"Supply, Installation and Commissioning of Enterprise Resource Planning (ERP) in Mumbai Metro Rail Corporation (MMRC) by System Integrator including associated Hardware, Software and Licenses along with its implementation, integration and maintenance support"

Standard Set of Deviations

To be read with Annexure I- Pre-bid Minutes of Meeting held on 27.11.2015 and Annexures to this Standard Set of Deviations appended.
The revised clause in the Standard Set of Deviations would prevail and will replace/supersede the respective existing clauses in the RFP

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ERP- Pre-Bid Queries Response					
Sr. No	Clause No.	Page No.	Content of RFP Requiring Clarification	Change Requested/ Clarification required	Query Response
1	2.13.1	12	2.13.1 The original copy (hard copy) purchased from MMRC by paying of Rs.5,000/- shall be signed, stamped and submitted along with the bid.	In case RFP is downloaded through payment gateway. Please clarify whether we have to still take hardcopy from your office.	No hardcopy is required to be collected.
2	2.21	16	**PQ 4: Technical Capability:-** The Bidder should have experience of implementing **in similar government organization** with atleast one project of proposed ERPsolution with order value not less than 2.4 Cr. **or** should have experience of implementing **in similar government organization** with atleasttwo project of proposed ERPsolution with order value not less than 1.8 Cr. **or** should have experience of implementing **in similar government organization** withatleast three project of proposed ERP solution with order value not less than 1.2Cr.	In order to have wider participation, we request if similar experience in corporate sector / private organisations is also considered.	The section 2.21 stands modified as: The Bidder should have experience of implementing in **Government/ PSU /Urban Local bodies** with atleast one project of ERP solution with order value not less than 2.4 Cr. or should have experience of implementing in **Government/ PSU /Urban Local bodies** with atleast two project of ERP solution with order value not less than 1.8 Cr. or should have experience of implementing in

					Government/ PSU /Urban Local bodies with atleast three project of ERP solution with order value not less than 1.2Cr.
3	2.5	10	We request MMRC to allow Maximum 1 consortium considering the magnitude of the project i.e Hardware and related infra.		The section 2.21 stands modified as: The Bidder should have experience of implementing in **Government/ PSU /Urban Local bodies** with atleast one project of ERP solution with order value not less than 2.4 Cr. or should have experience of implementing in **Government/ PSU /Urban Local bodies** with atleast two project of ERP solution with order value not less than 1.8 Cr. or should have experience of implementing in **Government/ PSU /Urban Local bodies** with atleast three project of ERP solution with order value not less than 1.2Cr.

			The bidder should have average turnover of INR 30 crore in last three financial years (FY 12-13, FY-13-14, FY-14-15) as on 31st March 2015 from IT/ ITeS	The average turnover should be revised to INR 15 crore in last three financial years (FY 12-13, FY-13-14, FY-14-15) as on 31st March 2015 from IT/ ITeS.	
4	2.21-Internal Filter – PQ2	Page No. - 16			As per RFP
5	2.21-Internal Filter – PQ1	Page No. - 16	The Bidder should be registered company in India under the Companies Act, 2013, and should be in existence in India for at least the last 3 years as on date of submission of the bid.	The Bidder registered under the Companies Act, 1956 should be permitted.	The Section stands modified as "The Bidder should be registered company in India under the Companies Act,2013 or Companies Act, 1956 and should be in existence in India for at least the last 3 years as on date of submission of the bid."
6	2.21-Internal Filter – PQ2	Page No. - 16	The bidder should have average turnover of INR 30 crore in last three financial years (FY 12-13, FY-13-14, FY-14-15) as on 31st March 2015 from IT/ ITeS	The average turnover should be revised to of INR 20 crore in last three financial years (FY 12-13, FY-13-14, FY-14-15) as on 31st March 2015 from IT/ ITeS	As per RFP
7	2.12	12	Bidders shall submit, EMD of Rs. 3, 00, 000 (Rupees Three Lakhs only) through Online e-Tendering Payment Gateway mode only.	As the amount being big we request you to consider the EMD in form of Bank Guarantee	Since it is e-Tendering system, it is not possible at this stage. As per RFP
8	2.21 PQ 4	17	Initial filter: The Bidder should have experience of implementing in similar government organization with at least one project of proposed ERP solution with order value not less than 2.4 Cr.	we request you to consider the experience in govt as well as pvt sector, as we have implemented more than 50 implementation in the field of infrastructure vertical in pvt sector which are very much similar to what MMRCL requires today, hence the experience of our in this field can also be count for the sake of competitive bidding	Clause modified. Pls. refer clarification No. 2

9	2.21 PQ 6	18	The Bidder providing the application development/customization, deployment and maintenance as described in of scope of work, should have an active SEI CMMI Level 3 or its higher version certification as on date of submission of Bid	we request you to kindly consider the ISO certification of the organization.	As per RFP
10	2.5	10	The consortium, joint venture, subcontracting & outsourcing are not allowed.	this RFP being the multitasking RFP, we request you to allow consortium bids which will help to get specialized organization in bidding	Consortium of max. 2 members is now allowed
11	2.21	17	Initial Filter / technical capability (PQ4)	Can the criteria of implementation in Government project be replaced with any other sector	Clause modified. Pls. refer clarification No. 2
12	2.5	10	Consortium and Sub-Contracting Conditions	can consortium / subcontracting be allowed for hardware and networking	Clause modified. Pls. refer clarification No. 10
13	2.5	10	Consortium and Sub-Contracting Conditions	The consortium, joint venture, subcontracting & outsourcing are not allowed.	Clause modified. Pls. refer clarification No. 10
14	2.17	14	Submission of Bids	2.17.1 Complete bidding process will be online (e-Tendering) in two envelope system. Submission of bids shall be in accordance to the instructions given in the Table. Do we need Digital Signtaure to sibmit the bid through On-Line.below:	Yes. Class II DSC is required. Pls. refer section 1.3 in the RFP.

15	2.21	17	Initial Filter / technical capability (PQ4)	We understand that the requirements and the set up of Government organizations is different, however, w.r.t. technical capability, implementaion of the solution would be the same irrespective of whether it has been implemented in a Government or non-Government organisation. We would humbly request to modify the criteria of implementation in Government project with implemented similar solution in any other sector	Clause modified. Pls. refer clarification No. 2
16	2.5	10	Consortium and Sub-Contracting Conditions	Would consortium/ subcontracting be allowed for hardware and networking	Clause modified. Pls. refer clarification No. 10
17	2.21, PQ2	Page 17	The bidder should have average turnover of INR 30 crore in last three financial years (FY 12-13, FY-13-14, FY-14-15) as on 31st March 2015 from IT/ ITeS	As per CVC guideline the annual turnover of bidder must be 30% of the estimated project value. On what basis 30 crores turnover is required by MMRC? We request MMRC to change the clause as follows - "The bidder should have average turnover of INR 15 crore in last three financial years (FY 12-13, FY-13-14, FY-14-15) as on 31st March 2015 from IT/ ITeS" Or "The bidder should have average turnover of 30% of project value in last three financial years (FY 12-13, FY-13-14, FY-14-15) as on 31st March 2015 from IT/ ITeS"	As per RFP

| 18 | 2.21, PQ6 | Page 18 | The Bidder providing the applicationdevelopment/customization, deployment and maintenance as described in of scope of work, should have an active SEI CMMI Level 3 or its higher version certification as on date of submission of Bid | We request this clause to be relaxed in case the software product OEM is bidding directly.

We request the change in clause as follows - "The Bidder providing the applicationdevelopment/customization, deployment and maintenance as described in of scope of work, should have an active SEI CMMI Level 3 or its higher version certification as on date of submission. Not required to be submitted if the bidder/implementing agency is the proposed ERP OEM" | No Change |
| --- | --- | --- | --- | --- | --- |
| 19 | 2.21 | 17 | Technical Capability The Bidder should have experience of implementing in similar government organizationwith atleast one project of proposed ERPsolution with order value not less than 2.4 Cr. | Request you to remove the condition of the experience of the Proposed ERP solution in this clause and modify the same to: The Bidder should have experience of implementing in similar government organizationwith atleast one project of ERPsolution with order value not less than 2.4 Cr. | Clause modified. Pls. refer clarification No. 2 |

				Since project is of turnkey in nature requiring supply & maintenance of hardware, hosting of ERP application together with ERP implementation services. All these services require niche expertise and hence we request that Consortium of at least 2 Partners is allowed for this project so that partners having suitable skills / expertise for this project can come together and bid which will make bidding process more competitive. As regards to Consortium, MMRC can keep Lead Bidder as single point of contact for the project and make all Consortium Partners (including Lead Bidder) joint & several	
20	2.5	10	Consortium and Sub-Contracting Conditions	liable for this project.	Clause modified. Pls. refer clarification No. 10
21	2.2	16	Evaluation Process	While good attempt is made by MMRC by defining Eligibility Criteria which will ensure that bidders having requisite experience will only bid in this process. RFP says that basic documents pertaining to PQ will be checked which means there is no formal technical evaluation of bidders based on their financial stability, technical competence and availability of manpower that needed for successful completion of this project So by not defining technical evaluation parameter, the main purpose of filtering bidders based on their experience / expertise will be defeated and we	As per RFP

				request MMRC to define technical evaluation parameter.	
				a) We request MMRC to define "Similar" Government Organisation clearly.

We request experience of implementing ERP / integrated business application solution in Govt dept / PSU / Urban bodies be considered so as to have wider competition

b) Past experience of Similar ERP solution

There are many ERP applications available in the market. Bidder decide to quote a particular ERP solution based on Scope of ERP application and functionalities asked in the RFP and other relevant technical parameters etc. These are parameters that vary from RFP to RFP.

It may be possible that bidder might have done COTS ERP implementation in large organisation for similar modules in past. However, based on your RFP requirement, bidder may like to offer some | |
| 22 | 2.21 | 17 | Initial Offer

PQ4 – Bidder should have experience of implementing in similar government organisation with proposed ERP solution | | Clause modified. Pls. refer clarification No. 2 |

| | | | | smaller yet equally capable ERP COTS that meets functional requirement to MMRC under this RFP.

While we understand that bidder should have past experience of ERP implementation. However restricting this experience to "proposed" ERP only will limit the competition. So we request MMRC to remove word " Proposed" from PQ-4

c) Project completion certificate as past experience criteria

We request MMRC to consider ongoing projects also as ERP implementation cycle in large Organisation is very long normally | |
| 23 | 2.23 | 18 | Financial Bid Evaluation

MMRC shall award the contract to the qualified bidder who has quoted the least. | Project being turnkey in nature requiring specific skillset, we request MMRC to do bid evaluation based on QCBS method ie technical & financial bid evaluation and winner should be selected based on its composite scoring only.

This way, MMTC will get bidder who has best technical expertise and is also cost-wise cheapest | As per RFP |

24	2.13.2	13	Authentication of Bid - In case of consortium, only the person from Lead Member is authorised to sign the bid documents and no other person is permitted.	Clause 2.10 states that Consortium is not allowed but the Authentication of Bid clause states that consortium is allowed. We request you to please consider allowing consortium of atleast 2 partners that allows more competitive bidding	Clause modified. Pls. refer clarification No. 10
25	3	20	6) Bidder shall provision integration with Primavera (Project Management tool) and Document management and collaboration system through standard APIs.	Please elaborate on existing Document Management System (OEM/Technology) and other legacy applications being used, which needs integration.	The DMS solution is not yet implemented. Tender has been just released.
26	3.1.7.2 .1.1	24	3.1.7.2.1.1 Seamless integration with MMRC's Project Management and Document Management/ Collaboration System based on MMRC's operations	Please elaborate on existing Document Management System (OEM/Technology) and other legacy applications being used, which needs integration.	The DMS solution is not yet implemented. Tender has been just released.
27	3.1.4	21	3.1.4 Warranty and Annual Maintenance Contract (AMC) Scope of services to be provided under Warranty and AMC is as follows: **Support shall include technical and functional support and maintenance of ERP licenses, Databases and all other standard third party software which form the part of the proposed solution for AMC of 4 years.**	As per these clauses the support required on COTS/third party s/w is 4 years and warranty from OEM is 5 years. The two statements are contradictory. Please clarify how much is warranty and AMC period? There is no provision for quoting AMC charges in your commercial format given in clause 7.2	Hardware warranty is for 5 years from date of installation. Project Support (O&M) is for 4 years after Go live.
28	3.1.7.2 .1.3	24	3.1.7.2.1.3 Data migration for each of the applications, functions into the proposed COTS solution.	Please elaborate on data migration activity like volume, availability of date in soft form and no of years of data to be migrated	Data in Tally and Excel to be migrated. Data since 2011
29	3.1.7.2 .4.1	24	3.1.7.2.4.1 MMRC may use the services independent third party expertise to assess, review and quality control of the project artifacts and deliverables	Please clarify whether MMRC will take care of expenses related to third party audit?	Yes

30	3.1.7.2.5.1	25	3.1.7.2.5.1 Training all the users	Please clarify total no of users to be trained / Batch Size / No of days training expected on deployed application and location of training.	Total users envisaged: around 250. Current users : around 70-80. Users to increase in a span of next 1-2 years. Batch size: 25-30. Location: MMRC. No. of Days: To be proposed by Bidder and to be finalised in consultation with MMRC during SRS/FRS.
31	3.6	37	3.6 Project Timelines 8. Operations and maintenance a. Application support and Maintenance for modules b. Operational support for modules c. Maintenance support for modules	Please indicate the minimum manpower / skill set required during O&M period.	To be proposed by Bidder for the O&M period based on MMRC's User count. Man Month rates have been asked for in the Financial format. Pls. refer clarification no. 30 for details.
32	3.7	37	3.7 Payment Milestone 40% of Total project cost To be paid in 16 Equated Quarterly instalments (every three months) during O&M 4 year (48 months) of operation and maintenance period	We request if the O&M and Hardware/COTS payment be delinked with payment terms.	No Change
33	3.1.3.1	22	If required, bidder shall be required to setup and configure at no additional cost in case MMRC moves to different location.	Please elaborate	The existing office might get shifted to a new building in BKC.
34	3.1.4 & 3.1.7.6.1	22 & 27	Support shall include technical and functional support and maintenance of ERP licenses, Databases and all other standard third party software which form the part of the proposed solution for AMC **of 4 years Vs Post implementation support for 5 year at MMRC office**	Hope our understanding is correct that the AMC / Warranty for 4 years after completion of 6 months of implementation duration proposed in RFP and section 3.1.7.6.1 will be read out as 4 years	1. Support shall include technical and functional support and maintenance of ERP licenses, Databases and all other standard third party software which form the part of the proposed solution for **AMC of 5 years (i.e Hardware warranty)** 2. **Post implementation support is for 4 years at MMRC office Post Go-Live.**

35	3.1.7.6 .15	29	User Adoption Support: The Bidder shall provide User adoption support, by deputing technical and functional consultants at the client site after implementation of COTS Solution at that site for 1 month as stabilization period.	The one month stabilization period will start after **Declaration of "Go Live" ?**	Yes
36	3.1.7.6 .15 & 3.1.7.7		In our understanding 1 month off stabilization period and 1 month of support are the same .		Yes
37	3.2 Integra tion	33	Bidder shall ensure seamless integration with MMRC's other applications like Project Management, Document Management/ Collaboration System, etc.based on MMRC's operations. Data from other systems/ applications should be flow to and from ERP systems based on MMRC's operations. The bidder shall ensure integration of Payment and SMS gateway, and use of digital signature (class II sign and encryption) with its proposed COTS ERP Product. Also, ERP system shall be integrated with Automatic Fare Collection system.	Please give more technical information such as technology / database / architecture etc	Project Management: Primavera Document Management: Not yet implemented. Tender has been just released.
38	3.7	38	Hardware / License procurement and software installation	We request for 100 % payment of OEM Payments on delivery of the product i.e Hardware and Software.	As per RFP
39	3.6.10	39	Number of resources may vary based on project requirements by MMRC. Payment will be made on actual deployment of resources as per the quotations submitted by the bidder.	Since the project will be fixed bid cost so Please give more clarity	Man month rates have been asked for. Changes in the financial format has been made.
40	3- Scope of work – point 6	Page No. - 20	Bidder shall provision integration with Primavera (Project Management tool) and Document management and collaboration system through standard APIs.	1. Which Document management is being used? 2. Need for one way integration or two way integration with Primavera? Up to which	1.Document Management: Not yet implemented. Tender has been just released. 2. Two way but to be finalized in consultation

				level integration is required?	with MMRC during SRS and FRS stage
41	3- Scope of work	Page No. - 20	MMRC reserves the right to amend/ add/ delete/ edit any of the following items of the scope of work at the cost of the bidder which shall be binding on the bidder.	This clause should be deleted. It would be difficult to estimate project size with open ended scope.	Clause removed
42	3.1- Scope for Enterprise Resource planning	Page No. - 20	The Proposed COTS ERP Solution should enable single Sign on and have Compliance to Indian laws, taxation requirements, legal requirements like Tax Deducted at Source (TDS), Service Tax, Value Added Tax (VAT) , and other taxation, accounting , payroll, GOF, Salary, TDS certificates.	What is the meaning of GOF?	Word removed
43	3.1- Scope for Enterprise Resource planning	Page No. - 20	ERP system shall support integration with Automatic Fare Collection Module as required by MMRC.	The integration is limited to capture consolidated day end accounting balance in proposed ERP? Please confirm scope as stated above.	Should be able to accept data from external source, maybe through web services or any means. But Automatic Fare Collection Module to come up only at the time of operationalization of Metro.
44	3.1.3.1	Page No. - 21	The required infrastructures to run the application shall be appropriately configured by the Bidder.	1. Is bidder responsible to setup data centre? 2. Is bidder responsible for LAN cabling also? 3. Is bidder supposed to install & configure operating system? Request confirmation.	1. Bidder is supposed to setup, install and configure server and all related components in the proposed server room at MMRC. 2. No. 3. Yes.
45	3.1.5.3	Page No. - 21	System-driven compliance to Indian regulatory requirements(IGAAP, IFRS, **GST**)	At present GST is not operational, & requirements are not clear. Request to delete this word.	The system should be able to support when ever it is implemented down the line.
46	3.1.7.2 .1.3	Page No. - 24	Data migration for each of the applications, functions into the proposed COTS solution.	What is the volume of data migration?	Data in Tally and Excel. Data since 2011. Data volume is not too big.

