

CORRIGENDUM-2

Last Date of Submission of Proposal: 17-03-2021, 02:00 PM, Opening of General and Technical Bids on 17-03-2021, 04:30 PM

Revised Request for Proposal – Extension of Odisha State Data Centre – OSDC 2.0

Selection of System Integrator for Design, Build, Installation, Commissioning, Integration, and Operations & Maintenance of Non-IT & IT Infrastructure for Extension of Odisha State Data Centre (OSDC 2.0).

Tender Enquiry No: OCAC-NEGP-INFRA-008-2018-20038

Odisha Computer Application Centre (OCAC)

(Technical Directorate of E&IT Department, Govt. of Odisha)

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
1	28	3.1 (2)	Pre – Qualification Criteria	Financial Turnover CA/CS Certificate for Net worth with CA’s/CS’s Registration No or Seal and Copy of audited profit and loss account and balance sheet of the last three financial years till 31st March 2020.	The clause may be read as below: “CA/CS Certificate for Annual Turnover with CA’s/CS’s Registration No or Seal and Copy of audited profit and loss account and balance sheet of the last three financial years till 31st March 2020”.
2	29	3.1 (4)	Pre- Qualification for Bidder	Certifications The Bidder must have following Certificates at the time of bidding, a. ISO 9001:2015 b. ISO/IEC 20000 : 2018 c. ISO/IEC 27001:2015	The clause may be read as below: “The Bidder must have following Certificates at the time of bidding, a. ISO 9001: b. ISO/IEC 20000: c. ISO/IEC 27001: Note :: Incase, ongoing /renewal process for any of the above ISO standards certification is underway, bidder has to submit an undertaking in the bidder’s letterhead along with the documentary proof in support of renewal/ongoing process of certification in the technical proposal saying that valid certificate shall be submitted by the time of issuance of Letter of Intent (LOI) to successful bidder”.
3	42	3.14 (A) (4)	Bidder’s experience in having Uptime Certified Datacentre (Design & Built)	5 marks for Bidder’s experience in having Uptime Certified Datacentre (Design & Built)	The clause may be read as below: 3.14. Technical Bid Evaluation Scoring Matrix A : A. Organizational Strength and Project Experience – 20 Marks “Sl. 4. Bidder’s experience in having Uptime Certified Datacentre (Design / Built) - Max Score -5 Marks Scoring Mechanism: 1 Data Centre = 1 Marks 2 Data Centres =2 Marks More than 2 Data Centres = 5 Marks

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					Credential required -Copy of relevant Work Orders/Completion Certificate/ Purchase Order”.															
4	48	3.14 (C) 3. Spine Switch	3.14. Technical Evaluation for IT Devices:	<p>Shall offer minimum of 30 Tbps or more and wired speed nonblocking forwarding performance from day-1.- 2.5 Marks</p> <p>Shall offer minimum up to or less than 30 Tbps or more per-slot bandwidth from day-1 - 2 Marks</p>	<p>The clause may be read as below:</p> <table border="1"> <thead> <tr> <th>Sl.</th> <th>Name of the Device</th> <th>Max. Score</th> <th>Parameter/ Specification</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>Spine Switch</td> <td>2.5</td> <td>Shall offer more than 30 Tbps per slot wired speed nonblocking forwarding performance from day-1.</td> <td>2.5</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Shall offer 30 Tbps per slot wired speed nonblocking forwarding performance from day-1</td> <td>2</td> </tr> </tbody> </table>	Sl.	Name of the Device	Max. Score	Parameter/ Specification	Score	3	Spine Switch	2.5	Shall offer more than 30 Tbps per slot wired speed nonblocking forwarding performance from day-1.	2.5				Shall offer 30 Tbps per slot wired speed nonblocking forwarding performance from day-1	2
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5	50	3.14 (C) 9. Next Generation Firewall (NGFN)	3.14 Technical Evaluation for IT Devices:	<p>The proposed solution must be able to support session and configuration synchronization Proposed appliance must support at least 4 million concurrent sessions and should be scalable to support 25 million and 150,000 new connections per second from day one and should be scalable to support 300,000 new connections from day 1 – 1 Marks</p> <p>Proposed appliance support less than 4 million concurrent sessions and not scalable to</p>	<p>The clause may be read as below:</p> <table border="1"> <thead> <tr> <th>Sl.</th> <th>Name of the Device</th> <th>Max. Score</th> <th>Parameter/ Specification</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>Next Generation Firewall (NGFN)</td> <td>2.5</td> <td>Proposed appliance must support more than 4 million concurrent sessions and should be scalable to support 25 million and 150,000 new connections per second from day one and should be scalable to support 300,000 new connections</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Proposed appliance support less than 4 million concurrent sessions and not scalable to support 25 million and less than 150,000 new connections per second from day</td> <td>0.8</td> </tr> </tbody> </table>	Sl.	Name of the Device	Max. Score	Parameter/ Specification	Score	9	Next Generation Firewall (NGFN)	2.5	Proposed appliance must support more than 4 million concurrent sessions and should be scalable to support 25 million and 150,000 new connections per second from day one and should be scalable to support 300,000 new connections	1				Proposed appliance support less than 4 million concurrent sessions and not scalable to support 25 million and less than 150,000 new connections per second from day	0.8
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6	50	3.14 (C) 9. Next Generation Firewall (NGFN)	3.14 Technical Evaluation for IT Devices:	<p>A minimum storage capability of 2TB (should be on a separate management appliance) need to be provided as part of the solution for logging and reporting – 0.6 Marks.</p> <p>Storage capacity < 2TB - 0.4 Marks</p>	<p>The clause may be read as below:</p> <table border="1"> <thead> <tr> <th>Sl.</th> <th>Name of the Device</th> <th>Max. Score</th> <th>Parameter/ Specification</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>Next Generation Firewall (NGFN)</td> <td>2.5</td> <td>Storage capability of more than 2TB /minimum 180 days log retention whichever is higher (should be inbuilt or on a separate management appliance) need to be provided as part of the solution for logging and reporting</td> <td>0.6</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Storage capability of less than 2TB /less than 180 days log retention</td> <td>0.4</td> </tr> </tbody> </table>	Sl.	Name of the Device	Max. Score	Parameter/ Specification	Score	9	Next Generation Firewall (NGFN)	2.5	Storage capability of more than 2TB /minimum 180 days log retention whichever is higher (should be inbuilt or on a separate management appliance) need to be provided as part of the solution for logging and reporting	0.6				Storage capability of less than 2TB /less than 180 days log retention	0.4
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7	51	3.14 (C) 12. SDN Controller	Technical Evaluation for IT Devices:	<p>The SDN solution should support VMs (running on ESXi, KVM / Hyper-V/RHEV) Minimum 2 or more platforms must be supported - 2.6 Marks</p> <p>The Solution should support VMs (running on ESXi, KVM) – 2 Marks</p>	<p>The clause may be read as below:</p> <table border="1"> <thead> <tr> <th>Sl.</th> <th>Name of the Device</th> <th>Max. Score</th> <th>Parameter/ Specification</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>SDN Controller</td> <td>2.6</td> <td>The SDN solution should support all the forms of Virtualization like ESXi, KVM ,Hyper-V and RHEV</td> <td>2.6</td> </tr> <tr> <td></td> <td></td> <td></td> <td>The SDN solution should support minimum of two Virtualization (ESXi, KVM ,Hyper-V and RHEV</td> <td>2</td> </tr> </tbody> </table>	Sl.	Name of the Device	Max. Score	Parameter/ Specification	Score	12	SDN Controller	2.6	The SDN solution should support all the forms of Virtualization like ESXi, KVM ,Hyper-V and RHEV	2.6				The SDN solution should support minimum of two Virtualization (ESXi, KVM ,Hyper-V and RHEV	2
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8	53	3.16.	Deviations and Exclusions	Bids shall be submitted strictly in accordance with the requirements and terms & conditions of the RFP. The bidder shall submit a No Deviation Certificate as per the format specified in Proforma 15. The bids with deviation(s) are liable for rejection.	The clause may be read as below: Bids shall be submitted strictly in accordance with the requirements and terms & conditions of the RFP. No Major deviation will be accepted. However, deviations those are minor in nature can be deviated to a maximum tune of 25% may be accepted. It is under absolute discretion of the technical committee to decide the quantum of deviation (percentage) and criticality (Major or Minor). Major and minor deviation will be based on product and installation quality, Life cycle cost, sustainable performance of Datacentre and execution timelines.
9	98	5.7. (xiv)	MV Panels (Point No-xiv)	xiv. The DG output panel as per the scheme is proposed to be placed near the DG. Since it will be outdoor, the panel must have ingress protection level not less than IP 66. This will be placed on a PCC foundation 1 meter above ground level.	RFP Page No-98, Clause No-5.7 (MV Panels), Point No-xiv may be read as below: "xiv. The DG output panel as per the scheme is proposed to be placed near the DG. Since it will be outdoor, the panel must have ingress protection level not less than IP 65 . This will be placed on a PCC foundation 1 meter above ground level."
10	105	5.16.2	Scope of Work – Safety, Security, Surveillance and Monitoring System: Aspiration Smoke Detection System or Very Early Smoke	ii. The system must be digital and the panel has to be installed inside the BMS room	RFP Page No-105, Clause No-5.16.2, Scope of Work – Safety, Security, Surveillance and Monitoring System: Aspiration Smoke Detection System or Very Early Smoke Detection System, Point No-II may be read as below: "ii. VESDA system may be required in the server farm area for early detection of smoke with a facility of alarm."

