

CORRIGENDUM NUMBER 1 / Dated 30-April-2015

The mentioned Request for Proposal (RFP) document should be read in conjunction with the following changes.

Sl. No.	Page No	Section No	Clause No	Actual Clause in RFP	Corrigendum
1.	12	4	4.4	E-Submission The Tenders can also be submitted online as per Section 2 of this RFP. In case of online submission, Bidders are required to ensure that the EMD in original, reach the Procuring Entity at the address mentioned in Section 2 of this RFP, before the last date and time of bid submission.	Page 12, Section E-Submission, the following is added to the section: " In case of e-submission, the following original documents should reach TCMPF (Aavin) before the closing date and time of the tender: - EMD - PQ Form 6 - PQ Form 7 - PQ Form 10 - Technical Proposal Bid Letter - Tech Form 7 - All Manufacturers Authorization Forms"
2.	11	4	4.1	The Bidder should sign and affix seal of the entity in each page of the three volumes of this RFP and submit along with the Pre-Qualification Bid.	Digital Signature under e-Tendering system will hold good in this case. Page 11, Section 4.1, the following statement "The Bidder should sign and affix seal of the entity in each page of the three volumes of this RFP and submit along with the Pre-Qualification Bid." is modified to: "The Bidder should sign and affix seal of the entity in each page of the three volumes of this RFP and submit along with the Pre-Qualification Bid. In case of e-filing of the tender, a copy of the RFP should be uploaded and that shall be considered digitally signed and accepted by the Bidder".
3.	22	4	4.19.4.D	Average to be used for the maximum of 3 projects for evaluation. For each project the marks would be based on the following : If the average of Project Value [Total Project Value of 3 Projects Divided by 3] is: • More than INR 5 Crores = 10 marks • More than INR 4 Crores to INR 8	Page 22, Section 4.19.4, Point D "Average to be used for the maximum of 3 projects for evaluation. For each project the marks would be based on the following : If the average of Project Value [Total Project Value of 3 Projects Divided by 3] is: • More than INR 5 Crores = 10 marks • More than INR 4 Crores to INR 8 Crores = 4 marks • More than INR 6 Crores to INR 4Crores = 3 marks • More than INR 4 Crores to INR 3Crores = 2 marks • More than INR 2 Crore to INR 2 Crores = 1 mark

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				<p>Crores = 4 marks</p> <ul style="list-style-type: none"> • More than INR 6 Crores to INR 4Crores = 3 marks • More than INR 4 Crores to INR 3Crores = 2 marks • More than INR 2 Crore to INR 2 Crores = 1 mark • Else 0 	<p>• Else 0”</p> <p>Is modified to:</p> <p>“Average to be used for the maximum of 3 projects for evaluation. For each project the marks would be based on the following :</p> <p>If the average of Project Value [Total Project Value of 3 Projects Divided by 3] is:</p> <ul style="list-style-type: none"> • More than INR 5 Crores = 10 marks • More than INR 4 Crores to INR 5 Crores = 8 marks • More than INR 3 Crores to INR 4Crores = 6 marks • More than INR 2 Crores to INR 3 Crores = 4 marks • More than INR 1 Crore to INR 2 Crores = 2 mark • Else 0 “
4.	24	4	4.19.4.1.F	If the average of Project Value [Total Project Value of 3 Projects Divided by 2] is	<p>Page 24, Serial No. F., Column Criteria, the following statement:</p> <p>If the average of Project Value [Total Project Value of 3 Projects Divided by 2] is:"</p> <p>is modified to:</p> <p>"If the average of Project Value [Total Project Value of 2 Projects Divided by 2] is:"</p>
5.	162	13	13.4.3	If the average of Project Value [Total Project Value of 3 Projects Divided by 2] is:	<p>Page 162, Serial No. F, Column Criteria, the following statement:</p> <p>If the average of Project Value [Total Project Value of 3 Projects Divided by 2] is:"</p> <p>is modified to:</p> <p>"If the average of Project Value [Total Project Value of 2 Projects Divided by 2] is:"</p>
6.	40	5	5.2	This would help in elevating the service delivery standards and internal process level efficiency of the Department and to proliferate the benefits of IT enabled Governance to all the four federation units located in different geographies and also to its various interfacing Department's operations.	<p>The word four is inadvertent. Page 40, Section 5.2, the statement</p> <p>"This would help in elevating the service delivery standards and internal process level efficiency of the Department and to proliferate the benefits of IT enabled Governance to all the four federation units located in different geographies and also to its various interfacing Department's operations."</p> <p>is modified to:</p>

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					"This would help in elevating the service delivery standards and internal process level efficiency of the Department and to proliferate the benefits of IT enabled Governance to all the federation units located in different geographies and also to its various interfacing Department's operations."
7.	49	7	7.1.	Designing & Development of IDMS Application software: The SI should develop any additional modules required by the department arising due to any change in the existing Act and rules without any additional cost	Page 47, Section 7.1, the following bullet point: "The SI should develop any additional modules required by the department arising due to any change in the existing Act and rules without any additional cost." Is modified to: "The SI should develop additional modules required by the department arising due to any change in the existing Act and rules. SI is required to develop application in such a manner so as to minimize any "hard-codes" in such a way that most of the changes are configurable by parameters within the system by the end users."
8.	238	13	13.7		Bidders are encouraged to have virtualization platform with the minimum BoM and Technical specifications. If the Bidder chooses to Virtualize the solution, the Specifications for the Virtualization Software are required to be adhered to. The costs may be quoted in the Financial Proposal. Section 13.7.26 is added to the RFP: " 13.7.26 Virtualization Software / Solution: 1 Virtualization software shall allow heterogeneous support for guest Operating systems like Windows client, Windows Server, Linux (at least Red Hat, SUSE, Ubuntu and CentOS), Solaris x86. 2 Virtualization software should have the provision to provide zero downtime, zero data loss and continuous availability for the applications running in virtual machines in the event of physical host failure, without the cost and complexity of traditional hardware or software clustering solutions. 3 Virtualization software should have the ability to manage virtual switches at a cluster level by creating a distributed switch that can span an entire cluster and is virtual mobility.