47	3.4 Man power Requir ement	Page No. - 33	Project Manager/ Functional Lead/ Technical Lead / Project Support Languages known (Read, Write and Speak): Hindi, English, Marathi	The clause should be revised to (Marathi should be deleted) Languages known (Read, Write and Speak): Hindi, English	As per RFP
48	3.7- Payme nt Milesto ne -2	Page No. - 37	Hardware / License procurement and software installation - 30% of Total Project Cost	Payment for Hardware & License procurement should be 100% upfront post-delivery/ installation. 1. Is bidder expected to provide Database license 2. Is bidder expected to provide operating system license for servers?	1. Yes 2. Yes
49	3.6 Project Timelin es	Page No - 35	The rollout of ERP is maximum of Six(6) months	Time line should be revised to Nine Months.	As per RFP
50	3.1.7.5 .1	26	Help desk operations - Initial Response Immediate telephonic response and support for usage related and other minor problems. Dial-in support for handling, minor bug fix.	What is the support window expected for helpdesk operations? Ex - 24x7, 8x5, etc.	Working hours from Monday to Friday.
51	3.1.7.5 .1	26	Help desk operations - Initial Response Immediate telephonic response and support for usage related and other minor problems. Dial-in support for handling, minor bug fix.	Do we have to provide toll free number for helpdesk service or will MMRC provide toll free number to its employees?	There is no need for any Toll Free number. The ERP support team to be deployed at MMRC shall be provided with a landline.
52	3.1.7.5 .1	26	Help desk operations - Initial Response Immediate telephonic response and support for usage related and other minor problems. Dial-in support for handling, minor bug fix.	Helpdesk support is required for which level? L1, L2, L3?	As per RFP
53	3.1.7.5 .2	26	Onsite support - On-site support for hand holding the users, database recovery and data synchronization after crash, performance tuning, bug fix, update for all critical functions.	What does MMRC mean by Onsite Support?	Person to be deployed on MMRC premises for day to day support. As a part of post implementation support for 4 Years
54	3.1.7.6 .10	29	End-User Training	Will the end user training be applicable to BI as well?	Yes

				Can this be reworded as "No critical issues"? SI can only provide commitment for the enhancements delivered. Product issues will be ownership of Principal	
55	3.1.7.8 .5	31	I. No issues pending at the end of support period	vendor	Request accepted
56	3.1.7.8 .5	31	"on-line" transactions of all implemented modules – No backlog / offline transaction data entry during the last month of support.	This depends on MMRC. SI won't enter any transaction in the PROD instance. It can be an internal success criteria.	As per RFP
57	3.2	32	Bidder shall ensure seamless integration with MMRC's other applications like Project Management, Document Management/ Collaboration System, etc. Based on MMRC's operations. Data from other systems/ applications should be flow to and from ERP systems based on MMRC's operations. The bidder shall ensure integration of Payment and SMS gateway, and use of digital signature (class II sign and encryption) with its proposed COTS ERP Product. Also, ERP system shall be integrated with Automatic Fare Collection system.	How many banks, telecom, Digital sign service providers are required to be integrated? Real time or batch mode integration? Auto fare collection system – Real time or batch mode integration?	The system should be able to support integration with Class-II DSC. Integration with atleast one Payment Gateway solution should be supported. Automatic Fare Collection Module to come up only at the time of operationalization of Metro.
58	3.3	33	In lien of the ERP implementation, MMRC envisages reports over and above the standard reports which will enable MMRC Management to analyze, report and take suitable decisions. Advanced reports are required by MMRC where additional data can be sourced from different applications and create reports ad-hoc/ on the fly by MMRC which should be viewable and may be extracted in standard formats. The bidder may suggest, if any additional reporting tool may be required to create these ad-	As we understand there is a requirement of extracting the reports in different formats, can we know what are the different format expected?	To be finalized in consultation with MMRC during SRS and FRS

			hoc reports apart from standard available reports. The reports should be accessed as per the roles and responsibilities of the respective functions.		
59	3.6	37	To be started from successful implementation of modules till a period of 4 years.	This is contradictory with statement mentioned on page number 26 specifying support to be required for 5 years. Please confirm on support duration	Post implementation Support is required for 4 years
60	3.6	37	Data Entry, digitization, and conversion of the records available in the paper files and migration of the data available in the existing databases	How much % of data are in paper files? What is the existing Database Oracle/SQL Server etc.?	Data in Tally and Excel. Data since 2011. No data in paper files.
61	3.6	37	Project Timelines	As seen from the timelines, development has to be finished by 4th month, is BI a part of it?	No
62	3.7	38	1: SRS & FRS Sign off : 10% of Total Project Cost	First milestone payment should be done on award of contract.	As per RFP
63	3.1.7.2 .1.1	24	Seamless integration with MMRC's Project Management and Document Management/ Collaboration System based on MMRC's operations	Request to provide details about existing Project Management and Document Management/ Collaboration System	Primavera for Projetc Managemnet and DMS-Tender just released.
64	3.1.7.2 .1.3	24	Data migration for each of the applications, functions into the proposed COTS solution.	Request to provide the volume of current data which need to be migrated with the COTS solution	Data in Tally and excel. Data since 2011. Volume is not too big.
65	3.1.7.2 .1.3	24	Data migration for each of the applications, functions into the proposed COTS solution.	Is MMRC expecting bidder to do data cleansing, digitization also?	Data in Tally and Excel. Also since data is not much, Bidder is expected to do data

					cleansing where ever required.
66	3.1.7.2.5	24	Training and documentation	Request to provide the approximate number of users breakup for training (Core/power/end/management/super users)	25-30 users in a batch. Pls. refer clarification No. 30 for details. 10-15 : Management 200-250: End users 40-50: Power users
67	3.1.7.5.2	25	Onsite support - On-site support for hand holding the users, database recovery and data synchronization after crash, performance tuning, bug fix, update for all critical functions.	Is MMRC expecting onsite support for whole five years?	Post implementation On Site Support is required for 4 years
68	3.3	32	In lien of the ERP implementation, MMRC envisages reports over and above the standard reports which will enable MMRC Management to analyze, report and take suitable decisions.	Request to provide the additional reporting requirement in approximate numbers?	To be finalized in consultation with MMRC during SRS and FRS
69	3.4.9	35	Changes or Substitutions of the Project Manager shall not be considered and may lead to disqualification of the Bidder or termination of the contract	Request to modify this requirement to "In case, replacements required, the Selected Bidder shall notify MMRC in writing at least 15 (Fifteen) days in advance, for prior approval, stating: the reason for replacing the person(s), originally assigned to the project the names and signed curriculum vitae (CV)of the proposed replacement"	The clause to be read as : "In case, replacement is required, the Selected Bidder shall notify MMRC in writing at least 30 (Thirty) days in advance, for prior approval, stating: the reason for replacing the person(s), originally assigned to the project the names and signed curriculum vitae (CV)of the proposed replacement having equivalent credentials."
70	3.4		Manpower requirement	It is mentioned that 'Languages known (Read, Write and Speak): Hindi, English, Marathi' for manpower requirement mentioned in the RFP. Can it be changed to "Languages known (Read, Write and Speak): Hindi & English mandatory and Marathi as optional"?	As per RFP

71	3.1.4	21	Warranty and Annual Maintenance Contract (AMC)	It is mentioned that "Support shall include technical and functional support and maintenance of ERP licenses, Databases and all other standard third party software which form the part of the proposed solution for AMC of 4 years". However in section 5.7 it is mentioned that "The warranty from OEM shall remain valid for five years for active components". We need to consider for four or five years?	Support shall include technical and functional support and maintenance of ERP licenses, Databases and all other standard third party software which form the part of the proposed solution for **AMC of 5 years**
72	3.6	37	Project Timelines	It is mentioned that " Application support and Maintenance for modules - To be started from successful implementation of modules till a period of 4 years". In section 3.1.7.6.1 it is mentioned "Post implementation support for 5 year at MMRC office". need to consider for four or five years?	Post implementation support for **4 years** at MMRC office
73	3	21	Scope of work - Manage application hosting	Please clarify in detail about managing the application hosting Clarify COTS	The application needs to hosted on MMRC premise by the Bidder. COTS: Commercial Off the Shelf i.e. packaged software solutions that are designed to be implemented easily into existing systems without the need for customization
74	3.1.3	22	bidder shall be required to setup and configure at no additional cost in case MMRC moves to different location	in same city ? Clarify responsibility of MMRC and bidder	The existing office might get shifted to a new building in BKC. The Bidder is expected to install the configure the system in case of shifting.

75	3.1.7.6.1	27	Core implementation services - AMC support for 5 years	Clarify support contract tenure - 4 or 5 years ? Please clarify duration of contract	Post implementation support for 4 years at MMRC office
76	3.1.7.6.4	27	Identification : trial run of customised system with MMRC data and will be rolled out to other locations post approval	What is the duration,criteria and completion for trial run ?	To be discussed with successful bidder
77	3.1.7.6.12	29	Readiness for GO live - setting up help desk	MMRC to ensure that required infrastructure for setting up a helpdesk is available	MMRC can only provide space
78	3.1.7.8.4	30	The Bidder should plan for following developments as a part of the normal effort for implementing the COTS Solution	No list of developments mentioned in RFP below this point	Clause removed
79	3	20	Scope of work - hardware	What is the scope for supply of hardware as per the document ?	Supply, installation, Configuration and maintenance of hardware required for ERP implementation
80	3.1.5.12	22	Financial statement generation for regulatory complianceparallel-ledger, profit-center/ cost-center/ project accounting	please clarify on generating report	Reports in formats required by GOI, GOM and MMRC
81	3.1.7.2.1.1	25	solution integration and implementation	What document manageent system do you curerently use? Whay do you need this system to have document manageent separately?	The DMS is not yet implemented. Tender has been just released.
82	3.1.7.6.7	28	Developing a Test Plan to support Function Testing and System/ Integration Testing and ensuring that the testing of the software is comprehensive and auditable and preparing test cases for User Acceptance Testing (UAT).	Where will the test artifacts be stored	Bidder to propose
83	3.1.7.6.7	28	Developing a Test Plan to support Function Testing and System/ Integration Testing and ensuring that the testing of the software is comprehensive and auditable and preparing test cases for User Acceptance Testing (UAT).	Is Automation considered in functional testing or is it only manual testing	Bidder to propose

84	3.1.7.6.7	28	On the basis of these tests, a report would be submitted by the Bidder for review and approval by MMRC.The test results and response times should be demonstrated by the Bidder during the testing phases (System, integration & Stress and Load testing)	What is the peak load expected in the application? Need this to conduct the stress/load test	No. of users have been mentioned
85	3.1	21	Scope for Enterprise Resource planning. MMRC envisages to create robust and flexible solution which can cater to Finance Accounting & Controlling and Human Resource and Payroll with necessary hardware	We would like to know the number of License in each area of Finance and Human Resource and Payroll. PwC would facilitate the licensing process, the actual licensing agreement would need to be entered into directly between the software suppliers and Client. All third party software / h/w responsibilities, obligations and liabilities should be directly borne by the software /ware supplier to the Client.

Also the details of the existing hardware (OS, DB with versions) and scalability expected would be needed. | Pls. refer section 3.1.7.1 : Tentative Users base |
| 86 | 3.17.2.5 | 25 | Training and documentation 3.1.7.2.5.1 Training all the users 3.1.7.2.5.1 Preparation of user manuals 3.1.7.2.5.1 Training the key executives for monitoring the performance and using the reports effectively | We would like to know number of users to be trained in each Business Area including System Adminstration Training, End User Training , Technical Training . Also Do we need to provide Hard copy document of Training Manual . | Pls. refer clarification No. 66 and 30. No, hard copy is not required to be provided. |
| 87 | 3.1.7.8.3 | 32 | Deliverables acceptance criteria | The acceptance criteria for each phase is the submission and acceptance of all deliverables specified for that phase. The formal acceptance by MMRC of the phase deliverables constitutes completion of the phase and approval | The acceptance would be given as early as possible if the activities and deliverables as completed as per SRS and FRS. |

				to launch the next phase and invoice MMRC for payment.Would like to know the duration for accepatnce of each delieverable. Pls clarify	
88	3.1.7.8.3	32	Deliverables acceptance criteria	Bidder is free to propose any additional deliverable, based on their experience of delivering similar projects, which can enhance the quality of work. It is expected that the project will move from one phase to the next only when the deliverables of that phase are accepted. The work and the deliverable to be frozen and pre agreed before start of the engagement to avoid any scope creep issues.	Yes. It would be finalised during SRS and FRS stage.
89	3.2	33	Integration: Bidder shall ensure seamless integration with MMRC's other applications like Project Management, Document Management/ Collaboration System, etc.based on MMRC's operations. Data from other systems/ applications should be flow to and from ERP systems based on MMRC's operations. The bidder shall ensure integration of Payment and SMS gateway, and use of digital signature (class II sign and encryption) with its proposed COTS ERP Product. Also, ERP system shall be integrated with Automatic Fare Collection system.	Pls clarify about the current systems that are proposed to integrate. Pls provide the details of the systems.	1. Project Management: Primavera 2. Document Management: Tender just released 3. SMS and Payment gateway 4. MMRCL Portal which is developed in PHP and mySQL. 5. email: MS Exchange
90	3.6	36	Project Timelines:The rollout of ERP is maximum of Six(6) months and One (1) months of stabilization period.	We request MMRC to consider extending the implementation period to at least 10 months	No Change

				It was mentioned in the RFP page number 28 " 3.1.7.6.8 Data Migration Migration of data in the new system is responsibility of Bidder from the cutoff date after the date of tender allocation. MMRC along with Bidder will jointly decide on what data will be migrated and MMRC will take the responsibility of collecting and making the data available in digitized form as per the format suggested by the bidder.". We assume MMRC is responsible for Data Digitisation.	Data is available in Tally and excel which the Bidder is expected to migrate. Data cleansing if required is expected to be done by Bidder so that only proper data is fed into the system. Data volume is not much. Data since 2011 available.
91	3.6	37	Project Timelines -4. Data Entry : Data Entry, digitization, and conversion of the records available in the paper files and migration of the data available in the existing databases		
92	3.7	38	Payment Milestone	We request MMRC to modify the payment Terms. Is deviation allowed.	No Change
93	3	21	Scope of work: Manage application hosting	Kindly clarify in detail about managing the application hosting	The application needs to hosted on MMRC premise by the Bidder.
94	3.1.5.17	22		Kindly do elaborate on what you mean by COTS	No Change
95	3.1.3	22	bidder shall be required to setup and configure at no additional cost in case MMRC moves to different location	Kindly do clarify if the client plans to move premises within the same city. Also we would like to understand the roles and responsibilities of MMRC and the bidder in such case.	The existing office might get shifted to a new building in BKC. The Bidder is expected to install the configure the system in the new building in case of shifting.
96	3.1.7.6.1	27 38	Core implementation services - AMC support for 5 years O&M 4 year (48 months) of operation and maintenance period	Please clarify duration of contract w.r.t. O&M. There is confusion if O&M phase is for 4 years or 5 years.	O&M phase in 4 years
97	3.1.7.6.4	27	Identification : trial run of customised system with MMRC data and will be rolled out to other locations post approval	Kindly do define the timeline, criteria for carrying out the trial run and the criteria to measure the correctness and completeness. Would MMRC be testing with sample data or entire data.	To be mutually decided by MMRC and the Bidder. Sample data would be used for testing.

