the setup is small request NPCI to remove control and data plane redundancy within the device	Requirement of redundant Control and Data Plane makes way for modular Chassis Based Spine Switch. The Current network requirement at Chennai and Hyd is of 14 Leafs and 10 Leafs respectively, even after considering future scale it can be 24 Leafs respectively which can be fulfilled using a Fixed Spine switch which brings along reduced capex and opex (less power consumption, less rack space, less cooling etc)	Already covered in S.no 1
31	Section 11 - Annexure K	60	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	Request NPCI to consider Fixed Spine switch and change the specs to "The Leaf- Spine Fabric should have redundant Spines working in active-active or active-standby mode. Spine fail over/change over should not disrupt/impact/degrade the functioning of the Fabric	Requirement of redundant CPU makes way for modular Chassis Based Spine Switch. The Current network requirement at Chennai and Hyd is of 14 Leafs and 10 Leafs respectively, even after considering 2x scale it can be 28 and 20 Leafs respectively which can be fulfilled using a Fixed Spine switch which brings tot he table reduced capex and opex (less power consumption, less rack space, less cooling etc)	Already covered in S.no 2

32	Section 11 - Annexure K	60	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	Request to change the clause as "Switch should support upgradation of the operating systems 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 also support patching of selected process/processes only without impacting other running processes"	In Service Software Upgrade is a specific term and mostly used in campus LAN environment, however similar features are supported in DC spine switches without ISSU such as Non-stop routing, Non-stop Bridging etc. Request for modification in clause	Refer corrigendum
33	Section 11 - Annexure K	60	12	Switch should have minimum 35 nos. of line rate and Non - Blocking 40/100G ports.	With the current requirement of 14 and 10 Leaf switches, 35 nos 40/100G are too high kindly consider accordingly. For 40G ports the number can be high however Request NPCI to consider the number of 100G ports correspondingly	In a Multirate switch 3 nos of 40G ports convert to 1nos of 100G port. For example a 36 port 40G switch can give 12 ports of 100G or a 72 port 40G switch can give 24 ports of 100G	The requirement of spine switch ports arrived at considering the future expansion
34	Section 11 - Annexure K	61	28	Switch should support Network Virtualization using Virtual Over Lay Network using VXLAN (RFC 7348)/NVGRE as per RFC 2890	Request Bank to change the clause to " Switch should support Network Virtualization using Virtual Over Lay Network using VXLAN (RFC 7348) or NVGRE as per RFC 2890"	Overlay network technology can be achieved for all virtual environment including Hyper-V using VXLAN. NVGRE as overlay is mostly used only with Hyper-V	Refer corrigendum
35	Section 11 - Annexure K	64	8	A. 48 x 10G/25G Multi Mode Fiber Interface	Certain OEMs achieve this by using a Multirate switch of 10/25/40/100G, where a 40G interface is broken out to 4x10G and a 100G interface is broken out to 4x25G.	The breakout interfaces are well established industry standard and are part of recommended design practise in datacenter. Request to kindly consider and allow breakout architechture design	Breakout architecture can be considered to arrive at the desired results as outlined in the RFP requirements. However, the quantity of the switches should not be changed.
36	Section 11 - Annexure K	65	24	Switch should support Network Virtualization using Virtual Over Lay Network using VXLAN /NVGRE	Request Bank to change the clause to " Switch should support Network Virtualization using Virtual Over Lay Network using VXLAN or NVGRE "	Overlay network technology can be achieved for all virtual environment including Hyper-V using VXLAN. NVGRE as overlay is mostly used only with Hyper-V	Already covered in S.no34
37	Section 11 - Annexure K	66	43	Switch should support multi instance MPLS routing using VRF, VRF Edge routing and should support VRF Route leaking functionality	Do we need to consider licenses for advance features from Day0 on leaf switches such as BGPv6, MPLS, OSPF3 etc, or only support/capability is required	The Propose switch supports all capabilities however advance features require licenses, request to confirm if the required licenses are needed to be considered on leaf switches	Yes. All the features should be suppoted from Day0.
38	Section 11 - Annexure K	68	8:B	B. 2 x 40/100GbE QSFP ports + two additional ports	Request NPCI to change the clause to " 2 x 40GbE QSFP ports + two additional ports "	A Copper Leaf Switch is having 1/10G access port, hence the uplink port of 40G will suffice the need.	40/100 GbE ports required to maintain consistency in deployment.
