

CORRIGENDUM-I

Name of Work: Complete Interior Fitout works such as Flooring, Wall & Ceiling finishes, Partitioning, Wood work, Plumbing, Electrical, HVAC, Low Voltage & other ancillary works for under construction DFCCIL C. O. Building complex at Sec-145, Noida.

Ref: CGM/DFCCIL/NOIDA UNIT/Interior Fitout works for DFCCIL C. O. Building/Sec-145 Noida/2022/01.

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
	GENERAL			
1	Item No. 1 of Check List at page no. 5 of Tender Document. Clause 1.2.1 of NIT at page no. 9-10 of Tender Document.	Check List Line no. 9 of Table of NIT	EMD of Rs. 66,14,500/- (<i>Rupees Sixty-Six Lakh, Fourteen Thousand Five Hundred Only</i>) ----	EMD of Rs. 68,91,800/- (<i>Rupees Sixty-Eight Lakh Ninety- One Thousand Eight Hundred Only</i>) ----
2	Clause 1.2.1 of NIT at page no. 9 of Tender Document. Clause 1.3.3 of Part-I, Chapter-III (Preamble & General instruction to Tenderer) at page no. 22 of Tender Document.	Line no. 6 of Table of NIT (Total Estimate Cost) Cost of the work	Total estimated cost – Rs. 129,29,02,314/- (Rs. 109,56,79,927/- + GST @ 18%) The estimated cost of the tendered work is approximately Rs. 129,29,02,314/- (Rs. 109,56,79,927/- + GST @ 18%) (<i>Rupees One Hundred & Twenty-Nine Crores Twenty-Nine Lakhs Two Thousand Three Hundred and Fourteen Only</i>)	Total estimated cost – Rs. 134,83,57,175/- (Rs. 114,26,75,572/- + GST @ 18%) The estimated cost of the tendered work is approximately Rs. 134,83,57,175/- (Rs. 114,26,75,572/- + GST @ 18%) (<i>Rupees One Hundred & Thirty-Four Crores Eighty-Three Lakhs Fifty-Seven Thousand One Hundred and Seventy-Five Only</i>)
3	Clause 1.3.14.1 (Technical Eligibility Criteria) of Part-I, Chapter-III (Preamble & General instruction to Tenderer) at page no. 28 of Tender Document	Advertised value of tender	Rs. 129,29,02,314/- (Rs. 109,56,79,927/- + GST @ 18%) (<i>Rupees One Hundred & Twenty-Nine Crores Twenty-Nine Lakhs Two Thousand Three Hundred and Fourteen Only</i>)	Rs. 134,83,57,175/- (Rs. 114,26,75,572/- + GST @ 18%) (<i>Rupees One Hundred & Thirty-Four Crores Eighty-Three Lakhs Fifty-Seven Thousand One Hundred and Seventy-Five Only</i>)
4	Clause 1.3.14.1 (Technical Eligibility Criteria) of Part-I, Chapter-III (Preamble & General instruction to Tenderer) at page no. 28 of Tender Document	Definition of “Similar work”	<i>The definition of “Similar Work” for the above stated work is as below:</i> Similar work means Contracts having “Interior Fitout works including Electrical Works inside the Office building”	<i>The definition of “Similar Work” for the above stated work is as below:</i> “Similar work means Contracts having Interior Fitout works including Electrical Works inside the Office building”. The value of Earth work, Structure work of RCC, Concrete, Masonry/Bricks/Block work, Steel Reinforcement and External Development works will not be considered in the value of “Similar

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
				<p>Works” and only the value of Interior Fitout works shall be considered for “Similar Works”.</p> <p>NOTE:</p> <p>1. For “Similar Work”, the credential certificate should not include the value of Earth work, Structure work of RCC, Concrete, Masonry/Bricks/Block work, Steel Reinforcement and External development.</p>
5	Clause 1.3.14 (Technical Eligibility Criteria) of Part-I, Chapter-III (Preamble & General instruction to Tenderer) Point 4 at page no. 31 of Tender Document	Explanation for Clause 1.3.14-Eligibility Criteria	In case a work is considered similar in nature for fulfilment of technical credentials, the overall cost of that work including PVC amount if any shall be considered and no separate evaluation for each component of that work shall be made to decide eligibility	Deleted
6	Clause 2.5.4 of Special Conditions (Section-2) Part-I, Chapter-V of Tender Document at page no. 105 of Tender Document	Maintenance Period	Contractor shall undertake the comprehensive maintenance for 18 (Eighteen) months ----	Contractor shall undertake the comprehensive maintenance for 12 (Twelve) months
7	Clause 2.21 of Special Conditions (Section-2) Part-I, Chapter-V of Tender Document at page no. 111 of Tender Document.	Shop/Installation Drawings	Contractor shall submit full scale fabrication and /or installation and/or assembly drawings for each type of works and for all parts of the work in sufficient detail to enable the Engineer to verify conformity with the intent of Contract. Drawing shall identify materials and show the details and dimensions of all component parts including plan and elevation, cross section and details. Documents showing conformance with specified sound rating. Design analysis and calculation include design calculations for review of design loads and member profile. Design parameter adopted and their sources	<p>SHOP/WORKING/INSTALLATION/AS-BUILT DRAWINGS/3D SIMULATION(S)/VIRTUAL WALK THROUGH(S)</p> <p>(I) Contractor shall submit full scale fabrication and /or installation and/or assembly drawings for each type of works and for all parts of the work in sufficient detail to enable the Engineer to verify conformity with the intent of Contract. Drawing shall identify materials and show the details and dimensions of all component parts including plan and elevation, cross section and details. Documents showing conformance with specified sound rating. Design analysis and calculation include design calculations for review of design loads and member profile. Design parameter adopted and their sources.</p>

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
				<p>(II) Contractor has to develop the working drawings for Interiors and Services (Elec./HVAC/LV/Furniture etc.) consisting of detailing/design of each component based on the Concept drawings to meet the functional requirement.</p> <p>In addition, the contractor has to develop the 3D Simulation(s) for the entire building (covering all the floors and areas) along with virtual walk through(s) as per the requirement for the approval of Employer.</p> <p>After completion of the works, the Contractor has to submit As-Built drawings for all works executed in soft copies and 05 hard copies to the satisfaction of Engineer/Employer.</p> <p>The cost of developing above working drawing(s)/3D Simulation(s)/Virtual Walk Through(s) etc. shall be included in the quoted rate(s) by the tenderer and no additional cost shall be paid to contractor over and above accepted rates.</p>
	FURNITURE WORKS			
8	Furniture works of (Schedule-II) of Schedule of Prices of the Tender Document at page no. 621	NS-43 (Medium Back revolving chairs) of Schedule-II (Subhead-2) of Schedule of Prices	<p>Manufacturing, providing and Placing Medium Back revolving chairs of Rockworth Senses Premium, Haworth - Zody midback, Steelcase - Think midback of following dimensions with the following specifications.</p> <p>Providing and placing medium Back chairs Chair seat made up of insert moulded Polyurethane Foam upholstered with foam laminated mesh fabric, insert moulded foam assembled over a load bearing plastic seat cover, back is made up of two piece injection moulded frame, inner frame upholstered with mesh fabric and mounted on the main assembly, back</p>	<p>Manufacturing, providing and Placing Medium Back revolving chairs of Godrej-Avio Chair, Spacewood-Onyx Chair & Featherlite- Anatom midback or equivalent make of Geeken of following dimensions with the following specifications.</p> <p>Providing and placing medium Back chairs. Chair seat made up of insert moulded Polyurethane Foam upholstered with foam laminated mesh fabric, insert moulded foam assembled over a load bearing plastic seat cover, back is made up of two piece injection moulded frame, inner frame upholstered with mesh fabric and mounted on the main assembly, back</p>

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
			<p>adjustable lumbar support for achieving comfortable seating posture, seat size 44.5 - 52.5 cm depth (approx.), 46.4 - 51.0 cm width (approx.), sub assembly back size 55.5 cm- 62 cm height. (approx.), effective back height from Seat - 57 cm (approx.), polyurethane foam for seat having density 65±4 kg/m³, armrest top injection moulded in polyurethane and mounted on the injection moulded height adjustable type armrest, armrest height adjustable up to 4.5 cm (approx.) in 3 steps, 360 degree revolving type. mechanism, single point control for seat and back adjustment, front pivot for tilt, tilt adjustment for back in 3position locking with antishock feature, pneumatic height adjustment of 8.5 cm spine bracket made of aluminum die cast piece connecting to back with mechanism, pedestal made of die cast aluminium fitted with 5 nos. twin wheel castors (castor wheel dia. 6.0 cm approx.), base pedestal dia 65.0cm (approx.) and pitch center dia. 71.0 cm with castors, twin wheel castors injection moulded in Nylon etc. all complete as per manufacturers specification, approved sample and direction of Engineer-in-Charge</p> <p>Quantity: 381 Rate: 18,148.00 Amount: 69,14,388.00</p>	<p>adjustable lumbar support for achieving comfortable seating posture, seat size 44.5 - 52.5 cm depth (approx.), 46.4 - 51.0 cm width (approx.), sub assembly back size 55.5 cm- 62 cm height. (approx.), effective back height from Seat - 57 cm (approx.), polyurethane foam for seat having density 65±4 kg/m³, armrest top injection moulded in polyurethane and mounted on the injection moulded height adjustable type armrest, armrest height adjustable up to 4.5 cm (approx.) in 3 steps, 360 degree revolving type. mechanism, single point control for seat and back adjustment, front pivot for tilt, tilt adjustment for back in 3position locking with antishock feature, pneumatic height adjustment of 8.5 cm spine bracket made of aluminum die cast piece connecting to back with mechanism, pedestal made of die cast aluminium fitted with 5 nos. twin wheel castors (castor wheel dia. 6.0 cm approx.), base pedestal dia 65.0cm (approx.) and pitch center dia. 71.0 cm with castors, twin wheel castors injection moulded in Nylon etc. all complete as per manufacturers specification, approved sample and direction of Engineer-in-Charge</p> <p>Quantity: 381 Rate: 13,198.00 Amount: 50,28,438.00</p>
9	List of Approved Makes-Furniture works at page no. 458 of the Tender Document.	Makes for workstation and other chairs	Rockworth/Haworth/Steelcase	Godrej/Featherlite/Geeken/Spacewood
10	Furniture works of (Schedule-II) of Schedule of Prices of the Tender Document at page no. 622	Corporate Building Furniture	<p>TOTAL CHAIRS FOR VVIP SEATINGS, SENIOR OFFICER'S CHAIR, VISITOR CHAIR, CONFERENCE ROOM CHAIR AND JUNIOR VISITOR CHAIR AND STAFF CHAIR: 3,65,85,169.00</p> <p>Total for Corporate Building Furniture: 11,19,54,065.00</p>	<p>TOTAL CHAIRS FOR VVIP SEATINGS, SENIOR OFFICER'S CHAIR, VISITOR CHAIR, CONFERENCE ROOM CHAIR AND JUNIOR VISITOR CHAIR AND STAFF CHAIR: 3,52,42,729.00</p> <p>Total for Corporate Building Furniture: 11,00,68,115.00</p>