98	3.1.7.6.12	29	Readiness for GO live - setting up help desk	We assume that MMRC would ensure that required infrastructure for setting up a helpdesk is available	Help desk means on site support required by end users in solving day to day queries at MMRC which shall be a part of O&M. MMRC can only provide space.
99	3.1.7.8.4	30	The Bidder should plan for following developments as a part of the normal effort for implementing the COTS Solution	There is no list of developments (Reports/ customizations) mentioned in RFP below this point. We would request that MMRC cap this requirement as it would be difficult for us to do the effort estimation.	Clause removed
100	3	20	Scope of work - hardware	Kindly elaborate on the scope for supply of hardware	Supply, installation and maintenance of hardware required for ERP implementation
101	3.1.5.12	22	Financial statement generation for regulatory complianceparallel-ledger, profit-center/ cost-center/ project accounting	Kindly clarify on generating report	Reports in formats required by GOI, GOM and MMRC
102	3.1.7.2.1.1	25	solution integration and implementation	What document management & project management system do you curerently use? Kindly explain the need to have document management separately?	1. Project Management: Primavera 2. Document Management: Tender just released
103	3.2	33	Integration	Please provide technical details of all the different external solution to be integrated with.	1. Project Management: Primavera 2. Document Management: Tender just released 3. SMS and Payment gateway 4. MMRCL Portal which is developed in PHP and mySQL. 5. email: MS Exchange
104	3.1.7.8.4	30	Plan for customization / development The Bidder should plan for following developments as a part of the normal effort for implementing the COTS Solution.	Kindly clarify – "which following" developments bidder should consider in their proposal	Clause removed

105	3.2	33	Integration	Kindly provide relevant technical details of these 3rd party system that needs to be integrated with proposed ERP	1. Project Management: Primavera 2. Document Management: Tender just released 3. SMS and Payment gateway 4. MMRCL Portal which is developed in PHP and mySQL. 5. email: MS Exchange
106	3.7	38	Payment Milestone	We request MMRC to split payment towards Hardware / License procurement and software installation	As per RFP
107	3.7	38	Payment milestone	We request MMRC to separate out payment towards Training & Go Live	As per RFP
108	3.1.7.2.4	24	Feedback, Monitoring and Adoption – engaging services of third party expertise	We request MMRC to let us know who shall bear the cost of engaging a third party expert for testing.	Bidder
109	3.1.7.2.5	26	Training & Documentation	We request MMRC to let us know who shall arrange for and bear the cost of training infra like classroom, computers,	MMRC can provide room
110	3.2	32	Integration with MMRC's Project Management and Document Management/ Collaboration System based on MMRC's operations.	Please give details of the technology used for these systems	1. Project Management: Primavera 2. Document Management: Tender just released
111	3.6	35	The rollout of ERP is maximum of Six (6) months and One (1) months of stabilization period.	It is very tight schedule and sounds impractical. Request please extend the duration of the project to 1 year.	No Change

11 2	5.7	49	5.7 Hardware Warranty All the supplied goods under this RFP scope shall be new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract. The supplied goods under this RFP shall be free from defects arising from any act or omission of the successful bidder or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination. **The warranty from OEM shall remain valid for five years for active components and 20 years for passive component after the goods**, or any portion thereof as the case may be, have been delivered, installed, tested and accepted by MMRC.	The terms "and 20 years for passive component" should be deleted.	Clause modied as : "The warranty from OEM shall remain valid for five years for active components after the goods, or any portion thereof as the case may be, have been delivered, installed, tested and accepted by MMRC.
11 3	5.4.3	Page No. 48	This performance bank guarantee will be for an amount equivalent to 10% of the total contract value	We request to PBG should be excluding of taxes.	No Change
11 4	5.7 Hardw are Warran ty	Page No. 49	The warranty from OEM shall remain valid for five years for active components and 20 years for passive component after the goods, or any portion thereof as the case may be, have been delivered, installed, tested and accepted by MMRC.	The terms "and 20 years for passive component" should be deleted.	Clause modified. Pls. refer clarification No.114
11 5	5.7	50	Hardware Warranty	The warranty from OEM shall remain valid for five years for active components and 20 years for passive component after the goods, or any portion thereof as the case may be, have been delivered, installed, tested and accepted by MMRC.	Clause modified. Pls. refer clarification No.114

116	6.8	61	Disaster Recovery Plan	What are the expectations from Disaster Recovery Plan? Where will DR site be hosted?	DR not required
117	6.9	68-FC -9	Functional Requirements compliance-FC -9	Reports. There are 16 reports mentioned. We assume these are maximum reports requried. Any additional reports other than this 16 will be considered as Change Request. Pls clarify	To be finalized in consultation with MMRC during SRS and FRS
118	6.9	70-FC -11	Functional Requirements compliance-FC.11.13	Blank. Pls clarify --Is it intentionally kept blank.	Yes
119	6.9	86 -HR-20	Functional Requirements compliance-HR.20	Payroll Reports / MIS: There are 16 reports mentioned. We assume these are maximum reports requried. Any additional reports other than this 16 will be considered as Change Request. Pls clarify	To be finalized in consultation with MMRC during SRS and FRS
120	6.9	79-HR-11	Functional Requirements compliance-HR.11	MIS/Reporting There are 6 reports mentioned. We assume these are maximum reports requried. Any additional reports other than this 6 will be considered as Change Request. Pls clarify	To be finalized in consultation with MMRC during SRS and FRS
121	7.2	105	Financial Proposal Format We request MMRC to be flexible to amend the price bid format because giving line item wise and resource wise price for implementation may not be possible and more over it is fixed bid price and time line,		Financial Bid format revised
122	Section 7.2	Page 105	3. The COTS ERP product should be from among the top 5 companies in revenue as per "Total ERP software Revenue, worldwide, 2013-2014" Gartner Report"	We request MMRC to relax this clause. IFS is the leading ERP in the world and have been ranked as leaders in gartner's leader quadrant for ERP for last 3 years. This clause is restrictive in nature.	No Change

				We request the change in clause as follows- "The COTS ERP product should be in Gartner Report"	
12 3	Section 3.7	Page 38	Payment Milestone	We request MMRC to pls make the capex payment of lcense and hardware on delivery	No Change
12 4	7.2	104	The COTS ERP product should be from among the top 5 companies in revenue as per "Total ERP software Revenue, worldwide, 2013-2014" Gartner Report	There are many ERP products available in Indian market that meet MMRC's requirement mentioned in the RFP. However many of these Indian ERPs are not enlisted in the Gartner report. By insisting that proposed ERP should be as per Gartner report, MMRC will deprive these Indian yet capable ERP products from even participating in the bidding process. So we request MMRC to remove the clause regarding Gartner report & allow the capable Indian ERP products to participate in your bidding. Rather than selecting ERP merely based on the Gartner report (International standard), based on our past experience, we suggest that MMRC should do technical evaluation of proposed ERP and in doing so, MMRC should carry out technical evaluation of the bid & proposed ERP. This can be done by evolving technical evaluation process that	No Change

				will help MMRC to select the right bidder and the right ERP product for their ERP project. Bidder & ERP product selected by such way will have better success rate to the project and hence the suggestion.	
125	12	116	Annexure- Draft of Agreement Format	We request MMRC to make techno-commercial proposal submitted by bidder also a part of this agreement	No Change
126	13 Annexure – Technical Specifications	118	6 EMS Products belonging to Leaders, Challengers & Visionaries Quadrant in Gartner or equivalent Magic Quadrant for Application Performance Monitoring in Gartner Report for Q4 2013 or the 2014 Latest Report	EMS is a broad area and detailed specs of EMS are not provided in Technical Specifications. It should cover all of the following work areas. It will ensure all bidders quote solution with equivalent capabilities 1 Network Management System 2 Server Performance Management System 3 Different Correlation capabilities including Topology Based Event Correlation 4 Application performance Management 5 SLA Management 6 Service Desk/helpdesk 7 Inventory and Asset	Technical Specifications modified. Pls. refer Corrigendum. Only basic Application performance management solution is required.

				Management 8 Server and Desktop Management 9 Workflow Automation 10 Log Management	
12 7	25	Page No - 126	The proposed solution should support 4,000,000 concurrent sessions & 150,000 new connections per second	Is the stated figures correct? Please confirm.	Clause modified. Pls refer corrigendum
12 8	AD.31	97	Admin : Events and Meetings	For meetings and events, internal facilities within the office should be checked for the availability. Is this the availability of conference room/fixed assets like furniture etc. Please elaborate the process in order to map the right module for these requirements.	For room bookings (internal) for meetings
12 9	AD.31. 6	98	If there are no empanelled vendors, then the system should provide provision to raise the alert for a fresh tendering process	Do you want to handle the end-to-end tendering process in system right from creating RFP, collaborating with prospective suppliers online (tracking their response, quotes etc.,), internal scoring/evaluation and awarding the contract to vendor? If Yes, Do you wish to provide access of your ERP system to the Prospective Suppliers through external secure gateway in order for them to respond to RFPs online?	No

13 0	AD33.1 8	99	Concerned Vendor should be able to submit the invoice through the System, the concerned official should be able to verify the items received and the items mentioned in the invoice	In order to map this requirement, please help us understand the volume of transactions, number of Suppliers and if the system should have the below capabilities as well? - Vendor Registration - Supplier Profile Management (Addresses, Sites, Contacts, Tax details etc.,) - Purchase Order Acknowledgement from Supplier - Real-time Purchase Order/Agreement visibility to Supplier - Advanced Shipment Notifications from Supplier	To be finalized in consultation with MMRC during SRS and FRS
13 1	FC.3.9	64	Should have the ability to make simulations to identify the Projects costs and Benefits using Simulation techniques and Trends analysis	We need to evaluate whether Profitability Cost management module is required	To be finalized in consultation with MMRC during SRS and FRS
13 2	FC.4.4	65	Should enable online tracking of expenditures vis-à-vis budget at any level	Do we need to push the Budget data from Planning system to ERP?	Would be in the same system
13 3	FC.8.5. 1	67	Should have the ability to run payment program for future date	Does this mean printing of Postdated cheques or making payment of invoices in advance (Invoices getting due on a future date)	To be discussed with successful bidder
13 4	FC.15. 1	72	Should have the ability to create departments / projects / functions etc. as flexible hierarchy to roll up cost	What are the costs or cost elements which are mapped to hierarchies? How the costs are rolled up and at what time?	To be discussed with successful bidder
13 5	Genera l	Gene ral	Generic	which are the Office automation desktop software's in use for 1. Spreadsheet 2. word Processing 3. Mail/ communication	MS Office, MS Exchange

13 6	Genera l	Gene ral	Generic	ERP solution will be centrally deployed, Please share under mentioned details 1. total count of various Static, temporary or mobile office locations which will be using ERP application 2. Current connectivity & available bandwidth for ERP solution usages for all above locations	1. Pls. refer section 3.1.7.1 : Tentative Users base 2. 10 Mbps leased line and 4 Mbps broadband
13 7	Genera l	-	-	Please provide details of current software/application used for Document Management, Collaboration & Automatic Fare collection Systems. Also provide brief description of the system functionalities.	Tender for Document Management has just been released
13 8	Genera l	-	-	How many users for Procurement? Are they part of F&A users (25Nos?)	Procurement module of ERP is not in scope
13 9	Genera l	-	-	Who would be responsible for data digitization?	Data in Tally and Excel. Also since data is not much, Bidder is expected to do data cleansing where ever required.
14 0	Genera l: Infrastr ucture	-	-	Is hardware procurement in scope? If yes, any particular OEM preference?	Yes, hardware procurement is in Bidders Scope. Pls. refer Annexure 13 for Min. Technical Specifications
14 1	Genera l: Infrastr ucture	-	-	Hardware AMC will be managed by MMRC or SI? How many years of AMC should be provided in the proposal	Hardware to be managed by SI. 5 years on hardware AMC
14 2	Genera l: Infrastr ucture	-	-	Do we have to host the application? Or will the application be hosted at MMRC DC/SDC?	It is Bidders responsibility to host the application on MMRC's premises by procuring necessary hardware infra
14 3	Genera l:	-	-	Expected number of Helpdesk engineers to be deployed?	To be proposed by Bidder.

	Infrastr ucture				
14 4	Genera l: Infrastr ucture	-	-	Can we use current hardware available with MMRC for hosting the ERP? If Yes, can you share current available infra?	Bidder is expected to visit the proposed server room at MMRC for the same. There is no hardware currently.
14 5	Genera l: Infrastr ucture	-	-	Do we have to provide network equipment's?	Yes, to be proposed by Bidder based on accessing current infra at MMRC.
14 6	Genera l: Infrastr ucture	-	-	Do we have to propose a helpdesk ticketing tool?	No
14 7	Genera l	_		Development need to be onsite or it may happen offshore? Kindly specify, as offsite development may happen faster than onsite development.	As proposed by Bidder.
14 8	Genera l	_	Data Migration	Kindly let us know the volume/size of data need to migrate. And what are the technologies using for said application like type of database etc.	Only data from Tally and excel. Data since 2011. Volume not much.
14 9	Genera l	_		How many forms will be submitted and processed in a day?	To be discussed with successful bidder
15 0	Genera l	_		We request you to provide us the technical details of the existing systems from where the data has to be migrated. Details would include technology of the system, data architecture / structure, amount of data in each system (size wise) and other appropriate technical data to design our solution. We also request for a run-through of the same for better understanding and estimate	Only data from Tally and excel. Data since 2011. Volume not much.
15 1	Genera l	_		Integrated Bilingual methodology is needed at the Portal level only? Or it is extend up to application level?	Portal

15 2	Genera l	_		If It Is needed up to application level then the Bilingual methodology is needed at the Label level only? Or user needs to get data entry done in several languages? Kindly clarify the same.	Data entry in english. Label level should be bilingual
15 3	Genera l	_		Does physical document for data digitization also contains other languages like Hindi or regional languages than English?	Physical document digitization is not in scope
15 4	HR.1.1 1	72	Should enable compilation of employee numbers by grade / function / role band at any given time	Is any method followed for employee number generation in your organization currently?	Yes, it shall be shared with the Bidder during implementation phase.
15 5	HR.1.1 4	72	Should be able to create the various business groups like Package wise	Should be able to create the various business groups like Package wise. Please elaborate? Clarification required on "Package Wise "	Package in the context of metro rail construction contracts being awarded.
15 6	HR.3.2 0	73	PF number	Currently do you follow any automatic generation routines for PF numbers and Employee numbers? Would you like to have automatic PF Number generation facility	To be discussed with successful bidder
15 7	HR.3.1	73	Should be able to maintain employee information including:	How is the HR data maintained currently? Do you have any system in place? How is payroll processed today? Which system or product is used today for payroll processing	Tally and Excel.
15 8	HR.3.3 5	74	Should be capable of maintaining data on continuous basis without purging and without affecting system performance	Do you follow any data retention Policy today?	No
15 9	HR.6.1	75	Self Service (Employee / Manager)	Employee self-service users count? Employee strength	200
16 0	HR.4	75	Employee Time Management, Leave, and Attendance	Do we have schedule based working hours or Normal working hours for all employees? Do we have scenario for Shift Based Working Schedule?	Normal working hours only.

