Pre Bid Response & Corrigendum Document

For

Selection of System Integrator for Implementation and Maintenance of Network Infrastructure Backbone to BastarNet Project in the State of Chhattisgarh.

CHhattisgarh infotech & biotech Promotion Society
(CHiPS)
State Data Center Building, Near Police Control Room,
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Tender Reference Number:	**35/CEO/ CHiPS /BastarNet Infra /2017** Dated 08/02/2017
Project Name:	Selection of System Integrator for Implementation and Maintenance of Network Infrastructure Backbone of BastarNet Project in the State of Chhattisgarh
Reference Number:	Pre Bid Response 01/CEO/CHiPS/BastarNet Infra/2017 Dated 14th March, 2017
Last date and time for submission of bids:	27th March 2017 at 03:00 PM
Physical Submission of EMD/DD:	27th March 2016 at 03:00 PM to 5:00 PM
Date of Technical Bid Opening:	28th March 2017 at 11:00 AM

Note: Bidder are requested to please submit the signed copy of this corrigendum with the Technical Bid in envelope B.

Corrigendum and Addenda:-

A. The following Addenda are to be read, as mentioned below at **Page no.53, in Annexure 1: Type 1 Site-Router under Architecture.**

The router shall support following type of interfaces – 100GE, 10GE, 1GE interfaces; POS - OC-3c/STM-1c, STM4, STM16, STM64, channelized STM-1,channelized STM-4, Channelized E1, E3, Circuit emulation E1, 10GE G.709 OTN, 10GE WAN PHY"

B. The following Addenda are to be read, as mentioned below at **Page no.55, in Annexure 1: Type 1 Site-Router under Protocol Support.**

Should have IPv4 Routing ,Border Gateway Protocol , Intermediate System-to-Intermediate System [IS-IS], and Open Shortest Path First [OSPF]), Hot Standby Router Protocol (HSRP)/Virtual Router Redundancy Protocol (VRRP), IPv6 Routing, and BGP Prefix Independent Convergence , GRE (Generic Routing Encapsulation) Tunnelling".

C. The following Addenda are to be read, as mentioned below at **Page no.60, in Annexure 1: Type 2 Site-Router under Certification.**

The proposed router should be IPv6 ready logo certifed / IPv6 ready from day one.

D. The following point is Added as mentioned below at **Page no.55, Annexure 1: Type 1 Site-Router**

The proposed router should be NDPP v1.1 or EAL3 certified

E. The following point is Added as mentioned below at **Page no.61, Annexure 1: IP-MPLS Amplifier Node :**

The proposed IP-MPLS Amplifier Node should support atleast 16000 Routes

Note: The Bidder should Quote IP-MPLS Amplifier Node/ Router as amplifier.

F. The following point is added, as mentioned below at **Page no.83 as Annexure X: Manufacturer Authorization and Support Form**

COMMITMENT LETTER FROM HARDWARE MANUFACTURER AUTHORIZATION & SUPPORT FORM

Scanned copy of original (duly signed by bidder) as part of Technical Proposal to uploaded Online - (**Envelope B –Online)**

To,

The Chief Executive Officer
SDC Building, Near Police Control Room
Civil Lines, Raipur- 492001

We have gone through the tender document for the said NIT and we authorise M/s. _____ (name of the bidder to said NIT) with office at _____to submit tender in response to the said NIT with equipment _____ produced by us on the understanding and with the undertaking from our side that the product offered in not at the end of its life cycle and we shall provide expeditiously all spares and full maintenance support to the equipment's supplied by the bidder for this tender throughout a period of three year of warranty as required by the tender document. Confirm that the products meet the technical & functional requirements & Products quoted are latest version / specification and not the end of life.

This is also to certify that all products are ISO 9001, International Certified, and Restriction of hazardous substances (RoHS) compliant.

Date: SIGNATURE OF AUTHORISED PERSON

Place: FULL NAME OF SIGNATORY

DESIGNATION AND SEAL OF SIGNATORY

Date: COUNTER SIGNATURE OF BIDDER

Place: NAME

DESIGNATION AND SEAL

G. The following Addenda are to be read, as mentioned below at Page 55 ANNEXURE-I : Type1 Site:QoS Features:

" Traffic Classification using various parameters like source physical interfaces, source/destination IP subnet, protocol types (IP/TCP/UDP), source/destination ports, IP Precedence, 802.1p, MPLS EXP, DSCP and by some well known application types through Application Recognition techniques **or based on application TCP/UDP Ports**" .