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
	E&M Works			
11	Form-3 Summary of Prices SCHEDULE-III (ELECTRICAL WORKS) at page no. 493	Summary of Prices SCHEDULE-III (ELECTRICAL WORKS)	<p>SCHEDULE-III (ELECTRICAL WORKS)</p> <p>Execution of all works as per “Schedule-Items” (as per CPWD DSR 2016/2018/2019 without GST): 6,84,00,932</p> <p>Execution of all works as per “Non-Schedule-Items”: 8,31,62,565</p> <p>Total (Schedule-III): 15,15,63,497</p>	<p>SCHEDULE-III (ELECTRICAL WORKS)</p> <p>Execution of all works as per “Schedule-Items” (as per CPWD DSR 2016/2018/2019 without GST): 6,88,61,692</p> <p>Execution of all works as per “Non-Schedule-Items”: 8,31,62,565</p> <p>Total (Schedule-III): 15,20,24,257</p>
12	Clause 6.2 of Technical Specification for HVAC & BMS (Section-IV) of the Tender Document at Page No. 353	Precision Air Conditioner (PAC)	<p>The AC Units should have high sensible heat ratios, to match the low latent loads of Computer/Server Rooms/ Switch room/UPS/VFD rooms. A Microprocessor controlled package AC system with R-410A/407C refrigerant shall have de-humidified air quantity of minimum 500 to 650 CFM/TR.</p> <p>The cold aisle temperature shall be maintained at 22 Deg C and RH at 45% +/-5% at ambient temperature of 44 Deg C DBT.</p> <p>The Indoor unit complete with Digital Scroll compressor with individual circuit (Mandatory), Evaporator blower & coil, Heater, Humidifier, Microprocessor controller, electrical switchgear components and Thermostatic expansion valve (TXV) and shall be housed in a single cabinet. The outdoor unit shall be comprised of Condenser fan, motor, fan speed controller (if applicable) & cooling coil.</p>	<p>The AC Units should have high sensible heat ratios, to match the low latent loads of Computer/Server Rooms/ Switch room/UPS/VFD rooms. A Microprocessor controlled package AC system with R-410A refrigerant shall have de-humidified air quantity of minimum 500 to 650 CFM/TR.</p> <p>The cold aisle temperature shall be maintained at 22 Deg C and RH at 45% +/-5% at ambient temperature of 44 Deg C DBT.</p> <p>The Indoor unit complete with Digital/Inverter/Combination of Fix and Variable Scroll compressor with individual circuit (Mandatory), Evaporator blower & coil, Heater, Humidifier, Microprocessor controller, electrical switchgear components and Thermostatic expansion valve (TXV) and shall be housed in a single cabinet. The outdoor unit shall be comprised of Condenser fan, motor, fan speed controller (if applicable) & cooling coil.</p>

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
13	Item No. 7.1 (a) of Schedule of Prices for HVAC at page no. 713	Precision Air Conditioner (PAC)	“In-floor evaporative fan” to be replaced by “evaporative fan”.	
14	Clause 6.2, 6.3, 6.4 (r), 6.4 (h) of Technical Specification for HVAC & BMS (Section-IV) of the Tender Document at Page No. 353, 354	Precision Air Conditioner (PAC)	“Thermostatic expansion valve, Refrigerant R-410A/407C, Infrared type humidifier and digital scroll compressor” to be replaced by “Electronic/Thermostatic expansion valve, Refrigerant R-410A, Infrared/Electrode humidifier and digital/inverter scroll compressor”	
15	Item No. 4.1 of Schedule of Prices for HVAC at page no. 691	VRF System	Make of compressor and OD unit shall be of same make	Deleted
	Modification in List of Approved Makes			
16	List of Approve Makes at Sl. No.-1, page no. 462	Make List of HVAC	Makes for VRF Units: Daikin, Mitsubishi Electric, Hitachi	Makes for VRF Units: Daikin, Hitachi, Toshiba, Blue Star, Mitsubishi Electric, LG, Carrier, Voltas, Samsung
17	List of Approve Makes at Sl. No-1 page no. 461	Make List of UPS	Makes for UPS: ABB, Schneider (APC), Numeric (Legrand)	Makes for UPS: ABB, Schneider (APC), Legrand (Numeric), Emerson (Vertiv), Eaton
18	List of Approve Makes (Lighting & Switches) at page no. 460	Strip LED light, Recessed LED light with specified dimensions (integrated into Architectural/Interior element)		Sl. No. 5 Added for Strip LED light, Recessed LED light with specified dimensions (integrated into Architectural/Interior element) Makes: LED Linear Acolyte, Osram, Linea Light, Signify, LT, Duralamp, Alurays, Atea, Trilux, Regent, Havells, Yaal
19	List of Approve Makes at Sl. No. 4 page no. 464	Make List of BMS	Makes for BMS: Siemens/ Carrier ALC/Honeywell EBI	Makes for BMS: Siemens/ Carrier ALC/Honeywell EBI, Johnson control, Schenider
20	List of Approve Makes at Sl. No. 1 page no. 467	Make List of EV Chargers	Makes for Slow Chargers (AC Chargers): Schneider, My Power Experts, Tricare, Tata Power, Siemens	Makes for Slow Chargers (AC Chargers): Schneider, My Power Experts, Tricare, Tata Power, Siemens, Delta, GSR
21	List of Approve Makes at Sl. No. 2 page no. 467	Make List of EV Chargers	Makes for Fast Chargers (DC Chargers): Schneider, My Power Experts, Tricare, Tata Power, Siemens	Makes for Fast Chargers (DC Chargers): Schneider, My Power Experts, Tricare, Tata Power, Siemens, Delta, GSR
21 A	E&M Works	Lighting	Wherever Signify is mentioned, it should be read as Philips-Signify.	

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
	LOW VOLTAGE WORKS			
22	LIST OF APPROVED MAKE LOW VOLTAGE WORKS	Approved Make for Video Switching, Distribution and Extension Systems- S.No.5 : 2x1 switcher with USB-C S.No.6 : Under Desk Mounting for above 2x1 switcher S.No.7 : Wall plate transmitter S.No.8 : Single port standalone power injector S.No.9 : HDMI1.4 + Ethernet + RS-232 + bidirectional IR HD Base T receiver S.No10 : USB S.No11 : Network based Control processor S.No12 : AV Control monitoring System at page no. 471 of the tender document.	Extron / Lightware/ AMX	Extron / Lightware/ AMX/ Atlona / Crestron
23	LIST OF APPROVED MAKE LOW VOLTAGE WORKS	Approved Make for Accessories/Cables- S.No7 : Patch Cord HDMI 2.0 - 2Mtr S.No8: Patch Cord Audio - 2Mtr S.No9 : PDU S.No10 : HD Base T TX/RX for HDMI S.No11 : Wall plate HD Base T Transmitter S.No12: Universal 5X2 Switcher	Extron / Lightware/ AMX	Extron / Lightware/ AMX/ Atlona / Crestron

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
		<p>S.No13: 6×2 Matrix Presentation Switcher with USB S.No14: 2×1 AV Switcher cum Receiver S.No15:2×1 AV Switcher cum Receiver with Scaler S.No16:HD Base T receiver for HDMI with USB S.No17:Network based Control Processor S.No18:Touch Panel S.No19:8-Button Network wall mount control panel at page no. 471 of the tender document</p>		
24	LIST OF APPROVED MAKE LOW VOLTAGE WORKS	<p>Approved Make for Audio Visual S.No10 : Central Control Unit Audio Conferencing at page no. 468 of the tender document</p>	BOSE/ Marconi Technologies / Audio Technica / Televic	BOSE/ Marconi Technologies / Audio Technica / Televic / Bosch
25	LIST OF APPROVED MAKE LOW VOLTAGE WORKS	<p>Approved Make for Audio Visual S.No12 : Digital Chairman Unit S. No. 13 : Delegate Unit Discussion Devices S. No. 14 : Central Conference Controller with recording facility at page no. 468 of the tender document</p>	Marconi Technologies / Audio Technica / Televic	Marconi Technologies / Audio Technica / Televic / Bosch
26	LIST OF APPROVED MAKE LOW VOLTAGE WORKS	<p>Approved Make for Audio Visual S. No. 15 : Various Patch Cords at page no. 469 of the tender document</p>	Crestron / Marconi Technologies / Audio Technica / Televic	Crestron / Marconi Technologies / Audio Technica / Televic/ Bosch
27	LIST OF APPROVED MAKE	<p>Approved Make for Audio Visual</p>	Televic / Marconi Technology / Audio Technica	Televic / Marconi Technology / Audio Technica/ Bosch

