_I Corrigendum Detai	s		
Corrigendam Detai	13		
Corrigendum No	3	Corrigendum Publish Date	19/11/2021 18:48

Tender Det	tailc			
lienaei Dei	talis			
Tender No		SG-SWR-P-MPLS-VSS-EX-TCCS (Open Tender)	Closing Date/Time	07/12/2021 15:00
Name Of W	/ork	over SWR consisting of IP based of MultiProtocol label Switching) back Train Control Communication System	able and converged commommunication network wikbone interconnecting VoIem (TCCS), SIP(Session Ierveillance System) and ir	nunication system for 230+ stations th an IP- MPLS (Internet Protocol- P (Voice over Internet Protocol) based nitiation Protocol) based Exchange ntegrating with Existing SIP Exchanges,

Items Modified-

NIT Header

Field Name	Existing Value	Modified Value
Advertised Value (INR)	805407068.35	805406496.15

New Items Added-

Documents

S.No	Document Description	File Name	
1	SPECIAL CONDITIONS OF CONTRACT	SpecialConditionofContract.pdf	
2	PRE BID QUESTIONS ANSWERS	PreBidQuestionsAnswers.pdf	
3	TECHNICAL SPEC CHAPTER 1	TechnicalspecChapter1.pdf	
4	TECHNICAL SPEC CHAPTER 2	TechnicalspecChapter2.pdf	
5	TECHNICAL SPEC CHAPTER 3	TechnicalspecChapter34.pdf	

Item Breakup

Item-1 Sub-Work A - IP MPLS , Routers, Manageable Switches and Accessories					
#	Item No	Description of Item	Qty	Rate	Amount
1	01	Supply of Standard 19" Rack Mountable LER(Label Edge Router) , IP- MPLS Router with Redundant DC power feed -48V DC nominal, equipped with interfaces: 2 x 10G (optical) SFP+ Ports along with 2 Nos of 40 Kms 10G SFP+ LC Modules, 4 x 1GbE (Optical) interface along with 4 Nos of 1GbE Single Mode Bidirectional SFP (10KMs) Modules and 4 x 1GbE (Copper) interfaces & Modules and slot for 16 x E1 (G.703), {supply of 16 E1 card is not included in this item and is catered in item number A2 (4)}, Mounting kit with all necessary accessories & Software, Perpetual Licenses. As Per RDSO Document No. STT/TAN/IP-MPLS/2020 Version 01 or latest. Inspection: RDSO	267.00	369963.00	98780121.00
2	010	1G SFP Module with 10 Km range for above Routers. Inspection RDSO.	15.00	1180.00	17700.00
3	011	Supply of STM-1 SFP Module with 15 Km range with all accessories for above Routers. Inspection RDSO.	3.00	8832.30	26496.90
4	012	Supply of 10/100/1000 Base-T Copper Ethernet Transceiver SFP Module with all accessories. Inspection RDSO	3.00	5581.40	16744.20
5	02	Supply of Standard 19" Rack Mountable LER(Label Edge Router), IP- MPLS Router with Redundant DC power feed -48V DC nominal, equipped with interfaces: 2 x 10G (optical) SFP+ Ports along with 2 Nos of 40 Kms 10G SFP+ LC Modules, 4 x 1GbE (Optical) interface Module along with 4 Nos of 1GbE Single Mode Bi-directional SFP (10KMs) Modules and 4 x 1GbE (Copper) based interfaces & Modules, 2x STM-1 (Channelised) interface along with 2 Nos of SFP(S.1.1) Modules Compatible with Existing STM-1 and slot for 16 x E1 (G.703), {supply of 16 E1 card is not included in this item and is catered in item number A2 (4)}. Mounting kit with all necessary accessories & Software, Perpetual	24.00	369963.00	8879112.00