16 1	HR.6.1 1	76	The system should Provide workflows. Accommodates multiple levels of review and approval	Should system able to reassign or delegate approval notification to anyone else within the organization?	Yes
16 2	HR.5.1	76	Should be able to record employee performance appraisals	How many appraisals cycle do you follow in a year?	1
16 3	HR.5.4	76	Should be linked to competence and skills of the employee	Do you have data for competency and skills of employees?	Yes
16 4	HR.10. 3	77	The system should have the ability to handle deputation to and from other organizations.	How deputation and repatriation different from normal employment in your organization?	As per Govt. rules
16 5	HR.8.7	77	Should be able to handle after Retirement benefits	What time of retirement benefits given to employee currently?	As per Govt. rules
16 6	HR.13	79	Integration	Provide all t third Party or in-house system with which you want HR system to integrated/ interfaced.	Tally and portal
16 7	HR.15. 18, HR.15. 19, HR.15. 21, HR.15. 24, HR.15. 26	81	Basic/ Leave Encashment/ Joining Bonus, Special Pay/ Allowance/ Personal Pay, House Rent Allowance, Children's Education Allowance, All Loans & funds	Are these the only allowances? Can you provide us the entire list of allowance and deduction?	To be finalized in consultation with MMRC during SRS and FRS
16 8	HR.16. 11	82	Dependent info, CEA, Class/Hostel info, etc.	Do you need to store contact information e.g. Emergency Contact?	Yes
16 9	HR.15. 77	83	Should have a report generated before posting of salaries at month end. This would ensure that the system allows checking of data prior to posting	What are distribution method for all the reports?	Should be available online
17 0	HR.19. 10	85	The system should Post salary payment advice including multiple payment methods such as bank, cash and cheque to General Ledger	What is the mode of Payment to employees like Bank, Cheque or Cash or do you require all.	All
17 1	HR.31. 2	97	Should be able to provide flexible budget hierarchy to define budgeting level	How are approvals done today , do you follow supervisor hierarchy or do you follow position	To be finalized in consultation with MMRC during SRS and FRS

				hierarchy or any other ad hoc hierarchy	
17 2	Sub-contrac ting	Page No:- 9 Page No. 103	Page No:- 9 The consortium, joint venture, subcontracting & outsourcing are not allowed. Page No:- 103 We undertake not to sub contract the work of more than 25% of the total value of the Contract.	Both are contradictory statement. Is sub-contracting allowed? Please confirm.	Consortium of max. 2 members is now allowed. Sub Contracting is not allowed
17 3	-	-	-	Referring the RFP, we see there are requirements for Reports & Dashboards for Financials & HR. Is there is any KPI which MMRC will be interested in?	Ex.s like Time overrun, Cost overrun etc
17 4					
17 5	-	-	-	How many reports and dashboards are in scope in each functional area?	To be finalized in consultation with MMRC during SRS and FRS
17 6	-	-	-	Is there a requirement of Single Sign on in BI with any other application?	No
17 7	-	-	-	Is there a requirement of BI Project Start Date with the EBS?	No
17 8	-	-	-	If we are proposing Oracle, what is the BOM proposed by Oracle?	Invalid query
17 9	-	-	-	Is the BI project implementation at client place?	Yes
18 0	-	-	-	Adhoc reporting of BI will cater to what section of audience?	Top Management
18 1		43		Do we need to provide infrastructure Monitoring tool?	No
18 2	-	-	-	What is the Budgeting Forecasting cycle?	To be discussed with successful bidder
18 3	-	-	-	Do we need to refresh actuals in Planning from ERP?	To be discussed with successful bidder
18 4	-	-	-	How many years of historical period planning data to be loaded in the system?	Since 2011

185	-	-	-	Does Multi currency planning required?	To be discussed with successful bidder
186	-	-	-	Do you have any unions attached with your Organization?	No
187	-	-	-	How many legislation are involved with respect to this project (Need to implement - Looks like in India only or expected in future)?	India only.
188	-	-	-	How many years of history data do you have and need to be converted and what is the volume.	since 2011. Volume not much.
189	-	-	-	How many trainings are conducted in a year	Once every Quarter. To be finalized between MMRC and successful Bidder later.
190	-	-	-	How many recruitment drive are conducted in a Year	As per MMRC's requirement
191	-	-	-	How many different types of selection process do you have? Please elaborate?	To be discussed with successful bidder
192	2.21 PQ2	16	The bidder should have average turnover of INR 30 Crores in last 3 Financial Years(12-13,13-14,14-15) as on 31st Mar 2015 from IT/ITES; Copy of the audited Profit & Loss Statement of the company duly certified by statutory auditor	We had earlier requested for Rs.20 Crore as the turnover. Alternatively BAeHAL is a JV of BAE Systems - 40%, HAL-49% and Employee Trust-11%. In view of these, we propose HAL turnover be considered and allow us to participate in the bid. Please confirm.	No Change
193	1.1 Key Events and dats		Last date(deadline) for Submission of bids. 17/12/2015 till 5.00 pm	Request to extend the duration till 31.12.2015 as we need minimum 30 days for preparing the bid from the date of above clarifications	Last date of submission has been extended to 30.12.2015
194	Section - 3.2 - Integra tion	32	Data from other systems/ applications should be flow to and from ERP systems based on MMRC's operations.	Please specify if there any specific standards Features & Protocol requirements from the Integration Layer.	System should be able to support all standard API's and connectors

19 5	Section - 3.2 - Integra tion	32	The bidder shall ensure integration of Payment and SMS gateway, and use of digital signature (class II sign and encryption) with its proposed COTS ERP Product. Also, ERP system shall be integrated with AFCS.	Request MMRC, to elaborate on any other systems besides the one mentioned in the RFP document that we need to take into consideration from the Integration perspective.	1. Project Management: Primavera 2. Document Management: Tender just released 3. SMS and Payment gateway 4. MMRCL Portal which is developed in PHP and mySQL. 5. email: MS Exchange
19 6	Section - 3.2 - Integra tion	32	The bidder shall ensure integration of Payment and SMS gateway, and use of digital signature (class II sign and encryption) with its proposed COTS ERP Product. Also, ERP system shall be integrated with AFCS.	Please provide typical volume of messages that would pass through this layer inclusive of all the applications. These are required for sizing purposes.	No. of users have been mentioned
19 7	Section - 3.2 - Integra tion	32	The bidder shall ensure integration of Payment and SMS gateway, and use of digital signature (class II sign and encryption) with its proposed COTS ERP Product. Also, ERP system shall be integrated with AFCS.	Could you please elaborate on technology details of AFCS (Automated Fare collection System) & also message Formats and Message size.	Automatic Fare Collection Module to come up only at the time of operationalization of Metro.
19 8	Section - 3.2 - Integra tion	32	The bidder shall ensure integration of Payment and SMS gateway, and use of digital signature (class II sign and encryption) with its proposed COTS ERP Product. Also, ERP system shall be integrated with AFCS.	Hosting of the Integration Layer and ERP application. Please provide it would be State Data Center or any other Private Datacentre or in-house data centre	In house Server room in MMRC premise
19 9	Section - 3.2 - Integra tion	32	The bidder shall ensure integration of Payment and SMS gateway, and use of digital signature (class II sign and encryption) with its proposed COTS ERP Product. Also, ERP system shall be integrated with AFCS.	Request MMRC to clarify, where would other applications asked for Integration in this RFP expected to be hosted.	No. only ERP.
20 0	Section - 3.7 - Payme nt Milesto nes	38	Payment milestones are based on % of Total project cost (TCO) that includes supply of licenses, Hardware, Installation, support and AMC charges of O&M 4 year (48 months) of operation and maintenance period	As discussed in pre-bid conference on 27th Nov 2015, request MMRC to split payment terms into separate structures such as for supply of licenses, supply of Hardware, implementation and AMC charges of O&M period	No Change

20 1	FC.1.2 0	62/6 3	Should support real Time Posting from Sub Ledgers to General Ledger and without the process of schedule	Please explain why MMRC want to not use this flexibile feature.	Posting is required on real time basis
20 2	FC.3.1 5	64/6 5	Should enable preparation of consolidated Budget Book for the MML-3 and various levels with detailed break-ups.	Please explain the details of MML-3 budget book	To be discused with Successful Bidder
20 3	FC.5.2 1.	65/6 6	Should allow linking of many Bidders to capture group exposure/transaction volume	Please explain the concept of group exposure to many bidders.	One Group contains more than one Bidder
20 4	FC 6.8	66/6 7	Should allow defining parameters to determine whether default master data information can be changed during processing and changes are allowed only based on this. The same can be done only based on authorization.	Why master data should be changed based on the information in the transactions	As per requirement
20 5	Sectio n 3.6/ Project timelin es	**Page 36**	The rollout of ERP is maximum of Six(6) months and One (1) months of stabilization period.	Keeping Pilot roll out by 6th month end, rest phases can be proposed by bidder appopriately keeping deliveable same before Go live of the project. By the end of 2nd month, solution design sign off, Data entry by the end of 5th month and rest same as suggested keeping 6 month implementation time. Operation and Maintenace phase to be started post one month of user adoptiop period post the day of user start doing transaction in the live(production) environment.	As per RFP
20 6	Sectio n 3.7/ Payme nt Milesto ne	**Page 38**	As per table at page 38	Bidder popose payment against each milestone as per OEM suggested phase: 1) Project preparation phase sign off: 10% 2) Hadware licence pocurement- 30% 3) Solution Design Phase sign off: 20%	As per RFP

				4) Completion of UAT : 10% 5) Training and Go live- 10% 6) 20%of total poject cost in equal 48 equated monthly installments	
20 7		Additi onal Claus e	Additional clause to be incorporated under General Conditions of the Contract of the RFP Document.	We request the addition of the following Limitation of Liability clause, this clause is standard in Indian contracts, and as per Indian Contract Act, the parties are liable for proportionate and reasonable direct damages. Other forms of damages which are remote and consequential are to be considered to be excluded. "Other than Owner's obligations to make payments that are due and owing under the Contract, Contractor's aggregate liability in respect of all claims arising out of the Contract by way of indemnity, tort, breach of a warranty (if any) or otherwise including without limitation on account of performance or non-performance of obligations hereunder, regardless of the form of the cause of action, whether in contract, tort (including without limitation negligence), statute or otherwise, shall in no event exceed the total amount paid or payable by the Owner to the Contractor under the Contract during the	No Change

				twelve (12) month period prior to the date the liability first arose.	
				The Parties shall only be liable for direct damages. The Parties shall not be liable for any indirect, incidental, consequential, special or punitive damages in any cause of action arising under, out of, in relation to or in connection with the Contract (including tort), its negotiation, performance or termination. Either party shall also not be liable for loss of profits, data, revenue, business, savings (real or anticipated), data loss of and cost of reconstituting data from last backup.	
				If Contractor provides (or on the instruction of the Owner on the basis of any requirement, works upon or has access to) any third party hardware/ software, the terms of usage of such third party hardware/ software as provided by the owner/ licensor of such hardware/ software will be applicable. The ownership of such hardware/ software will remain with the third party. Any liability arising due to use of any third party hardware/ software shall be with the respective third party."	

20 8	**3.4**	**3.4**	CV of key resoruces need to submitted and cannot be changed - resources if changed leads to disqualification	Is this applicable only to implementation phase alone or even during support?	Applicable during implementation phase. Clause has been relaxed. The clause to be read as : "In case, replacement is required, the Selected Bidder shall notify MMRC in writing at least 30 (Thirty) days in advance, for prior approval, stating: the reason for replacing the person(s), originally assigned to the project the names and signed curriculum vitae (CV)of the proposed replacement having equivalent credentials."
20 9	**3.7(5) , Pg 37**	**37**	40% of Total project cost To be paid in 16 Equated Quarterly instalments (every three months) during O&M 4 year (48 months) of operation and maintenance period	We propose to bill monthly payment, instead of quaterly milestones.	No Change
21 0	**5.13.2 , Pg 51**	**51**	If the Contract is terminated pursuant to GCC Clause 5.12.1 (10) or 5.12.2, remuneration for Services satisfactorily performed prior to the effective date of termination.	We propose for a termination fee, which will be mutually discussed between both the parties.	No Change
21 1	HR.19. 11	HR.1 9.11	Should have provision to issue third party checks -	Can you provide a use case ? Is "check" equivalent of a payslip ?	System should have provison to issue cheques
21 2	HR.6.2	HR.6. 2	Should have the capability of providing functionality to the employees of a bill payment system which would also include reimbursements.	We assume this is equivalent to expense reports . Correct ?	Yes
21 3	13 - Annexu re – Techni cal Specific ations / 117		11 - Server Load balancer - Products belonging to Leaders & Visionaries quadrant in Q4 2013 or the 2014 Gartner's Magic Quadrant Report for Application Delivery Control	Qualification criteria mention for Application and database server, database, storage, switches and routers, are **Top 4 vendors as per Gartner or equivalent** , Hence request you to change qulification criteria for Server Load balancer also as **"Top 4 Vendors as per Gartner or equivalent**	Technical Specifications modified. Pls. refer Corrigendum

				for Application delivery controllers"	
21 4	13 - Annexu re – Techni cal Specific ations /117	117	10 - Link Load balancer - Products belonging to Leaders & Visionaries quadrant in Q4 2013 or the 2014 Gartner's Magic Quadrant Report for Application Delivery Control	Qualification criteria mention for Application and database server, database, storage, switches and routers, **are Top 4 vendors as per Gartner or equivalent ,** Hence request you to change qulification criteria for Link Load balancer also as **"Top 4 Vendors as per Gartner or equivalent for Application delivery controllers"**	Technical Specifications modified. Pls. refer Corrigendum
21 5	Core Switch Specific ation / Page No. 120	120	Shall have minimum 8 payload slots and 2 CPU for redundancy	As per our understanding about the requirement, we recommend to ammend the clause as "Shall have minimum 6 payload slots and 2 CPU for redundancy"	Technical Specifications modified. Pls. refer Corrigendum
21 6	Core Switch Specific ation		Recommendations	Switch should support 40 G and 100 G interface Line cards from Day1	Technical Specifications modified. Pls. refer Corrigendum
21 7	Core Switch Specific ation / Page No. 121	121	Chassis shall support - Minimum 384 Gigabit ports - Minimum 64 Nos. of 10-Gig non-blocking ports.	Request to ammend the clause as Chassis shall support - Minimum 200 Gigabit ports - Minimum 68 Nos. of 10-Gig non-blocking ports.	Technical Specifications modified. Pls. refer Corrigendum
21 8	Core Switch Specific ation / Page No. 122	122	Switch should be EAL 3+ or higher certified	Switch should be EAL 3+ / NDPP or higher certified	Technical Specifications modified. Pls. refer Corrigendum

21 9	Annexu re 13 Point No 6 EMS / Page No. 117	117	Products belonging to Leaders, Challengers & Visionaries Quadrant in Gartner or equivalent Magic Quadrant for Application Performance Monitoring in Gartner Report for Q4 2013 or the 2014 Latest Report	Although it is mentioned that EMS product needs to be in Gartner or equivalent Magic Quadrant, the specifications for the products is not provided. Request you to add the below specifications for EMS so as to set a benchmark for performance.	Technical Specifications modified. Pls. refer Corrigendum
22 0		Additi onal Requi reme nt		**Application Performance Monitoring** · End to end Management of applications (J2EE/.NET based) with deep-dive diagnostics	No Change
22 1		Additi onal Requi reme nt		· Determination of the root cause of performance issues whether inside the Java / .Net application in connected back-end systems or at the network layer.	No Change
22 2		Additi onal Requi reme nt		· Automatic discovery and monitoring of the web application environment and ability to monitor applications with a dashboard.	No Change
22 3		Additi onal Requi reme nt		· Should have capability to monitor the third-party applications without any source code change requirements.	No Change
22 4		Additi onal Requi reme nt		· Proactive monitoring of all end user transactions; detecting failed transactions; gathering evidence necessary for problem diagnose.	No Change
22 5		Additi onal Requi reme nt		· Monitoring of application performance based on transaction type.	No Change
22 6		Additi onal		· The solution must be able to scale to reflect	No Change

		Requi reme nt		performance and availability from many geographical locations where business services are accessed without a significant increase in solution	
22 7		Additi onal Requi reme nt		· Should drill down from slow, end-user transactions to the bottlenecked component, method or SQL statement, helping to solve memory, exception and other common problems	No Change
22 8		Additi onal Requi reme nt		· Should automatically detect all components touched by a business process across layers and traces them with no user intervention	No Change
22 9		Additi onal Requi reme nt		· Should display the detailed call-tree that pinpoints the exact slow method within method call stack	No Change
23 0		Additi onal Requi reme nt		· Should support J2EE, .NET, SAP, SOA or Siebel Applications	No Change
23 1		Additi onal Requi reme nt		**Network Performance Monitoring** · The NMS must allow immediately determining the impact of a component failure and thus helping in prioritizing problem-solving efforts.	No Change
23 2		Additi onal Requi reme nt		· The NMS should provide very powerful event correlation engine and thus must filter, correlate & process, the events that are created daily from network devices. It should assist in root cause determination and help prevent flooding of non-relevant console messages	No Change

23 3		Additi onal Requi reme nt		· Polling intervals should be configurable on a need basis through a GUI tool, to ensure that key systems are monitored as frequently as necessary.	No Change
23 4		Additi onal Requi reme nt		· The topology of the entire Network should be available in a single map along with a Network state poller with aggressive/customizable polling intervals	No Change
23 5		Additi onal Requi reme nt		· The NMS performance system must provide out-of-the-box and highly customizable reporting across the network domain.	No Change
23 6		Additi onal Requi reme nt		· The Network performance operator console should provide operators with seamless transitions from fault data to performance reports and back. For example - select a node in NMS fault mgmt system and cross launch it for historical and near real time data.	No Change
23 7		Additi onal Requi reme nt		· Should have MIB browsing, MIB loading, and MIB expression collection features.	No Change
23 8		Additi onal Requi reme nt		· NMS should be cloud ready, should have dynamic Root Cause Analysis capability	No Change
23 9		Additi onal Requi reme nt		· NMS should have Global Management capability, where in it can work in distributed environment.	No Change
24 0		Additi onal Requi reme nt		· NMS should support application based failover over the WAN.	No Change

