

**Request for Proposal
for Engagement of Agency for
Design, Supply, Installation and Commissioning of IT and non IT
Infrastructure for Data Center Migration and it's Operation and
Maintenance.**

**Tender No.F.7(12)/TSCA/SDC/2019
5th June 2020**

**TRIPURA STATE COMPUTERISATION AGENCY
(A Society Under Directorate of Information Technology, Govt. of Tripura)
ITI Road, Indranagar, Agartala**

Index

Section I - Executive Summary	9
Section II - Invitation to Bid	12
2.1 Issuer	12
2.2 Issuer and Address for Bid Submission & Correspondence	12
2.3 About The RFP Document.....	12
2.4 Key Events & Dates	13
2.5 Distribution of RFP Document	13
2.6 Pre Bid Conference.....	13
2.7 Amendment of RFP Document.....	14
2.8 Deadline for submission of Proposal.....	14
Section III – Eligibility Criteria	16
Section IV – Scope of Work	19
4.1 Design, Supply, Installation, Integration commissioning of IT and gap non-IT Infrastructure at new Data Centre (DC) at IT Bhavan building:	19
4.2 Proposed network and security architecture	21
4.3 Technical Specification:.....	22
4.4 Application Migration & Hardware Shifting:.....	22
4.5 List of Non-IT Items:.....	23
4.6 Cooling.....	23
4.7 Proposed layout of server room	23
4.8 Electrical Work:	24
4.9 Other Non-IT systems:.....	28
4.10 Inclusion or deletion of items during tender process.....	28
4.11 Technical Solution	28
4.12 Final Acceptance Test (FAT):.....	28
4.13 Scope of Work for Operations & Maintenance:	29

RFP- for Migration of Tripura State Data Center

4.14 Roles and Responsibility of project stake-holders.....	36
4.15 Project Timeline	37
4.16 Required resources	37
4.17 Roles and Responsibilities of DCO team members	38
Section V- Bill of Material (BOM)	42
5.1 List of IT Components.....	42
5.2 List of Non IT Components	43
Section VI – Service Level Agreement.....	45
6.1 Definitions	46
6.2 Category of the SLA.....	47
6.3 Service Levels-Implementation	47
6.4 Service Levels –IT Infrastructure.....	48
6.5 Service Levels – Physical Infrastructure related service levels.....	50
6.6 Service Level – Help Desk.....	51
6.7 Service Levels – Compliance & Reporting procedures.....	51
6.8 Service level for onsite Required Resources:.....	51
6.9 SLA Compliance Requirements.....	52
6.10 SLA review Process.....	52
6.11 Penalties	53
Section VII: Instructions to the Bidders	54
7.1 Procedure for Submission of Bids	55
7.2 Authentication of Bid	56
7.3 Validation of interlineations in Bid	56
7.4 Cost of Bidding.....	56
7.5 Clarification on Tender Document	56
7.6 Language of Bids	57
7.7 Documents Comprising the Bids	57

RFP- for Migration of Tripura State Data Center

7.8	Bid Prices	58
7.9	Firm Prices	58
7.10	Bid Currencies.....	59
7.11	Bid Security (Earnest Money Deposit)	59
7.12	Bid Validity Period	59
7.13	Withdrawal of Bids	59
7.14	Opening of Bids.....	60
7.15	Evaluation of Pre-Qualification Bid, Technical Bid and Commercial Bid	60
7.16	Evaluation of Pre-Qualification Bid.....	61
7.17	Evaluation of Technical Bid.....	61
7.18	Evaluation of Financial Bids.....	62
7.19	Criteria for Final Evaluation of Bids.....	62
7.20	Rectification of Errors.....	62
7.21	Contacting the TSCA	62
7.22	Notification of Award.....	63
7.23	Failure to Abide by the Agreement	63
7.24	Bank Guarantee for Contract Performance.....	63
7.25	Rejection Criteria	63
	<i>Pre Qualification Rejection Criteria.....</i>	<i>63</i>
	<i>Technical Rejection Criteria.....</i>	<i>64</i>
	<i>Commercial Rejection Criteria.....</i>	<i>64</i>
7.26	Concessions permissible under statutes.....	65
7.27	Income Tax Liability	65
7.28	GST Liability.....	65
Section VIII – General Condition of Contract.....		67
8.1	Definitions	67
8.2	Interpretation.....	68
8.3	Conditions Precedent.....	69