21, 5:	37 PIVI	Published Corrigendum	Details		
		Licenses. As Per RDSO Document No. STT/TAN/IP-MPLS/2020 Version 01 or latest. Inspection RDSO			
6	03	Supply of Standard 19" Rack Mountable Modular Chassis LSR (Label Switch Router) IP- MPLS Router with Redundant DC power feed -48V DC nominal Redundant Controller Card, equipped with interfaces: 8 x 10G (optical) SFP+ Ports along with 8 Nos of 40 Kms 10 G SFP+ Modules, Mounting Kit with all necessary accessories & Software, Perpetual Licenses. As Per RDSO Document No. STT/TAN/IP-MPLS/2020 Version 01 or latest. Inspection RDSO.	28.00	1676273.00	46935644.00
7	04	Installation, Commissioning & Testing of LER & LSR IP MPLS Routers including supply & Installation of all the accessories like Power cable, Earthing Cable, Optical Patch Cords of 3 mtr- 4 Nos for LER & 8 Nos for LSR s, Cat 6 Patch Cords of 1 mtr-4 Nos, one 6A MCB for each LSR and LSR, wiring etc. as required for Routers	319.00	12161.00	3879359.00
8	05	Supply and installation of 16 port E1 Card along with Patch panel/Krone Module and wiring for Routers with all accessories etc. Inspection RDSO.	291.00	101480.00	29530680.00
9	06	2 x 10G Adapter Interface without 10G SFP+ Modules for LER Routers. Inspection RDSO.	3.00	56640.00	169920.00
10	07	8 x 1G Adapter Interface (any combination: one nos of 8 x 1G or two nos of 4 x 1G) without SFP for LER Routers. Inspection RDSO.	6.00	59472.00	356832.00
11	08	2 x STM 1 Adapter Interface with 2 Nos. of STM-1, 15 km, SFP modules for LER Routers. Inspection RDSO.	3.00	261550.54	784651.62
12	09	10G SFP+ Module with 40 Km range for above Routers. Inspection RDSO.	3.00	97989.56	293968.68
Sche	edule-A3 N	on SOR Items, Sub-Work A IP MPLS- Servers, NMS and Wor	k Stations	4	!
Item	-1 Non SO	R Items, Sub-Work A IP MPLS- Servers, NMS and Work Stat	ions		
#	Item No	Description of Item	Qty	Rate	Amount
13	01	Supply, installation, Testing and Commissioning of Network Management System (NMS) inclusive of Software, Hardware and Perpetual Licenses for Minimum 5400 Network Elements including IP MPLS Router, L3 Switches, L2 Switches, UPS, Gateways and other network elements with SNMP support [Detailed Specification in Technical Document] Inspection RDSO.		35400000.00	35400000.00
14	02	Supply and Installation of Server Based Network Management System inclusive of Hardware and Software for Network Elements including Switches, Servers, etc. of Multiple makes at Data Centre(DC & DR). Inspection RDSO. This item shall be operated along with item No.1 above. Detailed Specification in Technical Document enclosed.	1.00	7088127.81	7088127.81
15	03	Supply & installation of PC Workstation/Maintenance Console and it shall comply with Para no. G of RDSO Document No. STT/TAN/IP-MPLS/2020 Ver 1.0 or latest. [Detailed Specification in Technical Document]. Inspection RDSO	3.00	69700.00	209100.00
16	04	Supply and installation 55-inch UHD Monitor 4K . [Detailed Specification in Technical Document]Inspection: Consignee	6.00	54579.20	327475.20
Sche	dule-A4 N	ON SOR Items Sub-Work A IP MPLS- Switches		<u>I</u>	<u> </u>
Item	1-1 NON SC	DR Items Sub-Work A IP MPLS- Switches			
#	Item No	Description of Item	Qty	Rate	Amount
17	01	Supply and Installation of Standard 19-inch Rack Mountable Layer 3, 24 Port Managed Switch with 24 Nos of 10/100/1000 Ethernet Ports with POE + Support and Redundant AC Power Supply, Dedicated Stacking Module 4 x 10 GE SFP+ Ports for uplink including 4 Nos of 10 GE BX SM SFP+ Modules, as per para number 4.0 of RDSO SPECIFICATION NO. RDSO/SPN/TC/83/2020 Rev 2 or latest. Mounting Kit with all necessary accessories to be supplied. [Detailed Specification in Technical Document]Inspection RDSO.	266.00	109386.00	29096676.00
		on SOR Items, Sub-Work A IP MPLS -FDMS , Cables and U R	ack		
		R Items, Sub-Work A IP MPLS -FDMS , Cables and U Rack		<u> </u>	<u> </u>
#	Item No	Description of Item Splicing /Dropping/Termination of each Fiber /Pigtail in the	Qty	Rate	Amount
18	12	LIU/FDMS/Termination Joints through fusion Splicing of the termination of OFC Cables.[Detailed Specification in Technical Document].	8024.00	45.44	364610.56
Sche	edule-A6 N	on SOR Items, Sub-Work A IP MPLS-Labour and Training			
		on SOR Items, Sub-Work A IP MPLS-Labour and Training R Items, Sub-Work A IP MPLS-Labour and Training			

/21, 5:	37 PM	Published Corrigendum	Details		
19	11	Opening of existing Joint enclosure and Splicing 2/4 additional fiber Inside already prepared jointing pit and Providing anti termites/ant Powder. Closing of Existing Joint and Backfilling is included. This does not Include provision of joint chambers, top plates.	289.00	3000.00	867000.00
20	12	Blowing / Drawing of OFC 24F/12F/6F Power Cable and CAT Cable (including crimping) through PVC Conduit/Duct/DWC/GI Pipe already installed.	39700.00	4.72	187384.00
21	13	Training of personnel over and above the on-site/ OEM/OEM authorized training partner premises training, during the installation, maintenance and supervision period as detailed in the tender document. Defined in Man-Week i.e. One week training for one personnel or as desired by the Railway.	18.00	23600.00	424800.00
Sche	edule-B3 N	on SOR Items, Sub-Work B VSS - Servers and Work Station			
Iten	n-1 Non SC	OR Items, Sub-Work B VSS - Servers and Work Station			
#	Item No	Description of Item	Qty	Rate	Amount
22	Supply, installation, Testing, Integration and Commissioning of Command & Control CenterSoftware, Perpetual Licenses & Hardware and all accessories required for their Installations andIntegration. It includes Video Management/GUI Software and Video Analytics/FRS licences of cameras required for integration) as per RDSO Spec No RDSO/SPN/TC/65/2021, Rev 6.0 or latest. Detailed Specification in Technical Document. Inspection RDSO		1780327.37	5340982.11	
23	02	Supply Installation, Testing and Commissioning of Software for VMS and Video Recording software. (Per camera Licence means Video Management and Video Recording at multiple locations such as Station, RPF Post & DC Server room covered by the same license) as per technical spec and functional requirement as per RDSO Spec No RDSO/SPN/TC/65/2021 Rev.6 or latest. Inspection RDSO.	2782.00	2147.60	5974623.20
24	03	Supply, Installation, Testing and Commissioning of VMS Server with all the accessories required for the installation for VSS project, including one 17 inch FHD Monitor with Keyboard, Mouse, KVM Switch, As per RDSO Spec No RDSO/SPN/TC/65/2021, Rev 6.0 or latest. Inspection RDSO.	25.00	437963.37	10949084.25
25	04	Supply, Installation, Testing & Commissioning of Video Analytic Hardware and all accessories required for installation purpose As per Clause No. 10.1.1.3 RDSO Spec No RDSO/SPN/TC/65/2021, Rev 6.0 or latest. Inspection RDSO.	27.00	437963.37	11825010.99
26	05	Supply Installation, Testing and Commissioning of Server Hardware for Face Recognition Complete with all accessories as per Clause No. 10.1.1.3 Spec No RDSO/SPN/TC/65/2021, Rev 6.0 or latest. Inspection RDSO	22.00	437963.37	9635194.14
27	06	Supply of Video Analytic Server software complete with all accessories(License per camera means Video analytic at multiple locations such as Station, RPF Post & Security control by same license) as per RDSO Spec No RDSO/SPN/TC/65/2021 Rev.6 or latest. Inspection RDSO.	2452.00	2360.00	5786720.00
28	18	Supply Installation Testing and Commissioning of Next Generation Firewall NGFW 1+1 (High Availability) along with Management software Hardware Perpetual licence and all accessories required their installation in the Data Center. it includes Network Security appliance 4x10G SFP Ports and 4x1G SFP Ports loaded Rack Mountable UTM Firewall with features like Next Generation Firewall, Intrusion Prevention System, Gateway Anti-Spam Prevention ,Bandwidth Management ,Traffic Discovery, Application Visibility and Control Hardware etc should have 1 Console port ,2 USB Management Port for Explorer. The product should have a license for 5 years subscription with 3000 users, for above features including warranty for UTM Hardware and all accessories required for their installation in the Data Center.[Detailed Specification in Technical Document]. Inspection RITES	3.00	1355448.30	4066344.90
29	19	Supply Installation of Full HD Large Format Display Monitor (55 inch)as per RDSO Spec No RDSO/SPN/TC/65/2021, Rev 6.0 or latest with HDMI and DVI Ports complete with all accessories [Detailed Specification in Technical Document] Inspection by RITES	108.00	64531.25	6969375.00
		on SOR Items, Sub-Work B VSS -Switches with accessories			
		OR Items, Sub-Work B VSS -Switches with accessories			
#	Item No	Description of Item Supply of Single Mode 10G SFP+ Fiber for above Switches.	Qty	Rate	Amount
30	10	Inspection: RDSO	100.00	2984.22	298422.00
31	11	Spares @ 8% for Supply of Switches a) Field SWITCH 8 PORT	37.00	23922.14	885119.18

