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RFP Ref: LIC/CO/IT-SD/EFEAP-NEXT/INFRASTRUCTURE-SOLUTION/18-19/01 Dated 01/01/2019

CORRIGENDUM – III

Following clarification is being issued under the above referred RFP. The bidders to note that this clarification shall form an integral part of the above referred RFP and resulting contracts, if any.

Sr. No.	Clause ref.	Clause (in brief) of RFP requiring clarification (s)	Points of Clarification referred by Bidders	LIC Clarification/ modification in clause (highlighted in bold)
1	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Are there any assessment undertaken to assess the AS-IS vs TO-BE technology stack mapping and compatibility	Bidder should do independent assessment.
2	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Are there any functional enhancements planned during the migration exercise?	Not In phase I. however please refer scope of work mentioned in RFP.
3	Section 2.2.2, Page 12	Desired State and broad Scope of Work	- What are the batch jobs?	Batch operation for insurance domain such as list of maturity extraction, premium billing, commission extraction etc.
4	Section 2.2.2, Page 12	Desired State and broad Scope of Work	- What is the time taken currently for each batch job?	AFM extraction in bigger divisions are taking more than 6 hours. Other jobs ranges from 5 minutes to one hour depending upon size of division.
5	Section 2.2.2, Page 12	Desired State and broad Scope of Work	- Configuration Auditing , Reporting etc.	it should be proposed and managed by bidder.
6	Section 2.2.2, Page 12	Desired State and broad Scope of Work	- Configuration Management	it should be proposed and managed by bidder.
7	Section 2.2.2, Page 12	Desired State and broad Scope of Work	- SSL Certificate Management	it should be proposed and managed by bidder.
8	Point 17, Page 14	Performance of batch jobs	a) Batch jobs mentioned are AFM, accounts summary extraction & commission processing. Is this list complete?	There are many batch operations other than the mentioned jobs.

9	Page 18, point # 2	Sizing clarification - The proposed web server middleware license / subscription should not be more than 256 cores (total requirement) after consolidation of web layer at all zonal offices instead of 1808 cores being used in existing Glassfish server in all 113 divisions.	How this calculation has been done, we need to understand 1.Total user population 2.Concurrent users 3. Avg response time 4.Secured Communication (HTTPS)Percentage (Ex: 30 %) 5. Annual growth to be considered for sizing and Number of years (page 14 mentions LIC expects business growth up to 15 % YOY over next five years. 6 .High Availability (yes/no)	For example, in central zone 1. 5000 users 2. 10% of total user population 3. max 2 seconds 4. Yes, required 5. yes 6. HA is not required as two or more web servers should be in active-active mode using load balancer.
10	Annexure-VIII- Technical specifications- Infrastructure Architecture- Point 44	The solution shall provide stateful inspection using distributed in-kernel firewall providing near line rate throughput that can be applied at the perimeter of the virtual datacentre and at the virtual network interface card level directly in front of individual workloads (enabling micro-segmentation for highest level of security).	"The term ""in-kernel"" is a vendor specific term and it will favour the specific vendor. There are other solutions available which can deliver the said functionality. We request LIC to make this point generic as below "The solution shall provide stateful inspection using distributed firewall providing near line rate throughput that can be applied at the virtual network interface card level directly in front of individual workloads (enabling micro-segmentation for highest level of security)."" Firewalling capability at the perimeter of the virtual datacenter is delivered by the perimeter firewalls and we request LIC to remove the functionality of perimeter firewall from the scope of this RFP	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification. Perimeter firewall for virtual datacentre is required
11	Point 10 under 2.2.2	Point 10 under 2.2.2 on page 13	(1) Kindly let us know if the cores mentioned here are physical cores or vCPUs (2) Kindly let us know if we can club multiple DO in one server in ZO	1. Physical cores 2. yes

12	Point no 15	The switch must support 16 physical link to be aggregated into single logical link. The switch shall provide minimum Aggregate bandwidth of 1.536 Tb/sec (96 ports × 16 Gbit/sec (data rate) end to end)	16 Physical link aggregation is vendor specific . we can combine 8 physical links to form 1 logical link/trunk. Please change to "The switch must support minimum 8 physical link to be aggregated into single logical link. The switch shall provide minimum Aggregate bandwidth of 1.536 Tb/sec(96 ports × 16 Gbit/sec (data rate) end to end)	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
13	General	General security	How is the data in transit to be encrypted? a. Using TLS / SSL b. Do you want data to be encrypted at source and sent over the channel?	a. Using TLS/SSL
14	General	General security	How are the encrypted keys / certificates going to be stored in software (on server) OR in a Hardware which manages keys?	Bidder to propose suitable solution.
15	General	General security	Do you want the encryption keys and certificates to be used for encryption generated from a specialized hardware device such as HSM-Hardware Security Module?	Bidder to propose suitable solution.
16	General	General security	What is the compliance of encryption solution – FIPS 140-2 level2 or 3 (Best Practise is Level 3) ?	Bidder to propose suitable solution.
17	General	General security	Count and specifications of a. Servers b. Operating system c. Database b File Server/ Storage server	Refer page number 12 Desired State and broad scope of Work.
18	General	The solution shall provide role-based access to a self-service management portal that allows LIC teams to manage provision and augment ZO infrastructure centrally. It should also have role based access to delegate operational task to operation teams	A Self service portal is a typical feature of a Private cloud software platform. The EFEAP application is largely static and has no need for such automation. This just adds to the additional cost of the stack. Requesting removal.	Bidder to propose suitable solution to meet the business requirement

19	Section 2.2.3, Pt 2. Page 19	Maximum number of cores for new web server technology should be 256 cores	Does the limit of 256 include all 125 divisions at primary site only or is it for DC, NDR and Far DR put together?	Only Primary site.
20	Pont 13, Page 14	Number of Racks and KVA per rack	PI confirm that the upper limit of racks mentioned is per ZO data centre and similar number of racks are available at Near DR site also	Yes
21	Section 7, Page 44	POC	PI elaborate the test plan and success criteria of the POC that is required to be conducted as part of the evaluation	Refer Point no 40 of section 2.2.2. The POC should achieve results mainly running some selected operations like AFM, Load testing, Printing status reports, etc. along with Proposed solution's features
22	Point No. 10, Page 13 RFP, Point 28 of Infrastructure Architecture in Annexure VIII	Minimum configuration requirements for one division excluding all over heads are given. Encryption is one of them. Similarly in pt. 28 of Annexure VIII, the requirement for encryption is mentioned	Please confirm that pt 28 of Annexure VIII requires bidders to provide a solution incorporating HW based encryption using HW accelerators?	Bidder is allowed to suggest suitable solution with or without HSM.
23	Backup software specification. Point No.19	The solution should have the capability to manage and monitor backups at remote locations from a single backup server, where clients can backup data to a local disk backup device without the need of local media server or sending primary backup copy over the WAN.	As efficiencies of deduplication, compression, encryption are built into the backup software, these features will not be leveraged if client at remote site are backed up to a local disk. It is recommended to have one backup server at each ZO as all the management GUI can be accessed through the IP network and admin can control the environment	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance, scalability and management requirement mentioned in this specification.

24	Backup software specification. Point No.10	Should integrate with third party VTL which has data deduplication capabilities. Backup software must support Robotic/automated Tape library, the licensing of such library should be on the number of slots and not on the drive counts as additional drives are added to improve performance. Must support OST, VTL, Disk, NFS, CIFS for proposed backup disk appliance.	A. If backup software has efficiencies like data deduplication, compression and encryption inbuilt in the software and does not need disk appliance to achieve them. B. With the technology advancement, backup software no longer needs emulated virtual tape libraries and can directly write to block disk capacities. Although VTL target appliance are supported but not needed for a backup solution C. OST protocol is a proprietary protocol and cannot be support by all backup software OEM. Please relax this point by mentioning that needed protocol for a complete backup solution for LIC requirement to be supported by backup software proposed	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
25	Backup software specification. Point No.5	The backup solution should also support online LAN-Free backup of databases through appropriate agents; Important Applications being Oracle, Microsoft SQL Server, Exchange, SharePoint, IBM DB2 UDB, Informix, Lotus Notes/Domino, MySQL, SAP, SAP HANA, Postgres & Sybase etc. and file system backup.	A. LAN-free or LAN based depends on the solution suitable to meet the LIC requirement of backup window. Please relax the LAN-free/LAN-based option for bidder to decide for meeting the backup window requirement B. Kindly relax this point by specifying the relevant database/applications in LIC environments	A. Request rejected B. The existing database is MySQL version 5.5.18 plan to upgrade to higher version of MySQL. The intent is to have future proof solution for any database backup.
26	Backup software specification. Point No.13	The proposed backup software should support deployment in public, private and hosted clouds. The backed up data written to cloud volumes should flow directly from Clients to cloud storage without intervention of media server in data path. The Clients writing to cloud storage using the proposed backup software should have source based deduplication, compression and encryption.	A. Media server concept is specific to few vendors and not applicable to all software solutions. Data may flow through the backup server for data reduction efficiencies at source or destination deduplication/compression and also security encryption features before writing to target disk storage B. Please relax this point as sending critical backup data to cloud may lead to security breach and not a said practise in government sector.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification. The intent is to have future proof solution for cloud backup.

27	SAN related specification. Point No. 13	A. The proposed storage should be configured with minimum 1TB of controller cache per controller with a provision of scalability to 4TB of controller cache. B. Single Controller failure shall not cause array cache to go into write through mode.	A. Please specify the cache needed for Block services and file services separately to ensure both services are supported with appropriate resources for performance. B. Cache is mirror between the controllers for ensuring data is not lost while one controller fails. Also All Flash storage system is completed flash memory and performance impact of write through mode is minimal. Please relax this point	A. 70% should be for block services and 30% for file services. B. Bidder to propose suitable solution.
28	Point 7, Page 13	The existing DOMIS servers present in all 113 data centers get their inputs from DO eFeap servers, after migration these 113 DOMIS servers are to be shifted to ZO sites as virtual machines. Each DOMIS server is a dual core machine with 1 GB RAM and 100 GB of disk space.	Additional capacity is requested for 113 DOMIS (Physical to Virtual). Do we also need consider DOMIS for Dev and Test Environments? Is there an additional DOMIS at CO?	Additional capacity at respective zone is required. Dev and Test for DOMIS not required. There is COMIS server at CO.
29	Point No 9 Switch Should support 10,00,000 ip v4 and ipv6 address	Request Amendment of this value to less than 2,00,000 (2 Lac) from the Current 1 Million (10 Lacs)	After reviewing the specifications and the RFP in total, we infer that while this is a critical DataCenter requirement, it is a medium sized requirement. Basis the field experience, even for Large DataCenters with 200 Top of Rack Switches, typically there would nor more than few thousand IGP routes. Also , as asked in point 9 even if there 2,00,000 mac address total no of host routes + LPM will be much lesser than 2,56,000. Hence such a large ip scale is not required for this solution. For LICs current requirement what we can see is number of switches will be much lesser then even 200 for eFEAP Solution. The current specification may inhibit LIC from getting architecture and platform advantages of various vendors.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.

30	SAN related specifications	Storage Cache	Please clarify if this configuration is for zo or for co	Already mentioned in RFP
31	2.2.2. Desired State and broad Scope of Work, Point no 49, Page no 18	The Infrastructure solution should propose security solution at hardware, software and network level	Provide the sizing details for Firewall; Please provide the expected throughput; No of concurrent connections; expected features on Firewall	Firewall is out of scope of this RFP.
32	Backup software specification. Point No.21	The solution should have latest Agent/ Agent less /Modules for online backup of applications and databases such as MySQL, MS SQL, Oracle, Exchange, Lotus, DB2, Informix, Sybase, SharePoint, Meditech postgrace and SAP. Must support NAS and storage array based snapshot backup for off host zero downtime and zero load on the primary backup client with wizard based configuration.	Although most of the databases/applications are supported, few of the open DB are not yet covered under enterprise backup software support. Please mention the actual DB and applications supported needed	The existing database is MySQL version 5.5.18 plan to upgrade to MySQL 8.0.13. The intent is to have future proof solution for any database backup.
33	Definitions & Abbreviations, Page No 6	Concurrent Users:- Means the number of simultaneous users accessing the application at the same time. For the sake of removing any ambiguity, it is clarified that only those users who are actively using the application and not those users who are just logged in and are idle at the time of reckoning will be counted for this purpose.	Any logged user in the application is a concurrent user. If we supplying any software license working on the concurrent user licensing then the industry accepted definition or proposed Software OEM hold applicable	The intent of this definition is to guide the bidder for correctly size the suitable hardware solution. For licensing purpose the logged in users should be considered.
34	Infrastructure Architecture, SI.No.3	The solution design should have features like zero data loss and near zero downtime in case of disk, host, network and near-site failure.	Are all the applications that is getting ported on to Web, Application and Database, Cluster aware ?	Yes, Bidder to propose suitable solution.
35	Point 7 & 8, Page 13	COMIS & DOMIS Server	Are the DOMIS and COMIS applications Java based?	PHP and MySQL based.
36	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Are there any preference for phased deployment/big-bang deployment? any constraints or limitations	This is phased deployment with one pilot division to test functionality and performance.
37	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Are there any testing tools available	Yes, but the bidder should propose suitable testing tools as per architecture.
38	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Are there test cases available? Is it comprehensive enough	yes

39	General	6. The solution should supply of requisite hardware,software,network components and its successful installation along with integration of hardware and network.	As a part of the solution, bidder is expected to supply and install DC network switches, Load Balancers ,Firewall. What integrations are expected here? Does the Efeap Next setup interact with any other setup in the DC.?	1. Point self explanatory. 2. Integrations like OS/TPA/Software and hardware stack. 3. Yes.
40	2.2.2(49)/Page 18	The Infrastructure solution should propose security solution at hardware, software and network level and support periodic third party surprise security audits to ensure compliance to IRDA security standards and other statutory bodies	As an IT service provider, the Bidder is unfamiliar with any IRDA and other statutory bodies regulations. Will LIC notify the Bidder of the exact requirements and can the same be captured as contractual obligations?	LIC may share the compliance requirements with the selected bidder
41	Point 37, Page 16	The proposed infrastructure solution should support existing eFEAP application during lift and shift phase and then should have latest version of software at the time of installation and thereafter all security patches released by OEM will be loaded using enterprise management tools. The softwares installed by OEM should be compatible with existing software stack of LIC.	As long as application is demonstrated to be stable, bidder should be allowed to create a golden image for the DO application stack with latest versions of SW and migrate that to the ZO logical VM. This offers more choice of HW platforms and no risk to LIC.	Bidder is allowed to suggest suitable solution.

42	eFEAP Next PPT. Slide-32	Tape Backup	As per LIC's requirement, it is realized that D2D2D2T is the preferred technology on backup architecture. In this data management layer, First "D" would be primary all-flash disk, Second "D" would be backup appliance/storage, Third Disk would be long term Archival Storage/Object Storage and then it would be moved to Tapes for compliance purpose. In this architecture, there could be a constraint in backing up data from Object Storage to Tape as not all Object Storage Technology support Tape Backup. In fact, Object Storage are at times used for Tapeless technology solutions. Hence Request you to kindly remove Object Storage from this architecture requirement, as it will add complexities to the overall architecture.	At ZO site the backup strategy should be D2D2D at near DR site, where The retention period for D2 is 35 days and the D3 is for permanent storage on Disk for 5 years. Bidders are allowed to propose suitable disk based solution as object or archival storage. At Mumbai co-location site, the backup strategy should be D2D2T where the last "T" is for permanent storage on Tape for 5 years. The bidder should provision sufficient drives so that any scheduled full tape backup of all divisions could finish in 100 hours from scheduled time. The retention period for D2 is 35 days. At Bangalore co-location site, the backup strategy should be D2D2D where the retention period for D2 is 35 days and D3 is for permanent storage on disk for 5 years. Tape library should be provided at Bangalor site with minimum 10 drives as a redundant provision to take schedule backups if Mumbai site fails to take backup.
43	2.2.2(35), page 16	Support systems till given as buy-back	As per point 35, it requires vendors to "support" supplied and installed product till hardware is given as buy-back. Request for clarification on, time frame required by LIC to give this as buy-back post contract period for estimating commercials. Also there is no line item in commercial template to accommodate beyond contract period.	refer to 4th point of 4.1 of RFP.

44	HCI specification	The HCI storage must have integrated wizard for batch clones of virtual machines that are customized. Any additional software or license must be provided on day 1.	As per the RFP Solution scope , HCI is allowed in Web/APP systems where batch clone are not required for the current solution. However in the need for any specific use case, the same can be implemented using scripts/integrated wizard by respective HCI Technologies. Requested modification: The HCI storage must have integrated wizard/script based support for batch clones of virtual machines that are customized. Any additional software or license must be provided on day 1.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
45	Page 14 - Section 2.2.2 - Point # 15 under 'Desired state and broad scope of work'	The existing divisional sites are processing 250 transactions per minute at peak load with estimated 7500 IOPS from existing storage. In proposed ZO centralized setup each and every division should be able to process 1000 transactions per minute with minimum 30,000 storage IOPS, after consolidation of respective divisions at zonal level a minimum of 5,00,000 IOPS is required with latency of less than 2 milliseconds and at co-location minimum storage IOPS for this load is around 20,00,000 IOPS with latency of less than 2 milliseconds.	At such a high rate of TPS (as compared to the industry) - is it recommended that the bidder perform Performance testing of the application/s, after the migration (and before going live), in order to ensure that it perform as per the desired SLA's?	Please note that it is 250 TPM (Minute) and not 250 TPS (second). The 7500 IOPS from existing storage are backend IOPS. The bidder should propose suitable solution to meet the SLA
46	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Auto Disaster recovery solution - would this be enterprise class DRP solution till Application recovery or only Infra recovery ?	enterprise class DRP solution till Application recovery
47	General	Desired State and broad Scope of Work	Are the batch jobs at DO running on the same infra as the APP? How much additional capacity is allocated?	WEB-A, WEB-B,APP-A, APP-B AND BKP-A server are used for batch operations.

48	General	Desired State and broad Scope of Work	Since the maximum of 256 is specified, please share the existing system data and expected performance data of proposed system so that we may size it accordingly and reduce, if possible the number of licenses required. Data required will be in form of No. of users No. of sessions, Data Transfer per session etc. If providing this data is not possible, it is suggested that the number of cores of x86 (or equivalent) for the new web server technology be fixed at 256 for all bidders	For example, in central zone total number of users are. 10% of total user population is concurrent. The response time required is max 2 seconds. As per RFP 256 cores for primary site new middleware solution is to be specified by all bidders.
49	General	Desired State and broad Scope of Work	What is the current utilisation of servers of the web, app and DB layer. Pl share the NMON or equivalent report for a week at least at 5 min intervals. This will help us size the equivalent platform.	Propose generic tool which will be run by LIC and results will be shared to all bidders.
50	General	Desired State and broad Scope of Work	What is the quantity of licenses available with LIC for each of the above? Are the licenses transferable to other platforms.	Sufficient licenses are available to run the As-IS migration, bidder to carry out independent exercise for platform migration.
51	Disk to Disk to tape Backup Appliance Specifications. Point No. 1	Proposed disk based backup appliance should be highly available with atleast two controllers in HA mode and should be able to scale-out by adding more capacity. The proposed solution should be scalable to 2 PB of capacity with addition of only drives with existing controllers.	Backed up data can be written to any block capacity instead of investing into a dedicated appliance which has limitation of scalability. backup software allows any Block, file capacity from any vendor/OEM storage to ensure customer do not get locked with one vendor's hardware appliance while scaling up. Please relax this point to allow bidders to decide on type of disk target storage solution best suitable for meeting LIC backup requirements.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification. The intent is to have a purpose built backup appliance or dedicated system.
52	Backup solution. Point No. 4	Use of dedicated D2D backup appliance is required instead of using space inside HCI/CI/SAN	Backup appliance points towards a specific product or range, please rephrase this statement as target disk capacity should be on a different hardware solution and not using space inside HCI/CI/SAN	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification. The intent is to have a purpose built backup appliance.

53	Page 14, 2.2.16	In eFeap Next there will be an impact on network latency due to distance between end user and zonal site. In extreme cases this distance could be around 1000 Kilometres. In existing setup each and every branch is connected via 2 Mbps leased line network link to divisional office and proposed alternate link of 2 Mbps MPLS link for every office. In first phase many divisions may be hosted on nearest co-location site which could be more than 3000 kilometres e.g. Farthest eastern branch to Navi Mumbai co-locations site. The proposed solution should factor the bandwidth available and network latency while designing the infrastructure solution to provide required response time mentioned below.	Bandwidth cannot be 2 Mbps, It should be much higher.	This is existing bandwidth which will be upgraded to at least 4 Mbps at all branch offices and proposed alternate link for additional 4 Mbps. Please note that this upgradation will not happen overnight at all branches and the solution proposed by the bidder should work in existing 2 Mbps bandwidth.
54	Hardware Specification for Hyper converged systems Sl.No.11	The HCI solution must be configured with usable storage capacity of minimum 1 TB per division in a zone (e.g. central zone has 8 divisions. Hence, web+app requirement of central zone will be minimum 8 TB) for primary site at zonal office with minimum two copies of data replication policy. This usable capacity should be provided without De-duplication & Compression.	Based on the inputs, we request clarification from LIC, whether the Web and App each have a requirement of 1 TB. Under the Minimum configuration requirements for one division for eFEAP application excluding all overheads like High availability, de-duplication, compression, encryption, security, monitoring, management etc. is given for Web & App as 32 (compute power of core equivalent to 2.3 GHz Intel Skylake Processor with 22MB Cache), 64 GB DDR4 2666MHz, 1 TB, 4 * 10 Gbps or 2 * 25 Gbps - Is the current setup including Web & App, or is it individual instances of Web, and App each having the mentioned resources? If it is individual should the storage capacity for Web be considered as 1 TB, and the Storage Capacity for App be considered as 1 TB. Thus 2 TB in total for Web & App.	There are two web and two app VMs, all four put together is 1 TB. The network resources are for the physical node hosting these VMs and not for individual VM

55	Page No. 16 Point No.39	The migration of database and flat files should be done without any data loss. The bidder should ensure this by using data migration tools and submit the reports of data sanity checks done before and after migration of data	Before Migration of Data, LIC will provide Infrastructure to take the Backup of existing Data on these Servers	Yes.
56	BCP solution	Different levels of privileges to access BC Documents & records	Bidder request LIC team to elaborate more what kind/type of privileges to access BC documents and records	BASED ON AUTHENTICATION AND AUTHORIZATION
57	9.29, Page 60	Project phases and payment	bidder request LIC to map project scope phase and payment terms	Refer to point 9.29 of RFP, which is already available.
58	BCP solution	In case of catastrophic failure or natural calamity, far DR site which is present in better seismic zone at co- location site should be utilized to start the operations. The proposed solution should have all the functionality for shifting the production site to near or far DR site and reversal.	Bidder request to know does LIC wants DR Automation and Business Continuity Management are separate modules or single software as this both software has different process	The requirements are stated in the RFP, bidder to propose suitable solution.
59	L2 engineer	Services of L2 software engineer - "per skillset"	Bidder requests for clarity on what platform or technology skill set is required as the cost will vary	On the proposed J2EE layer and any other new components which is proposed by the bidder.
60	9.9, Page 51	Performance Bank Guarantee (as per Annexure VI-B) to the tune of 10% of the Grand Total Cost, shall be submitted by the selected Vendor, as Performance Bank Guarantee (PBG) for the equipment(s) supplied/ Services offered against this RFP.	Bidder understand Grand total cost means total cost of Hardware, Software including 5 years warranty and does not include 6th and 7th year AMC which will be provided separately after receiving PO	Grand Total Cost Means the total contract price after ORA.
61	6(6), Page 42	Bidder must have implemented Infrastructure solution of proposed OEM in at least 2 Government Departments, PSU, BFSI sector companies having purchase order worth not less than Rs 15 Crores for supply of traditional, converged, hyper converged, Integrated Systems in India in any of last three financial years.	Bidder understands that "Infrastructure Solution" in said criteria refers to traditional/converged/hyper converged/Integrated Systems	Infrastructure Solution includes all the components proposed in this RFP.
62	L2 engineer	Services of L2 hardware engineer	Bidder understands that "quote per unit" refers to "quote per engineer per shift"	It refers to one L2 engineer cost per shift for one year.