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
	LOW VOLTAGE WORKS	<p>S. No. 28 : Digital Control unit for minimum 50 nos tabletop conference units S. No. 29 : Integrated Flush Mount Chairman Discussion unit compete with 400mm Gooseneck microphone S. No. 30: Integrated Flush Mount Delegate Discussion unit compete with 400mm Gooseneck microphone at page no. 469 of the tender document</p>		
28	LIST OF APPROVED MAKE LOW VOLTAGE WORKS	<p>Approved Make for Passive Networking Components S. No. 1: Unshielded Twisted Pair S. No. 2: 24 Port Patch panels S. No. 3: Face Plate at page no. 472 of the tender document</p>	Belden, Schneider, Panduit	Belden, Schneider, Panduit, Molex, Derwiser
29	LIST OF APPROVED MAKE LOW VOLTAGE WORKS	<p>Approved Make for Passive Networking Components S. No. 4 : CAT6A/ CAT6 /RJ45 Cable S. No. 5 : CAT 6A UTP 24 AWG Patch Coard-1 Mtr/ 2Mtr S. No. 6 : 6 Core OM 4 indoor/outdoor rated S. No. 7 : 12/24 Port LIU (Fiber optic interconnecting unit) S. No. 8 : Duplex Fiber optic patch cords Multimode (LC to LC) 3m- OM4 50/125 S. No. 9 : OM4 50/125 Type pigtails S. No. 10 : 1U wire manager</p>	Siemon, Belden, Panduit	Siemon, Belden, Panduit, Molex, Derwiser

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
		at page no. 472 of the tender document		
30	LIST OF APPROVED MAKE LOW VOLTAGE WORKS	Approved Make for Network S. No. 11 : Fire Wall, Unified Protection (UTM) at page no. 473 of the tender document	Fortinet, Cisco, Palo Alto	Fortinet, Cisco, Palo Alto, Checkpoint,Juniper
31	LIST OF APPROVED MAKE LOW VOLTAGE WORKS	Addition of new item in Network. Network Access Control (NAC)	New Item	Pulse Secure, Cisco, Fortinet, Arista, Juniper
32	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	III- Audio Visual S. No. 1 : HDBaseT TX/RX for HDMI with USB at page no. 732 of the tender document	4K/UHD @ 60 Hz with 4:2:0	4K/UHD @ 60 Hz with 4:4:4
33	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	III- Audio Visual S. No. 1 : HDBaseT TX/RX for HDMI with USB at page no. 381 of the tender document	4K/UHD @ 60 Hz with 4:2:0	4K/UHD @ 60 Hz with 4:4:4
34	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	III- Audio Visual S. No. 3 : Universal 5X2 Switcher at page no. 733 of the tender document	Output Port: 1 x HDMI with matrix output on 1x HDBaseT	Output Port: 1 x HDMI with matrix / mirror output on 1x HDBaseT
35	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	III- Audio Visual S. No. 3 : Universal 5X2 Switcher at page no. 382 of the tender document	Output Port: 1 x HDMI with matrix output on 1x HDBaseT	Output Port: 1 x HDMI with matrix / mirror output on 1x HDBaseT

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
36	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	III- Audio Visual S. No. 4 : 6×2 Matrix Presentation Switcher at page no. 734 of the tender document	Output Port: 1 x HDMI with matrix output on 1x HDBaseT	Output Port: 1 x HDMI with matrix / mirror output on 1x HDBaseT
37	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	III- Audio Visual S. No. 4 : 6×2 Matrix Presentation Switcher at page no. 383 of the tender document	Output Port: 1 x HDMI with matrix output on 1x HDBaseT	Output Port: 1 x HDMI with matrix / mirror output on 1x HDBaseT
38	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	III- Audio Visual S. No. 5 : 2×1 AV Switcher cum receiver at page no. 384 of the tender document	4K @ 60 Hz with 4:2:0 / 4:4:4	4K @ 60 Hz with 4:4:4
39	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	III- Audio Visual S. No. 6 : 2×1 AV Switcher cum Receiver with Scaler at page no. 384 of the tender document	4K @ 60 Hz with 4:2:0 / 4:4:4	4K @ 60 Hz with 4:4:4
40	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	III- Audio Visual S. No.7 : HDBaseT receiver for HDMI with USB at page no. 385 of the tender document	4K @ 60 Hz with 4:2:0	4K @ 60 Hz with 4:4:4
41	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	III- Audio Visual S. No. 8 : Wireless Presenter module at page no. 736 of the tender document	Shall have functionality to support streaming like YouTube streaming for archival and viewing purpose	Shall have functionality to support streaming like, streaming for archival and viewing purpose
42	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS	III- Audio Visual S. No. 8 : Wireless Presenter module	Shall have functionality to support streaming like YouTube streaming for archival and viewing purpose	Shall have functionality to support streaming like, streaming for archival and viewing purpose

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
	(SECTION-V)	at page no. 385 of the tender document		
43	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	III- Audio Visual S. No. 15 : Cable cubby with 1 x Power , USB Charging 3 X Pass through ports for HDMI, USB 2.0 & LAN at page no. 738 of the tender document	Quantity: 10 Nos. Amount: 7,63,110.00	Quantity: 7 Nos. Amount 5,34,177.00
44	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	III- Audio Visual S. No. 16 : Cable cubby with 2 x Power , USB Charging 4 X Pass through ports for HDMI , USB /USB-C and LAN at page no. 738 of the tender document	Quantity: 25 Nos. Amount: 20,51,250.00	Quantity: 23 Nos. Amount: 18,87,150.00
45	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	III- Audio Visual S. No. 17 : 4K 60 4:4:4 AV over IP at page no. 738 of the tender document	SITC of 4K 60 4:4:4 AV over IP via 1Gbps to 20 Gbps Fiber Based with HDMI analog audio, RS-232, IR and USB HID addons; 4K transmitter & receiver with scaling: - Should support 4K 60Hz 4:4:4 resolution, and all resolutions specified under HDMI 2.0 standard. - Should have minimum one standard Gigabit SPF+ connections for signal extension.	SITC of 4K 60 4:4:4 Uncompressed AV over IP via 20 Gbps Fiber Based on two or four fibers with analog audio with HDMI 4K transmitter & receiver with scaling: -Should support Uncompressed 4K 60Hz 4:4:4 resolution, and all resolutions specified under HDMI 2.0 standard. - Should have minimum 2 x 10G SPF+ connections for signal extension.
46	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	III- Audio Visual S. No. 15 : 4K 60 4:4:4 AV over IP at page no. 387 of the tender document	SITC of 4K 60 4:4:4 AV over IP via 1Gbps to 20 Gbps Fiber Based with HDMI analog audio, RS-232, IR and USB HID addons; 4K transmitter & receiver with scaling: - Should support 4K 60Hz 4:4:4 resolution, and all resolutions specified under HDMI 2.0 standard. - Should have minimum one standard Gigabit SPF+ connections for signal extension.	SITC of 4K 60 4:4:4 Uncompressed AV over IP via 20 Gbps Fiber Based on two or four fibers with analog audio with HDMI 4K transmitter & receiver with scaling: -Should support Uncompressed 4K 60Hz 4:4:4 resolution, and all resolutions specified under HDMI 2.0 standard. - Should have minimum 2 x 10G SPF+ connections for signal extension.

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
47	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	III- Audio Visual S. No. 21 : 2x1 switcher at page no. 739 of the tender document	SITC of 2x1 switcher with USB-C, HDMI 2.0 and USB 3.1 / 2.0 ports supporting 4K signal formats (4K UHD @ 60Hz RGB 4:4:4, up to 18 Gbps), secure control Ethernet interface. USB-C connectivity for 4K video, audio. Advanced automated room control features - Should Support USB-C input connectivity for 4K Video, Audio, Data (Video, Audio, Data over a single USB-C connection)	SITC of 2x1 switcher with USB-C, HDMI 2.0 and USB 3.1 / 2.0 ports supporting 4K signal formats (4K UHD @ 60Hz RGB 4:4:4, up to 18 Gbps), USB HOST switching secure control Ethernet interface. USB-C connectivity for 4K video, audio. Advanced automated room control features - Should Support USB-C input connectivity for 4K Video, Audio, USB Data, Ethernet and Power over a single USB-C connection
48	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	III- Audio Visual S. No. 18 : 2x1 switcher over IP at page no. 388-389 of the tender document	SITC of 2x1 switcher with USB-C, HDMI 2.0 and USB 3.1 / 2.0 ports supporting 4K signal formats (4K UHD @ 60Hz RGB 4:4:4, up to 18 Gbps), secure control Ethernet interface. USB-C connectivity for 4K video, audio. Advanced automated room control features - Should Support USB-C input connectivity for 4K Video, Audio, Data (Video, Audio, Data over a single USB-C connection)	SITC of 2x1 switcher with USB-C, HDMI 2.0 and USB 3.1 / 2.0 ports supporting 4K signal formats (4K UHD @ 60Hz RGB 4:4:4, up to 18 Gbps), USB HOST switching secure control Ethernet interface. USB-C connectivity for 4K video, audio. Advanced automated room control features - Should Support USB-C input connectivity for 4K Video, Audio, USB Data, Ethernet and Power over a single USB-C connection
49	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	III- Audio Visual S. No. 23: HDMI IR HDBaseT wallplate transmitter at page no. 739 of the tender document	SITC of HDMI1.4, VGA, DP1.1 + Ethernet + RS-232 + bidirectional IR HDBaseT wallplate transmitter for CATx cable. HDCP, 3D and 4K60 4:4:4) support. 100m extension distance or more. US 2-gang wall box size. Compatible with input boards and receivers. Powering not included, external PSU or The power injector from same OEM to be provided separately.	SITC of HDMI1.4, VGA, DP1.1 + Ethernet + RS-232 + bidirectional IR HDBaseT transmitter for CATx cable. HDCP, 3D and 4K60 4:4:4) support. 100m extension distance or more. US 2-gang wall box size. Compatible with input boards and receivers. Powering not included, external PSU or The power injector from same OEM to be provided separately.
50	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	III- Audio Visual S. No. 19 : HDMI IR HDBaseT wallplate transmitter at page no. 389 of the tender document	SITC of HDMI1.4, VGA, DP1.1 + Ethernet + RS-232 + bidirectional IR HDBaseT wallplate transmitter for CATx cable. HDCP, 3D and 4K60 4:4:4) support. 100m extension distance or more. US 2-gang wall box size. Compatible with input boards and receivers. Powering not included, external PSU or The power injector from same OEM to be provided separately.	SITC of HDMI1.4, VGA, DP1.1 + Ethernet + RS-232 + bidirectional IR HDBaseT transmitter for CATx cable. HDCP, 3D and 4K60 4:4:4) support. 100m extension distance or more. US 2-gang wall box size. Compatible with input boards and receivers. Powering not included, external PSU or The power injector from same OEM to be provided separately.
51	SCHEDULE OF PRICES AND TOTAL PRICES FOR	III- Audio Visual Control System: S. No. 1: control system	Expandable slots x 3 or more	- Expandable slots / module x 3 or more