24 1		Additi onal Requi reme nt		· NMS should have support for SNMPv3 & IPv6, including dual-stack IPv4 & IPv6 to provide flexibility in protocol strategy and implementation.	No Change
24 2		Additi onal Requi reme nt		· It should support discovery of virtual switches and contexts. Virtual switches and virtual contexts, like Cisco FSWM and Cisco ACE contexts, should be discoverable from their physical hosted system, especially when they are added and removed, for full network visibility.	No Change
24 3		Additi onal Requi reme nt		· Network Performance reporting tool must provides the following capabilities:	No Change
24 4		Additi onal Requi reme nt		**Server Monitoring** Should offer service driven operations management of the IT environment to manage distributed, heterogeneous systems - Windows, UNIX & LINUX from a single management station.	No Change
24 5		Additi onal Requi reme nt		Should provide a centralized point of control with out-of-the-box policy-based management intelligence for easy deployment for the servers, operating systems, applications and services for correlating and managing all the IT infrastructure components of a business service	No Change
24 6		Additi onal Requi reme nt		The system must be agent based for managing the nodes and have the capeability of storing events / data locally if communication	No Change

				to the management server is not possible due to some problem. This capability will help to avoid loosing critical events.	
247		Additional Requirement		EMS must support the backup server concept, which enables switching management responsibility from one management center to another in case of system failure. This eliminates single points of failure in the management system	No Change
248		Additional Requirement		The System Should have automated service discovery, policy deployment and actions to enable busy IT personnel to focus on more strategic initiatives and manage business-critical application services from the end-user perspective, and to be immediately aware of the business impact of lower level component failures or performance degradations	No Change
249		Additional Requirement		Complex dependencies between managed elements must be captured, allowing IT management staff to interpret lower level data in terms of its importance to the higher-level service.	No Change
250		Additional Requirement		An advanced real-time status propagation mechanism in the Services view must allows IT management staff to immediately determine the impact of a component failure on the overall application service. Problem-solving efforts can then be prioritized.	No Change

25 1		Additional Requirement		Alarms with meaningful message text, instruction text, operator / automatic actions / linked graphs, duplicate message suppression	No Change
25 2		Additional Requirement		There should be a single agent on the managed node that provides the system performance data, and for event management it should be able to prioritize events, do correlation & duplicate suppression ability to buffer alarms and provide automatic actions with capability to add nessacary annotations	No Change
25 3		Additional Requirement		The solution should provide a single pane of glass for IT availability, event and performance management, providing a consolidated view across all system, network and application events.	No Change
25 4		Additional Requirement		The system must support multiple built in discovery mechanisms for eg: Active Directory, Windows Browser, DNS with capability to discover and services discovery	No Change
25 5		Additional Requirement		The Discoverd services should be displayed in service dependency maps automatically for consolidating different IT management views into a single workbench, which ensures the health of end-to-end IT services across IT infrastructure and domains	No Change
25 6		Additional Requirement		Highly scalable, and can manage in excess of 1000 managed nodes from a single server with ability push deployment of agents and monitoring policies to a variety of	No Change

				heterogeneous platforms enabling fast and controlled roll out and maintenance	
25 7		Additi onal Requi reme nt		The agents should be extensible and customizable allowing incorporation of any required monitoring source not included in the extensive out-of-the-box monitoring policies. With Capabilites to collect and analyze performance data from the operating system and installed applications and use historical patterns to establish performance baselines.	No Change
25 8		Anne xure 13 Point No 7 Disas ter Mana geme nt Softw are / Page No. 117	Products belonging to Leaders & Challengers Quadrant in Q4 2013 or the 2014 Gartner Magic Quadrant or equivalent for Backup/Recovery Software or latest	Although it is mentioned that DRM product needs to be in Gartner or equivalent Magic Quadrant, the specifications for the products is not provided. Request you to add the below specifications for so as to set a benchmark for performance.	Technical Specifications modified. Pls. refer Corrigendum
25 9		Additi onal Requi reme nt		The proposed solution must offer a workflow based management& monitoring capability for the real time monitoring of a DR solution parameters like RPO (at DB level), RTO, replication status and should provide alerts on any deviations	No Change
26 0				The proposed solution should provide a single dashboard to track DR Readiness status of all the applications under DR	No Change

261				The proposed solution should be capable of reporting important health parameters like disk space, password changes, file addition/deletion etc to ensure DR readiness and facilitate policy based actions for events with ability to cancel out polar events.	No Change
262				The proposed should have inbuilt ready to use library of recovery automation action for heterogeneous databases and replication environment. This must significantly reduce custom development of scripts and speedy deployment of DR solutions.	No Change
263				The proposed solution should facilitate out-of-the-box, workflow basedswitchover and switchback for DR drills for standard applications based on industry best practices	No Change
264				The proposed solution should be capable of doing executing drill/recovery workflows in dry-run mode, without causing any failover,to ensure conditions are met to ensure a successful DR Drill	No Change
265				The proposed solution should facilitate workflows for bringing up the applications and all the components it depends on at DR while it is up at primary site without pausing/stopping the replication	No Change

26 6				The proposed solution should have granular, role based administration and should use existing Active Directory/LDAP for identity management without the need of its own, separate identity management database.	No Change
26 7				The proposed solution should be capable of generating reports and email/SMS alerts on RPO deviation, RTO deviation and DR Drills from a centralized location	No Change
26 8				The proposed solution should be able to manage hostsby either deploying agents or without deploying any agent and should seamlessly integrate with existing environment without the need to replace/change configuration including existing clusters.	No Change
26 9				The proposed solution must support all major platforms including Linux, Windows, Solaris, HPUX, and AIX with native high availability options. It must support both physical and virtual platforms.	No Change
27 0				The proposed solution should have file level replication for associated application servers and DB log replication which is supported on the commonly used OS platforms and has inbuilt bandwidth compression.	No Change

271		A Database Servers/ Application Server /Web Server, Page No. 119 Sl. No. 1, & 2	Minimum Intel® Xeon® 4600 series Processor 8 Core, 15MB Cache, 2.4 GHz. Populated with 2 Nos. of CPU and scalable to 4 CPU. If other than Intel platform is proposed then the server performance should be supported with TPCC/SPEC/SAP benchmark reports and also OEM certified reports can be given for the proposed server along with a comparison with minimum proposed server.	The asked spec is not sufficient, please share the inputs on below points: 1. How many RAM is required? 2. What would be the capacity and quatity of HDD and also share the required RAID type. 3. Is there HBA card required? If Yes what would be the number of ports and capacity of HBA i.e 8Gbps or 16 Gbps. also share the number of HBA card required on the single server. 4. The number of ethernet port is not asked so please share the required number of ethernet ports.	Technical Specifications modified. Pls. refer Corrigendum
272		A Database Servers/ Application Server /Web Server, page no.119 Sl. No. 03	Minimum Intel® Xeon® 2600 series Processor 2 Core, 15MB Cache, 2.0 GHz. Populated with 1 Nos. of CPU, scalable to 2. If other than intel platform is proposed then the server performance should be supported with TPCC/SPEC/SAP benchmark reports and also OEM certified reports can be given for the proposed server along with a comparison with minimum proposed server.	The asked spec is not sufficient, please share the inputs on below points: 1. Intel Xeon 2600 v3 series does not come with 2 core. The core must be atleast 4 core. 2. How many RAM is required? 3. What would be the capacity and quatity of HDD and also share the required RAID type. 4. Is there HBA card required? If Yes what would be the number of ports and capacity of HBA i.e 8Gbps or 16 Gbps. also share the quantity of HBA card required on the single server. 5. The number of ethernet port is not asked so please share the required number of ethernet ports.	Technical Specifications modified. Pls. refer Corrigendum

27 3		13 Anne xure – Tech nical Speci ficati ons page No. 118	3 Storage Top 4 Vendors, as per Gartner or equivalent Total Disk Storage Systems Factory Revenue, Q4 2013 Systems Tracker or the 2014 Year Report or latest	The storage spec is not asked in the whole RFP, so please conform its required or not for this project. If storage is required so please confirm about SAN switch quantity and spec.	Technical Specifications modified. Pls. refer Corrigendum
27 4		13 Anne xure – Tech nical Speci ficati ons page No. 118	7 Backup/Recovery Software (Disaster Management Software) Products belonging to Leaders & Challengers Quadrant in Q4 2013 or the 2014 Gartner Magic Quadrant or equivalent for Backup/Recovery Software or latest	How does the backup to be taken? I would be the client based or capcity based? If it is on capacity based then share the capacity details. If on client based then share the number of clients that would be backed up. Backup Server, antivirus and Tape spec is not mentioned in the RFP. So please share the spec for the same.	Technical Specifications modified. Pls. refer Corrigendum
27 5	Append ix - Techni cal Specific ations (page 117)	117	[OBJ]Application & Database Servers - Top 4 Vendors as per Gartner or equivalent Server Systems by Factory Revenue, Full Year 2013 or Year 2014 Server Tracker or latest	[OBJ]Application & Database Servers - Vendors in Gartner's leaders or Challenger's quadrant or equivalent Server Systems by Factory Revenue, Full Year 2013 or Year 2014 Server Tracker or latest	Technical Specifications modified. Pls. refer Corrigendum
27 6	Append ix - Techni cal Specific ations (page 118)	118	Specifications for [OBJ] **A:** Database Servers/ Application Server /Web Server	Request you to include some minimum technical specifications for servers. This would bring parity in terms of the solution offered by different OEMs and would also ensure that MMRC gets the best of breed solution with latest feature functionality	Technical Specifications modified. Pls. refer Corrigendum
27 7	Append ix - Techni cal Specific ations (page	119	Minimum back-plane capacity of 72-Gbps & forwarding performance of 51 Million packets per sec of 64 bytes packet. The performance is considered with IPv4 & IPv6	Router should have a minimum throughput of 5 Gbps. The Router should have minimum forwarding rate of 1 Mpps. 72 Gbps and 51 Mpps	Technical Specifications modified. Pls. refer Corrigendum

	119); Specific ations for [OBJ]B: Core Router			seems to be a extremely large performance number. Request you to change the same	
27 8	Append ix - Techni cal Specific ations (page 119); Specific ations for [OBJ]B: Core Router	119	Should have 2 X 10 GE- SR and Minimum 8 X 1 Gig Ports and 8 SFP based ports with SX trans-receivers.	Request you to remove this clause. Request you to provide the flexibility of including the interfaces as per the solution designed by Sis. Ideally so many 1G interfaces will not be required on Core Router and it should have 10G interfaces for 10G backbone connectivity	Technical Specifications modified. Pls. refer Corrigendum
27 9	Append ix - Techni cal Specific ations (page 119); Specific ations for [OBJ]B: Core Router	119	IPv6 features: VRRPv6	Request you to remove this specification. VRRPv3 supports both IPv4 and IPv6. Request you to add support for VRRPv3 instead	Technical Specifications modified. Pls. refer Corrigendum
28 0	Append ix - Techni cal Specific ations (page 120); Specific ations for [OBJ]B: Core Router	120	Should support at-least 128 K MAC addresses	Should support at-least 32 K MAC addresses. Request you to ask support for 32K MAC addresses only. 128K support for MAC addresses is not required in an environment like that of MMRC. Also the router capacity should ideally be defined by the throughput/MPPS rating and the number of routes it can support. Asking for MAC support of 128K addresses in a Core router is not justified as it is anyways the switch	Technical Specifications modified. Pls. refer Corrigendum

				which performs IP to MAC resolution.	
28 1	Append ix - Techni cal Specific ations (page 120); Specific ations for ⬚B: Core Router	120	Should support 15 logical routers	Request you to remove this specification. This is proprietary to single OEM. Request you to remove the same	Technical Specifications modified. Pls. refer Corrigendum
28 2	Append ix - Techni cal Specific ations (page 120); Specific ations for ⬚B: Core Router	120	Should support 2 K VPLS instances	Request you to remove this specification. Virtual Private LAN Service (VPLS) is a way to provide Ethernet-based multipoint to multipoint communication over IP or MPLS networks. 2K seems to be a large number. Request you to change it to 1K.	Technical Specifications modified. Pls. refer Corrigendum
28 3	Append ix - Techni cal Specific ations (page 120); Specific ations for ⬚B: Core Router	120	Router should be EAL 3+ or higher certified	Router / Router's Operating System should be tested and certified for EAL 4 or above or NDPP certified. EAL4 is a higher level of certification so request you to include the same. Also EAL will now be replaced with NDPP certifications. Hence request you to add support for NDPP certification as well	Technical Specifications modified. Pls. refer Corrigendum

284	Appendix - Technical Specifications (page 119); Specifications for [OBJ]B: Core Router	119	Sender Policy Framework Protocol (SPF)	Request you to remove this specification. Sender Policy Framework (SPF) is a simple email-validation system designed to detect email spoofing by providing a mechanism to allow receiving mail exchangers to check that incoming mail from a domain comes from a host authorized by that domain's administrators. This functionality can be achieved using an IPS appliance or email security gateway appliance. Moreover this feature functionality is not required at the router level where we are going to terminate internet link for Public wifi services. Loading the router which such features would affect the performance of the routers and duplicate the work which is to be achieved via a security device such as IPS/Email security device.	Technical Specifications modified. Pls. refer Corrigendum
285	Appendix - Technical Specifications (page 121); Specifications for [OBJ]C: Core Switch	121		Request you to change the specification. The specifications provided are that of high end Chassis based Core Switch. Looking at the requirements of MMRC chassis based switch may not be required. Request you to provide the specifications for fixed configuration 1/10G based switch instead.	Technical Specifications modified. Pls. refer Corrigendum
286	Appendix - Technical Specifications (page	121	Shall support minimum 250K IPv4 and 250K IPv6 (both) unicast routes. Shall support minimum 100K IPv4 and 100K IPv6 (both) multicast routes.	Shall support minimum 32K IPv4 and 16K IPv6 unicast routes. Shall support minimum 32K multicast routes. 250K routes will actually not be required for the	Technical Specifications modified. Pls. refer Corrigendum

	121); Specifications for ⊡C: Core Switch			core switch in this smart city design. Also, route summarization would be used which would furthur decrease the number of routes injected into core switch. Request you to please reduce the figures.	
28 7	Append ix - Techni cal Specific ations (page 122); Specific ations for ⊡C: Core Switch	122	Shall have SSHv1/ SSHv2, SNMPv1, SNMPv2, SNMPv3, SCP/SFTP /SNTP support	Shall have SSHv2, SNMPv1, SNMPv2, SNMPv3, SCP/SFTP /NTP support. We support SSHv2 and NTP. We don't support SNTP or SSHv1. Request to modify so that there is fair competition.	Technical Specifications modified. Pls. refer Corrigendum
28 8	Append ix - Techni cal Specific ations (page 120); Specific ations for ⊡C: Core Switch	120	Performance : Dual Redundant Switch Fabric/CPU shall offer minimum 1.2 Tbps	Performance : Dual Redundant Switch Fabric/CPU shall offer minimum 4 Tbps. Request you to increase the performance of the Core Switch as Core switch is the aggregation point of the DC. Due to virtualized DC landscape and the exponential increase in the east-west traffic flowing in DC it is recommended that the Core Switch performance is scalable enough to meet the present and future requirements of MMRC.	Technical Specifications modified. Pls. refer Corrigendum
28 9	Append ix - Techni cal Specific ations (page 120); Specific ations for ⊡C:	120	Minimum 900 Mpps performance or higher shall be supported for both IPv4 and IPv6	Minimum 900 Mpps performance or higher shall be supported for both IPv4 and IPv6 Request you to increase the performance of the Core Switch as Core switch is the aggregation point of the DC. Due to virtualized DC landscape and the exponential increase in the east-west	Technical Specifications modified. Pls. refer Corrigendum