Pre-Bid Response for Tender No No. 35/CEO/CHiPS/BASTARNET Infra /2017 Raipur, Dated 08/02/2017					
S NO .	**TENDER Document Reference(s) (Section & Page Number(s))**	**Content of TENDER requiring Clarification(s)**	**Points of Clarification**	**Remarks**	**Response from CHiPS**
1	ANNEXURE-I : Type1 Site: Router : Page 53: Architecture	The router shall support following type of interfaces – 100GE, 10GE, 1GE interfaces.; POS - OC-3c/STM-1c, STM4, STM16, STM64, channelized STM-1,channelized STM-4, Channelized E1, E3, Circuit emulation E1, Circuit emulation E3, 10GE G.709 OTN, 10GE WAN PHY	**Requested Clause :-** The router shall support following type of interfaces – 100GE, 10GE, 1GE interfaces.; POS - OC-3c/STM-1c, STM4, STM16, STM64, channelized STM-1,channelized STM-4, Channelized E1, E3, Circuit emulation E1, 10GE G.709 OTN, 10GE WAN PHY. **Remarks :-** Request to remove Circuit Emulation E3 interface as being legacy .	Non Compliance , Request to Amend for Participation	Please refer Corrigendum
2	ANNEXURE-I : Type1 Site: Router : Page 53: Architecture	The router 10 Gig interfaces for SR,LR & ZR are software configurable for LANPHY/WANPHY/OTU2 mode.	**Requested Clause :-** The Router should be able to support modes like LANPHY , WANPHY and OTU2 on 10Gig interfaces .	Non Compliance , Request to Amend for Participation	This functionality is required, OEM can support the said functionality with internal/External support, with 10G interfaces to interconnect between them.
3	ANNEXURE-I : Type1 Site: Router : Page 54: Performance	The router shall have minimum of 250 Gig Full Duplex capacity per slot with redundancy. Failure of any switch fabric should not degrade the per slot bandwidth .	This clause is contradicting with "non-oversuscribed 32 Port 10Gig interface on single slot . Request clarification or increase per slot bandwidth to 320Gbps Full duplex .	Seeking kind Clarification for Clarity	As per RFP

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4	ANNEXURE-I : Type1 Site: Router : Page 54: Performance	The router should have capability of minimum 2 million routes.	The Network is envisaged to have IP/MPLS servcie provider type network , Hence request to amend the clause as mentioned to hae similar number of IPV6 route scale for migration to IPv6 network tomorrow this will ensure ROI for end customer . **Requested Clause :-** The router should have capability of minimum 2 million IPV4 routes & 2 million IPv6 .	Suggestion , The Same is important for IPMPLS to work in future with any Cost for the Department	As per RFP
5	ANNEXURE-I : Type1 Site:Protocol Support : Page 55:	Should have IPv4 Routing ,Border Gateway Protocol , Intermediate System-to-Intermediate System [IS-IS], and Open Shortest Path First [OSPF]), Route Policy Language (RPL), Hot Standby Router Protocol (HSRP)/Virtual Router Redundancy Protocol (VRRP), IPv6 Routing, and BGP Prefix Independent Convergence ,GRE (Generic Routing Encapsulation) Tunneling	**Requested Clause :-** Should have IPv4 Routing ,Border Gateway Protocol , Intermediate System-to-Intermediate System [IS-IS], and Open Shortest Path First [OSPF]), Hot Standby Router Protocol (HSRP)/Virtual Router Redundancy Protocol (VRRP), IPv6 Routing, and BGP Prefix Independent Convergence ,GRE (Generic Routing Encapsulation) Tunneling. **Remarks :-** Request to remove RPL for leading OEM to participate	Non Compliance , Request to Amend for Participation	Please read as below" **Should have IPv4 Routing ,Border Gateway Protocol , Intermediate System-to-Intermediate System [IS-IS], and Open Shortest Path First [OSPF]), Hot Standby Router Protocol (HSRP)/Virtual Router Redundancy Protocol (VRRP), IPv6 Routing, and BGP Prefix Independent Convergence ,GRE (Generic Routing Encapsulation) Tunneling**".
6	ANNEXURE-I : Type1 Site:Protocol Support : Page 55:	Router Should have capability of mapping of address and port using encasultaion as well as translation mecanism for ipv4 to Ipv6 migration funtionalities.	**Request clarification :-** on "using encapsulation " . Our understading of migration functionalities are 6PE and 6VPE	Seeking Kind Clarification for Clarity , This will help to get the	As per RFP

