CORRIGENDUM-1

Ref: CRP20E001   06-06-2020

Sub: Amendment in RFP/NIT

Description	Particulars
Selection of an Experienced IT-Networking Partner for IT Infrastructure Implementation for ERP and other Future Digital Initiatives at NMDC Locations.	The following have been uploaded as part of Corrigendum on www.tenderwizard.com/ITILIMITED 1) Corrigendum details 2) Amended Compliance Statement (Bid sheets) 3) Amended Price Bid Format (Bid sheets) 4) Clarifications to vendor Technical Queries 5) Clarification to Commercial Queries

All other terms and conditions of the Tender Enquiry No.CRP20E001/1 dated 06-06-2020 stands un-altered.

Thanking you,

Yours faithfully
For ITI Limited

Dy. General Manager (MM) & CPIO

ITI LIMITED

(A Government of India Undertaking)

COMPLIANCE STATEMENT

NIT Reference No: CRP20E001   Dated: 20.05.2020
Corrigendum 1

Selection of an Experienced IT-Networking Partner
For
IT Infrastructure Implementation for ERP and other Future Digital Initiatives at NMDC Locations.

Supplier Name & Address:	
Phone No. & Email Id	

Clause No.	Description	Compliance (Yes/No)
1)	**<u>Scope of the Work</u>**	
a	Establishment of a DC and DR (on Co-Location basis at MeitY Empaneled Service Providers) to host the Applications of NMDC such as SAP S/4 HANA ERP at DC, located in Hyderabad and DR located in another city and another seismic zone.	
b	Supply, Installation, Integration, Testing, Commissioning and Support (SiitcS) of LAN and WAN Networks.	
c	Provide/ Upgrade of existing MPLS/ VPN at 15 locations	
d	To submit a detailed design and deployment methodology and implementation plan of execution of the project.	
e	Integrate / upgrade Internet Leased Lines (ILL) at HO, Projects and other locations.	
f	Deployment of secured security solutions	
g	Provision of secured encrypted VPN over the internet for remote access to applications	
h	Inter Connecting the nodes with Optical fiber or Radio links, including Supply, Installation, Integration, Testing, Commissioning and maintenance Support (SiitcS).	
i	SiitcS of Wi-Fi zones (Indoor/outdoor) at HO, Projects and other locations, to cater to data needs of current and future requirements of NMDC.	
j	Various Services, connected with the project.	
k	Managed Services.	
	Note 1: The detailed scope of work, Technical Specs and BoQ available with the main document. Note 2: 5 Years Comprehensive Warranty and maintenance support needs to be provided to all the elements of network.	
2)	**<u>Eligibility Criteria</u>**	
i.	The bidder must be, a company registered in India, under the companies Act – 1956 or 2013 and should be in business of IT /ITES/ Networking for at least 5 years.	
ii	Average Annual financial turnover from ICT Business during the last 3 years, ending 31st March-2019 should be at least Rs. 100 Cr. Audited financial statements for the last 3 years (2016-17, 2017-18, 2018-19) to be enclosed.	
iii	The bidder should be financially strong having Positive Net worth in each of the last 3 financial years.	

iv	The intending bidder must be an IT/ITES/Networking company, having an Experience of successfully executing similar nature of works as mentioned in the Scope of Work viz. setting up of DC/DR (H/w & S/w), Firewalls, active Switches, Managed Services, Backbone cabling, Setting up of Wi-Fi Networks, laying of WAN/LAN Networks and laying of OFC etc. during the last 7 years (as on 31st March'2020) of at least following value/billing: One Project costing Rs 80 Cr OR Two projects costing Rs 50 Cr. each OR Three Projects costing Rs 40 Cr. each.	
	One or more project/projects claimed towards experience, must cover one or more elements essentially from each of the following three categories. Elements of Category (a) below, must contribute at least Rs. 24 Crore cost to the project/projects.	
	(a)The establishment of DC/DR, Fire-walls and Managed services.	
	(b)Active Switches, EMS and Backbone Cabling with associated IT components.	
	(c)Wi-Fi, P2P radio links and Laying of Underground OFC Networks.	
	(Project-Wise, Work order copies and completion certificates, depicting various project elements and costs thereof, to be enclosed).	
v	IT Service & Security Accreditations: The intending bidder must possess the following certifications on the date of submission of the bids:	
	(a) Valid ISO 20000 Certificate	
	(b) Valid ISO 27000 Certificate	
vi	The bidder should have MAF from respective OEM(s) for addressing this RFP, which the bidder proposes to use in this project.	
vii	Authorization letters from OEM's concerned (MAF) to address this business opportunity needs to be enclosed in the given format. Bids without authorization will not be considered.	
viii	The bidder should not have been black listed by central / state governments / PSUs as on date of bid submission. Self-certificate shall be submitted in this regard. (Annexure-X)	
ix	Bidders need to quote for one of the brands of the equipment identified by the user and mentioned in the technical specs / Bill of Material. No other brand will be considered.	
x	The bidder shall submit an undertaking that they do not have any ongoing disputes on statutory levies like Income Tax, GST, PF, ESI etc.	
xi	Authorization letter in company letter head authorizing the person signing the Bid for this RFP.	
xii	Clause by Clause compliance of RFP terms & conditions needs to be submitted. Non-compliance on technical specifications and offers with deviations are liable to be rejected.	

Annexure-VI

DC Hardware Description	Make	Model	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs.(P)	Total Price In Rs. (QxP)
SAP HANA Appliance S/4 — 3 TB			2				-
SAP HANA Appliance SRM — 1.5 TB			2				-
SAP HANA Appliance BW — 1.5 TB			2				-
SAP HANA Appliance for Dev — 768 GB			1				-
SAP HANA Appliance for Quality - 3 TB			1				-
OS Cluster software (Note : Quantity as applicable)							-
Blade Enclosure (as per OEM solution for 24 blades) (Note : Quantity as applicable)							-
Blades for Application Servers - SAP Environment			10				-
Blades for ADS, Mail,Backup & Misc Servers			4				-
Blades for EMS Servers in HA 2+2			4				-
SAN Storage			1				-
SAN Switches			2				-
Backup Device with Backup SW for disk backup			1				-
Tape Library with backup SW			1				-
DataCentre Core Switches			2				-
ToR Switch 24 SFP+ for DC			4				-
1G Copper Switch for SAP HANA Backup — 24 ports			1				-
1G copper switch for Management — 48 ports			2				-
Blades for Legacy Servers			6				-
Installation Charges - Lumpsum			1				-
Total (A) in Rs.							-

DR Hardware Description	Make	Model	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs.(P)	Total Price In Rs. (QxP)
SAP HANA Appliance DB — 3 TB			1				-
SAP HANA Appliance SRM — 1.5 TB			1				-
SAP HANA Appliance BW — 1.5 TB			1				-
Blade Enclosure (as per OEM solution for 11 blades)			1				-
Blades for Application Servers - SAP Environment			5				-
Blades for ADS, Mail, Backup & Misc Servers			2				-
SAN Storage			1				-
SAN Switches			2				-
Backup Device with Backup SW for disk backup			1				-
Core Switches			1				-
ToR Switch for DR - 24 SFP+			2				-
1G copper switch for Management — 48 ports			1				-
Installation Charges - Lumpsum			1				-
						Total (B) in Rs.	-
						Grand Total in Rs.	-

Note 1: Applicable tax rates should be mentioned.

Note 2: All line items to be quoted. If any line item not indicated with price, the same will be considered as free of cost supply and PO placed accordingly.

Name of the supplier:
Mail Id:
Mobile:

Annexure-VI

DC Software Description	Make & Model	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs. (P)	Total Price In Rs. (QxP)
Operating System for App Servers	SUSE Linux for SAP 2Skt Unlimited Guest with HA	10				-
OS for ADS, Mail,Backup & Misc Servers	WinSvr STD 2019 OLP Core Licenses	4				-
OS for EMS Servers	WinSvr STD 2019 OLP Core Licenses	4				-
Virtualization SW	VMWare vCentre Standard with 5 yrs	1				-
	VMWare vSphere Enterprise Plus with 5 yrs	48				-
OS for HQ & Plant Servers	WinSvr STD 2019 OLP Core Licenses	3				-
OS for HQ & Plant Servers	SUSE Linux for SAP 2Skt Unlimited Guest OS	3				-
EMS	Enterprise management software	1				-
Microsoft Active Directory CAL licenses	Microsoft & Active Directory	1000				-
Installation Charges - Lumpsum		1				-
					Total (A) in Rs.	-

DR Software Description	Make & Model	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs. (P)	Total Price In Rs. (QxP)
Operating System for App Servers	SUSE Linux for SAP 2Skt Unlimited Guest OS	5				-
OS for ADS, Mail,Backup & Misc Servers	WinSvr STD 2019 OLP Core	2				-
Virtualisation SW	VMWare vCentre Standard with 5 yrs	1				-
	VMWare vSphere Enterprise Plus with 5 yrs	14				-
Installation Charges - Lumpsum		1				-
					Total (B) in Rs.	-
					Grand Total in Rs.	-

Note 1: Applicable tax rates should be mentioned.

Note 2: All line items to be quoted. If any line item not indicated with price, the same will be considered as free of cost supply and PO placed accordingly.

Name of the supplier: 0
Mail Id: 0
Mobile: 0

Annexure-VI

Local XMII **Software Description**	Make & Model	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs.(P)	Total Price In Rs. (QxP)
Operating System for xMII Servers	SUSE Linux for SAP 2Skt Unlimited Guest OS	6				-
ADS, Antivirus & Patch Mgmt Servers operating system	Windows server 2019 standard operating system	6				-
Installation Charges - Lumpsum		1				-
					Total (A) in Rs.	-

Local XMII **Hardware Description**	Make	Model	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs.(P)	Total Price In Rs. (QxP)
xMII Rack Servers			6				-
ADS, Antivirus & Patch Mgmt Servers (Rack servers)			6				-
Installation Charges - Lumpsum			1				-
						Total (B) in Rs.	-
						Grand Total in Rs.	**-**

Note 1: Applicable tax rates should be mentioned.

Note 2: All line items to be quoted. If any line item not indicated with price ,the same will be considered as free of cost supply and PO placed accordingly.

Name of the supplier: 0
Mail Id: 0
Mobile: 0

Annexure-VI

Firewall BoM									
Sr. no.		Make	Model	UoM	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs.(P)	Total Price In Rs. (QxP)
WAN Network Interface Firewalls : Accepted Makes: Fortinet, Palo Alto, Cisco with 5 Year Support									
1	Firewall-Type 1			Nos.	2				-
2	Firewall-Type 2			Nos.	11				-
3	Firewall-Type 3			Nos.	6				-
4	Firewall-Type 4			Nos.	4				-
5	Firewall-Type 5			Nos.	20				-
6	Firewall- Web Application Firewall			Nos.	2				-
7	Centralized Management, Log and analysis license with 5 -year support up to 100x firewall devices/administrative, supplied along with 5 years 24 x 7 support along with hardware sppliance			Nos.	1				-
8	Free of change training to 20-people team of Network Engireers from NMDC to be provided by OEM at a centralized place covering all aspects of operations and maintenance of the firewalls			Nos.	1				-
9	Installation and Commissioning charges for the above			Lumpsum	1				-
								Total	-

Note 1: Applicable tax rates should be mentioned.
Note 2: All line items to be quoted. If any line item not indicated with price, the same will be considered as free of cost supply and PO placed accordingly.

Name of the supplier: 0
Mail Id: 0
Mobile: 0

Switch BoM

Annexure-VI

Sr.no.	Ethernet Switches and Access Points. Accepted Makes: Extreme, HPE, Cisco with 5 years support	Make	Model	UoM	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs.(P)	Total Price In Rs. (QxP)
1	CoreSwitch - Type 1			Nos	6				-
2	CoreSwitch - Type 2			Nos	1				-
3	10G-ER SM SFPs for distribution switches to core Switches Links			Nos	8				-
4	10G-LR SM SFPs for distribution switches to Access and Distribution Switches			Nos	64				-
5	Distribution Switch - Type 1			Nos	7				-
6	Distribution Switch - Type 2			Nos	11				-
7	1G-LX SM SFPs for distribution Switches to Access Switches Links			Nos	478				-
8	10G-LR SM SFPs for distribution Switches to access Switches Links			Nos	200				-
9	1000BASE-T RJ45 SFP Transceiver			Nos	20				-
10	Access Switch - Type 1			Nos	305				-
11	Access Switch (Industrial Grade) - Type 2			Nos	153				-
12	Access Point (indoor)			Nos	300				-
13	Wireless LAN Controller for Access Points 5 year warranty & NBD support			Nos	10				-
14	NAC Licenses for switches and access points, 5 year warranty & NBD support			Nos	6				-
15	EMS for Intergrated Mointoring of (Industrial, Access, Distribution and Core) Switches and Wirless Access Points, 5 years NBD support			Nos	6				-
16	VM for installation of NAC and EMS - 4 CPU x 86 corces, 64MB RAM, 500 GB x2 disks in failover RAID			Nos	6				-
17	Free of charges training to 20-people team of Network Engineers from NMDC to be provided by OEM at a centralized place covering all aspects of operations and maintenance of the switches, Aps, NAC, WLC, EMS			Nos	1				-
18	Installation and Commissioning charges for the above			Lumpsum	1				-
								Total	-

Note 1: Applicable tax rates should be mentioned.
Note 2: All line items to be quoted. If any line item not indicated with price, the same will be considered as free of cost supply and PO placed accordingly.

