HSCC/IICB/341/PG-III/2012 **21.08.2012**

All Bidders

Clarifications and Amendments - II

Name of work: **Establishment of Local Area Network (LAN) and Wi-Fi System for new campus of IICB, Salt Lake, Kolkata.**

Tender Reference: **Admn. 26(141)/2011/SLP dated 20/07/2012.**

Dear Sir,

This has reference to pre bid meeting held on 03/08/2012 at 15:00 hrs for the above tender at HSCC corporate office, Noida.

The following Clarifications and Amendments-II may be noted, which shall be treated as a part of the contract to be submitted duly signed & stamp along with tender envelop no. – 2.

All other terms & conditions of tender document shall remain unchanged.

Prospective bidders are advised to regularly scan through HSCC web site as corrigendum/amendments etc., if any, will be notified on HSCC web site and separate advertisement will not be made for this.

Thanking you,

Yours faithfully,

(S. Mukhopadhyay)
General Manager (Projects)

Clarifications for commercial Queries for Tender No. – Admn. 26(141) / 2011 /SLP dated 20/07/2012 for establishment of LAN and Wi-Fi system at IICB, Kolkata

Sl. No.	Tender Clause	Query from bidder	Clarification
1	Custom Duty Exemption	Please confirm, weather Institute is entitled to avail custom duty exemption or not and will provide required DSIR certificate to avail custom duty exemption.	IICB will not provide customs duty exemption & DSIR certificate IICB will assist to get road permit with recommendation from HSCC without any financial liabilities. Bidders should quote accordingly.
2	General	Can we quote in USD for those components which can be imported, as IICB enjoys Custom Duty benefit. This will be a cost effective measure for both IICB and the bidder	Tender condition prevail (Quote only in Indian Rupees (Rs.)).

Clarifications for Pre-Qualification queries for Tender No. – Admn. 26(141) / 2011 /SLP dated 20/07/2012 for establishment of LAN and Wi-Fi system at IICB, Kolkata

Query No.	Item	Page / Section	Query from bidder	Clarification
1	Pre Qualification Criteria	Volume-I, Page No. 4	Experience of having successfully completed similar works OR IT Enabled Solutions during last 7 years	Tender condition prevails.
2	Pre Qualification Criteria	Volume-I, Page No. 2	Please confirm, do we need to buy the tender document physically or we can download the tender and pay the tender fee by DD and submit along with tender.	Tender condition prevails. (Bidder have to purchase the binded document).

Clarification / Amendment for Technical queries for Tender No. – Admn. 26(141) / 2011 /SLP dated 20/07/2012 for establishment of LAN and Wi-Fi system at IICB, Kolkata

Query No.	Item	Page / Section	Technical Specification		Query from bidder	Clarification / Amendment
			Items Description	Specification		
1	Core Switch	Page No. 6 of Vol 5 and Page No. 2 of Vol 6	Ports	96 X 10/100/1000BaseT ports distributed amongst two line cards	The core switch specifications in Vol 5 mention that 96 nos. of 10/100/1000BaseT ports are required. However, the BoQ mentioned in Vol 6 asks for 48 x 10/100/1000BaseT ports. Kindly clarify the actual quantity required	The quantity mentioned in the specifications (96x10/100/1000BaseT ports) is required.
2	Core Switch	Page No. 7 of Vol 5 Clause No. j (v)		Should support virtualization so that multiple switches can be logically combined to form a single switch with enhanced switching capacity and port density	Please clarify if we need to quote the additional hardware required (if any) to achieve the virtualization feature	Any additional hardware/software required to achieve the required functionality should be quoted from Day 1
3	Distribution switch	Page No. 10 of Vol 5 and Page No. 2 of Vol 6	Interface	Minimum 48 (forty eight) 10/100/1000BaseT Ports Additional 2 (two)x10G ports supporting single/multimode populated with 10G-BaseSR module Additional 4 (four) x 1G ports each supporting single/multimode optical fiber modules out of which atleast 3 ports should be populated with 1000BaseSX modules	There is a discrepancy in the number of 1G SFP based ports required in the distribution switch between the specifications mentioned in Vol 5 and the BOQ mentioned in Vol 6. Kindly clarify the actual quantity required	The quantiies mentioned in the specifications (Vol 5) is to be considered
4	Distribution switch	Page No. 10 of Vol 5	Features	Switching Capacity (Full Duplex): 200 Gbps Throughput: 160 Mpps or more	Kindly clarify if the interface and throughput requirements can be met using multiple switches as a cluster/stack/virtual switch, or whether these parameters need to be met with a single physical switch	The quantiies mentioned in the specifications (Vol 5) is to be considered.
5	Network Access/Admission Control	Page No. 20 of Vol 5 Clause No. ix		RADIUS/AAA based authentication should be supported internally or externally by the device/software	Please clarify if RADIUS/AAA based authentication facility needs to be provided as a part of the solution from Day 1	RADIUS/AAA based authentication facility needs to be provided as a part of the solution from Day 1
6	Core Switch	Volume - 5, Page No. 5	The switch should be a chassis based high performance Layer 2, Layer 3 and Layer 4 switch	01 Chassis	The switch should be a chassis based or support Virtual chassis/stacking with high performance Layer 2, Layer 3 and Layer 4 switch	Requirement stands. Chassis based core switch required