39	Section 8	22	8.6	40G QSFP count for Chennai (48) and Hyderabad (32) Location	Request NPCI to change the 40G QSFP count to, for Chennai (60) and Hyderabad (44) Location	There is a counting mistake for 40G QSFP. 1> 40G QSFP between UTP leaf & Spine has been missed. (8 nos) 2> 40G QSFP between the Spine switches for interconnect have been missed (8 nos)	Refer corrigendum

40	Section 8	22	8.6	Key Deliverables for Chennai & Hyd: 10G SFP	Certain OEMs achieve this by using a Multirate switch of 10/25/40/100G, where a 40G interface is broken out to 4x10G. Request NPCI to change the clause to "10G SFP or Equivalent ports using 40G Breakout SFP or 40G Breakout DAC Cables with necessary accessories"	The breakout interfaces are well established industry standard and are part of recommended design practise in datacenter. The Breakout solution can be achieved by using breakout DAC Cables or by using Breakout SFPs. Request to kindly consider and allow breakout architechture design	Breakout architecture can be considered to arrive at the desired results as outlined in the RFP requirements. However, the quantity of the switches should not be changed.
41	Section 9	34	NA	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.	Kindly Clarify the connectivity between Spine switches and existing Cisco Nexus 9504/9508/93108/9372. Will it be on 40G QSFP MMF or 10G SFP+ MMF and how many numbers	Kindly mentioned the number of SFPs requried for connecting Spine to existing Core in the BOM. This will help in considering the required number of SFPs in the solution	The SFPs to be used in existing 9504/9508/93108/9372 switches are included in the quantity.
42	Section 9	34	NA	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	Kindly Clarify the type of fabric that needs to be considered for the Spine & Leaf Architechture	Selecting a type of fabric (IP-Clos, L2 Fabric etc) would help for considering correct licenses if any, additional interfaces for interconnecting Spines if any and it would also help in providing better solution design overall.	The switches should have the necessary licenses to support both the fabric models (IP-Clos, L2 Fabric)
43	Section 1 - Bid Schedule and Address	8	6	Last date and time for Bid Submission -30.11.2017	Request NPCI to please consider extension in submission till 8th Dec 2017	Considering 24th is last date of prebid queries submission date. NPCI may required 2-3 days to reply the prebid queries response. Considering all this factor we request NPCI to extented the bid submission date to 8th Dec 2017.	Please refer to Corrigendum
44	Section 3 – Scope of Work	10	3.1	The bidder should provide product training in Chennai & Hyderabad for one day each	Request NPCI to provide number of participate shall be attending the training in each locations. Also clarify whether bidder need to provide hardcopy of training material	Request NPCI to provide complete detail of training requirement.	Max no participant in each location will be 15. The training material can be provided at the time of the training.
45	3.1 Scope of work:	10	6C	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	This contradicts with point no. 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"	Request NPCI to clarify on this clause.	Both clauses are valid and applicable
46	Delivery schedule	22	8.7	The networking component shall be delivered within 6 weeks of acceptance of the Purchase Order.	Request NPCI to amend the clause as "The networking component shall be delivered within 10 weeks of acceptance of the Purchase Order"	Generally OEM take 6-8 weeks time to handover the material to bidder, and bidder required atleast 2 weeks time to delivery it to customer locations. So we request NPCI to relax on this clause.	We expect the devices to be delivered within 6 weeks.