32		Inspection: RDSO			
<u> </u>	12	Spares @ 8% for Supply of Switches b) Field SWITCH 24 PORT. Inspection: RDSO	15.00	31486.88	472303.20
Sch	edule-B5 N	on SOR Items, Sub-Work B , VSS - FDMS, U RACK, and CABL	.ES		
Iten	n-1 Non SC	OR Items, Sub-Work B , VSS - FDMS, U RACK, and CABLES			
#	Item No	Description of Item	Qty	Rate	Amount
33	17	Supply of STP CAT- 6 Cable compliant with latest EIA/TIA-568-C.2 Standard for CAT 6 Cable 305 Mtrs Roll /Bundle.[Detailed Specification in Technical Document]Inspection: RITES	155700.00	33.20	5169240.00
34	18	Supply of PVC insulated armored 3 Core 2.5 Sqmm, 14 AWG,1.1 KV Grade Outdoor Strengthen Copper for UPS Power Supply Distributions per BIS/ISI Standards and all accessories required for installation.[Detailed Specification in Technical Document]Confirming to IS:1554 Part-1.Inspection: RITES	128600.00	88.50	11381100.00
35	19	Supply & Installation of 19"42 U 1200mm Depth Telecom Rack with Standard Accessories (Closed type) with front door Glass type, all doors should be removable type [Detailed Specification in Technical Document] Inspection RITES.	40.00	43979.78	1759191.20
36	20	Supply and Installation of Server and Network Smart Rack (Server Rack-3 Nos) with accessories and 2 Nos PDU along with Cooling Unit (2 Nos) with Piping and Low Side works, Environment Monitoring system, cooling unit accessories, related electrical work and Rack based Fire detection, Extinguishing System, Rodent repellent system and other accessories as per specification enclosed.[Detailed Specification in Technical Document] Inspection: RITES	3.00	3611154.00	10833462.00
Sch	edule-B6 N	on SOR Items, Sub-Work B VSS- Power Supply			
Iten	n-1 Non SC	OR Items, Sub-Work B VSS- Power Supply			
#	Item No	Description of Item	Qty	Rate	Amount
37	01	Supply, Installation and Commissioning of 2x10 KVA UPS at least 2 Hour Back up in full load condition ,connected in parallel redundant mode. Complete with all accessories as per specification attached This also includes supply of two set MF batteries of suitable AH capacity ,rack, one set compatible MCBs complete with cover & fixing materials, one earth leakage circuit breaker arrangement . [Detailed Specification in Technical Document] Inspection: RITES	21.00	424682.00	8918322.00
Sch	edule-B7 N	on SOR Items, Sub-Work B, VSS - TOOLS			
Iten	n-1 Non SC	OR Items, Sub-Work B, VSS - TOOLS			
#					
**	Item No	Description of Item	Qty	Rate	Amount
38	01	Tool Kit consisting of Optical power meter(Fibershot9990V),Multimeter(Fluke 101),Ethernet Crimping Tool(Standard Make)Console cable(Cisco=RJ45-DB9),Wrist ripper(Standard Make),Universal Spanner Set (Taparia), Screw Driver Set (Taparia-7Pieces set), Cutting plier(Taparia), Wire Stripper, Industrial grade USB to Serial cable with all accessories or Similar.[Detailed Specification in Technical Document]. Inspection: Consignee	18.00	Rate 24207.20	Amount 435729.60
38	01	Tool Kit consisting of Optical power meter(Fibershot9990V),Multimeter(Fluke 101),Ethernet Crimping Tool(Standard Make)Console cable(Cisco=RJ45-DB9),Wrist ripper(Standard Make),Universal Spanner Set (Taparia), Screw Driver Set (Taparia-7Pieces set), Cutting plier(Taparia), Wire Stripper, Industrial grade USB to Serial cable with all accessories or Similar.[Detailed Specification in Technical	18.00		
38 Scho	01 edule-B8 N	Tool Kit consisting of Optical power meter(Fibershot9990V),Multimeter(Fluke 101),Ethernet Crimping Tool(Standard Make)Console cable(Cisco=RJ45-DB9),Wrist ripper(Standard Make),Universal Spanner Set (Taparia), Screw Driver Set (Taparia-7Pieces set), Cutting plier(Taparia), Wire Stripper, Industrial grade USB to Serial cable with all accessories or Similar.[Detailed Specification in Technical Document]. Inspection: Consignee	18.00		
38 Scho	01 edule-B8 N	Tool Kit consisting of Optical power meter(Fibershot9990V),Multimeter(Fluke 101),Ethernet Crimping Tool(Standard Make)Console cable(Cisco=RJ45-DB9),Wrist ripper(Standard Make),Universal Spanner Set (Taparia), Screw Driver Set (Taparia-7Pieces set), Cutting plier(Taparia), Wire Stripper, Industrial grade USB to Serial cable with all accessories or Similar.[Detailed Specification in Technical Document]. Inspection: Consignee	18.00		435729.6
38 Scho	01 edule-B8 Nn-1 Non SC	Tool Kit consisting of Optical power meter(Fibershot9990V), Multimeter(Fluke 101), Ethernet Crimping Tool(Standard Make)Console cable(Cisco=RJ45-DB9), Wrist ripper(Standard Make), Universal Spanner Set (Taparia), Screw Driver Set (Taparia-7Pieces set), Cutting plier(Taparia), Wire Stripper, Industrial grade USB to Serial cable with all accessories or Similar. [Detailed Specification in Technical Document]. Inspection: Consignee Ion SOR Items, Sub-Work B, VSS- Labour and Training OR Items, Sub-Work B, VSS- Labour and Training	18.00 Qty	24207.20	435729.6 Amoun
Schollten#	01 edule-B8 Nn-1 Non SC Item No	Tool Kit consisting of Optical power meter(Fibershot9990V), Multimeter(Fluke 101), Ethernet Crimping Tool(Standard Make)Console cable(Cisco=RJ45-DB9), Wrist ripper(Standard Make), Universal Spanner Set (Taparia), Screw Driver Set (Taparia-7Pieces set), Cutting plier(Taparia), Wire Stripper, Industrial grade USB to Serial cable with all accessories or Similar. [Detailed Specification in Technical Document]. Inspection: Consignee Ion SOR Items, Sub-Work B, VSS- Labour and Training Description of Item Blowing/Drawing of OFC 24F/12F/6F Power Cable and CAT Cable (including crimping) through PVC Conduit already installed. [Detailed Specification in Technical Document]. Training of personnel over and above the on-site/OEM/OEM authorised training partner training, during the installation, maintenance and supervision period as detailed in the tender document. Defined in Man-Week i.e. One week training for one personnel or as desired by the Railway.	18.00 Qty	24207.20	435729.60 Amount 2146184.00