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
			Detection System		
11	106	5.16.3	Scope of Work – Safety, Security, Surveillance and Monitoring System: Gas Based Fire Suppression System	ix. There should be provision for integration & monitoring of cylinder level pressure in the DCIM.	RFP Page No-106, Clause No-5.16.3, Scope of Work – Safety, Security, Surveillance and Monitoring System: Gas Based Fire Suppression System, Point No-ix stands dropped.
12	114	5.22.1	Uninterrupted Power supply (UPS) system with Battery back-up (For Critical Load)	Product/Solution Description Each UPS must have battery backup for 15 minutes considering load power factor of 0.9 till end of 5th year.	RFP Page no-114, Clause No-5.22.1 Uninterrupted Power supply (UPS) system with Battery back-up (For Critical Load)-Para no-2 may be read as below: "Each UPS must have battery backup for 15 minutes considering load power factor of 0.9 till end of 5th year. The battery calculation to be done on Mid of life (MOL). Lithium Ion chemistry to be used shall be LMO-NCM or LMO/NMC."
13	114	5.22.1 (4)	Mandatory Technical Requirements. Uninterrupted Power supply (UPS) system with Battery back-up (For Critical Load)	Lithium Ion battery with LMO-NCM, LMO/NMC chemistry shall be provided.	RFP Page no-114, Clause No-5.22.1 Uninterrupted Power supply (UPS) system with Battery back-up (For Critical Load)-Para no-2 may be read as below: "Each UPS must have battery backup for 15 minutes considering load power factor of 0.9 till end of 5th year. The battery calculation to be done on Mid of life (MOL). Lithium Ion chemistry to be used shall be LMO-NCM or LMO/NMC."

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14	115	5.22.1 (8)	Mandatory Technical Requirements. Uninterrupted Power supply (UPS) system with Battery back-up (For Critical Load)	Each pluggable type, hot swappable and user replaceable Power module should have its own full rated rectifier, full rated inverter, static bypass switch & battery charging circuit.	RFP Page No-115 , Clause No-5.22.1. Point no-8 stands dropped. Point No-9 to be considered as the requirement. Static bypass switch should be for the full capacity UPS for a single frame.
15	116	5.22.1	Mandatory Technical Requirements. Uninterrupted Power supply (UPS) system with Battery back-up (For Critical Load)	OEM Qualification criteria:	RFP Page No-116, Clause No-5.22.1, UPS - OEM'S QUALIFICATION CRITERIA:, the following clause may be added: Must have operational service Centre or authorized service partner (Since last 5 years) in Bhubaneswar or within 50KM radius of site. Bidder to provide proof of address of facility in form of GST registration/MOA/Company or firm registration.
16	116	5.22.1	UPS - OEM'S QUALIFICATION CRITERIA:	Proof in form of purchase order either in name of Bidder or OEM to be furnished.	Rfp Page No-116, Clause No-5.22.1, UPS - OEM'S QUALIFICATION CRITERIA, Point No-2 may be read as below: "At least 50 installation in India for the offered rating. Proof in form of a list of installations as self-declaration and signed by an CA/CS with customer name, rating and quantity supplied, contact details of the customer. The Self Certification submitted by OEM and signed by CA/CS must have counter certified/ vetted by the Bidder. Install Base of Minimum 50 Racks of Lithium Ion with 100 kW and above UPS ratings."

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17	122	5.22.3	Precision Air Conditioning System (Direct Expansion In-ROW)	<p>11. Controller: The controls shall be of microprocessor based programmable PID logic controller.</p> <p>Status Report of the latest 400 event messages of the unit.</p> <p>Input for remote on-off and volt-free contacts for simple remote monitoring of low and high priority alarms: high/low temperature, fan/control failure, compressor/control failure and others are available LAN management: functions provided as standard include standby (in case of failure of the unit in operation, the second one starts automatically), and automatic rotation. Automatic restart after a power failure.</p>	<p>RFP Clause No-5.22.3, Page No-122, Point No.11 may be read as below:</p> <p>11. Controller: The controls shall be of microprocessor based programmable PID logic controller.</p> <p>Status Report of the latest 200 event messages of the unit.</p> <p>Input for remote on-off and volt-free contacts for simple remote monitoring of low and high priority alarms: high/low temperature, fan/control failure, compressor/control failure and others are available LAN management: functions provided as standard include standby (in case of failure of the unit in operation, the second one starts automatically), and automatic rotation. Automatic restart after a power failure.</p>

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18	122	5.22.3	Precision Air Conditioning System (Direct Expansion In-ROW): OEM Qualification Criteria.	At least 10 installations of single or multiple units in India for the offered rating. Proof in form of purchase order either in name of Bidder or OEM to be furnished	Rfp Page No-122, Clause No-5.22.3, Precision Air Conditioning System (Direct Expansion In-ROW) - OEM'S QUALIFICATION CRITERIA, Point No-3 may be read as below: "At least 10 installations of single or multiple units in India for the offered rating. Proof in form of a list of installations as self declaration signed by an CA/CS with customer name, rating and quantity supplied, contact details of the customer. The Self Certification submitted by OEM and signed by CA/CS should must have counter certified/ vetted by the Bidder."
19	124	5.22.4 (10)	Precision Air Conditioner (CRAC) for perimeter cooling of Power Rooms	Humidifier - Infrared Type	RFP Page No-124, Clause No-5.22.3, Precision Air Conditioner (CRAC) for perimeter cooling of Power Room-Mandatory Requirements point No-10, may be read as below: "Humidifier: Infrared Type/ Immersed electrode type humidifier."
20	125	5.22.4	Precision Air Conditioner (CRAC) - OEM'S QUALIFICATION CRITERIA:	Installation base of Minimum of 100 Units of similar rating across India.	RFP Page No-125, Clause No-5.22.4, Precision Air Conditioner (CRAC) for perimeter cooling of Power Rooms- OEM'S QUALIFICATION CRITERIA, Point No-2 may be read as below: "Installation base of Minimum of 100 Units of similar rating across India. Proof in form of a list of installations as self-declaration (on OEM's letter head signed by an CA/CS with customer name, rating and quantity supplied, contact details of the customer. The Self Certification submitted by OEM and signed by CA/CS must have counter certified/ vetted by the Bidder."

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21	126	5.22.5	Diesel Generator	Rating / Sizing: 1800KVA (Data Centre Continuous rated)	RFP Page No-126, Clause No-5.22.5, Diesel Generator- may be read as below: "Rating / Sizing: 1800KVA or higher (Data Centre Continuous rated) (As per bidder's solution and in accordance to uptime institute specifications.) The new Proposed Diesel generators shall replace the existing Diesel generators. These 2 numbers of 1800KVA or higher (Data Centre continuous rated). Diesel Generators will feed the existing Data Centre and the new proposed Data Centres. Please refer the layout and SLD for further details
22	138	5.22.9	Passive networking A. Architecture and General Construction	6. The system shall support 50/125 Laser Optimized Multimode – available in OM4 and OM5 (Wide Band Multimode)	RFP Page No-138, Clause No-138, Passive networking A. Architecture and General Construction, point No-6 may be read as below: "The system shall support 50/125 Laser Optimized Multimode – available in OM5 (Wide Band Multimode)."
23	140	5.22.9	Passive networking E Horizontal Cable – CAT6A UTP Cable	5. The cable and cordage shall be "UTP" components that do not include internal or external shields, screened components or drain wires. No Special Grounding requirements. <u>The horizontal data cables shall be of shielded twisted pair cordage with eight (8) solid conductors formed into four individually twisted pairs</u>	RFP Page No-140, Clause No-5.22.9-Passive networking(E Horizontal Cable – CAT6A UTP Cable), Point No-5 may be read as below: "The cable and cordage shall be "UTP" components that do not include internal or external shields, screened components or drain wires. No Special Grounding requirements. The horizontal data cables shall be of shielded twisted pair cordage with eight (8) solid conductors formed into four individually twisted pairs. Horizontal cable with UTP can also be accepted."

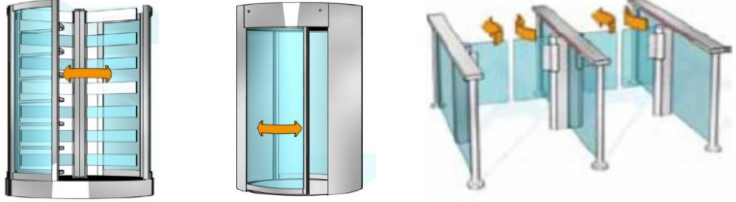
S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
24	140	5.22.9	Passive networking E Horizontal Cable – CAT6A UTP Cable	6. The horizontal cable shall have a unique print string on the cable jacket to access to a full set of OEM factory tests available publicly for anytime verification by client	RFP Page No-140, Clause No-5.22.9-Passive networking(E Horizontal Cable – CAT6A UTP Cable), Point No-6 may be read as below: "The horizontal cable shall have a unique print string on the cable jacket to access to a full set of OEM factory tests available publicly or test report must be shared on demand anytime for verification by client"
25	140	5.22.5	Passive networking: F. Requirement for CAT 6A Patch Panel	3rd Party Verification test certificates shall be provided to show compliance to ISO/IEC 11801 Amendment 2 testing for Cat 6A components.	RFP Page No-140, Clause No-5.22.5, Passive networking: F. Requirement for CAT 6A Patch Panel, Point No-3 may be read as below: "3rd Party Verification test certificates shall be provided to show compliance to ISO/IEC 11801 Amendment 2 testing or ANSI TIA 568.c.2 standard compliance with ETL verified for Cat 6A components."