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					4 Virtualization software should provide quality-of-service capabilities for storage I/O so as to ensure that the most important virtual machines get adequate I/O resources even in times of congestion 5 Virtualization software should have the ability to live migrate Virtual files from one storage array to another without any downtime."
9.	261	14	14.3.2	Point 8.9 Data Card 150 No's	Provision of data cards stands removed in the RFP. Page 261, Point 8.9 stands deleted
10.	63	7	7.7	At Least 5 TB of Primary Memory spread across the solution spanning the SDC infrastructure.	Page No. 63, Statement "At Least 5 TB of Primary Memory spread across the solution spanning the SDC in frastructure." is modified to "At Least 1.5 TB of Primary Memory spread across the solution spanning the SDC infrastructure."
11.	63	7	7.7	SAN Storage for approx. 40 TB	Page No. 63, Statement "SAN Storage for approx. 40 TB" is modified to: "SAN Storage for approx. 10 TB"
12.	187	13	13.6.1	Point 2.5, "SAN Storage – 40 TB with hardware and enclosures"	Page No. 187, Statement "SAN Storage – 40 TB with hardware and enclosures" is modified to "SAN Storage – 10 TB with hardware and enclosures"
13.	63	7	7,7	Latest E7 or equivalent Chips	Page 63 Section 7.7 "As required – Latest E7 or equivalent Chips and server architecture to be used as per the compliance matrix." is modified to: "As required – Latest E5 or equivalent Chips and server architecture to be used as per the compliance matrix."

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					The following minimum number of servers are required: Database Servers: At Least 2 in DC and 1 in DR Application / Web / Management / Staging / Patch / Mail / Directory / Load Balancer / Mail, etc.: At least 10 in DC and 8 in DR"
14.	203	13	13.7.10	"Four Nos. of 8 Core Intel Xeon E7- or above Processor"	Page 203 Section 13.7.10 "Four Nos. of 8 Core Intel Xeon E7- or above Processor" is modified to: "Four Nos. of 8 Core Intel Xeon E5- or above Processor"
15.	205	13	13.7.11	"Intel Xeon E7-88XX CPU with 12 Cores or better"	Page 205, Section 13.7.11 "Intel Xeon E7-88XX CPU with 12 Cores or better." is modified to: "Four Nos. of 8 Core Intel Xeon E5- or above Processor"
16.	63	7	7.7	The Client also wishes to have a passive backup site to be setup. This site shall have live replication of the database server hosted at DC.	Page 63, the statement "The Client also wishes to have a passive backup site to be setup." is replaced with "The Client also wishes to have an active Disaster Recovery site to be setup at TCMPPF (Aavin) Head Office at Madhavaram."
17.	65	7	7.7	"· Peak hours: Zero RPO and RTO <= 15 minutes · Non-Peak Hours: Zero RPO and RTO <= 60 minutes"	Page 66, Section 7.7, the following clause: "· Peak hours: Zero RPO and RTO <= 15 minutes · Non-Peak Hours: Zero RPO and RTO <= 60 minutes" is replaced with: "· Peak hours: Near Zero RPO and RTO <= 15 minutes · Non-Peak Hours: Near Zero RPO and RTO <= 60 minutes"
18.	76	7	7.18.	"Application should be Web-enabled, i.e., all functions can be accessed over internet	Page 77, the following statement

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				as well as should be a console based where each client can connect to centralized infrastructure in an offline and online mode using intranet."	"Application should be Web-enabled, i.e., all functions can be accessed over internet as well as should be a console based where each client can connect to centralized infrastructure in an offline and online mode using intranet." is modified to "Application should be Web-enabled, i.e., all functions can be accessed over internet / intranet where each client can connect to centralized infrastructure in an online mode. As an exception, It is envisaged that in case of application for Primary Milk Supply Society, a standalone application shall be developed that should have the capability to periodically update the data to the centralized infrastructure."
19.	90	8	8.2	AMC for IT hardware for all the locations shall be provided by the SI after the expiry OLB	Page 90 the word "OLB" is modified to the word "of"
20.	100	10		Indicative Resource Requirement - Field Level Service Personnel, Taluk Level: Diploma in Computer Science, ECE, IT/BCA/MCA with 1 year experience"	Page 100, Point 20 Statement "Taluk Level: Diploma in Computer Science, ECE, IT/BCA/MCA with 1 year experience" stands deleted. Bidders may secure appropriate manpower to meet the requirements of the RFP.
21.	102	11	11.2.5	Resolution of Critical calls pertaining to application unavailability For Every 1 Hour or part delay there of "1% Quarterly payment due"	Page 102, Section 11.2, Point 5, the phrase: "5% of Quarterly Payment Due" is modified to: "2% of Quarterly Payment Due"
22.	104	12	12.1.b	"Confidential Information" means any information disclosed to or by any Party to this Contract and includes any information in relation to the Parties, a third party or any information with regard to any registrant, or any other person who is covered within the ambit of any legislation related to TCMPF (AA VIN), including any such information that may	The following is added to Section 12.1 subsection b: "iv. But does not include information which is in receiving party's possession prior to receipt from the disclosing party. v. But does not include information which is independently developed or learned by the receiving party. vi. But does not include information which is disclosed by the receiving with the prior written approval of the disclosing party."

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				come to the knowledge of the Parties hereto / Bidder's Team by virtue of this Contract that:	
23.	109	12	12.10	"Training will be provided by the selected bidder to the officials /staff/ users according to the need basis. All the training materials (Soft copy & Hard copy) will be provided by the SI."	The following line in clause 12.10 "Training will be provided by the selected bidder to the officials /staff/ users according to the need basis. All the training materials (Soft copy & Hard copy) will be provided by the SI." is modified to: "Training will be provided by the selected bidder to the officials /staff/ users according to the need basis. All the training materials (Soft copy & Two Hard copies) will be provided by the SI. The soft copy shall also be stored in the web portal created under this assignment for easy reference."
24.	121	12	12.37	"Payments for the Phase-I and II will be released after the stage-wise completion certificate and final commissioning certificate"	Page 121, Section 12.37, the following statement: "Payments for the Phase-I & II will be released after the stage-wise completion certificate & final commissioning certificate" is modified to: "Payments for the Phase-I & II will be released after the stage-wise completion of each milestone of each Phase as described in the scope of work and Implementation Schedule as per the following schedule:"
25.	121	12	12.37	Payment Schedule D1 -User Hardware Procurement - 2.5% D2 -Submission of SRS - 5% D4- Acceptance Testing (PAT, UAT) - 5% D5 - Server Hosting - 5% D7 - Security Auditing - 5% D6 - Pilot Implementation - 10% D8- Training - 5% D9 - Roll out -12.5%	Page No. 121, Section 12.37, the following modifications are made: "D5, Server Hosting, Value 5 stands modified to 7.5%" "D9, Rollout, Value 12.5% stands modified to 15%" "D11, Exit Management, Value 10 stands modified to 5%"