Scho Iten # 39	01 edule-B8 Nn-1 Non SC Item No 016	Tool Kit consisting of Optical power meter(Fibershot9990V), Multimeter(Fluke 101), Ethernet Crimping Tool(Standard Make)Console cable(Cisco=RJ45-DB9), Wrist ripper(Standard Make), Universal Spanner Set (Taparia), Screw Driver Set (Taparia-7Pieces set), Cutting plier(Taparia), Wire Stripper, Industrial grade USB to Serial cable with all accessories or Similar. [Detailed Specification in Technical Document]. Inspection: Consignee Ion SOR Items, Sub-Work B, VSS- Labour and Training Description of Item Blowing/Drawing of OFC 24F/12F/6F Power Cable and CAT Cable (including crimping) through PVC Conduit already installed. [Detailed Specification in Technical Document]. Training of personnel over and above the on-site/OEM/OEM authorised training partner training, during the installation, maintenance and supervision period as detailed in the tender document. Defined in Man-Week i.e. One week training for one	18.00 Qty 454700.00	24207.20 Rate 4.72	435729.6 Amount 2146184.0 1416000.0
38 Schollten # 39 40	01 edule-B8 N n-1 Non SC Item No 016 026	Tool Kit consisting of Optical power meter(Fibershot9990V), Multimeter(Fluke 101), Ethernet Crimping Tool(Standard Make)Console cable(Cisco=RJ45-DB9), Wrist ripper(Standard Make), Universal Spanner Set (Taparia), Screw Driver Set (Taparia-7Pieces set), Cutting plier(Taparia), Wire Stripper, Industrial grade USB to Serial cable with all accessories or Similar. [Detailed Specification in Technical Document]. Inspection: Consignee On SOR Items, Sub-Work B, VSS- Labour and Training Description of Item Blowing/Drawing of OFC 24F/12F/6F Power Cable and CAT Cable (including crimping) through PVC Conduit already installed. [Detailed Specification in Technical Document]. Training of personnel over and above the on-site/OEM/OEM authorised training partner training, during the installation, maintenance and supervision period as detailed in the tender document. Defined in Man-Week i.e. One week training for one personnel or as desired by the Railway. Supply of Computer Table (Model Stylo of Godrej Make or Similar of Featherlite make) & Chair (Godrej make Model Spyder PCH 5602 or Similar Model of Featherlite Make). [Detailed	Qty 454700.00	24207.20 Rate 4.72 23600.00	Amount 2146184.0
38 Schollten # 39 40 41 Schol	01 edule-B8 N n-1 Non SC Item No 016 026 09 edule-C2 N	Tool Kit consisting of Optical power meter(Fibershot9990V), Multimeter(Fluke 101), Ethernet Crimping Tool(Standard Make)Console cable(Cisco=RJ45-DB9), Wrist ripper(Standard Make), Universal Spanner Set (Taparia), Screw Driver Set (Taparia-7Pieces set), Cutting plier(Taparia), Wire Stripper, Industrial grade USB to Serial cable with all accessories or Similar. [Detailed Specification in Technical Document]. Inspection: Consignee Ion SOR Items, Sub-Work B, VSS- Labour and Training Description of Item Blowing/Drawing of OFC 24F/12F/6F Power Cable and CAT Cable (including crimping) through PVC Conduit already installed. [Detailed Specification in Technical Document]. Training of personnel over and above the on-site/OEM/OEM authorised training partner training, during the installation, maintenance and supervision period as detailed in the tender document. Defined in Man-Week i.e. One week training for one personnel or as desired by the Railway. Supply of Computer Table (Model Stylo of Godrej Make or Similar of Featherlite make) & Chair (Godrej make Model Spyder PCH 5602 or Similar Model of Featherlite Make). [Detailed Specification in Technical Document] Inspection: Consignee	Qty 454700.00	24207.20 Rate 4.72 23600.00	435729.60 Amount 2146184.00 1416000.00
38 Schollten # 39 40 41 Schol	01 edule-B8 N n-1 Non SC Item No 016 026 09 edule-C2 N	Tool Kit consisting of Optical power meter(Fibershot9990V), Multimeter(Fluke 101), Ethernet Crimping Tool(Standard Make)Console cable(Cisco=RJ45-DB9), Wrist ripper(Standard Make), Universal Spanner Set (Taparia), Screw Driver Set (Taparia-7Pieces set), Cutting plier(Taparia), Wire Stripper, Industrial grade USB to Serial cable with all accessories or Similar. [Detailed Specification in Technical Document]. Inspection: Consignee Ion SOR Items, Sub-Work B, VSS- Labour and Training Description of Item Blowing/Drawing of OFC 24F/12F/6F Power Cable and CAT Cable (including crimping) through PVC Conduit already installed. [Detailed Specification in Technical Document]. Training of personnel over and above the on-site/OEM/OEM authorised training partner training, during the installation, maintenance and supervision period as detailed in the tender document. Defined in Man-Week i.e. One week training for one personnel or as desired by the Railway. Supply of Computer Table (Model Stylo of Godrej Make or Similar of Featherlite make) & Chair (Godrej make Model Spyder PCH 5602 or Similar Model of Featherlite Make). [Detailed Specification in Technical Document] Inspection: Consignee ON SOR Item Sub-Work C, TCCS & SIP- IP Phones	Qty 454700.00	24207.20 Rate 4.72 23600.00	