63	6(9), Page 43	The bidder should quote for the models of the OEM/Sl who has valid ISO Certifications or their higher versions as follows: i) ISO 9001:2008: Quality Certification ii) ISO14000: Complying Environmental Standards iii) The bidder should have ISO 20000 and ISO 27001 and CMMIL3 Certification for service management.	Bidder understands that Point No i and ii are for the OEM of the traditional/converged/hyper converged/Integrated Systems and Point No. iii is specifically for SI	This point is for all OEMs/Sl
64	General		At what time during the day are the batch jobs run?	11 am to 4 pm are peak hours, batch jobs are fired throughout the day but the frequency is more in non peak hours.
65	General		What is the official name of the software load balancer MF ELCS? What version is used?	ELCS is enterprise linked cluster suite which is COBOL load balancer
66	Replication specifications	The Storage array must support capability to replicate data to remote site array in synchronous and asynchronous modes This license should be configured for entire supported capacity of the array. Replication Solution shall support unified replication of File and Block data within a single Consistency Group.	Can file level & block level replication be separated if we use advanced Object storage +NFS ?	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
67	Point no. 5 in Load Balancer Specification - Annexure VIII	It should be a single box solution	Can LIC confirm that , they are referring to primary and secondary as different box and in case of vADC also primary and secondary unit must on different hardware boxes not same.	All functionalities should be in a single box with physical redundancy.
68	Hardware Specification for Hyper converged systems Sl.No.49	The proposed solution should be capable to support active-active stretch cluster from day 1 across 2 sites to provide site-level redundancy	Can LIC indicate the type of Network Available between the DC and NDR, can Stretched L2 network be provided with 1 Gbps Link with RTT latency of less than 1 msec.	LIC is proposing near DR in same campus at less than 500 meters away to enable optic fibre solution for connectivity.
69	General Specifications, Sl.No.10	There should be improvement in overall IT System, in terms of performance, redundancy, and operating efficiency.	Can LIC provide the current measurement of the system, with regards to Latency, from an end to end stack ? Also are there any quantifiable measurements with regards to operational efficiency that is being targeted ?	Vendor to propose open source tools for measurement of performance and latency.

70	Infrastructure Architecture, SI.No.5	The proposed solution should guarantee sync replication with zero RPO for database for near DR site and async replication to far DR sites with RPO not more than 15 minutes.	Can LIC share the High-Level Networking Architecture with the bandwidth between sites available, also what is the change rate that the Database would incur in terms of write, this is important to ensure that the RPO can be complied ?	This is proposed existing network architecture, it will be procured and setup as per the requirement. The expected change rate per day is 1%.
71	9.9/Page 51	As per RFP	Can PBG invocation/forfeiture be limited to instances of material breach by the Bidder?	Mentioned in para 9.9 of RFP. Also refer to 9.4 of RFP.
72	Infrastructure Architecture, SI.No.12	The bidder can propose suitable solution for Web & App layers including Hyper Converged Infrastructure but the database layer should be hosted on Traditional / Converged Infrastructure / Engineered systems / Linux on Power/Sparc RISC architecture. The multiple divisional databases can be hosted as physical server / virtual machine / as tenant under single Database using multi tenancy.	Can the Entire App, Web and Database be proposed on a Converged Architecture, based on Rack Servers. The UCP-CI architecture is factory integrated, and comes with a centralized software to manage the entire solution stack within the DC, and across DC's. So LIC can get unmatched operational efficiency by having a single dashboard plugged in to the virtualization management console to manage the lifecycle of the entire infrastructure, including IP, Compute, Storage, SAN Switches, HCI infrastructure if proposed. Also this will integrate further in to the requested log analytics solution, and also can be consumed from the cloud management platform requested. This provides unmatched operational efficiency.	Please refer allowed system architecture, the proposed model should be listed in Gartner's MQ for integrated systems to qualify for use as a CI system.
73	Pt 7 Page 12	The existing DOMIS servers present in all 113 data centers get their inputs from DO eFeap servers, after migration these 113 DOMIS servers are to be shifted to ZO sites as virtual machines. Each DOMIS server is a dual core machine with 1 GB RAM and 100 GB of disk space	Can these applications be virtualized and hyper threaded. If yes please specify a virtualization ratio for the same. As each vendor/bidder will use a different ratio for virtualization thereby leading to varying levels of performance.	Yes, but the bidder should use 1:1 virtualization ratio. The one divisional sizing should be strictly adhered as specified in RFP.
74	Logging specifications	Log Aggregation	Can this be a 3rd party separate tool? What would be log retention period and average log size?	Third party tool is allowed. Log retention period is 1 year. Average log size is 10MB.

75	Page 12 - Section 2.2.2 - Point # 5 (Site level details table) and Point # 18 - For arriving at number of users calculation	Number of Branches including Satellite per Division is taken as 25 as an average. Number of Employees per branch is taken as 25. Average No of users per location = No. of Divisions X No. of Branches X Number of Employees For example, in CZ No of Division is 8. No of eFEAP application users = 8 x 25 x 25 = 5000	Can this same formula (assumption of 25 employees per branch and 25 branches per division) be used for all the other Zones (given in # 5 under Site level details table) to arrive at the total number of eFEAP applications users across different zones?	Yes
76	General	Solution should have an intuitive rule creation and modification interface includes the ability to include or exclude files using wildcards filenames, control over inspection of sub-directories, and other features.	Can you please elaborate the clause.	LIC is expecting solution to have inclusion or exclusion of files/directories/subdirectories on the basis of wildcards.

77	2.2.2. Desired State and broad Scope of Work Page No 18 Point No 51	Module -1 for complete administration of entire stack of proposed solution and proactive monitoring.	Capacity Planning - We should be able to proactively Identify potential area's which may need to be upgraded/downgraded (network bandwidth, cooling, power, storage, etc.).Viz Real time temperature measurement for equipment's on the racks should reflect on the central dashboard. In case the temperature is more cooling can be enhanced. The data goes into analytics for future capacity planning. The OMS tool should have details of every equipment since its commissioning in the DC. We should be able to first hand visualise equipment status by mere first level view. Over the time, if any equipment gets affected due to any parameter, would also get reflected in capacity planning dashboard.	Please refer CCC specifications.
78	38 Hardware specifications for Hyperconverged hardware	Scale HCI up or down in a non-disruptive manner , without having to power down any nodes	Certain scenarios of scale down for example removal of a node from a cluster may require a power off for that specific node.	Yes, BUT IT SHOULD BE NON DISRUPTIVE
79	2.2.2(33), page 16	Glassfish 2.1.1 / Cobol / ELCS / Tibco	Clarify the list of software available and support level from respective OEM's and till what period !	Refer to 2.2.1 (2) of RFP.

80	AMC	The proposed solution should have comprehensive onsite warranty for atleast 5 years for all the hardware & software components involved, which can be extended by one more year by mutual consent of both the parties	Clarify Warranty to extended or AMC for 6 th or 7 th year	Refer to 9.30. Terms & Conditions for Maintenance of Hardware during the Warranty and AMC period
81	SOW	Automated Identification and Decommissioning of inactive / unused resources	Clarity of definition and understanding if it needs to be part of SoW / Delivery	Self explanatory
82	Annexure-VIII-Technical-Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	Classify the Applications/Databases used from OEM like Oracle, Microsoft, SAP, etc...?	It is already stated in section 2.2.1 point no. 2
83	Backup software specification. Point No.20	The solution should have the capabilities to backup as well as archive data to cloud with cloud service providers like Azure/Amazon etc. In addition to this if data has to be moved from Cloud A to Cloud B the solution should be capable of giving cloud portability.	Currently this facility is not available as non of our customer have come up with this request of sending backed up data to cloud for security reasons. Please relax this point	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification. The intent is to have future proof solution for cloud backup.
84	General		what is the frequency of the batch jobs? # of times per day or week?	The monthly batch operations are around 10 which are very heavy compared to daily jobs which are around 25.
85	TIBCO		What version of TIBCO is used? Is it required in the consolidated setup?	Tibco version 7.5.2, After consolidation also it will be required for intra-zonal and inter zonal message transfer.

86	Annexure-VIII- Technical specifications- Backup Solution- Point 4	D2D2T strategy is required for backup operations. Use of dedicated D2D backup appliance is required instead of using space inside HCI/CI/SAN. The D2D backup should provide Point in time recovery with protection window of 35 days. The tape backup should be performed as full backup on weekly, monthly and yearly. Disk to Disk backup appliance should take care of all the backup needs as per the backup policy and should be able to integrate with the proposed backup software. It is informed that sufficient licenses of Netvault backup software are already available with LIC. Bidder can propose use of Netvault backup software provided all proposed hardware and software components are compatible.	D2D2T kind of feature are built-in to modern HCI architectures. Using them HCI vendor is able to hold data outside the HCI cluster on independent backup node / cluster. This is a far faster way of doing backup in a modern day DC. The same can then be taped (2T) using backup software like Commvault, Netvault, Netbackup etc. We request LIC to allow bidders to use this technology as long as the space provided is in addition & outside of the HCI cluster that would run production applications.	The deviation is allowed only if the disk space for backup is provided is in addition & outside of the HCI cluster
87	28 Infrastructure Architecture	The solution should support encryption of data at rest and in-transit without any dependency on underlying hardware or dependence on SEDs	Data at rest and in-transit are mutually exclusive both cannot function at the same time. It is recommended that either one of these be deployed at a time. Also encryption is a very CPU and Memory intensive process and will eat out of major CPU and Memory resources. It is recommended that LIC allows for SEDs if the OEM sees fit to do so. Requesting change to " The solution should support encryption of data at rest or in-transit and allow for SEDs if required"	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
88	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Data erasure is costly - destroy hard disk is better option.	Hard disk needs to be PHYSICALLY destroyed
89	Annexure-VIII- Technical- Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	Data Growth per year for each of the Instance & Application	It is already mentioned in section 2.2.2 point no. 14.

90	9.27.6 and 11.29 - Patent Rights and other litigation costs	In the event of any claim asserted by a third party of infringement of copyright, patent, trademark or industrial design rights arising from the use of the systems or any parts thereof with relation to the contract deliverables, in LIC 's country, the Vendor will act expeditiously to extinguish such claim. If the Vendor fails to comply and LIC is required to pay compensation to a third party resulting from such infringement, the Vendor will be responsible for the compensation including all expenses (court costs and lawyer fees). LIC will give notice to the Vendor of such claim, if it is made, without delay as when received.	Please note that clause 9.27.6 and 11.29 are a repetition. In any case, kindly confirm that this clause applies only in respect of services to be provided by Bidder and not for supply of any OEM products.	Already mentioned in RFP
91	11.14.1 Termination and reduction for convenience	a. LIC may, at any time, by a prior written notice of 30 days, terminate the contractor and / or reduce the scope of the Services.	Please clarify what is the difference between the termination clause under 11.14 and 11.14.1	Self explanatory
92	9.27.4 IPR Warranty The Vendor will warrant that:	a. The Warranted Materials and LIC's use of those Warranted Materials, will not infringe the Intellectual Property Rights of any person; and b. It has the necessary rights to vest the Intellectual Property Rights and grant the licenses as provided in this clause.	Please confirm what LIC means by Warranted Materials. It does not seem to be described/defined in the RFP. In any case, please note that as far as warranty on OEM products are concerned, Bidder will pass on the OEM warranties "as-is" to LIC. Please confirm your understanding.	Yes. However bidder needs to ensure clause 9.27.4 is satisfied.

93	Pt19 Page 15	In the existing eFEAP setup, in case of any failure then due to distributed nature of data Centre, the impact is limited to only to that division. After consolidation at zonal level the impact scope may increase to zonal level affecting all divisional offices. The proposed solution should be built using high availability of each and every component without any single point of failure. In case primary site fails, then using load balancer configurations the near DR site should automatically come up and give uninterrupted service to end users. The proposed solution should include setting up of primary and near DR network to ensure network latency of less than 1 millisecond to near DR site for zero data loss	DNS servers and services are an integral part of DC and DR redundancy. Is it safe to assume that a DNS solution exists at LIC. If not it would not be able to propose automated failover between DC-DR/NDR. Either LIC can confirm if a DNS solution exists else the same would not be possible and LIC would have to do a manual failover from DC to DR/NDR. This would be the case for all bidders. If this is not acceptable for LIC, please include specifications for DNS solution in the RFP and allow for organization wide deployment of DNS based services.	DNS setup is not present and it is NOT under the scope of this RFP.
94	6. ELIGIBILITY CRITERIA/9	The bidder should quote for the models of the OEM/SI who has valid ISO Certifications or their higher versions as follows: i) ISO 9001:2008: Quality Certification ii) ISO14000: Complying Environmental Standards iii) The bidder should have ISO 20000 and ISO 27001 and CMMIL3 Certification for service management	Do you require all three ISO certification or either one of them ISO Certificate? As we are ISO 9001:2015 certified organisation	Yes, required
95	Page 18, point # 2	The proposed web server middleware license / subscription should not be more than 256 cores (total requirement) after consolidation of web layer at all zonal offices instead of 1808 cores being used in existing Glassfish server in all 113 divisions.	Does 256 cores cover near-DR and Far-DR as well. What would be Development, UAT/Test environment requirement?	No, 256 cores are calculated for primary site only. Using the same license for near and far DR operations depends upon the licensing policies of the proposed middleware solution.
96	Storage	Storage provisioning	Does it need to provision physical storage of all leading vendors? Is this feature to be implemented? Which use-cases are we wanting to address?	1. Provisioning of physical storage of leading vendors which are present in respective Gartner quadrant. 2. Yes. 3. For future proof

97	Data and Application Migration solution	The bidder is responsible for migration of eFEAP production site from all existing divisions to zonal site. Bidder has to propose for suitable migration approach, which should factor in all the logistics, resources and other requirements. The migration backup on disk/tape/any other media will be transported by authorized LIC official from divisional office to zonal site. Vendor cannot assume use of any existing resources at source in divisional office like compute, storage and network connectivity to centralized site. This limitation is there for all working days of the week. There is some scope on weekends for utilizing compute, storage and network connection. The migration exercise should start after closure of office hours at divisional site and finish before opening of office hours on next working day for that division hosted by zonal site. There should not be any downtime requirement for migration purpose. Full migration testing can be done before hand in UAT. If there are any assumptions, it should be clearly stated in the migration approach.	Does LIC expects to also provide UAT Environment part of solution?	Yes. It is already accounted as one division out of 4 divisions under central office.
98	Infrastructure Architecture, SI.No. 2	The proposed solution should be based on virtualization of physical hardware and distribution of workload over different virtual machines. LIC should be able to use the core part of solution on any virtualization technology on suitable hardware during the contract and after the contract.	Does LIC have recommendation for oversubscription for Physical to Virtual ratio such vCPU : LCPU, vMEM : pMEM for Application & Web, and Database Servers. Can LIC confirm if the Application supports Virtualization, and also supports Software Defined Storage. What is the support policy of the Application vendor with regards to Virtualization ? What is the Cluster Utilization level that LIC is fine with, in regards to the resources across compute, storage, and memory ?	Bidder should do independent assessment.

99	Data and Application Migration solution	The proposed solution should include Initial efforts of setting up eFEAP next system at ZO primary and near DR site at eight zonal offices and two co-locations sites. This includes installation of hardware, creation of virtual machines, TPA installation, loading of LIC's application and testing with sample data, followed by actual migration of data from divisional site to zonal site without any disturbance to end users.	Does LIC have required bandwidth to transfer data over network ? Can those details be shared with biggest server size, average server size in GB?	As per point 2.2.2.38 Vendor cannot assume use of any existing resources at source in divisional office like compute, storage and network connectivity to centralized site.
100	Infrastructure Architecture 7	The solution shall provide a software-defined and virtualized networking model that allows placement of ZO infrastructure on segments of networks that are isolated from each other and provide zero-trust security model, without dependence on the underlying physical networking infrastructure.	Does LIC is looking forward for micro-segmentation from software-defined model	Yes , Bidder to propose suitable solution.
101	Additional Queries	Additional Queries	Does LIC Require SSO with SAML, NTML, Form Field, oAuth ?	NO
102	2.2.2(26), Page 15	The proposed solution should include monitoring of server and client machines operations for suspicious activities and logs will be maintained at central sites for analysis and pattern identification for arresting the hack attempts beforehand.	Does LIC requires SOC operations as part of solution? Please clarify	scope is limited to "enterprise server security solution specification" of annexure VIII
103	BCP solution	Ability to add / change /modify business processes without deletion/ creation of new documents within the same year.	Does LIC team has already created BC plans or bidder need to create the BC plans	Bidder is expected to do it in line with LIC's business requirements.
104	BCP solution	Manage and coordinate incident response / crisis management plan and carry out post-incident reviews.	Does LIC team has already created incident response / crisis management plan which need to be automated	Bidder is expected to do it in line with LIC's business requirements.

105	Page 12 : CPU Details: 2 X Quad Core Nehalem Processor E5540 and Page 13 : Minimum cores for DB	Under the title Minimum cores for Minimum Cores for Database on proposed system, LIC has specified resources requirement for each DB instance/ VM	Does LIC want the DB instances / VMs for database to be in HA after consolidation, ? If yes, it will imply that there will be 2 instances of DB will be provisioned in the new environment. This query is based on our understanding described above on point 6. Kindly note: As per clause 12 on page 13, redundancy is required only for hardware.	Yes.
106	Page 12 : CPU Details: 2 X Quad Core Nehalem Processor E5540 and Page 13 : Minimum cores for Web and App	Under the title Minimum cores for Web and App, LIC has specified resources requirement for each instance (each VM)	Does LIC want the VMs for Web and App to be in HA after consolidation? Our query is based on the following understanding If yes, it will imply that there will be 2 instances of Web and 2 instances of App in new scenario. This query is based on our understanding described above on point 4. Kindly note: As per clause 12 on page 13, redundancy is required only for hardware.	No, 2 Web and 2 App VMs are active -active using load balancer.
107	2.2.2(25), Page 15	CCC	Does LIC wants bidder to perform monitoring and operations from the proposed command center?, please specify the resource requirement and relevant commercial line item for the same	Yes, bidder should propose suitable resource requirement. L2 engineers for hardware and software are already included in commercial annexure.
108	General Queries		Does the Efeap Application support virtualisation? Has this been tested?	Yes, but the vendor should perform independent compatibility study with the existing and upgraded versions of the existing software stack.

109	Page 16 - Section 2.2.2 - Point # 38	Full migration testing can be done before hand in UAT.	Does this include Full functional testing of the application ? If yes, is there a recommendation for automation testing(functional) to be undertaken, given the vastness of possible test scenarios across the eFEAP application suite?	Yes, The functional testing with automation tools for two divisions data with a goal to achieve benchmark for performance testing with real world conditions.
110	Security Solution	Deep Packet Inspection should have Exploit rules which are used to protect against specific attack variants providing customers with the benefit of not only blocking the attack but letting security personnel know exactly which variant the attacker used (useful for measuring time to exploit of new vulnerabilities).	DPI(Deep packet inspection) is a product is a vendor specific terminology . This solution is signature dependent all specific attack variant (old &new) needs specific exploit rules for protection. Our solution is not signature dependent. Hence upon implementation protects the environment from old new & zero day attacks automatically and this has approach has been successful and unchallenged since last 8 years in "Black Hat" event. We hence request LIC to retain the requirement without being vendor specific. We also suggest to include Solution should provide security monitoring across physical and virtual servers including real-time file integrity monitoring, anti-malware, configuration monitoring, event logging, intrusion prevention and system temper prevention.	We understand that deep packet Inspection is a generic technology and not vendor specific and also LIC is looking for solution supporting vulnerability, exploit and generic rule to prevent known/unknown threats. No change in RFP required
111	New Query	Proposing Hybrid HCI architecture for Web and App layer	During the pre-bid discussion, we spoke about the Hybrid HCI architecture which consists of high performance SSD and HDDs and how with intelligent tiering capabilities it can deliver high IOPS (100000 in LIC's case for Web & App). We request LIC to allow us OEM's to bid Hybrid storage for App and Web Tier as long as it is capable of delivering 100000 IOPs as desired performance.	The RFP is asking for full flash solution. Request Rejected

112	TIBCO		what is the sizing of HW for TIBCO required? Is TIBCO required in the new consolidated environment? What is the role of TIBCO currently and in the proposed architecture?	Tibco is running in APP-A server without any additional hardware requirement. After consolidation it is not required for intra-zonal message transfer but some solution is required for inter zonal message transfer.
113	AFM		What is the SW stack for AFM, accounts summary extraction & commission processing?	It is a COBOL program and MySQL database for all batch jobs.
114	Point no. 92 in Load Balancer Specification - Annexure VIII	Should Support VRRP based failover	Failover between load balancer must not lead to traffic disruption and also support session mirroring for seamless failover with without dropping connected users/sessions	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
115	General		Fault Tolerance on the other had creates a standby instance which is used only when the primary fails. Only complete hardware failure triggers the function. The function does not get triggered in case of OS freeze or similar situations. Also, depending upon number of instances which are being protected by Fault Tolerance additional Compute and Network capacity needs to be planned	Fault tolerance is required for database and NFS file server VMs, bidder is allowed to propose web and app server using load balancing without fault tolerance.
116	Point no. 60 in Load Balancer Specification - Annexure VIII	Following Server Load Balancing Topologies should be supported: : • IP Address Ranges Using imask	Following Server Load Balancing Topologies should be supported: : • IP Address Ranges Using imask (Good to have or optional)	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
117	Point no. 52 in Load Balancer Specification - Annexure VIII	Following Server Load Balancing Topologies should be supported: : Virtual Matrix Architecture	Following Server Load Balancing Topologies should be supported: Virtual Matrix Architecture (good to have)	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.