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26	141	5.22.9	Passive networking Evaluation Criteria:	Passive Cabling 0.5 The complete solution should be logical based intelligent ready from day 1 of installation.	<p>RFP Page no-141, Clause No-5.22.9, Passive networking Evaluation Criteria, may be read as below:</p> <table border="1"> <thead> <tr> <th>SI</th> <th>Name of the Device</th> <th>Max Score</th> <th>Parameter</th> <th>Specification</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td rowspan="3">#</td> <td rowspan="3">Passive Cabling</td> <td rowspan="3">0.5</td> <td rowspan="2">Manufacturing facility in India for the offered solution</td> <td>Yes</td> <td>0.25</td> </tr> <tr> <td>No</td> <td>0</td> </tr> <tr> <td rowspan="2">Installation of similar products in at least 5 Data Centres (minimum 1000 copper + Fibre ports) across India in last 2 years. Documentary evidence to be submitted.</td> <td>>=5 Data Centre with minimum 1000 copper + fiber ports in last 2 years</td> <td>0.25</td> </tr> <tr> <td>1-4 Data Centre with minimum 1000 copper + fiber ports in last 2 years</td> <td>0</td> </tr> </tbody> </table>	SI	Name of the Device	Max Score	Parameter	Specification	Score	#	Passive Cabling	0.5	Manufacturing facility in India for the offered solution	Yes	0.25	No	0	Installation of similar products in at least 5 Data Centres (minimum 1000 copper + Fibre ports) across India in last 2 years. Documentary evidence to be submitted.	>=5 Data Centre with minimum 1000 copper + fiber ports in last 2 years	0.25	1-4 Data Centre with minimum 1000 copper + fiber ports in last 2 years	0
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27	144	2	DCIM: OEM Qualification Criteria	OEM should have a service centre in Bhubaneswar with local GSTN.	Rfp Page No-144, Clause No-5.22.10 DCIM, OEM Qualification Criteria, point No-2, may be read as below: "OEM should have authorized service partner/ service center in Bhubaneswar with local GSTN".
28	147	5.22.12	IT Rack: Mandatory Requirements	42U Server and network rack dimension would be (WDH) 800mmX1200mmX 2000mm respectively.	RFP Page No-147, Clause No-5.22.12, IT Rack: Mandatory Requirements, point No-1 may be read as below: "42U Server and network rack dimension would be (WDH) 800mmX1200mmX 2000mm respectively. However, a 7.5% size tolerance can be allowed on the height of the rack."
29	147	5.22.12	IT Rack: Mandatory Requirements	RAL7021 or RAL 9002 Black powder coat on all sheet metal components of the rack.	RFP Page No-147, Clause No-5.22.12, IT Rack: Mandatory Requirements, point No-2 may be read as below: "RAL7021 / RAL 9002 or RAL9005 Black powder coat on all sheet metal components of the rack."
30	147	5.22.12	IT Rack: Mandatory Requirements	The roof of the racks should be removable from the interior of the enclosure with/without tools and should have cable entry holes to allow up to 1800 cables or 60A PDU plug.	RFP Page No-148, Clause No-5.22.12, IT Rack: Mandatory Requirements, point No-10 may be read as below: "The roof of the racks should be removable from the interior/exterior of the enclosure with/without tools and should have cable entry holes to allow up to 1800 cables or 60A PDU plug."

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31	149	5.22.13	IPDU: Mandatory Requirements	Monitoring parameters – The IPDU should have monitoring capability at the Strip level, phase level, outlet/socket level monitoring Following monitoring parameters should be included phase and the outlet level. 1.) Voltage (V) 2.) Current (A) 3.) Power factor 4.) Active power (W/KW) 5.) Energy consumption (Kwh)	RFP Clause No 5.22.13 IPDU, Point No-4 (Page No-149) may be read as below: "Monitoring parameters – The IPDU should have monitoring capability at the Strip level, phase level, outlet/socket level monitoring. Following monitoring parameters should be included phase and the outlet level. 1.) Voltage (V) 2.) Current (A) 3.) Active power (W/KW) 4.) Energy consumption (Kwh) The metering accuracy should be +/- 3% compliant to ANSI C12.1 and IEC 62053-21 at 3% Accuracy Class Requirements for outlet/socket, strip and phase level."
32	150	5.22.13	IPDU (Point No-5)	5. Each IPDU must have circuit breakers to protect the PDU and IT devices form damage caused by overload or short circuits. PDU must have 16Amp circuit breakers as per the IEC guidelines.	RFP Clause No 5.22.13 IPDU, (Page No-150) Point No-5 may be read as below: "Each IPDU must have circuit breakers to protect the PDU and IT devices form damage caused by overload or short circuits. PDU must have 32 Amp circuit breakers as per the IEC guidelines."

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark																														
33	150	5.22.13	IPDU: Mandatory Requirements	Each rack should have one sensor in the front of the rack to monitor temperature, humidity, dew point & air-flow and one sensor in the rear to have temperature monitoring	RFP Clause No 5.22.13 IPDU, Point No-14 (Page No-150) may be read as below: "Each rack should have one sensor in the front of the rack to monitor temperature, humidity, dew point & air-flow and one sensor in the rear to have temperature monitoring. The Dew Point sensor is a desired requirement and not a mandatory one."																														
34	178	5.22.25	Physical Access Control System	Physical Access Control System – Entire Specifications (RFP Page No-178 to 182). Rating/Sizing: Full height	RFP page No-178-182, clause No-5.22.25, Physical Access Control System (entire clause) may be read as below: <table border="1"> <thead> <tr> <th>SI</th> <th>Parameter</th> <th>Value</th> <th>Compliance (Fully or better complied/ Partially complied/ Not complied)</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Multi-person detection</td> <td>Yes</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>Weight sensing</td> <td>Yes</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Drive</td> <td>PWM Controlled</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>Material Finish</td> <td>Mild Steel Power Coated</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>Door Material</td> <td>Fire rated Glass</td> <td></td> <td></td> </tr> </tbody> </table>	SI	Parameter	Value	Compliance (Fully or better complied/ Partially complied/ Not complied)	Remark	1	Multi-person detection	Yes			2	Weight sensing	Yes			3	Drive	PWM Controlled			4	Material Finish	Mild Steel Power Coated			5	Door Material	Fire rated Glass		
SI	Parameter	Value	Compliance (Fully or better complied/ Partially complied/ Not complied)	Remark																															
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4	Material Finish	Mild Steel Power Coated																																	
5	Door Material	Fire rated Glass																																	

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark					
					6	Controller	Microprocessor based			
					7	Sensors	Proximity sensor for door operation, IT sensor to detect person inside,			
					8	Throughput	4-5 persons per minute			
					9	Integration	With Access controller device			
					10	Failsafe	Manual override in case of power failure.			
										

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
35	221	7.1. (6)	Server Type A & B – Rack Server	Server Type A :- Minimum 2 x 1 Gbps ports & Two no's Dual 10/25 Gbps SFP28 (25G-SR populated) ports with four nos of 5 mtr of FC cable Server Type B:- Minimum 2 x 1 Gbps ports & Four no's Dual 10/25 Gbps SFP28 (25G-SR populated) ports with eight nos of 5 mtr of FC cable	RFP Clause No 7.1 Server Type A & B – Rack Server, Point No-6 (Page No-221) may be read as below: 6. Network Controller Server Type A :- Minimum 2 x 1 Gbps Copper/BaseT ports & Two no's Dual 10/25 Gbps SFP25 (25G-SR populated) ports with four nos of 5 mtr of FC cable Server Type B:- Minimum 2 x 1 Gbps Copper/BaseT ports & Four no's Dual 10/25 Gbps SFP25 (25G-SR populated) ports with eight nos of 5 mtr of FC cable
36	224	7.2. (44)	Core Router	Layer 3 services The router should support Data Centre features like DCI, EVPN, VXLAN and SDN Gateway translation functionality like VXLAN to VLAN, NVGRE to VLAN	RFP Clause No 7.2 Core Router, Point No-44 (Page No-224) may be read as below: "The router should support Data Centre features like DCI, EVPN, VXLAN "
37	224	7.2. (55)	Core Router	Quality of Service (QoS) The Router should support HQoS/Nested QoS with four levels and minimum of 32K hardware queues	RFP Clause No 7.2 Core Router, Point No-55 (Page No-224) may be read as below: "The Router should support powerful processing, HQoS/Nested QoS functionalities with four levels"
38	226	7.3 (15)	Spine Switch	Shall support Large Layer 2 scaling through advanced features such as Transparent Interconnection of Lots of Links (TRILL) or equivalent feature, 90K MAC entries or higher per each offered interface module.	RFP Clause No 7.3 Spine Switch, Point No-15 (Page No-226) may be read as below: "Shall support Large Layer 2 scaling through advanced features, 90K MAC entries or higher per each offered interface module."

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
39	227	7.3 (38)	Spine Switch	Shall have zero trust policy model for connected systems or hosts to help in protecting against any kind of attacks like Unauthorized Access, Man - in - the middle -attack, Replay Attack, Data Disclosure, Denial of Service Switch platform should also support MAC Sec (802 1AE) in hardware to provide encryption between spine and leaf	RFP Clause No 7.3 Spine Switch, Point No-38 (Page No-227) may be read as below: "Shall have zero trust policy model for connected systems or hosts to help in protecting against any kind of attacks like Unauthorized Access, Man - in - the middle -attack, Replay Attack, Data Disclosure, Denial of Service."
40	228	7.4 (4)	Leaf Switch (Fibre)	Shall have routing/switching capacity of minimum of 2.66 Tbps or more, speed nonblocking forwarding performance.	The minimum requirement has been mentioned, anything above that is also acceptable.
41	229	7.4 (8)	Leaf Switch (Fibre)	Shall provide VxLAN feature for L2 or L3 and should also provide MAC Sec (802 1AE) encryption or equivalent in hardware to provide encryption between Spine and Leaf	RFP Clause No 7.4 Leaf Switch (Fibre), Point No-8 (Page No-229) may be read as below: "Shall provide VxLAN feature for L2 or L3"
42	229	7.4 (11)	Leaf Switch (Fibre)	Shall support Large Layer 2 scaling through advanced features such as Transparent Interconnection of Lots of Links (TRILL) or equivalent feature, 90K MAC entries	RFP Clause No 7.4 Leaf Switch (Fibre), Point No-11 (Page No-229) may be read as below: "Shall support Large Layer 2 scaling through advanced features, 90K MAC entries"

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
43	230	7.4. (44)	Leaf Switch (Fibre)	The proposed switch should support native 25G and should be populated with 48*10G Multimode fibre trans receiver for downlink connectivity & 6*100G ports with multimode 100G Transceivers, for uplink connectivity	RFP Clause No 7.3 Spine Switch, Point No-15 (Page No-230) may be read as below: "Minimum 48 ports support 1/10/25 Gbps SFP ports for host connectivity and 6*100G ports for Fabric/Spine connectivity. The proposed switch should be populated with 48*25G Multimode fibre trans receiver for downlink connectivity & 6*100G ports with multimode 100G Transceivers, for uplink connectivity from day 1".
44	234	7.7 (5)	SAN Switch (96 ports)	The aggregate backplane bandwidth of switch should be scalable more than 3 Tbps	RFP Clause No 7.7 SAN Switch (96 ports), Point No-5 (Page No-234) may be read as below: "The aggregate backplane bandwidth of switch should be 3 Tbps or higher"
45	235	7.8 (14) h	SAN Switch (48 ports)	Support for Hardware based Inter Switch linking / trunking.	All required licenses are to be provided by bidder from day-1.
46	238	7.9 (29)	7. 9 - Enterprise Storage	Front End Ports: 32 no's 32Gb FC ports, 4 no's 10Gb SFP+ ports for iSCSI, and 4 no's 10Gb FCIP ports for replication (Replication license to be included)	RFP Clause No 7.9 Enterprise Storage, Point No-29 (Page No-238) may be read as below: "Storage Solution must provide Front End Ports: 32 no's 32Gb FC ports, 4 no's 10Gb SFP+ ports for iSCSI/ETHERNET, and 4 no's 10Gb FCIP ports (Replication license to be included)"
47	242	7.12 (22)	Next Generation Firewall	The proposed solution must be able to support session and configuration synchronization Proposed appliance must support at least 4 million concurrent sessions and should be scalable to support 25 million and 150,000 new connections per second from day one and should be scalable to support	RFP Clause No 7.12 Next Generation Firewall, Point No-22 (Page No-242) may be read as below: "The proposed solution must be able to support session and configuration synchronization Proposed appliance must support at least 4 million concurrent sessions and should be scalable to support 25 million and 150,000 new connections per second from day one and should be scalable to support 300,000 new connections".