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				D10 - O & M - 40% (8 quarterly payments at 5% each qtr.) D11_ Exit Management - 10%	
26.	161	13	13.4.3.D	<ul style="list-style-type: none"> • More than INR 5 Crores = 10 marks • More than INR 4 Crores to INR 8 Crores = 4 marks • More than INR 6 Crores to INR 4Crores = 3 marks • More than INR 4 Crores to INR 3Crores = 2 marks • More than INR 2 Crore to INR 2 Crores = 1 mark • Else 0 	<p>Page No. 161, Section 13, Point 13.4.3.D</p> <p>“• More than INR 5 Crores = 10 marks • More than INR 4 Crores to INR 8 Crores = 4 marks • More than INR 6 Crores to INR 4Crores = 3 marks • More than INR 4 Crores to INR 3Crores = 2 marks • More than INR 2 Crore to INR 2 Crores = 1 mark • Else 0”</p> <p>Is modified to:</p> <p>“• More than INR 5 Crores = 10 marks • More than INR 4 Crores to INR 5 Crores = 8 marks • More than INR 3 Crores to INR 4Crores = 6 marks • More than INR 2 Crores to INR 3 Crores = 4 marks • More than INR 1 Crore to INR 2 Crores = 2 mark • Else 0”</p>
27.	190	13.7.1	11	Desktop AIO PC	<p>Page 190m Section 13.7.1, Point 11</p> <p>"VGA (1), USB (6)"</p> <p>is modified to:</p> <p>"VGA (1), HDMI / DVI (1)"</p>
28.	190	13.7.1	13.1.7.8	Optical Drive 16X Max DVD+/ RW	<p>Page 190, Section 13.7.1, Point 8</p> <p>"Optical Drive 16X Max DVD+/ RW"</p> <p>is modified to:</p> <p>"Optical Drive 8X DVD+/- RW or better"</p>
29.	190	13.7.1	13.7.1.12	Ports - 6 USB Ports including 2 USB 3.0 Ports, audio ports for microphone and	Page 190, Clause 13, Point 13.7.1.12

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				headphone in front.	<p>“Ports - 6 USB Ports including 2 USB 3.0 Ports, audio ports for microphone and headphone in front.”</p> <p>Is modified to:</p> <p>"Ports - 4 USB Ports including 2 USB 3.0 Ports, audio ports for microphone and headphone in front / side."</p>
30.	190	13.7.1	13.7.1.7	<p>Hard Disk Drive & Controller</p> <p>HDD 1 TB 7200 RPM 3.5" SATA Hard Drive or better</p>	<p>Page 190, Clause 13, Point 13.7.1.17</p> <p>“Hard Disk Drive -HDD 1 TB 7200 RPM 3.5" SATA Hard Drive or better”</p> <p>Is modified to:</p> <p>"Hard Disk Drive -HDD 1 TB 7200 RPM 3.5" (or less) SATA Hard Drive or better"</p>
31.	194	13	13.7.3	<p>Laser Printers Point 9, Others</p> <p>“The printer and all its accessories (including Tonor, Drum, etc.) should be available through ELCOT Rate Contract”</p>	<p>The following clause stands deleted from the RFP:</p> <p>Page 194, Point 9 which says "The printer and all its accessories (including Tonor, Drum, etc.) should be available through ELCOT Rate Contract"</p>
32.	195	13	13.7.4	<p>Multi-Functional Laser Printer Point 26, Others</p> <p>“The printer and all its accessories (including Tonor, Drum, etc.) should be available through ELCOT Rate Contract"</p>	<p>The following clause stands deleted from the RFP:</p> <p>Page 195, Point 26 which says "The printer and all its accessories (including Tonor, Drum, etc.) should be available through ELCOT Rate Contract"</p>
33.	197	13	13.7.5	<p>Multi-Functional Colour Laser Printer Point 26, Others</p> <p>"The printer and all its accessories (including Tonor, Drum, etc.) should be available through ELCOT Rate Contract"</p>	<p>The following clause stands deleted from the RFP:</p> <p>Page 197, Point 26 which says "The printer and all its accessories (including Tonor, Drum, etc.) should be available through ELCOT Rate Contract"</p>
34.	245	14	14.1	<p>Point 9</p> <p>"Any equipment, especially the printers quoted should be of make and model so that their consumables (tonors, etc.) are</p>	<p>The following clause stands deleted from the RFP:</p> <p>Page 245, Section 14, Point 9 Commercial Bid which says "Any equipment, especially the printers quoted should be of make and model so that their consumables</p>

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				available in ELCOT rate contract."	(tonors, etc.) are available in ELCOT rate contract."
35.	251	14	14.3.1	"All equipment quoted here should be such that their replacement and spare parts are available as part of ELCOT rate contract."	The following clause stands deleted from the RFP: Page 251, statement "All equipment quoted here should be such that their replacement and spare parts are available as part of ELCOT rate contract."
36.	263	14	14,3,2	All equipment quoted here should be such that their replacement and spare parts are available as part of ELCOT rate contract."	The following clause stands deleted from the RFP: Page 263, statement "All equipment quoted here should be such that their replacement and spare parts are available as part of ELCOT rate contract."
37.	205	13	13.7.11.6	"Support for at least 8 Processors on the Motherboard"	Page 205, Section 13.7.11, Point 6 "Support for at least 8 Processors on the Motherboard" is modified to: "Support for at least 4 Processors on the Motherboard"
38.	215	13	13.7.17.	SAN Storage Point 3 – Capacity & Scalability "1. The Storage Array shall be offered with: A) 21TB usable capacity under RAID 5 using 300GB 10K RPM HDD or Higher. 2. Storage shall be scalable to minimum of 400 TB using 900GB drives or Higher"	Page 215, point 3, the following statements "1. The Storage Array shall be offered with: A) 21TB usable capacity under RAID 5 using 300GB 10K RPM HDD or Higher. 2. Storage shall be scalable to minimum of 400 TB using 900GB drives or Higher" are modified to: "1. The Storage Array shall be offered with 10 TB usable capacity under RAID 5 using 900GB 10K RPM HDD or Higher. 2. Storage shall be scalable to minimum of 40 TB using 900GB drives or Higher."
39.	213	13.7.10	13.7.10.12	"PCIe 3.0 based SAS Raid Controller with RAID 0/1/1+0/5/5+0 with 1 GB battery backed write cache with support for caching in SSD Drives"	Page No. 203, Section 13.7.10, Point 12, "PCIe 3.0 based SAS Raid Controller with RAID 0/1/1+0/5/5+0 with 1 GB battery backed write cache with support for caching in SSD Drives" is modified to: "PCIe 3.0 based SAS Raid Controller with RAID 1/1+0/5/5+0 with 1 GB battery