7	Core Switch	Volume - 5, Page No. 5	Minimum no of usable I/O slots excluding Supervisor/Processor Cards	08 or Higher	Minimum 8 nos. I/O slots per chassis or 8 switch units per stack/virtual chassis.	Requirement stands. Chassis based core switch with minimum 8 I/O slots required
8	Core Switch	Volume - 5, Page No. 5	Architecture	· The Switch should have a Truly Distributed Architecture. All Interface Modules should have all the resources for switching and routing and should offer True Local Processing.	· The Switch / Virtual chassis / stack should have a Truly Distributed Architecture. All Interface Modules should have all the resources for switching and routing and should offer True Local Processing.	Requirement stands
9	Core Switch	Volume - 5, Page No. 5	Architecture	· Wirespeed support for up to 128 x 10 Gigabit Ethernet or higher, and 384 Gigabit Ethernet ports or better	It is requested that IICB/HSCC should deleted this line.	There is a significant amount of expansion planned in the new campus. Also, this core switch is envisaged as the backbone of a network which will support HPC clusters. Requirement stands
10	Core Switch	Volume - 5, Page No. 5	Redundancy	· Redundant Switch Fabrics to be provided from day one.	Redundant Switch Fabrics to be provided from day one in case of Chassis based Switch. In case of Virtual Chassis/stack, the failure of the master stack unit should not affect other units in the virtual chassis/stack.	Switching fabric redundancy required from Day 1
11	Core Switch	Volume - 5, Page No. 6	Aggregate bandwidth in a single chassis	Aggregate capacity of 2 Tbps or more	Aggregate swithcing capacity of capacity of 900 Gbps or more per chassis / virtual chassis/stack.	Requirement stands
12	Core Switch	Volume - 5, Page No. 6	Throughput per slot	300 Gbps	300 Gbps per slot bandwidth (for Chassis based Switch) or 128 Gbps stacking/Virtual Chassis interconnect bandwidth per switch.	Requirement stands. Chassis based switches from all leading OEMs support this bandwidth
13	Core Switch	Volume - 5, Page No. 6	Aggregate throughput	Up to 1200 Million pps or Higher	669 Mpps or higher per chassis or virtual chassis / stack	Requirement stands
14	Core Switch	Volume - 5, Page No. 6	Ports	b) 96 x 10/100/1000BaseT ports distributed across two line cards	24 x 10/100/1000BaseT ports per Chassis/Virtual Chassis/Stack.	Requirement stands. It is envisaged that multiple server farm clusters will connect to the core in future

15	Core Switch	Volume - 5, Page No. 6	Fans	Redundant N+1	Redundant, hot-swappable, field replaceable Fans	Requirement stands. The specification mentioned is the minimum requirement. Any additional feature provided is acceptable
16	Core Switch	Volume - 5, Page No. 6	a) The Switch Fabric and Performance of the switch should remain same in case of failure of one of the CPU.		In case of Chassis, the Switch Fabric and Performance of the switch should remain same in case of failure of one of the CPU. If Virtual Chassis/stack is offered, the failure of the master stack unit should not affect other units in the virtual chassis/stack.	Requirement stands. Chassis based core switch required
17	Core Switch	Volume - 5, Page No. 6	f) MAC address support min 160K		32K MAC addresses	Requirement stands. Since this switch is at the core of the network, it is proposed to have sufficient scalability in terms of performance and expansion capability
18	Core Switch	Volume - 5, Page No. 7	k) For IP Routing the switch should have support for Static, RIP v1, RIP v2, OSPF, IS-IS, BGP from Day1		For IP Routing the switch should have support for Static, RIP v1, RIP v2, OSPF, from Day1	Requirement stands. BGP required at the core from Day 1
19	Core Switch	Volume - 5, Page No. 7	m) Should support minimum 128000 Route entries.		Should support minimum 1000 IPv4 & IPv6 unicast Routes	Requirement stands. Since this switch is at the core of the network, it is proposed to have sufficient scalability in terms of performance and expansion capability
20	Core Switch	Volume - 5, Page No. 7	n) Should support 50000 Security and QOS ACL's.		Should support 1000 Security and/or QOS ACL's.	Amended. Should support 2000 Security and/or QOS ACL's.
21	Core Switch	Volume - 5, Page No. 7	o) Should support Protocol Independent Multicast - Sparse Mode and PIM - SSM, PIM-DM, MSDP		Should support Protocol Independent Multicast - Sparse Mode and PIM - SSM, PIM-DM, MSDP / MLD	Accepted. Should support Protocol Independent Multicast - Sparse Mode and PIM - SSM, PIM-DM, MSDP / MLD
22	Core Switch	Volume - 5, Page No. 7	r) Required Protocol and Standards support	(x) RIP v1/v2, OSPFv3, BGP4+	(x) RIP v1/v2, OSPFv2 support from day one with OSPFv3 BGP4+ to be supported using optional license.	Requirement stands, It is feasible that no additional expense be incurred for licensing in future