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
	SCHEDULE-V LOW VOLTAGE WORKS	at page no. 741-742 of the tender document	A rack-mountable control system processor with expandable memory, integrated control ports and optional control card expansion slots Bidirectional 6 x RS-232/422/485, 8 x IR/Serial, 8 x Relay, 4 or more x LAN/Ethernet Port, 3 x Expandable slots supporting RS-232/IR or I/O with SDRAM 2GB and Flash 8GB	-A rack-mountable control system processor with expandable memory, integrated control ports and optional control card / module expansion slots -Bidirectional 6 x RS-232/422/485, 8 x IR/Serial, 8 x Relay, 4 or more x LAN/Ethernet Port, 3 x Expandable slots / module supporting
52	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	III- Audio Visual S. No. 24 : Control System at page no. 392-393 of the tender document	Expandable slots x 3 or more A rack-mountable control system processor with expandable memory, integrated control ports and optional control card expansion slots Bidirectional 6 x RS-232/422/485, 8 x IR/Serial, 8 x Relay, 4 or more x LAN/Ethernet Port, 3 x Expandable slots supporting RS-232/IR or I/O with SDRAM 2GB and Flash 8GB	- Expandable slots / module x 3 or more -A rack-mountable control system processor with expandable memory, integrated control ports and optional control card / module expansion slots -Bidirectional 6 x RS-232/422/485, 8 x IR/Serial, 8 x Relay, 4 or more x LAN/Ethernet Port, 3 x Expandable slots / module supporting RS-232/IR or I/O with SDRAM 2GB and Flash 8GB
53	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	III- Audio Visual Control System: S. No. 2: 15.6" HD Capacitive Touch at page no. 742 of the tender document	- Resolution: 1920 x 1080 pixels - Brightness: 400 nits (cd/m ²) - Contrast: 800:1	- Resolution: 1366 x 768 or Full HD pixels - Brightness: 300 nits (cd/m ²) or more - Contrast: 500 ~ 800:1
54	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	III- Audio Visual S. No. 25 : 15.6" HD Capacitive Touch at page no. 393 of the tender document	- Resolution: 1920 x 1080 pixels - Brightness: 400 nits (cd/m ²) - Contrast: 800:1	- Resolution: 1366 x 768 or Full HD pixels - Brightness: 300 nits (cd/m ²) or more - Contrast: 500 ~ 800:1
55	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	III- Audio Visual Control System: S. No. 3: 10.1" Touch Screen at page no. 742 of the tender document	- Resolution: 1920 x 1080 pixels - Contrast: 1000:1	- Resolution: 1280 x 800 or Full HD pixels - Contrast: 800 ~ 1000:1
56	PART-II TECHNICAL SPECIFICATION FOR	III- Audio Visual S. No. 25 : 10.1" Touch Screen	- Resolution: 1920 x 1080 pixels - Brightness: 400 nits (cd/m ²) - Contrast: 1000:1	- Resolution: 1280 x 800 or Full HD pixels - Brightness: 400 nits (cd/m ²) - Contrast: 800 ~ 1000:1

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
	LOW VOLTAGE WORKS (SECTION-V)	at page no. 393 of the tender document		
57	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V LOW VOLTAGE WORKS	V- IT Networks Passive Networking Components: S. No. 10: Duplex Fiber optic patch cords at page no. 756 of the tender document	3m - OM3 50/125	3m - OM4 50/125
58	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Passive Networking Components: S. No. 1.11: Duplex Fiber optic patch cords at page no. 407 of the tender document	Multimode (LC to LC) - OM3 50/125	Multimode (LC to LC) – OM4 50/125
59	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Passive Networking Components: S. No. 1.8: Fiber Cable Multimode at page no. 407 of the tender document	6 core OM3 indoor/outdoor	6 core OM4 indoor/outdoor
60	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks Passive Networking Components: S. No. 11: OM3 50/125µ Type Pigtails at page no. 756 of the tender document	OM3 50/125µ Type Pigtails of ISO/IEC-11801-OM3 Pigtails with LC Type Connectors, pigtails for terminating fibers on the FOPP complete in all respect.	OM4 50/125µ Type Pigtails of ISO/IEC-11801-OM4 Pigtails with LC Type Connectors, pigtails for terminating fibers on the FOPP complete in all respect.
61	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Passive Networking Components: S. No. 1.11: Duplex Fiber optic patch cords at page no. 407 of the tender document	OM3 50/125µ Type Pigtails of ISO/IEC-11801-OM3 Pigtails	OM4 50/125µ Type Pigtails of ISO/IEC-11801-OM4 Pigtails
62	SCHEDULE OF PRICES AND TOTAL PRICES FOR	V- IT Networks ACTIVE NETWORKING COMPONENTS:	Should support minimum 6000 IPsec tunnels	Should support minimum 3000 IPsec tunnels

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
	SCHEDULE-V	S. No. 1(a): Router at page no. 760-761 of the tender document	<p>Should support min 8GB DRAM (upgradable to 16GB or higher) and 8 GB flash/SSD memory</p> <p>The device should work in SD-WAN Mode managed by controller.</p> <p>Should provide a provision to analyse IP service levels for IP applications and services by using active traffic monitoring (the generation of traffic in a continuous, reliable, and predictable manner) for measuring network performance.</p> <p>Should support flow-based traffic analysis of applications, hosts, performance-based measurements on application and network latency, quality of experience metrics for network-based services such as voice over IP (VoIP) / video.</p> <p>All applicable licenses will be provided for the entire warranty duration or minimum 3 years whichever is later.</p> <p align="center">Quantity: 2 Nos. Amount: 33,94,878.00</p>	<p>Should support min 8GB DRAM and 8 GB flash/SSD memory</p> <p>Router should support SD-WAN.</p> <p>The device should work in SD-WAN Mode managed by controller (as and when enabled).</p> <p>Should provide a provision to analyse IP service levels for IP applications and services by using active traffic monitoring (the generation of traffic in a continuous, reliable, and predictable manner) for measuring network performance/IPSLA.</p> <p>Should support flow-based traffic analysis of applications, hosts, performance-based measurements on application and network latency, quality of experience metrics for network-based services such as voice over IP (VoIP) / video/RPM.</p> <p>All applicable licenses will be provided for the entire warranty duration or minimum 5 years whichever is later.</p> <p align="center">Updated Quantity: 4 Nos. Amount: 67,89,756.00</p>
63	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.1(a): Router at page no. 411-412 of the tender document	<p>Should support minimum 6000 IPsec tunnels</p> <p>Should support min 8GB DRAM (upgradable to 16GB or higher) and 8 GB flash/SSD memory</p> <p>The device should work in SD-WAN Mode managed by controller.</p> <p>Should provide a provision to analyse IP service levels for IP applications and services by using active traffic monitoring (the generation of traffic in a continuous,</p>	<p>Should support minimum 3000 IPsec tunnels</p> <p>Should support min 8GB DRAM and 8 GB flash/SSD memory</p> <p>Router should support SD-WAN.</p> <p>The device should work in SD-WAN Mode managed by controller (as and when enabled).</p> <p>Should provide a provision to analyse IP service levels for IP applications and services by using active traffic monitoring (the generation of traffic in a continuous,</p>

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
			<p>reliable, and predictable manner) for measuring network performance.</p> <p>Should support flow-based traffic analysis of applications, hosts, performance-based measurements on application and network latency, quality of experience metrics for network-based services such as voice over IP (VoIP) / video.</p> <p>All applicable licenses will be provided for the entire warranty duration or minimum 3 years whichever is later.</p>	<p>reliable, and predictable manner) for measuring network performance/IPSLA.</p> <p>Should support flow-based traffic analysis of applications, hosts, performance-based measurements on application and network latency, quality of experience metrics for network-based services such as voice over IP (VoIP) / video/RPM.</p> <p>All applicable licenses will be provided for the entire warranty duration or minimum 5 years whichever is later.</p>
64	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 1(b): Core Switch at page no.761-762 of the tender document	<p>3 Year OEM On site NBD warranty</p> <p>It should support 64K mac address from day one.</p> <p>Switch should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and minimum MACSec (AES-128) in all ports</p> <p>Switch shall conform to EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements</p> <p align="center">Quantity: 2 Nos. Amount: 69,99,988.00</p>	<p>5 Year OEM On site NBD warranty</p> <p>It should support minimum 64K mac address from day one.</p> <p>Switch should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment in all ports</p> <p>Switch shall conform to EN 55022/EN55032 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements.</p> <p align="center">Updated Quantity: 4 Nos. Amount: 1,39,99,976.00</p>
65	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.1(b): Core Switch at page no. 412-414 of the tender document	<p>3 Year OEM On site NBD warranty</p> <p>It should support 64K mac address from day one.</p> <p>Switch should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and minimum MACSec (AES-128) in all ports</p>	<p>5 Year OEM On site NBD warranty</p> <p>It should support minimum 64K mac address from day one.</p> <p>Switch should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment in all ports</p>