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					backed write cache with support for caching in SSD Drives"
40.	205	13	13.7.11.12	"PCIe 3.0 based SAS Raid Controller with RAID 0/1/1+0/5/5+0 with 1 GB battery backed write cache with support for caching in SSD Drives"	Page No. 205, Section 13.7.11, Point 12, "PCIe 3.0 based SAS Raid Controller with RAID 0/1/1+0/5/5+0 with 1 GB battery backed write cache with support for caching in SSD Drives" is modified to: "PCIe 3.0 based SAS Raid Controller with RAID 1/1+0/5/5+0 with 1 GB battery backed write cache with support for caching in SSD Drives"
41.	215	13	13.7.17.8	"1. Offered Storage Subsystem shall support Raid 0, 1, 1+0, 5"	Page 215, Section 13.7.17, Point 8, "1. Offered Storage Subsystem shall support Raid 0, 1, 1+0, 5" is modified to: "1. Offered Storage Subsystem shall at least support Raid 1,1+0, 5"
42.	219	13.7	13.7.18.25	"Should have MIB browsing, MIB loading, and MIB expression collection features."	The following clause stands deleted: Volume II, Page No. 219, Section 13.7.18, clause 25 "Should have MIB browsing, MIB loading, and MIB expression collection features."
43.	230	13.7.20	13.7.20.1	"Offered Virtual tape Library shall be of modular design to allow configuration, addition of capacity. Tape library shall be configured with minimum 50 number of data cartridges, 1 bar code label pack, cleaning cartridge etc."	Page 230, Section 13.7.20, Point 1, The following clause stands deleted: "Tape library shall be configured with minimum 50 number of data cartridges, 1 bar code label pack, cleaning cartridge etc."
44.	238	13			The following is added to Section 13 of the RFP: 13.7.27: Edge Routers 13.7.28: 48 Port Switch 13.7.29: 24 Port Switch

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					13.7.30: 12 Port Switch 13.7.31: Router cum Firewall Detailed specifications are provided in this corrigendum document.
45.	201	13	13.7.9	"UPS – 5 KVA / 3 KVA / 600 VA online UPS"	Page 201, Section 13.7.9 statement "UPS – 5 KVA / 3 KVA / 600 VA online UPS" is modified to "UPS – 5 KVA Online / 3 KVA Online / 600 VA UPS"
46.	261	8	8.9	Data Card 150 Nos	Provision of data cards stands removed in the RFP. Page 261, Point 8.9 stands deleted "Data Card 150 Nos"

13.7.27 Edge Router

Sl. No.	Description of Minimum Requirements
1	General features:
2	Router should have a modular architecture
3	Router should have minimal performance degradation when running
4	Advanced services such as stateful fire wall, NAT, and IPSec.
5	Router should have Firewall, IPS from Day 1 for providing secure connectivity to each site
6	Hardware and interface requirements
7	Router should have minimum two free slots for WAN connectivity and future scalability.
8	Router should have at least 16 x 10/100/1000 LAN ports. 4 Mini-PIM slots
9	Firewall should support modular LAN and WAN connectivity options including T1/E1, serial V.35, ADSL2+ physical interface modules.
10	Performance requirements
11	The device should have a minimum Routing and Firewall performance of 200Kpps
12	The device should have a minimum IPSec forwarding performance of 300Mbps
13	The device should have a minimum IPS performance of 230 Mbps
14	The device should support minimum 1000 VPN tunnels
15	Quality of Service (QoS) requirements
16	Routers should support Class-based queuing with prioritization
17	It should be possible to configure maximum bandwidth and guaranteed bandwidth
18	Routers should support Queuing based on VLAN, DLCI, interface, bundles, or filters
19	Routers should support Marking, policing, and shaping
20	Routers should support congestion management features like WRED
21	Routing protocol support
22	The Router should support IPv4 and IPv6 routing
23	The Router should support VRRP
24	The Router should support Static Routes
25	The Router should support RIPv1 & RIPv2
26	The Router should have OSPFv2 and IS-IS routing features
27	The Router should support BGP & BGPv4+
28	The Router should support Policy Based Routing
29	The Router should support Routing over IPSec Tunnels
30	The Router should support ECMP
31	Routers should support IPv6 Routing features
32	OSPFv3
33	Multicast Features

Sl. No.	Description of Minimum Requirements
34	Multicast Listener Discovery (MLD)
35	IPv4 Multicast features
36	IGMP v1/v2/v3
37	PIM-SM
38	Source Specific Multicast (SSM)
39	Multicast over GRE Tunnels
40	MPLS Features
41	Routers should support Layer 2 VPN
42	Routers should support Layer 3 VPN
43	Routers should support LDP
44	Routers should support RSVP
45	Security features
46	Routers should support AAA using RADIUS or TACACS
47	Routers should support Packet Filters
48	Routers should have Stateful Firewalling
49	Routers should support Network attack detection