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
				300,000 new connections from day 1.	
48	244	7.12 (77)	Next Generation Firewall	A minimum storage capability of 2TB /minimum 180 days log retention whichever is higher (should be on a separate management appliance) need to be	RFP Clause No 7.12 Next Generation Firewall, Point No-22 (Page No-244) may be read as below: "A minimum storage capability of 2TB /minimum 180 days log retention whichever is higher (should be inbuilt or on a separate management appliance) need to be provided as part of the solution for logging and reporting".
49	246	7.13. (18)	AAA	Shall provide utilities for interactive policy simulation and monitor mode for assessing the policies before applying to the production network	RFP Clause No 7.13 AAA, Point No-18 (Page No-246) is dropped.
50	246	7.13. (19)	AAA	Shall support process inbound threat-related events (which are Syslog events received from any third-party vendor device, such as Firewall, SIEM) and perform enforcements and actions based on the defined enforcement policies and services.	RFP Clause No 7.13 AAA, Point No-19 (Page No-246) may be read as below: "Shall support processing of events or data (by using API or Syslog events received from any third-party vendor device, such as Firewall, SIEM) and perform enforcements and actions based on the defined enforcement policies and services."
51	252	7.16 (5)	Server Security Solution	Should protects a wide range of platforms: Windows, Linux, Solaris, HP-UX, AIX, VMware, Citrix, Hyper-V, and Amazon.	RFP Clause No 7.16 Server Security Solution, Point No-5 (Page No-252) may be read as below: "Should protects a wide range of platforms: Windows, Linux, Solaris, HP-UX, AIX, VMware, Citrix, Hyper-V, KVM & Amazon "
52	254	7.17 (15)	Vulnerability Assessment Solution	The vulnerability management solution must have agent-based scanning that helps organization	RFP Clause No 7.17 Vulnerability Assessment Solution, Point No-15 (Page No-254) may be read as below: "The vulnerability management solution must have agentless scanning "

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
				to more easily scan mobile and hard to reach assets.	
53	254	7.17 (25)	Vulnerability Assessment Solution	The VM solution must have capabilities for malware detection with built-in threat Intelligence and it should also support anomaly detection using statistical or behavioural techniques	RFP Clause No 7.17 Vulnerability Assessment Solution, Point No-25 (Page No-254) is dropped.
54	254	7.17 (27)	Vulnerability Assessment Solution	The VM solution must have Real-time detection of botnet and command & control traffic	RFP Clause No 7.17 Vulnerability Assessment Solution, Point No-27 (Page No-254) is dropped.
55	255	7.17 (28)	Vulnerability Assessment Solution	Solution must be supplied with at least 2048 IP address from day one	RFP Clause No 7.17 Vulnerability Assessment Solution, Point No-28 (Page No-255) may be read as below: "The solution must be supplied with at least 512 IP address from day one, scalable up to 2048 IP address "
56	258	7.19. (6)	Virtualization Software	Should be able to dynamically allocate and balance computing capacity across collections of hardware resources.	RFP Clause No 7.19 Vulnerability Assessment Solution, Point No-6 (Page No-258) is dropped.
57	261	7.20 (21)	Platform As a Service	The solution should support multiple x6x86 based server OEM for bare metal deployment, Multiple Hypervisor like VMware, Hyper-V, RHV, OpenStack and multiple public cloud like AWS, GCP, Azure etc.	RFP Clause No 7.20 Platform As a Service, Point No-21 (Page No-261) may be read as below: "The solution should support multiple x86 based server OEM for bare metal deployment, Multiple Hypervisor like VMware, Hyper-V, RHV, OpenStack and multiple public cloud like AWS, GCP, Azure etc.".

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
58	263	7.21 (22)	Enterprise Management System:	The solution must be able to collect following Server Monitoring Parameters: a. Disk failure/utilization b. CPU Failure/utilization c. RAM failure/utilization d. Event logs e. OS Monitoring f. CPU Utilization g. Disk Utilization h. Cluster Monitoring i. Process Monitoring	RFP Clause No 7.21 Enterprise Management System, Point No-22 (Page No-263) may be read as below: "Server Infrastructure Monitoring The solution must be able to collect following Server Monitoring Parameters: a. Disk failure/utilization b. CPU Failure/utilization c. RAM failure/utilization d. Event logs e. OS Monitoring f. CPU Utilization g. Disk Utilization h. Cluster Monitoring i. Process Monitoring j. Hardware Monitoring (i) Disks - RAID controllers, hard disks, RAIDs, Volume etc. (ii) Environment - temperature, power supplies, fans etc. (iii) Critical components: processors, memory modules etc. k. Customized reports on performance parameters as when required".
59	263	7.21 (27)	Enterprise Management System:	Database Monitoring and Storage Monitoring	RFP Clause No 7.21 Enterprise Management System, Point No-27 (Page No-263) may be read as below: "Monitoring of standard RDBMs (community and enterprise version) like Oracle, MS-SQL, DB2, MySQL, Sybase, Postgres, MariaDB etc. in standalone and cluster mode. Solution should be able to monitor storage infrastructure and performance. Storage Monitoring - i) Solution must provide failure and performance monitoring for multivendor (Hitachi, Netapp, HP, IBM, Dell EMC, Pure etc) storage devices. ii) Solution must provide monitoring of all layers of a storage device (controllers, volumes, storage pools etc.) and provide GUI to easily detect issues. iii)Solution must monitor following in Disk Arrays, Fiber Switches and Tape Libraries:-

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
					iv) Monitors the environment (temperature, fans, power supplies) v) Monitoring of fiber links. vi) Customized reports on performance parameters as when required”.
60	271	7.23. (16)	Anti- APT Solution	Proposed solution should have customized sandboxing and analyse the historical data.	RFP Clause No 7.23 Anti- APT Solution, Point No-16 (Page No-271) may be read as below: " Proposed solution should have customized sandboxing and analyse the historical data and solution should be capable of performing multiple sandboxing environment in parallel, handling at least 30 virtual machines"
61	271	7.23. (17)	Anti- APT Solution	Advanced Threat Detection The solution should be OS agnostic and should deploy static/dynamic analysis for emulation of threats on various operating systems like Win7,Win XP, Win 10 irrespective of the versions. The Proposed solution should support at least MS 2008, 2012, 2016, 2019 OS for Sandboxing and able to protect from Linux, Android and Mac OS based threats	RFP Clause No 7.23 Anti- APT Solution, Point No-17 (Page No-271) may be read as below: "The solution should be OS agnostic and should deploy static/dynamic analysis for emulation of threats on various operating systems like Win7,Win8, Win 10 irrespective of the versions. The Proposed solution should support at least MS 2008, 2012, 2016 OS for Sandboxing and able to protect from Linux and Mac OS based threats"
62	271-272	7.23. (19)	Anti- APT Solution	Advanced Threat Detection The solution should be OS agnostic and should deploy static/dynamic analysis for emulation of threats on various operating systems like Win7,Win XP, Win 10 irrespective of the versions. The Proposed solution	RFP Clause No 7.23 Anti- APT Solution, Point No-19 (Page No-271-272) is dropped.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
				should support at least MS 2008, 2012, 2016, 2019 OS for Sandboxing and able to protect from Linux, Android and Mac OS based threats	
63	272	7.23. (35)	Anti- APT Solution	OEM Criteria Solution should be in the recommend list as per the latest NSS report / should have more than 99% detection rate as per ICSA certification.	RFP Clause No 7.23 Anti- APT Solution, Point No-17 (Page No-271) may be read as below: OEM Criteria "Solution should be in the recommend list as per the latest published NSS report or equivalent report/ should have more than 99% detection rate as per ICSA certification".
64	273	7.24 (2)	DLP Solution	The solution should be able to block outbound emails sent via SMTP if violates the policy. Mailbox support should be 3000 from day one.	RFP Clause No 7.24 DLP Solution, Point No-2 (Page No-273) may be read as below: "100 DLP licenses should be considered for the complete DLP suite from day one".
65	273	7.24. (6)	DLP Solution	The solution should be able to identify data leaked in the form unknown and known encrypted format like password protected word document. The solution should support quarantine as an action for email policy violations and should allow the sender's manager to review.	RFP Clause No 7.24 DLP Solution, Point No-6 (Page No-273) may be read as below: "The solution should be able to identify data leaked in the form unknown and known encrypted format like password protected word document. The solution should support quarantine as an action for email policy violations and should allow the sender's manager to review and release notification".
66	273	7.24. (8)	DLP Solution	The solution should be able to monitor data copied to network file shares and should enforce	RFP Clause No 7.24 DLP Solution, Point No-8 (Page No-273) may be read as below: "The solution should be able to monitor data copied to network file shares and should enforce structured and unstructured fingerprint policies when not connected to network over endpoint as well"

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
				structured and unstructured fingerprint policies	
67	273	7.24. (13)	DLP Solution	Proposed solution should support monitoring or blocking data copied to network file shares and should also protect the data going out to the removable media	RFP Clause No 7.24 DLP Solution, Point No-13 (Page No-273) may be read as below: "Proposed solution should support monitoring or blocking data copied to network file shares and should also protect the data going out to the removable media, encrypting the critical data transferred to removable media"
68	274	7.24 (27)	DLP Solution	The proposed DLP Solution must be able to detect Data Classification Labels applied by Data Classification partners by reading metadata as well as custom header analysis and should also have classification tool from same OEM	RFP Clause No 7.24 DLP Solution, Point No-27 (Page No-274) may be read as below: "The proposed DLP Solution must be able to detect Data Classification Labels applied by Data Classification partners by reading metadata as well as custom header analysis and should also have classification tool"
69	280	7.28 (16)	KVM SWITCH (IP Based)	Should support display resolution of 1600 X 1200 or better at remote.	RFP Clause No 7.28 KVM Switch (IP Based), Point No-16 (Page No-280) may be read as below: "Should support display resolution of 1920 X 1080 or higher "
70	283	7.30. (9)	Zero Trust Network Access	The solution should be software based and gateway can be deployable on Open Source platform (Ubuntu. Centos). The Platform should be scalable to 1000000+ users from day one.	RFP Clause No 7.30 Zero Trust Network Access, Point No-9 (Page No-280) may be read as below: "The solution should be software based and gateway can be deployable on Open Source platform (Ubuntu. Centos). The Platform should be future scalable to 1000000+ users without any financial implications".