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
			Switch shall conform to EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements	Switch shall conform to EN 55022/EN55032 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements.
66	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 2: 24 port 10/100/1000BASE-T PoE at page no.763-764 of the tender document	24 port 10/100/1000BASE-T PoE ports and four GbE/10GbE SFP/SFP+ uplink ports, It should support 32K mac address and 4GB DRAM and 4GB Flash from day one. All applicable licenses will be provided for the entire warranty duration or minimum 3 years whichever is later Quantity: 35 Nos. Amount: 42,92,820.00	24 port 10/100/1000BASE-T PoE ports and four GbE/10GbE SFP/SFP+ uplink ports, (15W*24=360W). It should support minimum 32K mac address and minimum 2GB DRAM and 2GB Flash from day one All applicable licenses will be provided for the entire warranty duration or minimum 5 years whichever is later. Updated Quantity: 14 Nos. Amount: 17,17,128.00
67	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.2: 24 port 10/100/1000BASE-T PoE at page no. 414-415 of the tender document	24 port 10/100/1000BASE-T PoE ports and four GbE/10GbE SFP/SFP+ uplink ports, It should support 32K mac address and 4GB DRAM and 4GB Flash from day one. All applicable licenses will be provided for the entire warranty duration or minimum 3 years whichever is later	24 port 10/100/1000BASE-T PoE ports and four GbE/10GbE SFP/SFP+ uplink ports, (15W*24=360W). It should support minimum 32K mac address and minimum 2GB DRAM and 2GB Flash from day one All applicable licenses will be provided for the entire warranty duration or minimum 5 years whichever is later.
68	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 3: Distribution Switch at page no.764-765 of the tender document	24 1/10GbE SFP+ multi mode ports, 2 nos 40/100GbE QSFP+ fully loaded ports 3 Year OEM On site NBD warranty Switch should have 24 no 1/10GbE SFP+ multi- mode ports, 2 no 40/100 GbE QSFP+ ports fully populated from day one VLAN assignment and minimum MACSec-128 in all ports	24 1/10GbE SFP+ multi mode ports, 4 nos 40/100GbE QSFP+ fully loaded ports 5 Year OEM On site NBD warranty Switch should have 24 no 1/10GbE SFP+ multi- mode ports, 4 no 40/100 GbE QSFP+ ports fully populated from day one VLAN assignment in all ports

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
			Switch shall conform to EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements Quantity: 20 Nos. Amount: 95,00,000.00	Switch shall conform to EN 55022/EN 55032 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements Updated Quantity: 24 Nos. Amount: 1,14,00,000.00
69	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.3: Distribution Switch at page no. 416-417 of the tender document	24 1/10GbE SFP+ multi mode ports, 2 nos 40/100GbE QSFP+ fully loaded ports 3 Year OEM On site NBD warranty Switch should have 24 no 1/10GbE SFP+ multi- mode ports, 2 no 40/100 GbE QSFP+ ports fully populated from day one VLAN assignment and minimum MACSec-128 in all ports Switch shall conform to EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements	24 1/10GbE SFP+ multi mode ports, 4 nos 40/100GbE QSFP+ fully loaded ports 5 Year OEM On site NBD warranty Switch should have 24 no 1/10GbE SFP+ multi- mode ports, 4 no 40/100 GbE QSFP+ ports fully populated from day one VLAN assignment in all ports Switch shall conform to EN 55022/EN 55032 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements
70	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 4: Edge Switch- 24 port 10/100/1000BASE-T at page no.766-767 of the tender document	It should support 32K mac address and 4GB DRAM and 2GB Flash from day one It should support Policy based segmentation from day one All applicable licenses will be provided for the entire warranty duration or minimum 3 years whichever is later Quantity: 20 Nos. Amount: 28,04,400.00	It should support minimum 32K mac address and minimum 2GB DRAM and 2GB Flash from day one It should support Policy/VLAN based segmentation from day one. All applicable licenses will be provided for the entire warranty duration or minimum 5 years whichever is later Updated Quantity: 28 Nos. Amount: 39,26,160.00
71	PART-II TECHNICAL SPECIFICATION FOR	V- IT Networks Active Networking Components:	It should support 32K mac address and 4GB DRAM and 2GB Flash from day one	It should support minimum 32K mac address and minimum 2GB DRAM and 2GB Flash from day one

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
	LOW VOLTAGE WORKS (SECTION-V)	S. No. 3.4: Distribution Switch at page no. 417-418 of the tender document	It should support Policy based segmentation from day one All applicable licenses will be provided for the entire warranty duration or minimum 3 years whichever is later	It should support Policy/VLAN based segmentation from day one. All applicable licenses will be provided for the entire warranty duration or minimum 5 years whichever is later
72	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 5: 48 port 10/100/1000BASE-T at page no.767-768 of the tender document	48 port 10/100/1000BASE-T ports and four GbE/10GbE SFP/SFP+ uplink ports It should support 32K mac address and 4GB DRAM and 4GB Flash from day one It should support Policy based segmentation from day one. It should have minimum switching capacity of 128 Gbps and throughput/forwarding rate performance of 95 MPPS Quantity: 22 Nos. Amount: 39,87,720.00	48 port 10/100/1000BASE-T ports and four GbE/10GbE SFP/SFP+ uplink POE+ (30W x 48 = 1440W) ports It should support minimum 32K mac address and minimum 2GB DRAM and 2GB Flash from day one It should support Policy/VLAN based segmentation from day one. It should have minimum switching capacity of minimum 128 Gbps and throughput/forwarding rate performance of minimum 95 MPPS Updated Quantity: 21 Nos. Amount: 38,06,460.00
73	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.5: 48 port 10/100/1000BASE-T at page no. 419-420 of the tender document	48 port 10/100/1000BASE-T ports and four GbE/10GbE SFP/SFP+ uplink ports It should support 32K mac address and 4GB DRAM and 4GB Flash from day one It should support Policy based segmentation from day one.	48 port 10/100/1000BASE-T ports and four GbE/10GbE SFP/SFP+ uplink POE+ (30W x 48 = 1440W) ports It should support minimum 32K mac address and minimum 2GB DRAM and 2GB Flash from day one It should support Policy/VLAN based segmentation from day one.
74	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 6: 48 port 10/100/1000BASE-T at page no.768-770 of the tender document	It should support 32K mac address and 4GB DRAM and 4GB Flash from day one It should have minimum switching capacity of 128 Gbps and throughput/forwarding rate performance of 95 MPPS	It should support minimum 32K mac address and minimum 2GB DRAM and 2GB Flash from day one It should have minimum switching capacity of minimum 128 Gbps and throughput/forwarding rate performance of minimum 95 MPPS

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
			It should support Policy based segmentation from day one	It should support Policy/VLAN based segmentation from day one
75	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.6: 48 port 10/100/1000BASE-T at page no. 420-421 of the tender document	It should support 32K mac address and 4GB DRAM and 4GB Flash from day one It should have minimum switching capacity of 128 Gbps and throughput/forwarding rate performance of 95 MPPS It should support Policy based segmentation from day one	It should support minimum 32K mac address and minimum 2GB DRAM and 2GB Flash from day one It should have minimum switching capacity of minimum 128 Gbps and throughput/forwarding rate performance of minimum 95 MPPS It should support Policy/VLAN based segmentation from day one
76	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 7: Multi-Gig Switch: 24 RJ-45 ports at page no.770 of the tender document	24 RJ-45 ports (8 mGig ports up to 10G, 16 ports up to 1G), 4x10G Ports, POE/POE+/UPOE Power budget 1440 Watt Includes a country specific power cord, 19" rack mount hardware. Field replaceable internal Redundant Power Supply from day 1, 8 number of stacking for upto 320 Gbps with IEEE 802.1AE MACSEC Quantity: 20 Nos. Amount: 59,90,000.00	24 RJ-45 ports (8 mGig ports up to 2.5G, 16 ports up to 1G), 4x10G Ports, POE/POE+/UPOE Power budget min 740 Watt Includes a country specific power cord, 19" rack mount hardware. Field replaceable internal Redundant Power Supply from day 1, 8 number of stacking for upto 160 Gbps with MACSEC Updated Quantity: 14 Nos. Amount: 41,93,000.00
77	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.7: 48 port 10/100/1000BASE-T at page no. 422 of the tender document	24 RJ-45 ports (8 mGig ports up to 10G, 16 ports up to 1G), 4x10G Ports, POE/POE+/UPOE Power budget 1440 Watt Includes a country specific power cord, 19" rack mount hardware. Field replaceable internal Redundant Power Supply from day 1, 8 number of stacking for upto 320 Gbps with IEEE 802.1AE MACSEC	24 RJ-45 ports (8 mGig ports up to 2.5G, 16 ports up to 1G), 4x10G Ports, POE/POE+/UPOE Power budget min 740 Watt Includes a country specific power cord, 19" rack mount hardware. Field replaceable internal Redundant Power Supply from day 1, 8 number of stacking for upto 160 Gbps with MACSEC
78	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 8: 10G Network Modules at page no.770 of the tender document	Quantity: 200 Nos. Amount: 74,80,000.00	Updated Quantity: 140 Nos. Amount: 52,36,000.00