	Core Switch			traffic flowing in DC it is recommended that the Core Switch performance is scalable enough to meet the present and future requirements of MMRC	
29 0	Append ix - Techni cal Specific ations (page 120); Specific ations for [OBJ]C: Core Switch	120	Shall be capable of 160Gbps switching capacity per slot and each module should offer non- blocking & wire speed forwarding for ipv4 & ipv6	Shall be capable of 400Gbps switching capacity per slot and each module should offer non- blocking & wire speed forwarding for ipv4 & ipv6. Request you to increase the performance of the Core Switch as Core switch is the aggregation point of the DC. Due to virtualized DC landscape and the exponential increase in the east-west traffic flowing in DC it is recommended that the Core Switch performance is scalable enough to meet the present and future requirements of MMRC.	Technical Specifications modified. Pls. refer Corrigendum
29 1	Append ix - Techni cal Specific ations (page 120); Specific ations for [OBJ]C: Core Switch	120		The Core switch should support Fiber Channel over Ethernet (FCOE) and Data Centre Bridging (DCB) Request Addition: Latest generation blade architectures support dual converged modules for IO connectivity for carry LAN and SAN traffic. This helps in simplification, lower cabling, power & cooling without compromising throughput. Having FCOE support on Core Switch will allow MMRC to have latest and most advanced technology available today	Technical Specifications modified. Pls. refer Corrigendum

29 2	Append ix - Techni cal Specific ations (page 124); Specific ations for [OBJ]**App endix - Techni cal Specif icatio ns** [OBJ] **Perim eter Firew all with Intrus ion Preve ntion Syste m**	124	[OBJ] Perimeter Firewall with Intrusion Prevention System	We assume that this would be the perimeter firewall (UTM). Request you to provide specifications for Core Firewall with IPS	Technical Specifications modified. Pls. refer Corrigendum
29 3	Append ix - Techni cal Specific ations (page 117); Qualific ation Criteria	117		It asks for Firewall with IPS and UTM separately. UTM will be the perimeter firewall in the internet segment and Firewall with IPS will be the core firewall protecting the server farm. Please provide the specs for core firewall.	Technical Specifications modified. Pls. refer to Corrigendum
29 4	3.7	38	Payment Milestones	Payment Milestones and Project milestones donot match. After the Second month there is not milestone until month 5. Request you consider monthly Project payment milestones.	No Change
29 5	3.7	38	Payment Milestones	Payment for Licenses and Hardware should be upfront in M1. And	No Change

				Project Milestones should be Monthly in Arears.	
29 6	3.8	38	Payment Terms	Payment Terms are recommended for monthly in arears instead of quartely in arears for Operation & Maintenance.	No Change
29 7	3.1.7.1	22	Tentative Users base	Request you to provide total number of employees permanent/ temporary/ contractual/ on deputation or ex-employees retired on superannuation, voluntarily retired, resigned, dismissed, opted for pension etc.	No Change
29 8	2	12	Earnest Money Deposit	request for deletion of 2.12.6.3 and 2.12.6.4	No Change
29 9	2.2.4.4	18	Failure to agree with the Terms and Conditions of the RFP/Contract	We request that bidders should be allowed to provide their deviations to Tender conditions which should be discussed and agreed upon before the commercial bids are opened and bidder is shortlisted. A clear process for such discussion should be provided in the tenders to avoid any preferred treatment to a bidder. If parties are unable to converge on the deviations, the bidder should be declared as unsuccessful bidder without any commercial implications like EMD/ PBG forfeiture or otherwise like blacklisting/debarment. We request you to appropriately modify the text of any related sections.	No Change
30 0	4.3	41		Any change to SLAs shall be as per mutual agreement	No Change

30 1	4.4	41	Liquidated Damages	Request you to cap the aggregate of all LD's at 10% of TCV. LD should be imposed only when the Contractor is solely liable for the delay of the Service Level and imposition of such LD shall constitute exclusive remedy of Client for such delays. LDs shall aggregate under the Liability Cap as agreed between the parties.	Agreed
30 2	5.6 GCC	48	Software Rights	Client will own the copyright in works of authorship that IBM develops for Client under a Statement of Work (SOW) (Project Materials). Project Materials exclude works of authorship delivered to Client, but not created, under the SOW, and any modifications or enhancements of such works made under the SOW (Existing Works). Some Existing Works are subject to a separate license agreement (Existing Licensed Works). A Program is an example of an Existing Licensed Work and is subject to the Program terms. IBM grants Client an irrevocable (subject to Client's payment obligations), nonexclusive, worldwide license to use, execute, reproduce, display, perform and prepare derivatives of Existing Works that are not Existing Licensed Works. IBM retains an irrevocable, nonexclusive, worldwide, paid-up license to use, execute, reproduce, display,	No Change

				perform, sublicense, distribute, and prepare derivative works of Project Materials.	
30 3	5.7 GCC	49	Hardware warranty	OUR STANDARD POSITION FOR MACHINES ARE "IBM warrants that Machines used in their specified operating environment conform to their official published specifications. For a Machine or Appliance, the warranty period is specified in the Attachment or TD. During its warranty period, IBM will repair or exchange the Machine without charge, as specified in the Attachment. Client may purchase warranty service upgrades and post warranty support where available. For Appliances, post warranty support includes maintenance and S&S. If a Machine or Program does not function as warranted during its warranty period and IBM is unable to repair or replace it with a functional equivalent, Client may return it to IBM for a refund of the	No Change

				amount Client paid (for recurring charges, up to twelve months' charges) and Client's license or right to use it terminates. "	
30 4	5.9	49	Force majeure	We request you to clarify that irrespective of the nature of Force Majeure event, Client shall continue to make payments for the services in accordance with the terms of the Agreement. Each party would bear its own costs and expenses arising out of a Force Majeure event.	No Change
30 5	5.1	49	Change Order and Amendments	All amendments and change orders shall be executed as per mutual agreement between parties.	No Change
30 6	5.12	50	Termination	In the event of termination or suspension, Client shall pay Contractor for all products and services provided up to the effective date of termination. Termination should be triggered only for a material breach of agreed obligations and should be triggered post 30 days of cure period which should be provided so that the breach can be cured. Termination should be in whole and	No Change

				part termination cannot be agreed to.	
307			CLARIFICATION FROM BIDDER	All other additional terms and conditions which have not been addresssed like Limitation of Liability and IP Indemnity etc shall be as mutually agreed in the contract by the parties.	No Change
308	13	118	UTM	Specification for UTM are not given , Please clarify if Firewall with IPS & UTM specifications are same ?	Technical Specifications modified. Pls. refer Corrigendum
309	3	20	3) Training and Capacity building for all MMRC officials on the system(s) implemented	Training mentioned here is training during implementation phase of engagement or it is expected to be at regular intervals during entire engagement period.	During implementations as well as at regular Quarterly/ haf-yearly intervals if required as desired by MMRC
310	3.1	20	The Proposed COTS ERP Solution should enable single Sign on and …	We assume the single sign on mentioned in paragraph 2 of section 3.1 is for SAP application only and is not aplicable for Non SAP systems.	No Change
311	3.1.3.1	21	If required, bidder shall be required to setup and configure at no additional cost in case MMRC moves to different location.	Setting up the systems at other location will involve efforts and time. In case there is change in location, we will have estimate and provide you the commercial impact.	Physical movement of systems is not in scope on Bidder. No Change otherwise
312	3.1.5	21	The Finance system should be compliant to all rules and policies of MMRC.	To guide IBM team for system compliance to internal policies and procedures will be MMRCL project team responsibility.	Yes
313	3.1.5.10	21	completely integrated with other operational areas	Please specify other operational areas mentioned here.	HR & Finance
314	3.1.5.17.3	22	The account module will have integration with all the	Please specify budget provisioning system or	Proposed ERP

			departments for budget provisioning.	systems used by all the departments	
315	3.1.5.17.3	22	The accounts module will also have the integration with the all revenue generation.	Please specify system used / to be used for revenue generation.	AFCS : proposed 5 years down the line
316	3.1.6	23	The HR system should be compliant to all rules and policies of MMRC	To guide IBM team for system compliance to internal policies and procedures will be MMRCL project team responsibility.	Yes
317	3.1.6	23	I. Automate core HR processes(e.g. staff administration, payroll, organization structure & Hierarchy)	Please specify the list of HR processes that require automation	To be finalized in consultation with MMRC during SRS and FRS
318	3.1.6	23	IV. Automate HR transactions and payroll processing	Please specify the list of HR processes that require automation	To be finalized in consultation with MMRC during SRS and FRS
319	3.1.6	23	Payroll Scope - VII. Generation of bills / reports for various remittances for paymentsand other disbursements	We need more details on Generation of Bills mentioned here.	To be finalized in consultation with MMRC during SRS and FRS
320	3.1.6	23	Payroll Scope - XI. Employees Service record keeping	We assume that this line item is related to upload of historical documents in system. Please specify extent and scope of such historical data upload.	Data since 2011
321	3.1.6	23	II. Workflow based processing (medical/ travel expense claims like vehicle booking, ticket booking, leaves management, training programs, approvals, etc.)	Applicability of SAP Travel Management to be verified.	Invalid
322	3.1.6	23	VII. HR Budgeting and Payroll section	Applicability of Employee Compensation Management,to be verified.	As per RFP
323	3.1.6	23	Payroll section - IX. Maintaining the record and Generation of CPF slips.	Applicability of PF trust accounting be verified.	As per MMRC
324	3.1.7.2.1.1	24	Seamless integration with MMRC's Project Management and Document Management/ Collaboration System based on MMRC's operations	Does Project Management includes project procurement, project service management and Project inventory? If yes, which systems are in place or	No

				Which systems are expected to be in place?	
32 5	3.1.7.2 .1.1 2nd point with same numbe r	24	Business design based on the assessment of the operations of MMRC and the current IT applications in use	Which are MMRCL's current IT applications in use / to be used? Which of these are to be replaced by COTS ERP and which ones will continue?	Tally
32 6	3.1.7.8 .4	29	Plan for customization/development The Bidder should plan for following developments as a part of the normal effort for implementing the COTS Solution.	Details / List of developments not available in this section.	Clause removed
32 7	3.1.7.8 .7	30	Use of the native Project management tool	Please indicate whether SAP Solution Manager is prefered choice for this or regular use of MS office (Word, Power point excel) is sufficient.	No preferred choice. To be proposed by Bidder
32 8	3.2	32	Section mentions "Data from other systems/ applications should be flow to and from ERP systems based on MMRC's operations"	This section referes to 5 systems to be integrated 1. Project Management System - Primavera, 2. Document Management / Collaboration System, 3. Payment gateway, 4. SMS gateway, 5. Automatic fare collection system. Which are the other systems mentioned here? Are these in addition to 5 systems mentioned in this section?	No other systems. Also AFCS is proposed 5 years down the line.
32 9	3.1.7.6 .11	29	Cutover Strategy	What would be the scope of the helpdesk? We assume that the helpdesk will be operational only for issues related to ERP system & other application & infrastructure issues will be out of scope for this helpdesk.	Yes. Only issues related to ERP application

33 0	4.6	40	Standard Definition used in SLA	What is the Service Management Platform currently used at MMRC? Can Bidder leverage the same?	No system in place
33 1	13	118	Annexure - Technical Specifications	What is the requirement of MMRC under EMS? Please specify. Does MMRC require Application Transaction Monitoring tools as well?	Technical Specifications modified. Pls. refer Corrigendum
33 2	13	118	Annexure - Technical Specifications	What are the infrastructure monitoring tools currently deployed at MMRC?	No Tools available
33 3	4.8	42	Scheduled Downtime	Are there any Patch Management tools being used at MMRC?	No
33 4	4.7	42	Criticality of Services - Criticality Level - 1	This level shall cover any server related issues like hardware failure, OS failure etc. A critical problem, which affects large number of users / prioritized users / networks / servers e.g. Server UPS, Gateway Routers, Layer-3 and 2 core switches, networked printers, messaging servers, domain servers and other mission critical server, including their power supplies for servers, routers etc. affecting any segment of the LAN network or connectivity between any two segments including security breach. - Bidder understands that only infrastructure related to ERP solution will be considered under SLA calculation of this engagement. Please clarify	Yes

33 5			Criticality of Services - Criticality Level - 2	A major problem, which affects the individual user, e.g. PCs, desktop printers, UPS, edge switches hubs etc. Denial of services/ Standard Compliance due to partial breakdown/ failure of any one of the equipment/ component installed in MMRC. However, if the partial denial of services is impacting critical users like Hon'ble CM, Hon. Ministers, Secretaries, Managing Director (MMRC) and other senior officials the incident will come under Criticality level 1. Apart from this Spamming will also come under severity level 2. - Bidder understands that only infrastructure related to ERP solution will be considered under SLA calculation of this engagement. Please clarify	Yes
33 6	3.8	38	Payment Terms	On Warranty of hardware, please confirm if Vendor need to consider the same in our proposal or they will take the same every year from the respective OEMs.	Vendor needs to consider
33 7	2.24.3		Signing of Contract MMRC shall notify the successful bidder that its bid has been accepted. The Successful Bidder shall enter into contract agreement with MMRC within the time frame mentioned in the Letter of acceptance to be issued to the successful bidder by MMRC.	We understand that there will be a discussion on the contractual legal terms. Request MMRC to kindly allow bidder to provide deviations to the key legal terms in the draft contract agreement, which shall be mutually discussed and agreed between the successful bidder and MMRC.	To be discussed with successful bidder

33 8	2.15		**PATENT CLAIMS**: 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 Goods or any part thereof, the bidder shall expeditiously extinguish such claim. If the bidder fails to comply and MMRC is required to pay compensation to a third party resulting from such infringement, the Biddershall be responsible for such compensation, including all expenses, court costs and lawyerfees. MMRC shall give notice to the successful bidder of any such claim and recover it fromthe bidder if required.MMRC will have the Intellectual Property rights of the customization work which will be taken up during SRS Stage.	Considering that there would be hardware and softwares forming part of the SOW that would be supplied by third party OEMs, hnece we propose amendment of clause 2.15 by including the following points. 1. Any usage of third party hardware/software for the Services hereunder shall be governed by the terms of such third party. 2. Bidder disclaims any liability arising out of usage of any third party hardware/software. 3. In all cases, Atos (and/or its licensor) retains sole ownership of all pre-existing IPR and background IPR and all developments, variations and enhancements thereto. 4. Customer receives ownership of customer-specific foreground IPR. Atos is granted a non-exclusive, royalty-free, perpetual, worldwide back-license for unlimited commercial use of customer-specific foreground IPR. 5. All non-customer specific foreground IPR is owned by Atos. Customer is granted a non-exclusive license for use of non-customer specific foreground IPR, against additional consideration.	No Change
33 9	4.4		**SLA:** For any delay in installation and commissioning of the Hardware, MMRC shall charge penalty @ 0.5% of the corresponding milestone value per week or part	Request to include the following points: (i) Delay is solely attributable to Bidder	No Change

			thereof, subject to a maximum of 10%.		
340	Page 45 of 142		SLA Review Process and Penalty: f. The total deduction should not exceed 10% of the QGR. g. Three consecutive quarterly deductions of more than 10% of the applicable fee on account of any reasons will be deemed to be an event of default and termination.	Will update after confirmation from Bids team	No Change
341	5.5.2.1		ARBITRATION	We propose that the any dispute shall be referred to and finally resolved by arbitration administered by the Singapore International Arbitration Centre ("SIAC") in accordance with the Arbitration Rules of the Singapore International Arbitration Centre ("SIAC Rules") for the time being in force, which rules are deemed to be incorporated by reference in this clause. The seat of arbitration shall be Mumbai and language shall be English.	No Change

| 34 2 | 5.6(II) | | SOFTWARE RIGHTS:
Bidder hereby grants MMRC license to access and use the Software, including all inventions, designs, and marks embodied in the Software. Such license to access and use the Software shall be:
I. Nonexclusive.
For Supply, Installation and Commissioning of Enterprise Resource Planning (ERP) in Mumbai Metro Rail Corporation (MMRC) by System Integrator including associated Hardware, Software and Licenses along with its implementation, integration and
II. Perpetual, fully paid up and irrevocable.
III. Valid throughout India. | We propose that the condition be modified to include that MMRC shall be bound by the respective EULA/ license terms and conditions of the respective third party software service provider | No Change |
| 34 3 | 5.7 | | **Hardware Warranty :**
All the supplied goods under this RFP scope shall be new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract. The supplied goods under this RFP shall be free from defects arising from any act or omission of the successful bidder or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination. The warranty from OEM shall remain valid for five years for active components and 20 years for passive component after the goods, or any portion thereof as the case may be, have been delivered, installed, tested and accepted by MMRC. | We propose that the condition be modified to include that "*MMRC shall be bound by the respective warranty and related terms and conditions from the OEMs w.r.t. the equipment forming party of the SOW, including any embedded software.*" | |