47	Penalty for default in delivery	23	8.1	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.	Request NPCI to amend the clause as " 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 value of delay equipment for each week's delay subject to a maximum of 5% of the total value of the delay equipment, without prejudice to any other right or remedy available under purchase order.	Request NPCI to apply pentaly only on the value of delay equipments not on the total order value . Please relax on this clause.	No change of RFP
48	Section 9 - Technical Specifications	34	Scope of Technical Functions	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.	Request NPCI to provide the detail of existing 40Gig transceivers which need to connected with proposed 40Gig transceivers	Whether eixisting 40Gig transceivers have LC or MPO/MPT connectors, accordingly we can provide the 40Gig transceivers.	Already covered in S.no 41
49	Section 9 - Technical Specifications	34	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	As Spines have capability to expand horizontally, do you want control plane/Data plane redundancy on your spine switches	Request NPCI to clarify on this clause	Already covered in S.no 1
50	Section 9 - Technical Specifications	34	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	As Spines have capability to expand horizontally, do you want control plane/Data plane redundancy on your spine switches	Request NPCI to clarify on this clause	Already covered in S.no 2
51	Section 9 - Technical Specifications	34	12	Switch should have minimum 35 nos. of line rate and Non - Blocking 40/100G ports	Please advise, Can we quote a 40G X 35 port switch or a 100G X 35 port switch ?		Already covered in S.no 3
52	Section 9 - Technical Specifications	34	Additional	Clause for Spine switches	Buffer space is a critical parameter to manage bursty traffic. Today's application have a high requirment for East west communication i.e. the within the data center. We request NPCI to advise on their expectations on the amount of buffer space.		Already covered in S.no 4
53	Section 9 - Technical Specifications	36	48	Switch should be capable to work as DHCP server and relay	Request NPCI to remove this clause	Since this will be acting as Spine switch in DC, NPCI will not require DHCP server functionality as server IP address will be static. Thus suggest you to delete this clause	Already covered in S.no 5
54	Section 9 - Technical Specifications	35	25	The switch should support uninterrupted forwarding operation for OSPF, BGP etc. routing protocol to ensure high-availability during primary controller failure	By this clause, we understand that Primary Controller is SDN controller which would be in future as per your RFP. Please confirm.		Already covered in S.no 6
55	Section 9 - Technical Specifications	35	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	Kindly confirm on aggregate ACL entries count per switch		Already covered in S.no 7
56	Section 9 - Technical Specifications	35	29	Switch should support VXLAN and EVPN for supporting Spine - Leaf architecture to optimize the east - west traffic flow inside the data center	We hope by VXLAN, you mean switches to support VXLAN bridging as well as routing support from day one. Kindly Confirm		Already covered in S.no 8
57	Section 9 - Technical Specifications	35	36	Switch should support minimum 160,000 no. of MAC addresses	Even With 35 nos. of leaf switches, we understand that max Mac addresses limit can go upto 70000 to 80000 across Spine and leaf. Thus, will request you to ammend this clause as " Switch should support minimum 70,000 no. of MAC addresses"		Already covered in So.no 9

58	Section 9 - Technical Specifications	37	75	Switch should support central time server synchronization using Network Time Protocol NTP V.4/PTP	Do you need support for both or only for NTP		Already covered in S.no 10
59	Leaf switch (Fiber) Specification	38	8	Switch should have the following interfaces A. 48 x 10G/25G Multi Mode Fiber Interface B. 2 x 40/100GbE QSFP ports	Can we propose a switch with either of these uplink combinations or combinations should be supported?		Already covered in S.no 11
60	Leaf switch (Fiber) Specification	38	8	Switch should have the following interfaces A. 48 x 10G/25G Multi Mode Fiber Interface B. 2 x 40/100GbE QSFP ports	Please advise the number of uplink ports to be used for a) uplink b) peer to peer c)future growth		Already covered in S.no 11
61	Leaf switch (Fiber) Specification	39	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	Kindly confirm on aggregate ACL entries count per switch		Already covered in S.no 13
62	Leaf switch (Fiber) Specification	39	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	We hope by VXLAN, you mean switches to support VXLAN bridging as well as routing support from day one. Kindly Confirm		Already covered in S.no 8
63	Leaf switch (Fiber) Specification	41	73	Switch should support central time server synchronization using Network Time Protocol NTP V4/PTP	Do you need support for both or only for NTP		Already covered in S.no 10