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark								
71	296	9	Payment Schedule	Tax shall be shown extra by the Bidder in their invoices for the items applicable. The same shall be paid by OCAC as per actual after verification. Similarly, if there is any tax savings, the same shall be reduced from the payable amount.	RFP Clause No 9 Payment Schedule, Note Point No.2 (Page No-295) may be read as below: "Tax shall be shown extra by the Bidder in their invoices for the items applicable. The same shall be paid by OCAC as per actual after verification".								
72	329	5.22.7	Video Wall System	VIDEO WALL CUBES OF 70" DIAGONAL 4 x 2 CONFIGURATION COMPLETE WITH BASE STAND	RFP Page No-329, Clause No- 12.1, Bill of Quantity – Non- IT OSDC 2.0 and Price Bid, the following line item may inserted: <table border="1" data-bbox="1061 783 1868 1002"> <thead> <tr> <th>SI</th> <th>Work Detail</th> <th>UOM</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>224</td> <td>VIDEO WALL CUBES OF 70" DIAGONAL 4 x 2 CONFIGURATION COMPLETE WITH BASE STAND</td> <td>Nos.</td> <td>Bidder to propose</td> </tr> </tbody> </table>	SI	Work Detail	UOM	Quantity	224	VIDEO WALL CUBES OF 70" DIAGONAL 4 x 2 CONFIGURATION COMPLETE WITH BASE STAND	Nos.	Bidder to propose
SI	Work Detail	UOM	Quantity										
224	VIDEO WALL CUBES OF 70" DIAGONAL 4 x 2 CONFIGURATION COMPLETE WITH BASE STAND	Nos.	Bidder to propose										
73	330	12.2	BOQ of IT items	5.6 DLP	RFP Claus No 12.2 BOQ of IT items, 5.6 DLP Solution license may be read as below: "5.6 DLP Solution (Licenses) Nos – 100"								
74	330	12.2	BOQ of IT items	7.1 On Premise Services (VM Based)	RFP clause No 12.2, 7.1 On Premise Services (VM Based) may be read as below: "7.1 EMS,NMS & Helpdesk Management is Set-1, (i) Concurrent users for Helpdesk Management - 5 Nos., (ii) OS Monitoring Instances such as (Windows, Unix, Linux, Hypervisor like KVM, Open stack, VMware, RedHat etc.) - 300 Nos. (iii) Network Nodes Monitoring - 200 Nos. (iv) Database Cluster Monitoring - 8 Nos. (These Cluster licenses must support Oracle, MSSql, My SQL, Post Gre Sql, Mongo DB, Maria DB)								

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Modification/ Remark
					(v) Standalone DB Monitoring - 4 Nos. (These licenses must support Oracle, MSSql, My SQL, Post Gre Sql, Mongo DB, Maria DB) (vi) Storage Monitoring - 6 Nos . (Licenses must support multi vendor storage like HPE, Hitachi Vantara, Dell EMC, IBM, Netapp etc.)”
75	330	12.2	BOQ of IT items	8.1 MS Windows Server Standard Latest Edition 16 Core License	OCAC requires 100 nos. qty. i.e. 100 nos. of 16-pack licenses.
76	330	12.2	BOQ of IT items	9 Desktop / Laptop/ Printer	RFP clause No 12.2, 9 Desktop / Laptop/ Printer may be read as below and KVM switch is added to BOQ: “Desktop / Laptop/ Printer/KVM Switch 9.4 KVM Switch (IP Based)- Nos -2 “
77	369	14.17	Proforma 17: Bidder’s Net worth	Note: Please attach audited Balance Sheets and IT return statements to confirming the figures mentioned in columns	Modified Clause:: Note: Please attach audited Balance Sheets statements to confirming the figures mentioned in columns
78	410	Annexure - A	Annexure -A	Additional Software Licenses details 14 Oracle RAC DB	The point no. 14 may be read as below: “Sl.No 14 Oracle RAC DB , Software Version - Oracle RAC 11g R2, AMC/ Support Required - - “
79	410	Annexure - A	Annexure -A	Additional Software Licenses details 16 Apsolute Vision (Radware DefensePro)	The Licenses Qty is 6 for existing Radware Device.
80			General		All the required modules asked in the RFP should be populated from day 1.

CLARIFICATIONS

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
1	20	2.2.	Project Objective	OCAC offers expansion /extension of SDC in the form of the Tier III standard State Data Centre in first floor of OCAC Towers which will be built exclusively and dedicatedly for extension of Odisha State Data Centre (OSDC 2.0) within the same campus. SDC completed more than eight (9) years of operation, most of the compute, storage and network is utilized and would require upgradation.	OCAC will ensure that the floor strength is adequate for creating Datacentre. This is not in scope of bidder.
2	23	2.3.	Brief Scope of Work	Schedule III: Migration of selected set of five applications before the FAT and integration of existing DC with OSDC 2.0.	Please refer RFP for details, Page no. 27. Details of the migration activity of five applications shall be provided before the FAT.
3	24	2.3.	Brief Scope of Work	Scope of Work (Non IT) ii. HT and MV Power and distribution o Replacement of HT and metering panel, cables, transformer, BBT and transformer output panels	The bidder should plan the migration activity in such a manner that, there would be no down time for that the bidder should propose mobile DGs if required. same was being explained to the prospective bidders during the scheduled site visit activity and also mentioned in RFP clause no-5.18, Page No-110. The tentative space for the same has been earmarked & also explained to the prospective vendors during the site visit activity.
4	26	2.3	Scope of Work (IT)	Desirable capabilities of Software Defined Cloud Enabled Data-Centre: Software defined compute, software defined storage, software defined network and software defined security.	Software defined security is a desirable functionality which shall be part of the cloud automation.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
5	26	2.3.	Brief Scope of Work	<ul style="list-style-type: none"> ▪ Bidder to get following Data Centre Certification within 6 months from Go-Live and all related cost for the certification will be borne by bidder: <ul style="list-style-type: none"> o ISO 9001 o ISO 27001 o ISO 20000 o ISO 27017 o Uptime Tier III certification for Design, Construction and Operation 	Bidder has to identify and finalise third party auditor to get the certifications done in coordination with OCAC. Uptime Certification for Design has to be done before the execution starts. Uptime certification for Construction to be done after the installation and commissioning of the Non-IT packages.
6	27	2.3.	Brief Scope of Work	Hardware, Application and Database Migration from existing SDC to OSDC 2.0 is an essential part of the project. The selected bidder will facilitate the infrastructure support from the existing resources for migration activity. Details of the migration activity of five applications shall be provided before the FAT.	Both OSDC 1 and OSDC 2.0 shall be up and running in an integrated environment.
7	27	2.3.	Brief Scope of Work	Hardware, Application and Database Migration from existing SDC to OSDC 2.0 is an essential part of the project. The selected bidder will facilitate the infrastructure support from the existing resources for migration activity. Details of the migration activity of five applications shall be provided before the FAT.	Please refer RFP for details, Page no. 27. Details of the migration activity of five applications shall be provided before the FAT.
8	34	3.5	Proposal Prices	The bidder must submit a detailed Bill of material including Make & Model and Bill of quantity with prices of each component.	The bidder has to submit detailed Bill of material for all products/items required as per their solution and as per the BOQ already mentioned in the RFP.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
9	79	5.1	Civil/ Non- IT Design Consideration	Proposed indicative Layout for minimum of 88 Nos of Racks of OSDC 2.0 Staging Area Fig.-1 (Page No. 80)	As per base design there are 88 No's of Racks proposed inside the DC hall. Apart from that the racks required in Staging Room and Telecom rooms are also in the scope of the bidder. BOQ is indicative. However, the facility server hall has to be made for 88 racks only.
10	82	5.2	Data Centre Build/Non-IT Design Consideration	The server farm area load density will be as follows <ul style="list-style-type: none"> • 80% of racks = 7.5 KW • 20% of racks = 10 KW 	As per base design there are 88 No's of Racks proposed inside the DC hall. The indicative load of the proposed Racks are as follows: High Density Racks (10 KW): 14 Nos. Medium Density Racks (7.5 KW): 64 Nos. Network Racks (4 KW): 10 Nos. Apart from above, the racks required in Staging Room and Telecom rooms are also in the scope of the bidder. Layout is indicative. Bidder may consider above and recreate the layout accordingly.
11	82	5.3	Non-IT Infrastructure	Scope of Work	The DC will be built on the first floor of the OCAC Towers. The DC is proposed to have a total area of 7000 sq. ft. (approx.) out of which 3100 sq. ft. (approx.) will be server farm area including the staging area and network rooms. The bidder has to visit the site physically and do proper site survey regarding area and other location details.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
12	83	5.3	Non-IT Infrastructure (Scope of Work) Utility Room:	The bidder is advised to do a detail site survey of the Utility room, take measurements and list out all the work required to revamp the room to make it better in terms of facility, manageability and operability.	The site visit activity was already scheduled. However, the bidders can approach OCAC on any working day if there are still any doubts. The same have been used for OSDC 1.0 functions. Please refer RFP page no-94 (Existing and proposed scheme) for details.
13	85	5.3	Non-IT Infrastructure (Scope of Work) Campus Surroundings:	a. Existing trenches may be used for laying of cables. In the process, there may be chances of breakage of trench covers. The same has to be replaced by the Bidder with equal specification.	Go through the RFP in detail. Please refer RFP (Campus surrounding) and Page no-95 (Existing cable trenches) for details.
14	85	5.3.	Non-IT Infrastructure (Scope of Work)	Campus Surroundings: The Existing DG set for the SDC area need to be replaced with new one.	The bidder should plan the migration activity in such a manner that, there would be no down time for that the bidder should propose mobile DGs if required. same was being explained to the prospective bidders during the scheduled site visit activity and also mentioned in RFP clause no-5.18, Page No-110.
15	85	5.3	Non-IT Infrastructure (Scope of Work) - Data Centre Area (1st Floor of OCAC tower)	ii. Creation of Ramp with desired top finish from material entry side to server farm area. iii. Creation of Ramp with desired top finish from fire exit side of server farm area towards outside.	Please refer RFP Page no-85 (Creation of Ramp) for details. Layout is indicative.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
16	86	5.3	Non-IT Infrastructure (Scope of Work) - Data Centre Area (1st Floor of OCAC tower)	<p>C. There are three toilet blocks on each side of the Data Centre floor. One on the south side and two are on the north side. One of the blocks on the northeast side has to be converted to UPS and power room. All the partitions have to be dismantled & fittings/plumbing pipes to be removed & sealed. There has to be fire rated doors installed with minimum 1200 width for smooth entry of the equipment. The floor must be layered with antistatic material. The walls have to be painted with fire rated paint.</p> <p>d. The other side toilet block has to be furnished with high quality flooring, wall tiling and fixtures.</p>	<p>There are three toilet blocks on each side of the Data Centre floor. One on the south side and two are on the north side. One of the blocks on the northeast side has to be converted to UPS and power room. Remaining 2 toilet blocks to be refurbished.</p> <p>Please refer RFP Page no-86 for details.</p>
17	87	5.3.	Non IT Infrastructure (Scope of Work): Data Centre Area (1st Floor of OCAC tower) (Partitions and walls)	<p>i. The other side of the server farm wall must be fire rated glass of min 12 mm thickness.</p>	<p>The fire rating will be 2 Hours fire rated for walls & doors.</p>
18	89	5.3	Non-IT Infrastructure (Scope of Work) - Monitor	<p>It shall be capable for mounting all type of existing LCD monitor with dimensions between 19" to 27" using suitable adopter/additional base plate, if required any.</p>	<p>It shall be capable for mounting all type of existing as well as new monitors.</p>