118	Switch specification	The switch shall support advanced zoning and RBAC to simplify administration and significantly increase control over data access. Support for web based management and should also support CLI. It shall be possible to configure the switches with proactive alerts based on threshold values for temperature, fan status, Power supply status, port status. The switch shall be supporting SNMP (v1 and v3) management and appropriate MIBs shall be provided. The Switch should support Fabric Performance Impact Monitoring. The switch shall be optionally supplied with a GUI management software , capable of managing more than 36 fabrics and 2500 to 15000 port	For 15000 ports , we need BNA Enterprise. Do they need it, we have Webtool free for administration. Also for proactive alert, we need Fabric Vision Lic.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
119	9.29. Payment Terms	Site Not Ready	For payments related to Site Not Ready cases, we request LIC to release all payments within 30 days of the SNR issue.	Refer to 9.21 of RFP.
120	9.9, Page No 51	A Performance Bank Guarantee (as per Annexure VI-B) to the tune of 10% of the Grand Total Cost, shall be submitted by the selected Vendor, as Performance Bank Guarantee (PBG) for the equipment(s) supplied/ Services offered against this RFP.	For PBG amount, kind request to consider 10% of 5 year cost as initial contract period is for 5 years. Also LIC will taking PBG for 6th year & 7th year separately.	PBG will be as per point 9.9 of RFP.

121	General Specifications, SI.No.4	The hardware design of proposed solution should be scalable, so that capacity can be increased by addition of new server and storage as per growth.	For the HCI Architecture being asked for in case of Web & App, HCI by design compacts the storage and compute together, therefore future growth of storage can be done by adding additional node which will include compute and storage, or connecting to an external SAN which is being requested for Database. Growing Storage only node is not recommended, and is not feasible. Is LIC OK, with the above approach ?	The proposed solution should be able to scale up and scale out.
122	Section 2.2.2, Page 12	Desired State and broad Scope of Work	For user experience - Apm tools needs to be considered to commit on 2 seconds transaction response	Yes
123	Point no 13	Using FSPF, the switch must be able to load balance up to 16 equal cost paths across the SAN network	FSPF algorithm is used to identify Fabric Shortest Path , but 16 equal paths is Proprietary. We can load balance upto 8 equal cost paths. Please change to "Using FSPF, the switch must be able to load balance equal cost paths across the SAN network"	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
124	ADC	The OEM Should Be present in latest Gartner Magic Quadrant for Application Delivery Controller	Gartner has stopped publishing magic quadrant for ADC products since 2017 and come out with a market guide for ADC products. Hence Gartner Magic Quadrant for Application Delivery Controllers criteria is not applicable for ADC technology. Hence request you to change this point to "OEM should be present in the Gartner's 2017 Market Guide for Application Delivery Controllers"	As per RFP latest Gartner's Magic Quadrants any latest report, market guide released by Gartner will be considered.
125	Annexure-VIII-Technical-Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	Give a detail high level technical architecture diagram for the existing application setup?	Its already mentioned in Point no. 2.2.1 along with Annexure-VII

126	Point no. 13 in Load Balancer Specification - Annexure VIII	The vADC management should have two management roles: •The Global Administrator creates, initially configures, and monitors vADCs. The global Administrator should be able to dynamically allocate CPU and throughput resources by assigning capacity units and adjusting throughput limits to a vADC. • The Global Administrator creates, initially configures, and monitors vADCs. The global Administrator should be able to dynamically allocate CPU and throughput resources by assigning capacity units and adjusting throughput limits to a vADC. •. The the same tasks as with traditional ADCs, except for those vADC tasks that only the Global Administrator can perform.vADC Administrator is responsible for the day-to-day configuration and maintenance of vADCs using	Global and vADC administrator make sense but other critical role must be added. Example : Certificate manager , Application Editor , Operator , Auditor , Guest etc so different stakeholder can have required access to the application. Updated Clause would be : The vADC management should have two management roles: •The Global Administrator creates, initially configures, and monitors vADCs. The global Administrator should be able to dynamically allocate CPU and throughput resources by assigning capacity units and adjusting throughput limits to a vADC. • The Global Administrator creates, initially configures, and monitors vADCs. The global Administrator should be able to dynamically allocate CPU and throughput resources by assigning capacity units and adjusting throughput limits to a vADC. •. The the same tasks as with traditional ADCs, except for those vADC tasks that only the Global Administrator can perform.vADC Administrator is responsible for the day-to-day configuration and maintenance of vADCs. Certificate Manager: This role grants a user permission to manage digital certificates and keys, When granted terminal/shell access, a user with this role has access to the command line of the box. Application Editor: This role grants a user permission to modify a subset of local traffic objects. When granted terminal access, a user with this role has access to the command line only. Operator: This role grants a user permission to enable or disable nodes/server and member of service group or pool. Auditor: Role that grants read-only access to all configuration data on the system, except for ARP data, archives, and support tools. Users with this role cannot have other user roles on the system but can change their own user account password. Guest : Role to grants read-only access to all objects in the user's assigned partitions plus Common, except for: ARP data, archives, logs, support tools, SNMP configurations displayed in the load balancing Configuration utility, and other users' user accounts. A user with this role has write access to their own	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
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			user account password.	
127	Point 10, Page 13	Minimum configuration requirements for one division for eFEAP application excluding all over heads like High availability, de-duplication, compression, encryption, security, monitoring, management etc. is given below	Going from Physical to Virtual Servers incur performance penalty due to the Hypervisor layer. We request LIC to ask each bidder to provide additional capacity when converting capacity from Physical to Virtual to offset the performance degradation of the selected Hypervisor on the HW platform.	Minimum configuration for one VM is specified as 8 core. The bidders should propose suitable compute nodes having more cores per node such as 18/20/22/24 to take care of additional overheads.

128	HCI specification	Single button non-disruptive rolling upgrades of HCI software and system firmware.	HCI deployment process varies by OEMs. Requested modification: Single button/scripted non-disruptive rolling upgrades of HCI software and system firmware.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
129	Point 12	The bidder can propose suitable solution for Web & App layers including Hyper Converged Infrastructure but the database layer should be hosted on Traditional / Converged Infrastructure / Engineered systems / Linux on Power/Sparc RISC architecture. The multiple divisional databases can be hosted as physical server / virtual machine / as tenant under single Database using multi tenancy.	HCI is a modern day technology, adoption of which is growing faster than traditional standalone storage. We request LIC team to allow use of HCI for the purpose of databases as well as long as the vendor meets the RPO, RTO & uptime commitments as requested in the RFP.	Refer to sl no 12 under Infrastructure Architecture of annexure VIII-Technical-specification
130	Hardware Specification for Hyper converged systems Sl.No.3	Proposed solution must be present in the latest Gartner's Magic Quadrants for HCI and Integrated infrastructure and x86 modular servers or any latest report, market guide released by Gartner.	we ship a factory integrated appliance with vSphere and vSAN binaries pre-loaded, our Converged Architecture can provision for CI & HCI, and even the HCI nodes can be directly access the SAN storage, also the CI node which is rack optimized can be converted in to a HCI node as well. Requesting LIC to either refer to the HCI latest Gartner report or the Market Guide for Compute Platforms, Published: 17 July 2017 ID: G00325462 and allow to quote HCI Node.	As per RFP latest Gartner's Magic Quadrants for HCI and any latest report, market guide released by Gartner will be considered.
131	Hardware Specification for Hyper converged systems Sl.No.4	It is recommended that the HCI Hardware and HCI software is manufactured and developed by the same OEM.	As per LIC the requirement is for perpetual license of the software stack, and no dependency on the underlying hardware. Though this is a recommendation, we would kindly make the submission that our systems are factory integrated, and an appliance, and we have developed management software for the lifecycle management of the entire stack that plugs in to the virtualization management console.	The proposed HCI software & hardware should be factory integrated by the OEM, LIC should have flexibility to decouple the HCI software from hardware, in order to run HCI software on any certified hardware.

132	9.30. Terms & Conditions for Maintenance of Hardware during the Warranty and AMC period; Page No 63	Spares for the hardware should be available for a minimum period of 7 years from the date of installation of the Hardware irrespective of whether the equipment is manufactured by the Selected Vendor or procured from any other Principal Vendor (OEM). The entire responsibility will rest on the selected Vendor for servicing and proper functioning of the equipment supplied. During specified tenure, if it is found that spares or support of hardware is EOSL and is not available, then the existing hardware will have to be replaced by equivalent or higher model by the Selected Vendor at no extra cost to LIC.	Hope ESOL mean end of service life (or End of support) only	It is End of Service Life.
133	Storage	The solution shall also support storage space efficiency features like de-duplication, compression and RAID 5/6 with erasure coding i.e. protection against single drive and simultaneous dual drive failure. [All overheads should be taken care of separately. Alternative solution /mechanism meeting the Technical requirements for the Solution can be proposed with documentation.]	How about DB RAID 5/6/10 ?	RAID 5/6 ARE ALLOWED
134	11.12/Page 74	As per RFP	How is a conflict of interest defined?	Refer 11.12 point of RFP.
135	2.2.2(10), Page 13	Core for web/app and DB	How many app, web and DB VM's to be considered?	Refer point 2.2.3(1)
136	Section 2.2.2, Page 12	Desired State and broad Scope of Work	How many user sessions per use allowed?	Only one session per user.

137	SAN related specification. Point No. 7	Proposed storage should support all protocols like FC, iSCSI, CIFS and NFS. Further it should support both Block and File Protocols. File services should not require any extra hardware and must be built in the processor, any other additional capacity hardware/software required for the same should be quoted on day one for entire scalable capacity.	software for block services and file services. They runs on dedicated hardware instead of running on the same controller together. Please relax this point as The proposed storage solution should support all protocols like FC, iSCSI, CIFS and NFS. Further it should support both Block and File Protocols, any other additional capacity hardware/software required for the same should be quoted on day one for the proposed usable capacity.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
138	SAN related specification. Point No. 23	Replication Solution shall support unified replication of File and Block data within a single Consistency Group.	Software for block and file services. Replication for both the services is possible individually and not within a single consistency group. Please relax this point	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
139	Blade related specifications, Sl.No. 8	The Blade should be scalable to 3TB of DDR4 2666 MHz RAM	If any serve 2 Socket based Rack / Blade needs to be scalable to 3 TB then we would need to have Intel-M based processors, and 128 GB DIMM. Requesting LIC to let us know if 128 GB DIMM and Intel-M series processor is required from Day 1 ?	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
140	10.1 (a)	Failing to do so, penalty will be levied in case of every event of breakdown / defect/ malfunctioning of hardware, hardware component, accessories, system software, due to patch download / upload or for any reason,	If services are enabled with work around from DR / redundant devices without performance degradation is penalty applicable for reported incident.	Penalty clause as per 10.2
141	Migration	Migration	If the migration activity is being carried out after closure of office hours then why is downtime of application during migration prohibited?	Downtime is needed for stopping scheduled batch operations after office hours.

142	Technical Specification worksheet	Specifications for Key management	If there is no existing Key management solution in use, please provide detailed specifications for KMS and the locations where it should be hosted.	There is no existing key management solution, the proposed solution should be able to integrate with the any leading key management solution. Encryption at controller level or hypervisor level are also allowed. In case bidder is proposing central key management solution. The primary site will be Mumbai ZO and secondary at Bangalore co-location site.
143	Section 2.2.2, Page 12	Desired State and broad Scope of Work	If Vendor is responsible: can we assume that the current test cases and SMEs will be available to provide necessary support?	Yes, LIC will provide necessary support for testing
144	Annexure-VIII- Technical specifications- Infrastructure Architecture- Point 53	The solution shall provide Industry-standard IPSec and SSL VPN capabilities that enables securely extending the virtual data centre without any requirement of special hardware device	In a Data Center environment, IPSEC and SSL VPN functionalities is effectively and efficiently handled by the perimeter devices like routers/firewalls which are purpose built for such specialized functionality. Keeping in mind the design principles and capabilities provided by hardware devices, we request LIC to remove this point from the RFP	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
145	Annexure-VIII- Technical specifications- Infrastructure Architecture- Point 46	The solution shall provide a virtual load balancer with in-built high availability to scale application delivery without the need for dedicated hardware. The load balancer should support Web, SSL and TCP-based scale-out for high-volume applications.	In a Data Center environment, load balancing functionalities is effectively and efficiently handled by purpose built solutions which can either be in a virtual form factor or hardware form factor. For such specialized functionality and keeping in mind the design principles we request LIC to let bidders propose either software or hardware based load balancer. Asking bidders to only quote software based solution will not let specialized solution providers to propose their solution.	Software appliance or hardware based load balancer is allowed.

146	General	The Solution considers all dimensions of application workload demand including storage, network and applications in addition to CPU and memory and applies it to the analytics to ensure all workloads have the required CPU and other resources to meet their SLAs while maximising infrastructure efficiency.	In addition to this the solution should "The Solution considers all dimensions of application workload demand including storage, network and applications in addition to CPU and memory and applies it to the analytics to ensure all workloads have the required CPU and other resources to meet their SLAs while maximising infrastructure efficiency." "	Bidder to propose suitable solution
147	6, Page-13	The bidder should propose the infrastructure to consolidate the Data Centres at Zonal sites and co-location sites. There is a loading of one extra division per zone considering the workloads at zonal offices such as IPP, PF, ZTC, ZO-eFEAP and provision for new initiatives. There are some workloads equal to one divisional load at central office like CBK1, PCMC, EPS1, CO-eFEAP, CO-HI servers at Hyderabad and SMS servers at Ernakulum. One division capacity is required for CO-MIS servers at Pune; one division capacity is required for software development and software tools; one division capacity is required for UAT and integration testing. Total 4 divisions capacity is required for central office. The load of central command center is not included in this as bidder is required to estimate and propose the management load of all activities. The site level details are given in table1 above	In all DOs required storage capacity is different hence it's difficult to design the solution with right sizing. Requesting you to categorize the DOs to do the right sizing for CO.	One division minimum size is already provided in RFP and bidders are expected to size in one divisional unit

148	HCI specification	The HCI must support IO striping across all hyper converged nodes for individual virtual machines. The virtual machine disk must be distributed into different HCI nodes on the fly and should not be stored entirely on any single node in the HCI cluster	In mission critical workloads, where performance and uptime crucial, data locality helps to deliver better peak performance & predictable performance, backup/recovery and data rebuild capabilities. These are most critical aspects for solution such as EFEAP Implementations of LIC Request to remove this clause as it is vendor specific. Different HCI architectures have different data management capabilities.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
149	General Queries under Application		In the current DB what are the different type of objects and how many in total	There are 3000 tables with indexes and some views. No triggers
150	DC Network Switching Point No.9	Switch should support 1000000 IPv4 and IPv6 route entries in the routing table	In the Data Center network these many routes may not be required. Request you to change this to Switch should support 700000 IPv4 and IPv6 route entries in the routing table	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
151	General Queries under Application		In the UAT testing post migration phase, is business logic testing also included in the scope or only the sanity and integration check of the system environment	In phase one after lift and shift of division, only sanity and integration check of the system environment is required.

152	References	The bidder should have experience of implementing proposed SAN component of infrastructure solution with atleast 2 references of customers in India, the size of the reference site should be comparable to the requirement of LIC in this RFP. The reference customers should be Government departments, PSU and BFSI sector companies. The bidder needs to provide supporting purchase orders for the same. The comparable reference sites will be given higher weightage for technical points. Bidder should ensure to give references with necessary documents without any ambiguity.	Indian & Global ?	Indian
153	Backup	Netvault Backup	Is mandatory to provide Backup software	Kindly refer to 2.2.2 - Desired State and Broad Scope of work
154	Page 15 - Section 2.2.2 - Point # 26	The proposed solution should include monitoring of server and client machines operations for suspicious activities and logs will be maintained at central sites for analysis and pattern identification for arresting the hack attempts beforehand.	Is customer considering security solution?	yes.
155	Annexure-VIII-Technical-Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	Is it an as is Migration or any cross platform Migration involved?	It is already mentioned in section 2.2.2 point no. 33. In case the bidder is proposing cross platform migration then the bidder is required to perform feasibility exercise on its own , before proposing the solution.
156	Additional Queries	Additional Queries	Is it mandatory to support Inbuilt OTP support	No. Bidder should ensure that the proposed solution meets RFP requirement for the desired SLA.

157	Page 14 - Section 2.2.2 - Point # 17 under 'Desired state and broad scope of work'	The proposed solution should ensure that the end user response time for enquiry type application like policy status report is less than 2 seconds, which means that there should not be any additional delay due to network distance, where ever user is waiting for the response. All batch jobs like AFM, accounts summary extraction and commission processing time should reduce by at least 50 %.	Is it recommended that the bidder use a performance testing tool to ensure the mentioned response time of 2 seconds or lesser and the batch jobs reduce by at least 50%?	Bidder should ensure that the proposed solution meets RFP requirement for the desired SLA.
158	General Specifications	In the second phase , web layer is proposed to be migrated to a single JEE 6 onwards complaint web server middleware to be proposed by the bidder, which will replace sixteen web server VMs of central zone in the above example, to the proposed web server middleware solution which should be able to handle the load of complete zone. The bidder has to include JEE 6 onwards complaint web server licenses and migration efforts from existing Glass fish web server to proposed web server middleware. The proposed web server middleware license / subscription should not be for more than 256 cores for all production sites.	Is middle ware design, install and migration be SI responsibility or LIC ?	Bidder is responsible for suitable solution, plan, design, implement and migrate.
159	2.2.2(6), Page 13	PP,PF,ZTC,ZO-Efeap, Provision for new initiatives, CBK1, PCMC, EPS1, CO-eFEAP, CO-HI, SMS and CO-MIS Server, Software Development and software tools, UAT and testing	Is near DR and Far DR required for this additional components	yes
160	Point 23	The proposed solution should guarantee sync replication for database for near DR site and async replication to far DR sites with RPO not more than 15 minutes.	Is the bidder expected to propose replication solution for MySQL database ?	No. Bidder is allowed to propose the same only to meet SLA requirement , if required.
161	Section 2.2.2, Page 16	Post installation support of the systems supplied and installed till the hardware is given as buy-back. The support should be provided by the Vendor directly or through the OEM. No Service Partner can be appointed for servicing of the hardware.	is the support provided by the vendor limited only to infra(hardware) or even application. Please share support scope	Hardware till buy back and software support for the complete project period

162	Annexure-VIII-Technical-Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	Is there any integrations between the applications?	Yes. It is already mentioned in Point no. 2.2.1
163	Annexure-VIII-Technical-Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	Is there Single-Sign (LDAP/AD Integration) capability implemented?	NO. eFeap has its own in-built Authentication and Authorization module.
164	Tape Library Specification	Shall support Native data capacity of more than 3PB (uncompressed) when fully populated, using latest LTO Generation Technology.	Is this compliance requirement , technically data is there on secondary (archival storage) then why Tape Library solution ?	All the backups with respective retention period should be available on Tape backup is for compliance
165	Private cloud	The Private cloud should be able to manage data centre switches from leading brands which are present in respective Gartner's quadrant.	Is this feature for Private cloud required in day one	Yes
166	Infrastructure Architecture, SI.No.19	It is recommended that the solution shall have tool based physical-to-virtual conversion facility to migrate existing physical workloads to the virtual platform with minimal disruption.	Is this tool a one time service effort, or would LIC like to have this tool as a perpetual license ?	As it is used during first phase only, perpetual license may not be required. Bidder to propose suitable solution.
167	Point no 14	The switch must support the aggregation of any ports from any module. The aggregated ports must NOT be consecutive.	It depends on which model of the Switch we are using , generally this point is valid for only Director Class Switches. Please change to "The switch must support the aggregation of any ports'	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.

168	eFEAP Next PPT. Slide-32	NFS Service	It is realised that LIC currently has millions of files which needs to be stored in Archive for long term retention. However, we would recommend that the NFS storage with required capacity on NLSAS, itself would provide a better throughput compared to an object storage, which will play a vital role in faster restoration of old files. More importantly, all the files will need to be converted into blocks which would add overheads during backup and restoration. More importantly, Object Storage has dependency on applications understanding S3 & SWIFT protocols which needs to be validated as per LIC's current and desired state of Infrastructure applications.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification. The intent is to have a robust system for management of millions of files and provide NFS like interface to application programs.
169	9.29, Page No 61	The payment will be released by the IT /SD department, Central Office.	Kind request to confirm which office will make payment for all the hardware, software & Services delivered to CO & ZO.	LIC will decide in consultation with selected bidder.
170	eFEAP-Next-Hardware-RFP Qualification criteria Page 10	Bidder must have implemented Infrastructure solution of proposed OEM in at least 2 Government Departments, PSU, BFSI sector companies having purchase order worth not less than Rs 15 Crores for supply of traditional, converged, hyper converged, Integrated Systems in India in any of last three financial years.	Kindly clarify 2 projects reference required from each vertical or any of mentioned verticals?	Two specified project references from any vertical like traditional, converged, hyper converged, Integrated Systems
171	eFEAP-Next-Hardware-RFP Desired State and broad Scope of Work	Point 22 - Network connectivity from two telecom vendors for every office is proposed using MPLS lines. The hardware infrastructure should be compatible with the proposed network plan and corresponding equipment.	Kindly clarify MPLS links and replication links will be provided by LIC or the Bidder?	Will be provided by LIC for far DR.

