	Electronics Corporation of Tamil Nadu Limited
Rate Contract Tender	**Supply, Installation and Commissioning of High End Servers** Tender Ref. ELCOT/Proc/OT/33135/High End Servers and Related items /RC/2018-19 Tender Document
	Corrigendum No.3 to the Tender Document

CORRIGENDUM TO THE TENDER DOCUMENT

The following Corrigendum to the Tender Document is hereby issued:-

S.N	Title of the clause	Existing	To be read as
1	Specifications: Parameter-PCI Slots-Item Code-33135-003, 006, 007, 008 & 020 - Page no.20, 25,26,28 & 45.	Minimum 3 PCI-Express slots for 1 CPU	Minimum 3 PCI-Express slots
2	Specifications: Parameter-PCI Slots-Item Code-33135-004 & 005- Page no.21 & 23.	Minimum 2 PCI-Express slots for 1 CPU	Minimum 2 PCI-Express slots
3	Specifications: Parameter-PCI Slots-Item Code-33135-010 - Page no.32.	Minimum 4 PCI-Express slots for 1 CPU	Minimum 4 PCI-Express slots
4	Specifications: Parameter-Memory - Item Code-33135-004 & 006- Page no.21 & 24.	1 x 16 GB DDR4 RDIMM scalable up to 1.5 TB with 2 Processors. Proposed memory should have ECC support	1 x 16 GB DDR4 RDIMM scalable up to 768GB with 2 Processors. Proposed memory should have ECC support
5	Specifications: Parameter-Memory- Item Code-33135-003, 005 & 007- Page no.19, 23 & 26.	2 x 16 GB DDR4 RDIMM scalable up to 1.5 TB with 2 Processors. Proposed memory should have ECC support	2 x 16 GB DDR4 RDIMM scalable up to 768GB with 2 Processors. Proposed memory should have ECC support
6	Specifications: Parameter-Memory- Item Code-33135-010 - Page no.31.	2 x 32 GB DDR4 RDIMM memory scalable up to 3 TB with 4 Processors. Proposed memory should have ECC support	4 x 16 GB DDR4 RDIMM memory scalable up to 3 TB with 4 Processors. Proposed memory should have ECC support

7	Specifications: Parameter-Hard Disk- Item Code-33135-004 - Page no.21.	1x1TB 6G SATA 7.2K LFF or higher, Hot Plug expandable upto 6 nos or Higher	1x1TB 6G SATA 7.2K SFF or higher, Hot Plug expandable upto 6 nos or Higher
8	Specifications: Parameter-Power Supply - Item Code-33135-010 & 020- Page no.32 & 45.	Hot-pluggable 2 + 2 redundancy	Hot-pluggable 1 + 1 redundancy
9	Specifications: Parameter-System Fans - Item Code-33135-012- Page no.35.	Redundant & Hot Plug Fans	Removed
10	Specifications: Parameter-CD/DVD Drive - Item Code-33135-012- Page no.35.	DVD R/W	INT/EXT
11	Specifications: Parameter-Raid Controller - Item Code-33135-012- Page no.34.	12G SAS H/W Raid controller, which supports RAID: 0/1/5/10 with 2GB Flash Backed Cache	12G SAS H/W Raid controller, which supports RAID: 0/1/5/10
12	Specifications: Item Code-33135-016- Blade Chassis with Unified Interconnect - 6U Blade Chassis with Unified Interconnect - Page no.39.		Non Mandatory
13	Specifications: Parameter – Form Factor - Item Code-33135-017- Page no.41.	Min 2 U / 3 U Rack mounted Chassis supplied with 1 compute node and Scalable up to Minimum 4 nodes or higher Per chassis	Min 2 U / 3 U Rack mounted Chassis Scalable up to Minimum 4 nodes or higher Per chassis
14	Specifications: Item Code-33135-018- Hyper Converged Server - Page no.41.		New Specification given in Annexure I