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			kindly clarify.	required Feature without any Amiguity while technical evaluation is done	
7	ANNEXURE-I : Type1 Site:Protocol Support : Page 55:	Router shall preferably support PBB (Mac-in-Mac protocol) as per IEEE 802.1ah.	**Requested Clause :-** Router shall preferably support PBB (Mac-in-Mac protocol) as per IEEE 802.1ah/ Q-in-Q IEEE802.1ad **Remark :-** PBB is the old technology used metroethernet kind of network . Since the envisaged network is purly L3 Basd on IP/MPLS hence requested to add an option for Q-in-Q whic provides the functionality of C-VLAN and S-VLAN for enhanced servcies .Request to amend for leading OEM to participate .	Non Compliance , Request to Amend for Participation	As per RFP
8	ANNEXURE-I : Type1 Site:Protocol Support : Page 55:	Support unequal cost link load sharing to better utilize the alternate paths	**Request to remove the clause** as this do not imply with IPMPLS network which sends traffic on LSP . **Requested clause:-** Router should support ECMP (equal Cost multipath) for better utilization of link bandwidth .	Non Compliance , Request to Amend for Participation	As per RFP

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9	ANNEXURE-I : Type1 Site:QoS Features: Page 55:	Traffic Classification using various parameters like source physical interfaces, source/destination IP subnet, protocol types (IP/TCP/UDP), source/destination ports, IP Precedence, 802.1p, MPLS EXP, DSCP and by some well known application types through Application Recognition techniques.	**Requested Clause :-** Traffic Classification using various parameters like source physical interfaces, source/destination IP subnet, protocol types (IP/TCP/UDP), source/destination ports, IP Precedence, 802.1p, MPLS EXP, DSCP and by some well known application types through Application Recognition techniques or based on application TCP/UDP Ports . **Remarks :-** Different OEM have different architecture for classification of traffic . Requst to amend the clause for leading OEM to participate .	Non Compliance , Request to Amend for Participation	Please refer Corrigendum
10	ANNEXURE-I : Type1 Site:QoS Features: Page 56:	Shall support standards based RSVP for voice & video call admission control.	Request to remove the clause as RSVP is used in IPMPLS Network for lable signaling .The same is supported by all OEM . Requested Generic Clause :- RSVP should have capability of bandwidth admission control .	Non Compliance , The RSVP Protocol in IPMPLS network is used for Lable exchange and LSP formation . RSVP however have capability for bandwidth admission Control . I.e while shooting the LSP from one node to other if required bandwidth is not avilable for traffic /Application LSP will not be formed	As per RFP

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				and the same is reflected through logs to Admin , Corrective action can be taken post that .	
11	ANNEXURE-I : Type1 Site:QoS Features: Page 56:	Per VLAN QoS. Time Based Shaping and Policing for QoS,shall support at least 4000 hardware queues to be available for each GE interface on the router.	**Requested clause :-** Per VLAN QoS. Time Based Shaping and Policing for QoS,shall support hardware queues/HQOS to be available for each GE interface on the router.	Sugestion and seeking kind clarification for removing amiguity , Since 128K queues are alreay asked this cluase is creating confusion . The Hardware quesue (128K) asked are shared by interface . Hence request to remove 4000 value to make the clause generic and clear .	As per RFP
12	ANNEXURE-I : Type1 Site: Management : Page 57:	shall support in line video monitoiring features like realtime quality monitoring, error correction, fast channel change, VoD streaming and an optimized multicast architecture.	Video Monitoring feature has to be enabled on PAN network on every network-node to fucntion properly . Since the same is not asked in Type 2 router hence	Request to remove Since this can function only when all the nodes in the network support it ,	As per RFP

