

# CORRIGENDUM

**RFP ENQ. No. – OCAC-SEGP-INFRA-0006-2018-18051**

**Request for Proposal for Supply, Installation, Commissioning of the Networking Infrastructure at New Secretariat Building & New Krishi Bhavan.**

**Important :-** The corrigendum is to be read, duly signed on each page and submitted along with the original RFP document published on the websites <http://www.ocac.in> and [www.odisha.gov.in](http://www.odisha.gov.in) vide RFP Enquiry No.: - OCAC-SEGP-INFRA-0006-2018-18051

S. No.	RFP Page No.	RFP Clause No.	Original Clause of RFP	Clarifications / Modifications (The Clause may be read as)
1.	14	5, Chapter 2 Point no 2	Average annual Turnover during last three financial years i.e, 2014-15, 2015-16 & 2016 - 17 (as per the last published Balance sheets), should be minimum of Rs. 35 Crores generated from IT/ITES supply and associated maintenance services	<b>Modified as:</b>  “Average annual Turnover during last three financial years i.e, 2014-15, 2015-16 & 2016 - 17 (as per the last published Balance sheets), should be minimum of Rs. 25 Crores generated from IT/ITES supply and associated maintenance services.”
2.	14	5, Chapter 2 Point no 4	Bidder must have successfully undertaken at least the following numbers of systems implementation engagement(s) of value specified herein during the last three financial years i.e. 2014-15, 2015-16 & 201617: <ul style="list-style-type: none"> <li>➤ One project of similar nature not less than the amount Rs. 2.8 crores ; OR</li> <li>➤ Two projects of similar nature each of which not less than the amount Rs. 2.1 crores ; OR</li> <li>➤ Three projects of similar nature each of which is not less than the amount Rs. 1.4 crores</li> </ul>	<b>Modified as:</b> “Bidder must have successfully undertaken at least the following similar nature of project of value specified herein during the last three financial years i.e. 2014-15, 2015-16 & 201617: <ul style="list-style-type: none"> <li>➤ One project of similar nature not less than the amount Rs. 2.8 crores ; OR</li> <li>➤ Two projects of similar nature each of which not less than the amount Rs. 2.1 crores ; OR</li> </ul> Three projects of similar nature each of which is not less than the amount Rs. 1.4 crores  <b>Similar Nature</b> may be defined as Supply, Installation & Commissioning of Networking Equipment such as Active Components (Wire/Wireless) & Passive Components.”
3.				
4.	29	Clause: 8.2.6	The delivery, installation & commission of the	<b>Modified as:</b>

S. No.	RFP Page No.	RFP Clause No.	Original Clause of RFP	Clarifications / Modifications (The Clause may be read as)
		Scope of Supply/ Services	Project should be completed within 10 weeks.	"The delivery of equipment should be completed within 8 weeks and installation & commission of the equipment should be completed within 4 weeks after Delivery Schedule"
5.	30	Clause: 8.2.13 Agreement & Security Deposit :	Successful bidder will have to execute an agreement as per Annexure within a period of 21 days of issuing of order and deposit security equal to 10% of the value of the stores/services, for which bid is accepted, within 15 days from the date of dispatch on which the acceptance of the bid is communicated to him.	<b>Modified as:</b> "Successful bidder will have to execute an agreement as per Annexure within a period of 21 days of issuing of order and deposit security equal to 5% of the value of the stores/services, for which bid is accepted, within 15 days from the date of dispatch on which the acceptance of the bid is communicated to him."
6.	37	Clause: 8.2.24	Payment Terms and Schedule	<b>Modified as:</b>
7.	38	8.2.24 (Sl 1-7)	70% Payment-After supply of all Hardware (both Active & Passive material), Software, successful installation and commissioning of Active component and Software.10% After completion of 1st year of agreement. 5%-After completion of 2nd year of agreement. 5%-After completion of 3rd year of agreement. 5%-After completion of 4th year of agreement. 5%-After completion of 5th year of agreement.	"80% Payment-After supply of all Hardware (both Active & Passive material), successful installation and commissioning. <ul style="list-style-type: none"> <li>• 4% After completion of 1st year of agreement.</li> <li>• 4%-After completion of 2nd year of agreement.</li> <li>• 4%-After completion of 3rd year of agreement.</li> <li>• 4%-After completion of 4th year of agreement.</li> <li>• 4%-After completion of 5th year of agreement."</li> </ul> Accordingly Penalty clause ( <b>Clause-9.1.8: Penalty for non-achievement of Service Level Requirements</b> ) is revised and as follows: <ul style="list-style-type: none"> <li>➤ <b>Uptime - &gt;=99.00%, Penalty - Nil</b></li> <li>➤ <b>Uptime -&gt;=97.50% to &lt;99.00 %, Penalty -</b> <ul style="list-style-type: none"> <li>• 2% of Central Switch Cost</li> <li>• 1.5% of Distribution Switch Cost</li> <li>• 2% of Wireless Controller Cost</li> </ul> </li> </ul>
8.				