13.7.28 48 Port Switch

1	General requirements
2	Switch should be stackable
3	Switch should have a modular architecture
4	Switch should have non-blocking wire speed performance
5	Hardware and interface requirements
6	Switch should have 48 GbE on board ports
7	Switch should have support for 4 * 40 GE optical interface
8	Switch should have Option to upgrade for 4 * 10 GE optical interface (SX)
9	Switch Should have 2 GB of DRAM and 2 GB of Flash Memory
10	Performance requirements
11	The Switch should have a minimum performance of 333 Mpps for line rate performance
12	The Switch should have a minimum packet forwarding capacity of 448 Gbps for line rate performance
13	stacking support up to 10 Switch with Stacking Bandwidth of minimum 320 Gbps
14	Switch should support clustering across devices placed in multiple floors
15	Layer 2 Switching
16	Maximum MAC addresses per system – 64,000
17	Jumbo frames – 9,216 bytes
18	Number of VLANs – 4,093
19	Port-based VLAN
20	VLAN tagging – 802.1Q
21	Physical port redundancy
22	STP (802.1D-2004)
23	Compatible with PVST+
24	Rapid-Spanning Tree (802.1D-2004)
25	MST (802.1D-2004)
26	Number of 802.1s instances supported
27	LLDP
28	LLDP-MED with VoIP integration
29	Routed VLAN Interface (RVI)
30	Quality of Service (QoS) requirements
31	Switch should support Class-based queuing with prioritization

32	Switch should support Queuing based on VLAN, interface, bundles, or filters
33	Switch should support Hardware Queues
34	Switch should support Marking, policing, and shaping
35	Layer 3 Features
36	Ipv4
37	Max number of IPv4 unicast routes in hardware: 32,000
38	Max number of IPv4 multicast routes in hardware: 8,000
39	Bidirectional Forwarding Detection
40	Ipv6
41	Max number of Neighbour Discovery (ND) entries: 32,000
42	Max number of IPv6 unicast routes in hardware: 15,000
43	Max number of IPv6 multicast routes in hardware: 8,000
44	Routing protocol support
45	Switch should support:
46	IP version 4
47	Switch should support following IPv4 Routing features
48	Static Routes
49	RIP
50	OSPF
51	BGP
52	ECMP
53	IPv4 Multicast features
54	IGMP v1/v2/v3
55	PIM-SM, DM
56	Source Specific Multicast (SSM)
57	IP version 6
58	Switch should support following IPv6 Routing features
59	Static Routes
60	RIPng
61	OSPF
62	IPv6 Multicast features
63	MLD
64	PIM-SM, DM
65	System Management and Administration

66	Switch should support Software upgrades
67	Switch should support SNMPv2 and SNMPv3
68	Security features
69	Switch should support AAA using RADIUS or TACACS
70	Switch should have multiple levels of access or role based access mechanisms.
71	MAC limiting
72	Allowed MAC addresses – configurable per port
73	Dynamic ARP Inspection (DAI)
74	DHCP snooping
75	IP Source Guard
76	Access Control Lists (ACLs)
77	Ability to add/remove/change ACL entries in middle of list (ACL editing)
78	Layer 2-Layer 4 ACL
79	802.1X port-based
80	802.1X multiple supplicants
81	802.1X with VLAN assignment
82	802.1X with authentication bypass access (based on host MAC address)
83	802.1X with VoIP VLAN support
84	MAC authentication (Radius)
85	Control plane DoS protection
86	Built-in troubleshooting
87	Extensive debugs on all protocols
88	High Availability
89	Graceful protocol restart for OSPF
90	Graceful Routing Engine switchover (GRES) for Chassis / Virtual Chassis configurations
91	GRES for ARP entries
92	Link aggregation control protocol (LACP)
93	Link aggregation groups (LAGs)
94	Virtual Router Redundancy Protocol (VRRP)
95	Certifications
96	Canadian Common Criteria Scheme (CCCS)
97	UL-UL60950-1 (First Edition)
98	C-UL to CAN/CSA 22.2 No. 60950-1 (First Edition)

13.7.29 24 Port Switch

1	Minimum 24 ports of 10/100/1000 base-T and 4 SFP uplink ports
2	1 U Rack mountable
3	56 Gbps or higher Backplane capacity and minimum 41 Mpps of forwarding rate
4	Should have Non-blocking wired rate architecture
5	All interfaces should provide wirespeed forwarding for both Fibre and copper modules
6	Support for at least 1000 VLANs & 12k MAC address
7	It should support IGMP snooping v1 & v2
8	It should support static IP routing and RIP
9	Should be upgradable to OSPF and PIM in future
10	Switch should support 8 hardware queues per port
11	Dynamic Host Configuration Protocol (DHCP) snooping
12	Switch should support LLDP and LLDP-MED capabilities
13	Should support IP source guard &DAI
14	Should support Secure Shell (SSH) Protocol and Simple Network Management Protocol Version 3 (SNMPv3) to provide network security by encrypting administrator traffic during Telnet and SNMP sessions
15	Switch needs to have console port for administration & management
16	Management using CLI, GUI using Web interface should be supported
17	FTP/TFTP for upgrading the operating System
18	IEEE 802.1x support
19	IEEE 802.1D Spanning-Tree Protocol
20	IEEE 802.1p class-of-service (CoS) prioritization
21	IEEE 802.1Q VLAN
22	IEEE 802.3 10BASE-T specification, IEEE 802.3u 100BASE-TX specification
23	Device should be CCC certified
24	The device should be minimum EAL 3 Certified
25	The Switch should also support **Should support rate limiting *Should support Strict priority queuing *should support port based ACL

13.7.30 12 Port Switch

1	Architecture
2	Switch should be rack mountable.
3	Performance
4	Switch should have non-blocking wire speed performance of min 28 Gbps and min 20 Mpps
5	MAC addresses support: 16000
6	VLAN support : 1024
7	Interface Requirements
8	12-port Switch: support min Total 12 nos. of 10/100/1000BaseT interfaces
9	And 2 dual-purpose (10/100/1000BASE-T or SFP) uplink ports
10	Layer-2 Requirements
11	Switch should support 802.1q VLAN tagging with 1000 Vlan's ,STP (802.1D), Rapid -Spanning Tree (802.1w), MST (802.1s), 16000 MAC address support
12	Should provide following Layer-3 Requirements
13	Switch should have Static, RIPv1, RIPv2 protocols and should support PBR, OSPF Routing protocols in IPv4 and should have support IPv6
14	Switch should have support for IGMP v1,v2,v3 , IGMP snooping , PIM-SM, PIM-SSM
15	Should provide Security Requirements as -
16	MAC limiting ,Dynamic ARP inspection (DAI), DHCP snooping, Port-based ACL
17	VLAN-based ACL , 802.1X, Delay & Jitter measurement for SLA monitoring
18	Should provide QOS with minimum 8 hardware Queues per port
19	Management Requirements
20	Switch should able to support management via CLI, Web interface
21	Switch should have dedicated out of band management port
22	SNMP v1,v2,v3
23	Switch support the role based access control to limit access to switch operations. The switch should support configuration verification and rollback
24	Switch should be EAL3 certified