172	2.2.2. Desired State and broad Scope of Work - Point 45 & Page 17	45 In the existing eFEAP setup at division office, full database backup on tape requires 20 hours on weekend and 30 minutes for incremental daily change backup. After consolidation at zonal level, the backup time for full zonal level backup should not be more than 6 hours. The bidders can propose parallel disk to disk backup technologies with facility of taking full tape backup whenever required for a specific division or full zone.	Kindly confirm existing connectivity environment which is completing backup in 20 Hrs on Tape . Please confirm Tape drive type	refer to point 2.2.1(2.i) of RFP.
173	Point 10 under 2.2.2	Point 10 under 2.2.2 on page 13	Kindly confirm if DB is to be virtualized and if DB and app+web servers can be run on same host server	Yes, DB server should be virtualized and it can run on same host.
174	2.2.2 (Clause 51)	Duration of training	Kindly provide the timeline for Training	The details are provided in point 51 of 2.2.2.

175	Switch specification	Switch should have minimum 40 Mb of buffer	Kindly reduce to 32 MB of shared buffer as 32MB is sufficient for Leaf requirement in Spine Leaf architecture	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
176	SAN related specification. Point No. 14	The proposed storage should be configured with minimum (8 X 32 Gbps FC ports and 4 X 10Gb Ethernet ports) for zo site and (16 X 32 Gbps FC ports and 8 X 10Gb Ethernet ports) for colo site for iSCSI and NFS protocols. The storage should support future protocols like iSER and NVMe. Array must be capable of upgrading more FC, iSCSI, Ethernet ports online in future.	Kindly relax the per port front end ports speed to 16Gbps keeping the overall bandwidth same as SAN switches requested are of 16 Gbps port speed ZO Site - 16 X 16 Gbps FC ports and 4 X 10Gb Ethernet ports COLO Site - 32 X 16 Gbps FC ports and 8 X 10Gb Ethernet ports (with FS9150, 2 node pairs at COLO, else max 24 FC ports can be given in 1 node pair)	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
177	SAN related specification. Point No. 21	Storage architecture shall allow new Microcode/Firmware to be effective without any need of Controller reboot. Firmware should be upgradeable for functionality improvement and enhancements.	Kindly relax this point as our architecture will need a reboot for new features and enhancements	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
178	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Kindly share iops per node (each divisional office server)	Propose generic tool which will be run by LIC and results will be shared to all bidders.
179	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Kindly share the Design tools in SDLC	Bidder to propose suitable tools
180	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Kindly share tibco version	Tibco version 7.5.2
181	Backup	The proposed solution should provide for monthly full tape backup in encrypted form and keeping the tapes in safe custody with designated authorities at specified sites.	Kindy confirm if it is expected to keep Tape in fireproof chub / cabinet / offsite. Also confirm no. of tapes to be preserved onsite / chub	Yes, it will be taken care by LIC.

182	Pt 37 Pg. 16	The proposed infrastructure solution should support existing eFEAP application during lift and shift phase and then should have latest version of software at the time of installation and thereafter all security patches released by OEM will be loaded using enterprise management tools. The softwares installed by OEM should be compatible with existing software stack of LIC	LIC asks for Compatibility between existing Software and the new stack proposed by the bidder. Please provide a list of the existing stack so that the bidders can validate the same.	Refer section 2.2.1 of RFP
183	Annexure-VIII- Technical specifications- Backup Solution- Point 25	Proposed backup software should be listed in the latest Gartner Magic quadrant for Enterprise Backup software and recovery solutions.	LIC has allowed the use of their existing Quest Backup SW, however Quest is not mentioned in the Gartner MQ for Backup solutions. We would request LIC to re-consider this specification.	Bidder is allowed to propose suitable backup solution from Gartner MQ.
184	Annexure-VIII- Technical specifications- Infrastructure Architecture- Point 18	The proposed solution should be able to join primary and near DR cluster at zonal sites to make it one stretched cluster to provide one more level of redundancy and high availability.	LIC has asked for specific RPO & RTO & proposed solution is expected to meet that guideline. This point is specific to a vendor and makes wider participation a challenge. Request LIC to remove this point.	RPO and RTO comes in picture when primary site goes down, intent is to have primary and near DR in stretched cluster to provide uninterrupted service.
185	Annexure-VIII- Technical specifications- Management of Private Cloud- Point 20	The software should be able to analyse the workload in-premise as well as on public cloud	LIC has invited bidders to propose the solution for its private cloud project. This RFP specifications takes about workloads on public cloud as well. This contradicts with the private cloud requirement and request LIC to remove the public cloud requirement	The proposed solution should be future ready as LIC may use the public cloud in future.

186	2.2.2. Desired State and broad Scope of Work Point 14	LIC expects business growth up to 15 % YOY over next five years. Vendor should design and plan for scalable architecture for corresponding growth in data size. Vendors should not propose use of de-duplication and compression technologies to provide sufficient storage space for project period. In case business growth is more than expected then there should be provision to add required hardware resources to provide more compute and storage.	LIC has requested capacity to be proposed without de-dupe and compression like features being considered. We would like to check on what kind of RAID (1 or 5) is expected while proposing the storage capacity. Typically for High-performance databases it is recommended to have RAID-1. Kindly confirm LIC has requested capacity to be proposed without de-dupe and compression like features being considered.	Refer to Annexure VIII
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187	Point No 8 Switch should have 40Mb of buffer	Hence, for a standard mid-sized enterprise, it is requested to amend the specification and ask for a buffer Range between 10-20 Mb.	LIC is a fairly large financial services customer. The Common unsaid thumb rule for large and complex Enterprises are a buffer value between 12-24 MB. This is a good size. Since every vendor has diff value of buffer, generally a range of 12Mb-24MB is mentioned rather than a specific value. Having a very specific buffer value will inhibit LIC from getting architecture and platform advantages of various vendors. Traffic Patterns which have many to one communication like TCP in cast traffic or Hadoop cluster typically require of buffer from 50-100MB , so these specific use cases require deep buffer switches - which is NOT the current use case classification or even later as far as the eFEAP Solution goes.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
188	Hardware Specification for Hyper converged systems SI.No.28	Must support Inline Deduplication across SSD & HDD (all storage tiers). In case, the vendor solution does not support inline deduplication on HDD tier, the vendor must provide required storage for the solution.	LIC is requesting an All-Flash solution, We would read this section as applicable to an All-Flash solution only.	Yes , LIC needs all flash solution.
189	DC Network Switching Additional Query		LIC should consider Next Generation Spine and Leaf architecture with SDN controller for network infrastructure in the Data Centers.	Bidder is allowed to propose suitable solution.
190	Hardware Specification for Hyper converged systems SI.No.14	The cluster should support 1,00,000 IOPS per node at an 80:20 Read: Write Ratio. The Storage access latency should be less than 2 milliseconds. These two criteria will have to be proved using Industry standard benchmarking tools. If the bidder cannot meet the above mentioned specifications, then required capacity should be provided by additional nodes at no extra cost to LIC.	LIC to indicate as to how this latency would be measured, would it be an average of read/write and would it be an average of per day ?	Vendor to propose open source tools for measurement of performance and latency. 2 millisecond of average consistent latency over the project period.

191	General Specifications, SI.No.11	The migration approach from old system to new, should ensure that there is no disturbance to any stakeholder, any operations and no disruption of existing services.	LIC to mention the available bandwidth from current Divisional Offices to Zonal Office, and the operating hours to be provided for migration ? Using software based replication between Divisional office to Zonal office we would need all the details of the current inventory, not limited to Server Model, Storage, Network Architecture, OS version, Details of the volumes to be migrated, etc.	The existing DO to ZO lines are 4 Mbps whereas there is about 1.5 Tib of data to be migrated. Further vendor can utilize the bandwidth only for a limited period from 11pm on last working day to 6 am of the first working day at ZO site. Network based migration seems to be impossible, hence vendor to justify their approach or suggest new.
192	Replication specifications	Replication	LIC to provide required bandwidth to meet RPO or RTO requirements	It will be provided by LIC for far DR sites.
193	9.30.2, Page 62	LD	Liquidated Damages. The phase-wise penalty is not quantifiable from the commercial template	Refer to payment clause in RFP
194	Point no. 94 in Load Balancer Specification - Annexure VIII	Should support Client table Mirroring from Active to Backup Device	Load balancer must support session mirroring to avoid connection drop during failover or other triggers.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
195	2.2.2(40), Page 16	POC	Location for POC, POC requirements and success criteria	The POC related information will be informed later
196	Point No # 3 of 2.2.2	Point No # 3 of 2.2.2	Looking at the overall requirement in the RFP, it is not very clear which are the acceptable system architecture for the infrastructure requirement. Can the bidder propose Hyper Converged Infrastructure for all the tiers (Web, App & DB)	Refer to serial no 12 under Infrastructure Architecture of annexure VIII-Technical-specification

197	Point No 16 Switch should support IEEE 802.1AE Mac sec	Request amendment on the same to support MacSec Feature only on Uplink Ports of DCI /interconnect only, and not on all ports.	Mac sec is a feature usually needed to avoid unauthorized tapping at layer 1 , this is needed on the exits or DCI interconnects beyond the physical DC itself to prevent unauthorized tapping and data leaks .Mac sec feature is not needed for all the leafs but instead needed only on the DCI interconnect leafs or leafs connecting to external world via long fibers to different telco rooms etc. The current specification may inhibit LIC from getting architecture and platform advantages of various vendors.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
198	Annexure-VIII-Technical-Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	Maximum concurrent users at peak load for each of the instance / application	Total number of users are mentioned in section 2.2.2 point no. 18. The peak load concurrency is 10% of total users.
199	Annexure-VIII-Technical-Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	Mention the number of Databases running in Single Instance and Clusters? For E.x. In Oracle à RAC, In MS-SQL Server à Always on/Replication.	Single Database for eheap running in Redhat cluster for physical redundancy.
200	Storage	Must support Inline Compression in persistent storage tier	Most HCI platforms support In-line Deduplication and compression. Requesting change to " Must support In-line Deduplication and compression"	Bidder is allowed to propose suitable solution.
201	Page 41. Section 5.4.h.	The services of L2 Engineer may be extended beyond one year at the approved per month rate depending on the requirement in future if required with negotiation between the Vendor and LIC.	Need Clarity	self explanatory
202	2.2.2(15), Page 14	250 TPM /7500 IOPS and 1000 TPM / 30K IOPS /5 Lacs IOPS / 20 Lacs IOPS	Need clarity on application benchmarking and capability for specified TPM and IOPS, is it required to conduct any benchmarking exercise for compute and storage	yes
203	9.25.1 Assessment of Services Page 57	Each element of the Services is subject to assessment by LIC against the relevant Performance Criteria.	Need clarity on assessment and performance criteria.	Refer to "2.2.2 Desired State and broad scope of work" and point 10 " Service level agreement" of the RFP.

204	Switch specification	Solution should provision inclusion of packet data on event trigger for forensic purposes.	Need clarity on the clause. Request you to elaborate. Does the clause means Solution should provide event logs to Security Operations Centre for further analysis	LIC is expecting to capture packet data for events triggered for forensics purpose.
205	Functional Specifications 2	The proposed solution should be able to inter-operate with other existing ecosystem in the data-centre.	Need details of existing solutions which are expected to be integrated	The proposed eheap next system is expected to integrate with enterprise portal, enterprise DMS, online underwriting portal, CADW etc.
206	Point no. 122 in Load Balancer Specification - Annexure VIII	System should supports providing SLA performance metrics	Need more information on SLA performance metrics	Proposed solution should be able to provide insights and reports about SLA performance
207	Page 15, 2.2.22	Network connectivity from two telecom vendors for every office is proposed using MPLS lines. The hardware infrastructure should be compatible with the proposed network plan and corresponding equipment.	Need to check the existing and if any changes need to be proposed	Existing leased lines from all branches to respective divisional sites will be replaced with MPLS links from two telecom providers.
208	Page 15, 2.2.27	The vendor should provide the tools required for accessing/monitoring resource utilization by different applications	Need to check what parameters are to be monitored as per LIC and spec a tool accordingly	Bidder should ensure that the proposed solution meets RFP requirement for the desired SLA.
209	2.2.2(51), Page 18	At the end of the all training modules, vendor is required to train selected LIC persons for advanced training for clearing certificate exams in proposed technologies.	Need to know the total no.of persons to be trained for advanced training.	ALREADY PROVIDED IN RFP
210	SAN Switch Specifications. Point No. 22	Public loop	Need to remove this. Loop is an old technology and since FC is a P2P protocol, loop should be avoided and it has device connectivity limitations	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
211	Point 3 under 2.2.1	Point 3 under 2.2.1 on page 11 and 12	Nehalem Processor E5540 is a 4 core processor. 2 processors in one server will give 8 physical cores and 16 threads. The table mentions total of 60 cores for DO. Kindly clarify if 60 cores is vCPUs (ratio of 1:7.5)	No, 60 physical cores

212	Infrastructure Architecture	The eFEAP system at divisional level is handling nearly one million flat files using NFS service for giving read / write access to web and app servers. Vendors can propose alternative solutions using object store with unique namespace and giving NFS services on top of object store to support eFEAP application. In case the bidder is not proposing alternative solution then the ownership of maintaining existing NFS based solution lies with the bidder.	NFS over object store is also possible by using NFS services locally with all the capacity locally present, while making a replication copy to Object Store in Far DR Site. Is this fine with LIC	Bidder to propose suitable solution.
213	Page 13 / Point No # 10 of 2.2.2	Minimum usable Storage for Web & App : 1 TB	No disk type (SATA/ SAS/ SSD) have been specified here. Also no clarity on RAID levels. Since these storage disks are meant for Mission critical Enterprise workload we would like to propose the following specifications to be incorporated for the drives/ RAID levels required for the file system: i) Datacenter/ Enterprise class SSD drives with Minimum usable capacity in a mirrored (RAID 1) configuration greater than 900 GB (since latest generation SSDs are available in capacity of 240 GB, 480GB, 960 GB etc.) ii) Endurance -DWPD 3 and above (Drive Writes Per Day) iii) Minimum read and write latency should be 40 micro sec or lesser	RFP is asking for full flash drives for usable capacity. The database, web and app storage should be in RAID 6. The other specs suggested are accepted as the Endurance - DWPD 3 and above (Drive Writes Per Day) and Minimum read and write latency should be 40 micro sec or lesser
214	2.2.2. Desired State and broad Scope of Work, Point no 49, Page no 18	The Infrastructure solution should propose security solution at hardware, software and network level	No of Application to be placed behind Web Application Firewall. HTTPS traffic in Peak Hrs. Expected throughput. Interfaces 1/10 Gig Copper/Fiber	https implementation is within the scope of RFP.
215	Annexure-VIII- Technical- Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	No of users in each of the application accessing database	It is already mentioned in section 2.2.2 point no. 18

216	Point2.2.3	The Point 1 says 2 Web , 2 App & 2 DB servers.	On Page 13 Point 10. Under proposed resource requirement, only 1 DB is considered. Will there be 2 DB or 1 DB server per DO ? Please clarify on the same	Active DB will be hosted at primary site and passive DB will be hosted at near DR site. In short only one database server for sizing calculation
217	Backup software specification. Point No.8	The proposed backup software should have the capability to enable WORM on the backup sets from the backup software console on proposed disk backup appliance.	Once the policy is set via backup software, the backed up data cannot be changed for that policy. Please relax this point as not all backup software has WORM inbuilt.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
218	2.2.2. Desired State and broad Scope of Work, Point no 49, Page no 18	support periodic third party surprise security audits to ensure compliance to IRDA security standards and other statutory bodies	Our understanding is just provide the support to external third parties for Audit.	Refer to “Enterprise Server Security Solution specification” in Annexure VIII. The requirement also includes support for Third Party Audits.
219	Page 15, point 27	GENERIC	Our understanding is that instance of monitoring and management solution will be deployed at single DC site using high-availability features. Two Far DRs are for eFEAP applications. Please confirm.	The bidder should propose tools for monitoring, management and helpdesk for installation at CCC. The two far DR site are for efeap application, no DR site for CCC setup, however the CCC (data/application) needs to be hosted in Mumbai co-location and DR at Bangalore co-location sites.
220	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Patch management tools are to be proposed in SDLC .	Bidder to propose suitable solution.
221	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Performance Testing tools in SDLC,	Bidder to propose suitable solution.
222	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Phase-2 middleware upgrade-web server migration depends on the use of any glassfish specific implementations. At the moment we assume that a simple lift and shift will work as no changes to the existing code are expected in this phase. Please confirm if we can work with this assumption or if any any specific services from glassfish have been used in the current implementation	There are some codes which are using glass fish libraries.

223	Point no. 17 in Load Balancer Specification - Annexure VIII	Physical resources like memory, CPU must not be shared between virtual load balancer instance, resulting in predictable performance of each virtual load balancer instance	Physical resources like memory, CPU can be shared between virtual load balancer instance, resulting in better performance of each virtual load balancer instance with resource sharing.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
224	Point 12 of Infrastructure Architecture section of Annexure VIII	The bidder can propose suitable solution for Web & App layers including Hyper Converged Infrastructure but the database layer should be hosted on Traditional / Converged Infrastructure / Engineered systems / Linux on Power/Sparc RISC architecture. The multiple divisional databases can be hosted as physical server / virtual machine / as tenant under single Database using multi tenancy.	PI include Linux on S390 also	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification. The bidder is responsible for migration of existing workload to new setup in phase -I of the project.
225	SAN related specification. Point No. 3	The solution shall also support storage space efficiency features like de-duplication, compression and RAID 5/6 with erasure coding i.e. protection against single drive and simultaneous dual drive failure. [All overheads should be taken care of separately. Alternative solution /mechanism meeting the Technical requirements for the Solution can be proposed with documentation.]	Please allow DRAID(Distributed RAID) as a Data Protection option along with Traditional RAID. Since DRAID uses all the drives including hot spare for Data that gives faster IO Performance & faster RAID rebuild times. DRAID only as the primary protection mechanism for block storage systems	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
226	Blade related specifications	The server should provide an aggregated Bandwidth of 80 Gbps scalable to 160Gbps	Please change to 40-80Gbps	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification. The intent is to have 4 X 10 G or 2 X 25 G with scalable architecture to be future proof.
227	Page No 2.2.2. Desired State and broad Scope of Work 26	The proposed solution should include monitoring of server and client machines operations for suspicious activities and logs will be maintained at central sites for analysis and pattern identification for arresting the hack attempts beforehand.	Please clarify	Required feature of security solution.

228	Page No14 2 .2.2. Desired State and broad Scope of Work 17	The proposed solution should ensure that the end user response time for enquiry type application like policy status report is less than 2 seconds, which means that there should not be any additional delay due to network distance, where ever user is waiting for the response. All batch jobs like AFM, accounts summary extraction and commission processing time should reduce by at least 50 %.	Please clarify	Enquiry type of application should respond within 2 seconds, irrespective of the distance between client and server. Similarly Batch processing jobs time to reduce by 50 %.
229	2.2.2(25), page 15	CCC	Please clarify as the requirement provided in RFP is only for Video wall, specify the number of seats required, is bidder expected to build physical environment and provide clarity and expected deliverables (product / service) for additional points like CCTV control, VC Meetings etc.	Civil works will be done by LIC. Bidder should propose and implement the solution.
230	2.2.2(28), Page 15	The bidder can propose software based load balancing solution, but in case any bidder wants to propose physical load balancer then it should find place in respective Gartner's magic quadrant for application delivery controller.	please clarify if - the load balancing requirement is for application or for the OS instance (without application awareness)	For application

231	Page No. 13 Point No.6	The bidder should propose the infrastructure to consolidate the Data Centres at Zonal sites and colocation sites. There is a loading of one extra division per zone considering the workloads at zonal offices such as IPP, PF, ZTC, ZO-eFEAP and provision for new initiatives. There are some workloads equal to one divisional load at central office like CBK1, PCMC, EPS1, CO-eFEAP, CO-HI servers at Hyderabad and SMS servers at Ernakulum. One division capacity is required for CO-MIS servers at Pune; one division capacity is required for software development and software tools; one division capacity is required for UAT and integration testing. Total 4 divisions capacity is required for central office. The load of central command center is not included in this as bidder is required to estimate and propose the management load of all activities.	Please clarify if any additional Capacity to be considered apart from details given in the above table	Minimum configuration requirements for one division for eFEAP application is given in RFP. All other over heads like High availability, de-duplication, compression, encryption, security, monitoring, management etc. needs to be provided by the bidder.
232	2.2.2(43), page 17	Object Storage	Please clarify if LIC will perform the rewriting of codes to support object storage requirement	The solution should be proposed in such a way that no code changes are required.
233	2.2.2(10), Page 13	Minimum core for web/app and DB	please clarify if the core considered here is physical core	yes
234	2.2.2(13), Page 14	The complete hardware, network, backup and other requirements of proposed solution should be accommodated in maximum five racks. The detailed list of divisions under each zone is provided annexure III. Please note that the existing power supply for each rack is 6 KVA	Please clarify in case of any limits for Co-location (Bangalore & Navi Mumbai)	No such space and power restrictions at co-location site
235	BCP solution	Reference customer names for checking BCP operations.	Please clarify on BCP operations and required reference customers	The clause is self explanatory.
236	BCP solution	Carry out BIAs including process level risk assessment& single point of failures	please clarify on BIA requirements and specify if BIA to be done as an separate assessment and relevant commercial line item for the same	Business Impact Analysis is within the scope of this RFP. Hence the should be factored in bidder's proposal.