Name of the supplier: 0
Mail Id: 0
Mobile: 0

Annexure-VI

Wifi

Outdoor Wi-Fi Zone - Accepted Make: Cambium, Ruckus, Cisco, Aruba, Radwin

Sl. No.	At Dumper Platforms, PoL and Workshops	Make	Model	UoM	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs.(P)	Total Price In Rs. (QxP)
1	Outdoor (IP66 or better rated) 90-120 sector 802.11 ac WLAN AP with Tilt bracket & PoE Injector, 5-year extended warranty to be included. AP with set of 2 antenna (for 240-degree coverage) to be included			Nos.	58				-
2	Supply & Installation of Tower / Pole, 5m, Galvanized steel, with grouting base and accessories with Lightning Arrestors			Nos.	29				-
								Total(A)	-
P2P Radio Links (for Workshop @ Bacheli)									
1	5 GHz PTP Radio, Integrated High Gain Antenna (ROW) with **power lead,** 5-year extended warranty, IP66 or better rated			Nos.	6				-
2	Coaxial Cable Grounding Kits for 1/4" and 3/8" Cable			Nos.	12				-
3	LPU and Grounding Kit (1 kit per ODU)			Nos.	6				-
4	POWER SUPPLY, 30W, 56V - Gbps support			Nos.	6				-
5	Tilt Bracket Assembly			Nos.	6				-
6	Supply & Installation of Tower / Pole, 15m, Galvanized steel, with grouting base and accessories with Lightning Arrestors			Nos.	3				-
								Total(B)	-
Wi-Fi Zones and P2P links for mine coverage (Shovels, Dozers etc.) & weighbridges at KIOM									
Wi-Fi Zones									
1	Outdoor (IP66 or better rated) 90-120 sector 802.11ac WLAN AP with Tilt bracket & PoE Injector, 5-year extended warranty to be included. AP with set of 2 antenna (for 240-degree coverage) to be included			Nos.	84				-
2	Supply & Installation of Tower / Pole, 5m, Galvanized steel, with grouting base and accessories with Lightning Arrestors			Nos.	28				-
								Total(C)	-
P2P Links									
1	Coaxial Cable Grounding Kits for 1/4" and 3/8" Cable			Nos.	92				-
2	LPU and Grounding Kit (1 kit per ODU)			Nos.	46				-
3	5 GHz PTP Radio, Integrated High Gain Antenna (ROW) with **power lead,** 5-year extended warranty, IP66 or better rated			Nos.	46				-
4	POWER SUPPLY, 30W, 56V - Gbps support			Nos.	46				-
5	Tilt Bracket Assembly			Nos.	46				-
6	1 PPS GPS Sync generator			Nos.	46				-
7	PoE Gigabit DC injector, 15W Output at 30V, Energy Level 6 Supply			Nos.	46				-
8	Supply & Installation of Tower / Pole, 15m, Galvanized steel, with grouting base and accessories (some will be mounted on Wi-Fi zone towers)			Nos.	17				-
9	Free of charge training to 20-people team of Network Engineers from NMDC to be provided by OEM at a centralized place covering all aspects of operations and maintenance of the Outdoor WAPs			Nos.	1				-
								Total(D)	-
Point-to-Multipoint Radio for 5 network zones for Wi-Fi coverage (750m radius) at Weighbridges at KS-2 mines (for budgetary pricing only)									-

S.No	Description	UoM	Qty		
1	PMP Radio, IP66 or better rated, 240-degrees coverage (may need 2 base stations if each unit provides only 120-degree coverage), with all accessories and 5-year extended warranty.	Nos.	5		-
2	Remote radios for the PMP, 4 radios per zone, 240-degree coverage with all accessories and 5-year extended warranty.	Nos.	20		-
3	Supply & Installation of Tower / Pole, 5m, Galvanized steel, with grouting base and accessories, with Lightning arrestors	Nos.	25		-
4	Supply & Installation of 15m Tower (3-legs), with all accessories for outdoor-Wi-fi AP installation, with Lightning arrestors	Nos.	5		-
	Installation and Commissioning charges for all of the above BOM's	Lumpsum	1		-
				Total(E)	-
				Grand Total (A+B+C+D+E)	-

Note 1: Applicable tax rates should be mentioned.
Note 2: All line items to be quoted. If any line item not indicated with price, the same will be considered as free of cost supply and PO placed accordingly.

Name of the supplier: 0
Mail Id: 0
Mobile: 0

Annexure-VI

Campus Backbone Cabling - Accepted Makes: CommScope Netconnect, Belden, Corning, Cmon

S.No	Item Description	Make	Model	Units	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs. (P)	Total Price In Rs. (QxP)
1	12-Core SM double jacketed Outdoor armored cable			Meters	189500				-
2	6-Core SM double jacketed Outdoor armored cable			Meters	80500				-
3	48-fiber 2U, rack mounted fiber optic patch panels, for terminating OSP cables, with fusion splice trays, fully loaded with Duplex-LC SM adapters and 48 numbers of LC SM pigtails (48 numbers per panel)			Nos.	50				-
4	24-fiber 1U rack mounted fiber optic patch panels, for terminating OSP cables, with fusion splice trays, fully loaded with Duplex-LC SM adapters and 24 numbers of LC SM pigtails (24 numbers per panel)			Nos.	234				-
5	LC-LC Duplex SM Patch Cords, 3 meter			Nos.	626				-
								Total(A)	-
Closed Steel Racks -									
1	42U Racks as per specifications with vertical 2 PDUs, SNMP enabled (for Core Switches)			Nos.	11				-
2	42U Racks as per specifications with vertical 2 PDUs, surge protected (for Distribution Switches)			Nos.	21				-
3	24U Racks as per Specifications, with horizontal PDUs (IP Rated)			Nos.	153				-
4	24U Racks as per Specifications, with horizontal PDUs only (Non-IP Rated)			Nos.	227				-
								Total(B)	-
Horizontal Cabling - Accepted Makes: CommScope Netconnect, Belden, Panduit									
1	1U, 24-port Cat6A UTP Unloaded Jack Panel with rear Cable Support bar			Nos.	9				-
2	Cat6A UTP Patch Cord (7-feet)			Nos.	462				-
3	Cat6A UTP Information Outlet at DC Rack End			Nos.	362				-
4	1-port Face Plate			Nos.	161				-
5	45mm x 45mm Backbox			Nos.	130				-
6	IP rated Backbox for Faceplates and Information Outlets			Nos.	50				-
7	Cat6A UTP Cable			(305 Mtr.) Roll	20				-
8	Plugs for Modular Plug Terminated Links, for Wi-Fi APs and CCTV			Nos.	275				-
9	Cat6A UTP Information Outlet at End-User Rack End			Nos.	100				-
								Total(C)	-

Horizontal Cabling - Accepted Makes: CommScope Netconnect, Belden, Panduit

#	Description	Units	Quantity (Q)	HSN Code	Unit Price in Rs.(P)	Total Price in Rs. (QxP)
1	1U, 24-port Cat6 UTP Unloaded Jack Panel with rear Cable Support bar	Nos.	234			-
2	Cat6 UTP Patch Cord (7-feet)	Nos.	5600			-
3	Cat6 UTP Information Outlet at DC Rack-End	Nos.	2800			-
4	1-port Face Plate	Nos.	1401			-
5	45mm x 45mm Backbox	Nos.	982			-
6	IP rated Backbox for Faceplates and Information Outlets	Nos.	510			-
7	1 Port Surface Mount Box	Nos.	1294			-
8	Cat6 UTP Cable	(305 Mtr.) Roll	472			
9	Cat6 UTP Information Outlet at End-User Rack-End	Nos.	2800			-
10	Installation and Commissioning charges for the above	Lumpsum	1			-
	Total(D)					-

#	UPS - Suggested Makes: APC, Emerson or equivalent	Units	Quantity (Q)	HSN Code	Unit Price in Rs.(P)	Total Price in Rs. (QxP)
1	Supply, Installation, Testing and Commissioning of 1 KVA UPS system (prefer 19' rack mountable unit) for Distribution and access Switches at Bacheli, Kirandul, Donimalai, Panna and Paloncha. 1KVA rating, SNMP manageable. Supply should include 30-minute battery back-up batteries of 65AH, 12V, SMF related electrical protection accessories and rack, 3-year on-site warranty and maintenance	Nos.	259			-
2	Supply, Installation, Testing and Commissioning of (N) 30KVA UPS System for Central Distributor to support core switches, Servers, WAN Optimizers, ILL load balancers, and other networking equipment along with 30-minutes battery back-up (about 40 batteries of 65AH, 12V, Lead Acid, SMF) along with Battery rack, MCB protection gear and all other accessories - Bacheli, Kirandul, Donimalai, Panna and Paloncha. UPS to be SNMP manageable. 30kVA rating. Supply should include 3-year on-site warranty and maintenance	Nos.	5			-
3	Supply & Installation of Grounding Pit and services- for servers and communication	Nos.	14			-
4	Supply & Installation of Lightning arrestors and grounding pit	Nos.	14			-
5	Installation and Commissioning charges for the above	Lumpsum	1			-
	Total(E)					-

Installation of Cable Links		Units	Quantity (Q)	HSN Code	Unit Price in Rs.(P)	Total Price In Rs. (QxP)
1	Installation of Racks, Earthing etc.	Nos.	412			-
2	Installation, Testing and Commissioning of Horizontal Cable Links along with supply of requisite Caping & Casing / PVC conduits / HDPE pipes	Nos.	3162			-
					Total(F)	-
					Grand Total(A+B+C+D+E+F)	-

Note 1: Applicable tax rates should be mentioned.
Note 2: All line items to be quoted. If any line item not indicated with price, the same will be considered as free of cost supply and PO placed accordingly.

Name of the supplier: 0
Mail Id: 0
Mobile: 0

Annexure-VI

OFC Laying		Make	Model	UoM	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs.(P)	Total Price In Rs. (QxP)
1	Installation (Trenching, cable pulling through HDPE pipes, Manholes every 2kMs or 2 right angle bends) Testing and Commissioning of Optical Fibre Links along with supply of ISI marked / TEC approved HDPE pipe			Meters	270000				-
2	Splicing & testing of OFC (Pigtails)			Nos.	284				-
								Total	-

Note 1: Applicable tax rates should be mentioned.

Note 2: All line items to be quoted. If any line item not indicated with price, the same will be considered as free of cost supply and PO placed accordingly.

Note 3 : Bidder should consider the cost for HDPE Duct and all the cable laying accessories in the laying cost

Name of the supplier: 0
Mail Id: 0
Mobile: 0

Annexure-VI

One time Charges for Colocation & Managed Services

Description	Make	Model	UoM	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs.(P)	Total Price In Rs. (QxP)
Supply of 42 U, 600mm*1000mm Server Rack. (DC - 10, DR-4)			Nos.	14				-
Powered On Colocation Full Rack space. 6 KVA Rated with Bundled Power. (DC)			Nos.	10				-
SS Cage with Biometric Access, CCTV Camera.			Lot	1				-
Powered On Colocation Full Rack space. 6 KVA Rated with Bundled Power. (DR)			Nos.	4				-
Copper Cross Connect Charges. Cat 6			Nos.	8				-
Seating Space in DC for OEM/ IP/ SI/ NMDC			Nos.	1				-
							Total	-

Note 1: Applicable taxe rates should be mentioned.
Note 2: All line items to be quoted. If any line item not indicated with price, the same will be considered as free of cost supply and PO placed accordingly.

Name of the supplier: 0
Mail Id: 0
Mobile: 0

Annexure-VI

NOC

Sr. No.	Network Components	Make	Model	Quantity (Q)	HSN Code	% of all Taxes	Unit Price in Rs.(P)	Total Price In Rs. (QxP)
1	Desktop for NOC			4				-
2	Console/Screen (LFD) for NOC room			2				-
3	Installation and Commissioning charges for the above			1				-
							Total	-

Note 1: Applicable tax rates should be mentioned.

Note 2: All line items to be quoted. If any line item not indicated with price, the same will be considered as free of cost supply and PO placed accordingly.

Name of the supplier: 0
Mail Id: 0
Mobile: 0

Annexure-VI

Recurring Item

		Price per year (A)	Price for 5 years (Ax5)	% of all Taxes
Colocation Services	Lumpsum		-	
Managed Services	Lumpsum		-	
	Total		-	

Note1 : Applicable taxe rates should be mentioned.

Note 2: All line items to be quoted. If any line item not indicated with price, the same will be considered as free of cost supply and PO placed accordingly.

Name of the supplier: 0
Mail Id: 0
Mobile: 0

ANNEXURE-VII

Consolidated PRICE BID:

S.No	Items	Total Price in Rs. (The Taxes/GST shall be extra)
1	DC/DR Hardware	-
2	DC/ DR Software	-
3	DC DR XMII SW & HW	-
4	Fire wall	-
5	Switch, EMS, etc..	-
6	Wi-Fi & Point to Point radio links	-
7	Campus Backbone Cabling	-
8	OFC Links @	-
9	One-time charges for Co-location and Managed Services	-
10	NOC	-
11	Co-Location & Managed Services for 5 years	-
	Total	**-**