	n-1 Non Su	R Items, Sub-Work C, TCCS&SIP - Servers, Consoles, and Li	censes		
#	Item No	Description of Item	Qty	Rate	Amoun
43	38	Supply and Installation of Mobile Application for Event Notification Gateway and NMS as per scope of work as Per RDSO/SPN/TC/99/2012 Rev.2.(Detailed Spec in Tender Document). Inspection RDSO	25.00	13700.98	342524.5
44	39	Supply of Call/Communication (SIP) Server dual DC power supply [Detailed Specification in Technical Document] Inspection RITES	2.00	512356.00	1024712.00
45	40	Gateway User Licenses (Analog users). Inspection RITES.	10.00	1932.84	19328.4
46	41	Supply of call/Communication (SIP) Server For HQ, UBL and MYS. Inspection RITES.	6.00	206500.00	1239000.0
47	42	Installation and Commissioning Charges as per Site requirement at Bengaluru and Bengaluru Cant(Upgrading the existing server/Integration with new one)	2.00	59000.00	118000.0
48	43	Upgrading of Existing Aeonix Server/Integration of new server with old server at Bengaluru with Additional SIP Licenses-80, Sip Trunk License-30 for DRM Intercom to cater for Bengaluru Cant CAO Office. IP Endpoint Licenses to Existing Server/ new server including Technical Support Charges. Inspection Consignee	80.00	5557.00	444560.0
Sch	edule-C4 N	ON SOR Items, Sub-Work C, TCCS & SIP- Gateways and Swi	tches		
Iten	n-1 NON SO	OR Items, Sub-Work C, TCCS&SIP- Gateways and Switches			
#	Item No	Description of Item	Qty	Rate	Amoun
49	01	Supply & installation of PC WorkStation/Maintenance Console 24-inch FHD Resolution LED for Viewing, Monitoring and System Management including all required Licenced Software, like, MS Client Software, OS MS-office, Anti-Virus 600 VA UPS etc at UBL HQ, UBL, SBC, MYS). Inspection Consignee.	4.00	69700.00	278800.0
50	02	Supply and Installation of Layer 3,24 Port Managed Switch with 24 Nos of 10/100/1000 Ethernet Ports SFP + Support with Redundant AC Power Supply, Dedicated Stacking Module 4 x 10 GE SFP+ Ports for uplink including 4 Nos of 10 GE SFP+ BX SM Modules, as per para number 4.0 of RDSO SPECIFICATION NO. RDSO/SPN/TC/83/2020 Rev 2 or Latest Mounting Kit with all necessary accessories. [Detailed Specification in Technical Document] Inspection: RDSO	5.00	109386.00	546930.0
51	03	Supply Installation & Commissioning of Standard 19-inch Rack Mountable 24 Port managed POE switch , 24 GE 10/100/1000 BaseX Ethernet port with POE+ support and 4x1GE SFP Port for uplink with 4 nos of 1GE SFP BX SM modules included as per Clause no 14.0(II) RDSO/SPN/TC/65/2021, Rev.6.0 or Latest. (Inspection Clause- RDSO)	47.00	31486.88	1479883.3
Sch	edule-C5 N	ON SOR Items, Sub-Work C, TCCS&SIP - FDMS,U Rack , Cabl	es , and Ac	cessories	
Iter	n-1 NON SO	DR Items, Sub-Work C, TCCS&SIP - FDMS,U Rack , Cables , a	nd Accesso	ries	
#	Item No	Description of Item	Qty	Rate	Amoun
52	22	Supply of STP CAT- 6 Cable compliant with latest EIA/TIA-568-C.2 Standard for CAT 6 Cable 305 Mtrs Roll /Bundle. [Detailed Specification in Technical Document] Inspection RITES	43895.00	33.20	1457314.0
53	23	Supply of PVC insulated armored 3 Core 2.5 Sqmm, 14 AWG,1.1 KV Grade Outdoor Strengthen Copper for UPS Power Supply Distributions per BIS/ISI Standards and all accessories required for installation. [Detailed Specification in Technical Document]Confirming to IS:1554 Part-1.Inspection: RITES	1900.00	88.50	168150.0
54	24	Blowing / Drawing of OFC 24F/12F/6F Power Cable and CAT Cable (including crimping) through PVC Conduit/Duct/DWC/GI Pipe already installed	24800.00	4.72	117056.0
Sch	edule-C6 N	ON SOR Items , Sub-Work C, TCCS&SIP - Power Supply			
Iter	n-1 NON SC	OR Items , Sub-Work C, TCCS&SIP - Power Supply			
#	Item No	Description of Item	Qty	Rate	Amoun
55	01	Supply, Installation and Commissioning of 2x10 KVA UPS at least 1 Hour Back up in full load condition, connected in parallel redundant mode. Complete with all accessories as per specification attached [Detailed Specification in Technical Document] Inspection RITES	3.00	424682.00	1274046.0
Sch	edule-C8 N	ON SOR Items, Sub-Work C, TCCS & SIP - Labour and Traini	ng		
	n-1 NON SC	OR Items, Sub-Work C, TCCS&SIP - Labour and Training			
Iten					
#	Item No	Description of Item	Qty	Rate	Amour
			Qty	Rate	Amoun