15	Specifications: Parameter - Graphics- Item Code-33135-019- Page no.43	On-board graphics using ASPEED AST 2500	Graphics - Embedded CPU -800MHz ARM11, SDRAM Memory - 800Mbps DDR3/ 1600Mbps DDR4 SDRAM Up to 1G Byte ECC option, Flash Memory -SPI flash memory, Video-over-IP - Video Redirection up to 1920x1200 YUV444 / YUV420 Video Compression 24 bits video compression quality, USB-over-IP - USB 2.0 virtual hub controller with 5 devices supported -USB 1.1 HID device controller, VGA - PCIe VGA/2D Controller 1920x1200 @60Hz 32bpp Dual 10/100/1000M bps MAC, LAN - 456-pin 19mmx19mm TFBGA package.
16	Specifications: Parameter – Memory - Item Code-33135-019- Page no.43	128 GB DDR4-2666 MHz, ECC RDIMM (Max.3TB, 48 DIMMs)	8 * 16GB DDR4-2666 MHz, ECC RDIMM (Max.3TB, 48 DIMMs)
17	All Servers	This server should not become End Of Life for another two years and End Of Support for another seven years from the date of LOA	This server should not become End Of Life for another two years and End Of Support for another seven years from the date of LOA. In case end of support is announced, Equivalent or improved configuration should be provided without any additional cost
18	New Item- Cloud management platform server		New Item added- Item code 33135-021- Specifications given in Cloud Management platform Server- Annexure II

19	Page No: 39, Section No: 5- Specifications, Code No: 016 - Item Description	016- Server System – Blade Chassis with Unified Interconnect	016A – 10U Blade Chassis with Unified Interconnect 016B - 6U Blade Chassis with Unified Interconnect
20	Page No: 74, Section No: 10- Payment Clause, Clause No: 10.1	100% of the total cost of ordered items will be paid by ELCOT on behalf of the Purchaser, after receipt of funds from the Purchaser, on installation, commissioning and handing over of the ordered items to the Purchaser, after testing all the software and fulfilling the technical specifications on submission of an irrevocable Bank Guarantee for 5% of the cost of the ordered value valid for 85 months during the warranty	100% of the total cost of ordered items will be paid by ELCOT on behalf of the Purchaser, after receipt of funds from the Purchaser, on installation, commissioning and handing over of the ordered items to the Purchaser, after testing all the software and fulfilling the technical specifications on submission of an irrevocable Bank Guarantee for 5% of the cost of the ordered value valid for 40 months during the warranty period. In case of CAMC, BG for 5% of the total CAMC cost for 4th, 5th, 6th & 7th years, (as the case may be) shall have to be submitted by the successful bidder which would be valid for 50 months during the CAMC Period.
21	Page No: 74, Section No: 10- Payment Clause, Clause No: 10.1	95% of the total cost of ordered items will be paid by ELCOT on behalf of the Purchaser, after receipt of funds from the Purchaser, on installation, commissioning and handing over of the ordered items to the Purchaser, after testing all the software and fulfilling the technical specifications and the	95% of the total cost of ordered items will be paid by ELCOT on behalf of the Purchaser, after receipt of funds from the Purchaser, on installation, commissioning and handing over of the ordered items to the Purchaser, after testing all the software and fulfilling the technical specifications and the