S. No.	RFP Page No.	RFP Clause No.	Original Clause of RFP	Clarifications / Modifications (The Clause may be read as)
				<ul style="list-style-type: none"> <li>• 1% of Access Switch Cost (applicable for both 24 Port &amp; 48 Port Access Switch)</li> <li>• 1% of Wireless Access Point Cost</li> <li>➤ <b>Uptime - &gt;=95% to &lt;97.50%, Penalty -</b> <ul style="list-style-type: none"> <li>• 4% of Central Switch Cost</li> <li>• 2% of Distribution Switch Cost</li> <li>• 4% of Wireless Controller Cost</li> <li>• 1.5% of Access Switch Cost (applicable for both 24 Port &amp; 48 Port Access Switch)</li> <li>• 1.5% of Wireless Access Point Cost</li> </ul> </li> <li>➤ <b>Uptime - &lt;95%, Penalty -</b> The performance will be termed unsatisfactory and OCAC reserve the rights to revoke the PBG and terminate the contract.</li> </ul>
9.	<p><b>Note:</b> - The revised Technical Specification of Modular Chassis Based Central switch, Distribution Switch/Building Switch, 48 port Access Switch with PoE, 24 port Access Switch with PoE, Wireless Controller, Wireless Access Point, BoM &amp; Financial Bid Templates, after addressing the queries received, is annexed as <b>Annexure-I</b></p>			

### Revised RFP Schedule

Sl. No.	Description	RFP Schedule
1.	Last date and time of submission of Pre-bid Queries	03-12-2018, 4:00 P.M.
2.	Date & Time of Pre-bid meeting	04-12-2018, 4:00 P.M.
3.	Issue of Corrigendum(If any)	07-12-2018
4.	Last Date & Time of Submission of Bid	22-12-2018, 02:00 P.M.
5.	Date & Time of Opening of Pre-Qualification – cum – Technical bid	22-12-2018, 04:00 P.M.

Sd/-  
General Manager(Admn), OCAC

# 1 Modular Chassis Based Central switch

Make :

Model :