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
19	89	5.3	Non-IT Infrastructure (Scope of Work)	<p>Miscellaneous There shall be a closed cabinet below the modular control desk for placing of CPU. Cabinet should have proper cooling system. CPU needs to be accessible from front as well as rear side of control desk for easy working and maintenance.</p> <p>Cabin Desk/Table: Each cabin will a table for the officer who will use this for day to day to have a day to day work purpose. The selection of the table will be as per the following design, similar or better. The top surface must be made of MDF / Commercial board with laminate for a smooth finish. A side table with 3 drawers, a computer stand, bookshelf etc.</p> <p>Office area Furniture: Office area furniture should be modular type. An equivalent image is shown below. This bidder must select the furniture which has to be factory made as below, equivalent or better. All modular desks must have cable management system and raceways concealed inside the desk. Each seat must have 3 level drawer units.</p>	<p>The figures are for illustrative purpose only.</p> <p>As per RFP, 3 level drawer unit is required for office area workstation furniture as well.</p>
20	90	5.3 (q)	Conference room table	Conference room table must be for 14 seater with provisions for power and data outlets.	Conference room chair is hereby amended to 14 nos. Please refer revised Price Bid format.
21	94	5.4	Scope of Work – Electrical - Proposed Scheme	ASLS Panel	The current Load on the Transformer is 1300 KVA. Bidder is not required to size the Transformer. Rating of transformer is already mentioned in the RFP.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
22	95	5.5.	Detail Scope Of Work (Illustrative SoW): HT Power Distribution	ii. A metering panel is available but has been defunct since long and not been in operation. The Bidder needs to offer two new metering panels with all accessories.	Bidder should evaluate the same by visiting the site & propose the solution accordingly.
23	95	5.5.	Detail Scope Of Work (Illustrative SoW): HT Power Distribution (point No-1)	There is a 33 KVA station inside the compound from where the two buildings OCAC and OCAC tower is powered. The HT panels need to be replaced with a new one with the same rating but with dual configuration. There are two feeders, one from Chandaka substation & another from Mancheswar substation is available. Currently one HT feeder is being used. It is now proposed that both the feeder will be used for the entire facility on a hot standby mode. ii. A metering panel is available but has been defunct since long and not been in operation. The Bidder needs to offer two new metering panels with all accessories.	Bidder should evaluate the same by visiting the site & propose the solution accordingly. Also please refer RFP clause No-5.21. Page No-112 (Indicative List of Equipment need to be considered for Buy Back option) for details.
24	95	5.5	HT Power Distribution	iv. The transformers need to be replaced with higher rating of 3 MVA. It will be a dry AN type transformer.	There will be 2X3 MVA Transformers. Please refer RFP page No-94. Proposed Scheme (Single line diagram.) Higher rating refers to upgradation of existing transformer rating.
25	95	5.5	HT Power Distribution (v)	Bidder must propose for replacement of Bus Bar trunks (BBT) from Transformer to the transformer output panel with a higher rating	Higher rating refers to upgradation of existing BBT rating to a suitable capacity.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
26	95	5.5.	HT Power Distribution	All the work must be done as per central and state electrical guidelines and under strict supervision of OCAC and electricity board authorities.	Statutory charges and fuel charges during O&M phase will be paid by department/ OCAC as per actuals. However, during implementation phase, all the recurring charges will have to be borne by bidder.
27	96	5.6.	Detail Scope Of Work (Illustrative SoW): Diesel Generators	ii. It is proposed that 1.8 MVA Data Centre continuous rated diesel Generator set is offered. However, the bidder must consider the existing load and proposed load to arrive at the rating (if it is higher than 1.8 MVA) and the same may be verified and approved by Uptime.	The total load of the existing SDC is approximately 280 KW.
28	97	5.7.	MV Panels (Point No-i, ii)	Existing APFC panel need to be upgraded to suitable capacity of Capacitor banks. Bidder need to design the capacitor bank & evaluate the existing panel for installation of desired rating of capacitor banks. If required bidder can propose new APFC panels with buy back offer for existing APFC panel.	The total load of the existing SDC is approximately 280 KW.
29	97	5.7.	Detail Scope Of Work (Illustrative SoW): MV Panels	ii. The transformer output panels must be replaced with higher rated breakers and protection. The old panels must be taken back by the bidder with a buyback offer.	Bidder should evaluate the same by visiting the site & propose the solution accordingly. Also please refer RFP clause No-5.21. Page No-112 (Indicative List of Equipment need to be considered for Buy Back option.)
30	98	5.8.	Detail Scope Of Work (Illustrative SoW):: UPS Systems	i. For uninterrupted power supply UPS with battery bank of required rating must be proposed for the Critical and Non-Critical load. The UPS must be modular and can be scaled up vertically and horizontally including static bypass switch. The battery backup system should be for 15 minutes. Battery has to be lithium Ion type. A separate UPS bank system has to be provisioned for support area.	Please refer RFP Page no-114 (5.22.1- Uninterrupted Power supply (UPS) system with Battery back-up For Critical Load) for details.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
31	99	5.11.	Detail Scope Of Work (Illustrative SoW: Cable/Conduit/Bus bar Laying	i. The bidders are strongly advised to maintain data consistency between Electrical Single line diagram, Cable schedule and Bill of quantity at all times in the solution document. The Electrical Single line diagram must be prepared in detail showing all the components. All the components must be uniquely labelled.	Any labelling standards may be used.
32	100	5.11.	Detail Scope Of Work (Illustrative SoW: Cable/Conduit/Bus bar Laying	ix. All outdoor cables may be factory tested in presence of OCAC authorities for insulation strength. However standard test certificates will be accepted. All outdoor cables must be XLPE and all indoor cables must be FRLS Type.	Please go through the RFP for details. Standard test certificates are already accepted as per RFP.
33	100	5.12	Illumination	iii. All the lights will have occupancy sensors	The sensors has to be used for support area also.
34	101	5.13	Grounding/ Earthing	There are many earth pits already existing in the campus. For new DG area, the earth pit may not be required, and the existing earth pits may be used. However, in case of fresh requirement the same may be provided. All earth pits irrespective of Copper or GI have to be chemical type. Health Assessment of earth pits shall be evaluated by the bidders & if required new Earth pits can be created.	Health Assessment of existing earth pits shall be evaluated by the bidders and if required, new earth pits can be created.
35	103	5.15	Scope of work – HVAC system - PRECISION AND	iv. One of the POD of 18 racks will be high density racks. There will be direct expansion in-row cooling for this POD.	As per base design there are 88 No's of Racks proposed inside the DC hall. The indicative load of the proposed Racks are as follows:

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
			COMFORT AIR CONDITIONING		<p>High Density Racks (10 KW): 14 Nos. Medium Density Racks (7.5 KW): 64 Nos. Network Racks (4 KW): 10 Nos.</p> <p>Apart from above the racks required in Staging Room and Telecom rooms are also in the scope of the bidder.</p> <p>Layout is indicative. Bidder may consider the above and recreate the layout accordingly.</p>
36	106	5.16.4	Close Circuit Television System (CCTV)	<p>ii. Some of the cameras in the existing SDC are analog type & rest are IP based. So the bidder should evaluate the same by visiting the site & propose the solution such that both the system can be integrated with the new CCTV solution.</p> <ol style="list-style-type: none"> 1. No. of Existing Cameras : 18 Nos 2. Type of Existing CCTV System: 10 Nos of cameras are Analog/ DVR Based & rest are IP Based. 3. Make / Model No. of the Existing System : Honeywell Make. 	<p>Please refer RFP page No-106, Clause No-5.16.4 Close Circuit Television System (CCTV) for details.</p> <p>Bidder should evaluate the same by visiting the site and propose the solution accordingly.</p>
37	107	5.16.5	Scope of Work – Safety, Security, Surveillance and Monitoring System:: Access Control System	<ol style="list-style-type: none"> iii. All doors must have entry and exit card reader. iv. Server hall entry must be with biometric access from people entry side and card reader entry from material entry side. 	<p>The bidder should evaluate the same in accordance to their design.</p>