23	Core Switch	Volume - 5, Page No. 8	t) Required Securit	vii) Should support integrated Firewall Module. In case Firewall module is not supported internally, bidder to quote 4 x 10G SFP+ interfaces populated with 10GBase-LR transceivers for integrating an external firewall in future	It is requested that IICB/HSCC should deleted this line.	Requirement stands. In future, it is planned that the server farm will be secured either through an internal firewall module or through an external firewall providing high bandwidth connection to the core
24	Edge Switch (Type-1)	Volume - 5, Page No.9	All 10/100/1000 base ports should be PoE enabled		All 10/100/1000 base ports should be PoE+ (802.3at) enabled with backward compatibility for 802.3af PoE devices.	Requirement stands. While the stated specification mentions the minimum requirement, bidders are free to quote any additional feature that they will be beneficial to the institute
25	Edge Switch (Type-1)	Volume - 5, Page No.9	IPv4 Routing: Static, RIP,OSPF, BGP from Day 1		IPv4 Routing: Static, RIP.	Amended. IPv4 Routing: Static, RIP,OSPF from Day 1
26	Edge Switch (Type-1)	Volume - 5, Page No.9	Should support IPv6, OSPFv3, BGP4+ and RIPng from Day 1		It is requested that IICB/HSCC should delete this line.	Amended. Should support IPv6, OSPFv3 and RIPng from Day 1
27	Edge Switch (Type-1)	Volume - 5, Page No.9	PIM-DM, PIM-SM, PIM-DM, MLD snooping		PIM-DM, PIM-SM, MLD / IGMP snooping	Amended. PIM-DM, PIM-SM, IGMP snooping and MLD snooping
28	Edge Switch (Type-1)	Volume - 5, Page No.9	Power supply alarms		It is requested that IICB/HSCC should delete this line.	This clause stands deleted
29	Edge Switch (Type-1)	Volume - 5, Page No.9	Fan and temperature alarms			This clause stands deleted
30	Distribution switch	Volume - 5, Page No. 10	Architecture	Chassis/Fixed port switch with non-blocking architecture	Chassis/Fixed port Stackable switch with non-blocking architecture	Requirement stands. While the stated specification mentions the minimum requirement, bidders are free to quote any additional feature that they feel will be beneficial to the institute

31	Distribution switch	Volume - 5, Page No. 10	Interface	Minimum 48 (forty eight) 10/100/1000BaseT Ports supporting Additional 2 (two)x10G ports supporting single/multimode populated with 10G-BaseSR module. Additional 4 (four) x 1G ports each supporting single/multimode optical fiber modules out of which atleast 3 ports should be populated with 1000BaseSX modules.	12 x 1000BaseX SFP Ports which may be populated with 1000Base LX/SX or 10/100/1000BaseT SFP transceivers as per requirement. 12 x 10/100/1000BaseT Ports. Additional 2 x 10G ports populated with 10G LR modules.	Amended: Minimum 48 (forty eight) 10/100/1000BaseT Ports Additional 2 (two)x10G ports supporting single/multimode populated with 10G-BaseSR module. One will be in use and other for redundant Additional 4 (four) x 1G ports each supporting single/multimode optical fiber modules out of which atleast 3 ports should be populated with 1000BaseSX modules. Two will be in use and two will be kept as redundant
32	Distribution switch	Volume - 5, Page No. 10	Features	Switching Capacity (Full Duplex): 200 Gbps	Switching Capacity (Full Duplex): 88 Gbps Stacking bandwidth: 64 Gbps or higher per switch using dedicated stacking ports.	Requirement stands,
33	Distribution switch	Volume - 5, Page No. 10	Features	Throughput: 160 Mpps	Throughput: 65 Mpps	Requirement stands,
34	Distribution switch	Volume - 5, Page No. 11	Features	Should support IPv6, OSPFv3, BGP4+, RIPng from Day1	Should support IPv6, OSPFv3, BGP4+, RIPng using license upgrade.	Requirement stands, It is feasible that no additional expense be incurred for licensing in future
35	Edge Switch (Type - 2)	Volume - 5, Page No. 11	Interface	Minimum 24 Ethernet 10/100/1000BaseT Copper ports with 4 x 1000Base-T/ SFP Ports that support variety of interfaces like 1000BaseT, 1000Base-SX/LX/LH. Should support addition of 10-Gigabit modules if required in future.	Minimum 24 Ethernet 10/100/1000BaseT Copper ports with 4 x 1000Base-T/ SFP Ports that support variety of interfaces like 1000BaseT, 1000Base-SX/LX/LH.	Requirement stands, it is envisaged that the entire backbone will be migrated to 10G in future when user load increases
36	Edge Switch (Type - 2)	Volume - 5, Page No. 12	Features	Switching Capacity (Full Duplex): 88 Gbps or better	Switching Capacity (Full Duplex): 56 Gbps or better	Requirement stands. The backplane capacity requirement considers upgradation to a 10G backbone in future