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
79	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 9: 40 G Network Modules at page no.770 of the tender document	Quantity: 46 Nos. Amount: 18,40,000.00	Updated Quantity: 112 Nos. Amount: 44,80,000.00
80	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 10: Wireless Controller at page no.770 of the tender document	It should support upto 250 Access Points, 5 Gbps Throughput,	It should support upto 250 Access Points, minimum 3 Gbps Throughput,
81	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.9: Wireless Controller at page no. 422 of the tender document	It should support upto 250 Access Points, 5 Gbps Throughput,	It should support upto 250 Access Points, minimum 3 Gbps Throughput
82	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 12: Outdoor Access Point at page no.770 of the tender document	Quantity: 1 Nos. Amount: 1,75,000.00	Updated Quantity: 4 Nos. Amount: 7,00,000.00
83	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 13: NMS at page no.770-771 of the tender document	The proposed solution should be premise based and not cloud based	The proposed solution should be on premise and not cloud based
84	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.12: NMS at page no. 422-423 of the tender document	The proposed solution should be premise based and not cloud based	The proposed solution should be on premise and not cloud based

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
85	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 14: Appliance for NMS at page no.770-771 of the tender document	4 Core Intel Xeon-S 4110 @ 2.10 Ghz , Memory: 32GB, Storage: 6 TB Hardisk minimum, Licensed Operating Server (Latest). Quantity: 3 Nos. Amount: 20,85,000.00	Minimum 4 Core Intel Xeon-S 4110 @ 2.10 Ghz , Memory: 32GB, Storage: 6 TB Hardisk minimum, Licensed Operating Server. The server Processor and OS must be latest generation and version respectively. Updated Quantity: 2 Nos. Amount: 13,90,000.00
86	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.13: Appliance for NMS at page no. 423 of the tender document	4 Core Intel Xeon-S 4110 @ 2.10 Ghz , Memory: 32GB, Storage: 6 TB Hardisk minimum, Licensed Operating Server (Latest).	Minimum 4 Core Intel Xeon-S 4110 @ 2.10 Ghz , Memory: 32GB, Storage: 6 TB Hardisk minimum, Licensed Operating Server. The server Processor and OS must be latest generation and version respectively.
87	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 15(a): External firewall at page no.772-774 of the tender document	Firewall appliance should have at least 4 x 1/10Gig TX ports ,14 x 1/10Gig SFP/SFP+ ports with required transceivers , 4X 40 Gig Ports with required transceivers from Day one. User-ID/Agent-ID, NGIPS, Anti-Virus, Anti-Spyware, Anti Malware and logging asecurity threat prevention features enabled – 6 GBPS real world/production environment/Application Mix The NGFW must have GUI based packet capture utility within its management console with capability of creating packet capture filters for IPv4 and IPv6 traffic and ability to define the packet and byte count. It should also support protocols like LLDP, DHCPv6. NAT 64 etc. Quantity: 1 Nos. Amount: 1,75,43,159.00	Firewall appliance should have at least 4 x 1/10Gig TX ports ,14 x 1/10Gig SFP/SFP+ ports with required transceivers , minimum 2x40 Gig with required transceivers from Day one. User-ID/Agent-ID, NGIPS, Anti-Virus, Anti-Spyware, Anti Malware, Antibot and logging security threat prevention features enabled – 6 GBPS real world/production environment/Application Mix/Enterprise Mix The NGFW must have GUI based packet capture utility within its management console with capability of creating packet capture filters for IPv4 and IPv6 traffic and ability to define the packet and byte count. Firewall must have capability of SSL inspection over latest protocols. It should also support protocols like LLDP, DHCPv6. NAT 64 etc Updated Quantity: 2 Nos. Amount: 3,50,86,318.00
88	PART-II TECHNICAL SPECIFICATION FOR	V- IT Networks Active Networking Components:	Firewall appliance should have at least 4 x 1/10Gig TX ports ,14 x 1/10Gig SFP/SFP+ ports with required transceivers , 4X 40 Gig Ports with required transceivers from Day one.	Firewall appliance should have at least 4 x 1/10Gig TX ports ,14 x 1/10Gig SFP/SFP+ ports with required transceivers , minimum 2x40 Gig with required transceivers from Day one.

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
	LOW VOLTAGE WORKS (SECTION-V)	S. No. 3.14(a): External firewall at page no. 423-426 of the tender document	<p>User-ID/Agent-ID, NGIPS, Anti-Virus, Anti-Spyware, Anti Malware and logging security threat prevention features enabled – 6 GBPS real world/production environment/Application Mix</p> <p>The NGFW must have GUI based packet capture utility within its management console with capability of creating packet capture filters for IPv4 and IPv6 traffic and ability to define the packet and byte count. It should also support protocols like LLDP, DHCPv6. NAT 64 etc.</p>	<p>User-ID/Agent-ID, NGIPS, Anti-Virus, Anti-Spyware, Anti Malware, Antitbot and logging security threat prevention features enabled – 6 GBPS real world/production environment/Application Mix/Enterprise Mix</p> <p>The NGFW must have GUI based packet capture utility within its management console with capability of creating packet capture filters for IPv4 and IPv6 traffic and ability to define the packet and byte count. Firewall must have capability of SSL inspection over latest protocols. It should also support protocols like LLDP, DHCPv6. NAT 64 etc</p>
89	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 15(b): Internal firewall at page no.774 of the tender document	<p>The Proposed Firewall Vendor should be in the Leader</p> <p align="center">Quantity: 1 Nos. Amount: 1,53,88,858.00</p>	<p>The Proposed Firewall Vendor should be in the Leader/Challenger</p> <p align="center">Updated Quantity: 2 Nos. Amount: 3,07,77,716.00</p>
90	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.14(b): Internal firewall at page no. 426-429 of the tender document	<p>The Firewall should be Hardware based, Reliable, purpose-built security appliance with hardened operating system that eliminates the security risks associated with general-purpose operating systems</p> <p>The Proposed Firewall Vendor should be in the Leader in Quadrant of Gartner Magic Quadrant for Enterprise Network Firewall in any one year of last five continue year.</p> <p>Firewall appliance should have at least 8x 1/10GE interface, 4x40G Interface, and 1 GE RJ45 Management ports.</p> <p>The solution should support minimum 30 Gbps of NGFW (FW + IPS + AVC) throughput for Mix / production traffic</p> <p>The solution should support minimum 10 Gbps of Threat Prevention (FW + IPS + AVC + AV) throughput for Mix / production traffic</p> <p>Firewall should support minimum 10 Gbps of VPN throughput</p>	<p>The Firewall should be Hardware based, Reliable, purpose-built security appliance with hardened operating system that eliminates the security risks associated with general-purpose operating systems</p> <p>The Proposed Firewall Vendor should be in the Leader/Challenger in Quadrant of Gartner Magic Quadrant for Enterprise Network Firewall in any one year of last five continue year..</p> <p>Firewall appliance should have at least 8x 1/10GE interface, 4x40G Interface, and 1 GE RJ45 Management ports.</p> <p>The solution should support minimum 30 Gbps of NGFW (FW + IPS + AVC) throughput for Mix / production traffic</p> <p>The solution should support minimum 10 Gbps of Threat Prevention (FW + IPS + AVC + AV) throughput for Mix / production traffic</p> <p>Firewall should support minimum 10 Gbps of VPN throughput</p>

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
			<p>Firewall should support 5000 site-to-site & client to site VPN Tunnels.</p> <p>Firewall should support minimum 5,000 concurrent SSL VPN users and should be scalable in future</p> <p>Firewall should support 200,000 new sessions per second, with enabling application control security feature</p> <p>Firewall should support 15 Million concurrent sessions, with enabling application control security feature</p> <p>The Firewall solution should support NAT64, DNS64 & DHCPv6</p> <p>The proposed system shall be able to operate on either Transparent (bridge) mode to minimize interruption to existing network infrastructure or NAT/Route mode. Both modes can also be available concurrently using Virtual Contexts.</p> <p>The proposed system should have integrated Traffic shaping / rate limiting functionality.</p> <p>The proposed system should support</p> <p>a) IPSEC VPN b) PPTP VPN</p> <p>The device shall utilize inbuilt hardware VPN acceleration:</p> <p>a) IPSEC (DES,/3DES,/AES) encryption/decryption b) SSL encryption/decryption</p> <p>The system shall support the following IPSEC VPN capabilities:</p> <p>a) Multi-zone VPN supports. b) IPSec, ESP security. c) Supports NAT traversal d) Supports Hub and Spoke architecture e) Supports Redundant gateway architecture</p> <p>The system shall support 2 forms of site-to-site VPN configurations:</p> <p>a) Route based IPSec tunnel b) Policy based IPSec tunnel</p> <p>The system shall provide IPv6 IPSec feature to support for secure IPv6 traffic in an IPSec VPN.</p> <p>Virtualization</p>	<p>Firewall should support 5000 site-to-site & client to site VPN Tunnels.</p> <p>Firewall should support minimum 5,000 concurrent SSL VPN users and should be scalable in future</p> <p>Firewall should support 200,000 new sessions per second, with enabling application control security feature</p> <p>Firewall should support 15 Million concurrent sessions, with enabling application control security feature</p> <p>The Firewall solution should support NAT64, DNS64 & DHCPv6</p> <p>The proposed system shall be able to operate on either Transparent (bridge) mode to minimize interruption to existing network infrastructure or NAT/Route mode. Both modes can also be available concurrently using Virtual Contexts.</p> <p>The proposed system should have integrated Traffic shaping / rate limiting functionality.</p> <p>The proposed system should support</p> <p>a) IPSEC VPN b) PPTP VPN</p> <p>16 The device shall utilize inbuilt hardware VPN acceleration:</p> <p>a) IPSEC (DES,/3DES,/AES) encryption/decryption b) SSL encryption/decryption</p> <p>The system shall support the following IPSEC VPN capabilities:</p> <p>a) Multi-zone VPN supports. b) IPSec, ESP security. c) Supports NAT traversal d) Supports Hub and Spoke architecture e) Supports Redundant gateway architecture</p> <p>18 The system shall support 2 forms of site-to-site VPN configurations:</p> <p>a) Route based IPSec tunnel b) Policy based IPSec tunnel</p> <p>The system shall provide IPv6 IPSec feature to support for secure IPv6 traffic in an IPSec VPN.</p> <p>Virtualization</p>