Name of the supplier: 0
Mail Id: 0
Mobile: 0

S.No	Clause No.	Page No.	Existing Condition	Revised As
1	Firewall	56-58	OEM should be having recommended rating from NSS Lab's Next Generation Firewall from past 2 years	As per RFP
2	Firewall	56-58	OS should be "IPv6 Phase II Ready" certified	As per RFP
3	Firewall	56-58	The VPN should be integrated with firewall and should be ICSA Labs certified for IPSec VPN	As per RFP
4	Firewall (DR & Perimeter) – Type 2	58-61	**same as above**	As per RFP
5	Firewall (Perimeter) – Type 3	64-67	**same as above**	As per RFP
6	Firewall (Server Farm) – Type 4	67-70	**same as above**	As per RFP
7	Firewall (PLC Network) – Type 5	70-73	**same as above**	As per RFP
8	Annexure VI P2P Radio Links (for Workshop @ Bacheli)	**242**		It should be 300Mbps or More in 40Mhz channel width.
				Link may be required upto 15km
				Data, Video and Voice all three.
				PTP Radio should be carrier class Radio (based on non Wi-Fi Chipset) with 27dB or better Tx power, 2x2 OFDM delivering 300Mbps or more throughput with 40Mhz channel width. Should be IP66 or better with -20 to +60degree temprature support and ruddegdised, should have Gigabit Eth port, channel size 5, 10,15,20, 30, 40 MHz, MTU 1700Byte, FIPS-197 128/256-bit AES IPv4/IPv6 (dual stack), Telnet, FTP, SNMPv2c, v3. should support Govt Regulations as per GSR-1048(E). safety standards - UL 60950
				As per RFP
				Power consumption should be less then 20W hence a power supply of 30W is recommended. As per RFP.
				Integrated/ External Antenna.
				Should be 23dB or better.
				Each tower expect to have more then one Radio and in high interference existance hence GPS sync is required.
9	Annexure VI PMP Radio	**243**		It should be 300Mbps or More in 40Mhz channel width.
				Link may be required upto 10km
				Data, Video and Voice all three.
				As per RFP
				Integrated/ External antenna.
				Should be 23dB or better.
10	Point # 122 ; Unlimited Virtual SMP Section 2.8	Managed Services Page 117 of 127		As per RFP
11	Point # 155 ; VMWare vRealize Operations Standard Section 2.8	Managed Services; Page 118 of 127;		As per RFP
12	**Enterprise Management System (EMS) Solution (DC & DR) Sl. No**	50/127	Make & Model: Any Reputed Make	CA(BroadCom)/Microfocus/IBM
13	2.1(Vi)Network Access Control Specification.. Vi(10)	192/85	Able to build Interactive topology maps to locate the end systems per network connectivity	Able to build Interactive topology maps to locate the end systems per network connectivity or equivalent solution
14	**Vi(14)**	192/85	Must provide interoperability with Microsoft NAP and Trusted Computing Croup TNC.	Must provide interoperability with Microsoft NAP
15	**Vi(16)**	192/85	Support Manipulation of Radius Attributes for Authentication as well as Radius Accept	As per RFP
16	**Vi(17)**	192/85	Must have SNMP MIB compile capability to integrate any 3rd party snmp compliant device	Removed
17	**Vi(19)**	192/85	Must provide the capabilities to modify, filter, and create your own flexible views of the network devices based on selectable SNMP OID	As per RFP

18	Vi(21)	192/85	Must provide a utility to view and select MIB objects from a tree-based representation	Removed
19	Vi(23)	192/85	Must provide comprehensive remote management support for all proposed network devices as well as any SNMP MIB-I or MIB-II manageable devices.	As per RFP
20	Vi(1)		Dedicated redundant hardware Appliance or virtualized platform and one Centralized Console. Should be supplied with 1000 AAA (Endpoint Security) licenses.	Dedicated redundant hardware Appliance or virtualized platform and one Centralized Console. Should be supplied with 1000 AAA (Endpoint Security) **perpetual** licenses.
21	Vi(2)		Should be able to integrate with all makes of manageable network devices which can support open standard based protocols required for NAC operation	As per RFP
22	Vi(7)		Should be able to perform posture check for compute end points (Windows & MAC) for OS health for parameters like Registry Keys, allowed process, AV or Firewall Enabled etc.	As per RFP
23	Vi(9)		Should be able to perform VAPT check using custom built-in scanner for network-based vulnerabilities	Should be able to perform VAPT check using built-in or integrating with third-party scanner for network-based vulnerabilities
24	2	91	**PASSIVE RELATED : ii) Optical Fiber Cable (OFC)** Cable weight less than 180Kg/KM	PASSIVE RELATED : ii) Optical Fiber Cable (OFC) Cable weight 180Kg/KM or more
25	19	93	**v) CAT 6A Cable** Fire rating: IEC 60332	**v) CAT 6A Cable** Fire rating: IEC 60332-3-22
26	16	93	**v) CAT 6A Cable** Breaking Strength 400N (Maximum)	**v) CAT 6A Cable** Pulling Tension, Max. 11.34 Kg/ 25 lb
27	ix)	95	**ix) CAT6A U/UTP MPTL Plugs** CAT6A U/UTP MPTL Plugs	**ix) CAT6A U/UTP MPTL Plugs** CAT6A U/UTP MPTL Plugs or equivalent
28	3	95	**x) CAT 6 Cable**The 4 pair Unshielded Twisted Pair cable shall be UL Listed. Cable should also be tested and verified by ERTL	**x) CAT 6 Cable**The 4 pair Unshielded Twisted Pair cable shall be UL Listed. Cable should also be tested and verified by **ETL**
29	7	95	**x) CAT 6 Cable** Dielectric Strength of cable should be 1.0KV dc	**x) CAT 6 Cable** Dielectric Strength of cable should be 2500V dc
30	7	96	**xi) CAT6 Patch Cord (2 Meter)**Jacket: PVC UL-94V-O	**xi) CAT6 Patch Cord (2 Meter)**Jacket: LSZH
31	13	97	**xii) CAT6 UTP Information Outlet**Surface mount box with single RJ45 socket to terminate UTP CAT 6 Cable	**xii) CAT6 UTP Information Outlet** Surface mount box should be compatible with single RJ45 socket to terminate UTP CAT 6 Cable
32	1	97	**xiii) CAT6 Jack Panel**The Cat-6 transmission performance is in compliance with ANSI/TIA-568-C.2, ISO/IEC 11801 Ed.2 and EN 50173-1 specification **with LED indicator at each Port**	**xiii) CAT6 Jack Panel**The Cat-6 transmission performance is in compliance with ANSI/TIA-568-C.2, ISO/IEC 11801 Ed.2 and EN 50173-1 specification
33	2	.00 of 12	**RACKS RELATED: 24U (Indoor and outdoor) rack IP rated and non IP rated both specs are same but few points vary as below kindly confirm on the same**IP 55 rated or above	24U (Outdoor) IP 55 rated or above
34	2	.00 of 12	**24U (Indoor and outdoor) rack IP rated and non IP rated both specs are same but few points vary as below kindly confirm on the same**IP 55 rated or above	24U (Indoor) IP 20 rated or above
37	3	.00 of 12	**24U (Indoor and outdoor) rack IP rated and non IP rated both specs are same but few points vary as below kindly confirm on the same**Racks should provide sufficient cable entry and Exit cut-outs in top and bottom of the rack	Racks should provide sufficient cable entry and Exit cut-outs in top **or** bottom of the rack
35	5	.00 of 12	**24U (Indoor and outdoor) rack IP rated and non IP rated both specs are same but few points vary as below kindly confirm on the same**Rack should support static load of at least 750 KGs on casters & Levellers	Rack should support static load of at least 750 KGs on plinth as per the site requirement
36	13.2	08 of 12	**UPS RELATED :REPO (Remote Emergency Power off) / ROO (remote on off) Port**Provide both onsite & remote EPO to shutdown UPS when emergency situation happens . REPO port with a user supplied switch	**UPS RELATED :REPO (Remote Emergency Power off) / ROO (remote on off) Port** Provide onsite EPO to shutdown UPS when emergency situation happens .
37	Additional Query	Additional Query		Varies from 300 to 600 mm depending on site (Charges as per actual)
38	Additional Query	Additional Query		Termination at Bottom is preferred
39	Additional Query	Additional Query		As per RFP
40	xx	101	1kVA Online UPS (Accepted Makes: APC, Vertiv/ Emerson, Numeric, Delta Power)	As per RFP
41	1 kVA : Technical Capability , Point 2 C	209	Wide input voltage range in 110-280 VAC	As per RFP
42	1 kVA : Input Voltage Range , Point 4.2	209	80-280VAC Range (Full Load) 175~280VAC Range (50 ~ 100% load is required) 80~175VAC	110-280VAC Range (Full Load) 175~280VAC Range (50 ~ 100% load is required) 110~280VAC
43	1kVA Online UPS 4.3 Nominal Input Frequency	209	50 Hz +/- 10 Hz	As per RFP

44	1kVA Online UPS 11.8 Charger Current	211	4A extended upto 8A with internal charger (OPTIONAL)	As per RFP
45	1kVA Online UPS 14.8 Packaging Material / Vibration Withstand & Drop Test	211	Recyclable (No CFC) & 1. Vibration testing as per ISTA -1G Non operational with Packing	As per RFP
46	Input Voltage Range	212	230/400V, 240/415V (3Φ4W) Range (Full Load) 173~276 / 300~477VAC Range (Derating to 70% Load) 132~173 / 228~300VAC	As per RFP
47	16.1 Manufaturer	216	ISO 9001: 2015, ISO 14001: 2015, ISO 18001: 2007	As per RFP
48	30kVA Online UPS : Technology & Capability	212	i) Should have Dual Aux power design.	As per RFP
49	15.4 30kVA Online UPS - Operating Altitude	215	0 to 3000m(0 To 10000ft)	As per RFP
50	15.11 30kVA Online UPS -Packaging Material / Vibration Withstand & Drop Test	216	Recyclable (No CFC) & 1. Vibration testing as per ISTA -1G Nonoperational with Packing	As per RFP
51	12 Battery Backup / Battery Bank & Charger Page No. 214 of 251			Blank
52	12.1 Backup Required			30 minutes at 0.8 pf output
53	12.8Charger type / Charging Method & Charging Voltages	214	Constant Voltage Constant Current Solid state SMPS charger Float Charge 270V±(2V) Boost Charge 280V±(2%V)	Constant Voltage Constant Current Solid state SMPS charger as per System DC voltage.
54	Storage for DC & DR (Page No :28) Point 4 : Capacity & Scalability	28	Offered Storage array shall support minimum of 480 SSD's	Offered Array shall be scalable to more than 280 numbers of SSD drives from day 1 at the time of bidding with proposed configuration, without clustering/ federation/ additional controllers in future.
55	Storage for DC & DR (Page No :29) Point 5 : Cache	29	Offered Storage Array shall be given with Minimum of more than 128GB cache in a single unit and shall be scalable to more than 256GB.	Offered storage array shall be given with 256GB or higher cache in a single array without clustering/federation.
56	Storage for DC & DR (Page No :29) Point 13 : Host Ports and Back-end Ports	29	Offered Storage shall have minimum of 12 X 16Gb FC Ports for host connectivity. All types of ports shall be 100% scalable. Offered storage shall have minimum of 16 SAS lanes running at 12Gbps speed and shall be scalable to 32 SAS lanes without any controller change.	Offered Storage shall have minimum of 12 X 16Gb FC Ports for host connectivity. All types of ports shall be 100% scalable. Offered storage shall have minimum of 16 SAS/PCIe lanes running at 12Gbps speed or higher and shall be scalable to 32 SAS / PCIe lanes without any controller change.
57	Storage for DC & DR (Page No :30)	30	Additional Point (ITEM : Vmware Integration)	As per RFP
58	Disk Backup for DC & DR (Page No : 32) 2. Disk backup	32	When fully populated, offered device shall support rated write performance of more than 16TB per hour in native mode	As per RFP
59	Disk Backup for DC & DR (Page No : 32) 2. Disk backup	32	When fully populated, offered device shall supported rated write performance, when enabled with source level deduplication, of more than 30TB/hr	As per RFP
60	Disk Backup for DC & DR (Page No : 32)	32	Suggested/Additional Clause	As per RFP
61	Disk Backup for DC & DR (Page No : 32)	32	Suggested/Additional Clause	As per RFP

62	Tape Library (Page No :33) Point 2 : Capacity	33	Offered Tape Library shall support Native data capacity of 3.3PB (uncompressed) using LTO-8 Technology. Shall be offered with Minimum of Four LTO-8 FC tape drive. Drive shall support encryption, minimum 80 media slots from day 1. Shall be offered with 80 RW LTO-8 Cartridges and 4 Cleaning cartridges Shall be scalable 270 cartridge slots with additional enclosures	As per RFP
63	Page 34 of 127: Backup Software for DC & DR	34 of 127	Suggested/Additional Clause	As per RFP
64	Page 34 of 127: Backup Software for DC & DR	34 of 127	Suggested/Additional Clause	As per RFP
65	Page 34 of 127: Backup Software for DC & DR	34 of 127	Suggested/Additional Clause	As per RFP
66	Page 34 of 127: Backup Software for DC & DR	34 of 127	Suggested/Additional Clause	As per RFP
67	1.2 DC & DR Software, Pt.No. 7 & Page # 110	110	SUSE Linux for SAP 2Skt Unlimited Guest OS with 5 yrs support	As per RFP
68	Local Server Software: Operating System for xMII Servers Item 1 & Page # 111	111	SUSE Linux for SAP 2Skt Unlimited Guest OS with 5 yrs support	As per RFP
69	Local Server Software:ADS, Antivirus & Patch Mgmt Servers operating system Item 1 & Page # 4	4	Windows server standrad Operating System 2019	As per RFP
70	1.2. DC & DR Software, Pt.No. 1 - Operating System for App Servers, Pg.No. 110	110	SUSE Linux for SAP 2Skt Unlimited Guest with HA - 10 Qty	SUSE Linux for SAP 2Skt Unlimited Guest with HA - 8 No's & Latest Windows Server Datacenter Edition - 2 No's (Refer Sizing sheet for number of Suse and Windows and VMWare Licenses). **ITI to make changes in the BoQ accordingly**
71	c) Blades for Legacy Servers in DC, Pt.No.4 Hard disk drive with carrier, Pg.No. 130	130	2 x 600GB SSD RAID5	2 x 600GB SSD RAID1
72	HANA Servers: Factory Integration		Suggested Clause/additional Clause e.) - other general specfications : Sl # 7 of Page # 18 of 127	As per RFP
73	HANA Servers: Applliance Support		Suggested Clause/additional Clause e.) - other general specfications : Sl # 7 of Page # 18 of 127	As per RFP
74	HANA Servers: Operating System		Suggested Clause/additional Clause e.) - other general specfications : Sl # 7 of Page # 18 of 127	As per RFP
75	Core Switches (DC and DR)> Page number 39>Hardware Specification>Point 1	39	Centralized wire capacity: switch at least 9.6 Tbps switching bandwidth or more	Centralized wire capacity: switch at least **15 Tbps** switching bandwidth or more
76	One time Charges for Colocation & Managed Services / Pg.No. 248	248	Supply of 42 U, 600mm*1000mm Server Rack. (DC -10, DR-4)	Supply of 42 U, 800 mm x 1200 mm Server Rack (DC-4, DR-2) Supply of 42U, 800 mm x 1000 mm Server Rack (DC-6, DR-2) **ITI to make the changes in the BoQ accordingly**
77	One time Charges for Colocation & Managed Services / Pg.No. 119 & 248	119 & 248	Powered On Colocation Full Rack space. 6 KVA Rated with Bundled Power. (DC)	As per the power sizing of the proposed hardware
78	One time Charges for Colocation & Managed Services / Pg.No. 119 & 248	119 & 248	Powered On Colocation Full Rack space. 6 KVA Rated with Bundled Power. (DR)	As per the power sizing of the proposed hardware
79	2.2. DC & DR Software: Enterprise Management System (EMS) Solution (DC & DR) & Page # 157	157	Enterprise Management System (EMS) Solution (DC & DR)	To be deployed HA in DC and Non HA in DR