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13	ANNEXURE-I : Type1 Site: Management : Page 57:	Video Monitoring support: The proposed routers should have capability to check quality of the video traffic transiting through the router. The bidder can offer the following options of solution to meet this requirement	request to remove the same from Type 1 Router also .	Also this will have huge cost implication . If not removed then this feature while been asked in TYPE 1 in the network can never be used due to broken architecture . Instead QOS can be used for gaurented bandwidth in the network .	As per RFP
14	ANNEXURE-I : Type1 Site: Management : Page 57:	a) As an embedded function on the Ethernet line cards provided			As per RFP
15	ANNEXURE-I : Type1 Site: Management : Page 57:	b) Through additional service cards that connects to the traffic forwarding line cards through the backplane			As per RFP
16	ANNEXURE-I : Type1 Site: Management : Page 57:	c) Through external hardware/software that can deliver this functionality. Additional numbers of interfaces are to be provisioned on the router accordingly beyond the interfaces asked for in the tender to accomplish this			As per RFP
17	ANNEXURE-I : Type1 Site: Management : Page 57:	d) The video monitoring function shall work on both IP and MPLS enabled interfaces and it should be able to measure quality metrics such as delay, jitter, MPEG MDI (RFC 4445), Media Stop Event for uncompressed and compressed video formats (MPEG2/4, JPEG2K)			As per RFP
Type 2 Router Node					

Pre-Bid Response for Tender No No. 35/CEO/CHiPS/BASTARNET Infra /2017 Raipur, Dated 08/02/2017					
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18	ANNEXURE-I : Type 2 Site: Architecture : Page 58:	The Chassis should have two free slot for future expansion.	Kindly clarify if the daughter slot can be considered for free slot .	Suggestion and clarification , The same is important for fair participation .	The meaning of "Slot" for of any routers and wherever it appears in this tender document means a main slot (full slot) on the router chassis. Only a main slot on the router chassis shall be counted to fulfil any tender requirements and for considering number of free slots (no sub-slot or daughter slot shall be considered as "Slot").
19	ANNEXURE-I : Type 2 Site: Architecture : Page 58:	The router shall support following type ofi nterfaces– 10GE,1GE,E1 and STM1	**Requested Clause :-** The router shall support following type of interfaces– 100Ge, 10GE,1GE,E1 and STM1. Request to add 100G interface for uniform network architecture when bandwidth demand grows , This will ensure investement protection for end user .	Suggestion for future growth with no cost implications	As per RFP

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20	ANNEXURE-I : Type 2 Site: Performance : Page 58:	Router shall support 16000 routes	**Requested Clause :-** Router shall support 500K IPv4 and IPv6 . Remarks :- The Type 1 router and Type 2 Router wll be part of same MPLS domain hence the Route scale should be idialy same or atleast 1/4 of the Type 1 Router . This is required for clean and servcie oriented design of servcies over IPMPLS network .	Highly recommended for IPMPLS Network to function , since the network will be IPMPLS and all nodes should support the linearity in terms of scale . The asked routes are very less and will create the bottel neck in the network from day one . Hence request to amend the clause for better network design which can sustain for longer time while proving the various services deemed from the envisaged network .	As per RFP
21	ANNEXURE-I : Type 2 Site: High Availability : Page 59:	All cards should be provided in redundancy and distributed on different slots.	Request to remove the clause for leading OEM to participate .	Suggestion and clarification , The same is important for fair participation .	As per RFP
22	ANNEXURE-I : Type 2 Site: Certification s : Page 60:	The proposed router should be NDPP v1.1 or EAL3 certified	Request to add the same clause in Type 1 Router also for network security based on the certification .	Suggestion and important for Routers	Please refer Corrigendum
23	ANNEXURE-I : Type 2 Site: Certification s : Page 60:	The proposed router should be IPv6 ready logo certifed	Request to realx the clause :- The proposed router should be IPv6 ready logo certifed / IPv6 ready from day one .	Non Compliance , Request to Amend for Participation	Please read as below "The proposed router should be IPv6 ready logo certifed / IPv6 ready from day one" .