Router cum Fire wall with IPS Features

Sl. No.	Minimum Technical Specifications
1	General features:
2	Router should have a modular architecture
3	Router should have minimal performance degradation when running
4	Advanced services such as stateful firewall, NAT, and IPSec.
5	Router should have Firewall, IPS from Day 1 for providing secure connectivity to each site
6	Hardware and interface requirements
7	Router should have minimum eight free slots for WAN connectivity and future scalability.
8	Router should have at least 4 x 10/100/1000 WAN ports.
9	Router should support modular LAN and WAN connectivity options including T1/E1, serial V.35, ADSL2+ physical interface modules.
10	Performance requirements
11	The device should have a minimum Routing performance of 1000 Kpps
12	Firewall Performance of 7 Gbps
13	The device should have a minimum IPSec forwarding performance of 1.5Gbps
14	The device should have a minimum IPS performance of 1 Gbps
15	The device should support minimum 3000 VPN tunnels
16	Quality of Service (QoS) requirements
17	Routers should support Class-based queuing with prioritization
18	It should be possible to configure maximum bandwidth and guaranteed bandwidth
19	Routers should support Queuing based on VLAN, DLCI, interface, bundles, or filters
20	Routers should support Marking, policing, and shaping
21	Routers should support congestion management features like WRED
22	Routing protocol support
23	The Router should support IPv4 and IPv6 routing
24	The Router should support VRRP
25	The Router should support Static Routes
26	The Router should support RIPv1 & RIPv2
27	The Router should have OSPFv2 and IS-IS routing features
28	The Router should support BGP & BGPv4+
29	The Router should support Policy Based Routing
30	The Router should support Routing over IPSec Tunnels

31	The Router should support ECMP
32	Routers should support IPv6 Routing features
33	OSPFv3
34	Multicast Features
35	Multicast Listener Discovery (MLD)
36	IPv4 Multicast features
37	IGMP v1/v2/v3
38	PIM-SM
39	Source Specific Multicast (SSM)
40	Multicast over GRE Tunnels
41	MPLS Features
42	Routers should support Layer 2 VPN
43	Routers should support Layer 3 VPN
44	Routers should support LDP
45	Routers should support RSVP
46	Security features
47	Routers should support AAA using RADIUS or TACACS
48	Routers should support Packet Filters
49	Routers should have Stateful Firewalling
50	Routers should support Network attack detection
51	Routers should support DoS and DDoS protections
52	Routers should support Tunnels (GRE, IP-in-IP, IPsec)
53	Routers should have DES (56-bit), 3DES (168-bit), AES (256-bit) encryption support
54	Routers should support MD5 and SHA-1 authentication
55	Routers should have role based access mechanisms.
56	Routers should support Network address translation (NAT).
57	Management and Troubleshooting
58	Router should have Console, Telnet and Web for management
59	Routers should support Software upgrades through Web
60	Routers should support SNMPv2 and SNMPv3
61	Real-time traffic-interface/sub interface statistics.
62	Real-Time Performance Monitor—service-level agreement verification probes/alerts
63	Certifications
64	Router should be EAL 3+ or higher certified.

65	Router should be FIPS 140-2 certified.
66	Safety certifications UL 60950-1
67	EMC certifications FCC Class B

List of Locations - Federation

S. No.	Name of the Location	No. of Locations	Area	Address
1	Head Office	1	Madhavaram	Aavin Illam, Madhavaram Milk Colony, Chennai - 600 051
2	Madhavaram Milk Dairy	1		Madhavaram Milk Colony, Chennai - 600 051
3	Transport Unit	1		Madhavaram Milk Colony, Chennai - 600 051
4	JMD Office	1	Ambattur	29 & 30 Industrial Estate, Ambattur, Chennai - 600 098
5	Ambattur Milk Dairy	1		29 & 30 Industrial Estate, Ambattur, Chennai - 600 098
6	Ambattur Product Dairy	1		29 & 30 Industrial Estate, Ambattur, Chennai - 600 098
7	Sholinganallur Milk Dairy	1	Sholinganallur	OMR, Sholinganallur, Chennai - 600 119
8	Tiruvannamalai Dairy cum Powder Plant	1	Tiruvannamalai	Ammapalayam village, Eraiyur Post, Chengam Taluk, Tiruvannamalai District - 606 704
9	Marketing Unit	1	Nandanam	Nandanam, Chennai - 600 035
10	Zonal Offices - North Region	5	Perambur	88 & 89, Perambur High Road, Venkatraman Street, Chennai - 600 011
11			Washermanpet	243, Thiruvottiyur High Road, Tondiarpet, Chennai - 600 081
12			Veperiy	131, Kalathiappa Street, Choolai, Chennai - 600 012
13			North Madras (Parrys)	117, Prakasam Salai, Broadway, Chennai - 600 001
14			Ashok Nagar	1st Floor, TNHB Complex, Ashok Nagar, Chennai - 600 083
15	Zonal Offices - Central Region	5	Anna Nagar	Plot No. C/45-A, II Avenue, Anna Nagar Tower Parlour, Upstairs, Anna Nagar, Chennai - 600 040
16			Aynavaram	359, Konnur High Road, Ayanavaram, Chennai - 600 023
17			Anna Salai	151, Agarchand Mansion, Anna Salai, Chennai - 600 002
18			T. Nagar	No. 1, Turn Bulls Road, Nandanam, Chennai - 600 035
19			Triplicane	Shop No.21, Lloyds Colony, Triplicane, Chennai - 600 014
20	Zonal Offices - South Region	6	Adyar	89/A, First Main Road, Gandhi Nagar, Adyar, Chennai - 600 020
21			Velachery	27, Dhandeeswaram Main Road, Velachery, Chennai - 600 042
22			Mylapore	77 CP Ramasamy Road, Corporation of Chennai, Commercial Building, Alwarpet, Chennai - 600 018
23			Palavakkam	3/400, East Coast Road, Palavakkam, Chennai - 600 041
24			Pallavaram	6 Chavadi Street, Near Rly. Station, Pallavaram, Chennai - 600 043
25			Tambaram	4, Agasthiyar Street, Tambaram (W), Chennai - 600 059
26	Parlours	30	Adyar	Adyar Muthulakshmi park
27			Tiruvallur	Tiruvallur Railway Station
28			Eg more	Govt. Museum, Eg more
29			Ashok Nagar	TNHB Complex, Ashok Nagar
30			Eg more	Eg more Railway. Station.