34 4	5.12.1. 2		**Termination by MMRC:** If the successful bidder does not remedy a failure in the performance of its obligations under the Contract, within thirty (30) days after being notified or within any further period as MMRC may have subsequently approved in writing.	We propose that the failure should be a substantive/material in nature and not just any failure, hence the clause be modified to that extent	No Change
34 5	5.12.1. 4		If the successful bidder, in the judgment of MMRC has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.	We propose that such termination be based on valid proof hence the clause be modified accordingly	No Change
34 6	5.12.1. 8		If the successful bidder fails to provide the quality services as envisaged under this Contract, MMRC may make judgment regarding the poor quality of services, the reasons for which shall be recorded in writing. MMRC may decide to give one chance to the successful Bidder to improve the quality of the services.	We propose that this clause be linked to "SLA Review Process and Penalty" in page 45 of 142 considering that criterion for quality of services is mentioned under this section.	No Change
34 7	5.12.1. 10		If MMRC, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.	We propose to amend the clause by inserting " MMRC shall not terminate the contract for convenience during Transition and Transformation period. Further in case of such termination, the bidder should be paid for all services rendered and expenses incurred upto the date of termination plus a termination fee.	No Change

348	5.12.1.11		In the event MMRC terminates the Contract in whole or in part, pursuant to GCC Clause 5.12.1, MMRC may procure, upon such terms and in such manner as it deems appropriate, services similar to those undelivered or not performed, and the successful bidder shall be liable to MMRC for any additional costs for such similar services. However, the successful bidder shall continue performance of the Contract to the extent not terminated.	Would also request to kindly consider the following points with respect to Assignment: 1. Escalation to Bidder's management before exercising such rights. 2. In the event any similar agency is appointed then, Bidder shall not liable for SLAs or quality of service of step-in services; 3. Conditions for termination of step-in defined (e.g. services being restarted by Bidder properly, etc.); Proivded that any cost and liability related to such activity shall not exceed the Annual Contract Value. Further Bidder shall not be liable for any additional cost wherein termination is on account of any Force Majeure event, since such events are beyond reasonable control of Bidder	No Change
349	5.12.2.1		Termination by Bidder: If MMRC fails to pay any money due to the Successful bidder pursuant to this Contract and not subject to dispute pursuant to GCC Clause 4.8 hereof, within 30 days after receiving written notice from the successful bidder that such payment is overdue.	Please clarify which clause number under GCC is referred to herein. We could not locate the reference clause 4.8 under GCC. As per the RFP document Clause 4.8 refers to "Schedule Downtime"	To be read is 5.8
350	5.13		Payment upon Termination	Internal: Finance Team to comment on the payment upon termination clause.	Not Valid Query

35 1	5.14		Assignment: If successful bidder fails to render services in stipulated timeframe and as per schedule, MMRC, at its discretion and without any prior notice to successful bidder, may discontinue or minimize scope of work or procure/board any other similar agency to render similar services to complete project in stipulated timeframe.	We suggest that this clause be deleted since the intent i.e. is covered under clause 5.12.1.11	No Change
35 2			Clauses to be added under the **General Condition of Contract**	1. The aggregate liability of the Bidder under this contract, shall not exceed the Annual Contract Value (ACV) 2. Penalties/LDs/Service Credits are sole remedy. 3. Bidder shall not be liable for any consequential, indirect and incidental damages excluded including liability for loss of profits, revenue, goodwill, savings (real or anticipated), data loss and cost of reconstituting data (except reconstitution from last backup). 4. For all third party hardware/software, the usage of such hardware/software shall be governed by the terms of third party and will be applicable on IIFCL.	No Change

Annexure-I

Annexure-1: Key Dates and Events

Amended Section 1.1: Key Dates and Events

S. No.	Particular	Details
1.	Advertising Date	03.11.2015
2.	Name of the project	"RFP For Supply, Installation and Commissioning of Enterprise Resource Planning (ERP) in Mumbai Metro Rail Corporation (MMRC) by System Integrator including associated Hardware, Software and Licenses along with its implementation, integration and maintenance support"
3.	RFP Document Download Start Date & Time	From 03.11.2015 at 11.00 am (IST) to 30.12.2015 till 5.00 pm(IST)
4.	Website for downloading Tender Document, Corrigendum's, Addendums etc.	https://etendermmrda.maharashtra.gov.in
5.	Last date for Submission of Queries	All the queries should be received on or before 30/10/2015 till 5:00 pm, through email only with subject line as follows: "Pre-Bid queries - <Agency's Name>". The queries should be submitted as per the format prescribed in Annexure 6.5. The Pre-Bid queries to be sent to the Email Id – itpmo.mmrc@gmail.com
6.	Pre-Bid Conference	27/11/2015 at 3:00 pm Address: Conference Room, 2nd Floor, MMRC, BKC, Mumbai-400051
7.	Last date (deadline) for Submission of bids	30/12/2015 till 5.00 pm
8.	Online Control Transfer Of Bid	30/12/2015 from 6.01 pm to 31/12/2015 6.00 pm
9.	Date and time of opening of Initial filter bids	01/01/2016 after 11 am (IST)
10.	Date and time for opening of Commercial bids	Will be intimated later to the qualified bidders
11.	Detail of the contact person and Address at which sealed bids are to be submitted	Shri. R. K Sharma, Executive Director (Electrical) 4th Floor, Namttri Building Bandra Kurla Complex Bandra (East) Mumbai—400-051 E-mail: **itpmo.mmrc@gmail.com**

Annexure-2: Initial Filter

Amended Section 2.21:

S No	Basic Requirements	Eligibility Criteria	Document to be submitted
PQ1	**Legal Entity**	The Bidder (All members in case of Consortium) should be registered company in India under the Companies Act, 2013, OR the Companies Act, 1956, and should be in existence in India for at least the last 3 years as on date of submission of the bid.	Certificate of Incorporation/ Registration
PQ2	**Turnover from IT/ITeS**	The bidder (Prime bidder in case of a consortium) should have average turnover of INR 30 crore in last three financial years (FY 12-13, FY-13-14, FY-14-15) from IT/ ITeS;	Copy of the audited Profit & Loss Statement of the company duly certified by statutory auditor/ Certificate from the Statutory Auditor clearly stating the Turnover
PQ3	**Net worth**	The Bidder (All Members in case of a consortium) should have positive net worth (measured as paid-up capital plus free reserves) for each of the last three audited financial years(FY 12-13, FY-13-14, FY-14-15) as on 31st March 2015	Certificate from the Statutory Auditor clearly stating the net worth
PQ4	**Technical Capability**	The Bidder should have experience of implementing in Government/ PSU /Urban Local bodies with atleast one project of ERP solution with order value not less than 2.4 Cr. or should have experience of implementing in Government/ PSU /Urban Local bodies with atleast two project of ERP solution with order value not less than 1.8 Cr. or should have experience of implementing in Government/ PSU /Urban Local bodies with atleast three project of ERP solution with order value not less than 1.2Cr.	Copy of Work Order/ Project Completion Certificate should be attached

PQ5	**Blacklisting**	The Bidder (All members) should not be debarred/blacklisted by any Government / PSU in India as on date of submission of bid.	A self-certified letter signed by the Authorized Signatory of the Bidder.
PQ6	**Certification**	The Bidder (Prime Bidder) providing the application development/customization, deployment and maintenance as described in of scope of work, should have an active SEI CMMI Level 3 or its higher version certification as on date of submission of Bid	Valid Copy of the Certificate

Annexure-3: Consortium and Sub-Contracting Conditions

Amended Clause 2.5:

The Bidders are allowed to form Consortium. In case of Consortium, both the Lead Member and consortium partner would be jointly and severally responsible for the project.

   2.5.1   The number of Consortium members cannot exceed two, including the Lead Member.
   2.5.2   Only the Lead Member will submit the Proposal and sign the Contract with MMRC.
   2.5.3   The lead bidder and the consortium partner shall be jointly and severally responsible to MMRC for the fulfilment of the provisions of the contract
   2.5.4   Only one Bid will be allowed from a Consortium. The partners of a Consortium are not allowed to bid individually or jointly with others.
   2.5.5   In case of a Consortium Bid, the Lead Member would also need to submit the Agreement letter between the Consortium members clearly indicating their scope of work, relationship and declaration on association and being jointly responsible. The Composition and constitution shall not be altered without prior consent of MMRC. Each consortium member shall execute and submit along with the proposal at least the following information in the Consortium Agreement.
   a.   A registered power of attorney in favour of the Lead Member which shall inter-alia, authorize the Lead Member to act for and on behalf of such member of the Consortium and do all acts as may be necessary to or for the performance under the contract
   b.   Brief description of nature of products/services to be provided by Consortium member;
   c.   Head and Branch offices (if responsible for work under the contract) (provide mailing addresses, phone, fax and email);
   d.   Date, form and state of incorporation of each Consortium member;
   e.   Contract Administrator (Name, business address, fax, phone and email address of individual responsible for administering any Contract that might result from this RFP);
   f.   Company Principals (Name, title and business address); and,
   g.   Current or prior successful partnerships with proposed Consortium member including Client reference (Contact name, phone number, dates when services were performed).

> h. Turnover of each consortium members, including the lead bidder

2.5.6 The Consortium Agreement concluded by the Lead Member and Consortium member(S) should also be addressed to MMRC clearly stating that the Agreement is applicable to this RFP.

2.5.7 The Lead Member shall be solely liable to and responsible for all obligations towards MMRC for performance of works/services including that of its partners/associates under the contract.

2.5.8 Sub-Contracting is not allowed.

Annexure-4: Financial Proposal Format & Instructions

Amended Section 7.2:

7.2 Financial Proposal Format

A. Consolidated Cost Summary (Inclusive of all Taxes except Service Tax)

Sr. No.	Particulars	Total Amount in Figure (Rs.)
A.	ERP License Cost	
B.	Implementation Cost (Manpower for Installation, Customization, Integration and Implementation)	
C.	Training and Capacity Building Cost	
D.	On-Premise Hosting Cost inclusive of Hardware and related software	
E.	Hosting, Operation and Maintenance Cost for a period of 5 years (AMC)	
F.	Operation and Maintenance Cost of ERP system for a period of 4 years (Manpower for Support) post Go-Live	
Grand total in words (A+B+C+D+E+F):		

B. Break up of Consolidated Cost Summary

Particulars	Specifications	No of Users	No of units/Man Months proposed	Cost/ Unit or (INR)	Man Month Rate (INR)	Total (INR) (inclusive of taxes)
License	HR					
	Finance					
Implementation	Project Manager					
	Functional Lead					
	Technical Lead					
	Others (If any Required)					
Training and UAT						
On-Premise Hosting Cost inclusive of Hardware and related software (One Time)	Server					
	Database					
	Others (If any Required)					
Hosting, Operations and Maintenance (On Premise Hosting) per year	Server					
	Database					
	Others (If any Required)					
Operations and Maintenance (Manpower) per year	Project Manager					
	Functional Lead					
	Technical Lead					
	Others (If any Required)					

Annexure-5: Technical Specification

Amended Clause:

Sr. No.	Component Qualification	Criteria
1	Application & Database Servers	OEM should be part of Leaders or Challengers quadrant in the latest Gartner report for modular servers or Top 4 in latest IDC's Server Tracker report
2	Database	OEM should be part of Leaders or Challengers quadrant in the latest Gartner report for Operational Database Management Systems or equivalent
3	Storage	OEM should be from Top 4 vendors in terms of revenue and market share as per latest IDC quarterly report for respective category or Leaders/Challengers of the latest Gartner quadrant for the respective category
4	Switches & Routers	OEM should be from Top 4 vendors in terms of revenue and market share as per latest IDC quarterly report for respective category or Leaders/Challengers of the latest Gartner quadrant for the wired and wireless LAN access infrastructure
5	Firewall with IPS	OEM should be from Top 4 vendors in terms of revenue and market share as per latest IDC quarterly report for respective category or Leaders/Challengers of the latest Gartner quadrant for Enterprise Network Firewalls
6	Antivirus Solution	OEM should be from Top 4 vendors in terms of revenue and market share as per latest IDC quarterly report for respective category or Leaders/Challengers of the latest Gartner quadrant for Endpoint protection
7	Server Load Balancer	OEM should be from Top 4 vendors in terms of revenue and market share as per latest IDC quarterly report for respective category or Leaders/Challengers of the latest Gartner quadrant for respective category

Sr. No.	Component Qualification	Criteria
1	Application & Database Servers	OEM should be part of Leaders or Challengers quadrant in the latest Gartner report for modular servers or Top 4 in latest IDC's Server Tracker report
2	Database	OEM should be part of Leaders or Challengers quadrant in the latest Gartner report for Operational Database Management Systems or equivalent
3	Storage	OEM should be from Top 4 vendors in terms of revenue and market share as per latest IDC quarterly report for respective category or Leaders/Challengers of the latest Gartner quadrant for the respective category
4	Switches & Routers	OEM should be from Top 4 vendors in terms of revenue and market share as per latest IDC quarterly report for respective category or Leaders/Challengers of the latest

		Gartner quadrant for the wired and wireless LAN access infrastructure
5	Firewall with IPS	OEM should be from Top 4 vendors in terms of revenue and market share as per latest IDC quarterly report for respective category or Leaders/Challengers of the latest Gartner quadrant for Enterprise Network Firewalls
6	Antivirus Solution	OEM should be from Top 4 vendors in terms of revenue and market share as per latest IDC quarterly report for respective category or Leaders/Challengers of the latest Gartner quadrant for Endpoint protection
7	Server Load Balancer	OEM should be from Top 4 vendors in terms of revenue and market share as per latest IDC quarterly report for respective category or Leaders/Challengers of the latest Gartner quadrant for respective category

A	Database Servers/ Application Server /Web Server
S. No	General features:
1.	Each blade shall have a minimum of two (2) Intel E5 2600 v3 series CPUs and supports all Intel CPUs , including the highest performance Intel E5-2699 v3 18 core 2.3 GHz CPUs
2.	The server should support SAS, SATA and SSD hard disk drives with minimum of 2*300GB 6G SAS or higher
3.	Must support booting hypervisors through an internal SD card/ USB boot device slot
4.	The Blade should have support for Boot from SAN
5.	Should support minimum 12 DIMM slots per blade. Vendor to propose min 8 GB memory per core.
6.	Support for RAID 0, 1
7.	Should support Converged Network Adapter for FC/ FCoE support
8.	Should support minimum 20 Gbps connectivity per server, expandable up to 80 Gb.
9.	Should support at least two adapters per server
10.	Should support adapter and QoS policy creation and defining for each vNICs or vHBAs created in the adapter
11.	Should be capable to support remote KVM capability, up to 4 active sessions, through an external keyboard, mouse and video monitor to all blades installed in the chassis through the management controllers
12.	The Blade should be hot pluggable

13.	The chassis density should be better than those offered by the typical 1 U rack server
14.	Minimum Operating Temperature from 50° to 95°F (10° to 35°C) and Non-operating Temperature -22° to 140°F (-30° to 60°C)
15.	Minimum Operating Relative Humidity from 10% to 90% non- condensing and Non-operating Relative Humidity from 5% to 90% non-condensing

Blade Chassis

16.	Blade chassis shall be 19" Electronic Industries Alliance Standard Width rack mountable and provide appropriate rack mount kit
17.	The power supply modules should be hot pluggable
18.	The power subsystem should support N+N or N+1 or grid mode of power redundancy
19.	The power subsystem should be support N + N or at least N+1 power redundancy for a fully populated chassis with the 2 socket (CPU) servers
20.	Should be configured to provide full redundant cooling to all blade slots
21.	Should have redundant switch modules for fabric connectivity
22.	Min 8 Nos of 10Gbps uplink from the chassis to TOR/core switch should be provided
23.	The uplink from the chassis should support FCoE (Fibre Channel over Ethernet) technology
24.	The chassis should support redundant management modules
25.	It should support remote KVM capability from an external keyboard, video monitor and mouse to all blades installed in the chassis through the management controllers.
26.	Simultaneous KVM access to a single blade KVM by multiple users with different levels of access for each user
27.	Should be able to support the feature of virtual DVD to individual servers from remote systems

Management

28.	Management of both rack & blade form factor servers from the same console. Management software should support integration with popular virtualization platform management software like vCenter, SCVMM and RedHat RHEV
29.	Supports a stateless environment where server identity is created by the administrator who defines the server
30.	Management software should be capable of providing Role Based access control to the users and should be capable of supporting integration with Active directory
31.	Should help to proactively identify out-of-date BIOS, drivers, and Server Management agents and enable the update of system software/firmware components. Management software should provide the capability to upgrade / rollback firmware
32.	Management software should be capable of defining power policies for server and capping the power if required.
33.	Safety Standards: • EN 60950-1 • IEC 60950-1