Sl. No	Specification	Complied (Yes/No)	Deviation (If Any)
1.	Each Central Switch should be a Modular Chassis based Switch with a minimum of 4 payload interface slots.		
2.	Central switches should be configured as single logical unit and shall be manageable by single IP addresses.		
3.	<p>1. Each Central Switch should also be configured with following ports from day 1:</p> <ul style="list-style-type: none"> <li>• Minimum 48 x 1/10G base T SFP+ Ports and populated with following transceivers:               <ul style="list-style-type: none"> <li>• 30 x 1G RJ45 Base-T SFPs</li> <li>• 18 x 10G SFP+ (SMF) SFP+</li> </ul> </li> <li>• Minimum 14 x 40G QSFP ports. (Populated with 12 X 40G QSFP (SMF module) supports minimum 2 KM using 2 core fiber) per Central Switch</li> </ul> <p>2. All ports should support SMF &amp; MMF</p>		
4.	The Central Switch should offer Wire-Speed Non-Blocking Switching and Routing on all interface ports for 64 bytes packet size.		
5.	The Central Switch should be capable of providing Non-Blocking per-slot backplane speed of minimum 2 Tbps		
6.	The Central Switch should be configured with Redundant Power supplies, Fans, Switch Fabric Modules & Supervisor to ensure that there is no Single Point of Failure.		
7.	The Central Switch architecture should ensure that there is no loss in the Non-Blocking Switching Capacity in the event of a Switch Fabric Module failure.		
8.	The Central switch should support a minimum of 28K MAC Addresses to support various applications.		
9.	The Central switch should support a minimum of 32K IPv4 routes and at least 8K IPv6 routes in hardware.		
10.	The Central Switch should be configured with Redundant AC Power Supplies to provide 1:1, source level, Redundancy.		
11.	The Central Switch should be capable of supporting 40G or more technology in the future without any need for up-gradation in common components (chassis, power supplies, switch fabrics, supervisor engines).		
12.	The Central Switch should support Static Routing and Inter-VLAN Routing.		
13.	Should have 4K Multicast Routes in IPv4 & IPv6 from day 1.		
14.	The Central Switch should have Open Shortest Path First (OSPF) and Border Gateway Protocol (BGP) Dynamic Routing Protocols from day1.		
15.	Switch should have full Layer 2 features like STP, RSTP, MSTP/PVST, LACP/IEEE802.3ad, IEEE 802.1AB, ACL, QoS and IGMPv1/v2/v3 /MLDv1/v2, ICMPv6 from day one.		
16.	The switch should be configured to perform MLD snooping or IGMP snooping simultaneously from day1		
17.	Switch should support FCoE & DCBX Protocol with license for all offered ports from day-1.		
18.	Switch should have Static Routing for IPv4 & IPv6 from day1.		
19.	Should support 4K IGMP Groups.		
20.	The Central Switch should support minimum of 3K ACLs (Access Control Lists)		
21.	Should support 8 queues per port and security protocols like RADIUS, TACACS/TACACS+, AAA & SSH.		
22.	Support for In-Service Software Upgrade (ISSU) such that there is no disruption in		

Sl. No	Specification	Complied (Yes/No)	Deviation (If Any)
	the network when an upgrade is in progress.		
23.	Support management using CLI, GUI, using Web interface. Additionally, management can also be done using NMS.		
24.	The OEM must feature in the Leaders/ Challengers segment of the Gartner Magic Quadrant for Data Center Enterprise Networking or Enterprise Networking published in year 2018.		
25.	Proposed Switch should be EAL2/EAL3 / NDPP or equivalent certified.		
26.	Equipment's should be minimum IPV6 Ready. IPV6 Routing & Management features should be active from Day-1		
27.	Comprehensive Onsite OEM Warranty for 5 Years. Switch should be quoted with 5 years direct OEM TAC support and Next Business Day hardware shipment. Also OEM should ensure that the Quoted model should not reach End of Life & End of Sale for atleast next 5 Years from its Installation or should have been introduced in the market 12 months prior to the submission of bid.		
28.	<b>Note:</b> All the required licenses for making the Switches fully functional should be bundled		

## 2 Distribution Switch/Building Switch

Make:

Model:

Sl. No	Specification	Complied (Yes/No)	Deviation (If Any)
1.	Switch architecture should be fixed form factor / modular.		
2.	Switch should have 48 x 1/10G SFP+ Ports and populated with following transceivers: <ul style="list-style-type: none"> <li>• 24 x 1G RJ45 Base-T SFPs</li> <li>• 18 x 10G SFP+ (SMF) SFP+</li> <li>• 4 x 40G QSFP (SMF module supports minimum 2 KM using 2 core fiber)</li> </ul>		
3.	Each Switch should be scalable to support minimum of 6x 40G QSFP ports as and when needed. Total No. of 40G QSFP Ports is 6 per switch		
4.	Switch should have internal redundant power supplies and fans from day one.		
5.	Switch should have wire-speed for all the packet sizes.		
6.	Switch should have wire-speed, non-blocking throughput on all the ports.		
7.	Should have switching backplane of 1.4 Tbps and 1 Bpps.		
8.	Should have Static Routing and VRRP from day 1. Should be scalable to support OSPF & BGP.		
9.	Should support PVST / PVST+ or equivalent spanning tree protocol		
10.	Should support Hot Standby Router Protocol (HSRP) or equivalent protocol to create redundant topologies.		
11.	Should support Unidirectional Link Detection Protocol (UDLD) or equivalent protocol to allow unidirectional links failure detection		
12.	Should support VTP or equivalent protocol for dynamic VLAN registration		
13.	Distribution switch should support minimum 50K MAC addresses and Min 4K active VLANs.		
14.	Should have 4K Multicast Routes in IPv4 & IPv6 from day 1.		
15.	The distribution Switch should have Open Shortest Path First (OSPF) and Border Gateway Protocol (BGP) Dynamic Routing Protocols from day1.		
16.	Switch should have full Layer 2 features like STP, RSTP, MSTP/PVST, LACP/IEEE802.3ad, DCBX/ IEEE 802.1AB, ACL, QoS and IGMPv1/v2/v3/MLDv1/v2, ICMPv6 from day one.		
17.	The switch should be configured to perform MLD snooping/IGMP snooping simultaneously from day1		
18.	Switch should have Static Routing for IPv4 & IPv6 from day1.		

Sl. No	Specification	Complied (Yes/No)	Deviation (If Any)
19.	Should support 4K IGMP Groups.		
20.	The Distribution Switch should support minimum of 3K ACLs (Access Control Lists)		
21.	Should support 8 queues per port and security protocols like RADIUS, TACACS/TACACS+, AAA & SSH.		
22.	Support for In-Service Software Upgrade (ISSU) such that there is no disruption in the network when an upgrade is in progress.		
23.	Support management using CLI, GUI, using Web interface. Additionally, management can also be done using NMS.		
24.	The OEM must feature in the Leaders/ Challengers segment of the Gartner Magic Quadrant for Data Center Enterprise Networking or Enterprise Networking published in year 2018.		
25.	Hardware of the switch should be EAL2/ EAL3 / NDPP certified.		
26.	Equipment's should be minimum IPV6 Ready. IPV6 Routing & Management features should be active from Day-1		
27.	Comprehensive Onsite OEM Warranty for 5 Years. Switch should be quoted with 5 years direct OEM TAC support and Next Business Day hardware shipment. Also OEM should ensure that the Quoted model should not reach End of support for atleast next 5 Years from its Installation or should have been introduced in the market 12 months prior to the submission of bid.		
28.	<b>Note:</b> All the required licenses for making the Switches fully functional should be bundled		

### 3 48 port Access Switch PoE support for all ports

Make:

Model:

Sl. No	Specification	Complied (Yes/No)	Deviation (If Any)
1.	Switch architecture should be Fixed Form factor.		
2.	Switch should have wire-speed, non-blocking throughput on all the ports.		
3.	Switch should have minimum of 48 x 10/100/1000 Mbps RJ45 plus 2 x 1/ 10G SFP+ uplink ports with 2 Nos. 10G SFP+ (SM) Transreceiver module from day one. <b>Note: - The modules asked in the RFP are required from Day 1</b>		
4.	Switch should have wire speed of data switching capacity and forwarding throughput (Mpps)		
5.	Switch should support min 16 K MAC addresses and min 1000 active VLANs.		
6.	Switch should have full Layer 2 features like STP, RSTP, MSTP/PVST, LACP/IEEE802.3ad, ACL, QoS and IGMPv1/v2/v3 from day one.		
7.	The switch should support IEEE 802.3az standard		
8.	Switch should have Static Routing for IPv4 & IPv6 from day1.		
9.	Should support 1K IGMP Groups.		
10.	All Ethernet Ports should be PoE & PoE+ enabled with 370W PoE Power budget		
11.	Should support 8 queues per port and security protocols like RADIUS, TACACS/TACACS+, AAA & SSH.		
12.	The OEM must feature in the Leaders/ Challengers segment of the Gartner Magic Quadrant for Data Center Enterprise Networking or Enterprise Networking published in year 2018.		
13.	Switch should be quoted with 5 years direct OEM TAC support and Next Business Day hardware shipment		
14.	Hardware of the switch should be EAL2/ EAL3 / NDPP certified from Day1		
15.	Equipment's should be minimum IPV6 Ready. IPV6 Routing & Management features should be active from Day-1.		
16.	Comprehensive Onsite OEM Warranty for 5 Years		
17.	<b>Note:</b> All the required licenses for making the Switches fully functional should be bundled		