237	BCP solution	It should monitor compliance and compliance deviations need to be reported back in near real time.	please clarify on compliance standards to be considered?	Refer point 49 page 18.
238	2.2.2(10), Page 13	storage for web/app and DB	please clarify on how this sizing input to be read in conjunction with Annexure - III. Please clarify which information to be considered for final solutioning and commercials	Point 2.2.2(10) has the minimum requirements. Annexure-III contains current usage.
239	2.2.2(39), page 16	New software and patch application	Please clarify on new software and other patch application	All the TPS mentioned in 2.2.1(2) of RFP
240	2.2.2(5) Page – 12	Compute is factored for 60 / 65 locations respectively and storage for 125 locations	please clarify on storage sizing for co-lo sites. It is for 60/65 or 125 at both locations	Storage is for all locations whereas compute for 50%.
241	General	Core part	Please Clarify on what constitutes "core part" of the solution ?	Refer 2.2.1 on page 11 of RFP document.
242	General	TPM and IOPS	Please clarify the definition of TPS & Business transactions considered for arriving at per TPS. This will help understand the sizing impact for 1000 TPS per DO	Refer 2.2.1 on page 11 of RFP document.
243	Page No 15 2.2.2. Desired State and broad Scope of Work 23	The proposed solution should guarantee sync replication for database for near DR site and async replication to far DR sites with RPO not more than 15 minutes.	Please clarify the RTO required	For Near DR the RTO should be less than one minute using the load balancer for web , app tiers. For far DR the RTO should be less than 1 hour.
244	Tape Library Specification. Point No. 1	Shall support Native data capacity of more than 3PB (uncompressed) when fully populated, using latest LTO Generation Technology.	Please clarify the understanding that 3 PB equivalent tape cartridges are needed. For example: 3 PB / 12 TB = 256 cartridges in each ZO or bidder to size the solution to meet the backup requirement	Tape backup is proposed at co-location sites only. All the backups with respective retention period should be available on Tape backup as per proposed solution.
245	Page No15 2.2.2. Desired State and broad Scope of Work 23	The proposed solution should include setting up of state of the art Central Command Center for DC/DR Administration for handling all types of hardware and application issues. The Central Command Center should be equipped with big monitoring screens displaying critical information dashboards, CCTV controls, facility of VC meetings with other LIC teams and outside vendors.	Please clarify we need to build the Active & Passive IT components in LIC premises.	LIC will provide the space and furniture. Bidder should propose all other components like Monitoring screens, IT equipment's including the licenses and L2 engineers expert in proposed technologies for monitoring.

246	Page No 17 2 .2.2. Desired State and broad Scope of Work 43	The eFEAP system at divisional level is handling nearly one million flat files using NFS service for giving read / write access to web and app servers. Vendors can propose alternative solutions using object store with unique namespace and giving NFS services on top of object store to support eFEAP application. In case the bidder is not proposing alternative solution then the ownership of maintaining existing NFS based solution lies with the bidder.	Please clarify whether application can be integrated with Object store	Yes using S3 protocol.
247	Page No 18 2 .2.3 Important Phases of the project 2	In the second phase web layer is proposed to be migrated to a single JEE 7 and above compliant web server middleware to be proposed by the bidder, which will replace sixteen web server VMs of central zone in the above example, to the proposed web server middleware solution which should be able to handle the load of complete zone. The bidder has to include JEE 7 and above compliant web server licenses and migration efforts from existing Glass fish web server to proposed web server middleware. The proposed web server middleware license / subscription should not be more than 256 cores (total requirement) after consolidation of web layer at all zonal offices instead of 1808 cores being used in existing Glassfish server in all 113 divisions.	Please clarify whether Bidder or OEM needs to migration	Bidder is responsible for the proposed web server middleware solution including migration.
248	Page No 14 2.2.2. Desired State and broad Scope of Work 12	Redundancy is required in terms of high availability of application with HA for server hardware and Ref: LIC/CO/IT-SD/EFEAP-NEXT/INFRASTRUCTURE-SOLUTION/18-19/01 Dated: 01/01/2019 Page 14 multiple copies of Data.	Please clarify whether Hardware level HA or Application HA is required	Hardware level HA using additional physical hardware for redundancy using virtualization solution. Application HA will be based on load balancer at web, app and database tier.

249	Page No 14 2 .2.2. Desired State and broad Scope of Work 13	The infrastructure solution should be proposed considering the rack space limitations at zonal data center. The complete hardware, network, backup and other requirements of proposed solution should be accommodated in maximum five racks. The detailed list of divisions under each zone is provided annexure III. Please note that the existing power supply for each rack is 6 KVA.	Please clarify whether it is rated or consumable power rating	It is rated power.
250	Page No 182 .2.2. Desired State and broad Scope of Work 49	The Infrastructure solution should propose security solution at hardware, software and network level and support periodic third party surprise security audits to ensure compliance to IRDA security standards and other statutory bodies.	Please clarify whether SIEM & other security components are needed or can we use existing IRDA security components	The proposed solution should integrate with the EXISTING SIEM solution. There is no existing server level security solution which can be used.
251	2.2.2(6), Page 13	There is a loading of one extra division per zone Total 4 divisions capacity is required for central office	Please clarify whether this is already factored in Site level details table on page no.12 of RFP	yes
252	Page No14 2 .2.2. Desired State and broad Scope of Work 15	The existing divisional sites are processing 250 transactions per minute at peak load with estimated 7500 IOPS from existing storage. In proposed ZO centralized setup each and every division should be able to process 1000 transactions per minute with minimum 30,000 storage IOPS, after consolidation of respective divisions at zonal level a minimum of 5,00,000 IOPS is required with latency of less than 2 milliseconds and at co-location minimum storage IOPS for this load is around 20,00,000 IOPS with latency of less than 2 milliseconds. The bidders should size the infrastructure solution to meet this minimum requirement of eFEAP application. Please note that this requirement is for application only, vendor should calculate and provide hardware capacity for all other system, management and additional software overheads.	Please clarify whether we need to configure NDR & DR with similar configuration	Yes.

253	Page No 15 2 .2.2. Desired State and broad Scope of Work 19	In the existing eFEAP setup, in case of any failure then due to distributed nature of data Centre, the impact is limited to only to that division. After consolidation at zonal level the impact scope may increase to zonal level affecting all divisional offices. The proposed solution should be built using high availability of each and every component without any single point of failure. In case primary site fails, then using load balancer configurations the near DR site should automatically come up and give uninterrupted service to end users. The proposed solution should include setting up of primary and near DR network to ensure network latency of less than 1 millisecond to near DR site for zero data loss.	Please clarify whether we require physical or virtual isolation	Primary and Near DR should be physically isolated in different building inside same campus or wings apart in big building.
254	Storage	Proposed object storage should be offered with minimum 1 PB of usable storage and should be scalable to 8 PB usable for future expansion maintaining single namespace.	Please confirm if appliance based solution is required or a software solution running on commodity servers can be proposed.	bidder to propose suitable solution as per RFP requirement.
255	2.2.2(21), Page 15	Hosting of Far DR.	Please confirm if LIC will provide hosting location	yes
256	Private cloud	The software should be able to analyse the workload in-premise as well as on public cloud	Please confirm if the Private cloud to be quoted. Since there is no scope of Public cloud here, do we need to quote private cloud SW to manage Onprem and off prem	Yes, bidder to propose suitable private cloud software.
257	9.16. Repeat Orders:	Beyond the validity period which is mentioned above, LIC reserves the right to place repeat orders for additional hardware and services on the same terms & conditions at prices which will be negotiable. Repeat Orders for Part-I items may be placed after the price validity period up to 2 years.	Please confirm whether our understanding is correct. "LIC will allow for price re-negotiation for repeat orders."	Yes after bid validity period
258	9.20. Deliverables and Timelines:	Installation(Hardware and Software): 15 days	Please confirm whether the 15 days timeline is after Hardware / Software delivery?	Hardware Delivery

259	General	Architecture Blueprints	Please define standard architecture with graphical canvas. What is the use-case and recurring need?	bidder to propose as per RFP requirement and provide the same.
260	2.2.2(17), Page 14	Network Latency	Please define what all enquiry types are covered under less than 2 second response and what's the current response time for the same and how is it measured across the remotest location! Enquiry type queries like policy status report etc. are taken from separate MIS database or its taken from the same transactional database please clarify the role of DOMIS and COMIS	All read only information which are fetched using primary key without much business logic are called enquiry type operations. There is only one database for efeap. DOMIS and COMIS are separate applications using their own database.
261	Security Solution	3 rd Party Endpoint security	Please elaborate on 3 rd party security solution to be integrated	Refer page 59 of RFP document.

262	General	The proposed software must support multi-site replication. It should support up to 4 replica copies for each protected virtual machine. The appliances should be software only solution must be deployed in clusters and support up to 8 appliances within a cluster.	Please elaborate on realistic baseline requirement of LIC because 4 replica copies does not seem to be a practical deployment practice.	business requirement
263	Private cloud	It must support automatic provisioning of target VM's as well as the journals.	Please elaborate on this point for clear understanding	Self explanatory
264	SAN related specification. Point No. 20	Vendor should provide warranty for Flash drive with minimum 5 years irrespective of read/write on flash/ssd. The Storage array should support continuous system monitoring, call-home notification, advanced remote diagnostics and proactive hot sparing to enhance system robustness, availability and reliability.	Please elaborate your understanding of proactive hot sparing	Based on the system monitoring bidder should provide hot spare in advance.
265	Page No 13 2.2.2. Desired State and broad Scope of Work 8	The existing DOMIS servers present in all 113 data centers get their inputs from DO eFeap servers, after migration these 113 DOMIS servers are to be shifted to ZO sites as virtual machines. Each DOMIS server is a dual core machine with 1 GB RAM and 100 GB of disk space.	Please give clarification whether we need to export these VM's or do a P2V conversion	The existing DOMIS is a physical server, bidder should propose suitable migration approach.
266	Infrastructure Architecture, Sl.No. 13	The proposed infrastructure solution for web + app layer and database layer solution is recommended to be from same hardware OEM.	Please let us know if we can recommend best of the breed solution from different OEM. The bidder will take the responsibility in deployment, integration and manage the lifecycle of the solution.	Bidder to propose suitable solution.
267	Annexure-VIII- Technical- Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	Please mention the version details for each of the application technology stack (OS, Database, Middleware, ETL, SDK's etc.) for each component in the technical architecture diagram.	Its already mentioned in Point no. 2.2.1
268	2.2.2(25), Page 15	CCC	please provide detailed functional requirements for CCC and relevant commercial line item for the same.	ALREADY PROVIDED IN RFP

269	2.2.2(52), Page 18	The bidder is required to arrange for the buy-back of the existing hardware setup (8 servers and SAN box along with switches and other peripheral components used for running existing eFEAP setup) at 113 locations and eight zonal sites.	Please provide detailed list of equipment with configuration and current location and timeframe for transitioning of equipment to bidder	ALREADY PROVIDED IN RFP
270	General	NFS	please provide details on existing NFS deployment	In existing setup DBSR is NFS server and WEBBA, WEBB, APPA, APPB and BKPA server are NFS clients. The file system LUN is mounted on DBSR server from SAN storage via FC connectivity.
271	Pt 47 Pg 17	D2D2Tstrategyisrequiredforbackupoperations.UseofdedicatedD2Dbackupapplianceisrequired instead of using space inside HCI/CI/SAN. The D2D backup should provide Point in time recovery with protection window of 35 days. The tape backup should be performed as full backup on weekly, monthly and yearly. Disk to Disk backup appliance should take care of all the backup needs as per the backup policy and should be able to integrate with the proposed backup software. It is informed that sufficient licenses of Netvault backup software are already available with LIC. Bidder can propose use of Netvault backup software provided all proposed hardware and software components are compatible	Please provide specs for the D2D appliance to normalise the deployment and ensure that all vendors quoting D2D appliances should provide appliances with equivalent features and capabilities.	Please refer "Disk to Disk to tape Backup Appliance Specifications" in technical annexure
272	2.2.2. Desired State and broad Scope of Work, Point no 49, Page no 18	The solution should propose data encryption at rest and all communication will happen over encrypted tunnel	Please provide the count of databases along with their details (e.g.. Oracle, Mongo DB..etc) for which encryption need to installed.	Refer to point 2.2.1 of RFP
273	The solution should propose data encryption at rest and all communication will happen over encrypted tunnel	HIPS, Host Based Firewall, Application Control	Please provide the count of Servers for which Host based Firewall, HIPS, Application Control need to be implemented, also provide the location wise split.	Encryption of data at rest is applicable for storage devices like disk and tapes. Encryption for transit data is not required in data center below TLS/ SSL offloading by the load balancer. The data replication between DC-DR sites should be encrypted. The count of servers depends upon bidder's proposed architecture.

274	Annexure-VIII-Technical-specifications	SAN related specifications Storage Cache	Please relax the specification and allow us to quote based on the performance requirement. Different vendors have different architecture and 4 controllers x 1TB cache/controller makes the configuration non-flexible.	The intent is to have enterprise grade storage. The minimum cache / Controller specifications remain same the bidder is allowed to propose suitable model which comes close to the maximum scalability requirements of RFP.
275	SAN related specifications	Storage Cache	Please relax the specification and allow us to quote based on the performance requirement. Different vendors have different architecture and 4 controllers x 1TB cache/controller makes the configuration non-flexible.	The intent is to have enterprise grade storage. The minimum cache / Controller specifications remain same the bidder is allowed to propose suitable model which comes close to the maximum scalability requirements of RFP.
276	SAN related specification. Point No. 8	The storage array should support single drive upgrades.	Please relax this point: Every software has different implementation of RAID protection mechanism while adding drive to ensure the availability and performance is consistent.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
277	Security Solution	Should support creation of customized DPI rules if required.	Please remove DPI (Deep Packet Inspection), which is a product of Trend Micro. This is very vendor specific and doesn't give a chance for any other bidders to bid. We request to add clause "Solution should support creation of custom rule"	We understand that deep Packet Inspection is not vendor specific but generic technology which most of the OEM's support. No change in RFP required
278	Annexure-VIII-Technical-specifications	Hardware Specification for Hyper Converged Systems 13. The HCI solution must be able to consume external storages vis FC and FCoE	Please remove FC and FCoE and allow to use iSCSI as external storage. This will also allow to match criteria 41. of HCI	Request accepted, The proposed solution must be able to consume external storages via FC / FCoE / iSCSI
279	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Please share monitoring tool for your current application server in place. Can you please share which tool(s)?	Bidder to propose suitable application performance monitoring tool.
280	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Please share per transaction , transaction response times from different remote Dos to respective Zos.	There is no eheap application which runs at ZO and accessed by Divisions, this is proposed setup
281	Page 15, point 27	GENERIC	Please share the list of existing monitoring, management and helpdesk tools present and to be used further. This will help us remove duplicate solutions.	The bidder should propose tools for monitoring, management and helpdesk.

282	Section 2.2.2, Page 17	In the first phase where lift and shift operations are more the bidder should arrange for at least one dedicated project leader and eight senior technical leads to take charge of eight sites. The bidder should arrange for not less than five junior technical engineers per site that means a total of forty junior engineers for the project. In first phase of migration the resources may be required in three shifts especially on weekends. After the site is completely migrated and stabilized the technical manpower requirement may come down to two shifts. The first shift to start at 7 am to 3 pm and second shift starting at 2 pm to 10 pm. The shift time includes half an hour recess time for each engineer staggered in such a way that continuous 24 X 7 support is provided. There should be at least two junior engineers per site.	Please share the support expectations. Support is expected to be provided only hardware?	These lines are for complete migration support from DO to ZO, this includes hardware, software and all other relevant operations.
283	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Please share utilisation reports from each division - compute - cpu , memory utilisation and disk capacity and IOPS	Not Possible, Propose generic tool which will be run by LIC on representative divisions and results will be shared to all bidders.
284	Monitoring	The solution should provide capabilities to monitor critical application service availability and alert for the servers hosted on the cluster.	Please specify if Application monitoring should be transaction based or real user based?	Transaction based.
285	HCI specification	HCI	please specify if HCI is mandatory	Not mandatory
286	General	specified timeline	Please specify project timelines for respective phases	Refer to 9.20 page 55
287	2.2.2(15), Page 14	TPM and IOPS	please specify the documentary evidence required for the same	OEM certification is required. Also bidder is required to prove the same using standard tools acceptable to LIC. LIC reserves the right to check the same also using any tool.
288	Security Solution	Software Defined Security	Please specify the functional requirement for the same	Refer serial number 47 of Infrastructure architecture specifications.

289	2.2.2(49), Page 18	The Infrastructure solution should propose security solution at hardware, software and network level and support periodic third party surprise security audits to ensure compliance to IRDA security standards and other statutory bodies.	Please specify the security guidelines to be followed and clarity on 3rd party audit (will it be provided by LIC)	LIC may share the compliance requirements with the selected bidder
290	Object storage	Object Storage shall protect all objects with Erasure Coding	Pls confirm if erasure coding needs be configured at individual site level or across sites.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
291	Annexure VIII, Disk to Disk backup Appliance Specifications, point no. 1	Proposed disk based backup appliance should be highly available with atleast two controllers in HA mode and should be able to scale-out by adding more capacity. The proposed solution should be scalable to 2 PB of capacity with addition of only drives with existing controllers.	Pls confirm if the 2 PB scalability needs to be supported without considering dedupe and compression.	Yes.
292	Annexure VIII, Disk to Disk backup Appliance Specifications, point no. 2	Proposed solution should support full backup to disk for faster restoration in 4-hours	Pls confirm the throughput to be supported for backup and restore.	bidder should propose suitable solution to meet the RFP requirement
293	Security Solution	The proposed OEM vendor should provide highest level of support and should assign a designated Technical Account Manager(TAM) on OEM payroll for addressing all critical issues whenever a support ticket is raised	Pls provide details of supporting document required by LIC as part of RFP response from OEM for confirmation of TAM on OEM Payroll.	Self explanatory
294	Point no 5	The switch must support Power On Auto Provisioning (POAP)	POAP is Proprietary , we use "COMPASS" which is a similar feature . Please change to "The switch must support Power On Auto Provisioning (POAP) or similar"	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.

295	General	SW requirement	Provide clarity on latest SW requirement and clarify on approach	Phase 1 - Lift and Shift Refer Point 2.2.1 Page 11. Phase 2 - Up gradation of the Software in consultation with LIC
296	2.2.2(22), page 15	Network plan	Provide network plan and type of connectivity ? Request to share network connectivity from two service providers and network plan and corresponding equipment	bidder should propose solution based on information provided in RFP.
297	4. Scope of Work 4.1. General conditions Page 39	The bidder shall propose solutions from vendors placed in the respective and latest Gartner Magic Quadrant. Technical Points shall be allotted on the basis of the position occupied by the vendor in the corresponding Gartner Magic Quadrant.	Query: Request to Exclude Physical Tape Library Component from Clause , as Gartner's Magic Quadrants give insight into the relative capabilities of vendors in many key segments: disk arrays, storage area networks, virtual tape products, storage services, PTL (Physical Tape Libraries) being a Offline Storage Platform is not considered a part of Gartner Quadrant. Provisioning and management software.	Request Rejected. Refer "Tape Library Specification" of Annexure VIII.
298	HCI specification	The HCI storage must have integrated wizard to schedule snapshot for hourly / daily / weekly / monthly snapshot policies. Any additional software or license must be provided on day 1.	Recommend Clause as specific to OEM. "The HCI storage should support integrated wizard to schedule snapshot for hourly / daily / weekly / monthly snapshot policies. Any additional software or license must be provided on day 1."	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.

299	Storage	Backend ports should be minimum 12 Gbps connectivity. The array should be supplied with 4 x 4 lane 6 or 12Gb/s SAS ports across storage controllers for back-end connectivity. The array shall have end to end per controller 6 or 12 Gbps SAS architecture for Backend and Disk connectivity with aggregate Backend BW per controller of at least 48 Gb/sBackend ports should be minimum 12 Gbps connectivity. The array should be supplied with 4 x 4 lane 6 or 12Gb/s SAS ports across storage controllers for back-end connectivity. The array shall have end to end per controller 6 or 12 Gbps SAS architecture for Backend and Disk connectivity with aggregate Backend BW per controller of at least 48 Gb/sBackend ports should be minimum 12 Gbps connectivity.	Recommend LIC to not restrict to 12 Gbps technology and also consider 6 Gbps BE SAS Ports requirement as Business Requirement of Capacity and Performance with SLA is mention. 12 Gbps SAS are available with storage that have limited number of ports. We have storage that can scale BE ports as required so even with 6 Gbps Throughput we could deliver higher Backend Bandwidth. hence request LIC to amend the clause as "The array should be supplied with 4 x 4 lane 6 Gb/s or 12Gb/s SAS ports across storage controllers for back-end connectivity. The array shall have end to end per controller 6 or 12 Gbps SAS architecture for Backend and Disk connectivity with aggregate Backend BW per controller of at least 48 Gb/sBackend ports."	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
300	2.2.2.(26), page 15	Tools	Relevant commercial line item for the same	Already present in Annexure-IX-commercial Annexure
301	9.21, Page No. 56	Site Not Ready (SNR) Clause	Request bank to confirm the how payment will be made in case of SNR	refer to 9.21 point of RFP.

302	Point no. 37 in Load Balancer Specification - Annexure VIII	Should support upto 6,000 SSL CPS of 2048 bit key strength upgradable to 20,000 SSL CPS of 2048 bit key strength for RSA.	Request Change: Should support upto 10,000 SSL CPS of 2048 bit key strength upgradable to 20,000 SSL CPS of 2048 bit key strength for RSA , Session should be new SSL Handshake without session reuse. Higher compression throughput will help in enhancing the performance of the box. Offloading of traffic compression processing is very critical to improve page load times and reduce bandwidth utilization. Why has LIC suggested such a low compression no . Considering high SSL throughput and device throughput requested. Also All performance parameters are asked as per scalability, hence LIC should consider scalability for compression throughput as well. The current specification without a scalability model for compression is then favouring a particular OEM business model. Also Commercial evaluation should be based on inclusive of software upgrade license	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
303	Point no. 11 in Load Balancer Specification - Annexure VIII	Fault Isolation between virtual ADC instances should be tested by 3rd party organization	Request deletion as this point is specific to certain OEM. Fault Isolation between virtual ADC instances should be tested by 3rd party organization may lead to additional time or delay in resolution in case of an issue.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.

304	Storage	Proposed storage should support all protocols like FC, iSCSI, CIFS and NFS. Further it should support both Block and File Protocols. File services should not require any extra hardware and must be built in the processor, any other additional capacity hardware/software required for the same should be quoted on day one for entire scable capacity.	Request LIC to amend this clause as it is specific to single OEM Unified Storage Architecture varies for each OEM. Also the Business Performance and Capacity, SLA is also mention so this architecture is in favour of particular OEM and request to amend the clause as "Proposed storage should support all protocols like FC, iSCSI, CIFS and NFS. Further it should support both Block and File Protocols. any other additional capacity hardware/software required for the same should be quoted on day one for entire scable capacity"	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
305	Point-2.2.2, Page-12,	4. The migration approach from old system to new, should ensure that there is no disturbance to any stakeholder, any operations and no disruption of existing services.	Request LIC to clarify, bidder's to do the migration over the WAN. Is our understanding correct. If this is the case then we need more bandwidth hence please confirm bandwidth availability between DO and ZO site.	Existing Bandwidth is not sufficient for migration. Bidder to propose suitable solution like tape, portable disk based for data transfer.