37	Edge Switch (Type - 2)	Volume - 5, Page No. 12	Features	Throughput: 65 Mpps or higher	Throughput: 41 Mpps or higher	Requirement stands. The throughput requirement considers upgradation to a 10G backbone in future
38	Edge Switch (Type - 2)	Volume - 5, Page No. 12	Features	IPv4 Routing: Static Routing from Day 1	IPv4 Routing: Static Routing, RIPv1/v2 from Day 1	Requirement stands. While the stated specification mentions the minimum requirement, bidders are free to quote any additional feature that they feel will be beneficial to the institute
39	Edge Switch (Type - 2)	Volume - 5, Page No. 12	Features	Power supply alarms	It is requested that IICB/HSCC should delete this line.	This clause stands deleted
40	Edge Switch (Type - 2)	Volume - 5, Page No. 12	Features	Fan and temperature alarms		This clause stands deleted
41	Wireless Access Point (Indoor)	Volume - 5, Page No. 13	Radio Transmit Power Setting	Granular Transmit Power Settings in single dBm increments. Configurable power that allows control of RF cell size	It is requested that IICB/HSCC should amend the requirement as given below: "21 dBM or better transmit power for 2.4 GHz and 5 GHz radios with Granular Transmit Power Settings in single dBm increments. Configurable power that allows control of RF cell size"	Requirement stands. While the stated specification mentions the minimum requirement, bidders are free to quote any additional feature that they feel will be beneficial to the institute
42	Wireless Access Controller/Switch	Volume - 5, Page No. 15	Management & Control		Request for addition of feature: The Wireless controller shall support Wireless Mesh configuration.	Amended. The proposed Wireless solution shall support Wireless Mesh configuration from Day 1.
43	Wireless Access Controller/Switch	Volume - 5, Page No. 15	Encryption and authentication	• Scalable Encryption with support for Encryption processing distributed amongst Access Points • IEEE 802.1x with multiple EAP types (TLS, PEAP/MSCHAP, TTLS), • X.509 support • Wi-Fi WPA2 Enterprise certified	It is requested that IICB/HSCC should add the following feature to the current requirement: "The Controller shall support encrypted tunnels for data as well as control traffic."	Requirement stands. While the stated specification mentions the minimum requirement, bidders are free to quote any additional feature that they feel will be beneficial to the institute
44	Wireless Radio / Access Point (Outdoor) with external directional antenna	Volume - 5, Page No. 16	General	• Outdoor directional Antenna (having same make as the AP) with 10dB gain and supporting 5 GHz operation.	• Outdoor directional Antenna (having same make as the AP) supporting 2.4 GHz band with 8 dBm or higher gain and 5 GHz with 10 dBm or higher gain.	Accepted. Clause stands amended to "Outdoor directional Antenna (having same make as the AP) supporting 2.4 GHz band with 8 dBm or higher gain and 5 GHz with 10 dBm or higher gain."