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Specification for Amplifier Node					
24	**Functional Requirement**	We highly recommend to provide the functional requirement to run the network , Bidder if free to provide repeater or device to meet the network layout and design and should take the ownership of solution for stipulated time frame .	The Functional Requirement of Node is to cater the Optical distance where ever more then 80 KM between any two location having Type 1 or Type 2 Node . The OEM is free to provide the Optical Repeater or any device having below minimum specification . The Repeter / Device should be able to meet the requiremnet of 1Gig Optical traffic and should also be capable of supporting 10Gig traffic .		As per RFP
OR					
25	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	Amplifier should support have 62 Gbps of switching capacity. The Router shall be standalone fixed configuration Chassis or stackable system with redundant power supply.	**Requested Clause** :- Amplifier should support have 50 Gbps of switching/Routing capacity or have a capability of Optical amplification . The device should have Redundant Power supply .		As per RFP
26	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	A single point failure on the equipment shall not result in network or network management system downtime, it should also have timing protocol support such as 1588v2 with Boundary as well as ordinary clock(master and slave) and SyncE	**Request Deletion for leading OEM to participate** . The same is not required on the Optical repeater .		As per RFP
27	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	Amplifier should support Quality of service for marking ,Prioritising and assuring bandwidth Gurantee. Classification can be done based on DSCP,Priority,IP addressand 802.1p.	**Requested Clause :-** The Device should support QOS functionality or should support the QOS Honouring as configured by Type 1 and Type Router in the network .		As per RFP

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28	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	Amplifier should support modular qos with Multilevel Priority Queue along with weighted fair queuing and support Policy for control plane protection.Router should also support RSVP for end to end bandwidth gurantee.	**Request to delete the clause** , The same is not required on the Device . The actual QOS implimentation will happen at Type 1 & Type 2 Router		As per RFP
29	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	The Amplifier should have 4Gb DRAM and 2GB flash	**Request to delete for leading OEM to participate .** **Requested Clause :-** The device should have adiquate memory for proper functioning .		As per RFP
30	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	The Amplifier should support 12 Mb buffers	**Request to delete :-** This is not needed on the optical amplification node .		As per RFP
31	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	The Amplifier should support multilevel priority scheduling for voice and video applications with minimal jitter, latency and packet loss.	**Requested to delete the clause**		As per RFP
32	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	The Amplifier shall support fault-tolerant connections to other network or shared media segment to protect against a primary link failure. If the primary link fails, the backup path shall be automatically activated to maintain network connectivity and throughput.	**Requested to delete the clause as the same is not core feature of Optical Amplifier .** **Requested Clause :-** The devcie praposed should support optical amplification for catering distnace greater then 70KM		As per RFP
33	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	The Amplifier should support the following protocols: BGP,MPBGP,OSPF ,RFC 3107 ,OSPFv2 and v3,Loop free alternate ,IP FRR,6PE,6VPE,VPLS,Layer2 VPN,uRPF,PIMSM and PIM SSM.	**Request to amend the clause :-** The device if adding IP Hop / l2 Hop in the network then should support L3 Routing Protocol / If the devcie is optical repeater then all thses protocols are not required .		As per RFP

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34	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	The Amplifier should support fast convergence protocols like G.8032, IPFRR,MPLS FRR,BGP prefix independent convergence,VRRP or equivalent and BFD for Routing protocols.	**Request to amedn the clause :-** If the the Devcies praposed if adding IP or L2 Hop then should support G.8032 , MPLS FRR else not needed on the optical amplifier .		As per RFP
35	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	The proposed Amplifier shall support 3 level H-QoS	**Request to remove** as the same is not required on Optical amplifier		As per RFP
36	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	It shall support Ethernet Ring protection based on ITU-T G.8032 v2	**Request to remove** as the same is not required on Optical amplifier (Repeated Clause)		As per RFP
37	ANNEXURE-I : IP-MPLS Amplifier Node : Page 60	The Amplifier shall support both IPv4 and IPv6 and DHCP relay agent	**Request to remove** as the same is not required on Optical amplifier		As per RFP
38	ANNEXURE-I : IP-MPLS Amplifier Node : Page 61	The rAmplifier should suport Internet Group Management Protocol versions 2 and 3 (IGMPv2 and v3) ,IP/MPLS,IP FRR,BGP PIC,MPLS,LDP,MPLS TE	**Request to remove** as the same is not required on Optical amplifier		As per RFP
39	ANNEXURE-I : IP-MPLS Amplifier Node : Page 61	Amplifier should supportMPLS OAM,Ethernet OAM Protocol - CFM(IEEE-802.1ag,Link OAM(802.3ah), and Y.1731 performance management	**Request to remove** as the same is not required on Optical amplifier		As per RFP
40	ANNEXURE-I : IP-MPLS Amplifier Node : Page 61	Amplifier should support RFC3107 from day1 which is part of key design	**Request to remove** as the same is not required on Optical amplifier		As per RFP
41	ANNEXURE-I : IP-MPLS Amplifier Node : Page 61	Amplifier should support IP FRR & LFA FRR	**Request to remove** as the same is not required on Optical amplifier		As per RFP