306	9.18. Pre Dispatch Inspection, Page No 54	The Vendor shall conduct a Pre-Dispatch Factory Inspection for all Hardware items before delivery and shall upload the Inspection Certificate clearly stating the deviations if any, along with the Machine Serial Nos. on LIC's Vendor Portal. The vendor shall upload the Hardware Inspection Certificate for each Machine along with the Machine Serial Numbers of Hardware ordered in the PDI Module available on the Vendor Portal of LIC. LIC may also do physical pre-dispatch inspection. LIC of India reserves the rights to carry out pre-shipment factory/godown inspection by a team of LIC officials or demand a demonstration of the solution proposed on a representative model in bidder's office.	Request LIC to confirm whether pre-dispatch factory inspection will be done at bidder godown or OEM place? Who will bear the expenses for the same?	LIC may conduct the pre shipment factory/godown inspection at its own cost.
307	Storage	The solution should support encryption of data at rest and in-transit without any dependency on underlying hardware not dependence in SEDs	Request LIC to consider below points to make it specific as it is very important aspect	The proposed solution should be able to integrate with the any leading key management solution. Encryption at controller level or hypervisor level are also allowed.
308	Page 16 point 40 eFEAP-Next-Hardware-RFP	Vendor needs to demonstrate performance and scalability requirements during POC and Project execution	Request LIC to define performance and Scalability requirement in specific to avoid any ambiguity during project execution	The performance and Scalability requirement are already mentioned in RFP. The POC criteria will be informed to the successful bidders.

309	9.12, Page No 53	The vendor is required to commence the services within 15 days from award of contract, failing which Life Insurance Corporation of India reserves the right to levy penalty, as stipulated in the RFP.	Request to confirm what is expected from bidder on the commencement of services	Provide blue print and time lines
310	6, Page No 42	4. The Bidder should be in a business of supply, delivery, installation, configuration and maintenance and support of Integrated Systems, Virtualization and Enterprise Storage systems and equipment in India for at least last 3 years.	Request to consider below: The Bidder should be in a business of supply, delivery, installation, configuration and maintenance and support of Integrated Systems/Virtualization/Enterprise Storage systems and equipment in India for at least last 3 years.	Refer eligibility criteria of RFP.

311	DC Network Switching Point No.14	Switch should support minimum 200000 No. of MAC Addresses	Request you to change this statement to Switch hardware should support minimum 200000 No. Of MAC Addresses.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
312	2.2.2. Desired State and broad Scope of Work - Point 51 & Page 18	Vendor shall train designated officials for configuration, operation / functionalities, maintenance, support & administration, architecture and components, installation, troubleshooting processes, backup etc. The duration and venue of the training will be decided by LIC at LIC training centers. The nature of trainings and duration should be as under, Module -1 for complete administration of entire stack of proposed solution and proactive monitoring. This module is for developers and central command center team. Total 25 persons to be trained. Module-2 for handling technical issues of the entire stack of proposed solution and proactive monitoring. This module is for senior operations teams at ZO sites. Total 50 persons to be trained. Module-3 for overview of entire stack and monitoring of individual VM with basic troubleshooting. This module is for operations team at divisional office. Total 226 persons to be trained. At the end of the all training modules, vendor is required to train selected LIC persons for advanced training for clearing certificate exams in proposed technologies.	Request you to confirm training should be hands on or operation & certification to be done ?	Training is required as per RFP.

313	2.2.2(16), Page 14	3000 Kilometres	Request you to please share details of existing network including bandwidth, topology and average network latency With such great distances of 1000 KM and 3000 KM between the end user and the application hosting sites/centers - Should these criteria's be simulated and incorporated by the bidder in their performance testing exercise (before going live)? If tools are available to simulate the mentioned network latency and ensuing network conditions, is it recommended that bidders use these tools to simulate the 1000/3000km conditions, during testing phase?	Bidder to propose suitable solution and prove at POC stage
314	2.2.2(26), Page 15	Monitoring Logs and Analytics	Requested solution qualifies a full blown SIEM solution, request for clarification around what exactly needs to be proposed for this RFP	scope is limited to "enterprise server security solution specification" of annexure VIII
315	Storage	Performance Requirement: 500000 , <2 ms latency for ZO & 2000000 iops, <2 ms latency for Co-location	Requesting LIC to elaborate iops and latency required for (App + Web) layer and that of DB layer separately for better sizing considerations.	Please refer to point 14 and 15 of Page Number 14.
316	Replication specifications	The proposed replication software must provide the ability to perform synchronous as well as asynchronous replication in the virtualized machine environment over any distance with efficient WAN bandwidth utilization -	Requesting LIC to elaborate this point. What do you mean by "Over any distance".	Between Zone Production site / Zone Near DR and 2 Co-location sites
317	Hardware Specification for Hyper converged systems SI.No.44	The solution shall provide a data caching tier that supports SSD, PCIe, UltraDIMM or NVMe etc.	Requesting LIC to remove UltraDimm, as this software dependent, and needs to be qualified, as of now the supported Cache layer are SSD, NVMe, There is Storage Class Memory for Caching device. But the RFP is not asking for the same. Therefore we would like this section to be limited to SSD and NVMe for Caching layer.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.

318	Functional Specifications 1	The solution shall provide a framework to integrate with 3rd party endpoint security solutions.	Requesting you to kindly share relevant solution details	The existing endpoint security solution is from Trend micro. The proposed solution should be able to integrate with existing and any future end point security solution.
319	Point 23	Virtualization software should provide network traffic-management controls to allow flexible partitioning of physical NIC bandwidth between different network-traffic types and allow user-defined network resource pools, enabling multi-tenancy deployment, and to bridge virtual and physical infrastructure QoS with per resource pool.	Restricting this point to be executed by the virtualization SW is proprietary to a vendor all other virtualization SW's from bidding. Similar or better functionality can be provided by other technologies. We therefore request LIC to change the point as below. "Solution should provide network traffic-management controls to allow flexible partitioning of physical NIC bandwidth between different network-traffic types and allow user-defined network resource pools, enabling multi-tenancy deployment, and to bridge virtual and physical infrastructure QoS with per resource pool."	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
320	Replication specifications	The proposed solution should guarantee sync replication with zero RPO for database for near DR site and async replication to far DR sites with RPO not more than 15 minutes.	RPO <= 15 mins ?	Yes
321	Annexure-VIII-Technical-specifications	Enterprise server security solution	Security solution requirement apart from Enterprise sever security solution is provided by LIC kindly clarify	The overall solution should integrate with the third party security solutions. Bidder is required to give only Enterprise sever security solution.
322	Annexure-VIII-Technical-specifications, load balancer (447) point number 38	Should support upto 10,000 SSL CPS of 256 bit key strength for ECC.	Should support minimum of 3,000 SSL TPS of 256 bit key strength for ECC. (1 TPS == 3 CPS) (SSL is uniformly measured in TPS across the ADC vendor)	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
323	Pt. 14, Page 14	15% YOY growth	Should the bidder configure and quote right now for infrastructure including 15% YOY growth for next 5 years? Or will it be purchased at a later date by LIC?	Bidder should quote right now.

324	Additional Queries	Additional Queries	Should the load balancer support SSL VPN on the same appliance?	yes
325	Switch specification		Should the solution support 40 G ports	Yes solution should support 40 G ports
326	Security Solution	Solution should be able to recommend the rules to be applied on individual hosts/endpoints.	Since all hosts and machines are of different nature, request you to elaborate on kind of rules to be applied in this case.	LIC is expecting solution to scan servers and automatically suggest assigning rules for the servers and also unassign it when not required. No change in RFP required
327	Object storage	Proposed Object Storage should distribute and protect data across disks, nodes and racks in a datacentre.	Since flash storage is being considered for NFS access with HCI or conventional storage, pls confirm if Object Storage solution should also be based completely on SSD drives.	Bidder to propose suitable solution
328	Annexure VIII, Hardware specification for HCI, point no. 1	In case of HCI hardware is proposed the solution must provide Hyper converged software that allows delivery of enterprise-class storage services using latest x86 server infrastructures without dependence on a separate Storage Area Network & associated components such as SAN Switches & HBAs.	Since NFS access is required for App and Web servers, please confirm if this needs to be supported natively as part of the HCI solution.	Bidder to propose suitable solution
329	General Queries	Network BW and wan connectivity at Zonal offices	Since respective DO's will be consolidated to ZO DC, it is necessary to augment WAN BW at all the ZO's. Does LIC plan to do the same? We presume that WAN connectivity & BW / Link is not in scope of this RFP. Please confirm if the understanding is correct.	LIC will provide necessary bandwidth at ZO location.
330	2.2.2(43), page 17	Object Storage	Since the requirement is for file share support, please allow bidder to choose appropriate solution in lieu of object storage requirement	allowed

331	Point 21 2.2.3 Important Phases of the project on page 18	1. In the first phase of lift and shift....	Since the requirement is lift and shift in phase 1, which means you would need the bidders to use existing version of the operation system i.e. RHEL 5.4 on the latest version of the hypervisor. Hence in order to ensure success of this project, it would be important for LIC to ask bidders to supply the latest version of the hypervisor offered by that vendor and ensure that the latest version offered by that vendor to be certified with RHEL 5.4	The bidder should propose the latest version of the hypervisor offered by that OEM and ensure that the latest version offered by that OEM is certified to host RHEL 5.4
332	Point no10	The switch must support port mirroring for both Fibre Channel and Gigabit Ethernet (802.3z), such that traffic going to a specific port can be mirrored and forwarded to another port for analysing. The switch shall support different port types such as , F_Port, M_Port (Mirror Port), EX port and E_Port; self-discovery based on switch type (U Port); D port (Diagnostic port)	Since this is an FC Switch , Ethernet has no relevance. Please change to "The switch must support port mirroring for Fibre Channel , such that traffic going to a specific port can be mirrored and forwarded to another port for analysing. The switch shall support different port types such as , F_Port, M_Port (Mirror Port), EX port and E_Port; self-discovery based on switch type (U Port); D port (Diagnostic port)	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
333	Storage	Offered storage shall support various SSD capacities drives starting from 800GB onwards. Required capacity should be configured using SSD drives not exceeding 4 TB per disk capacity. The array should be capable to deploy disk drives of upto 15 TB capacity. Array should support varying FLASH drive sizes. The storage array should support single drive upgrades.	Single drive upgrade doesn't make any sense .Single RAID group can be upgraded. Or RAID of 3+1 can be expanded to 7+1 or 6+2 to 14+2.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
334	Annexure-VIII- Technical- Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	Size of the Data by independent instance and application	Its already mentioned in Annexure-III
335	load balancer		Software load balancer is shipped with RHEL (for which LIC already has subscriptions, can that not be used?	Bidder is allowed to propose hardware or software load balancer including Redhat ,as per RFP requirement

336	Point no. 10 in Load Balancer Specification - Annexure VIII	Solution should be virtualization ready with OEM's own hypervisor with minimum 5 virtual instances from day 1 and scalable to 10 virtual ADC instances without any additional hardware The solution should be license upgrade only.	Solution should be virtualization ready with OEM's own hypervisor with minimum 5 virtual instances from day 1 and scalable to 8 virtual ADC instances without any additional hardware Considering the 6 gbps throughput of the appliance requested by LIC scalable to 20, 10 VADC is an overkill and OEM specific. There should be allocation of atleast 3 Gbps per VADC, hence the revised clause should include 2 VADC scalable to 6	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
337	2.2.2.(26), page 15	Tools	Specify the functional requirements of tool	Refer to “Enterprise Server Security Solution specification” in Annexure VIII.
338	General	buy Back	Specify the model / make and exact quantity of all equipment’s location wise	Refer Point 2.2.1 for make. Annexure III for location and 8 ZO sites and Annexure 7 for DC Rack details
339	In Annexure VIII Technical specification- point 3	System should have 8 Gigabit Ethernet ports and 2 x10 Gbps SFP pluggable optical ports.	System should have 4 Gigabit Ethernet ports and 4 x10 Gbps SFP pluggable optical ports. (As network trend of upgrade from 1 G to 10G / 40G is observed across many of the customer. Hence having more no of 10G support will help to meet the need of future readiness).	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
340	Annexure-VIII- Technical- specifications, load balancer (447) point number 30	System should support 6 Gbps L7 throughput and should be scalable to 20 Gbps L7 throughput without change in hardware (license upgrade only)	System should support 5 Gbps L7 throughput. (We have a sizing calculation based on no of users in each location.. said throughput of 5 Gbps is sufficient from 5 years growth prospective).	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
341	Point no. 46 in Load Balancer Specification - Annexure VIII	System should support load balancing metric such as least connection, round robin, weighted, HASH, response time	System should support load balancing metric such as least connection, round robin, weighted, HASH, response time , Ratio (member) , Ratio (node or server entity) , Ratio (session) , Ratio Least Connections (member) and Dynamic Ratio.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.

342	Point no. 31 in Load Balancer Specification - Annexure VIII	System should support minimum 600,000 Layer 4 CPS (Connection Per second)	System should support minimum 450,000 Layer 4 CPS (Connection Per second)	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
343	Annexure-VIII- Technical- specifications, load balancer (447) point number 34	System should support minimum of 6,000 SSL CPS with 2048 bit key	System should support minimum of 7,000 SSL TPS with 2048 bit key (1 TPS == 3 CPS) (SSL is uniformly measured in TPS across the ADC vendor)	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
344	Point no. 77 in Load Balancer Specification - Annexure VIII	System should support scripting capabilities for HTTP and non-HTTP traffic	System should support scripting capabilities for HTTP and non-HTTP traffic This point is having a conflict with last points (74,75 and 76) which says http level modification without any scripting support or use.	Scripting support is required
345	Point 13	The HCI Solution must be able to consume external storages via FC and FCoE. All hardware and software required for the same should be provided on day 1 .	The basic idea behind the evolution of HCI is to remove the complexity brought in by SAN and SAN network. To expect the HCI system to connect with 3rd party SAN storage will defeat the basic design of the HCI system This is vendor specific & proprietary specification and will keep out all OEM's except one. We request LIC to reconsider and remove this inconsequential feature and allow wider participation.	The proposed solution must be able to consume external storages vis FC / FCoE / iSCSI
346	9.9. Performance Bank Guarantee (PBG):	The Performance Bank Guarantee should be valid for the period of 65 months from the date of submission and thereafter shall be renewed for AMC (10% of the AMC cost) and submitted to LIC every year one month before the expiry of the PBG for the maintenance of the supplied Hardware, till the hardware is given away as buyback.	The bidder can provide the PBG during the AMC period after the initial period of 5 years only if LIC decides to contract for the AMC period. In case if LIC doesn't contract after warranty period of 5 years, the bidder will not be in a position to provide a PBG post 65 months.	PBG will be as per para 9.9 of RFP.

347	General	The bidder shall propose Plan & Design / Architecture services from the OEM. The implementation should be done by OEM in case the bidder does not have the required implementation references of the proposed solution. The OEM should be involved to audit the deployed solution and submit a report indicating compliance to reference architecture and best practices.	The bidder/OEM should plan, design, implement the proposed solution and submit a report indicating compliance to reference architecture and best practices.	Request rejected
348	Switch should support minimum 2,00,000 no. of MAC addresses	Request Amendment of this Point to Support for 64,000 MAC Entries Such a higher MAC entries is not required in DC Switch where servers are connected	The current specification may inhibit LIC from getting architecture and platform advantages of various vendors.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
349	pt 35 Pg. 16	Post installation support of the systems supplied and installed till the hardware is given as buy-back. The support should be provided by the Vendor directly or through the OEM. No Service Partner can be appointed for servicing of the hardware	The existing H/W is from Wipro which is more that 7 years old. It would not be possible to provide H/W support for the same	The specification is for the hardware going to be supplied by the vendor and not the existing hardware.
350	Backup solution. Point No. 5	Migration of backup from existing backup tapes being used in LIC to the proposed backup technology should be done by the vendor. The new technology could be physical tapes, disk storage or object store	The existing tape cartridges used with Netvault backup software can be read and restored only by Netvault. If Bidder is proposing a new backup software, then he can only maintain the existing Netvault backup software to ensure any need of old data restoration can be serviced. Please relax this point by mentioning that the bidder has to maintain the existing backup software	The intent is download required tape on demand basis. The bidder can provide solution by providing a backup downloading system having Netvault backup software with couple of dedicated LTO6 drives for downloading existing LTO4 tapes with necessary storage. The bidders are free to propose any backup software from Gartner MQ for new system without any limitation of existing solution.
351	Page 39 of Main RFP, Section 4, 4.1	The bidder shall propose solutions from vendors placed in the respective and latest Gartner Magic Quadrant. Technical Points shall be allotted on the basis of the position occupied by the vendor in the corresponding Gartner Magic Quadrant.	The Gartner clause for Modular Server, Integrated Servers and x86 Virtualization is now obsolete. Hence, we hereby request you to elaborate on the Technical Scoring Method	As per RFP latest Gartner's Magic Quadrants for HCI and any latest report, market guide released by Gartner will be considered.

352	Hardware Specification for Hyper converged systems Sl.No.6	The HCI solution must support all types of x86 servers rack and blade servers under a single HCI cluster. Any additional license required must be included on day 1.	The HCI software will support such an architecture, and since LIC is also requesting Software Stack to be independent of the Hardware. We assume this criteria is more for the HCI software and not the hardware solution.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification. The intent is to have a system without any vendor lock-in.
353	Annexure-VIII- Technical- specifications, load balancer (447) point number 36	The Proposed Appliance should support minimum 3 Gbps of Compression throughput	The Proposed Appliance should support minimum 2 Gbps of Compression throughput (Today 50 % of the content is non compressible & 10 % of the compressible content is cacheable)	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
354	database	Since LIC is using a MySQL database, we would request you to kindly add this point in the database load balancing and will help you reduce the compute.	The Proposed Solution must have Native SQL LB.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
355	Database	Since LIC is using a MySQL database, we would request you to kindly add this point in the database load balancing and will help you reduce the compute.	The Proposed Solution must have Scale-up TCP connections.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
356	In Annexure VIII Technical specification- point 138	Point to be added	The Proposed Solution must have Unified (Centralized) Consolidated Management (Hardware or Software based.) In case of Software, required hardware will be provided. OS /software to be provided by vendor.	Bidder to propose suitable solution.

357	new query	Request addition	The Proposed Solution Should track Page Load Time (Tracks how long it takes an application user to get a complete response from the application, including network latency and completed page processing). The Proposed Solution Should be Identifying the root cause of slow performance issues The Proposed Solution Should be able to collect statistics for Client IP address (Saves the IP address where the request originated). The Proposed Solution Should be able to collect statistics for URL. This is very critical for performance tracking of the applications.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
358	new query	Suggestion	The solution must be able to protect data-at-rest against root/system privileged user account access. It should also protect file level encryption. The DSM should be a hardware device with FIPS level 3 HSM .The solution should be able to support file level encryption in transparent manner. No downtime is expected while data is transformed into encrypted data	Encryption of data at rest is applicable for storage devices like disk and tapes. The bidder is allowed to propose VM level, controller level encryption instead of HSM based solution.
359	Infrastructure Architecture	Additional Point	The Solution should provide Real Time Visibility and alerting of compliance violations.	Bidder to propose suitable solution.

360	3 SAN Switch Specifications	The switch should have non-blocking architecture with 96 ports in a single domain concurrently active at 16 Gbit/sec, line rate, full duplex with no oversubscription. The base switch should support 48 port and additional 48 ports can be achieved by adding 2*PODs of 24 ports. Port to Port latency should be 700 ns through Cut through routing technology. The switch should support Inflight Compression and in flight Encryption. The switch should have the lowest power consumption capacity to save the power cost and should consume less than 500 Watt with all 96 ports @16G	The switch specifications mentioned here are for a specific model and restrictive. Requesting removal. Also assuming that dark fiber is provided between DC and DR there would be no need to provide a Switch of these capabilities. Most storage deployment the Storage OEM will chose the switch basis their port requirement. Assuming that a specific bidder needs more than 96 ports at a site they may not provide the additional ports as the RFP only asks for a specific port count.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
361	General Query		The technical compliance sheet contain specification for an object storage, where as there is no mention of object storage in the RFP. In RFP it mentioned that backup will be D2D2T, are you going to use object storage instead of tape for Archival	The object store can work as archival for backup and hosting flat file currently used with NFS. The bidder is allowed to propose archival storage instead of object store.
362	Infrastructure Architecture, SI.No.4	The solution shall be able to use hypervisor/ VM based replication to asynchronously replicate VMs across sites based on configurable schedules of RPO 15 minutes or lower.	There are more robust solutions to ensure Zero RPO, RTO, across 3 DC using Storage based HA design, not requiring any external appliances, but is available as part of the microcode, Is LIC OK to use Storage Based replication if Converged Infrastructure is proposed for all Stack, including Web, App, and DB ?	Bidder to propose solution for web and app replication, LIC recommends native MySQL based replication for database.

363	Technical Specification worksheet: Row 53 : Infrastructure Architecture - SI No 28. Encryption	The solution should support data encryption at rest and in transit without any dependency on underlying hardware or SEDs.	There are multiple different touch points for data. These include Firewall, Network switches, Web Server, App Server, DB server. The data will be accessed through LIC internal network as well as external. Encryption of data at rest and transit will require clear understanding of the stages where data will be encrypted and decrypted. We request LIC to provide this details. Accordingly, encryption capability will be provisioned in different equipment. For instance, should the data travels across Web < -- > App <--> DB. Should this be encrypted?	Encryption of data at rest is applicable for storage devices like disk and tapes. Encryption for transit data is not required in data center below TLS/ SSL offloading by the load balancer. The data replication between DC-DR sites should be encrypted.
364	Annexure-VIII- Technical- specifications	The proposed solution OEM must be listed in the latest Gartner Magic Quadrant for Data center Networking.	There is no magic quadrant on FC Networking as only 2 vendors are there , however there is a 2015 Gartner report where they mention, who is the leader	Latest and respective Gartner's Quadrant or any latest report, market guide released by Gartner will be considered.
365	Annexure-VIII- Technical specifications- Infrastructure Architecture- Point 61	The proposed software defined network solution (SDN) should be listed in the latest Gartner Magic quadrant for software defined network.	There is no specific Gartner quadrant for SDN. However, there are modern day technologies that provide built-in micro segmentation feature to protect apps & vm's at a granular level. We request LIC to remove this point.	Bidder to propose suitable solution for micro segmentation.
366	2.2.1(2), Page – 11	5/7/9 TB	These details are not provided in Annexure-III, please provide the same	out of 113 DCs, 52 Are 5 TB , 42 Are 7 TB and 19 Are 9 TB.
367	General Specifications	The proposed solution should be accommodated in five rack space for primary ZO site. The power supply per rack of 42U size will be 6 KVA.	This all depends upon the no. of workloads and processing power it needs	The bidder is supposed to provide infrastructure solution which could fit within these limitations. The power per rack can be provided upto 6 KVA.