## 4 24 port Access Switch with PoE support for all ports

Make:

Model:

Sl. No	Specification	Complied (Yes/No)	Deviation (If Any)
1.	Switch architecture should be Fixed Form factor.		
2.	Switch should have wire-speed, non-blocking throughput on all the ports.		
3.	Switch should have minimum of 24 x 10/100/1000 Mbps RJ45 plus 2 x 1 / 10G SFP+ uplink ports with 2 Nos. 10G SFP+ Transceiver module from day one. <b>Note: - The modules asked in the RFP are required from Day 1</b>		
4.	Switch should have wire speed of data switching capacity and forwarding throughput (Mpps)		
5.	Switch should support min 16 K MAC addresses and min 1000 active VLANs.		
6.	Switch should have full Layer 2 features like STP, RSTP, MSTP/PVST, LACP/IEEE802.3ad, ACL, QoS and IGMPv1/v2/v3 from day one.		
7.	The switch should support IEEE 802.3az standard		
8.	Switch should have Static Routing for IPv4 & IPv6 from day1.		
9.	Should support 1K IGMP Groups.		
10.	All Ethernet Ports should be PoE & PoE+ enabled with 370W PoE Power budget.		
11.	Should support 8 queues per port and security protocols like RADIUS, TACACS/TACACS+, AAA & SSH.		
12.	The OEM must feature in the Leaders/ Challengers segment of the Gartner Magic Quadrant for Data Center Enterprise Networking or Enterprise Networking published in year 2018.		
13.	Switch should be quoted with 5 years direct OEM TAC support and Next Business Day hardware shipment.		
14.	Hardware of the switch should be EAL2/ EAL3 / NDPP certified from Day1		
15.	Equipment's should be minimum TEC Certified or IPV6 Ready Logo Certified. IPV6 Routing & Management features should be active from Day-1.		
16.	Comprehensive Onsite OEM Warranty for 5 Years		
17.	<b>Note:</b> All the required licenses for making the Switches fully functional should be bundled		



## 5 Wireless Controller

Make:

Model:

Sl. No	Specification	Complied (Yes/No)	Deviation (If Any)
1.	Must be compliant with IEEE CAPWAP or equivalent for controller - based WLANs.		
2.	Must have atleast 2 x 10 Gigabit Ethernet interface and populated with 2 nos. of 10G short range optics		
3.	Should support centralized/distributed traffic forwarding architecture with L3 roaming support from day 1. Should have IPv6 ready from day one.		
4.	Controller should be capable of supporting both 1G and 10 G SPFs on same Network I/O ports		
5.	Controller should support minimum 8,000 users per chassis		
6.	WLAN Controller should support minimum of 200 Access points in a single chassis. Proposed controller should support 1+1/N+1 redundancy from day one. Day one licenses to be populated.		
7.	Shall support WIPS, and spectral analysis from day 1.		
8.	Should be rack - mountable. Required accessories for rack mounting to be provided.		
9.	WLC should support AP License Migration from one WLC to another		
10.	Should support minimum 4000 VLANs		
11.	WLC should support L2 and L3 roaming for IPv4 and IPv6 clients		
12.	WLC should support guest-access functionality for IPv6 clients.		
13.	Should support IEEE 802.1p priority tag.		
14.	Should ensure WLAN reliability by proactively determining and adjusting to changing RF conditions.		
15.	Should provide real - time radio power adjustments based on changing environmental conditions and signal coverage adjustments.		
16.	Should support automatic radio channel adjustments for intelligent channel switching and real - time interference detection.		
17.	Should support client load balancing to balance the number of clients across multiple APs to optimize AP and client throughput.		
18.	Should support policy based forwarding to classify data traffic based on ACLs		
19.	Should support minimum 1000 WLANs		
20.	Should support dynamic VLAN assignment		
21.	To deliver optimal bandwidth usage, reliable multicast must use single session between AP and Wireless Controller		
22.	Should able to do channel bonding based on interference detected on particular channel.		
23.	Must support coverage hole detection and correction that can be adjusted on a per WLAN basis		
24.	Must support RF Management with 40 MHz and 80 Mhz channels with 802.11n & 802.11ac		
25.	Should provide visibility to Network airtime in order to set the airtime policy enforcement		
26.	Must be able to restrict the number of logins per user.		
27.	Should support web - based authentication to provide a browser - based environment to authenticate clients that do not support the IEEE 802.1X supplicant.		
28.	Should support port - based and SSID - based IEEE 802.1X authentication.		