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42	ANNEXURE-I : IP-MPLS Amplifier Node : Page 61	The Amplifier should support Zero touch provisioning for ease of management	**Request to remove** as the same is not required on Optical amplifier		As per RFP
43	ANNEXURE-I : IP-MPLS Amplifier Node : Page 61	Security through ACL filters for layers 2 and layer 3 traffic, MAC address limits and storm control for broadcast, multicast and unknown unicast, Authentication, authorization, and accounting (AAA) with TACACS+ and RADIUS,URPF	**Request to remove** as the same is not required on Optical amplifier		As per RFP
44	ANNEXURE-I : IP-MPLS Amplifier Node : Page 61	Amplifier should support 2 xGE SFP and 2 x 10G Ports. 1 x GE SPF loaded with Minimum 70 kms SFP from Day 1.			As per RFP
45	ANNEXURE-I : IP-MPLS Amplifier Node : Page 61	The proposed Amplifier should be NDPP v1.1 or EAL certified by common Criteria body	**Request to remove** as the same Optical Converter avilable do not have this certification		As per RFP
46	ANNEXURE-I : IP-MPLS Amplifier Node : Page 61	The Amplifier Should support Multicast and 1 K Psuedowire	**Request to remove**		As per RFP
47		recommendation	We highly recommend to add the route scale of minimum 10K IPV4 and 10K IPv6 if the devcie praposed is L3/L2 Node .		Please refer Corrigendum
48	section 5, Scope of Work, page no 47	Type 1 Site - Node with 3 or 4 different directions on the ring	In section 5.3.1, The technical BoM for Type 1 IP MPLS Nodes Routers are mentioned as 2, but as per the BastarNet Logical Architecture, there will 4 Type 1 Nodes.		As per RFP
49	section 5, Scope of Work, page no 48	Amplifier Site - If required the same box can drop traffic and create one more Type 2 Node	If it is required to be Type 2 Node, the techinical specifications mentioned for Type 2 node and Amplifier nodes will vary		As per RFP

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50	section 5.2.1 point no 'f', Implementation: Backbone Page 48	Centralised Bandwidth	Please reconfirm that CHIPS will provide the point-to-point connectivity and Firewall		Yes
51	section 5.3.1 page 51	Equipment at PoP location passive component	The nos required as mentioned in the RFP are 12, but even in Amplifier sites also it is required to terminate the fiber, provide a rack and UPS. So the total nos will be 16		CHiPS is having Block level connectivity in major of the PoP location mentioned in the Tender document and there is Rack and UPS is available. CHiPS will consider the addittional requiremnt of Rack and UPS and finalized exact quantity before agreement as per price discovered. CHiPS is having Block level connectivity in major of the PoP location mentioned in the Tender document and there is Rack and UPS is available.
52			Please confirm that Air Conditioning and DG is the responsibility of Chips		Yes
53	Type 1 Site : Router, Page 53	New Addition	The router should support hardware based DDoS Mitigation solution and the solution should have been deployed in India.		As per RFP
54	Type 1 Site : Router, Page 53	Router shall support non-blocking capacity of 3.2 Tbps.	Router shall support non-blocking capacity of 7 Tbps.		As per RFP
55	Type 1 Site : Router, Page 53	New Addition	The router should support Flex VPN.		As per RFP
56	Type 2 Site : Router, Page	New Addition	The router should support Flex		As per RFP

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	58		VPN.		
57	Type 2 Site : Router, Page 58	New Addition	The router should have an operating temperature of 0 to 60 degree celsius.		As per RFP
58	Type 2 Site : Router, Page 58	The Chassis should have two free slot for future expansion.	The router chassis should have minimum 6 interface module slots.		As per RFP