B	Core Router
S. No	General features:
1.	The router should be rack based/chassis based with minimum 1 payload slot for future expansion
Architecture	
2.	Should have internal redundant power supplies
3.	Minimum back-plane capacity of 5-Gbps & forwarding performance of 1 Million packets per sec of 64 bytes packet. The performance is considered with IPv4 & IPv6
4.	Should support 10/100/1000 ports and 10-Gig ports
5.	Should have 2 X 10/100/1000 ports
6.	Protocols to be supported: i. Border Gateway Protocol (BGP) V4 ii. Dynamic Host Configuration Protocol (DHCP) iii. IP Multicast, PIM SM, PIM SSM, IGMP, MLD, MSDP, RP, iv. Shall support multicast in L3 VPNs/ native IP using MPLS for QoS, reliability and resiliency. v. Features like TE, bandwidth reservation and FRR shall be available to multicast traffic. vi. Internet Protocol version 6 (IPv6) vii. Intermediate System-to-Intermediate System (IS-IS) viii. Label Distribution Protocol (LDP) ix. Open Shortest Path First (OSPF) x. Resource Reservation Protocol (RSVP) xi. The router shall support Virtual Router Redundancy Protocol (VRRP)
7.	IPv4 Features: i. Support for Routing Information Protocol ii. Support for RIP Version 2 , OSPF , IS-IS , Border Gateway protocol iii. Support for BGP confederations & Route Reflectors
	IPv6 Features: iv. IPv6 ping IPv6 trace route v. Stateless Auto configuration or equivalent vi. RIPng OSPF v3 vii. IS-IS viii. IPv6 L3 forwarding in HW ix. VRRPv3, MLD , IPv6 ACL
8.	The supported features should include: 802.3ad , 802.3x , 802.1Q , VLAN , 802.1p , LACP STP, RSTP, MSTP (802.1d, 802.1s, 802.1w) L2 ACLs , IGMP Snooping (v1, v2, v3)
9.	Should support at-least 50K IPv4 routing entries per system and 10k IPv6 routing entries per system

10.	Should support VRF's
11.	Should support VPLS instances
Certifications	
12.	Router should be EAL2/NDPP or higher certified
13.	Safety certifications UL 60950-1
14.	EMC certifications FCC Class A

C	Core Switch:
Features	
1.	Switching capacity - 1.2 Tbps
2.	Switch forwarding rates – 900 Mpps (64 byte packets)
3.	1/10 Gigabit Ethernet port - Minimum 48 nos (Fiber modules to be populated as per the solution)
4.	Non-blocking switch architecture
Connectivity	
5.	802.3ad based standard port/link aggregation, Jumbo frames, storm control
Switching Features	
6.	Support at least 2500 VLAN and 32,000 MAC Address
Security	
7.	802.1X Network Security and Radius/TACACS AAA authentication
8.	MAC Address filtering based on source and destination address
9.	Support for various ACLs like port based, VLAN based and L2- L4 ACL's
Network Protocols	
10.	Layer3 routing protocols like Static, RIP, OSPF, RIPnG, OSPFv3 from day 1 for the solution.
11.	Shall support FCOE, Datacenter bridging exchange, IEEE 802.1Qbb
Qos	
12.	Minimum 8 number of hardware queues per port
13.	DSCP, 802.1p
Multicast	
14.	IGMP v1,v2,v3, IGMP snooping, PIM SM, MLD

Management		
15.	SNMP v1, v2, v3, RMON/RMON-II enabled, SSH, telnet, GUI, Web management and should have out of Band Management port	
16.	Switch should support port mirroring feature for monitoring network traffic of a particular port/VLAN.	
17.	Switch should support Link Aggregation on two different switches	
18.	Built-in real-time performance monitoring capabilities and at least two switches should be managed using single IP address	
19.	Power Supply: Switch should have internal Hot Swappable redundant Power supply	
20.	Cooling Fans: Should have redundant cooling FANS	
Certifications		
21.	Should be minimum EAL 2 or NDPP certified	

D	**Next Generation Firewall (Firewall with IPS)**
Architecture	
1.	Chassis based architecture
2.	Hot swappable module and power supplies
Interfaces	
3.	4x10/100/1000 RJ45 and 2x10G interfaces
System Performance	
4.	Multiprotocol Firewall Throughput – 5 Gbps
5.	IPS Throughput – 2 Gbps
6.	IPSec VPN Throughput – 2 Gbps
7.	Concurrent Sessions – 500K
8.	Connections per Second – 75K
Layer 2 Switching	
9.	VLAN 802.1Q
10.	Link Aggregation 802.3ad/LACP
11.	STP
12.	1000 VLANs
Routing (Available from day 1)	
13.	Static routes

14.	RIPv2
15.	OSPF
16.	BGP
MultiCast	
17.	IGMPv3, PIM
Traffic Management	
18.	Policing of packets
19.	Class-based queuing with prioritization
Security	
20.	Firewall, zones, screens, policies
21.	Stateful firewall, stateless filters
22.	Network attack detection
23.	Prevent replay attack; Anti-Replay

24.	Unified Access Control
	  - TCP reassembly for fragmented pacaket protection - Brute force attack mitigation
	  - SyN cookie protection
	  - Zone-based IP spoofing
	  - Malformed packet protection

Intrusion Prevention System (IPS) Features	
25.	Protocol anomaly detection - Stateful protocol signatures
26.	Intrusion prevention system (IPS) attack pattern obfuscation
27.	User role-based policies
28.	Customer signatures creation
29.	Daily and emergency updates
30.	Custom signatures
31.	Dynamic signature updates
32.	User-based application policy enforcement
User Authentication	

33.	
	Third-party user authentication RADIUS, RSA SecureID, LDAP
34.	
	RADIUS accounting
35.	
	PKI certificate requests
36.	Certificate Authorities : VeriSign, Entrust, Microsoft, RSA Keon, iPLanet, (Netscape), Baltimore, DoD PK

VPN

37.	
	IPSec Tunneling
38.	
	IPsec, DES, 3DES, AES encryption
39.	
	MD5 and SHA-1 authentication

High Availability

40.	
	Active/active or Active/passive —L3 mode
41.	
	Dual Power

System Management

42.	
	Web UI
43.	
	Command line interface (CLI)

E	Storage	
S. No.	**Feature**	**Description**
1.	Architecture / Storage Controller	The Storage system must have at least two controllers running in an active- active mode with automatic failover to each other in case of one controller failure. The architecture should allow modular upgrades of hardware and software for investment protection and adding additional controllers.
2.	Cache	The system should have minimum 48 GB cache (Read and Write) across the two controllers which is available for Read-Write Operation and SAN. The storage array must have complete cache protection mechanism either by de- staging data to disk or providing complete cache data protection with battery backup for up to 72 hours or more. The cache should be upgradable by adding additional controllers.
3.	Protocols	The storage shall be provided with all NAS & SAN supported protocols for use with different applications and avoid any protocol related buying in future. Any hardware/software required for this functionality shall be supplied and external appliance should have high availability

		architecture for data and management. NAS & SAN functionality should be provided from Single Storage OS.
4.	Capacity	The storage shall support SAS, SSD and NLSAS based disks simultaneously in the same array.
		The storage should be provisioned with 15 TB of usable Capacity on RAID 5/6 or better using 10000 RPM SAS drives.
5.	Front-End & Back-End connectivity	The offered storage shall have minimum 8 * 8/16 Gig FC ports
6.	RAID	The storage shall support RAID levels single disk failure, dual disk failure, Stripping, Mirroring. The RAID implementation on the storage will be such that it is able to protect against two drive failing in the same RAID Group simultaneously or at an overlapping time without affecting the performance of the system.
7.	Scalability	The storage should be scalable to support at least another 15 TB usable space on Raid 6.
8.	Operating System	Storage should support industry leading operating system platforms and clustering including windows Server 2008, 2012, UNIX , Linux 2.6, RHEL and VMware etc.
9.	Storage built-in functionality	The storage shall have the ability to combine multiple RAID Groups into a single entity so as to create LUNS/Volumes using Multiple RAID Groups and hence from the single entity to give maximum performance to all the applications being served from these disks.
		The storage shall have the ability to expand and shrink LUNS/Volumes on the storage online and instantly.
		The storage shall support security features like LUN masking, Zoning etc.
		The storage shall support standard storage (SAN & NAS) security features.
10.	Hypervisor	The storage should be able to support different virtual servers like Microsoft HyperV and VMware etc. The storage should support replication in any case. Necessary software license for integration with any Virtualized platform should also be provided. The storage failover and failback should be supported with Virtualization platform.
11.	Replication	Storage should also support Asynchronous and Synchronous Data Replication (the changed block within the volume) to the DR Site in a heterogeneous
12.		Network through internet. Any additional hardware required for delivering the functionality must be provided.
13.	Licensing	Storage should be configured to support FC, ISCSI, FCoE, NFS v 4.0, CIFS (SMB 3.0) Protocols natively.
14.	Management	The storage management GUI should allow to manage more than one single system from the GUI and even remote systems.
		Performance monitoring tool or software should be provided and the same will need to be licensed for the full capacity and maximum servers supported by the array.

15.	OS support	Support for industry-leading Operating System platforms including: LINUX, Microsoft Windows, HP-UX, SUN Solaris, IBM-AIX, etc.
16.	Remote Diagnostics/ Maintenance	The proposed system should support Web based, Email facility for remote service & also support dial-in / dial-out to report errors and warnings.
17.	AC Power	200-240VAC, 50Hz
18.	Rack Mountable	The proposed system must be rack mounted (Adequate storage rack should be supplied)
19.	Redundancy	Storage should not have any single point of failure which includes storage controllers, disk drives, power supplies, cooling fans, data path and power cords that are fully redundant and hot-swappable to ensure maximum availability.
20.	Additional Feature	Storage should support servers to boot from SAN
		Storage must support hardware RAID and supported RAID levels must be Striping, Mirroring, Single Disk Failure and Double Disk Failure
		Should provision for LUN masking, SAN Security and fiber zoning.
		Should be able to take "snapshots" of the stored data.
		Storage Subsystem should have remote replication feature and also should be able to replicate within the same family. It should be able to replicate the changed volume. It Should support FCIP/IP replication.
		Storage should provide automatic rerouting of I/O traffic from the host in case of primary path failure.
		There should be 1 dedicated Management port.
		Should Support for native multi path, clustering & Interoperability
		Should Support for Storage virtualization

F. Server Load Balancer	
S. No.	**Architecture**
1	Should be high performance purpose built next generation multi-tenant hardware with multicore CPU support. Platform should support multiple instances including link load balancing, application load balancing & SSL VPN functions with dedicated hardware resources for each virtual instance.
2	The appliance should have minimum 10 Gbps of system throughput per virtual instance to support multiple load balancing and security functions
3	The appliance should have minimum 8 x10G SFP+ interfaces from day one
4	Hardware based SSL acceleration with upto 20Gbps of bulk SSL throughput. Minimum of 4,000 2k SSL transactions per second (TPS) per virtual instance
5	Platform should support minimum 4 virtual instances and must have option to scale upto 16 virtual instance on same appliance. Each instance must have assigned dedicated hardware resource such as CPU, memory, SSL & I/O for guarantee performance
Application Load balancing features	
6	Should able to load balancer both TCP and UDP based applications with layer 2 to layer 7 load balancing support

7	The appliance should support server load balancing algorithms i.e. round robin, weighted round robin, least connection, Persistent IP, Hash IP, Hash Cookie, consistent hash IP, shortest response, proximity, SNMP, SIP session ID, hash header etc.
8	Should support Multi-level virtual service policy routing – Static, default and backup policies for intelligent traffic distribution to backend servers
9	Support for policy nesting at layer7 and layer4, solution should able to combine layer4 and layer7 policies to address the complex application integration.
10	Script based functions support for content inspection, traffic matching and monitoring of HTTP, SOAP, XML, diameter, generic TCP, TCPS. Load balancer should support ePolicies to customize new features in addition to existing feature/functions of load balancer
11	Traffic load balancing using ePolicies should support algorithms including round robin, least connections, shortest response, persistence IP, hash IP, hash IP and port, consistent hash IP and SNMP
12	Should provide application & server health checks for well-known protocols such as ARP, ICMP, TCP, DNS, RADIUS, HTTP/HTTPS, RTSP etc.
IPv6 gateway and Application acceleration	
13	Should provide performance optimization using TCP connection multiplexing, TCP buffering and IEEE 802.3ad link aggregation. Support for TCP optimization options including windows scaling, timestamp & Selective Acknowledgement for enhanced TCP transmission speed TCP optimization option configuration should be defined on per virtual service basis not globally.
14	Appliance should provide real time Dynamic Web Content Compression to reduce server load and solution should provide selective compression for Text, HTML, XML, DOC, Java Scripts, CSS, PDF, PPT, and XLS Mime types.
15	should provide advanced high performance memory/packet based reverse proxy Web cache; fully compliant with HTTP1.1 to enhance the speed and performance of web servers
16	Should provide support for cache rules/filters to define granular cache policies based on cache-control headers, host name, file type, max object size, TTL objects etc..
17	Should provide secure online application delivery using hardware-based high performance integrated SSL acceleration hardware. SSL hardware should support both 2048 and 4096 bit keys for encrypted application access.
18	Should support certificate parser and solution should integrate with client certificates to maintain end to end security and non-repudiation
19	The appliance should support Certificate format as "OpenSSL/Apache, *.PEM", "MS IIS, *.PFX", and "Netscape, *.DB".
20	Should support OCSP protocol to check the validity of the certificates online. Certificate bases access control, CRL's (HTTP, FTP, and LDAP) support.
21	Should provide full ipv6 support and OEM should be IPv6 gold-certified. OEM should be listed vendor for ipv6 phase-2 certification.
22	IPv6 gateway should provide compressive support for IPv6 functions to help with ipv4-to-ipv6 transition without business disruption and must provide support for dual stack, DNS64, NAT 64, DNS 46, NAT 46, IPv6 NAT
	Should support various deployment modes for seamless integration including reverse proxy (IPv6 to IPv4, IPv4 to IPv6) and IPv6 to IPv6 transparent and reverse proxy mode.
Network security	

23	Should support advance ACL's to protect against network based flooding attacks. Administrator should able to define ACL's rules based on connections per second (CPS) and concurrent connections (CC), cookie value.
24	Appliance should have security features like reverse proxy firewall, Syn-flood and dos attack protection features from the day of installation.
25	Should support integrated network based firewall to protect against network based attacks; administrator should able to configure the security policies on per interface basis.

Clustering and failover

26	Should provide comprehensive and reliable support for high availability with Active-active & active standby unit redundancy mode. Should support both device level and VA level High availability
27	should support built in failover decision/health check conditions (both hardware and software based) including CPU overheated, SSL card, port health, CPU utilization, system memory, process health check and gateway health check to support the failover in complex application environment
28	Should have option to define customized rules for gateway health check - administrator should able to define a rule to inspect the status of the link between the unit and a gateway
29	Support for automated configuration synchronization support at boot time and during run time to keep consistence configuration on both units.
30	should support floating MAC address to avoid MAC table updates on the upstream routers/switches and to minimize the failover delay
31	Support for multiple communication links for real-time configuration synchronizations including HA group, gateway health check, decision rules, SSF sessions etc.. and heartbeat information
32	Clustering function should support IPv6 VIP's (virtual service) switchover
33	N+1 clustering support with active-active and active-standby configurations.

Global Server Load Balancer

34	The appliance should have feature of GSLB for future requirement
35	Should support global load balancing algorithms like global round robin (grr), VIP based weighted global round robin, global connection overflow, global least connections, IP overflow, Proximity etc.,
36	Per host name TTL value control - TTL (Time to live) controls RTO failover and hence could be different for different services which needs to have TTL control per host name
37	GSLB (Global Server Load Balancer) for Application Failover across Datacenter - GSLB to be supported on same appliance. The appliance should have ability to select Server Per Site for failover and BCP drills for server selection for application continuity, Should Support Topology.
38	GSLB should be capable of monitoring health of application across data center example Primary site and DR site - GSLB at the primary data center should have intelligence and visibility of application across Data center and DR
39	Support DNS Rate Limiting and DNS DDOS Protection

40	DNS report per host name - DNS report per host name provides usage trending patterns to help capacity planning
41	Capable of handling complete DNS bind records including A,MX, AAAA etc.
42	should support dynamic proximity rules instead of static proximity rules to direct the traffic to closest datacenter
Management	
43	Centralized management appliance should have extensive reporting and logging with inbuilt tcpdump like tool and log collecting functionality
44	The appliance should have SSH CLI, Direct Console, SNMP, Single Console per Cluster with inbuilt reporting.
45	Should support XML-RPC for integration with 3rd party management and monitoring
46	Should support role based access control with different privilege levels for configuration management and monitoring.
47	The appliance should provide detailed logs and graphs for real time and time based statistics