56	12	Supply of Desk /workstation furniture, 2 table & 4 Chairs [Detailed Specification in Technical Document] Inspection Consignee	6.00	14760.00	88560.00	
57	13	Blowing / drawing of OFC 24F/12F/6F Power Cable and CAT Cable (including crimping) through Duct, DWC, PVC Conduit/Casing Caping, Trough already installed.	36495.00	4.72	172256.40	

Items Deleted-

	m Breakup	
S.No	Code	Item Description
1	Schedule - 1 Item - 1	Supply of Standard 19" Rack Mountable LER(Label Edge Router) , IP- MPLS Router with Redundant -48V DC Power Supply, 2 x 10G SFP+ Ports along with 2 Nos of 40 Kms 10G SF P+ LC Modules, 4 x 1Gbe Optical interface Module along with 4 Nos of 1Gbe SM BX SFP(10KMs) Modules and 4 x 1Gbe Copper WAN based interfaces & Modules , with Minimum 1 or more Additional Slot to add any one of the following interfaces : 16 x E1, 32 x E1 , 2 x STM1 (Channelised). Non Blocking throughput Mounting kit with all necessary accessories & Software/Perpetual Licenses. As Per RDSO Document No. STT/TAN/IP-MPLS/2020.Inspection RDSO
2	Schedule - 1 Item - 2	Supply of Standard 19" Rack Mountable Modular Chassis LSR (Label Switch Router) IP-MPLS Router with Redundant -48V DC Power Supply, Redundant Controller Card, 8 x 10G SFP+ Ports along with 8 Nos of 40 Kms 10G SFP+ Modules, 32 E1 card with Adapter and modules along with patch panels, 4x1G Optical SFP Ports with BX SM Modules and 4 x 1Gbe Copper WAN based interfaces & Modules, 2x STM-1(Channelised) along with 2 Nos of SFP(S.1.1) Modules Compatible with Existing STM-1.Non Blocking throughput .Mounting Kit with all necessary accessories & Software/Perpetual Licenses. As Per RDSO Document No. STT/TAN/IP-MPLS/2020. Inspection RDSO
3	Schedule - 1 Item - 3	Installation, Commissioning & Testing of LER & LSR IP MPLS Routers including supply & Installation of all the accessories like Power cable, Earthing Cable,6 Nos for LER & 8 Nos for LSR Optical Patch Cords of 3 mtrs, 4 Nos Cat 6 Patch Cords of 1 mtrs, 6A MCBs, wiring etc required for Routers). Detailed Specification in Technical Document
4	Schedule - 1 Item - 4	Supply and installation and Commissioning of 16 port E1 Card along with Patch panel/Krone Module for above Routers with all accessories etc.Detailed Specification in Technical Document. Inspection RDSO.
5	Schedule - 1 Item - 5	$2 \times 10 \text{G}$ Adapter Module with 2 Nos. of 10G SFP+ Modules for above Routers. Inspection RDSO
6	Schedule - 1 Item - 6	8 x1G Adapter Module without SFP for above Routers. Inspection RDSO.
7	Schedule - 1 Item - 7	2x STM 1 Adapter Module with 2 Nos. of STM-1, 15 km, SFP modules for above Routers. Inspection RDSO.
8	Schedule - 1 Item - 8	10G SFP+ Module with 40 Km range for above Routers. Inspection RDSO
9	Schedule - 1 Item - 9	1G SFP Module with 10 Km range for above Routers.Inspection RDSO
10	Schedule - 1 Item - 10	Supply of STM-1 SFP Module with 15 Km range with all accessories for above Routers. Inspection RDSO.
11	Schedule - 1 Item - 11	Supply of 10/100/1000 Base-T Copper Ethernet Transceiver SFP Module with all accessories. Inspection RDSO
12	Schedule - 1 Item - 1	Supply, installation, Testing and Commissioning of Network Management System(NMS) inclusive of Software and Perpetual Licenses for Minimum 4500 Network Elements includingL3 switches, L2 Switches, UPS, Gateways and other Network Elements with SNMP Support.[Detailed Specification in Technical Document] Inspection RITES
13	Schedule - 1 Item - 2	Supply and Installation of Server Based Network Management System inclusive of Hardware and Software for Network Elements including Switches , Servers, etc. of Multiple makesat Data Centre(DC & DR). Inspection RDSO. This item shall be operated along with item No.16above. Detailed Specification in Technical Document enclosed.
14	Schedule - 1 Item - 3	Supply & installation of PC Workstation/Maintenance Console and it shall comply withPara no. G of RDSO Document No. STT/TAN/IP-MPLS/2020 Ver 1.0 or latest. [DetailedSpecification in Technical Document]. Inspection RDSO
15	Schedule - 1 Item - 4	Supply and Installation 55-inch full UHD Monitor 4K . [Detailed Specification inTechnical Document]. Inspection:Consignee
16	Schedule - 1 Item - 1	Supply and Installation of Standard 19-inch Rack Mountable Layer 3, 24 PortManaged Switch with 24 Nos of 10/100/1000 Ethernet Ports POE + Support with Redundant AC Power Supply, Dedicated Stacking Module 4 x 1 GE SFP Ports form uplink including 4 Nos of 1 GE BX SM SFP Modules loaded, as Per specification given. Mounting Kit with all necessary accessories. Inspection RDSO
17	Schedule - 1 Item - 3	Splicing /Dropping/Termination of each Fiber /Pigtail in the LIU/FDMS/IOBox/Termination Joints through fusion Splicing of the termination of OFC Cables. [DetailedSpecification in Technical Document]