45	Wireless Radio / Access Point (Outdoor) with external directional antenna	Volume - 5, Page No. 16	Radio Transmit Power	At least 10 dBm; configurable	Minimum 18 dBm for 2.4 GHz and 5 GHz operation.	Requirement stands. While the stated specification mentions the minimum requirement, bidders are free to quote any additional feature that they feel will be beneficial to the institute
46	Wireless Management	Volume - 5, Page No. 17	Reeust for addition		The Wireless NMS shall provide RF planning features for 802.11 a/b/g/n Wi-Fi with capability to graphically display RF coverage & throughput.	Requirement stands. While the stated specification mentions the minimum requirement, bidders are free to quote any additional feature that they feel will be beneficial to the institute
47	Firewall	Volume - 5, Page No. 18	Architecture	Should support 10G	Should support 10G Coppper as well as Fibre interface.	Requirement stands. The functional requirement is to have 10G support. Bidders are free to provide this on fiber or copper
48	Firewall	Volume - 5, Page No. 18	Features	Performance: min 12 Gbps	Performance: min 5 Gbps	Requirement stands. The performance specifications mentioned are keeping in mind the current and future requirements and in keeping with the security infrastructure currently in place in IICB Main Campus
49	Firewall	Volume - 5, Page No. 18	Features	Security Zones: Min. 120	Security Zones: Min. 50	Requirement stands. The performance specifications mentioned are keeping in mind the current and future requirements and in keeping with the security infrastructure currently in place in IICB Main Campus
50	Firewall	Volume - 5, Page No. 18	Features	Virtual Routers : 10	Virtual Routers : 30	Requirement stands. The performance specifications mentioned are keeping in mind the current and future requirements and in keeping with the security infrastructure currently in place in IICB Main Campus
51	Firewall	Volume - 5, Page No. 18	Features	Concurrent sessions: 1,200,000 per sec	Concurrent sessions: 350,000	Requirement stands. The performance specifications mentioned are keeping in mind the current and future requirements and in keeping with the security infrastructure currently in place in IICB Main Campus
52	Firewall	Volume - 5, Page No. 18	Features	New Sessions/second: 70,000	New Sessions/connections per second: 25,000	Requirement stands. The performance specifications mentioned are keeping in mind the current and future requirements and in keeping with the security infrastructure currently in place in IICB Main Campus

53	Firewall	Volume - 5, Page No. 18	Features	IPSec VPN performance (168-bit DES): 3.5 Gbps	IPSec VPN performance (168-bit DES): 1.0 Gbps	Requirement stands. The performance specifications mentioned are keeping in mind the current and future requirements and in keeping with the security infrastructure currently in place in IICB Main Campus
54	Firewall	Volume - 5, Page No. 18	Features	Firewall should be with minimum 2.5 Mbps IPS throughput	Firewall should be with minimum 600 Mbps IPS throughput	Requirement stands. The performance specifications mentioned are keeping in mind the current and future requirements and in keeping with the security infrastructure currently in place in IICB Main Campus
55	Firewall	Volume - 5, Page No. 18	Features	Concurrent IPSec VPN tunnels: 3000 or better	Concurrent IPSec VPN tunnels: 1000 or better	Requirement stands. The performance specifications mentioned are keeping in mind the current and future requirements and in keeping with the security infrastructure currently in place in IICB Main Campus
56	Firewall	Volume - 5, Page No. 19	Security Features	Should preferably have integrated support for Web Filtering, Gateway Antivirus and AntiSpam. Otherwise, this can be provided through external appliance(s) where the following parameters need to be met: Antivirus Throughput: 350 Mbps Web Filtering: For up to 500,000 concurrent sessions AntiSpam: For 1000 mailboxes	Should preferably have integrated support for Web Filtering and application security, Gateway Antivirus and AntiSpam. Otherwise, this can be provided through external appliance(s) where the following parameters need to be met: Antivirus Throughput: 250 Mbps	Requirement stands. The performance specifications mentioned are keeping in mind the current and future requirements and in keeping with the security infrastructure currently in place in IICB Main Campus
57	Network Access/Admission Control	Volume - 5, Page No. 19 - 21	Request for addition		Request for Addition: Should check the security posture during the session and not just at the start of the session	No change. While the stated specification mentions the minimum requirement, bidders are free to quote any additional feature that they feel will be beneficial to the institute
58	Network Access/Admission Control	Volume - 5, Page No. 19 - 21	Request for addition		Request for Addition: It should allow the use of the Windows Security Center (WSC) SOH in access control decisions.	No change. While the stated specification mentions the minimum requirement, bidders are free to quote any additional feature that they feel will be beneficial to the institute