RFP- for Migration of Tripura State Data Center

8.4	Representations & Warranties.....	69
8.5	Scope of work/contract.....	71
8.6	Duration of the contract.....	71
8.7	Contract Performance Guarantee	71
8.8	DCO Obligations.....	71
8.9	Reporting Progress:	72
8.10	Knowledge of Site Conditions:.....	73
8.11	Data Centre Operator Team	74
8.12	Statutory Requirements.....	75
8.13	Contract Administration.....	75
8.14	Right of Monitoring, Inspection and Periodic Audit.....	75
8.15	TSCA's Obligations	76
8.16	Information Security	76
8.17	Ownership of Equipment	77
8.18	Risk Management	77
8.19	Indemnity.....	77
8.20	Confidentiality.....	78
8.21	Term and Extension of the Contract.....	78
8.22	Prices	78
8.23	Change Orders/Alteration/Variation.....	79
8.24	Suspension of Work.....	80
8.25	Completion of Contract	80
8.26	Payment Schedule	81
8.27	Events of Default by the Implementation Agency.....	81
8.28	Consequences in Event of Default.....	82
8.29	Termination of the Contract.....	82
8.30	Termination	83
8.31	Consequences of Termination.....	84

RFP- for Migration of Tripura State Data Center

8.32	Penalty.....	85
8.33	Force Majeure	85
8.34	Liquidated Damages	85
8.35	Dispute Resolution.....	86
8.36	Conflict of Interest.....	86
8.37	Severance.....	87
8.38	Governing Language.....	87
8.39	“No Claim” Certificate	87
8.40	Publicity.....	87
8.41	General.....	87
	<i>Relationship between the Parties.....</i>	<i>87</i>
	<i>No Assignment.....</i>	<i>87</i>
	<i>Survival.....</i>	<i>87</i>
	<i>Entire Contract.....</i>	<i>88</i>
	<i>Governing Law.....</i>	<i>88</i>
	<i>Jurisdiction of Courts</i>	<i>88</i>
	<i>Compliance with Laws.....</i>	<i>88</i>
	<i>Notices.....</i>	<i>88</i>
	<i>Waiver.....</i>	<i>89</i>
8.42	Response to RFP.....	89
8.43	Modification	89
8.44	Application	89
8.45	IT Act 2000	89
Section IX: Format for Response to the tender: Pre-Qualification Bid.....		91
	Format 1 – Pre-Qualification Bid Letter	91
	Format 2 - General Information about the Bidder	93
	Format 3 - Declaration Regarding Clean Track Record	94
	Format 4 – Declaration of Acceptance of Terms & Conditions in the RFP	95

RFP- for Migration of Tripura State Data Center

Format 5 – Format for Submitting Bank Guarantee as Earnest Money Deposit (EMD)	96
Section X - Format for Response to Tender: Technical Bid.....	99
Format 1 – Technical Bid Letter.....	99
Format 2 – Technical Solution.....	101
Format 3 – Technical Evaluation Criteria.....	103
Format 4 – Manpower Details.....	106
Format 5- Deviations from Tender Terms & Conditions.....	108
Format 6- Project Experience Details.....	109
Section XI - Response to Tender: Commercial Bid.....	111
Filled BoQ to be uploaded online as per attach Format.....	111
Section XII - Annexure	114
Annexure - I: Bidding Document Acknowledgement Form.....	114
Annexure – II: Proforma of Bank Guarantee towards Performance Security.....	115
Annexure - III: Technical Specification of IT Components.....	118
Annexure - IV: Existing non IT Components.....	140
Annexure - V: List of Application and Hardware at OLD SDC to be Shifted to new DC	148
Annexure - VI: Technical Specification non IT Components.....	150
Annexure – VII: Abbreviations	152

Section - I

Executive Summary

Section I Executive Summary

i. Background

a. Tripura State Data Centre (TSDC):

TSDC is one of the key elements of the IT infrastructure created, which is providing data centre service to different Departments / Organizations in the State Government, for hosting, running and storing their applications, information, data, etc for delivering services to the citizens with greater reliability, availability and serviceability. TSDC provides better operations & management (O&M) control and minimizes overall cost of Data Management, IT Management, Deployment and other costs. TSDC is operational 24x7 basis, since 24th December 2010. TSDC currently have around 80 servers and SAN storage systems having more than 130 TB RAW capacities for catering services to different Govt. department/ organization. Currently, around 200 applications and websites of different State Govt. Departments are hosted and running in TSDC. TSDC was ISO 27001 (ISMS- Information Security Management System) certified for its security practices and ISO 20000-1 (SMS - Service Management System) certified for its operation management.