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18	Schedule - 1 Item - 6	Opening of existing Joint enclosure and Splicing 2/4 additional fiber Inside already prepared jointing pit and Providing anti termites/ant Powder. Closing of Existing Joint and Back filling is included. This does not Include provision of joint chambers, top plates.
19	Schedule - 1 Item - 9	Blowing & Drawing of OFC 24F/12F/6F Power Cable, Switch Board Cable and CATCable (including crimping) through PVC Conduit/Duct/DWC/GI Pipe already installed
20	Schedule - 1 Item - 10	Training of personnel over and above the on-site/OEM premises training, during the installation, maintenance and supervision period as detailed in the tender document. Defined in Man-Week i.e. One week training for one personnel or as desired by the Railway.
21	Schedule - 1 Item - 1	Supply, installation, Testing, Integration and Commissioning of Command & Control CenterSoftware, Perpetual Licenses & Hardware and all accessories required for their Installations and Integration. It includes Video Management/GUI Software and Video Analytics/FRS licences of cameras required for integration) as per RDSO Spec No RDSO/SPN/TC/65/2021, Rev 6.0 or latest. Detailed Specification in Technical Document. Inspection RDSO
22	Schedule - 1 Item - 2	Supply Installation, Testing and Commissioning of Software (License per camera basis means Video Management Viewing at multiple locations and by same license for VMS and Video Recording such as at Station, RPF Post, DC Server room and Security control)Detailed Specification in Technical Document. Inspection RDSO
23	Schedule - 1 Item - 3	Supply, Installation, Testing and Commissioning of VMS Server with all theaccessories required for the installation for VSS project, one 17 inch Monitor with Keyboard, Mouse, KVM Switch, as per Clause No. 10.1.1.3 of RDSO Spec No RDSO/SPN/TC/65/2021, Rev 6.0 or latest. Inspection RDSO
24	Schedule - 1 Item - 4	Supply, Installation, Testing & Commissioning of Video Recording Server cum Video Analytic Hardware and all accessories required for installation purpose as per Clause No. 10.1.1.3Spec No RDSO/SPN/TC/65/2021, Rev 6.0 or latest. Inspection RDSO
25	Schedule - 1 Item - 5	Supply Installation, Testing and Commissioning of Server Hardware for Face Recognition Complete with all accessories as per Clause No. 10.1.1.3 Spec No RDSO/SPN/TC/65/2021, Rev 6.0 or latest. Inspection RDSO
26	Schedule - 1 Item - 6	Supply, Installation ,Testing and Commissioning of Video Analytic Server software complete with all accessories(License per camera means Video analytic at multiple locations such as Station, RPF Post& Security control by same license)as per Spec No RDSO/SPN/TC/65/2021Rev.6 or latest. Inspection RDSO.
27	Schedule - 1 Item - 13	Supply Installation Testing and Commissioning of Next Generation Firewall (NGFW)in 1+1 High Availability (HA) along with Management software Hardware Perpetual licence and all accessories required their installation in the Data Center. it includes Network Security appliance4x10G SFP Ports and 4x1G SFP Ports loaded Rack Mountable UTM Firewall with features like Next Generation Firewall, Intrusion Prevention System ,Gateway Anti-Spam Prevention ,Bandwidth Management ,Traffic Discovery, Application Visibility and Control Hardware etc should have 1Console port ,2 USB Management Port for Explorer. The product should have licensed for 3 years for above features including warranty for UTM Hardware and all accessories required for their installation in the Data Centre.[Detailed Specification in Technical Document]. Inspection RITES.
28	Schedule - 1 Item - 16	Supply Installation of Full HD Large Format Display Monitor (55 inch)as per RDSO Spec No RDSO/SPN/TC/65/2021, Rev 6.0 or latest with HDMI and DVI Ports complete with all accessories [Detailed Specification in Technical Document] Inspection by RDSO
29	Schedule - 1 Item - 5	Supply of Single Mode 10G SFP+ Fiber for above Switches. Inspection: RDSO
30	Schedule - 1 Item - 7	Spares @ 8% for Supply of Switches. a) FIELD SWITCH 8 PORT. Inspection: RDSO
31	Schedule - 1 Item - 8	Spares @ 8% for Supply of Switches. b) FIELD SWITCH 24 PORT. Inspection: RDSO
32	Schedule - 1 Item - 6	Supply and Installation of 19 inch 42U 600mm Depth Telecom Rack with Standard Accessories (Closed type)Front Door Glass type, all doors should be removable type[Detailed Specification in Technical Document]Inspection RITES
33	Schedule - 1 Item - 9	Supply and Installation of Server and Network Smart Rack (Server Rack-3 Nos) withaccessories and 2 Nos PDU along with Zero U Cooling Unit (2 Nos) with Piping and Low Sideworks, CMC Monitoring system, cooling unit accessories, related electrical work and Rack based Fire detection, Extinguishing System, Rodent repellent system and other accessories as per specification enclosed.[Detailed Specification in Technical Document] Inspection: RITES
34	Schedule - 1 Item - 10	Supply of STP CAT- 6 Cable compliant with latest EIA/TIA-568-B-2-1 Standard for CAT 6 Cable 305 Mtrs Roll /Bundle.[Detailed Specification in Technical Document]Inspection :RITES
35	Schedule - 1 Item - 12	Supply of PVC insulated armored 3 Core 4 Sqmm,12 AWG,1.1 KV Grade OutdoorStrengthen Copper for UPS Power Supply Distributions per BIS/ISI Standards and all accessories required for installation.[Detailed Specification in Technical Document]Confirming to IS:1554 Part-1.Inspection: RITES
36	Schedule - 1 Item - 1	Supply, Installation and Commissioning of 2x10 KVA UPS at least 2 Hour Back up infull