59	Network Management	Volume - 5, Page No. - 21	The NMS should be able to manage the proposed network devices and also other 3rd party network devices reputed network OEMs like Cisco, Juniper, Brocade, HP, Enterasys, Huwaei etc.		It is requested that IICB/HSCC should delete this line.	Amended. For the NMS requirement, bidders are free to quote NMS solutions from Juniper/Cisco/Brocade/HP/CA/IBM/BMC which meet the specifications mentioned
60	Network Management	Volume - 5, Page No. - 21	The solution should be able to manage at least 100 network devices scalable to 2000 or more devices.		The solution should be able to manage at least 100 network devices scalable to 200 or more devices.	Amended. The solution should be able to manage at least 100 network devices scalable to 500 or more devices.
61	Category 6A S/FTP, 4 pair	Volume - 5, Page No. - 25	Features	Cat6A S/FTP indoor cable, conforming to ISO/IEC-11801 & IEC 61156-5, tested up to 1000MHz. The cable contains 4	Cat7 or 7A S/FTP indoor cable, conforming to ISO/IEC-11801 & IEC 61156-5, tested up to 1000MHz. The cable contains 4	Amended : Cat7 or 7A S/FTP indoor cable, conforming to ISO/IEC-11801 & IEC 61156-5, tested up to 1000MHz. The cable contains 4
62	Core Switch	Page No. 6 of Vol 5 and Page No. 2 of Vol 6	Ports	96 X 10/100/1000BaseT ports distributed amongst two line cards	The core switch specifications in Vol 5 mention that 96 nos. of 10/100/1000BaseT ports are required. However, the BoQ mentioned in Vol 6 asks for 48 x 10/100/1000BaseT ports. Kindly clarify the actual quantity required	The quantity mentioned in the specifications (96x10/100/1000BaseT ports) is required.
63	Core Switch	Page No. 7 of Vol 5 Clause No. j (v)		Should support virtualization so that multiple switches can be logically combined to form a single switch with enhanced switching capacity and port density	Please clarify if we need to quote the additional hardware required (if any) to achieve the virtualization feature	Any additional hardware/software required to achieve the required functionality should be quoted from Day 1
64	Distribution switch	Page No. 10 of Vol 5 and Page No. 2 of Vol 6	Interface	Minimum 48 (forty eight) 10/100/1000BaseT Ports Additional 2 (two)x10G ports supporting single/multimode populated with 10G-BaseSR module Additional 4 (four) x 1G ports each supporting single/multimode optical fiber modules out of which atleast 3 ports should be populated with 1000BaseSX modules	There is a discrepancy in the number of 1G SFP based ports required in the distribution switch between the specifications mentioned in Vol 5 and the BOQ mentioned in Vol 6. Kindly clarify the actual quantity required	The quantiies mentioned in the specifications (Vol 5) is to be considered.
65	Distribution switch	Page No. 10 of Vol 5	Features	Switching Capacity (Full Duplex): 200 Gbps Throughput: 160 Mpps or more	Kindly clarify if the interface and throughput requirements can be met using multiple switches as a cluster/stack/virtual switch, or whether these parameters need to be met with a single physical switch	All mentioned parameters to be met with a single physical switch
66	Network Access/Admission Control	Page No. 20 of Vol 5 Clause No. ix		RADIUS/AAA based authentication should be supported internally or externally by the device/software	Please clarify if RADIUS/AAA based authentication facility needs to be provided as a part of the solution from Day 1	RADIUS/AAA based authentication facility needs to be provided as a part of the solution from Day 1

67	Core Switch	Page No. 6 of Vol 5 and Page No. 2 of Vol 6	Ports	96 X 10/100/1000BaseT ports distributed amongst two line cards	The core switch specifications in Vol 5 mention that 96 nos. of 10/100/1000BaseT ports are required. However, the BoQ mentioned in Vol 6 asks for 48 x 10/100/1000BaseT ports. Kindly clarify the actual quantity required	The quantity mentioned in the specifications (96x10/100/1000BaseT ports) is required.
68	Core Switch	Page No. 7 of Vol 5 Clause No. j (v)		Should support virtualization so that multiple switches can be logically combined to form a single switch with enhanced switching capacity and port density	Please clarify if we need to quote the additional hardware required (if any) to achieve the virtualization feature	Any additional hardware/software required to achieve the required functionality should be quoted from Day 1
69	Distribution switch	Page No. 10 of Vol 5 and Page No. 2 of Vol 6	Interface	Minimum 48 (forty eight) 10/100/1000BaseT Ports Additional 2 (two)x10G ports supporting single/multimode populated with 10G-BaseSR module Additional 4 (four) x 1G ports each supporting single/multimode optical fiber modules out of which atleast 3 ports should be populated with 1000BaseSX modules	There is a discrepancy in the number of 1G SFP based ports required in the distribution switch between the specifications mentioned in Vol 5 and the BOQ mentioned in Vol 6. Kindly clarify the actual quantity required	The quantiies mentioned in the specifications (Vol 5) is to be considered
70	Distribution switch	Page No. 10 of Vol 5	Features	Switching Capacity (Full Duplex): 200 Gbps Throughput: 160 Mpps or more	Kindly clarify if the interface and throughput requirements can be met using multiple switches as a cluster/stack/virtual switch, or whether these parameters need to be met with a single physical switch	All mentioned parameters to be met with a single physical switch
71	Network Access/Admission Control	Page No. 20 of Vol 5 Clause No. ix		RADIUS/AAA based authentication should be supported internally or externally by the device/software	Please clarify if RADIUS/AAA based authentication facility needs to be provided as a part of the solution from Day 1	RADIUS/AAA based authentication facility needs to be provided as a part of the solution from Day 1

Amendment – II

Name of work: Establishment of LAN and Wi-Fi System for new campus of IICB, Salt Lake Kolkata.