64	Leaf switch (Fiber) Specification	38	Additional	Clause for Leaf UTP and Fiber switches	Buffer space is a critical parameter to manage bursty traffic. Today's application have a high requirment for East west communication i.e. the within the data center. We request NPCI to advise on their expectations on the amount of buffer space.		Already covered in S.no 4
65	Leaf switch (Fiber) Specification	40	44	Switch should be capable to work as DHCP server and relay	Since this will be acting as Spine switch in DC, you will not require DHCP server functionality as server IP address will be static. Thus suggest you to delete this clause		Already covered in S.no 5
66	Type 2 Leaf switch (UTP) Specification	42	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	Can we propose a switch with either of these uplink combinations or combinations should be supported?		Already covered in S.no 11
67	Type 2 Leaf switch (UTP) Specification	42	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	Please advise the number of uplink ports tobe used for a) uplink b) peer to peer c)future growth		Already covered in S.no 12
68	Type 2 Leaf switch (UTP) Specification	43	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	Kindly confirm on aggregate ACL entries count per switch		Already covered in S.no 13
69	Type 2 Leaf switch (UTP) Specification	43	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	Considering port requirements to achieve non-blocking speed you require 48*10 +100*4=1.76 Tbps. Thus, request you to ammend 3.2 to 1.76 Tbps		Already covered in S.no 21
70	Type 2 Leaf switch (UTP) Specification	43	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	We hope by VXLAN, you mean switches to support VXLAN bridging as well as routing support from day one. Kindly Confirm		Already covered in S.no 8
71	Type 2 Leaf switch (UTP) Specification	45	73	Switch should support central time server synchronization using Network Time Protocol NTP V4/PTP	Do you need support for both or only for NTP		Already covered in S.no 10

72	Type 2 Leaf switch (UTP) Specification	38	Additional Clause	Clause for Leaf UTP and Fiber switches	Buffer space is a critical parameter to manage bursty traffic. Today's application have a high requirment for East west communication i.e. the within the data center. We request NPCI to advise on their expectations on the amount of buffer space.		Already covered in S.no 4
73	Type 2 Leaf switch (UTP) Specification	44	44	Switch should be capable to work as DHCP server and relay	Request NPCI to remove this clause	Since this will be acting as Spine switch in DC, you will not require DHCP server functionality as server IP address will be static. Thus suggest you to delete this clause	Already covered in S.no 5
74	Annexure H - Eligibility Criteria Compliance	58	Additional Clause	Bidder Eligibility Query	The bidder should have supplied and maintained the devices from the proposed OEM at atleast 3 locations in Private/Public Companies in Financial Sector In india in last two years. DC, DR, NDR deployment for the same company would be considered a single reference.	Customer Declaration/PO Copy for proof	No change of RFP
75	Annexure H - Eligibility Criteria Compliance	58	Additional Clause	Bidder Eligibility Query	In order to ensure that the products quoted are of enterprise grade we request NPCI to advise if any references for existing deployment by the bidder need to be specified.	Customer Declaration/PO Copy for proof	No change of RFP
76	Annexure H - Eligibility Criteria Compliance	58	Additional Clause	Bidder Eligibility Query	In order to ensure that qualfied bidders who have relevant experience in the Data center space. We request NPCI to advise if NPCI would consider bidder qualifications and certifications as a measure to assess the bidder.	Certificate letter from OEM	No change of RFP
77		34	1,2 & 9	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. Switch should support non-blocking, wire speed performance per line card	Can we provide alternative solution using compact form factor switches with Redundancy delivered through multi chassis platform		Already covered in S.no 1
78		34	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	Please note that no vendor can or should guarantee ISSU upgrade/downgrade in a hitless manner for all or any combinations of upgrade/downgrade as implied in the document.		As mentioned in RFP requirements
79		34	12	Switch should have minimum 35 nos. of line rate and Non - Blocking 40/100G ports	what is the maximum number of ports the switch should reasonably support?		Maximum no of ports is upto the OEM. Only the minimum requiremnt is given
80		35	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	Is this feature mandatory as it cannot be achieved		Yes. This is mandatory
81		35	22	Is this multicast figure only, or the whole table including multicast?	Pls. clarify the total number of routes, and the total ratio of multicast routes, expected		This includes the whole routing table

82		35	24	Switch should support minimum 1000 VRF instances	This is brand specific. Pls. confirm if this feature is mandatory and if yes what is the revised VRF routes required.		Refer corrigendum