80	1 Background and Scope 1.1 Scope of Work : Page no: 56	56	Implementation and commissioning of ITSM tools for Asset management, incident,problem and change management as part of the solution. Tool proposed should be leader in Gartner quadrant and key stakeholders from NMDC should have access tothe dashboards on the tool	Implementation and commissioning of ITSM tools for Asset management, incident,problem and change management as part of the solution. Tool proposed should be **present** in Gartner quadrant and key stakeholders from NMDC should have access to the dashboards on the tool
81	2.2. DC & DR Software: Enterprise Management System (EMS) Solution (DC & DR) & Page # 157	157	The proposed helpdesk should have solutions like : Incident management, Problem Management, Change Management, Knowledge Management, Service Level Management, Service Asset and Configuration management, Service Catalogue and Request Fulfilment, etc. The certification copies to be submitted	As per RFP
82	2.2. DC & DR Software: Enterprise Management System (EMS) Solution (DC & DR) & Page # 157 Network Fault Monitoring & Performance Management with Reporting	157	Suggested/Additional Clause	As per RFP
83	2.2. DC & DR Software: Enterprise Management System (EMS) Solution (DC & DR) & Page # 157 Network Fault Monitoring & Performance Management with Reporting	157	Suggested/Additional Clause	As per RFP
84	2.2. DC & DR Software: Enterprise Management System (EMS) Solution (DC & DR) & Page # 157 Network Fault Monitoring & Performance Management with Reporting	157	Suggested/Additional Clause	As per RFP
85	Co-location of DC and DR	2	Establishment of a DC and DR (on Co-Location basis at MeitY Empaneled Service Provider) to host the Applications of NMDC such as SAP S/4 HANA ERP at DC, located in Hyderabad and DR located in another city and another seismic zone.	As per RFP
86	Integration	2	Supply, Installation, Integration, Testing, Commissioning and Support (SiitcS) of LAN and WAN Networks.	Migration of Legacy Application data is not in the scope of SI
87	MPLS/VPN	2	Provide/ Upgrade of existing MPLS/ VPN at 15 locations.	As per RFP
88	Internet	2	Provide / upgrade of Internet leased line at HO, Projects and other locations.	To be accounted by the bidder and will not be arranged separately
89	Security Breach including Data Theft/Loss/Corruption	37	Any incident where in system compromised or any case wherein data theft occurs (including internal incidents)	These services are to be provided by DC & DR service provide as part of managed services.
90	Data Center and DR Co Location	57	Please add	As per RFP
91	General Requirements Colocation & Managed Services	59	Perform Due Diligence study and submit report for Migration of legacy applications not being covered under SAP data migration (e.g. Intranet Portal, Vigilance application etc.) at HO and Sites to DC & DR. Perform Due Diligence Study and submit plan for Migration and support of legacy applications (e.g. HRMS/FAS/PMS/ IMS/Payroll etc.) for historical reporting for statutory requirements.	Migration of legacy application is out of scope of the RFP
92	ADC, AV, WAN Optimizer, Link Load Balancer etc.	62	Network diagram is having components like ADC, AV, WAN Optimizer, LLB etc.	ADC and AV are available
93	Kirandul Network Design/Single Line Diagram	65	In Single Line Diagram, It is mentioned about SD-WAN deployment.	As per RFP
94	AD, Mail, Backup & Misc Servers	110	Blades for ADS, Mail, Backup & Misc Servers	As per RFP

95	Network Components	112	Transceiver Count	As per RFP
96	NOC	121	Seating arrangement to be provisioned by NMDC for 6 persons	As per RFP
97	SAN Switches (DR) -24 Port	144	Minimum Dual SAN Switches shall be configured where each SAN Switch shall be configured with 24*16Gbps FC Ports on each switch	As per RFP
98	DC-DR Services	225	Please add	As per RFP
99	Hardware Blade for EMS	235	Blades for EMS Servers in HA 2+2 - 4 Units	As per RFP
100	WLC-Guest Authentication	241	Wireless LAN Controller for Access Points	SMS Gateway required for OTP
101	Core Switch Type-2 & 30 KVA UPS	241	Need Clarification	As per RFP
102	Passive Cabling and Non-IT Infra for Data Center & NOC		Need Clarification	As per RFP
103	Raw Power Quality Testing		Add this clause	As per RFP
104	Log Retention		Need Clarification	As per RFP
105	Seating Space in DC for OEM/ IP/ SI/ NMDC	119 & 248	Seating Space in DC for OEM/ IP/ SI/ NMDC	As per RFP
106	Back Box Size	116 & 117	45mm x 45mm Backbox	Back Box should be compatible with the proposed Faceplate
107	Dimensions of Caping & Casing / PVC conduits / HDPE pipes	246	Installation, Testing and Commissioning of Horizontal Cable Links along with supply of requisite Caping & Casing / PVC conduits / HDPE pipes	HDPE Pipes, PVC and all accessories required for laying and installation needs to be quoted by the bidder
108	Tower / Pole	242	Tower / Pole, 5m, Galvanized steel, with grouting base and accessories with Lightning Arrestors	Tower / Pole, 5m, Galvanized steel, with grouting base and accessories with Lightning Arrestors. As per industry standard, Min. 10 cm diameter pole shall be used or as required section wise.
109	Tower / Pole	242	Tower / Pole, 15m, Galvanized steel, with grouting base and accessories (some will be mounted on Wi-Fi zone towers)	Tower / Pole, 15m, Galvanized steel, with grouting base and accessories (some will be mounted on Wi-Fi zone towers). As per industry standard, Min. 10 cm diameter pole shall be used or as required section wise.
110	a) Core Switch – Type 1	180	24 Port 10G SFP Line Card, 24 Port 1G SFP Line card and 48 Port Copper 1G/10G Ports – each or 48 port 1/10G SFP+. Switch should support 40/100 Gbps ports module cards scalability in same hardware from day 1.	24 Port 10G SFP Line Card, 24 Port 1G SFP Line card and 48 port 1/10G SFP+. Switch should support 40/100 Gbps ports module cards scalability in same hardware from day 1.
111	vi) Network Access Control Specification	191	Should be able to gather Detailed identity and access information with OS and device fingerprinting for Blackberry, Symbian, iOS, Android, OSX, Windows and more	Should be able to gather Detailed identity and access information with OS and device fingerprinting for Blackberry, iOS, Android, OSX, Windows and more
112	a) Access Switch – Type 1 Support	185	The OEM should provide support services 24x7 TAC with L1, L2 and L3 for 5 years free of cost. India toll free number should be reflected in official website of the OEM.	The OEM should provide support services 24x7 TAC **(Hardware Replacement - NBD)** with L1, L2 and L3 for 5 years free of cost. India toll free number should be reflected in official website of the OEM.
113	b) Access Switch (Industrial Grade) – Type 2	186	The OEM should provide support services 24x7 TAC with L1, L2 and L3 for 5 years free of cost. India toll free number should be reflected in official website of the OEM.	The OEM should provide support services 24x7 TAC **(Hardware Replacement - NBD)** with L1, L2 and L3 for 5 years free of cost. India toll free number should be reflected in official website of the OEM.
114	Centralized wire capacity	146	**vii) Core Switches (DC and DR) Hardware Specification** switch at least 9.6 Tbps switching bandwidth or more	vii) Core Switches (DC and DR) Hardware Specification switch **at least 15 Tbps** switching bandwidth or more
115	Per Slot Switching Capacity	146	2.4 Tbps	As per RFP
116	Storage	146	At least 1 GB SSD/Flash	As per RFP
117	viii) TOR Switches for DC & DR			Blank
118	Architecture	146	The switch should have Minimum of 1GB flash/SD RAM/DDRAM/SSD	As per RFP
119		146	MAC Address table size of 128,000 entries	As per RFP
120	v) Wireless Controller for Access Points			Blank

121		189	The proposed WLC should support both centralized as well as distributed traffic forwarding architecture from day 1. It should be IPv6 ready from day one.	As per RFP
122	vii) OEM Element Management System (EMS) Specification			Blank
123		194	Must be able to download text-based (ASCII format) configuration templates to one or more devices.	As per RFP
124	Name and model no	102/3.1	1kVA /0.9kW	1kVA /0.8kW
125		101/4.2	80-280VAC Range (Full Load) 175~280VAC Range (50 ~ 100% load is required) 80~175VAC	110-280VAC Range (Full Load) 175~280VAC Range (50 ~ 100% load is required) 110~280VAC
126	Overload	103/8.1	<105% : continuous ; 105% ~ 125%: 1 minutes; 120% ~ 150%: 30 seconds; >150%: 0.5 seconds only	<105% : continuous ; 105% ~ 125%: 1 minutes; 130%: 1 seconds
127	Noise level	104/14.6	< 40 dbA at 1 meter distance	< 50 dbA at 1 meter distance
128	Output Voltage Distortion (THDu)	106/5.7	< 1.5 % (linear load)	< 2 % (linear load)
129	Maintenance Bypass	106/7.4	1.UPS should have option for manual maintenance bypass	As per RFP
130			2. Maintance bypass cover removal sensing.	2. Maintenance bypass needs to be sensed and needs to be displayed at front panel
131			3.The maintenance bypass should provide for Hot-swap of the faulty UPS PWB for repairs / service.	3. Hot-swap should be there in the bypass system (100% Load needs to be taken care in bypass)
132	Inverter Overload capacity	107/9.1	≤105 %: continuous,106% ~ ≤125%: 10 minutes; 126% ~ ≤150%: 1 minute; >150%: 1 second	≤105 %: 1 Hr; 106% ~ ≤125%: 10 minutes; 126% ~ ≤150%: 1 minute;
133	Battery Bank VAh (Vendor to include battery sizing calculations with tender)	107/12.3	26000 or higher	As per RFP
134	Battery End Cell Voltage	108/12.11	1.75 V/cell	1.7 V/cell or above
135	B. Technical Specification , Section : 2.4. Switch,EMS i) Core Switches for Site Locations (a & b)Core Switch – Type 1 & 2,Clause No.5,Feature Availability,Page No.180,183		Switch Should support ISSU(In Service Software Upgrade)	As per RFP
136	B. Technical Specification , Section : 2.4. Switch,EMS i) Core Switches for Site Locations (a & b)Core Switch – Type 1 & 2,Clause No.5,Feature Availability,Page No.180,183		Should support Migration of Port Profiles or equivalent	As per RFP
137	B. Technical Specification , Section : 2.1. DC & DR Hardware viii) TOR Switches for DC & DR 1. Architecture;Clause no.1.5; Page No.146		MAC Address table size of 128000 entries or more.	As per RFP

138	B. Technical Specification , Section : 2.4. Switch,EMS i) Core Switches for Site Locations (a & b)Core Switch – Type 1 & 2,Clause No.5,Feature Availability,Page No.180,183		Should support at least 24X1/10Gbps SFP and 2X10/40/100 Gbps ports should be Ready from day 1	As per RFP
139	B. Technical Specification , Section : 2.4. Switch,EMS; iii) Access Switches for Site Locations b) Access Switch (Industrial Grade) – Type 2;Clause 7.VLAN Support		a.Minimum 1000 VLANs	As per RFP
140	B. Technical Specification , Section : 2.4. Switch,EMS; iii) Access Switches for Site Locations iv) Access Point (Indoor);Radio Features-Clause No.11;Page No.188.		Maximum conducted transmit power shall be 23 dBm on both 2.4 and 5 GHz	Maximum conducted transmit power shall be 23 dBm on both 2.4 and 5 GHz. As per WPC norms the permissible EIRP (combination of Max Transmit power + Antenna Gain) as per India norms if 26dbm.
141	B. Technical Specification , Section : 2.1. DC & DR Hardware vii) Core Switches (DC and DR);Clause no.6-Feature Availablity ;Page No.145		Switch Should support ISSU(In Service Software Upgrade)	As per RFP
142	B. Technical Specification , Section : 2.1. DC & DR Hardware ix) 1G Switch (DC & DR) ; 1. Architecture;Clause no.1.3; Page No.148		The switch should support 2*10-Gigabit ports SFP+ loaded with 2*SR transceivers and 2* RJ-45 1/10GBASE-T ports in addition to the above ports	As per RFP
143	B. Technical Specification , Section : 2.1. DC & DR Hardware vi) SAN Switches for DC & DR ; a) SAN Switches (DR) – 48 Ports Clause No.5 and b) SAN Switches (DR) – 24 Ports;Clause No.6		#5: The switch shall support different port types such as FL_Port, F_port, E_port and EX_port	#5: The switch shall support different port types such as FL_Port, F_port, E_port and EX_port or equivalent.
144	B. Technical Specification , Section : 2.1. DC & DR Hardware; v) Backup Solution for DC & DR; b) Tape Library ,Clause No.8-Encryption device ;Page No.140		Encryption Device : Offered Library shall be provided with a hardware device like USB key or separate appliance etc to keep all the encrypted keys in a redundant fashion.	As per RFP
145	B. Technical Specification , Section : 2.1. DC & DR Hardware; v) Backup Solution for DC & DR; b) Tape Library - Other Features;Clause No.11 ,Sub Clause No.5 ; ;Page No.141.		Offerred Drives in the tape library shall optionally support both Data path and control path failover.	As per RFP