<b>Sl. No</b>	<b>Specification</b>	<b>Complied (Yes/No)</b>	<b>Deviation (If Any)</b>
29.	Must support dynamic Airtime allocation on per WLAN, per AP, Per AP group basis.		
30.	Should support MAC authentication to provide simple authentication based on a user's MAC address.		
31.	The controller failover shall not trigger client de - authentication.		
32.	WLC Should support Rogue AP detection, classification and standard WIPS signatures.		
33.	The controller shall be able to detect employee device connection to Rogue Access Point and contain it automatically		
34.	WLC should be able to exclude clients based on excessive/multiple authentication failure.		
35.	Shall support AES or TKIP encryption to secure the data integrity of wireless traffic		
36.	Should support AP location - based user access to control the locations where a wireless user can access the network		
37.	Should support Public Key Infrastructure (PKI) to control access		
38.	Must be able to set a maximum per-user bandwidth limit on a per-SSID basis.		
39.	Should support SNMPv3, SSHv2 and SSL for secure management.		
40.	Should support encrypted mechanism to securely upload/download software image to and from Wireless controller.		
41.	Should support AP Plug and Play (PnP) deployment with zero-configuration capability		
42.	Should support AP grouping to enable administrator to easily apply AP - based or radio - based configurations to all the APs in the same group		
43.	Should support selective firmware upgrade APs, typically to a group of APs minimize the impact of up - gradation.		
44.	Should have a suitable serial console port.		
45.	The controller shall support new application signatures without upgrading controller software		
46.	Should have Voice and Video Call Admission and Stream prioritization for preferential QOS		
47.	It should be able to perform software/firmware upgrade on Access Points automatically.		
48.	It should support time based access to guest user's.		
49.	The system shall support IPv4 - IPv6 dual stack.		
50.	The following standards shall be supported:802.11a/b/g/n, 802.1Q VLAN, 802.1X, 802.11i, 802.11h, 802.11e		
51.	System must support Band Steering where 5GHz capable clients are weaned away from the traditionally congested 2.4 GHz band.		
52.	System Should support Client Isolation so User can not access each other's devices. The isolation feature should have option to apply on AP or SSID's		
53.	It shall have integrated features to detect and mitigate DoS attacks, snooping, etc. along with detection of rogue AP's		
54.	Support for WEP, WPA, WPA2, AES, TKIP, 802.1X based authentication.		
55.	It shall support internal user/password database as well as external LDAP/Active directory and RADIUS/AAA based authentication.		
56.	It shall support rate limiting including limiting broadcast and multicast traffic.		
57.	The controller shall be manageable using CLI, Telnet/SSH, HTTP based GUI and SNMPv2/v3 from Day 1		
58.	Should support integration with Syslog, RSA envision SIEM solution.		