S. No.	Name of the Location	No. of Locations	Area	Address
31			Triplicane	Triplicane ,Near Parthasarathy koil
32			Eg more	Police Commissioners Office, Eg more
33			Nungambakkam	D.P.I. Campus, Chennai-600006
34			Chetpet	Maharishi Vidya Mandir, Chetpet
35			Central	Central Railway Station.
36			Central	Central Railway Station (Metro)
37			St. Thomas Mount	St. Thomas mount Railway Station
38			Cathedral Road	Semmozhi Park, Cathetral Road
39			Chepauk	Ezhilagam Campus, Chennai-600005.
40			Madhavaram	Aavin Illam, Madhavaram
41			Sholinganallur	Sholinganallur Dairy Gate
42			Ambattur	Ambattur Dairy Gate
43			Anna Nagar	Aavin Goodness Tower, Anna Nagar
44			Guindy	Anna University (Dir & Tech), Guindy
45			Teynampet	Kamadhenu S. market, Teynampet
46			Koyambedu	CMBT- Koyambedu Bus stand
47			Greaves Road	Commercial Tax, Greaves Road
48			Selayur	Zion School, Selayur
49			Manapakkam	Manappakkam
50			Mylapore	D.G.P. Office, Mylapore
51			Vandaloor	Vandaloor zoo, Vandaoor
52			Mogappair	Padikuppam, Mogappair
53			Koyambedu	S.A.F. Village, Koyambedu
54			Guindy	Rajbhavan, Guindy
55			Tambaram	Tambaram Railway Station
56	Buffalo Semen Station	1	Erode	
57	Nucleus Jersey Farm	1	Ooty	
58	Mylapore Zone	1	Mandaveli M CCS	
59	Palavakkam Zone	1	Thiruvanniyur M CCS	
60	Pallavaram Zone	2	Chrompet M CCS	
61			Pallavaram M CCS	
62	Velachery Zone	3	Adambakkam M CCS	
63			Nanganallur M CCS	
64			Velachery M CCS	
65	Tambaram Zone	14	East Tambaram M CCS	
66			West Tambaram M CCS	

S. No.	Name of the Location	No. of Locations	Area	Address
67			Perungalathur M CCS	
68			Peerkan karanai M CCS	
69			Se mbakkam M CCS	
70			Padappai M CCS	
71			Vandalur M CCS	
72			Urapakkam M CCS	
73			Guduvanchery M CCS	
74			MM Nagar M CCS	
75			SP Koil M CCS	
76			Chengelpet M CCS	
77			Karapakkam M CCS	
78			Kancheepuram M CCS	
79	Anna Nagar Zone	7	Anna Nagar East M CCS	
80			Anna Nagar West M CCS	
81			Kilpauk M CCS	
82			Shenoy Nagar M CCS	
83			Meetha Nagar M CCS	
84			Choolaimedu M CCS	
85			Korattur M CCS	
86	Ayanavaram Zone	4	ICF M CCS	
87			Avadi M CCS	
88			Ambattur M CCS	
89			Pattabiram M CCS	
90	Anna Salai Zone	2	Chetpet M CCS	
91			Nungambakkam M CCS	
92	T. Nagar Zone	1	T. Nagar M CCS	
93	Triplicane Zone	1	Peters Colony M CCS	
94	Ashok Nagar Zone	7	Saidapet M CCS	
95			West Mambalam M CCS	
96			Rangarajapuram M CCS	
97			East KK Nagar M CCS	
98			Ashok Nagar M CCS	
99			West KK Nagar M CCS	
100			Virugambakkam M CCS	
101	Vepery Zone	1	Choolai M CCS	
102	North Madras Zone	1	Vallalar Nagar M CCS	

S. No.	Name of the Location	No. of Locations	Area	Address
103	Washermanpet Zone	4	Washermanpet MCCS	
104			Kalmandapam MCCS	
105			Thiruvottiyur MCCS	
106			Royapuram MCCS	
107	Perambur Zone	1	Red Hills MCCS	

List of Locations – District Unions

S. No.	Name of the Location	No. of Locations	Area	Address
1	Salem Union/FBD	1	Salem	
2	Chilling Centres (Salem)	3	Athur	
3			Paramathivelur	
4			Namakkal	
5	Bulk Milk Coolers (Salem)	42	Kamarajnagar	
6			Philipakuttai	
7			Solakadu	
8			Vettukadu	
9			Singalanthapuram - I	
10			Singalanthapuram - II	
11			Vanavasi - I	
12			Vanavasi - II	
13			Chittur - I	
14			Chittur - II	
15			T. Kumbakottai	
16			Vadugam	
17			R.Pudupatty	
18			Moolakadu	
19			Chitrapattypudur	
20			Potteneri	
21			Periagoundanur - I	
22			Periagoundanur - II (Kothagiri CC)	
23			Tharkadu	
24			Veppilaipatty	
25			Nachuvayanoor (Thalavadi - I)	
26			Molapariyur (Thalavadi - II)	
27			Somampatti	
28			Uthankarai	
29			Andikuttai	
30			Kuttapattypudur - I	
31			Kuttapattypudur - II	
32			Chinnathiurpathi	
33				