Tender Reference: Admn.26(141)/2011/SLP dated 20/07/2012

Bidders are requested to note that:

(1) In "Scope of work" (Vol. – II, NIT, page no. 11)

As per tender	Amendment
On each floor of the Guest house, one Gigabit Edge switch shall be installed inside 12U wall mounted racks. Each of the edge switches on the Ground floor, 2nd floor and 3rd floor shall have Gigabit MM OFC uplinks to the Distribution switch. The Edge switch located on the same floor as Distribution switch shall have a Gigabit UTP uplink to the Distribution switch.	On 2nd and 3rd floor of the Guest house building, one Gigabit Edge switch shall be installed inside 12U wall mounted racks. Each of the edge switches on the 2nd floor and 3rd floor shall have Gigabit MM OFC uplinks to the Distribution switch (at 1st floor).

(2) In "Detailed Scope of Work" (Vol. – V, Tech. Specification, page no. 3)

As per tender	Amendment
Each of the edge switches on the Ground floor, 2nd floor and 3rd floor shall have Gigabit MM OFC uplinks to the Distribution switch. The Edge switch located on the same floor as Distribution switch shall have a Gigabit UTP uplink to the Distribution switch. The Edge switch located on the same floor as Distribution switch shall have a Gigabit UTP uplink to the Distribution switch.	On 2nd and 3rd floor of the Guest house building, one Gigabit Edge switch shall be installed inside 12U wall mounted racks. Each of the edge switches on the 2nd floor and 3rd floor shall have Gigabit MM OFC uplinks to the Distribution switch (at 1st floor).

(3). In "Earnest Money Deposit" (Vol – II, Page no. 24, clause 12.2)

As per tender	Amendment
The earnest money have to be deposited in shape of Banker's cheque/Demand draft of Rs.4.16 Lakhs/- (Rupees Four Lakhs Sixteen Thousand only) in favour of the The Director, Indian Institute of Chemical Biology, Kolkata from any Nationalized bank/Scheduled bank.	The earnest money have to be deposited in shape of Banker's cheque/Demand draft of Rs.4.16/- Lakhs (Rupees Four Lakhs Sixteen Thousand only) in favour of the The Director, Indian Institute of Chemical Biology, Kolkata from any Nationalized bank/Scheduled bank.

(4). In "Fiber optic cable laying and termination" (Vol – II, Page no. 17, sr. no. 11)

As per tender	Amendment
The contractor shall provide complete documentation covering the installation and maintenance of the building cabling system. Including "as built" drawings showing all main cable runs, cable trays and catenaries, outlets, consolidation points. Complete with outlet numbering. (It is already mentioned in the page 16 and repeated in page 17)	Deleted.

(5). In "Additional specific terms of the contract for establishment of LAN at IICB" (Vol – II, Page no. 19-20, clause s)

As per tender	Amendment
The bidder should provide the standard technical literature (not photocopies) on the subject offered with dealership certificate of the offered product(s). The offers which do not meet the NIIT required technical specifications will be summarily rejected, from any further consideration. The bidder has to provide the details Bill of Materials (BOM).	The bidder should provide the standard technical literature (not photocopies) on the subject offered with dealership certificate of the offered product(s). The offers which do not meet the NIIT required technical specifications will be summarily rejected **without** any further consideration. The bidder has to provide the detail Bill of Materials (BOM).

(6). In "Submission of Tender" (Vol – II, Page no. 25, clause 14.1 (e))

As per tender	Amendment
Construction Schedule and Schedule for manpower to be deployed at site.	Schedule of work at site.

(7). In "Tender Opening" (Vol – II, Page no. 27, clause 18.1)

As per tender	Amendment
The Bidders who are not pre-qualified, their tenders shall not be opened further. Envelope No. 2: Shall be opened of those teneders who are pre-qualified at a subsequent date to be intimated in advance to such tenderers.	Deleted. Envelope No. 2: Shall be opened of those teneders who have submitted Earnest Money Deposit and Pre-Qualification Document (Vol-I).