Sl. No	Specification	Complied (Yes/No)	Deviation (If Any)
59.	The system shall provide role based management access and administration.		
60.	<p>The system shall present a customizable interface displaying information on the status of the WLAN network including the following:</p> <ul style="list-style-type: none"> <li>• List of all the SSIDs deployed on each of the radio of the AP</li> <li>• Average client RSSI</li> <li>• Data sent/received</li> <li>• Recent user and system activities along with detailed usage summaries</li> <li>• Information on frequently used access points and currently active WLANs</li> <li>• All alarm/event messages related to wireless clients/end-points including association de-association</li> </ul>		
61.	DHCP Client/Server support.		
62.	All the appliances or devices must be supplied with 19" rack mount kit from day one		
63.	<ul style="list-style-type: none"> <li>• Operating Temperature: 0<sup>o</sup> to 40<sup>o</sup> C</li> <li>• Humidity : 10% to 95% non – condensing</li> </ul>		
64.	<ul style="list-style-type: none"> <li>• Should support all industry standard Wireless Access Point</li> <li>• Should have IPv6 ready</li> </ul>		
65.	<p>FCC Part 15 Class A CE Mark Safety:</p> <ul style="list-style-type: none"> <li>• UL 60950-1:2003</li> <li>• EN 60950:2000</li> <li>• EMI and susceptibility (Class A):</li> <li>• U.S.: FCC Part 15.107 and 15.109</li> <li>• Canada: ICES-003</li> <li>• Japan: VCCI</li> <li>• Europe: EN 55022, EN 55024</li> </ul>		
66.	The OEM must feature in the Leaders/ Challengers segment of the Gartner Magic Quadrant for Data Center Enterprise Networking or Enterprise Networking published in year 2018.		
67.	Comprehensive Onsite OEM Warranty for 5 Years		

## 6 Wireless Access Point

Make:

Model:

Sl. No	Specification	Compiled (Y/N)	Deviations (If Any)
1.	Access Points proposed must include radios for 2.4 GHz and 5 GHz with 802.11ac Wave 2.		
2.	An access point must include a standard OEM provided Mounting brackets for mounting on Ceiling or Roof top.		
3.	The AP shall have at least one Gigabit Ethernet port at PoE support indoor unit.		
4.	Radio may be configured to operate at interference Free band of frequencies.		
5.	It should support latest IEEE standard's		
6.	AP should have integrated / external antenna, minimum data rate support for 1700 Mbps, Also should support minimum 250 concurrent users per band (total 500 concurrent users)		
7.	The radio transmit power should be as per Norms of Indian regulator and should be auto adjustable.		
8.	VLAN, L2 tunnel support, inbuilt QoS.		
9.	Should support WLAN / USER based rate limit		
10.	Shall have WISPr support for walled garden deployments as well as provisioning Wi-Fi hotspots with time based user access/session control		
11.	Shall support Guest user authentication times based.		
12.	Shall support centralized authentication with external radius, LDAP or AD.		
13.	WiFi Alliance certified		
14.	Operating Temperature: 0 to 50 deg Centigrade		
15.	Operating Humidity: 10% - 95% non - condensing.		
16.	The OEM must feature in the Leaders/ Challengers segment of the Gartner Magic Quadrant for Data Center Enterprise Networking or Enterprise Networking published in year 2018.		
17.	Comprehensive Onsite OEM Warranty for 5 Years		

**Note:** - Also OEM should ensure that the Quoted model should not reach End of Life & End of Sale for atleast next 5 Years from its Installation and Mandatory to provide Road Map for the same

## 7 BILL OF MATERIAL (BoM)

Following includes the indicative Bill of Material (BoM). The specifications of the components listed below are provided in the later sections of the RFP. The bidder shall provide the quotation for unit prices for the following components in the commercial bid. However for overall commercial evaluation, the quantities indicated in the table below shall be considered. OCAC reserves the right to alter any item/quantity as per the need.