		balance 5% will be released to the supplier after completion of 7 years	balance 5% will be released to the supplier after completion of 3 years of warranty period. In case of CAMC, BG for 5% of the total CAMC for 4th, 5th, 6th & 7th years, (as the case may be) shall have to be submitted by the successful bidder which would be valid for 4 years during the CAMC Period.
22	Page No: 15, Section No: 4- Eligibility Criteria, Clause No: 4.1- Eligibility– Eligibility Conditions-S.No:6	The Bidder shall have executed Single order for supply, installation and commissioning of High End Servers for a value of at least Rs. 50 Lakhs and above for any Government Departments / Organisations / Public Sector Undertakings in Tamil Nadu in the last 3 years.	The Bidder shall have executed Single order for supply, installation and commissioning of High End Servers for a value of at least Rs. 50 Lakhs and above for any Government Departments / Organisations / Public Sector Undertakings in India in the last 3 years.
23	Page No: 15, Section No: 4- Eligibility Criteria, Clause No: 4.1- Eligibility– Eligibility Conditions-S.No:7	The bidders should have atleast one service centre in each region (North, East, South and West as given in the Tender Document) with a total of minimum 10 service centres in the State. The Regional Service centres in each of the four region should be run by OEM or the OEM authorized bidder only. The other services centre may be run by Manufacturer or Franchise or authorised distributors/dealers.	The bidders should have atleast two service centres in any of the 4 regions (North, East, South and West as given in the Tender Document). The Regional Service centres should be run by OEM or the OEM authorized bidder only.
24	Page No: 67- Clause No: 9.5.4- Microsoft Windows based Benchmarking -Point No: C –	The system shall be loaded with Windows XP including service pack 3, VGA Drivers and the Software	The system shall be loaded with suitable OS, comply with the SPEC int benchmark standard and necessary service

	Important Note	loading to be done with single partition (HDD) only. No other Software shall be installed during the Benchmark test in the case of sysmark and the Video mode to be set at 800 x 600 @ 32 bits/pixel (Service pack version to be mentioned by the Bidder)	pack, VGA Drivers and the Software loading to be done with single partition (HDD) only. No other Software shall be installed during the Benchmark test.
25	Page No: 64-Section No: 9-Scope of Work, Clause No: 9.1-Sample Submission - Point No: b)	The bidders have to submit the samples within 7 days from the date of submission of Bids unless any specific time given by ELCOT in writing.	Submission of sample is excluded. However, if ELCOT demands for sample, that should be submitted as per the time specified by the ELCOT.
26	Page No: 54-Clause No: 7.5.3-Price Bid Evaluation - Point No: c)	The bidders should quote for all the items from S.No. 1 to 17. Partial quote is not allowed for this category.	The bidders should quote for all the items from S.No. 2 to 17. Partial quote is not allowed for this category.
27	Page No: 54-Clause No: 7.5.3-Price Bid Evaluation - Point No: c)	Partial quote is permitted for the line items from S.No. 18 to 191. Further SI.No.18,19 and 20 and their relevant items among SI.No.21-191, will be considered as separate categories.	Partial quote is permitted for the line items S.No.1 & S.No. 18 to 191. Further S.No.1,18,19 and 20 and their relevant items among SI.No.21-191, will be considered as separate categories.
28	Page No: 138-158: Price bid Annexure II		Existing addon items placed in Annexure III are to be removed. New Add on items for Cloud management platform server and New Add on items & Inlieu items for all other servers placed in Annexure IV are to be added.

Note: (The above corrigendum is applicable to all other clauses which contains the respective terms in the tender document.)

Annexure I
Item code -33135-018 HYPER-CONVERGED SERVER

S.No	PARAMETER	2U Rack Server
1	Processor	2 x Intel Xeon Silver 4108/4114 Processor (8 or 10 core) or above
2	Memory	6 x 16 GB DDR4 RDIMM up gradable up to 384 GB. Proposed memory should have ECC support
3	Chipset	Intel C62X Chipset
4	Hyper-Convergence Software Features	Integrated Compute, Distributed Storage , Inbuilt Hypervisor Virtual Network, Data Protection - Native Backup & DR Capabilities Monitoring & Reporting Centralized Management One click Cluster Expansion
5	High Availability for Failover	HCI SW should tolerate for Single disk/Node/NIC failures.
6	Hypervisor	Support for Vmware ESXi / Microsoft Hyper-V/ CITRIX XEN / Nutanix AHV. (Ability to change hypervisor in future at additional cost as applicable)
7	Redundancy Factor	RF2 using SW defned approach or RAID or RAIN
8	Boot Device	2*M.2 Boot BOSS (240 GB or higher)
9	Raid Controller	RAID controller with support for RAID 0/1/5/6/10.
10	Hard Disk Drive (Each Node)	1* 960 GB SSD or higher , 2* 2 TB/4TB/6 TB NL SAS 7.2K RPM or higher
11	Storage Features	Auto Tiering, Data locality, Deduplication Compression licenses to be included
12	Hybrid Storage	Hybrid Storage on SSD & SATA
13	Form Factor /Cabinet Type	2U 4 Nodes or 2U2N or 1U1N or 2U1N
14	Network Interface	10Gbps dual port PCI-E adapter.
15	Power Supply	Redundant Power Supply with ACTIVE /ACTIVE