(8.). In "Scope of Work" (Vol – II, Page no. 10, clause 1)

As per tender	Amendment
The Layer3 core switch will be connected with interconnected 4 nos. of stackable Layer-2/3 Managed 24 port Gigabit Edge Switch switches located at each floor.	The Layer3 core switch will be connected with interconnected 8 nos. of stackable Layer-2/3 Managed 24 port Gigabit Edge switches located at each floor.

(9.). In "Technical Specification – (iii) Information outlet" (Vol – V, Page no. 27)

As per tender	Amendment
Molex recommends the full range of Cat 6A Shielded products be used in a system to maximise cabling performance.	The full range of Cat 6A Shielded products be used in a system to maximise cabling performance.

(10.). In "Technical Specification – (iv) 24 Port Jack Panel" (Vol – V, Page no. 29)

As per tender	Amendment
Molex recommends the full range of Cat 6A Shielded products be used in a system to maximise cabling performance.	The full range of Cat 6A Shielded products be used in a system to maximise cabling performance.

(11.). In “Technical Specification – (v) Mounting Cords” (Vol – V, Page no. 31)

As per tender	Amendment
Molex recommends the full range of Cat 6A Shielded products be used in a end-to-end system to maximise cabling performance.	The full range of Cat 6A Shielded products be used in a end-to-end system to maximise cabling performance.

(12.). In “Technical Specifications” (Vol – V, Page no. 25)

As per tender	Amendment
(i) Category 6A S/FTP, 4 Pair	**(i) Category 7A S/FTP, 4 Pair**

(13.). In “Technical Specification - Min Required Specification” (Vol – V, Page no. 25)

As per tender	Amendment
Cat6A S/FTP indoor cable	**Cat 7A S/FTP indoor cable**

(14.). In “Materials” (Vol – III, Page no. 12, (c))

As per tender	Amendment
After completion of the work or on determination/termination of the contract, the theoretical quantity of cement to be used in work shall be calculated on the basis of statement showing quantity of cement to be used in different items of work provided in current Schedule for the purpose printed by CPWD. In case any item is executed for which the standard constants for the consumption of cement are not available in the above mentioned statement or cannot be derived from this statement, the same shall be calculated on the basis of standard formula to be laid down by the Engineer. Over this theoretical quantity of cement, shall be allowed a variation upto 3% plus/minus for works estimated cost of which as put to tender is not more than Rs 10 lakhs and upto 2% plus/minus for works estimated cost of which as put to tender is more than Rs 10 lakhs. The difference in the quantity actually issued to the contractor and the theoretical quantity including authorized variation, if not returned by the contractor, shall be recovered at twice the issue rate, without prejudice to the provision of other conditions regarding return of	**deleted**

materials governing the contract. In the event of its being discovered that the quantity of cement which is less than the quantity ascertained as herein before provided (allowing variation on minus side as stipulated above) the cost of quantity of cement not so used, shall be recovered from the contractor on the basis of stipulated issue rates and cartage to site.	

(15.). In "Contractor's engineers / Foreman & workmen" (Vol – III, Page no. 13, 8(a))

As per tender	Amendment
The contractor shall employ competent Site-Engineer/Foreman as per CPWD norms and as approved by the Engineer whose qualification must conform to the requirement specified by the Engineer who shall be constantly in attendance of the work while the men are at work.	The contractor shall employ competent Site-Engineer as approved by the Engineer whose qualification must conform to the requirement specified by the Engineer who shall be constantly in attendance of the work while the men are at work.

(16.). In "B. Special Conditions - General" (Vol – IV, Page no. 10, clause 1.2)

As per tender	Amendment
Work shall be done as per CPWD Specifications. In case of any discrepancy the order of precedence in interpretation shall be as under: i. Schedule of Quantities ii. Drawings iii. Additional Conditions iv. General Condition of Contract v. Special Condition vi. Additional Technical Specification vii. CPWD Latest Civil & Electrical Specification viii. IS Codes ix. International Codes x. Best Engineering Practices	Work shall be done as per Specifications. In case of any discrepancy the order of precedence in interpretation shall be as under: i. Schedule of Quantities ii. Drawings iii. Additional Conditions iv. General Condition of Contract v. Special Condition vi. Technical Specification vii. IS Codes viii. International Codes ix. Best Engineering Practices

(17.). In “Details required along with submission of running/final bills” (Vol – IV, Page no. 19, clause 31 - xv)

As per tender	Amendment
xv. Register for steel, cement, water proofing material, concealed item etc. should be maintained at site in the standard format of CPWD duly certified by Engineer as per requirement. Monthly statement should be submitted along with the bill.	Deleted.