146	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.122,Clause 2.1 (i) (a)		4 X Intel 8276 Platinum Processor, 28 Core, 2.2 Ghz	As per RFP
147	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.124,Clause 2.1 (i) (E)		3. Clustering solution to be provided for application and HANA Boxes	As per RFP
148	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.124,Clause 2.1 (i) ,Point no.4,Cluster Network		4. The heartbeat network, required to setup the HA solution, should be separate from the actual Data and User network. Minimum 2 nos. 24- port 1G Ethernet switches should be included in the solution to setup the cluster and management network between 2 HANA boxes.	As per RFP
149	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.124,Clause 2.1 (i) ,Point no.7,Warranty & Support Services		5 Years 24 x 7 Support with 6hr Call to resolution. Warranty shall be directly from OEM including Software upgrades/updates. The OEM should have the capability to offer lifecycle services like OS Upgrades, Patch Management and HANA DB Upgrade.	As per RFP
150	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.125,Clause 2.1 (ii)Application Servers for DC & DR (a) Blade Enclosure; Blade Chassis		Solution to house the required number of blade servers in smallest number of enclosures. Should support full height and half height blades in the same enclosure, occupying a max of 7U/1OU rack height	Solution to house the required number of blade servers in smallest number of enclosures. Should support full height and half height blades in the same enclosure, occupying a max of 10 U rack height
151	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.125,Clause 2.1 (ii)Application Servers for DC & DR (a) Blade Enclosure; Blade Chassis		Blade Chassis backplane engineered with 14Tbps or higher Chassis backplane bandwidth.	Blade Chassis backplane / no backplane engineered with 14Tbps or higher Chassis backplane / no backplane bandwidth.
152	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.126,Clause 2.1 (ii)Application Servers for DC & DR (a) Blade Enclosure; Blade Chassis		Should support six interconnect bays to configure 3+3 redundancy	Should support six interconnect bays to configure 3+3 redundancy or Bidders supporting switchless architecture can provision for direct access to top of rack switches.
153	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.126,Clause 2.1 (ii)Application Servers for DC & DR (a) Blade Enclosure; Blade Chassis		Chassis should provide display port and USB port to connect Laptop/Monitor locally	Chassis/ Solution should provide display port and USB port to connect Laptop/ Monitor locally
154	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.126,Clause 2.1 (ii)Application Servers for DC & DR (a) Blade Enclosure; Interconnects support		• Should support housing of FCoE, Ethernet, FC and SAS interconnect fabrics offering redundancy as a feature .Also should support network switch with 25/50Gb downlinks and 1OOG uplink to DC switch	As per RFP

155	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.126,Clause 2.1 (ii)Application Servers for DC & DR (a) Blade Enclosure; Converged interconnect		Redundant Interconnect modules shall be integrated within the chassis such that uplinks from the chassis can be directly connected to core LAN/SAN switches	As per RFP
156	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.126,Clause 2.1 (ii)Application Servers for DC & DR (a) Blade Enclosure; Converged interconnect		At-least 60 /36 servers should be supported per aggregation. Layer 2 network traffic should be switched within enclosure aggregation (without using top of the rack switch) and proVide when multiple chassis aggregated, switching latency between enclosures should not exceed 1.0 micro-second for Ethernet	As per RFP
157	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.127,Clause 2.1 (ii)Application Servers for DC & DR (a) Blade Enclosure; Chassis management capabilities:		Should provide a dedicated 1Gig/ 10 GbE or higher management network for multi-enclosure communications, separate from data plane	Should provide a dedicated 1Gig/ 10 GbE or higher management network for multi-enclosure communications, separate from data plane
158	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.128,Clause 2.1 (ii)Application Servers for DC & DR (a) Blade Enclosure; Chassis management capabilities:		Should support frictionless Firmware and OS Driver updates using profile templates to monitor, flag, and remediate	As per RFP
159	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.128,Clause 2.1 (ii) Application Servers for DC & DR(a) Blade Enclousure,Point no.7,Warranty & Support Services		5 Years 24x7 onsite support with commitment to resolve the problem within 6 Hours. Support has to be provided directly by OEM during the warranty period.	As per RFP
160	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.129,Clause 2.1 (ii) Application Servers for DC & DR;(b) Server Blade,Point no.13,Warranty & Support Services		5 Years 24 x 7 Support with 6hr Call to resolution. Warranty shall be directly from OEM including Software upgrades/updates. The OEM should have the capability to offer lifecycle services like OS Upgrades, Patch Management.	As per RFP
161	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.131,Clause 2.1 iii) Non-SAP Serversa) ;(a)Enterprise Management Solution Blade Servers (DC & DR),Point no.4,Interfaces		Minimum of 1* internal USB 3.0 port ,1* internal SDHC card slot and 1* external USB 3.0 port	As per RFP

162	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.131,Clause 2.1 iii) Non-SAP Serversa) ;(a)Enterprise Management Solution Blade Servers (DC & DR),Point no.5,Bus Slots		Minimum of 2 Nos of x16 or higher PCIe 3.0 based slots supporting Converged Ethernet, Ethernet, FC adapters and SAS adaptors	As per RFP
163	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.131,Clause 2.1 iii) Non-SAP Serversa) ;(a)Enterprise Management Solution Blade Servers (DC & DR),Point no.7,Embedded system management		Should support integration with management software to deliver 'composable infrastructure' with a view of resources. This should be flexible and scalable solution providing IT managers with the architecture to implement their softwaredefined data center (SDDC) and to address the changing business needs and the challenges of today's enterprise data centers Should support Gigabit out of band management port to monitor the servers for ongoing management, service alerting and reporting Should support UEFI to configure and boot the servers securely System should support RESTful API integration System management should support provisioning servers by discovering and deploying 1 to few servers with embedded Provisioning tool System should support embedded remote support to transmit hardware events directly to OEM or an authorized partner for automated phone home support	As per RFP
164	B. Technical Specification , Section : 2.1. DC & DR Hardware ,Page No.131,Clause 2.1 iii) Non-SAP Serversa) ;(a)Enterprise Management Solution Blade Servers (DC & DR),Point no.11,Secure encryption		System should support Encryption of the data (Data at rest) on both the internal storage and cache module of the array controllers using encryption keys. Should support local key management for single server and remote key management for central management for enterprise-wide data encryption deployment.	As per RFP
165	B. Technical Specification , Section : 2.1. DC & DR Hardware; iv Storage for DC & DR ,Clause 2.Converge/Unified Storage;Page No.135,		• Offered Storage array shall be a true converge/ unified storage with a single Microcode/ operating system instead of running different Microcode/ Operating system/ Controllers for File, block services respectively. • Offered Storage shall be a flagship Flash array from the OEM, should support only SSD's and shall be clearly published on their website . • The Server & Storage supplied should be from same OEM.	Offered Storage array shall be a true converge/ unified storage with a single Microcode/ operating system instead of running different Microcode/ Operating system/ Controllers for File and block services respectively • Offered Storage shall be a flagship Flash array from the OEM, should support only SSD's and shall be clearly published on their website . • The Server & Storage supplied should be from same OEM.

166	B. Technical Specification , Section : 2.1. DC & DR Hardware; iv Storage for DC & DR ,Clause 2.Converge/Unified Storage;Page No.135,		• Refer Sizing sheet for Capacity required for DC & DR • DC Storage capacity should be offered with 85 TB usable capacity using RAIDS with each drive capacity not exceeding 4 TB SSD. • DR Storage capacity should be offered with 48 TB usable capacity using RAIDS with each drive capacity not exceeding 4 TB SSD. • All drives shall be offered with 5 years comprehensive warranty. • Offered Storage array shall support minimum of 480 SSD's • Offered Storage array shall support at-least 500TB Usable capacity for file operations.	• Refer Sizing sheet for Capacity required for DC & DR • DC Storage capacity should be offered with 85 TB usable capacity using RAIDS with each drive capacity not exceeding 4 TB SSD. • DR Storage capacity should be offered with 48 TB usable capacity using RAIDS with each drive capacity not exceeding 4 TB SSD. • All drives shall be offered with 5 years comprehensive warranty. • Offered Array shall be scalable to more than 280 numbers of SSD drives from day 1 at the time of bidding with proposed configuration, without clustering/ federation/ additional controllers in future. • Offered Storage array shall support at-least 500TB Usable capacity for file operations.
167	B. Technical Specification , Section : 2.1. DC & DR Hardware; iv Storage for DC & DR ,Clause 5.Cache;Page No.136,		• Offered Storage Array shall be given with Minimum of more than 128GB cache in a single unit and shall be scalable to more than 256GB without any controller change. • Cache shall be completely dynamic for read and write operations and vendor shall not offer any additional card I module for write cache operations. • Cache shall be used only for Data and Control information. OS overhead shall not be done inside cache.	Offered storage array shall be given with 256GB or higher cache in a single array without clustering/ federation. Cache shall be completely dynamic for read and write operations and vendor shall not offer any additional card I module for write cache operations. • Cache shall be used only for Data and Control information. OS overhead shall not be done inside cache.
168	B. Technical Specification , Section : 2.1. DC & DR Hardware; iv Storage for DC & DR ,Clause 10.Raid Support, Virtualization & No. of Volumes;Page No.136,		• Offered Storage Subsystem shall support Raid level 1, 5,6 and 10. • Offered storage array shall support at-least 2000 Volumes per controller.	As per RFP
169	B. Technical Specification , Section : 2.1. DC & DR Hardware; iv Storage for DC & DR ,Clause 12.Protocols;Page No.136,		• Offered Storage array shall support all well-known protocols like but not limited to FC, !SCSI, SMB 3.0, NFS V4, FTP/ SFTP etc.	As per RFP
170	B. Technical Specification , Section : 2.1. DC & DR Hardware; iv Storage for DC & DR ,Clause Host Ports and 13.Back-end Ports;Page No.136,		• Offered Storage shall have minimum of 12 X 16Gb FC Ports for host connectivity. All types of ports shall be 100% scalable. • Offered storage shall have two additional ports for the storage-based replication. • Offered storage shall have minimum of 16 SAS lanes running at 12Gbps speed and shall be scalable to 32 SAS lanes without any controller change .	Offered Storage shall have minimum of 12 X 16Gb FC Ports for host connectivity. All types of ports shall be 100% scalable. • Offered storage shall have two additional ports for the storage-based replication. • Offered storage shall have minimum of 16 SAS/ PCIe lanes running at 12Gbps speed or higher and shall be scalable to 32 SAS / PCIe lanes without any controller change.
171	B. Technical Specification , Section : 2.4. Switch,EMS ;VI.Network Access Control,Clause No.22,Page No.192		Must provide a Country wide VLAN monitoring capabilities .	To be Removed
172	B. Technical Specification , Section : 2.4. Switch,EMS ;VII.Element Management System,Clause No.5,Page No.193		Must be able to create correlated topology based on LLDP ,SNMP , STP connectivity hierarchy.	Must be able to create correlated topology based on LLDP or equivalent/ SNMP/ STP connectivity hierarchy.

173	B. Technical Specification , Section : 2.4. Switch,EMS ;VII.Element Management System,Clause No.11,Page No.193		Must provide a utility to view and select MIS objects from a tree-based representation and include a compiler for new or third-party MIBs.	As per RFP
174	B. Technical Specification , Section : 2.4. Switch,EMS ;VII.Element Management System,Clause No15,Page No.193		Must have SNMP MIS compile capability to integrate any snmp compliant device	As per RFP
175	B. Technical Specification , Section : 2.4. Switch,EMS ;VII.Element Management System,Clause No.16,Page No.193		Must be able to define policies to rate-limit bandwidth, throttle the rate of new network connections, prioritize based on Layer 2 or Layer 3 QoS mechanisms, apply packet tags, isolate/quarantine a particular port or VLAN, and/or trigger pre-defined actions.	As per RFP
176	B. Technical Specification , Section : 2.4. Switch,EMS ;VII.Element Management System,Clause No.19,Page No.194		Must support features to interact with 3rd party network security devices to provide automated response to security events and thus rernediating real time threat	Must support features to interact with 3rd party network security devices to provide automated response to security events and thus rernediating real time threat or equivalent solution
177	B. Technical Specification , Section : 2.4. Switch,EMS ;VII.Element Management System,Clause No.23,Page No.194		When integrated with compatible WLAN it must be able to provide granular management functionalities like systern location and tracking, wi-fi dashboards, client search, event logs etc via mobile devices as well such as tablet and smartphone	To be Removed
178	B. Technical Specification , Section : 2.4. Switch,EMS ;VII.Element Management System,Clause No.25,Page No.194		Must provide the ability to track device attributes such as serial number, asset tag, firmware version, CPU type and memory.	As per RFP
179	B. Technical Specification , Section : 2.4. Switch,EMS ;VII.Element Management System,Clause No.43,Page No.195		Must be able to write Python scripts to integrate with loT solutions.	Must be able to write Python scripts/REST APIs to integrate with loT solutions.
180	B. Technical Specification , Section : 2.4. Switch,EMS ;VII.Element Management System,Clause No.45,Page No.195		Should have the capability to reduce risk and ensure your network configurations comply to HIPAA and PCI with that analyses and assesses network configuration for compliance across your entire wired and wireless network.	As per RFP
181	B. Technical Specification , Section : 2.4. Switch,EMS ;VII.Element Management System,Clause No.46,Page No.195		Should have the ability to get actionable business insights and speeding up troubleshooting by separating network from application performance so you can quickly identify root-causes, monitors shadow IT, reports maJicious or unwanted applications and assesses security compliance.	Should have the ability to get actionable business insights and speeding up troubleshooting by separating network from application performance so you can quickly identify root-causes, monitors **shadow IT/ reports** malicious or unwanted applications and assesses security compliance **or equivalent.**
182			General	As per RFP along with changes made in the Correingdum based on Pre-Bid Queries
183			General	As per RFP
184	2.3. Firewall i) Firewall (DC) – Type 1;Page No.163-165			Blank