16	Manageability	Web based management console to manage Compute, Virtualization /VM, Storage, Network, Backup & DR
17	OS Support	Latest Microsoft Windows Server , Red Hat Enterprise Linux & SUSE Linux Enterprise Server
18	Industry Standard Compliance	CSAus, FCC, CSA, ICES, CE, KCC, RCM, VCCI-A, BSMI, EAC, SABS, INMETRO, S-MARK, UKRSEPRO, BIS
19	Security	Should Support RBAC, AD integration , Two-Factor Authentication, Cluster Shield
20	Warranty	3 Years OEM on-site and further 4 Years AMC
21	End Of Life & End Of Support	This server should not become End Of Life for another two years and End Of Support for another seven years from the date of LOA.

Annexure II
Item code -33135-021 - Cloud management platform server

S.No	Parameter	Tender specification
1	Processor	1 x E3-1225 v5 3.30 GHz Processor or above
2	Memory	16 GB DDR4 scalable to 32GB or better
3	Chipset	Intel Chipset or Equivalent
4	Hard Disk Drive	Min 64GB SSD or MSATA or better
5	Form Factor / Cabinet Type	1U Rack Mountable
6	System Fans	Built-in FANs, minimum 3 FANs or better
7	CD/DVD Drive	N/A
8	Interfaces/PCI Slots	Minimum 2 PCI slots
9	Network Interface	5 gigabit Ethernet ports, Expandable up to 40 gigabit SFP+ or better
10	Ports	1No network management port, 2Nos USB 2.0 ports
11	Power Supply	250W AC power or Better
12	Manageability	The Server Management Software should be of the same brand as of the server supplier.
13	OS Support	Latest Microsoft Windows Server or OEM Embedded Linux Server to support Cloud management platform.
14	Pre-Failure Notification	Failure – Failure notification on HDD, Processor & Memory
15	Security	Power-on password / Keyboard password / Administrator's password,Hardware-based system security feature that can securely store information, such as passwords and encryption keys, which can be used to authenticate the platform.
16	Warranty	3 Years OEM on-site and further 4 Years AMC
17	End Of Life & End Of Support	This server should not become End Of Life for another two years and End Of Support for another seven years from the date of LOA. In case end of support is announced, Equivalent or improved configuration should be provided without any additional cost

Annexure III

S.No	Code No.	ADD ON Items (Existing)	To Read As
1	41	Intel Xeon Silver 4110 (8 core) for Blade Server	Removed
2	42	Intel Xeon Silvere 4114 (10 core) for Blade Server	
3	43	Intel Xeon Silvere 4116 (12 core) for Blade Server	
4	45	Intel Xeon Gold 5120 (14 core) for Blade Server	
5	46	Intel Xeon Gold 6130 (16 core) for Blade Server	
6	47	Intel Xeon Gold 6140 (18 core) for Blade Server	
7	50	16 GB DDR4 ECC RDIMM Memory for Blade Server	
8	52	32 GB DDR4 ECC RDIMM Memory for Blade Server	
9	53	64 GB DDR4 ECC RDIMM Memory	
10	54	128 GB DDR4 ECC RDIMM Memory	
11	71	600GB SAS 12G 15K LFF	
12	77	128GB SATA 6G Mixed Use LFF (SSD)	
13	78	240GB SATA 6G Mixed Use LFF (SSD)	
14	79	480GB SATA 6G Mixed Use LFF (SSD)	
15	80	1TB SATA 6G Mixed Use LFF (SSD)	
16	81	2TB SATA 6G Mixed Use LFF (SSD)	
17	82	4TB SATA 6G Mixed Use LFF (SSD)	
18	83	800GB SAS 12G Mixed Use LFF (SSD)	
19	84	480GB SATA 6G Mixed Use LFF (SSD)	
20	86	300GB 10K RPM 12G SAS 2.5" LFF for blade server	
21	87	600GB 10K RPM 12G SAS 2.5" LFF for blade server	
22	88	900GB 10K RPM 12G SAS 2.5" LFF for blade server	
23	89	1.2TBB 10K RPM 12G SAS 2.5" LFF for blade server	
24	90	1.8 TB 10K RPM 12G SAS 2.5" LFF for blade server	
25	134	4GB Graphics card	
26	135	8GB graphics card	
27	147	Minimum 4Gb GDDR5 GPU memory card with memory bandwidth of minimum of 80 GBPS	