368	Hardware Specification for Hyper converged systems SI.No.39	Single button non-disruptive rolling upgrades of HCI software and system firmware.	This can be achieved by a workflow through an orchestrator, where the Hardware Lifecycle management and Software Lifecycle management is controlled from a single management console. Though this feature is available, a single click upgrade is not recommended due to operational caution that needs to be exercised across the various layers, and this will be more of a rolling upgrade so that the upgrade does not cause any disruption to the services.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance scalability and management requirement mentioned in this specification.
369	Private cloud	LIC should be able to expand a workload across a multi-Hypervisor Environment within the same dashboard.	This clause is not clear. Is the expectation is to provision multiple hypervisor using same private cloud software ? Please provide clarification.	The private cloud software should be able to integrate with any hypervisor solution to provide single dashboard.
370	SAN Switch Specifications	The switch must be capable of supporting hardware-based routing between Virtual Fabric instances	This clause is too specific and restrictive. This is vendor specific and it modify to support VF and Logical Switch	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
371	logging specification	The log analytical tool should provide a single location to collect, store, and analyse unstructured data from OS, apps, storage, network devices, etc. at scale.	This is a very OEM specific point. Requesting removal.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
372	Logging specifications	The log analytical tool should provide intuitive dashboard and should allow IT teams to search for certain event patterns & types for earlier troubleshooting	This is a very OEM specific point. Requesting removal.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification

373	Logging specifications	The solution should provide a log analytical tool which will show all the logs available in one single management window to make troubleshooting easier.	This is a very OEM specific point. Requesting removal.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
374	43 Infrastructure Architecture	The solution shall provide a software-defined and virtualized networking model that allows placement of ZO infrastructure on segments of networks that are isolated from each other and provide zero-trust security model, without dependence on the underlying physical networking infrastructure.	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
375	44 Infrastructure Architecture	The solution shall provide stateful inspection using distributed in-kernel firewall providing near line rate throughput that can be applied at the perimeter of the virtual datacentre and at the virtual network interface card level directly in front of individual workloads (enabling micro-segmentation for highest level of security).	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification

376	45 Infrastructure Architecture	The solution should provide distributed network switching & routing capabilities to optimize the virtualized traffic within the data-centre. This should enable the traffic flow between VMs on the same physical host to happen within physical host itself, without traversing to the physical L3 Switch/ Router.	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
377	46 Infrastructure Architecture	The solution shall provide a virtual load balancer with in-built high availability to scale application delivery without the need for dedicated hardware. The load balancer should support Web, SSL and TCP-based scale-out for high-volume applications.	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
378	47 Infrastructure Architecture	The software defined security solution should provide a tight integration with other security vendors which can host their virtual Next Gen Firewall, IPS etc. onto the platform and should provide a centralized dashboard which can be used to automate the deployment of these 3rd party products.	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification

379	48 Infrastructure Architecture	The solution should provide for a centralized configuration and management of network and security policies across different Data Centres, where all the security policies are centrally configured and applied across domains, the networking functions like routing are also replicated across different sites	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
380	49 Infrastructure Architecture	The solution should have the ability to leverage real-time flow information to discover the application communications both in and out to build a security model around the application.	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
381	50 Infrastructure Architecture	The solution should offer comprehensive flow assessment, analytics, firewall rules suggestion for the purpose of implementing a zero trust security within the data-centre	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification

382	51 Infrastructure Architecture	The Platform should be able to generate report that includes amount of traffic that's East-West, Internet, VM to VM, VM to physical, hair-pinned and unprotected.	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
383	52 Infrastructure Architecture	The solution should provide a converged view of virtual and physical network; provide end to end topological view of path between two virtual machines. It should support leading hardware vendors as well.	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
384	53 Infrastructure Architecture	The solution shall provide Industry-standard IPSec and SSL VPN capabilities that enables securely extending the virtual data centre without any requirement of special hardware device	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification

385	54 Infrastructure Architecture	The Network & security virtualization solution should provide support for the following: Netflow support, Packet capture up to the VM (RSPAN/ERSPAN), Performance statistics granularity up to VM view, Flow monitoring granularity up to VM view (top flows / live flows), Syslog Support	This is a very OEM Specific point. There are other SDN vendors who will not be able to qualify for the same basis these specs. Also as per our understanding there is going to be a separate Network RFP for the same. Ideally the specifications for SDN should be included in the same or more detailed specifications of LEAF and SPINE should be included in this tender. This will help ensure that there is total compatibility between the SDN solution and the underlying switching Leaf and Spine.	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
386	pt 26 pg 15	The proposed solution should include monitoring of server and client machines operations for suspicious activities and logs will be maintained at central sites for analysis and pattern identification for arresting the hack attempts beforehand	This is a very open statement and would encompass a host of security measures. Please provide further clarity on the type of solution required and the specifications for the same.	The bidder should propose server level security solution which should integrate with the client level security solution.

387	Storage	The proposed storage should be configured with minimum 1TB of controller cache per controller with a provision of scalability to 4TB of controller cache. Must have either Cache battery backup or better technology for fully automatic de-stage of cache to disks/ SD-Card during power failure to prevent possible data loss. Cache should be flexibly usable for Read and write operations. All writes must be mirrored across controllers. Storage cache should be flexibly usable for Read and write operations. Global Cache should enable the storage capability to accelerate data access for any part of the entire system. Also, the cache can be partitioned and allocated to specific applications to help guarantee performance levels and reduce Response time. Entire Cache shall be available to all LUNs/devices across all controllers as a single unit. The system should support up to 50% of the global cache for write I/Os and must be mirrored. (Cache of 2TB means sum of the Cache memory supported by all the Storage Controllers in the Storage. Cache memory of any other device will not be considered to calculate Cache of the Storage). Single Controller failure shall not cause array cache to go into write through mode.	This is in favour of only one OEMs, As the Project Performance and Capacity requirement are mentioned along with SLA, Request LIC to make this point open for OEM in leaders Gartner Quadrant to participate by mentioning atleast 512 per controller Pair with further scalability to 4 TB. Recommend the clause to be amended as "The proposed storage should be configured with minimum 256 GB of controller cache per controller with a provision of scalability to 4TB of controller cache. Must have either Cache battery backup or better technology for fully automatic de-stage of cache to disks/ SD-Card during power failure to prevent possible data loss. Cache should be flexibly usable for Read and write operations".	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
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388	Storage	Proposed array should support both inline deduplication and inline compression.	This is OEM specific. Request LIC to amend the clause as "Proposed array should support Deduplication/Compression". Both this feature can not be combinely used in any production scenario and will have plenty of Overhead. This is allow maximum participation and ask of RFP is Total Usable Capacity to be provisioned without this features enabled.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
389	Security Solution	The solution shall be able to deliver all the above mentioned features like Host Based Firewall, Anti-malware, Host based IPS, File Integrity Monitoring, Log Inspection & Application control in a single agent.	This is OEM specific. Request you to kindly remove this clause.	LIC is looking for consolidation of agents, ease of operations and performance enhancement hence needs a single agent to avoid multiple agents running on critical servers. This is not OEM Specific point and there are multiple OEM Vendors which provides all capabilities through single agent. No change in RFP required
390	Storage	Enable Provisioning of scale-out storage from converged nodes to compute only nodes. The storage must be presented as a single mount point from all HCI nodes to each compute node.	This is Specific to single OEM Hence request to amend the clause as "The storage must be presented as a single mount point from all HCI nodes "	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
391	Annexure-VIII-Technical-specifications	The switch must be able to drop corrupt frames based on CRC and must not forward them outside the switch. The switch should support Monitoring and Alerting Policy Suite(MAPS), Flow Vision Advanced Diagnostic, Bottleneck Detection and Forward Error Correction	This is vendor specific as they work on store and forward routing where cut through routing is mentioned and in cut through routing, if the corrupt frames drop at switch level, the target keeps on waiting and I/O out happens at the host level, which is disruptive.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance scalability and management requirement mentioned in this specification.
392	switch specification	VSAN	This is Vendor specific , we support Virtual Fabric and Logical switch, so they should mention or similar kind	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.

393	Annexure-VIII-Technical-specifications	The switch must be capable of supporting hardware-based routing between Virtual Fabric instances.	This is vendor specific, we support FCR and Integrated routing so they should mention or similar kind	Proposed alternate solution to meet the requirement is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirements mentioned in this specification
394	switch specification	The switch must support the aggregation of any ports from any module. The aggregated ports must NOT be consecutive.	This is vendor specific. Consecutive ports make the trunks. Module is not relevant here as this is not a director class switch where ports will be available from different line cards.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
395	General	Virtualization software should provide network traffic-management controls to allow flexible partitioning of physical NIC bandwidth between different network-traffic types and allow user-defined network resource pools, enabling multi-tenancy deployment, and to bridge virtual and physical infrastructure QoS with per resource pool.	This is very OEM specific. Ideally these functions are performed by the underlying compute hardware and Hypervisor combined. Requesting change to "Virtualization software along with underlying hardware should provide network traffic-management controls to allow flexible partitioning of physical NIC bandwidth between different network-traffic types and allow user-defined network resource pools, enabling multi-tenancy deployment, and to bridge virtual and physical infrastructure QoS with per resource pool."	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
396	Point 13	The proposed infrastructure solution for web + app layer and database layer solution is recommended to be from same hardware OEM.	This point favours vendors who provide a wide range of infrastructure solution but not necessarily are best of breed. Specialized best of breed solution providers will be at a disadvantage against this point and hence we request LIC to remove this point to ensure fair competition and ensure wider participation.	It is recommended and not mandatory.

397	Annexure-VIII- Technical specifications- Infrastructure Architecture- Point 45	The solution should provide distributed network switching & routing capabilities to optimize the virtualized traffic within the data-centre. This should enable the traffic flow between VMs on the same physical host to happen within physical host itself, without traversing to the physical L3 Switch/ Router.	This point is specific to a vendor and makes wider participation a challenge. We request LIC to allow bidders to propose a solution with routing capabilities handled by the ToR switch or propose a virtual route appliance	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
398	Point 13	It is recommended that the HCI Hardware and HCI software is manufactured and developed by the same OEM.	This point will restrict wider participation from OEM's. The leading HCI SW vendors do not manufacture HW. The purpose is to allow customers the freedom to use most industry standard x86 servers from various OEMs and have a choice. Also do note that even if the HW & SW for HCI are from the same vendor the hypervisor will be from a 3rd party only. Request LIC to remove this point as bidders can then quote best of breed solutions.	The proposed HCI software & hardware should be factory integrated by the OEM, LIC should have flexibility to decouple the HCI software from hardware, in order to run HCI software on any certified hardware.

399	Storage	The proposed storage should be configured with minimum 1TB of controller cache per controller with a provision of scalability to 4TB of controller cache. Must have either Cache battery backup or better technology for fully automatic de-stage of cache to disks/ SD-Card during power failure to prevent possible data loss. Cache should be flexibly usable for Read and write operations. All writes must be mirrored across controllers. Storage cache should be flexibly usable for Read and write operations. Global Cache should enable the storage capability to accelerate data access for any part of the entire system. Also, the cache can be partitioned and allocated to specific applications to help guarantee performance levels and reduce Response time. Entire Cache shall be available to all LUNs/devices across all controllers as a single unit. The system should support up to 50% of the global cache for write I/Os and must be mirrored. (Cache of 2TB means sum of the Cache memory supported by all the Storage Controllers in the Storage. Cache memory of any other device will not be considered to calculate Cache of the Storage). Single Controller failure shall not cause array cache to go into write through mode.	This spec is single vendor specific. As long as Storage system delivers 500K IOPS for ZO & 2M IOPS for Far DR Col-locations within 2ms Response time with all the redundancy functions & High availability features, If this criteria is met even with required cache: capacity ratio as per best practices of respective Vendors , then it should not be a problem .For Cache de-stage can vendor use better technology ? Why only 50 % of cache for write ,why not 100% for write ,when it's a Global cache? You don't have to mirror the reads. Can we propose multiple storage systems at ZO's,CO & Far DR colo s?	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
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400	Point 7	The solution shall provide zero-downtime, zero-data loss continuous availability against physical host failures. This fault tolerance should be offered without any dependency on the guest operating system. The solution should also store a redundant copy of the data which is accessible immediately by the Hypervisor and application.	This specification is proprietary to one single vendor and will not allow other hypervisors to be bid. In view of the above, we request LIC to accept the following change. As LIC has already asked for Zero RPO & 15 mins RTO we request LIC to modify this point as follows. "The solution shall provide near zero-downtime, zero-data loss continuous availability against physical disk failure. The high availability can be offered with or without dependency on the guest operating system. The solution should also store a redundant copy of the data which is accessible immediately by the application.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
401	2.2.2. Desired State and broad Scope of Work, Point no 49, Page no 18	The Infrastructure solution should propose security solution at hardware, software and network level	To establish a comprehensive security layer across infrastructure landscapes, please provide the list of security technologies that client is expecting bidder to proposed	Refer to "Enterprise Server Security Solution specification" in Annexure VIII.
402	Storage	The proposed storage should natively support thin provisioning for space efficiency. The license for usable storage capacity to be included on day-one. Base configuration of controller and drives with no expansion shelves must fit in 2U rack space.	Vendor specific to single vendor. Can you pls keep it flexible 2U /4U ?	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
403	Security Solution	Deep Packet Inspection should support virtual patching of both known and unknown vulnerabilities until the next scheduled maintenance window.	Virtual Patching & Deep Packet Inspection terminology is vendor specific terminology. Various HIPS vendor approach this requirement in different ways. Our solution addresses this requirement without the need for any patching. We hence request LIC to retain the requirement without being vendor specific.	Need of virtual patch is already explained in one query. As we understand Deep Packet Inspection is not vendor specific but generic technology which most of the OEM's support. No change in RFP required

404	Security Solution	Should provide recommendation for removing assigned rules if a vulnerability or software no longer exists - E.g. If a patch is deployed or software is uninstalled corresponding signatures are no longer required.	Virtual Patching terminology is vendor specific terminology. Various HIPS vendor approach this requirement in different ways. Our solution addresses this requirement without the need for any patching. We hence request LIC to retain the requirement without being vendor specific.	LIC is looking for solution which has capability to recommend and automatically assign and unassign rules & signature without any manual intervention for vulnerability which no longer exist. This will help LIC to optimize the server performance. No change in RFP required
405	Security Solution	Virtual Patching should be achieved by using a high-performance HIPS engine to intelligently examine the content of network traffic entering and leaving hosts.	Virtual Patching terminology is vendor specific terminology. Various HIPS vendor approach this requirement in different ways. Our solution addresses this requirement without the need for any patching. We hence request LIC to retain the requirement without being vendor specific.	As we understand Virtual Patching is not a vendor specific term. LIC is looking for vulnerability/exploit prevention of the vulnerabilities on the servers till the time it is actually patched so as to protect servers during the unpatched duration, we need to have proactive and automated virtual patch protecting our servers without performance issues. No change in RFP required
406	Annexure-VIII- Technical- specifications - "Backup Software Specification" S/N 4	Proposed backup software should not need a physical proxy server for VM backups and should have a minimum of 23 concurrent sessions capability for the VM machines image based backups with single virtual proxy. It should support instant access of atleast 23 VM machines concurrently, the data should not travel from backup appliance at time of restore (Instant Access).	VM backup may not require Physical server , however Tape out will need Physical Server . Kindly advise for physical server for tape out backup	The bidder is allowed to propose physical backup server for tape out.
407	Point no 19	The switch must support hardware ACL-based Port Security, Virtual SANs (VSANs), and Port Zoning. Non- disruptive Microcode/ firmware Upgrades and hot code activation. Should have Front-to-back airflow and Back-to-front airflow. The switch should support Forward Error Correction and Dynamic Fabric Provisioning	VSAN is a Proprietary term , we use Virtual Fabrics as an alternative term for the same function. Please change to "Virtual SANs (VSANs)" to "Virtual Fabrics"	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.

408	Annexure-VIII- Technical specifications- Infrastructure Architecture- Point 4	The solution shall be able to use hypervisor/ VM based replication to asynchronously replicate VMs across sites based on configurable schedules of RPO 15 minutes or lower.	We believe that the Infrastructure based replication is inefficient for databases. Modern databases have built-in replication which ensure data consistency not guaranteed by storage of VM based replications. We request LIC to allow use of such technologies to meet the desired RPO & RTO and not be restricted to VM based or storage based replication.	This specification is for web, app and database VMs and not for data.
409	Hardware Specification for Hyper converged systems Sl.No.17	The integrated network switch must support FC, FCoE, NFS, iSCSI protocol to enable various types of storage traffic in an integrated switch. The Devices must support all these protocols.	We do not recommend a unified switch approach, the reason being the maintenance for a LAN network might be different compared to an external SAN network, and FC network are better serviced from dedicated FC switches, and FCOE as a protocol has not become an industry standard. We strongly recommend the HCI solution and the converged solution for database should use enterprise grade L2/L3 network for IP. And the HCI can have dedicated FC HBA card, and the converged node can also have dedicated FC HBA connected to FC Network accessing external FC SAN through the FC Ports. If iSCSI service is required from external SAN it can connect to the ToR switches in the solution requested.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification. This specification is for web and app layer, in case it is based on hyperconverged system then the external storage needs to be consume having database. The bidder needs to propose solutions like SFP switches
410	2.2.3 Important Phases of the project, Page 18	Desired State and broad Scope of Work - phase 2	we don't expect that we have to do any code changes for the eFEAP application in this phase. Is this assumption correct?	YES, BUT The bidder is RESPONSIBLE FOR SMOOTH MIGRATION OF MIDDLEWARE SOLUTION AND expected to guide NECESSARY CODE CHANGES during implementation of this phase.

411	Annexure-VIII- Technical-specifications, load balancer (447) point number 10	Solution should be virtualization ready with OEM's own hypervisor with minimum 5 virtual instances from day 1 and scalable to 10 virtual ADC instances without any additional hardware. The solution should be license upgrade only.	We had done the assessment, there is no need for Virtualization support in ADC.. This will increase the investment. Still LIC wants to consider from future prospective, then we request to change the clause as -> Solution should be virtualization ready with OEM's with 5 partitions OR own hypervisor with minimum 5 virtual instances from day 1 without any additional hardware.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
412	Infrastructure Architecture 7	In the existing eFEAP setup, in case of any failure then due to distributed nature of data Centre, the impact is limited to only to that division. After consolidation at zonal level the impact scope may increase to zonal level affecting all divisional offices. The proposed solution should be built using high availability of each and every component without any single point of failure. In case primary site fails, then using load balancer configurations the near DR site should automatically come up and give uninterrupted service to end users. The proposed solution should include setting up of primary and near DR network to ensure network latency of less than 1 millisecond to near DR site for zero data loss.	We need details on expected Structure of DC & NDR. Local HA (device level) expected with-in DC & NDR	Bidder to propose suitable solution for primary and near DR. In case of primary and near DR are in same stretched cluster then HA may not be required.
413	Annexure-VIII- Technical specifications- Point 7	It will be the responsibility of the selected vendor to ensure that the existing TPA stack and eFEAP Programs of LIC gets installed and work successfully on the hardware supplied. In this direction, the selected bidder may have to interact with Application Vendor. If required, LIC will facilitate the interaction. Though LIC has taken maximum efforts to evaluate the compatibility of the hardware and software specifications with the existing setup, it will be the Vendor's responsibility to independently evaluate the same and confirm that there will be no compatibility issues during installation.	We need LIC to provide more details about the TPA stack	Refer point 2.2.1.2 of RFP for third party application stack.

414	switch specification	The switch must support graceful process restart and shutdown of a Virtual Fabric instance without impacting the operations of other Virtual Fabric instance	We need to argue with this as shutting down VF instance means do they want to shutdown the switch which is disruptive	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
415	Page 14 / Point No # 13 of 2.2.2	The infrastructure solution should be proposed considering the rack space limitations at zonal data center. The complete hardware, network, backup and other requirements of proposed solution should be accommodated in maximum five racks. The detailed list of divisions under each zone is provided annexure III. Please note that the existing power supply for each rack is 6 KVA.	We propose the power budget calculation for the full configuration should be mandated as a part of technical compliance since the maximum power availability per rack is mentioned to be as 6 KVA.	6 KVA is the rated power capacity, bidder to propose suitable solution.
416	Technical Specification worksheet - Row 598 and RFP document	LIC has provided specification for Firewall on row 598 of Technical Specification worksheet	We request LIC to clarify if a) The LIC will take care of Anti-Virus for the new environment. b) If Anti-Virus for new environment is in bidder's scope, please provide specification for the same.	There is no server level security solution, we have trend micro end point security solution.
417	Technical Specification worksheet	Based on various clause we understand LIC is looking at encryption at rest and encryption in transit	We request LIC to clarify if in new scenario, there will be 2 instances of Central Key Management solution. If yes, what will be the locations? Also, will LIC take care of any additional licenses needed due to these changes.	In case bidder is proposing central key management solution. The primary site will be Mumbai ZO and secondary at Bangalore co-location site.
418	Page 12 : CPU Details: 2 X Quad Core Nehalem Processor E5540	Under this heading, current server details are provided.	We request LIC to clarify if the DBS-A and DBS-B are in active-active or in active-passive configuration.	DBS-A and DBS-B are in OS level cluster in active-passive configuration.
419	Technical Specification worksheet	Based on various clause we understand LIC is looking at encryption at rest and encryption in transit	We request LIC to clarify if there is any Central Key management solution existing. If yes, we request LIC to provide details of this solution.	There is no central key management solution in LIC. However the proposed solution should be able to integrate with the any leading key management solution. Encryption at controller level or hypervisor level are also allowed.