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
38	108	5.16.6	Water Leak Detection System	vi. Water leak detection system must have capabilities to integrate with monitoring tools like DCIM.	WLD will be integrated to DCIM through controller. Supply and installation of required controller is in scope of the bidder. The bidder has to integrate existing OSDC 1.0 devices with the proposed DCIM tool. If any Existing Controller/Integrator need to replace, then the same is in the scope of bidder.
39	108	5.16.7	Rodent Repellent System (RRS)	The RRS must capable of integration with DCIM tool for monitoring the health of satellites & Transducers.	RRS will be integrated to DCIM through controller. Supply and installation of required controller is in scope of the bidder. The bidder has to integrate existing OSDC 1.0 devices with the proposed DCIM tool. If any Existing Controller/Integrator need to replace, then the same is in the scope of bidder.
40	108	5.16.8	Data Centre Infrastructure Management Tool	The bidder should evaluate the existing BMS system of OSDC 1.0 & propose the solution in such a manner that the existing BMS system i.e. Honeywell EBI. Bidder to propose integration with the proposed DCIM system.	Bidder should evaluate the same by visiting the site. The bidder has to integrate existing OSDC 1.0 devices with the proposed DCIM tool. If any Existing Controller/Integrator need to replace, then the same is in the scope of bidder. Find the details of existing BMS. a. Make : Honeywell b. Model No. : EBI c. The No. of Points the BMS Software is catering to: d. Is the BMS Software under Warranty. If yes please share the Vendor details also: In warranty. OSDC 2.0 will be managed by DCIM tool & the

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
					existing BMS will integrate with proposed DCIM tool only.
41	109	5.16.9	Scope of Work – Safety, Security, Surveillance and Monitoring System:: Visitor Management System	General: 4. Compliance to SOW and Requirement.	OEM specification complying to SOW will be accepted for the systems that does not have specifications mentioned in RFP, Duration of data storage for visitor management system to be for 6 months.
42	110	5.17.	Scope of Work - Network Passive Infrastructure, Racks, IPDU, etc.	At least 35 nos Digital EPABX phones must be supplied for the entire facility.	The price bid is indicative one. Bidder can add the additional line items as per their design and solution. Any other item required to make the package complete must be quoted as additional line items with quantity and price.
43	110	5.19	Tier Certification by Uptime Institute	Tier III/IV Certification of Operational Sustainability. The Data Centre Facility to be constructed under this contract shall be Uptime Institute Tier III/Tier IV Gold Certified.	Uptime Design and Construction certification is one time activity. For operational sustainability certification, Gold standard is the requirement which is based on Scoring. This certification is required to be renewed after 3 years.
44	110	5.19.	Tier Certification by Uptime Institute	Bidder has to offer rates for all three certifications separately in the price bid	The price bid is an indicative one. Bidder can add the additional line items as per their design and solution.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
45	111	5.20.	Data Centre Health Check Audit	Data Centre Health Check Audit Following measuring instruments must be used for the above tasks o Class A power quality Analyser o Air hood or Balometer o Thermal Imager o Temperature loggers o Vibration meter o Noise level meter o Lux meter o Earth Resistance meter o Clamp meter and Multimeter.	Either bidder can do the health check audit OR they can engage a third party who have the experience and instruments for Datacentre health check audit.
46	112	5.20.	Data Centre Health Check Audit	The successful bidder shall be responsible for all associated cost for obtaining & maintaining these certifications. The bidders may be allowed to hire third party testing agencies for the Data Center Health Check Audits.	Currently, there are no audit agencies deployed for the same.
47	114	5.22.1	UPS System: Product/Solution Description	Each UPS should have N+1 modules	For each 400 kVA, N+1 is required, N=400

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48	116	5.22.1	UPS: Desired Technical Requirements.	Smaller foot print (Individual UPS Frame depth & width shall not exceed from 850 mm & 550 mm)	<p>This clause is a desirable Technical Requirement and not a mandatory requirement. It is the responsibility of SI to accommodate UPSs/Battery Bank & other LT Panels at the space available at site.</p> <p>No documents submitted claiming the specification to be OEM specific.</p> <p>Low footprint is required to save space. Footprint size mentioned is indicative and bidder can propose size close to the mentioned size with a variation of +/-10%.</p>
49	121	5.22.3	Precision Air Conditioning System (Direct Expansion In-ROW)	Compressor : Step less capacity Modulation on time based engagement and disengagement of the compressor Scroll /Digital Scroll Compressor	The compressor capacity is a time averaged summation of the loaded state and unloaded state. By varying the loaded and unloaded state time, 10% to 100% capacity can be achieved by the compressor
50	126	5.22.5	5.22.5	Diesel Generators	<p>DG shed is not mandatory.</p> <p>DG set with canopy will be accepted.</p> <p>All dismantling work and items, also, post dismantling, any further handling, packing, shifting, transportation, re-installation shall be in bidder's scope</p>
51	128	5.22.6	Track Busway system (Continuous)	Plug-in units for power distribution	The tap off box should have provisions for 3 phase as well as single phase.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
52	138	5.22.9	Passive networking A. Architecture and General Construction	The system should support Fibre Performance calculators available at OEM website for verification of the designed fibre links against a given set of applications	Please, consider this as a desired requirement and not mandatory one.
53	141	5.22.9	Passive networking Evaluation Criteria:	Passive Cabling 0.5 The complete solution should be logical based intelligent ready from day 1 of installation.	Bidder to propose the best solution as per their understanding based on the requirement.
54	143	5.22.10 (9)	DCIM	Proposed DCIM should be able to integrate with third party BMS solution (to integrate OSDC 1.0 or any other existing BMS tools).	Bidder should evaluate the same by visiting the site & propose the solution accordingly.
55	145		Asset Tracking	Objective - Rack level IT Asset Tracking to optimize and automate Datacentre IT inventory Tracking and audits.	There are 88 Nos of Racks proposed inside the Server Hall. Layout is indicative.
56	148	5.22.12	IT Rack	Supply of 2 Nos of additional network racks for Telecom Room will be in the scope of the bidder.	The racks required in Telecom Room and Staging Area are in the scope of the bidder. The rack quantities are additional to the rack quantities required at server farm area.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
57	149	5.22.13	IPDU Point 2 - Mandatory Requirements	Each IPDU should be able to take input from single phase source or three phase sources based on the site load requirement, this will help to reduce the SKU count and have better inventory management. However the bidder can also propose the following combinations of IPDUs: 3 phase 32A PDU for all racks of 7.5KW and above. 1 phase 32A PDU For racks of 4 KW.	As per base design there are 88 No's of Racks proposed inside the DC hall. The indicative load of the proposed Racks are as follows: High Density Racks (10 KW): 14 Nos. Medium Density Racks (7.5 KW): 64 Nos. Network Racks (4 KW): 10 Nos. Consider 3 phase 32A PDU for all racks of 7.5KW and 10KW. For 4 KW racks 1 phase 32A PDU can be accepted. Dual input of single phase and three phase can also be accepted as mentioned in RFP.
58	149	5.22.13	IPDU	3 phase 32A PDU for all racks of 7.5KW and above. 1 phase 32A PDU for racks of 4 KW.	As per base design there are 88 No's of Racks proposed inside the DC hall. The indicative load of the proposed Racks are as follows: High Density Racks (10 KW): 14 Nos. Medium Density Racks (7.5 KW): 64 Nos. Network Racks (4 KW): 10 Nos. Consider 3 phase 32A PDU for all racks of 7.5KW and 10KW. For 4 KW racks 1 phase 32A PDU can be accepted. Dual input of single phase and three phase can also be accepted as mentioned in RFP.

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59	151	5.22.13 IPDU	IPDU: Desired Requirements	Sockets should be preferably coloured to clearly identify different circuits.	Coloured socket is preferable, not mandatory. Bidder may use some distinctive method so that sockets are identifiable for different phase circuits.
60	160	5.22.16	Dry Type Transformers: OEM Qualification Criteria,	Manufacturing facility in India	"Make in India" is preferred
61	169	5.22.20	High Sensitivity Smoke Detection System	The Bidder shall also make provision in the Aspirating Smoke Detectors to trip PAC system and to shut fire dampers in the event of fire through the relay contacts.	Bidder to propose the solution as per prevalent standards and Datacentre fire safety best practices.
62	190	6.1	Tier Certification by uptime Institute:	The Data Centre Facility to be constructed under this contract shall be Uptime Institute Tier III/Tier IV Gold Certified. The successful bidder shall obtain the following as part of this certification process.	Tier III certification for design and construction and operational sustainability (Gold standard) from UPTIME Institute.
63	193	6.3. (V)	Cyber Security	Cyber Security ▪ Such attacks and theft should be controlled and well supported using next generation cyber security appliances e.g. Firewalls, IPS, WAF, AAA systems and infrastructure protection mechanisms.	Please refer RFP for details, Page no. 202. WAF is already a part of the current SDC.
64	193	6.3. (V)	Cyber Security	Furthermore, all the system logs should be properly stored for at least 180 days & achieved for future analysis and forensics whenever desired	Central log server shall not be required, devices should have log soring capacity of at least 180 days or else existing SIEM may be used for the same.
65	193	6.3. (VI)	Integration of OSDC with SWAN	Provisioning of connectivity between the SDC and SWAN shall be the responsibility of OCAC such as laying of OFC, Cabling, etc. However, the SI should be responsible for integrating SWAN link from the existing Data Centre to newly built Data Centre.	The throughput of ISP links have been mentioned in the RFP. Bidder has to lay and terminate dark fibre (including LIU & Connector) of minimum 96 core in redundant path to connect both the data centres. The length can be measured during the