S. No.	Name of the Location	No. of Locations	Area	Address
34			Veppanatham	
35			Unathur	
36			Nattar Agraharam	
37			Eluppanatham	
38			Veppampoondi	
39			Thalavadi	
40			R.C.Chettipatti	
41			Se mmanur	
42			Pukkampatti	
43			Thindamangalam J.J. Nagar	
44			Indiranagar	
45			Reddipalayam	
46			Kuttapattiantheru	
47	District Union / FBD	1	Erode	
48	Chilling Centres (Erode)	3	Sangarandampalayam	
49			Sathyamangalam	
50			Thalavadi	
51	Bulk Milk Coolers (Erode)	17	Ponnivadi	
52			Mangalpatti	
53			Anaipalayam	
54			Odanilai	
55			Kandasampalayam	
56			Kulalipalayam	
57			Sadaiyappanagar	
58			Kolathupalayam	
59			Pudupai	
60			Palayakottaipudur	
61			Nathakkadaiyur	
62			Peramiu m	
63			Sala ipudur	
64			U.Kolathupalayam	
65			Vallipuram	
66			Vemadampalayam	
67			Thiru manathampalayam	
68	Cattle Feed Plant, Erode	1	Erode	
69	District Union / FBD	1	Krishnagiri	

S. No.	Name of the Location	No. of Locations	Area	Address
70	Chilling Centres (Krishnagiri)	2	Dharmapuri	
71			Denkanikotta	
72	Bulk Milk Coolers (Krishnagiri)	15	Eru miya mpatty	
73			Ramiyanahally	
74			Pappireddipatty	
75			B.Mallapuram	
76			Uthangarai I	
77			Uthangarai II	
78			Indoor	
79			Nallampatty	
80			Fathimanagar	
81			Kottapatty	
82			Eariyur	
83			Veppampatti	
84			Keeraipatti	
85			Bairnatham	
86			Pudupatty	
87	District Union / FBD	1	Madurai	
88	Chilling Centres (Madurai)	1	Theni	
89	Bulk Milk Coolers (Madurai)	14	S.M.A mmapettai	
90			Vandapuli	
91			Melathiru manicam	
92			T.Krishnapuram	
93			Perunganallur	
94			Peru malko ilpatti	
95			Uthappanayakanur	
96			Thaminaickenpatty (Rasingapuram)	
97			Koppampatty	
98			Mallingapuram	
99			Usilampatti	
100			Thottappanaickanur (E.Pudupatty)	
101	Marketing Offices	5	Salem	Milk Marketing Office, 4-40 Omalur Main Road, Opp. Govt. Hospital, Salem.1.
102				Milk Marketing Office,

S. No.	Name of the Location	No. of Locations	Area	Address
				Near R.T.O. Office, Mettur Dam R.S.2 Salem Dt
103				Milk Marketing Office, Near Natar Thirumanamandapam Malai Adivaram, Namakkal Road, Trichengodu 637211 Namakkal Dt
104				Milk Marketing Office, 50/1, 26.A. Anjeneyr Koil Street, Namakkal.1.
105				Milk Marketing Office, 128 Attur Road, Rasipuram.8 Namakkal Dt
106		3	Krishnagiri	Aavin Milk Marketing office . DDCMPU Ltd SIPCOT, Hosur
107				Aavin Milk Marketing office Cooperative Colony DDCMPU Ltd Krishnagiri 635 001
108				Aavin Milk Marketing office Krishnagiri Main road DDCMPU Ltd Dharampuri 636 701
109		10	Madurai	ARAPALA YAM ZONE 191/1, VISUWASAPURI 1ST STREET, GNANAOLIVUPURAM, ARAPALA YAM, MADURAI-16.
110				BIBIKULAM ZONE 2, CHITHARANJAN STREET, KAMALA 1ST CROSS STREET, CHINNA CHOKKIKULAM, MADURAI-02.
111				CENTRAL ZONE 2/3, PERUMAL THEPPAKULAM WEST,

S. No.	Name of the Location	No. of Locations	Area	Address
				TOWNHALL ROAD, MADURAI
112				PALANGANATHAM ZONE 2/6, VASANTH NAGAR, 2ND STREET, MADURAI-03.
113				ANNA NAGAR ZONE A.I.CENTRE PREMISES, SIVANGANGAIMAIN ROAD, SATHAMANGALAM, MADURAI-20.
114				USILAMPATTI TEAM OFFICE C/O VASANTHI, 11/1/207, A.48, NETHAJI NAGAR, USILAMPATTI PO, KEELAPUDUR, USILAMPATTI, MADURAI.
115				CHELLAMPATTI TEAM OFFICE OPP. PANDYAN GRAMA BANK, CHEKKANURANI, USILAMPATTI TK, MADURAI.
116				THIRUMANGALAM TEAM OFFICE 119, SEON NAGAR, 6TH STREET, MARAVANKULAM, THIRUMANGALAM, MADURAI.
117				MELUR TEAM OFFICE NONDIKOILPATTI, KASTHURIBAINAGAR, MELUR – 625106.
118				VADIPATTI TEAM OFFICE A.I.CENTRE PREMISES, SIVANGANGAIMAIN ROAD, SATHAMANGALAM, MADURAI-20.
119	Hosur MMO Parlours	3	Hosur Bus stand	

S. No.	Name of the Location	No. of Locations	Area	Address
120			Ulavar sandai	
121			Taluk Office	
122	Krishnagiri MMO Parlours	7	KFBD	
123			Bangalore Road	
124			Bus stand	
125			Collectrate	
126			Court	
127			Ulavar Sandhi	
128			Chennai Road	
129	Dharmapuri MMO Parlour	1	CC Parlour	
130	Salem Union Parlours	7	Salem	Aavin Parlour, Poomalai Vanika Valagam, New Bus Stand, Salem.1
131			Salem	Aavin Parlour, Southern Railway, Plot Form.4 Junction, Salem.5
132			Namakkal	Aavin Parlour, Milk Marketing Office, 50-1. 26.A. Anjeneyar koil Street, Namakkal.1
133			Namakkal	Aavin Parlour, Bus stand, Namakkal.1
134			Namakkal	Aavin Parlour, Andalour Gate Nedunjalai Parlour, Rasipuram, Namakkal 637401
135			Mettur Dam	Aavin Parlour, Bus Stand, Mettur Dam.1.
136			Dhalavaipetty	Aavin Parlour, Salem Dairy Head Office, Dhalavaipatty, Salem. 636 302