185	2		The Firewall OEM should be ICSA Labs certified for Firewall and should be Common Criteria EAL 4 certified	As per RFP
186	3		OEM should be having recommended rating from NSS Lab's Next Generation Firewall from past 2 years	As per RFP
187	6		**Hardware:**Should support 16 or more gigabit RJ45 interfaces	As per RFP
188			Firewall Perfomance	Blank
189	11		IPSec VPN throughput should be 20 Gbps or more	As per RFP
190	12		NGFW throughput should be 8 Gbps with enterprise mix traffic	As per RFP
191	13		Threat protection throughput should be 6 Gbps with enterprise mix traffic	As per RFP
192	16		Should Support Virtualiation (ie Virtual Systems I Virtual Domains). Should be having 10 or more vrrtual system license from day one	As per RFP
193	18		**Firewall Features**Should provide NAT functionality, including PAT.Should support NAT 66, NAT 64, DNS 64, Static NAT"IPv4 to 1Pv6 and vice versa (VIP64 and VIP46) and 1Pv6-1Pv4 tunnelling or dual stack.	As per RFP
194	25		Should support ISP Load balancing and Failover	As per RFP
195	26		Should support multi-path intelligence based on link quality criteria	As per RFP
196	30		**VPN**The VPN should be integrated with firewall and should be ICSA Labs certified for IPSec VPN	As per RFP
197	34		Should support Single Sign-On Bookmarks for SSL Web VPN	As per RFP
198	37		Should also support PPTP and L2TP over IPSec VPN protocols.	As per RFP
199	40		**IPS**Should have protection for 7000+ signatures	As per RFP
200	46		**Gateway Antivirus Management, Log & Reporting**The Appliance should facilaitate embedded anti-virus support	**Gateway Antivirus Management, Log & Reporting**The Appliance should facilitate embedded anti-virus, anti-malware support.
201	47		Gateway AV should be supported for real-time detection of viruses and malicious code for HTTP,HTTPS,FTP,SMTP,SMTPS,POP3 and IMAP protocols.	Gateway AV, Antimalware should be supported for real-time detection of viruses and malicious code for HTTP,HTTPS,FTP,SMTP,SMTPS,POP3 and IMAP protocols.
202	2.3. Firewall ii) Firewall (DR & Perimeter) – Type 2--Page No.165-168 **2**		The Firewall OEM should be ICSA Labs certified for Firewall and should be Common Criteria EAL 4 certified	As per RFP
203	3		OEM should be having recommended rating from NSS Lab's Next Generation Firewall from past 2 years	As per RFP
204	10		**Firewall Perfomance**Shouid have Firewall throughputs of minimum 30 Gbps or more	As per RFP
205	11		IPSec VPN throughput should be 10 Gbps or more	As per RFP
206	12		FW throughput should be 8 Gbps with enterprise mix traffic	As per RFP
207	13		Threat protection throughput should be 6 Gbps with enterprise mix traffic	As per RFP
208	16		Should Support Virtualiation (ie Virtual Systems I Virtual Domains). Should be having 10 or more vrrtual system license from day one	As per RFP
209	24		Should support Active-Active as well as Active- Passive redundancy.	As per RFP
210	25		Should support ISP Load balancing and Failover	As per RFP
211	26		Should support multi-path intelligence based on link quality criteria	As per RFP
212	30		**VPN**The VPN should be integrated with firewall and should be ICSA Labs certified for IPSec VPN	As per RFP
213	34		Should support Single Sign-On Bookmarks for SSL Web VPN	As per RFP
214	37		Should also support PPTP and L2TP over IPSec VPN protocols.	As per RFP
215	40		**IPS** Should have protection for 7000+ signatures	As per RFP
216	2.3. Firewall iv) Firewall (Perimeter) – Type 3-Page No.171-174			Blank
217	2		The Firewall OEM should be ICSA Labs certified for Firewall and should be Common Criteria EAL 4 certified	As per RFP
218	3		OEM should be having recommended rating from NSS Lab's Next Generation Firewall from past 2 years	As per RFP
219	10		**Firewall Perfomance:** Shouid have Firewall throughputs of minimum 6 Gbps or more	As per RFP
220	11		IPSec VPN throughput should be 3 Gbps or more	As per RFP
221	12		NGFW throughput should be 300 Mbps with enterprise mix traffic	As per RFP

222	13		Threat protection throughput should be 250Mbps with enterprise mix traffic	As per RFP
223	14		Must support at least 1,500,000 or more concurrent connections	As per RFP
224	15		**Must support at least 30,000 or more new sessions per second processing.**	As per RFP
225	16		Should Support Virtualiation (ie Virtual Systems I Virtual Domains). Should be having 5 or more vrrtual system license from day one	As per RFP
226	24		Should support Active-Active as well as Active- Passive redundancy.	As per RFP
227	25		**Should support ISP Load balancing and Failover**	As per RFP
228	26		Should support multi-path intelligence based on link quality criteria	As per RFP
229	30		**VPN**The VPN should be integrated with firewall and should be ICSA Labs certified for IPSec VPN	As per RFP
230	34		**Should support Single Sign-On Bookmarks for SSL Web VPN**	As per RFP
231	37		Should also support PPTP and L2TP over IPSec VPN protocols.	As per RFP
232	40		**IPS :**Should have protection for 7000+ signatures	As per RFP
233	52		**Web Filtering** URL database should have 200 million or more URLs under more than 70 categories	As per RFP
234	2.3. Firewall v) Firewall (Server Farm) – Type 4-Page No.174-177			Blank
235	2		The Firewall OEM should be ICSA Labs certified for Firewall and should be Common Criteria EAL 4 certified	As per RFP
236	3		OEM should be having recommended rating from NSS Lab's Next Generation Firewall from past 2 years	As per RFP
237	10		**Firewall Perfomance**Shouid have Firewall throughputs of minimum 10 Gbps or more	As per RFP
238	11		IPSec VPN throughput should be 5 Gbps or more	As per RFP
239	12		NGFW throughput should be 1Gbps with enterprise mix traffic	As per RFP
240	13		Threat protection throughput should be 800Mbps with enterprise mix traffic	As per RFP
241	16		Should Support Virtualiation (ie Virtual Systems I Virtual Domains). Should be having 5 or more vrrtual system license from day one	As per RFP
242	24		Should support Active-Active as well as Active- Passive redundancy.	As per RFP
243	25		Should support ISP Load balancing and Failover	As per RFP
244	26		Should support multi-path intelligence based on link quality criteria	As per RFP
245	30		**VPN:** The VPN should be integrated with firewall and should be ICSA Labs certified for IPSec VPN	As per RFP
246	34		Should support Single Sign-On Bookmarks for SSL Web VPN	As per RFP
247	37		Should also support PPTP and L2TP over IPSec VPN protocols.	As per RFP
248	40		**IPS:**Should have protection for 7000+ signatures	As per RFP
249	52		**Web Filtering:** URL database should have 200 million or more URLs under more than 70 categories	As per RFP
250	2.3. Firewall vi) Firewall (PLC Network) – Type 5– Type 4-Page No.177-180 **2**		The Firewall OEM should be ICSA Labs certified for Firewall and should be Common Criteria EAL 4 certified	As per RFP
251	3		OEM should be having recommended rating from NSS Lab's Next Generation Firewall from past 2 years	As per RFP
252	9		**Firewall Perfomance** Should have Firewall throughputs of minimum 2 Gbps or more	As per RFP
253	11		IPSec VPN throughput should be 1 Gbps or more	As per RFP
254	12		NGFW throughput should be 200Mbps with enterprise mix traffic	As per RFP
255	13		12 Threat protection throughput should be 150 Mbps with enterprise mix traffic	As per RFP
256			Must support at least 1,000,000 or more concurrent connections	As per RFP
257			Must support at least 30,000 or more new sessions per second processing.	As per RFP
258	16		Should Support Virtualiation (ie Virtual Systems I Virtual Domains). Should be having 5 or more vrrtual system license from day one	As per RFP
259	24		Should support Active-Active as well as Active- Passive redundancy.	As per RFP
260	25		Should support ISP Load balancing and Failover	As per RFP

261	26		Should support multi-path intelligence based on link quality criteria	As per RFP
262	30		**VPN**The VPN should be integrated with firewall and should be ICSA Labs certified for IPSec VPN	As per RFP
263	34		Should support Single Sign-On Bookmarks for SSL Web VPN	As per RFP
264	37		Should also support PPTP and L2TP over IPSec VPN protocols.	As per RFP
265	40		**IPS**Should have protection for 7000+ signatures	As per RFP
266	52		**Web Filtering** URL database should have 200 million or more URLs under more than 70 categories	As per RFP
267	Disk for Persistence Storage Page# 17; (2.1. - (i)- e)		At least 4 times the RAM capacity in RAID5 with persistence storage with SSD's.	At least 4 times the RAM capacity in RAID5 with persistence storage with SSD's (SAS mixed use 12Gbps)
268	High Availibilty Solution Page# 17; (2.1. - (i)- e)		The HA solution between the two HANA boxes should be integrated with cluster software and HANA System Replication.	As per RFP
269	Page# 18; (2.1. - (Ii)- a)		Solution should have single console provisioning for compute, storage and server-side network configuration and direct attach storage (DAS). Direct connect midplane should deliver 14 Tbps of bandwidth. FC SAN should be available	Solution should have single console provisioning for compute, storage and server-side network configuration and direct attach storage (DAS). Direct connect midplane/no midplane should deliver 14 Tbps of bandwidth. FC SAN should be available
270	Page# 18; (2.1. - (ii)- a)		Should provide a dedicated 10GbE or higher management network for multi-enclosure communications, separate from data plane	Should provide a dedicated 1G/10GbE or higher management network for multi-enclosure communications, separate from data plane
271	Capacity and Scalability Page# 28; (2)		Offered Storage array shall be a true converge/ unified storage with a single Microcode/ operating system instead of running different Microcode/ Operating system/ Controllers for File, block and object services respectively	Offered Storage array shall be a true converge/ unified storage with a single Microcode/ operating system instead of running different Microcode/ Operating system/ Controllers for File and block services respectively
272	Capacity and Scalability Page# 28; (4)		Offered Storage array shall support minimum of 480 SSD's	Offered Array shall be scalable to more than 280 numbers of SSD drives from day 1 at the time of bidding with proposed configuration, without clustering/federation/additional controllers in future.
273	Remote Replication Page# 30; (20)		The Storage array shall also support three ways (3 Data Centers) replication to ensure zero RPO at any site Near DR and DR in native fashion without using any additional replication appliance.	As per RFP
274	Disk Backup Page# 32; (2)		When fully populated, offered device shall support rated write performance of more than 16TB per hour in native mode	As per RFP
275			When fully populated, offered device shall supported rated write performance, when enabled with source level deduplication, of more than 30TB/hr	As per RFP
276	Backup SW Page# 35; (1)		Backup software licenses to be provided for the offered capacity of SAN Storage.	As per RFP
277	SLA Page# 34; (6)		Availability/ Uptime of each server at DC/DR	As per RFP
278	Delivery Timeline Page# 13; (7. (iii))		Supply of DC / DR Components including hardware and Software. 6 Weeks	Supply of DC / DR Components including hardware and Software. 8-10 Weeks
279	Brand inclusion		**Approved Make : HP/ Extreme /Cisco**	As per RFP
280	Core Switches (DC and DR) Form Factor Pg# 38		Chassis switch with Minimum 4 usable Slots 19 Inch Rack mountable switch with management/supervisor Engine 1+1. OEM should provide all the hardware including fabric cards, CPU, Power Supplies, Fan Trays etc. and software, licenses to get full capacity of the provided chassis	As per RFP
281	Core Switches (DC and DR) Architecture Pg# 38		Non-Blocking architecture. Must have EAL3 /NDCPP or above common criteria certification.	As per RFP
282	Core Switches (DC and DR) Per Slot Switching Capacity Pg# 39		Per Slot Switching Capacity -2.4 Tbps	As per RFP
283	Switch, EMS Core Switch – Type1 Architecture Pg# 73		Non-Blocking architecture. Must have EAL3 /NDCPP or above common criteria certification.	As per RFP
284	Switch, EMS Core Switch – Type1 Per Slot Switching Capacity Pg# 74		Per Slot Switching Capacity -3.2 Tbps	As per RFP

285	Core Switch – Type2 Architecture Pg# 74		Non-Blocking architecture. Must have EAL3 /NDCPP or above common criteria certification.	As per RFP
286	Name and model no		1kVA /0.9kW	1kVA /0.8kW
287	Secure encryption	Page 25,	System should support Encryption of the data (Data at rest) on both the internal storage and cache module of the array controllers using encryption keys. Should support local key management for single server and remote key management for central management for enterprise-wide data encryption deployment.	As per RFP
288	Secure encryption	Page 25,	System should support Encryption of the data (Data at rest) on both the internal storage and cache module of the array controllers using encryption keys. Should support local key management for single server and remote key management for central management for enterprise-wide data encryption deployment.	As per RFP
289	Disk Backup	Page 32,	Offered disk-based backup device shall also support encryption functionality	As per RFP
290	b) Tape Library Encryption device	Page 33,	Offered Library shall be provided with a hardware device like USB key, separate appliance etc. to keep all the encrypted keys in a redundant fashion	As per RFP
291	1 Background and Scope - 1.1 Scope of Work - Data Center and DR Co Location - Page No. 57		The Data Center should be in Hyderabad and the service provider should have his own building.	As per RFP
292	Firewall Type - 1, Clause No 5		The Firewall must be appliance based	As per RFP
293			New Point under VPN to be added	As per RFP
294				As per RFP
295			New point under IPS to be added	As per RFP
296	Firewall (DR & Perimeter) 5		The Firewall must be appliance based	As per RFP
297			New Point under VPN to be added	As per RFP
298				As per RFP
299			New point under IPS to be added	As per RFP
300	Firewall (Perimeter), 5		The Firewall must be appliance based	As per RFP
301			New Point under VPN to be added	As per RFP
302				As per RFP
303			New point under IPS to be added	As per RFP
304	Firewall (Server Farm), 5		The Firewall must be appliance based	As per RFP
305			New Point under VPN to be added	As per RFP
306				As per RFP
307			New point under IPS to be added	As per RFP
308	Firewall (PLC Network), 5		The Firewall must be appliance based	As per RFP
309			New Point under VPN to be added	As per RFP
310				As per RFP
311			New point under IPS to be added	As per RFP
312	WAF		New Point to be added	As per RFP
313	Annexure – II B. Technical Specification 2.1. DC & DR Hardware ii) Application Servers for DC & DR b) Server Blade		Page no. 22 High Availability Solution	As per RFP
314	Annexure – II B. Technical Specification 2.1. DC & DR Hardware v) Backup Solution for DC & DR c) Backup Software for DC & DR		Page No.35 Backup software licenses to be provided for the offered capacity of SAN Storage.	As per RFP