		load condition ,connected in parallel redundant mode in separate chassis. Complete with allaccessories as per specification attached for VSS/Data Centre/Exchange at various Railwaystations of Indian Railways .This also includes supply of two set MF battery of suitable AH capacity,rack, one set compatible MCBs complete with cover & fixing materials, one earth leakage circuit breaker arrangement .[Detailed Specification in Technical Document] Inspection: RITES
37	Schedule - 1 Item - 4	Tool Kit consisting of Optical power meter(Fibershot9990V),Multimeter(Fluke101),Ethernet Crimping Tool(Standard Make)Console cable(Cisco=RJ45-DB9),Wristripper(Standard Make),Universal Spanner Set (Taparia),Screw Driver Set(Taparia-7Piecesset),Cutting plier(Taparia), Wire Stripper, Industrial grade USB to Serial cable with all accessories or Similar.[Detailed Specification in Technical Document]. Inspection: Consignee
38	Schedule - 1 Item - 9	Supply and installation of Desk Cubical work station furniture along-with Chairs and all the accessories.[Detailed Specification in Technical Document] Inspection: Consignee
39	Schedule - 1 Item - 16	Blowing & Drawing of OFC 24F/12F/6F Power Cable and CAT Cable (including crimping) through PVC Conduit already installed.[Detailed Specification in Technical Document].
40	Schedule - 1 Item - 26	Training of personnel over and above the on-site/OEM training, during the installation, maintenance and supervision period as detailed in the tender document. Defined in Man-Week i.e. One week training for one personnel or as desired by the Railway
41	Schedule - 1 Item - 2	Supply and installation of SIP Based Basic IP Phone 132 X 64 Pixel Graphical LCD as per Specification. Inspection RITES
42	Schedule - 1 Item - 19	Supply and Installation of Mobile Application along with 06 Nos of Tablets for Event Notification Gateway and NMS as per scope of work with Apps loaded, as Per RDSO/SPN/TC/99/2012 Rev.2.(Detailed Spec in Tender Document). Inspection RDSO
43	Schedule - 1 Item - 27	Supply of Call/Communication Server dual AC and DC power supply[Detailed Specification in Technical Document]Inspection RITES
44	Schedule - 1 Item - 31	Supply of Perpetual license for STAND BY server of above MAIN server. Inspection: RITES
45	Schedule - 1 Item - 33	Upgrading of Existing Bengaluru Aeonix Server with Additional SIP Licenses- 80,DRM Intercom to cater for Bengaluru Cant CAO Office. IP Endpoint Licenses to Existing Server including Technical Support Charges. Inspection Consignee
46	Schedule - 1 Item - 35	of call/Communication (SIP) Server For HQ, UBL and MYS. Inspection RITES
47	Schedule - 1 Item - 37	Installation and Commissioning Charges as per Site requirement at Bengaluru and Bengaluru Cant(Upgrading the existing server)
48	Schedule - 1 Item - 3	Supply Installation & Commissioning of Standard 19-inch Rack Mountable 24 Portmanaged POE switch , 24 GE 10/100/1000 BaseX Ethernet port with POE+ support and 4x1GESFP Port for uplink with 4 nos of 1GE SFP BX SM modules loaded, including mounting kit and all the accessories as per RDSO SPECIFICATION NO. RDSO/SPN/TC/83/2020 Rev 2 or Latest.(Inspection Clause- RDSO)
49	Schedule - 1 Item - 11	Supply, installations and commissioning of NMS(Network Monitoring Server) and Emergency Room Communication Console detail specification enclosed. Model Reputed make Inspection RITES
50	Schedule - 1 Item - 13	Supply and Installation of Layer 3,24 Port Managed Switch with 24 Nos of10/100/1000 Ethernet Ports SFP + Support with Redundant AC Power Supply, Dedicated Stacking Module 4 x 1 GE SFP Ports for uplink including 4 Nos of 1 GE SFP BX SM Modules loaded, as per Specification given. Mounting Kit with all necessary accessories. Inspection RDSO
51	Schedule - 1 Item - 10	Supply of STP CAT- 6 Cable compliant with latest EIA/TIA-568-B-2-1 Standard forCAT 6 Cable 305 Mtrs Roll /Bundle. [Detailed Specification in Technical Document] InspectionRITES
52	Schedule - 1 Item - 14	Blowing & drawing of OFC 24F/12F/6F , Power Cable, Switch Board Cable and CATCable (including crimping) through PVC Conduit/Duct/DWC/GI Pipe already installed
53	Schedule - 1 Item - 18	Supply of PVC insulated armored 3 Core 4 Sqmm,12 AWG,1.1 KV Grade OutdoorStrengthen Copper for UPS Power Supply Distributions per BIS/ISI Standards and all accessories required for installation. Confirming to IS:1554 Part-1. Inspection Consignee.
54	Schedule - 1 Item - 2	Supply, Installation and Commissioning of 2x10 KVA UPS at least 1 Hour Back up in full load condition, connected in parallel redundant mode in separate chassis. Complete with all accessories as per specification attached [Detailed Specification in Technical Document] Inspection RITES
55	Schedule - 1 Item - 6	Supply of Desk work station furniture, 2 table & 4 Chairs [Detailed Specification inTechnical Document] Inspection Consignee
56	Schedule - 1 Item - 8	Blowing & drawing of OFC 24F/12F/6F Power Cable, Switch Board Cable and CAT Cable (including crimping) through Duct, DWC, PVC Conduit/Casing Caping, Trough already installed.

Tender Documents

S.No	File Name	Document Description
1	DetailedTechnicalSpec.pdf	Detailed Technical Specifications
2	SpecialConditions.docx_1.pdf	Special Conditions of Contract

Close