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
			<p>The proposed solution should support Virtualization (Virtual Firewall, Security zones and VLAN). Minimum 3 Virtual Firewall license should be provided.</p> <p>Intrusion Prevention System IPS throughput should be minimum 11 Gbps for Mix / Production traffic</p> <p>The IPS detection methodologies shall consist of: a) Signature based detection using real time updated database b) Anomaly based detection that is based on thresholds</p> <p>The IPS system shall have at least 40,000 signatures IPS Signatures can be updated in three different ways: manually, via pull technology or push technology. Administrator can schedule to check for new updates or if the device has a public IP address, updates can be pushed to the device each time an update is available In event if IPS should cease to function, it will fail open by default and is configurable. This means that crucial network traffic will not be blocked and the Firewall will continue to operate while the problem is resolved</p> <p>IPS solution should have capability to protect against Denial of Service (DOS) and DDOS attacks. Should have flexibility to configure threshold values for each of the Anomaly.</p> <p>Should support automatic Real Time Signature generation based on Rate Variant, Rate Invariant algorithms & Challenge Response Mechanisms; within few seconds, without human intervention. Should provide at least 1 Gbps of DDOS protection available.</p> <p>IPS signatures should have a configurable actions like terminate a TCP session by issuing TCP Reset packets to each end of the connection, or silently drop traffic in addition to sending a alert and logging the incident Signatures should a severity level defined to it so that it helps the administrator to understand and decide which signatures to enable for what traffic (e.g. for severity level: high medium low)</p> <p>Antivirus</p>	<p>The proposed solution should support Virtualization (Virtual Firewall, Security zones and VLAN). Minimum 3 Virtual Firewall license should be provided.</p> <p>Intrusion Prevention System IPS throughput should be minimum 11 Gbps for Mix / Production traffic</p> <p>The IPS detection methodologies shall consist of: a) Signature based detection using real time updated database b) Anomaly based detection that is based on thresholds</p> <p>The IPS system shall have at least 40,000 signatures IPS Signatures can be updated in three different ways: manually, via pull technology or push technology. Administrator can schedule to check for new updates or if the device has a public IP address, updates can be pushed to the device each time an update is available In event if IPS should cease to function, it will fail open by default and is configurable. This means that crucial network traffic will not be blocked and the Firewall will continue to operate while the problem is resolved</p> <p>IPS solution should have capability to protect against Denial of Service (DOS) and DDOS attacks. Should have flexibility to configure threshold values for each of the Anomaly.</p> <p>Should support automatic Real Time Signature generation based on Rate Variant, Rate Invariant algorithms & Challenge Response Mechanisms; within few seconds, without human intervention. Should provide at least 1 Gbps of DDOS protection available.</p> <p>IPS signatures should have a configurable actions like terminate a TCP session by issuing TCP Reset packets to each end of the connection, or silently drop traffic in addition to sending a alert and logging the incident Signatures should a severity level defined to it so that it helps the administrator to understand and decide which signatures to enable for what traffic (e.g. for severity level: high medium low)</p> <p>Antivirus</p>

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
			<p>Firewall should have integrated Antivirus solution The proposed system should be able to block, allow or monitor only using AV signatures and file blocking based on per firewall policy based or based on firewall authenticated user groups with configurable selection of the following services: a) HTTP, HTTPS b) SMTP, SMTPS c) POP3, POP3S d) IMAP, IMAPS e) FTP, FTPS</p> <p>The proposed system should be able to block or allow oversize file based on configurable thresholds for each protocol types and per firewall policy.</p> <p>Web Content Filtering The proposed system should have integrated Web Content Filtering solution without external solution, devices or hardware modules. The proposed solution should be able to enable or disable Web Filtering per firewall policy or based on firewall authenticated user groups for both HTTP and HTTPS traffic. The proposed system shall provide web content filtering features: a) which blocks web plug-ins such as ActiveX, Java Applet, and Cookies. b) Shall include Web URL block c) Shall include score based web keyword block d) Shall include Web Exempt List</p> <p>The proposed system shall be able to queries a real time database of over 280 million + rated websites categorized into 80+ unique content categories.</p> <p>Application Control The proposed system shall have the ability to detect, log and take action against network traffic based on over 4000 application signatures The application signatures shall be manual or automatically updated</p>	<p>Firewall should have integrated Antivirus solution The proposed system should be able to block, allow or monitor only using AV signatures and file blocking based on per firewall policy based or based on firewall authenticated user groups with configurable selection of the following services: a) HTTP, HTTPS b) SMTP, SMTPS c) POP3, POP3S d) IMAP, IMAPS e) FTP, FTPS</p> <p>The proposed system should be able to block or allow oversize file based on configurable thresholds for each protocol types and per firewall policy.</p> <p>Web Content Filtering The proposed system should have integrated Web Content Filtering solution without external solution, devices or hardware modules. The proposed solution should be able to enable or disable Web Filtering per firewall policy or based on firewall authenticated user groups for both HTTP and HTTPS traffic. The proposed system shall provide web content filtering features: a) which blocks web plug-ins such as ActiveX, Java Applet, and Cookies. b) Shall include Web URL block c) Shall include score based web keyword block d) Shall include Web Exempt List</p> <p>The proposed system shall be able to queries a real time database of over 280 million + rated websites categorized into 80+ unique content categories.</p> <p>Application Control The proposed system shall have the ability to detect, log and take action against network traffic based on over 4000 application signatures The application signatures shall be manual or automatically updated</p>

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
			<p>The administrator shall be able to define application control list based on selectable application group and/or list and its corresponding actions</p> <p>High Availability</p> <p>The proposed system shall have built-in high availability (HA) features without extra cost/license or hardware component</p> <p>The device shall support stateful session maintenance in the event of a fail-over to a standby unit.</p> <p>High Availability Configurations should support Active/Active or Active/ Passive</p> <p>Logs and Report</p> <p>Logs will be stored for 180 days. Storage will be catered accordingly.</p> <p>The Logs and Reporting platform must be a dedicated same OEM appliance and VM/software running on server will not be accepted.</p> <p>The Logs and Reporting platform support running on-demand and scheduled reports</p> <p>Should have f Hard Drive Capacity in RAID-1 for logging and reporting if not please quote separate appliance</p> <p>Real-time display of information allows you to follow real-time trends in network usage such as the source IP address and the destination URL for HTTP traffic or IM message traffic.</p> <p>All log files and messages are searchable and can be filtered to drill down and locate specific information.</p> <p>All associated racks, patch panel, patch cords, face plates and cabling requirements of all kinds will be provided from day 1.</p> <p>All applicable licenses will be provided for the entire warranty duration or minimum 5 years whichever is later.</p> <p>The make model and OEM of the internal Firewall will be different from that of the External firewall.</p>	<p>The administrator shall be able to define application control list based on selectable application group and/or list and its corresponding actions</p> <p>High Availability</p> <p>The proposed system shall have built-in high availability (HA) features without extra cost/license or hardware component</p> <p>The device shall support stateful session maintenance in the event of a fail-over to a standby unit.</p> <p>High Availability Configurations should support Active/Active or Active/ Passive</p> <p>Logs and Report</p> <p>Logs will be storedfor 180 days. Storage will be catered accordingly.</p> <p>The Logs and Reporting platform must be a dedicated same OEM appliance and VM/software running on server will not be accepted.</p> <p>The Logs and Reporting platform support running on-demand and scheduled reports</p> <p>Should have f Hard Drive Capacity in RAID-1 for logging and reporting if not please quote separate appliance</p> <p>Real-time display of information allows you to follow real-time trends in network usage such as the source IP address and the destination URL for HTTP traffic or IM message traffic.</p> <p>All log files and messages are searchable and can be filtered to drill down and locate specific information.</p> <p>All associated racks, patch panel, patch cords, face plates and cabling requirements of all kinds will be provided from day 1.</p> <p>All applicable licenses will be provided for the entire warranty duration or minimum 5 years whichever is later.</p> <p>The make model and OEM of the internal Firewall will be different from that of the External firewall.</p>

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
91	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 16(a): Network Access Control at page no.778-782 of the tender document	The solution must have internal CA server functionality with flexibility to create certificate template to be used by other network services The solution must have internal CA server functionality to provision certificate for multiple use cases like BYOD, Contractor, Employee Asset etc. Quantity: 2 Nos. Amount: 34,59,342.00	The solution must have internal/External CA server functionality The solution must have internal/external CA server functionality to provision certificate for multiple use cases like BYOD, Contractor, Employee Asset etc. Updated Quantity: 4 Nos. Amount: 69,18,684.00
92	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	V- IT Networks Active Networking Components: S. No. 3.15(a): Internal firewall at page no. 429-434 of the tender document	The solution must have internal CA server functionality with flexibility to create certificate template to be used by other network services The solution must have internal CA server functionality to provision certificate for multiple use cases like BYOD, Contractor, Employee Asset etc.	The solution must have internal/External CA server functionality The solution must have internal/external CA server functionality to provision certificate for multiple use cases like BYOD, Contractor, Employee Asset etc.
93	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: S. No. 16(b): User Group for 1500 users at page no.783 of the tender document	Amount: 18,86,087.00	Amount: 32,51,875.00
94	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: New Item included at S. No. 17: Stack Cable	New Item	Stack Cables for Network Switch New Quantity: 118 Nos. Amount: 13,70,570.00
95	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	V- IT Networks ACTIVE NETWORKING COMPONENTS: New Item included at S. No. 18: EPABX Distribution Switch	New Item	IPPBX Distribution Switch: Supply, Installation, Testing & Commissioning of Distribution Switch for Voice with 32x 1G SFP+ ports with 4 X10G SFP+ ports expandable to 8 SFP+ ports with switching capacity of 224 Gbps, forwarding performance of 165 Mpps, dual hot swappable internal power supply, Should have Stacking with stacking bandwidth of minimum 120 Gbps. Should support min 2GB internal DRAM, 4GB internal Flash memory, 60K MAC address, 8k Multicast Routes, Should have static