83		35	31	Switch should support Data Center Bridging	Any particular DCB standard or set of standards to which we should be calling out specifically, or is any DCB solution appropriate		The Datacenter Bridging should be based on the following IEEE standards 1. 802.1 Qbb 2. 802.1 Qaz 3. 802.1Qau 4. DCBX
84		35	36	Switch should support minimum 160,000 no. of MAC addresses	The numbers are brand specific. what is the alternate minimum figure deemed acceptable in the response		Already covered in S.no 9
85		36	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	Is this a mandatory Requirement. Can we have a partial compliance with Road map.		This is a mandatory requirement
86		36	48	Switch should be capable to work as DHCP server and relay	Is it expected that this is managed as control plane only or Is an alternate solution acceptable		Already covered in S.no 5
87		36	50	Switch should support Multicast routing of minimum 16 way Equal Cost Multi Path load splitting	Is this feature mandatory?		This is a mandatory requirement
88		36	54-58	QOS	Is partial compliance acceptable		No
89		37	76	Switch should support for providing granular MIB support for different statistics of the physical and logical interfaces	Is this mandatory in full or partial compliance acceptable?		This is a mandatory requirement
90	**Leaf Type 1**	39	16	Switch should support Configuration roll-back and check point	Is this mandatory. This is brand specific feature.		This is a mandatory requirement
91		39	18	The switch should support 12,000 IPv4 and IPv6 routes entries in the routing table including multicast routes	Pls. clarify the total number of routes, and the total ratio of multicast routes, expected		As mentioned in the RFP requirement
92		39	20	Switch should support minimum 1000 VRF instances	This is brand specific. Pls. confirm if this feature is mandatory and if yes what is the revised VRF routes required.		Already covered in S.no 82
93		39	23	The switch should support hardware based load balancing at wire speed using LACP and multi chassis ether channel/LAG	so is this figure expected to be bidirectional or unidirectional?		As mentioned in the RFP requirement
94		39	27	Switch should support Data Center Bridging	Any particular DCB standard or set of standards to which we should be calling out specifically, or is any DCB solution appropriate		Already covered in S.No 83
95		39	28	Switch should support multi OEM hypervisor environment and should be able to sense movement of VM and configure network automatically.	what hypervisors are in use at present and reasonably expected to be used in the medium term?		As mentioned in the RFP requirement
96		39	34	Switch should support Industry Standard Port/Link Aggregation for All Ports across any module or any port	- is LACP across different port speeds expected and mandatory?		LACP across different port speeds is not required
97		39	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	- is LACP across different port speeds expected and mandatory?		Already covered in S.no 96
98		40	42	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	Is this a mandatory Requirement. Can we have a partial compliance with Road map.		Already covered in S.no 98

99		40	44	Switch should be capable to work as DHCP server and relay	Is it expected that this is managed as control plane only or Is an alternate solution acceptable		Already covered in S.no 5
100		40	49-53	QOS	Is partial compliance acceptable		Already covered in S.no 88
101		41	63	Switch should support to prevent edge devices in the network not administrator's controlled from becoming Spanning Tree Protocol root nodes	Can we propose alternate better technology than STP		Yes. Any IEEE standard can be proposed
102	RFP	34	Section 9 - Technical Specification(spine switch specification- Sr no 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	Need to understand if fixed series or modular system is required. From the port requirement it seems to be fixed series. Need to understand then why CPU redundancy since only 35 ports are required as per point number 12 in spine switch specification sheet.		Already covered in S.no 2
103	RFP	34	Section 9 - Technical Specification(spine switch specification- Sr no 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	Same as point 2. Fixed system doesn't have Supervisor module		Already covered in S.no 2
104	RFP	34	Section 9 - Technical Specification(spine switch specification- Sr no 11)	Switch should be compatible with all the required parameters of Spine & leaf architecture	Need clarification on list of parameters required for spine & leaf architecture.		As per the requirement mentioned in the RFP
105	RFP	10	Section 3 – Scope of Work (sr no 1)	1) Supply, installation & maintenance of the network components for Spine & Leaf architecture and seamless integration with the existing NPCI Network Architecture.	Please elaborate existing NPCL Network Architecture.		Architecture details will be share during the technical evaluation
106	RFP	35	Section 9 - Technical Specification(spine switch specification- Sr no 24)	Switch should support minimum 1000 VRF instances	This point is favouring to particular OEM.	Please kindly remove this point from techical cretiria to bring multiple OEM into this opportunity	Already covered in S.no 82