315	Annexure – II B. Technical Specification 2.1. DC & DR Hardware iii) Non-SAP Servers c) Blades for Legacy Servers in DC		Page No. 23	As per RFP
316	Annexure IV		Point # 6. Service Level Agreements: Availability of network links	As per RFP
317	Annexure I - Scope of Work (Page 56)		Point # 1.1.h Tool proposed should be leader in Gartner Quadrant	As per approved make in the corrigendum
318	Annexure I - Scope of Work (Page 64)		General Requirements	As per RFP
319	Annexure II - Technical Specifications (Page 119)		1.9 One time charges for co-location & managed services	As per RFP
320	Annexure II - Technical Specifications (Page 121)		1.12 NOC	As per RFP
321	2.8 Managed Services (Page 219)		Cross Connect & Telco services	As per RFP
322	2.8 Managed Services (Page 225)		DC-DR Services	As per RFP
323	2.8 Managed Services (Page 226)		DC-DR Services	As per RFP
324	2.8 Managed Services		New addition	As per RFP
325	2.8 Managed Services		New addition	As per RFP
326	b) 1G Switch (DC) – Type 2 page No 151		The switch should support 2*10-Gigabit ports SFP+ loaded with 2*SR transceivers and 2 RJ-45 1/10GBASE-T ports in addition to the above ports	As per RFP
327	b) 1G Switch (DC) – Type 2 page No 153		The Switch should support Link aggregation to groups together up to 8 ports per trunk automatically using Link Aggregation Control Protocol (LACP), or manually, to form an ultra-high-bandwidth connection to the network backbone. The switch should provide support up to 128 trunks	As per RFP
328	Point 2 - Page no 2		k. Managed Services.	As per RFP
329	Point 7 - Page no 34		6. Service Level Agreements (SLA) - Security Incident and Management Reporting	As per RFP
330	1.1 Scope of Work - 56		f) Supply, installation, configuration, testing and commissioning of Security infrastructure like Next Generation Firewalls, Antivirus, DDOS, PIM, HIPS, IDAM, DAM, IPS/IDS, Log Servers, and Web Application Firewall etc.	As per RFP
331	Point 2 Page no 111		ADS, Antivirus & Patch Mgmt Servers operating system	As per RFP
332	Point 7 - Page no 112		Centralized Management, Log and analysis license with 5 -year support up to 100x firewall devices/administrative, supplied along with 5 years 24 x 7 support along with hardware	As per RFP
333	Point 8 - Page no 112		Free of change training to 20-people team of Network Engireers from NMDC to be provided by OEM at a centralized place covering all aspects of operations and maintenance of the firewalls	As per RFP
334	Point 5 - Page no 163		The Firewall must be appliance based	As per RFP
335			New Point under VPN to be added	As per RFP
336			New Point under VPN to be added	As per RFP
337			New point under IPS to be added	As per RFP
338	Point 5 - Page no 166		The Firewall must be appliance based	As per RFP
339	Point 5 - Page no 166		New Point under VPN to be added	As per RFP
340	Point 5 - Page no 166		New Point under VPN to be added	As per RFP
341	Point 5 - Page no 166		New point under IPS to be added	As per RFP
342	WAF - Page no 168		New Point to be added	As per RFP
343	Point 1 - Page no 170		Firewall Type 1 for DC and DR	As per RFP
344	Point 5 - Page no 171		The Firewall must be appliance based	As per RFP
345			New Point under VPN to be added	As per RFP
346			New Point under VPN to be added	As per RFP
347			New point under IPS to be added	As per RFP
348	Point 5 - Page no 174		The Firewall must be appliance based	As per RFP
349			New Point under VPN to be added	As per RFP
350			New Point under VPN to be added	As per RFP
351			New point under IPS to be added	As per RFP

352	Point 5 - Page no 177		The Firewall must be appliance based	As per RFP
353			New Point under VPN to be added	As per RFP
354			New Point under VPN to be added	As per RFP
355			New point under IPS to be added	As per RFP
356	point 28 - Page no 220		Trusted SSL Certificate Import	As per RFP
357	point 28 - Page no 220		Using Load Balancer feature in Firewall SSL,LLB	As per RFP
358	point 30 - Page no 220		Policy Verification Every Year	As per RFP
359	point 31 - Page no 220		IPSEC VPN with unlimited users	As per RFP
360	point 32 - Page no 220		SSL VPN with unlimited uers	As per RFP
361	point 33 - Page no 220		IPSEC remote access VPN with unlimited users	As per RFP
362	point 34 - Page no 220		Two factor based authentication integration	As per RFP
363	Point 36 - Page no 220		OS Critical and Security Patch Management	As per RFP
364	point 43 - Page no 220		System, Application and Security Log Analysis	As per RFP
365	point 44 - Page no 221		Windows Server Security Management	As per RFP
366	point 45 - Page no 221		Security Processes - User and Group Management	As per RFP
367	point 46 - Page no 221		Security Policies and Configurations	As per RFP
368	point 47 - Page no 221		Security Patches and Hot Fixes	As per RFP
369	point 50 - Page no 221		File and Directory Security	As per RFP
370	point 51 - Page no 221		Audit Logging	As per RFP
371	point 52 - Page no 221		Windows Firewall Policy	As per RFP
372	point 60 - Page no 221		Windows Server folder and File access security/ share permission management.	As per RFP
373	point 77 - Page no 221		OS Patching	As per RFP
374	point 161 - Page no 225		OS Logs, AV/AS logs, Vulnerability Assessment, Network Device Logs, Rule Based Correlation & Risk Based Correlation	As per RFP
375	point 161 - Page no 225		OS Logs, AV/AS logs, Vulnerability Assessment, Network Device Logs, Rule Based Correlation & Risk Based Correlation	As per RFP
376	point 162 - Page no 225		Incident Management, Log Retention for 6 Months	As per RFP
377	point 163 - Page no 225		Penetration Testing (Tool based)	As per RFP
378	point 164 - Page no 225		Historical Based Correlation	As per RFP
379	point 165 - Page no 225		PCI DSS, FIM, Advanced Persistent Threat protection, IPS/IDS, DDOS Protection, DDOS Reporting, Enabling DDOS services for NMDC networks	As per RFP
380	point 166 - Page no 225		Basic web filter service	As per RFP
381	point 167 - Page no 225		Application filter services	As per RFP
382	point 168 - Page no 225		Automatic updates of signatures	As per RFP
383	Page no 240		Firewall BoM	As per RFP
384	2.2 DC & DR Software Enterprise Management Solution/General Requirement/point no 5 (Page 158)		To ensure the proposed software is secure, it should have ISO 27034 certification from a verification or certification agency which has global recognition	As per RFP
385	2.2 DC & DR Software Enterprise Management Solution/General Requirement/point no 6 (Page 158)		EMS/NMS OEM must be an industry standard, enterprise grade solution and shall be in the present in Gartner's MQ reports for NPMD and ITSM for last two years (2017 & 2018)	As per RFP

386	2.2 DC & DR Software Enterprise Management Solution/General Requirement/point no 8 (Page 158)		Proposed EMS Solutions MUST have been in operations in at least 3 or more deployments across government/public sector, monitoring and managing at least 10,000 network nodes in each of the cases individually. Self-certification of the OEM, along with the customer names and proof of software delivery must be submitted at the time of bid submission	As per RFP
387	2.2 DC & DR Software Enterprise Management Solution/General Requirement/point no 1 (Page 158)		The proposed EMS solution should be an integrated, modular and scalable solution from single OEM (i.e. all Network Monitoring, server Monitoring including application and database monitoring and Service Management tools should be from single OEM) to provide comprehensive fault management, performance management, traffic analysis and business service management, IT service desk\ help desk \trouble ticketing system & SLA monitoring functionality	As per RFP
388	General Requirement of IT Service/Helpdesk/Point No. 59 (Page 161)		The proposed helpdesk should have solutions like : Incident management, Problem Management, Change Management, Knowledge Management, Service Level Management, Service Asset and Configuration management, Service Catalogue and Request Fulfilment, etc. The certification copies to be submitted.	As per RFP
389	New Clause addition request		Considering the current COVID situation, there will be a significant change in the way organizations work with "Work from Home", "Work Remotely" etc. becoming prevalent. Due to these ever-changing landscape, self-help, self-service etc. becomes extremely important. We request you to add this point as this will greatly help in service fulfilment through automation	As per RFP
390	New Clause addition request			As per RFP
391	2.2 DC & DR Software Enterprise Management Solution/General Requirement/point no 3 (Page 157)		The proposed EMS solution should be built on modern container technologies and have an option to deploy on classic mode non-containerized as well as containerized mode.	As per RFP
392	2.2 DC & DR Software Enterprise Management Solution/General Requirement/point no 9 (Page 158)		Solution should ensure compatibility of existing Infrastructure with the procured infrastructure and it must fill the end functionality of the project. Offered solution should support bi-directional integration between the NOC and SOC to have the single consolidated console of infrastructure and security events.	As per RFP
393	2.2 DC & DR Software Enterprise Management Solution/General Requirement/point no 9 (Page 158)		Server Fault Monitoring & Application Performance Management Should provide a centralized point of control with out-of-the-box policy-based management intelligence for easy deployment for the servers, operating systems, applications and services for correlating and managing all the IT infrastructure components of a business service	As per RFP
394	V) Wireless Controller for Access Points IV Access Point(Indoor) Page No 189		The Proposed WLC must be compliant with IEEE CAPWAP or equivalent for controller based WLANS.	As per RFP
395	Page No 189		The Proposed WLC should be 1 U , rack mountable appliance with 2X1 G , (or better), ethernet interface , USB support and RS-232 Serial console interface .	As per RFP
396	Page No 190		The proposed must support coverage hole detection & correction that can be adjusted on aper WLAN basis .	As per RFP
397	Page No 190		Should support Port based & SSID Based IEEE 802.1X authentication .	As per RFP
398	2.5 Wi-Fi Access Point (Outdoor) Page No 195		Access Points proposed must include dual radios (2.4 Ghz & 5 Ghz) , & should cover a distance of 2k.m. in open area .)	Access Points proposed must include dual radios (2.4 Ghz & 5 Ghz) , & should cover a distance of 150 Mtrs in open area
399	Page No 195		The Access Point have Integarted Antenna	The Access Point have Integrated/ External Antenna.
400	Page No. 112 /1.4/ Switch, Indoor Wireless, NAC, EMS etc.	Network Components	Transceiver Count	As per RFP
401		Raw Power Quality Testing	Add this clause	As per RFP

402	Page No. 227-230	Optical Fiber Laying and Backfilling	Specification as per the clause mentioned in the Page No. 103-106 on Optical Fiber Laying and Backfilling.	As per RFP
403	151	b) 1G Switch (DC) – Type 2	The switch should support 2*10-Gigabit ports SFP+ loaded with 2*SR transceivers and 2 RJ-45 1/10GBASE-T ports in addition to the above ports	As per RFP
404	153		The Switch should support Link aggregation to groups together up to 8 ports per trunk automatically using Link Aggregation Control Protocol (LACP), or manually, to form an ultra-high-bandwidth connection to the network backbone. The switch should provide support up to 128 trunks	The Switch should support Link aggregation to groups together up to 8 ports per trunk automatically using Link Aggregation Control Protocol (LACP), or manually, to form an ultra-high-bandwidth connection to the network backbone.
405	106/4.8	Input Protection (Thru In-built 1P MCB)	Should be provided at the input of the UPS suitable for the full rated capacity of the UPS	Input Protection (Thru In-built 3P MCB)
406	25		Financial Quote, on Supply, Installation, Integration, Testing, Commissioning and Support: NOC	NOC for DC & DR will be part of managed services. Scope of Work does not includes civil, electrical & HVAC works for in premise NOC which will be used for managing NMDC LAN & WAN.
407	1		Provide/ Upgrade of existing MPLS/ VPN at 15 locations.	As per RFP
408	Annexure-VII (UPS)		BOQ- Earthing & Lightning arrestor	As per RFP
409	General Requirements for the LAN Infrastructure (pagePage 8 of 53) Page 62 of RFP		f. Reliability and scalability of solution, open architecture and availability of the business-critical applications on High availability. g.	As per RFP, please refer Annexure for Qty
410	1.4. Switch, Indoor Wireless, NAC, EMS etc. (page 112)		12 Access Point (Indoor) Nos. 300	Payment will be made as per actual quantities used.
411	1.4. Switch, Indoor Wireless, NAC, EMS etc. (page 112)		13 Wireless LAN Controller for Access Points, 5 year warranty & NBD support Nos. 10	AS per RFP
412	Generic		Every Radio Location required AC Power and UPS Power	As per RFP
413	Fig 43 Donimalai Distribution Switch#6 Network Diagram		Line of Sight Details DIOM CP PLC Room to Planning Cell Server Room to SP PLC Room (SCADA) KIOM MTSS Room to KIOM PLC Room Pellet Plant Admin Building to LP Mech Room	LoS exists prima facie. However, field engineering has to be carried out by successful bidder. Bidder(s) to include such costs and efforts if any more foreseen, in their bids
414	Generic		Wireless Radio Pole/ Tower Height	LoS exists prima facie. However, field engineering has to be carried out by successful bidder. Bidder(s) to include such costs and efforts, if any more foreseen, in their bids
415	2.8. Managed Services		IPSEC VPN with Unlimited Users SSL VPN with unlimited users IPSEC remote access VPN with unlimited users	As per RFP
416	1.3 Firewall		Firewall – Type 1 Firewall- Type 2 Firewall- Type 3 Firewall- Type 4	As per RFP
417	Firewalls for DC & DR		Accepted Make : Fortinet / Palo Alto / Cisco	As per RFP
418	Annexure-VII		Desktop for NOC	As per RFP
419	Annexure-VII		Bill of Material (BOM)	As per RFP
420	Security Management		Rule Based correlation and Risk based correlation Incident Management	As per RFP
421	Security Management		Rule Based correlation and Risk based correlation Incident Management	As per RFP
422	Firewall Services		Firewall with HA setups	As per RFP
423	Network Access control specification		Network Access control specification	As per RFP
424	Firewall Services		Trusted SSL certificate import	As per RFP
425	Firewall Services		Trusted SSL certificate import	As per RFP
426	2.2		The system should integrate with Helpdesk / Service desk tool for automated incident logging and also notify alerts or events via e-mail or SMS.	As per RFP