420	Page 12 : CPU Details: 2 X Quad Core Nehalem Processor E5540 , page 12	Under this heading, current server details are provided.	We request LIC to confirm following understanding that we have built. There are 2 Web servers and 2 App servers. Only one Web Server is active. Only one App server is active. The 2nd Web server, 2nd App server is failover server (passive server)	Both web server are active-active using physical load balancer and both App server are also active -active using software load balancer.
421	Page 12 : CPU Details: 2 X Quad Core Nehalem Processor E5540	Under this heading, current server details are provided.	We request LIC to confirm following understanding that we have built. There are 3 servers namely DBS-A, DBS-B and DBS-R. We understand DBS-A and DBS-B are in cluster. The server DBS-R is acting as Near DR.	Yes
422	Technical Specification worksheet: Row 53 : Infrastructure Architecture - SI No 27. Governance model	The proposed architecture should have in-built governance model	We request LIC to elaborate this clause and the deliverables expected.	The proposed solution should work as a private cloud for LIC with all the deliverables of a private cloud.
423	Technical Specification worksheet: Row 827 Replication Software Specification : SI No 53	Replication Software Solution	We request LIC to elaborate this section. As per the row 57 (Infrastructure Architecture) we understand that the replication is required at VM level. Also during the MoM it was clarified that DB replication is desired at MySQL database native replication. As per these two, separate replication software is not required.	VM level replication for web, app and db server binaries. Controller base or VM base replication for file system and native database replication.
424	Annexure-VIII- Technical specifications - Point 5	The migration of database and flat files should be done without any data loss.	We request LIC to provide more details about the flat files	Refer 2.2.2.43 of RFP

425	Technical Specification worksheet - Row 745 onwards	Backup Solution	We request LIC to specify if a) Redundancy / HA is required for backup media server in PRIMARY. We will consider NO HA in DR. b) Redundancy / HA is required for backup master server. We will consider NO HA in DR.	In case bidder is proposing backup solution with dedicated backup media server and master server then as per best practices there should be redundancy / HA. At DR site No HA is allowed.
426	General	The solution should support forwarding of alerts through SNMP and E Mail.	We request to change the clause "The solution should support forwarding of alerts through SNMP or E Mail".	The Solution should support forwarding of alerts through SNMP or email
427	9.27.6, Page 59-60 and 11.29, Page 83	Patent Rights and other litigation costs	We submit that IPR infringement claims with respect to third party OEM products will be directly taken up by OEM product manufacturers/licensors with LIC as per their standard warranty and license terms.	9.27.6 point of RFP will be followed.
428	Backup solution with D-D-D-T	Backup solution to cover D-D-D-T	We understand from the pre-bid meeting that LIC is looking at D-D-D-T. If we consider this as D1-D2-D3-T then during the meeting we were told that D3 shall be an object store. Object store will not save data in "Deduplicated" format. We would request LIC to confirm this	Object store could be used as permanent storage for backup and flat file data used by application as one of the option. Bidder should propose suitable solution.
429	Backup solution with D-D-D-T	Backup solution to cover D-D-D-T	We understand from the pre-bid meeting that LIC is looking at D-D-D-T. If we consider this as D1-D2-D3-T then during the meeting we were told that D3 shall be an object store. We request LIC to provide detailed backup policy including retention time for D2, D3 and Tape individually.	Backup policy is daily differential backup with retention period of 15 days, weekly full with retention period of 5 weeks, monthly full with retention period of 13 months and yearly backup retention period of 5 years. The backup solution should be able to take backup as per policy and restore any required backup. Retention period on D2 is 35 days at ZO site and co-location sites. Retention period for D3 is 5 years at ZO site and Bangalore co-location. The retention period is 5 years for Tape at NAVI Mumbai co-location site.
430	9.10, Page 52	LIC reserves the right at the time of award of contract and during the term of the contract to vary the quantity of services and goods specified in the RFP without any change in unit prices or other terms and conditions.	We understand that any changes in the quantity will be taken up through Change Request (CR) process.	Refer 9.16 of RFP

431	9.27.2, Page 59	All Intellectual Property Rights in the Contract Material shall vest in LIC;	We understand that Contract Material refers to materials that are specifically developed for LIC for this project.	Refer point 9.28 “MORAL RIGHTS” of RFP.
432	7.2, Page 44	LIC of India also reserves the right to cancel the purchase order and forfeit the EMD. In the event of such cancellation, the vendor is not entitled to any compensation.	We understand that in event of termination, vendor will be paid for all products and services accepted till the effective date of termination.	Refer to 11.14 and sub-clauses of RFP.
433	9.13, Page 53	Pricing & Taxes	We understand that in the event any new tax/duty is levied during the course of the project the same will be borne by LIC as per actuals.	No price variation relating to increases in Government levies/ taxes/ cess/ customs duty & excise duty including any newly introduced taxes shall be permitted. GST however will be reimbursed as per actual.
434	5.3(e) & 5.4(c), Page 41	5.3(e) If the on-site engineer leaves before expiry of one year, penalty of 10% of the Annual on-site support charges per L2 engineer, will be levied in case of first incident. 5.4(c) If the on-site engineer leaves before expiry of one year, penalty of 10% of the Annual on-site support charges per L2 engineer, will be levied in case of first incident.	We understand that in the event the on-site engineer leaves due to reasons like termination, resignation, death/disablement then the penalty will not be applicable.	The penalty will be applicable as per point 5 of RFP.
435	6. Eligibility criteria pt. 9 pg. 436.	The bidder should quote for the models of the OEM/SI who has valid ISO Certifications or their higher versions as follows:	We understand that ISO 9001 and ISO 14001 certifications are applicable to the OEM whose products are being quoted. Please confirm the same. Further, we request LIC to accept and qualify bidders having any 2 out of the following 3 certifications. 1. ISO 20000 2. ISO 27001 3. CMMIL3 Certification We understand that ISO 9001 and ISO 14001 certifications are applicable to the OEM whose products are being quoted. Please confirm the same.	Yes the understanding is correct, however the request for only 2 certifications is rejected.

436	DC Network Switching Additional Query		We understand that LIC is consolidating different DO servers in virtualized environment in 8 ZO's. Keeping this in mind LIC should consider micro segmentation for security and manageability prospective across virtualized and physical workloads.	Bidder is allowed to propose suitable solution.
437	3.12(b), Page 25	The EMD submitted by the bidder may be forfeited in full or part, as decided by LIC if the Bidder fails to sign the Contract	We understand that the term 'Contract' referred to herein will contain the detailed scope and terms that are discussed and agreed upon bid evaluation.	YES
438	7.2, Page 44	Delivery Schedule and penalty for delayed deliveries	We understand that vendor will not be responsible for delays that are attributable to LIC.	Kindly refer to 9.21 of RFP.
439	49, Page 18	The Infrastructure solution should propose security solution at hardware, software and network level and support periodic third party surprise security audits to ensure compliance to IRDA security standards and other statutory bodies.	We understand that we will use existing network security solutions. Request LIC to clarify whether bidder to consider dedicated network security solutions for this setup. If yes, please specify required solutions with technical specifications. And specify required security compliance for LIC.	Refer to Enterprise Server Security Solution specification in Annexure VIII.
440	SAN Switches		We understand these are required only for the Database landscape (assuming HCI for Web and App)	Yes
441	Point 22	The software should be able to perform Network Aware Placement	We would like to know more details about the functionality of performing network aware placement	The new VM or VM in motion should be placed on node having minimum noise and bandwidth consumption and provide same network QoS for those VMs
442	Point 23	The software should support SLA Adherence	We would like to know more details about the functionality of supporting SLA adherence	The SLA for uptime and high availability should be supported by the private cloud software.
443	DC Network Switching Additional Query		We would like to understand the connectivity and design of these ToR switches with upstream LIC network.	The network design will depend upon the solution of the selected bidder, as a guideline LIC is planning to implement leaf and spine architecture.

444	General Specifications	The Selected Vendor will be required to install Operating System and other approved software like RHEL, Glassfish, MFSOA, ELCS, MYSQL, Netvault etc. on the Procured Infrastructure solution, including data transfer from existing servers to new servers, at LIC premises.	We would migrate this using P2V or V2 V tools, hope application architecture change is not happening or planed during hardware refresh.	Phase I is lift and shift without any application change.
445	Storage	The proposed storage should provide minimum 100TB usable capacity for ZO site and 1 PB for colo site, on All-Flash system, after RAID 5/6 configuration. Capacity should be provisioned without factoring any efficiency features like deduplication / compression. Proposed Storage should support Raid Form like 4+1 in Raid 5 or 4+2,6+2 in Raid 6.	what about RAID 10 for DB ?What is R:W ratio ? Block size ? Pls give Work load profile	Refer point 17 under SAN related specifications.
446	Annexure-VIII-Technical-Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	What are the 113 existing physical setup with Data and Applications? Need a brief on this.	Its already mentioned in Point no. 2.2.1
447	Annexure-VIII-Technical-Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	What are the Databases used in Production (For E.x. Oracle, MS-SQL, MYSQL, etc...)? Specify it by Application wise.	It is already mentioned in section 2.2.1 point no. 2
448	Annexure-VIII-Technical-Specifications.xlsx	Data and Application Migration Solution, Point No. 1 to 11	What are the Middleware's used by application wise (For E.x. Redhat EAP, Oracle (BEA) WebLogic, IBM WebSphere, Apache, etc...)?	It is already mentioned in section 2.2.1 point no. 2 Sun Glassfish server 2.1.1
449	Section 2.2.2, Page 12	Desired State and broad Scope of Work	What are the total number of impacted applications as part of this migration exercise	eFeap application has more than 1 lakh java and 20,000 Cobol programs.
450	General	General security	What data needs to be encrypted for data at rest: a. Database files b. Files on Server c. Storage drives d. Virtual Machines	Data which is present in database tables and COBOL flat files.

451	Annexure-VIII- Technical- specifications	Support for specific types of transceivers	What does this mean	The propose switch should support Gigabit SFP Transceivers over copper and fiber Cabling. But as per corrigendum I, bidders should propose solution, which are present in the latest and respective Gartner quadrant for CI / HCI. The proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification
452	Section 2.2.2, Page 12	Desired State and broad Scope of Work	What is compute size required for each user session?	Propose generic tool which will be run by LIC and results will be shared to all bidders.
453	Section 2.2.2, Page 12	Desired State and broad Scope of Work	what is enterprise class - query on no. of controllers, throughput ? Also kindly share the latency	Already mentioned in RFP
454	Section 2.2.2, Page 12	Desired State and broad Scope of Work	what is physical to virtual ratio considered? what level of utilisation are expected on desired state?	Ratio is 1:1 , bidder to propose minimum specification as given for one division.
455	Section 2.2.2, Page 12	Desired State and broad Scope of Work	What is the expected duration of this migration exercise? Is there target go-live date	Please refer RFP provisions.
456	General Specifications, Sl.No.5	The existing divisional sites are processing 250 transactions per minute at peak load with estimated 7500 IOPS from existing storage. In proposed ZO centralized setup each and every division should be able to process 1000 transactions per minute with minimum 30,000 storage IOPS, after consolidation of respective divisions at zonal level a minimum of 5,00,000 IOPS is required with latency of less than 2 milliseconds and at co-location minimum storage IOPS for this load is around 20,00,000 IOPS with latency of less than 2 milliseconds. The bidders should size the infrastructure solution to meet this minimum requirement of eFEAP application. Please note that this requirement is for application only, vendor should calculate and provide hardware capacity for all other system, management and additional software overheads.	What is the frequency of latency measurement, is it average latency taken per day ? Is it average of read and write latency ?	2 millisecond of average consistent latency over the project period.

457	General Queries	Application / Network	What is the max latency that the application can sustain?	The maximum latency is one minute.
458	switch specification	Network Switch Management	What is the need for Cloud Management solution to manage network switch? Is this needed even though SDN would be adopted? Which use-cases are we wanting to address?	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
459	General	SDN	What is the need for SDN? Considering the fact that Web, Applications and DB communicate with hostname / fqdn. IP mapping management and automated resequencing would be simpler solution. Since SDN is org wide decision and should be considered in network RFP, why are we requesting it here? how are we going to ensure that same SDN is adopted org wide?	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
460	load balancer	Load Balancer (LB)	What is the need for software load balancer when hardware load balancer is to be procured.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
461	Infrastructure Architecture, SI.No. 18	The proposed solution should be able to join primary and near DR cluster at zonal sites to make it one stretched cluster to provide one more level of redundancy and high availability.	What is the RTT latency measured between Primary and Near DR ?	LIC is proposing near DR in same campus at less than 500 meters away to enable optic fiber solution for connectivity. LIC expects less than one millisecond RTT latency.
462	Page 15, 2.2.25	The proposed solution should include setting up of state of the art Central Command Center for DC/DR Administration for handling all types of hardware and application issues. The Central Command Center should be equipped with big monitoring screens displaying critical information dashboards, CCTV controls, facility of VC meetings with other LIC teams and outside vendors	What is the solution proposed here and how many resources are to be factored. What are the monitoring tools (NMS and BMS) and who would be managing the non IT / network components.	Bidder should propose the resources for hardware and software solutions provided for this RFP.

463	General	Bare Metal provisioning of Hypervisor	What is the use-case? There does not seem to be a need for hardware elasticity and the deployment is going to be done by the SI	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
464	Section 2.2.2, Page 12	Desired State and broad Scope of Work	what RTO in minutes?	60 Minutes for far DR.
465	Page No 11 .2 Project Overview 2.2.1 Current State 2.h	Physical Load balancer is being used for http based user load distribution	What type of policies are configured on Load Balancer	Round Robin
466	General	Bidder must have implemented Infrastructure solution of proposed OEM in at least 2 Government Departments, PSU, BFSI sector companies having purchase order worth not less than Rs 15 Crores for supply of traditional, converged, hyper converged, Integrated Systems in India in any of last three financial years	What we understood from this point is that the PO of any one technology (Traditional, Converged, Hyper-Converged, Integrated Server) will suffice the requirement.	Yes
467	Page 14, Section 2.2.2, point no 17	The proposed solution should ensure that the end user response time for enquiry type application like policy status report is less than 2 seconds	What would be the maximum network latency from the furthest branch to the colocation site ?	LIC is expecting 125 Millisecond latency on an average all over India.
468	Page 17, Section 2.2.2, point no 43	The eFEAP system at divisional level is handling nearly one million flat files using NFS service for giving read / write access to web and app servers.	What would the average file size ? What would be the time period to consider for one million files ? What should be the throughput for NFS access to be considered on the new solution ?	Most of the file size ranges from 1 KB to 1 MB. The one million files per division will remain throughout the duration of the project period. The peak NFS throughput is 120 Mbps over 1 Gbps connectivity between NFS server and clients with NFS V4.
469	2.2.2. Desired State and broad Scope of Work, Point no 49, Page no 18	The Infrastructure solution should propose security solution at hardware, software and network level	Whether client is expecting bidder to implement Server Security for servers in scope for this opportunity. Please provide the expected features to enabled such as (AV, HIPS..etc.).	Refer to “Enterprise Server Security Solution specification” in Annexure VIII.

470	2.2.2. Desired State and broad Scope of Work, Point no 49, Page no 18	The solution should propose data encryption at rest and all communication will happen over encrypted tunnel	Whether client is expecting bidder to perform VAPT and WAPT as one time activity before Go Live.	yes
471	Security Solution	Encryption Data in Transit.	Whether client is expecting bidder to proposed Digital Certificates.	No, Encryption for transit data is not required in data center below TLS/ SSL offloading by the load balancer.
472	2.2.2. Desired State and broad Scope of Work, Point no 49, Page no 18	The solution should propose data encryption at rest and all communication will happen over encrypted tunnel	Whether PII an SPI information going to reside on database	Yes.
473	General	List of software	Which are the software components and versions of the software to be installed?	Refer Point 2.2.1 (2). Any other software proposed by the vendor also needs to be taken into consideration.
474	General	Migration from existing web to new web server	Which commercial line item to include the migration costing from Glassfish to proposed web server middleware	serial number 2 of Part-II of commercial annexure for services of L2 software engineers..
475	Security Solution	Software Defined Security	Which Next Gen Firewall / IPS solution are we referring to? 3rd party Software Firewall may not be needed by Red Hat Virtualisation	bidder to propose future ready solution including host based firewall as per RFP requirement
476	Replication specifications	The Solution shall be able to use hypervisor /VM based replication to asynchronously replicate VMs across sites based on Configurable schedules of RPO 15 minutes or lower	While asynchronous replication is recommended for far DR site, it is helpful to have synchronous replication for near-DR to ensure data availability in case of hardware failure or application corruption. We request LIC team to update the specification as follows: "The solution shall be able to use hypervisor/VM based replication with near zero RPO for near DR to replicate VM across sites. It must provide a RPO of 15 minutes or better for replication of virtual machine to far DR site"	VM level replication for web, app and db server binaries. Controller base or VM base replication for file system and native database replication for near and far DR sites
477	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Who is responsible for the functional testing and necessary loading of eFEAP application	LIC for functional testing and bidder for loading eFEAP application.

478	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Who will perform the UAT? LIC or Vendor? we assume that only UAT support is requested. Please confirm.	LIC
479	Data and Application Migration Services	256 Core max is the cap on licences.	Who will select the new middleware and how will the sizing be arrived at?	The bidder has to select and calculate the proposed web layer solution's sizing using the queries answered for total no. of users and concurrent users.
480	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Will application source code be made available for the vendor to access and assess the code?	No.
481	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Will the vendor allowed run the third party tool (or) proprietary tools at LIC environment? This would for both assessment and remediation purpose	Propose generic tool which will be run by LIC and results will be shared to all bidders.
482	Point 22	Network connectivity from two telecom vendors for every office is proposed using MPLS lines	Will these 2 network connection be in active-active mode.	The proposed network setup is active-passive
483	Infrastructure Architecture, SI.No.18	The proposed solution should be able to join primary and near DR cluster at zonal sites to make it one stretched cluster to provide one more level of redundancy and high availability.	Will this be an Active-Active Cluster, can the load be serviced from the NDR as well ? What is the resource utilization recommended for DC and NDR to operate on, with regards to compute, memory, and storage in % ?	Yes active-active with load balancing , The resource utilization recommendation are 50% max.
484	Section 2.2.2, Page 12	Desired State and broad Scope of Work	Will upgrade covers surrounding infrastructure components such as printing, Reporting, Security etc. Please provide details	Not In phase I, but security solution should be implemented.
485	Page 14 - Section 2.2.2 - Point # 16 under 'Desired state and broad scope of work'	In eFeap Next there will be an impact on network latency due to distance between end user and zonal site. In extreme cases this distance could be around 1000 Kilometres. In existing setup each and every branch is connected via 2 Mbps leased line network link to divisional office and proposed alternate link of 2 Mbps MPLS link for every office. In first phase many divisions may be hosted on nearest co-location site which could be more than 3000 kilometres e.g. Farthest eastern branch to Navi Mumbai co-locations site	With such great distances of 1000 KM and 3000 KM between the end user and the application hosting sites/centers - Should these criteria's be simulated and incorporated by the bidder in their performance testing exercise (before going live)? If tools are available to simulate the mentioned network latency and ensuing network conditions, is it recommended that bidders use these tools to simulate the 1000/3000km conditions, during testing phase?	This will be part of POC /POS exercise with the successful bidders.

486	Section 2.2.2, Page 12	Desired State and broad Scope of Work	within 5 years hardware would double , should we factor this in design	No, it is already factored in one division size. The expectation is to have scalable architecture.
487	General Specifications	The migration of database and flat files should be done without any data loss.	Would application migration be bidder responsibility ? We would LIC applications team to work with us during migrations and testing needs to be owned by LIC Team.	Bidder is required to perform AS-IS migration of existing infrastructure including database and flat files. UAT will be done by LIC. Bidder to Perform sanity and integration testing along with LIC team.
488	Annexure VIII, Backup Solution, point no. 4	. It is informed that sufficient licenses of Netvault backup software are already available with LIC.	Would LIC have sufficient Netvault license considering multi petabyte capacity at zonal and colocation offices after consolidation ? Since Object Storage is being considered, would existing Netvault support backup of object storage ?	LIC is using capacity based Netvault backup solution with maximum capacity of 200 TB for MySQL under eFeap. Bidder to evaluate the proposed solution independently.
489	General	The solution shall provide zero-downtime, zero-data loss continuous availability against physical host failures. This fault tolerance should be offered without any dependency on the guest operating system. The solution should also store a redundant copy of the data which is accessible immediately by the Hypervisor and application. The solution shall provide I/O prioritization for virtual workloads to ensure that business critical VMs are not affected due to congestion by other VMs on the same host	Would request you to please elaborate on I/O prioritisation, as all VMs for WEB/APP/DB would be business critical	We agree that all WEB and APP Vms are important but LIC wants to provide QoS to bigger divisions compare to smaller divisions.
490	Page 15, Section 2.2.2, point no 20	Near disaster Recovery Site will be provided at respective zonal office within same building or nearby campus around 500 meters of fiber optic length	Would there be a dedicated dark fibre or ISL link option between DC and NDR site ?	LIC will provide two sites, bidder should propose links between primary and NDR. The link establishment is within the scope of work.
491	Annexure-VIII- Technical specifications- Infrastructure Architecture- Point 3	The solution design should have features like zero data loss and near zero downtime in case of disk, host, network and near-site failure.	Zero data loss & near zero downtime can be achieved by use of db based replication technology as well. We request LIC to allow use of these rather be dependent on inefficient infrastructure based solutions.	This is design level specification and not implementation level
492	eFEAP- NextHardware- RFP Desired State and broad Scope of Work	Point 22 - Network connectivity from two telecom vendors for every office is proposed using MPLS lines. The hardware infrastructure should be compatible with the proposed network plan and corresponding equipment.	Kindly clarify MPLS links and replication links will be provided by LIC or the Bidder?	Will be provided by LIC for far DR.

493	Functional Specifications 2	The proposed solution should be able to interoperate with other existing ecosystem in the data-centre.	Need details of existing solutions which are expected to be integrated	The proposed eheap next system is expected to integrate with enterprise portal, enterprise DMS, online underwriting portal, CADW etc.
494	Switch related specifications	The switch shall support advanced zoning and RBAC to simplify administration and significantly increase control over data access. Support for web based management and should also support CLI. It shall be possible to configure the switches with proactive alerts based on threshold values for temperature, fan status, Power supply status, port status. The switch shall be supporting SNMP (v1 and v3) management and appropriate MIBs shall be provided. The Switch should support Fabric Performance Impact Monitoring. The switch shall be optionally supplied with a GUI management software , capable of managing more than 36 fabrics and 2500 to 15000 port	For 15000 ports , we need BNA Enterprise. Do they need it, we have Webtool free for administration. Also for proactive alert, we need Fabric Vision Lic.	The proposed alternate solution to meet the requirements is allowed subject to the condition that the proposed solution should satisfy the reliability, availability, performance and scalability requirement mentioned in this specification.
495	Page 21, Clause 3.7.7	Bid Submission Date &Time	The Bid submission to be extended by few days.	All bidders are hereby informed that there are some pre-bid queries which are under consideration, response to those queries will be published soon and accordingly date of submission of bid will be extended

EXECUTIVE DIRECTOR (IT/SD)