Annexure IV
Add On - Cloud management platform server

S.No	Parameter	Tender specification
1	High availability	Support 1+1 quick backup Support N+1 backup Support N+N backup dual OS backup AC cluster management
2	Manageability	Manage Minimum 10000 Access points, Support up to 1 Million Built-in Local Authentication points, Maximum Concurrent User Number up to 50000 Should support Built-in Portal authentication server with 1 Lakhs user account support
3	Built-in Authentication Server	Portal service, Plain TXT, security certificate exchange, QR Code, and WEB Authentication Support authentication mechanism of two-way digital certificate
4	Built-in Routing protocols	Static Routing RIPv1/v2, OSPF, BGP, VRRP, IGMP v1/v2/v3 ARP, ARP Proxy PIM-SM, PIM-DM, PIM-SSM
5	Network Management	Network Management Software should be added to support Real-name Audit of all devices manageable by cloud platform server

Add on – for all other server

S.No.	Add On	To Read As
1	Intel Omni-Path Host Fabric Adapter 100 Series 1 Port PClex16	Added
2	Omni Path Cable, Passive Copper 2 Mtr	
3	Omni Path Cable, Passive Copper 5 Mtr	
4	600GB 12G 15K SFF SAS HDD inlieu of 1TB 6G SATA HDD	
5	900GB 12G 15K SFF SAS HDD inlieu OF 600GB SAS HDD	
6	1.2TB 12G 10K SFF SAS HDD inlieu OF 600GB SAS HDD	
7	2.4TB 12G 10K SFF SAS HDD inlieu OF 600GB SAS HDD	

8	NVIDIA Quadro P6000 GPU Module	
9	NVIDIA Quadro P4000 Graphics Accelerator	
10	NVIDIA Quadro P2000 Graphics Accelerator	
11	NVIDIA Tesla V100 PCIe 16GB Module	
12	NVIDIA Tesla P100 16GB PCIe	
13	AMD Radeon Instinct MI25 Graphics Accelerator	
14	AMD Radeon Pro WX7100 Graphics Accelerator	
15	300GB SAS 12G 15K LFF	
16	64 GB DDR4 ECC LRDIMM Memory	
17	128 GB DDR4 ECC LRDIMM Memory	
18	1.8 TB SAS 12G 10K SFF	
19	1.92TB SATA 6G Mixed Use LFF (SSD)	
20	480GB SATA 6G Read Intensive LFF (SSD)	
21	300 GB SAS 12G 10k SFF	
22	16 GB DDR4 ECC LRDIMM Memory	
23	32 GB DDR4 ECC LRDIMM Memory	
24	8 GB DDR4 ECC LRDIMM Memory	
25	Cloud Server Software	

S.No.	In Lieu	To Read As
1	8 GB Ram LRDIMM in lieu of 8 GB RDIMM	
2	16GB RAM LRDIMM in lieu of 16 GB RDIMM	
3	32 GB Ram LRDIMM in lieu of 32 GB RDIMM	Added
4	64 GB Ram LRDIMM in lieu of 64 GB RDIMM	
5	128 GB Ram LRDIMM in lieu of 128 GB RDIMM	