427	Annexture-VI		Core Switches, Distribution switches, Server, storage, Firewall and etc	As per RFP
428	Annexture-VI		Supply, Installation, Testing and Commissioning of (N) 30KVA UPS System for Central Distributor to support core switches, Servers, WAN Optimizers, ILL load balancers, and other networking equipment along with 30-minutes battery back-up (about 40 batteries of 65AH, 12V, Lead Acid, SMF) along with Battery rack, MCB protection gear and all other accessories - Bacheli, Kirandul, Donimalai, Panna and Paloncha. UPS to be SNMP manageable. 30kVA rating. Supply should include 3-year on-site warranty and maintenance	As per RFP
429	1.b		Supply, Installation, Integration, Testing, Commissioning and Support (SiitcS) of LAN and WAN Networks.	As per RFP
430	1.c		Provide/ Upgrade of existing MPLS/ VPN at 15 locations.	As per RFP
431	Annexture-VI		SOR	As per RFP
432	1.1		Intended LAN/WAN Setup for NMDC	Links will be terminated on ethernet interfaces of SD-WAN Boxes.(Firewall)
433	1.1		NMDC will have a three-tier architecture as part of its SAP System landscape and will consist of Development environment Quality environment Production environment Disaster Recovery Environment	As per RFP
434	Annexture-VI		SOR	As per RFP
435	1.1		Perform Due Diligence study and submit report for Migration of legacy applications not being covered under SAP data migration (e.g. Intranet Portal, Vigilance application etc.) at HO and Sites to DC & DR.	Migration of Legacy Applications is not within the RFP scope
436	1.1		c. Design of the MPLS network, sizing, link management and backup link solutions for critical applications and users.	As per RFP
437	1.1 SOW (d) pg # 58		Storage Replication between DC & DR	As per RFP
438	1.1 SOW pg # 57 & pg # 109		SAP HANA Databases listed in the Diagram of "Technical Architecture of Appln landscape"	As per RFP
439	A. BoQ 1.1 (pg # 110)		Local Server HW	As per RFP
440	1.2 (pg # 110)		DC & DR Software	As per RFP
441	B.2.1 (i) - e(1) (pg # 124)		Disk for persistence SSD storage	As per RFP
442	B.2.1 (i) - e(4) (pg # 124)		2 no.s of 24 ported 1 G Network Switches	As per RFP
443	B.2.1 (ii) - a(1) (pg # 125)		DAS Storage for App and DB Servers	As per RFP
444	B.2.1 (ii) - a(1) (pg # 125)		Solution req: Container provisioning	As per RFP
445	**NETWORKING Queries** Network	Brand inclusion	**Approved Make : HP/ Extreme /Cisco**	As per RFP
446		Access Switch – Type 1 Architecture Pg# 78	Should support ITU G.8032 standard	As per RFP
447	Brand inclusion		**Approved Make : HP/ Extreme /Cisco**	As per RFP
448	Page No 189		The Proposed WLC should be 1 U , rack mountable appliance with 2X1 G , (or better), ethernet interface , USB support and RS-232 Serial console interface .	As per RFP
449	2.5 Wi-Fi Access Point (Outdoor) Page No 195		Access Points proposed must include dual radios (2.4 Ghz & 5 Ghz) , & should cover a distance of 2k.m. in open area .)	Access Points proposed must include dual radios (2.4 Ghz & 5 Ghz) , & should cover a distance of 150 Mtrs in open area
450	Radio Links - Point to Point & Point to Multipoint		Radio link (Point to point & Point to multipoint)	Pls refer to above mentioned specification.

S.No	Clause No.	Page No.	Existing Condition	Clarifications sought	Bidder' Suggestions	Response
1	2 (a) & 2(i)	Page No 3 & 8	The bidder must be, a company registered in India, under the companies Act – 1956 or 2013 and should be in business of IT /ITES/ Networking for at least 5 years.	Request you to please change the clauses as per below: The bidder/Any member of consortium must be, a company registered in India, under the companies Act – 1956 or 2013 at least 5 years.	Sir, Permitting consortium shall bring in decent participations of bidders along with strong techno commercial proposal thus benefiting end customer	RFP Clause will prevail
2	2(iv) & 2(d)	Page No 3 & 8	The intending bidder must be an IT/ITES/Networking company, having an Experience of successfully executing similar nature of works as mentioned in the Scope of Work viz. setting up of DC/DR (H/w & S/w), Firewalls, active Switches, Managed Services, Backbone cabling, Setting up of Wi-Fi Networks, laying of WAN/LAN Networks and laying of OFC etc. during the last 7 years (as on 31st March'2020) of at least following value/billing: One Project costing Rs 80 Cr OR Two projects costing Rs 50 Cr. each OR Three Projects costing Rs 40 Cr. each. The project/projects claimed towards experience, must contain one or more elements essentially from each of the following three categories. Elements of Category (a) below, must contribute at least 30% cost of the project. (a) The establishment of DC/DR, Fire-walls and Managed services. (b) Active Switches, EMS and Backbone Cabling with associated IT components.	Request you to please ammend the clause as per below : The intending bidder or any consortium member must having an Experience of successfully executing or ongoing similar nature of works as mentioned in the Scope of Work viz. setting up of DC/DR (H/w & S/w), Firewalls, active Switches, Managed Services, Backbone cabling, Setting up of Wi-Fi Networks, laying of WAN/LAN Networks and laying of OFC etc. during the last 7 years (as on 31st March'2020) of at least following value/billing: One Project costing Rs 80 Cr OR Two projects costing Rs 50 Cr. each OR Three Projects costing Rs 40 Cr. each. The project/projects claimed towards experience, must contain one or more elements essentially from each of the following three categories. Elements of Category (a) below, must contribute at least 30% cost of the project. The establishment of DC/DR, Fire-walls and Managed services. Active Switches, EMS and Backbone Cabling with associated IT components.		The clause is amended as " one or more project / projects claimed towards experience must cover one or more elements essentially from each of the following three categories. Elements of category (1) below,must contribute at least Rs 24 Crs cost from the project / projects.

S.No	Clause	Page	RFP Clause	Bidder's Query / Suggestion	Reply
3	2(d)	Page No 8	(c) Wi-Fi, P2P radio links and Laying of Underground OFC Networks. Project-Wise, Work order copies and completion certificates, depicting various project elements and costs thereof, with MAF details, to be enclosed)	Wi-Fi, P2P radio links and Laying of Underground OFC Networks. Project-Wise, Work order copies and completion certificates, depicting various project elements and costs thereof, ~~with MAF details, to be enclosed)~~	Sir, For experience ,When bidder to submit Project work orders and work completion certificates in such sceneario 7 years old MAF from vaious OEMs will not be benefecial to end customer , also locating 7 years old MAF is practically difficult and hence request to consider only work order and completion certificate here	MAF is not required for the projects cited towards eligibility. However, MAF is required as per the list for solution offered by the Bidder. This is also part of the technical requirements.
4			Consortium	Request you to please allow the consortium (Lead + 1) for more participation of bidder	Permitting consortium shall bring in decent participations of bidders along with strong techno commercial proposal thus benefiting end customer	RFP Clause will prevail
5	5 (e)	Page No 10	Certificate from Statutory Auditor/CA specifying the Annual Turnover from ICT services during last three years (2016-19).	Request you to please ammend the clasue as per below : Certificate from Statutory Auditor/CA specifying the Annual Turnover during last three years (2016-19).		RFP Clause will prevail
6	2(iv)	Page No 3	The intending bidder must be an IT/ITES/Networking company, having an Experience of successfully executing similar nature of works as mentioned in the Scope of Work viz. setting up of DC/DR (H/w & S/w), Firewalls, active Switches, Managed Services, Backbone cabling, Setting up of Wi-Fi Networks, laying of WAN/LAN Networks and laying of OFC etc. during the last 7 years (as on 31st March'2020) of at least following value/billing: One Project costing Rs 80 Cr OR Two projects costing Rs 50 Cr. each OR Three Projects costing Rs 40 Cr. each.	We have executed ICT projects above 80cr. However, only 3-4 of the above-said work streams are included in the >80cr work completion. We do however have citations from other client projects for the rest of the work streams thus completing all those 10 different work streams. We would therefore request you to kindly relax this condition by stating "while it is imperative for bidders to produce work completion certificates in ICT Systems Integration category for values exceeding 80crs (one order), 50crs (two orders), 40crs (3 orders) as the case may be, should such certificate(s) not comprise all work-streams as stated in the RFP, bidders are allowed to prove their expertise/past track record in all specified areas through completion certificate of other governmental projects" . .	The clause is amended as " one or more project / projects claimed towards experience must cover one or more elements essentially from each of the following three catagories. Elements of category (1) below, must contribute at least Rs 24 Crs cost from the project / projects,
7	2 (v) (iii)		Average Annual financial turnover during the last 3 years, ending 31 March-2019 should be at least Rs. 100 Cr. Audited financial statements for the last 3 years (2016-17, 2017-18, 2018-19) to be enclosed.	Average Annual Turnover Rs. 55 Cr.	We request you to change the clause as: Average Annual financial turnover during the last 3 years, ending 31 March-2019 should be at least Rs. 55 Cr. Audited financial statements for the last 3 years (2016-17, 2017-18, 2018-19) to be enclosed.	RFP Clause will prevail

#	Clause	Clause Text	Query / Request	Response
8	2 (iv)	The intending bidder must be an IT/ITES/Networking company, having an Experience of successfully executing similar nature of works as mentioned in the Scope of Work viz. setting up of DC/DR (H/w & S/w), Firewalls, active Switches, Managed Services, Backbone cabling, Setting up of Wi-Fi Networks, laying of WAN/LAN Networks and laying of OFC etc. during the last 7 years (as on 31st March'2020) of at least following value/billing: One Project costing Rs 80 Cr. OR Two projects costing Rs 50 Cr. each OR Three Projects costing Rs 40 Cr. each.	We request you to give relaxation in value of PO. We request you to change the clause as: One Project costing Rs. 20 Cr. Or Two Projects costing Rs. 10 Cr. Or Three projects of Rs. 5 Cr.	RFP Clause will prevail
9	2 (ii)	Valid CMMI Level 3 or above certificate	kindly remove CMMI Level 3 or make it optional	CMMI certification is more aligned to Software Development hence this clause should be applicable to the Software OEMs. MSI/ Bidder does not do any software development hence this certification should not be necessarily aligned to the MSI/Bidder.	Clause is removed.
	Additional Query	Additional Query	Kindly allow atleast 3 Consortium Member (including Lead Bidder).	Allowing Consortium will increase competitiveness of the Tendering Process	RFP Clause will prevail
	Additional Query	Additional Query	Kindly allow at least 3 Consortium Member (including Lead Bidder).	Allowing Consortium will increase competitiveness of the Tendering Process	RFP Clause will prevail
	2 (v) (iii)	Average Annual financial turnover during the last 3 years, ending 31 March-2019 should be at least Rs. 100 Cr. Audited financial statements for the last 3 years (2016-17, 2017-18, 2018-19) to be enclosed.	Average Annual Turnover Rs. 40 Cr.	This clause is very against to MSME / NSIC firms to participation in the bid who having huge experience in this types of projects. So kindly allow with minimum average annual turnover of Rs. 40 Cr.	RFP Clause will prevail
	2 (ii)	Valid CMMI Level 3 or above certificate	kindly remove CMMI Level 3 or make it optional	Normally CMMI certification is required for project that are related to software development. Since the tender is not related to any software development activity, we request you to remove this clause as the same is not relevant for this tender.	Clause is removed.
10	2 (ii)	Average Annual financial turnover during the last 3 years, ending 31 March-2019 should be at least Rs. 100 Cr. Audited financial statements for the last 3 years (2016-17, 2017-18, 2018-19) to be enclosed.	Kindly amend this clause as: Average Annual financial turnover during the last 3 years, ending 31 March-2019 should be at least Rs. 60 Cr. Audited financial statements for the last 3 years (2016-17, 2017-18, 2018-19) to be enclosed.	This clause is very Stringent and restricting / disallowing fair participation among various leading IT companies having vast experience in Supply, Installation, Testing Commissioning of IT hardware, software, networking in domestic / overseas projects.	RFP Clause will prevail

11	2 (v) (iii)	IT Service & Security Accreditations: The intending bidder must possess the following certifications on the date of submission of the bids: (c) Valid CMMI Level 3 or above, certificate	Kindly allow Bidder with valid ISO certifications only.	We recommend to include ISO 9001/27001/ ISO 9001/2008 or CMMI 3. It will be more open to bidders.	Clause is amended
12	Additional Query	Additional Query	Kindly allow atleast 3 Consortium Member (including Lead Bidder).	Considering the wide scope of work, request you to please allow consortium for flawless execution of the Project.	RFP Clause will prevail
13	2 (ii)	Valid CMMI Level 3 or above certificate	kindly remove CMMI Level 3 or make it optional	CMMI certification is generally an ask for exporting software services to the international market. Moreover as per the section "5.3 Compliance with Industry Standards", the solution is compliant as per ISO 20000 (Service Management) specifications. So we would request ITI Limited to drop this redundant parameter.	Clause is removed.
14	2 (v) (iii)	Average Annual Turnover of Rs. 100 Cr.	Kindly allow Bidder with valid ISO certifications only.	Since our Prime Minister is very much promotiong NSIC/MSME firms,request you to bring down the turnover to 50 Crore as it will be very difficult for a MSME holder to furnish this kind of Turnover.	RFP Clause will prevail
15	Suggestion	Suggestion	Kindly allow atleast 2 Consortium Member (including Lead Bidder).	Considering the wide scope of work, request you to please allow consortium for flawless execution of the Project.	RFP Clause will prevail