107	RFP	34	Section 9 - Technical Specification(spine switch specification- Sr no 10)	Switch should be compatible with SDN architecture of all the OEM in future without any additional cost / hardware	Need more clarity on this point , Because each OEM will have their own developed SDN architecture.		If the switch OEM & the SDN OEM are different, the switch is expected to be compatible with all the IEEE standards when integrated with SDN controller
108	RFP	35	Section 9 - Technical Specification(spine switch specification- Sr no 37)	Switch should support 16 Nos. of link or more per Port channel (using LACP) and support 200 port channels or more per switch	This point is favouring to particular OEM. Please kindly remove this point from techical cretiria to bring multiple OEM participation into this opportunity		Refer corrigendum

109	RFP	36	Section 9 - Technical Specification(spine switch specification- Sr no 47)	Switch should support multi instance MPLS routing using VRF, VRF Edge routing and should support VRF Route leaking functionality	This point is favouring to particular OEM.	Please kindly remove this point from techical cretiria to bring multiple OEM into this opportunity	This is a mandatory requirement
110	RFP	38	Section 9 - Technical Specification(Leaf switch (Fiber) Specification - Sr no 6)	Switch should be compatible with SDN architecture of all the OEM in future without any additional cost / hardware	Need more clarity on this point , Because each OEM will have their own developed SDN architecture.		Already covered in S.no 107
111	RFP	38	Section 9 - Technical Specification(Leaf switch (Fiber) Specification - Sr no 7)	Switch should be compatible with all the required parameters of Spine & leaf architecture	Need clarification on list of parameters required for spine & leaf architecture.		Already covered in S.no 104
112	RFP	39	Section 9 - Technical Specification(Leaf switch (Fiber) Specification- Sr no 22)	Switch should support minimum 1000 VRF instances	This point is favouring to particular OEM.	Please kindly remove this point from techical cretiria to bring multiple OEM into this opportunity	Already covered in S.no 82
113	RFP	40	Section 9 - Technical Specification(Leaf switch (Fiber) Specification- Sr no 43)	Switch should support multi instance MPLS routing using VRF, VRF Edge routing and should support VRF Route leaking functionality	This point is favouring to particular OEM. Please kindly remove this point from techical cretiria to bring multiple OEM participation into this opportunity		Already covered in S.no 109
114	RFP	40	Section 9 - Technical Specification(Leaf switch (Fiber) Specification- Sr no 50)	Switch should support methods for identifying different types of traffic for better management and resilience	Need more details for understand this requirement		As per the requirement mentioned in the RFP
115	RFP	42	Section 9 - Technical Specification(Leaf switch (UTP) Specification- Sr no 6)	Switch should be compatible with SDN architecture of all the OEM in future without any additional cost / hardware	Need more clarity on this point , Because each OEM will have their own developed SDN architecture.		Already covered in S.no 107

116	RFP	42	Section 9 - Technical Specification(Leaf switch (UTP) Specification- Sr no 7)	Switch should be compatible with all the required parameters of Spine & leaf architecture	Need clarification on list of parameters required for spine & leaf architecture.		Already covered in S.no 104
117	RFP	43	Section 9 - Technical Specification(Leaf switch (UTP) Specification- Sr no 20)	Switch should support minimum 1000 VRF instances	This point is favouring to particular OEM. Please kindly remove this point from techical cretiria to bring multiple OEM participation into this opportunity		Already covered in S.no 82
118	RFP	43	Section 9 - Technical Specification(Leaf switch (UTP) Specification- Sr no 23)	Switch should support minimum 3.2 Tbps including the following services	This point is favouring to particular OEM.	Please reduce this throughput to 2Tbps	Already covered in S.no 21
119	RFP	44	Section 9 - Technical Specification(Leaf switch (UTP) Specification- Sr no 43)	Switch should support multi instance MPLS routing using VRF, VRF Edge routing and should support VRF Route leaking functionality	This point is favouring to particular OEM.	Please kindly remove this point from techical cretiria to bring multiple OEM into this opportunity	Already covered in S.no 109
120	RFP	44	Section 9 - Technical Specification(Leaf switch (UTP) Specification- Sr no 50)	Switch should support methods for identifying different types of traffic for better management and resilience	Need more details for understand this requirement		Already covered in S.no 114
121	RFP No: NPCI/RFP/2017-18/IT/06	34	Section 9 - Technical Specifications - Scope of Technical Functions 2nd Paragraph	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.	Kindly confirm the transceivers interface type and bandwidth on the existing Cisco Nexus Switch which needs to be uplinked with the proposed new Spine switches ? i.e. 10G / 40G / 100G Single mode or Multimode	Need Confirmation	Already covered in S.no 41