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
					site survey. Bidder may add a separate line item in the price bid.
66	193	6.3. (VI)	Integration of OSDC with SWAN	Provisioning of connectivity between the SDC and SWAN shall be the responsibility of OCAC such as laying of OFC, Cabling, etc. However, the SI should be responsible for integrating SWAN link from the existing Data Centre to newly built Data Centre.	SDC existing set up shall continue with respect to SWAN & SDC integration which means IP Routing connectivity and Inter SDC reachability. However, The Go-Live and FAT stage of SDC 2.0 will not cover the SWAN Integration Port Go Live.
67	194	6.3. (viii)	Key considerations for designing the Odisha State Data Centre 2.0:	Cloud Services Provisioning: SI will co-ordinate with the cloud service providers (current and new) for migration and integration of existing cloud services and also will be responsible to monitor and manage the new cloud services which will be implemented in new Data Centre.	Migration and Integration of cloud services is a larger scope of this RFP, it is also a functional as well as business requirement of OCAC.
68	206	6.6.1 (xxi)	Backup (F)	24 x 7 support for file and volume restoration requests at the Data Centre.	Back up policy shall be provided to the selected bidder.
69	196	6.5.1	High Level Indicative Logical Diagram for OSDC 2.0	Proposed Indicative Network Diagram of OSDC 2.0	Please refer RFP for details. IPS solution is already a part of the current SDC.
70	199	6.6.1 (IV)	Network Fabric:	The existing DC and the proposed new DC will be linked through a dark fiber for network manageability. The existing DC and the proposed new DC will be linked through a dark fiber for network manageability. The bidder shall be responsible for laying of two redundant dark fibre (48 pair) with different path connecting both the Data Centres.	The throughput of ISP links have been mentioned in the RFP. Bidder has to lay and terminate dark fibre (including LIU & Connector) of minimum 96 core in redundant path to connect both the data centres. The length can be measured during the site survey. Bidder may add a separate line item in the price bid.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
71	201	6.6.1 (VIII)	Next-Generation Data Centre Security	SDC Security architecture should have support for network virtualization and enable Layer 4 through 7 virtual network service chaining for security by using an application-centric, unified, and automated approach to security policies in the data Centre infrastructure that is decoupled from the underlying network topology, supports application mobility, offers real-time compliance lifecycle management, and reduces the risk of security breaches. Solution should automate and centrally manages security policies in the context of an application using a unified security policy abstraction model that works across both physical and virtual boundaries.	All the security controls should be integrated to form a single dashboard.
72	202	6.6.1 (xii)	Detailed Functional Scope of Work	The EMS solution consists of a unified dashboard for infrastructure performance, event consolidation and correlation, server and database performance management, end to end network fault and performance management and automation, Help Desk, Patch automation for the entire infrastructure and integration with Privileged Access Management.	Privileged Access Management or PAM is proposed as part of the new requirement of OSDC 2.0.
73	206	6.6.1 (xxii)	Detailed Functional Scope of Work	xxii. OS Hardening: OS Hardening will include activities but not limited to the removal of all nonessential tools, utilities, and services with other system administration by activating & configuring all appropriate security features. The entire scope of this service will differ on different Operating System. OS hardening will be done by bidder according to the hardening policy of OCAC.	OS hardening will be done by bidder according to the hardening policy of OCAC which shall be provided to the selected bidder.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
74	206	6.6.1 (XIX)	Penetration Testing:	The Penetration Testing will include activities to identify specific exploitable vulnerabilities and expose potential entryways to vital or sensitive data. The results should clearly articulate security issues and recommendations and create a compelling event for the entire management team to support a security program. Must be perform one time before Go-Live and report needs to close all observation. VA and PT must be perform at regular interval of every QGR. Penetration Testing must be performed at regular interval of every six months. Application details shall be shared before commencement of PT	Penetration Testing shall be done by the selected bidder. Bidder may propose a dedicated tool for the same for which OCAC shall not bear any cost. Application details shall be provided before the PT activity. Web Applications details and No. of IPs shall be provided with the selected bidder.
75	209	6.6.7 (b)	Migration to OSDC 2.0	Application migration in coordination with application owners / departments and under the guidelines of OCAC.	Bidder to provide infrastructure platform and ensure required dependencies associated with the application migration.
76	210	6.6.7 (c)	Migration to OSDC 2.0	Migration of Servers, network and security stack and other necessary items based on business requirement with minimal downtime as possible before FAT. The proposed access switch shall be replaced with the existing 11 nos of switches in the OSDC 1.0.	Migration of SIEM servers is not in the scope of this RFP.
77	210	6.7.	Operations & Maintenance	Bidder shall provide comprehensive onsite support on 24 x 7 x 365 basis to ensure an uptime of 99.982% for the IT infrastructure solution at the Data Centre in accordance with the Service Level Agreement mentioned as part of this tender.	Different SLAs for both the existing as well as new data centres have been mentioned in the RFP.
78	232	7.5.(32)	Access switch -1	24 ports of 1G BaseT and 4 ports of 10G SFP+	Yes, all the ports should be populated from day 1.
79	233	7.6. (31)	Management Switch -1	48 ports of 1G BaseT and 4 ports of 10G SFP+	Yes, all the ports should be populated from day 1.
80	241	7.12 (9)	Next Generation Firewall	The proposed solution should be integrated with the proposed SDN solution for north - south security	The proposed solution should have the capability to integrate with the SDN solution.

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81	254	7.17 (9)	Vulnerability Assessment Solution	The solution must offer configurable workflows and alerts for administrators to take manual actions via emails, notifications, trouble tickets or take automated actions.	Workflow and alerts will be decided during the time of implementation
82	254	7.17 (12)	Vulnerability Assessment Solution	Centralized vulnerability management with multiple scanners. It must have broad asset coverage like assess servers, endpoints, network devices, operating systems, databases and applications in physical, virtual and cloud infrastructures.	Infra details will be shared by the selected bidder once the contract is signed with them.
83	254	7.17 (16)	Vulnerability Assessment Solution	Assess how well patch management is working based on vulnerability trends over time	The offered solution must have an option of auditing the patch management solution if the patch has been rolled out successfully or not
84	262	7.21 (7)	Enterprise Management System	The proposed solution (hardware and software) provisioned from Day 1 should be able to handle 300 devices and shall be scalable to 1000 devices.	The count stated is an indicative count for measuring proposed solution capability and scalability.
85	262	7.21 (13)	Enterprise Management System:	The solution should provide self-monitoring and notifications capability via sms, email etc.	SMS and Email Gateway is not part of scope of this RFP.
86	263	7.21 (23)	Enterprise Management System	The monitoring systems should have APIs that allow easy integration with third party tools, for Single consolidated dashboard. These should include: a. SNMP adapters, b. parsing log file, c. TCP/UDP Client Server, d. Windows Event logs, e. REST APIs.	Bidder must propose the EMS software with various integration interfaces as asked in RFP.
87	264	7.21 (33)	Enterprise Management System	NMS should provide integrated fault, performance Monitoring, Configuration & compliance Management together in one tool.	Compliance Management refers to Audit and compliance reporting against standard policies for network devices and other devices to be monitored.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
88	264	7.21 (39)	Enterprise Management System	The solution shall provide information regarding capacity utilization and error statistics for WAN links.	WAN links shall be provided to the selected bidder.
89	264	7.21 (49)	Enterprise Management System	The tool should automatically discover different type of heterogeneous devices (all SNMP supported devices i.e. Router, Switches, LAN Extender, Servers, Terminal Servers, Thin-Customer and UPS etc.) and map the connectivity between them with granular visibility up to individual ports level. The tool shall be able to assign different icons/ symbols to different type of discovered elements. It should show live interface connections between discovered network devices.	Discovery of devices is a general capability asked for the proposed EMS tool.
90	271	7.23. (1)	Anti- APT Solution	Hardware Appliance must be able to handle minimum of 1 Gbps of traffic capacity for inspection	Inbuilt SSL off loader shall be used and total throughput required is minimum of 1 Gbps.
91	271	7.23. (9)	Anti- APT Solution	The proposed solution should support to monitor traffic from multiple segments simultaneously on single appliance	Devices to be installed in Active-Active mode.
92	271	7.23. (10)	Anti- APT Solution	The proposed solution must be a custom built on premise Anti-APT solution and must not network perimeter security component part devices like UTM and NGFW.	Solution should be deployed in inline mode as per the RFP requirement.
93	282	7.29. (28)	Data Centre Access Management	The tool must have the required APIs for integration with GRC, SIEM tools etc. or linkage of change & release tickets while raising access ticket request within the tool by the requestor.	OCAC shall procure or upgrade the existing SIEM solution.
94	314	10.14	Important Note	Bidder needs to respond immediately to security breaches or other security incidents and coordinate with respective OEM in case of a new threat is observed to ensure that workaround / patch is made available for the same.	SOC manpower is not covered under the scope of current RFP.

S.N.	Page No.	Clause No.	Clause header	Clause details as in revised RFP	Clarifications
95	323	12.1	Bill of Quantity – Non- IT OSDC 2.0	44 Modular workstation desk for office area 47 NOC technical desk 51 Staging room table	The specifications of NOC technical desk, Modular workstation desk and staging room tables are different.
96	323	12.1	Bill of Quantity – Non- IT OSDC 2.0	44 Modular workstation desk for office area - 24 nos. 47 NOC technical desk - 12 nos.	The BOQ is indicative. The bidder can propose additional line items/quantities as per their solution.
97	325	168, 170	Bill of Quantity – Non- IT OSDC 2.0	Hot aisle containment for High density POD Cold aisle containment with door and accessories	Bidder has to be propose either Hot Aisle or Cold aisle containment for all PODs as per their solution. Mixing of both is not allowed.
98	328	12.1	Bill of Quantity – Non- IT OSDC 2.0	55-inch display screen - 1 No.	It is for CCTV Monitoring Purpose.
99	346	13.11	IT Scope	HOTO	HOTO process will start after the Go-Live is over. HOTO timelines shall be part of the O&M period.
100	NEW	NEW	NEW	New Request	PDU will be as per the bidder's solution and will be based on panel specification. K13 isolation transformer in PDU is mandatory
101	NEW	NEW	NEW	New Request	There is no water leakage in the floor. If there is any, it will be fixed by OCAC.