### **New Secretariat Building**

Sl. No.	DESCRIPTION	QTY.
<b>Networking</b>		
1.	Modular Chassis Based Central switch	02 Nos.
2.	Distribution Switch/Building Switch	07 Nos.
3.	48 port Access Switch with PoE	07 Nos.
4.	24 port Access Switch with PoE	70 Nos.
5.	Wireless Controller	02 Nos.
6.	Wireless Access Point	77 Nos.
<b>Passive Components</b>		
7.	24 Core Optical Fiber Cable (Single Mode)	2000 Mtrs
8.	24 Port LIU with Coupler (Rack Mount)	02 Nos
9.	12 Port LIU with Coupler (Rack Mount)	07 Nos
10.	24 Port CAT6 UTP Patch Panel	06 Nos.
11.	CAT6 Information Outlet with SMB	100 Nos.
12.	CAT6 UTP cable (305 Mtr.)	20 Boxes
13.	CAT6 UTP Patch cord (1 Mtr.)	1500 Nos.
14.	CAT6 UTP Patch cord (3 Mtr.)	1500 Nos.
15.	SC-LC Fiber patch cable Single Mode	15 Nos.
16.	Fiber Pigtail Single Mode (1 mtr.)	150 Nos.
17.	Laying of Fiber cable with HDPE pipe, digging the soil (both hard and soft) 3ft X 1 ft deep filling with sand and bricks as per requirement	2000 Mtrs
18.	UTP Cable pulling, laying and wiring using PVC pipe/Casing wall plug and screws	6000 Mtrs.
19.	Fixing and wiring of UTP Patch panel	6 Nos.
20.	Fixing and wiring of Information Outlet with SMB	100 Nos.
21.	Fixing of Fiber LIU	09 Nos.
22.	Splicing of Fiber	150 Core

### **New Krishi Bhavan**

Sl. No.	DESCRIPTION	QTY.
1.	24 Core Optical Fiber Cable (Single Mode)	1000 Mtrs
2.	24 Port LIU with Coupler (Rack Mount)	02 Nos
3.	SC-LC Fiber patch cable Single Mode	04 Nos.
4.	Fiber Pigtail Single Mode (1 mtr.)	50 Nos.
5.	Laying of Fiber cable with HDPE pipe, digging the soil (both hard and soft) 3ft X 1 ft deep filling with sand and bricks as per requirement	1000 Mtrs
6.	Fixing of Fiber LIU	02 Nos.
7.	Splicing of Fiber	50 Core

## 8 Financial Bid Templates

Sl No.	Description	Qty.	Unit	Unit Rate In INR	Tax In INR	Amount In INR	Total Amount In INR
Networking		(A)		(B)	(C)	(D=B + C)	(E=A X D)
1.	Modular Chassis Based Central switch	02	Nos.				
2.	Distribution Switch/Building Switch	07	Nos.				
3.	48 port Access Switch with PoE	70	Nos.				
4.	24 port Access Switch with PoE	07	Nos.				
5.	Wireless Controller	02	Nos.				
6.	Wireless Access Point	77	Nos.				
<b>Passive Components</b>							
1.	24 Core Optical Fiber Cable (Single Mode)	3000	Mtrs.				
2.	24 Port LIU with Coupler (Rack Mount)	04	Nos.				
3.	12 Port LIU with Coupler (Rack Mount)	07	Nos.				
4.	24 Port CAT6 UTP Patch Panel	06	Nos.				
5.	CAT6 Information Outlet with SMB	100	Nos.				
6.	CAT6 UTP Cable (305 Mtrs.)	20	Boxes				
7.	CAT6 UTP Patch cord (1 Mtr.)	1500	Nos.				
8.	CAT6 UTP Patch cord (3 Mtr.)	1500	Nos.				
9.	SC-LC Fiber patch cable Single Mode	19	Nos.				
10.	Fiber Pigtail Single Mode (1 mtr.)	200	Nos.				
11.	Laying of Fiber cable with HDPE pipe, digging the soil (both hard and soft) 3ft X 1 ft deep filling with sand and bricks as per requirement	3000	Mtrs.				
12.	UTP Cable pulling, laying and wiring using PVC pipe/Casing wall plug and screws	6000	Mtrs.				
13.	Fixing and wiring of UTP Patch panel	06	Nos.				
14.	Fixing and wiring of Information Outlet with SMB	100	Nos.				
15.	Fixing of Fiber LIU	11	Nos.				
16.	Splicing of Fiber	200	Core				
17.	Other Cost (If any)						
<b>Sub Total in Rupees:</b>							
<b>Sub Total in Rupees. (In Words)</b> _____							<b>Only</b>

### Terms & Conditions:

- Prices shall be quoted inclusive of all taxes, duties, freight and forwarding and cost of labour for installation.
- Optional Items, Annual Maintenance Charges and other are not to be included in Final Price for selection of the L1 Bidder
- Printed brochures of items quoted should be enclosed.
- Repeat orders can be given as and when necessary during bid validity period.