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
				routing OSPF, PIM and VRRP from Day 1. Should support BGP and IS-IS. <p align="center">New Quantity: 2 Nos. Amount: 5,97,476.00</p>
96	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	VI- IPPBX S. No. 1: Communication Server at page no.783 of the tender document	The proposed system shall support IPv6 from day one The system shall be capable of directly responding to IPv6 requests (establishing a call over IPv6, IPv6 supported IP telephone operation etc.) without requiring any converters. System architecture should be of Server gateway based with external industry standard server to facilitate a distributed architecture with centralized call control over the IP backbone The IP PBX system should have my subscribe page. By using My Subscriber Page;	The Quoted model should be TEC Approved. Vendor should have TEC-GR certificate with GR Spec No. TEC/GR/SW/PBX-005.In case if any OEM does not get TEC-GR certificate but have already applied for this then supplier should have the acknowledgement copy of test fee letter received from TEC as a proof for above requirement. The proposed system shall support IPv6/IPv4 from day one The system shall be capable of directly responding to IPv6/IPv4 requests (establishing a call over IPv6/IPv4, IPv6/IPv4 supported IP telephone operation etc.) with/without requiring any converters. System architecture should be of Server gateway based with external industry standard/OEM server to facilitate a distributed architecture with centralized call control over the IP backbone The IP PBX system should have my subscribe page/UC Client. By using My Subscriber Page/UC Client;
97	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	VI- IPPBX Communication Server at page no. 435 of the tender document	The proposed system shall support IPv6 from day one	The Quoted model should be TEC Approved. Vendor should have TEC-GR certificate with GR Spec No. TEC/GR/SW/PBX-005.In case if any OEM does not get TEC-GR certificate but have already applied for this then supplier should have the acknowledgement copy of test fee letter received from TEC as a proof for above requirement. The proposed system shall support IPv6/IPv4 from day one

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
			<p>The system shall be capable of directly responding to IPv6 requests (establishing a call over IPv6, IPv6 supported IP telephone operation etc.) without requiring any converters.</p> <p>System architecture should be of Server gateway based with external industry standard server to facilitate a distributed architecture with centralized call control over the IP backbone</p> <p>The IP PBX system should have my subscribe page. By using My Subscriber Page;</p>	<p>The system shall be capable of directly responding to IPv6/IPv4 requests (establishing a call over IPv6/IPv4, IPv6/IPv4 supported IP telephone operation etc.) with/without requiring any converters.</p> <p>System architecture should be of Server gateway based with external industry standard/OEM server to facilitate a distributed architecture with centralized call control over the IP backbone</p> <p>The IP PBX system should have my subscribe page/UC Client. By using My Subscriber Page/UC Client;</p>
98	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	VI- IPPBX S. No. 2: IP Phone type I at page no.785 of the tender document	128x64 pixels, black and white LCD with backlit, 6 soft keys DSCP	minimum 128x64 pixels or 2 inch display, black and white LCD with backlit, minimum 5 soft/feature keys DSCP/DHCP
99	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	VI- IPPBX S. No. 4(a) : IP Phone type I at page no. 444-445 of the tender document	128x64 pixels, black and white LCD with backlit, 6 soft keys DSCP	minimum 128x64 pixels or 2 inch display, black and white LCD with backlit, minimum 5 soft/feature keys DSCP/DHCP
100	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	VI- IPPBX S. No. 3: IP Phone type II at page no.786 of the tender document	132X64 graphical The Phone shall support IPv4 & IPv6	minimum 132X64or minimum 3 inch display The Phone shall support IPv4 / IPv6
101	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	VI- IPPBX S. No. 4(b) : IP Phone type I at page no. 445-446 of the tender document	132X64 graphical The Phone shall support IPv4 & IPv6	minimum 132X64or minimum 3 inch display The Phone shall support IPv4 / IPv6
102	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	VI- IPPBX S. No. 4: IP Phone type III at page no.786 of the tender document	The Phone shall support IPv4 & IPv6 The phone shall support up to 5 SIP accounts	The Phone shall support IPv4 / IPv6 The phone shall support up to minimum 4 SIP accounts

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition	Revised Condition/ Replacement/ Addition/Deletion/Modification
103	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	VI- IPPBX S. No. 4(b) : IP Phone type I at page no. 446 of the tender document	The Phone shall support IPv4 & IPv6 The phone shall support up to 5 SIP accounts	The Phone shall support IPv4 / IPv6 The phone shall support up to minimum 4 SIP accounts
104	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	II- Displays S. No. 1: 55 Inches Display at page no.728 of the tender document	Diagnostic LED's : the display must incorporate diagnostic and status LED's that is with setup and troubleshooting.	Removed
105	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	II- Displays S. No. 1: 55 Inches Display at page no. 375-376 of the tender document	Diagnostic LED's : the display must incorporate diagnostic and status LED's that is with setup and troubleshooting.	Removed
106	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	II- Displays S. No. 2: 65 Inches Display at page no.728 of the tender document	Diagnostic LED's : the display must incorporate diagnostic and status LED's that is with setup and troubleshooting.	Removed
107	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	II- Displays S. No. 2: 65 Inches Display at page no. 376-377 of the tender document	Diagnostic LED's : the display must incorporate diagnostic and status LED's that is with setup and troubleshooting.	Removed
108	SCHEDULE OF PRICES AND TOTAL PRICES FOR SCHEDULE-V	II- Displays S. No. 3: 85 Inches Display at page no.729 of the tender document	Diagnostic LED's : the display must incorporate diagnostic and status LED's that is with setup and troubleshooting.	Removed
109	PART-II TECHNICAL SPECIFICATION FOR LOW VOLTAGE WORKS (SECTION-V)	II- Displays S. No. 3: 85 Inches Display at page no. 377-378 of the tender document	Diagnostic LED's : the display must incorporate diagnostic and status LED's that is with setup and troubleshooting.	Removed

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition			Revised Condition/ Replacement/ Addition/Deletion/Modification		
			Sub-Head	Item	Amount	Sub-Head	Item	Amount
110	SCHEDULES OF PRICES FOR LOW VOLTAGE WORKS (SCHEDULE-V)	AMOUNT OF SUB-HEADS UNDER LOW VOLTAGE WORKS (SCHEDULE-V)	I	CCTV SYSTEM	1,85,46,556.00	I	CCTV SYSTEM	1,85,46,556.00
			II	Displays	2,33,73,176.00	II	Displays	2,33,73,176.00
			III	Audio Visual	7,26,82,122.00	III	Audio Visual	7,22,89,089.00
			IV	Access Control System	1,35,23,832.59	IV	Access Control System	1,35,23,832.59
			V	IT Network	14,23,20,204.00	V	IT Network	19,11,34,071.00
			VI	IPPBX	1,31,14,910.00	VI	IPPBX	1,31,14,910.00
			VII	Various Video patch cables, USB-C, HDMI, USB 2.0, Audio Connectors, Speaker Cable, Microphone cable, Control Cable, etc. for all Low Voltage Services	57,48,260.00	VII	Various Video patch cables, USB-C, HDMI, USB 2.0, Audio Connectors, Speaker Cable, Microphone cable, Control Cable, etc. for all Low Voltage Services	57,48,260.00
			VIII	IBS	34,00,850.00	VIII	IBS	34,00,850.00
				GRAND TOTAL OF LV WORK	29,27,09,911.00		GRAND TOTAL OF LV WORK	34,11,30,745.00

Corrigendum-I

S. No.	Clause/Para of the Tender Document	Items	Existing condition			Revised Condition/ Replacement/ Addition/Deletion/Modification		
			Sl. No.	Description of Schedules	Amount cost (in Rs.)	Sl. No.	Description of Schedules	Amount cost (in Rs.)
111	SUMMARY OF PRICES AT PAGE NO. 493 OF TENDER DOCUMENT	FORM-3	1	Schedule-I (Interior & Furnishing works)	42,95,75,305.00	1	Schedule-I (Interior & Furnishing works)	42,95,75,305.00
			2	Schedule-II (Furniture works)	11,19,54,065.00	2	Schedule-II (Furniture works)	11,00,68,115.00
			3	Schedule-III (Electrical works)	15,15,63,497.00	3	Schedule-III (Electrical works)	15,20,24,257.00
			4	Schedule-IV (HVAC & BMS works)	10,98,77,150.00	4	Schedule-IV (HVAC & BMS works)	10,98,77,150.00
			5	Schedule-V (Low Voltage Works)	29,27,09,911.00	5	Schedule-V (Low Voltage Works)	34,11,30,745.00
				Grand Total (Schedule-I+II+III+IV+V)	109,56,79,927.00		Grand Total (Schedule-I+II+III+IV+V)	114,26,75,572.00
				Grand Total (Schedule-I+II+III+IV+V) incl. GST @ 18%	129,29,02,314.00		Grand Total (Schedule-I+II+III+IV+V) incl. GST @ 18%	134,83,57,175.00

This has the approval of Competent authority.