b. TSDC Cloud:

Under SDC enhancement activities, Cloud enablement of TSDC has been implemented in 2016. As part of the Cloud Enablement work, Cloud SI has supplied and installed one Blade Enclosure, four Blade Servers, two Management Server, two Windows Data Center Edition Operating System (OS), two Linux Enterprise Edition OS, Cloud Management Solution, four Citrix CloudPlatform Socket License (Citrix XenServer Enterprise Edition) in TSDC. Through Cloud enablement, following cloud features are made available in TSDC: Virtualisation; Resource pooling; Accessibility; Scalability; On-demand self-services; Measured services; High availability. After implementation of Cloud technology/ solution, TSDC is providing Infrastructure-as-a-Service(IaaS) cloud service to different user Departments/Organisations. Most of the applications and websites hosted in TSDC have been migrated to TSDC Cloud. TSDC achieved following benefits after implementing Cloud: Very less service provisioning time; On demand compute resource upgradation; High availability.

c. TSDC Location:

TSDC project was implemented by Tripura State Computerisation Agency (TSCA), setup in the premises of Directorate of IT, ITI Road, Indranagar, Agartala, 799006. TSDC was set up in an area of about 2,800 Sq. ft. earmarked for this purpose on first floor of old building of IT Directorate.

ii. Objective:

In the 1st floor of new IT Bhavan building one Data Center (DC) floor space with DC non-IT infrastructure has been created for migrating TSDC over there. Brief information on IT and non-IT infrastructure supplied and installed at new DC is indicated in the Annexures.

This document is a Request for Proposal (RFP) for Bidders to quote for Design, Supply, Installation and Commissioning of IT and non-IT Infrastructure, migration of application, shifting of hardware from OLD SDC to new Data Centre (DC) at IT Bhavan building, Agartala and Operation and Maintenance (O&M) service of new DC.

Section - II

Invitation to Bid

Section II Invitation to Bid

The invitation to Bid is for Design, Supply, Installation and Commissioning of IT and non-IT Infrastructure at new Data Centre (DC) at IT Bhavan building, Agartala and it's Operation and Maintenance.

The Bidders are advised to study the tender document carefully. Submission of Bids shall be deemed to have been done after careful study and examination of the tender document with full understanding of its implications. This section provides general information about the Tripura State Computerisation Agency (TSCA) a society under Directorate of Information Technology, Govt. of Tripura, important dates and addresses and the overall eligibility criteria for the Bidders.

2.1 Issuer

Tripura State Computerisation Agency (TSCA) a society under Directorate of Information Technology, Govt. of Tripura, invites proposals for Design, Supply, Installation and Commissioning of IT and non-IT Infrastructure at new Data Centre (DC) at IT Bhavan building, Agartala and it's Operation and Maintenance (O&M) as per the scope of the Bid.

2.2 Issuer and Address for Bid Submission & Correspondence

Member Secretary,
Tripura State Computerisation Agency
ITI Road, Indranagar
Agartala-799006
Phone/FAX No. 0381-2355751
Email address: itdept-tr@nic.in, bidyut.datta@nic.in

2.3 About The RFP Document

The Request for Proposal (RFP) document consists of different sections:

- **Section I – Executive Summary**
- **Section II – Invitation to Bid**
- **Section III – Eligibility Criteria**
- **Section IV – Scope of Work**
- **Section V – Bill of Material (BoM).**
- **Section VI – Service Level Agreement**
- **Section VII – Instruction to the Bidder**
- **Section VIII – General condition of Contract**
- **Section IX – Format for Response to the Tender: Pre-Qualification Bid**
- **Section X – Format for Response to Tender: Technical Bid**
- **Section XI – Format for Response to Tender: Commercial Bid**
- **Section XII – Annexures**

2.4 Key Events & Dates

Event	Target Date	Estimated Time/Remarks
Notice Inviting Tender	05/06/2020	
Tender fee	Rs. 60,000/- (Rupees Sixty thousand only)	To be paid online
EMD (Earnest Money Deposit)	Rs. 60,00,000/- (Rupees Sixty Lakh only)	To be submitted as Bank Guarantee as per the Template at Format-5, section IX. The Physical copy to be reached TSCA before the date of technical Evaluation and the scanned to be uploaded along with Prequalification Bid documents.
Date and Time for Pre- Bid Conference	19/06/2020	11:00 AM
Last date to send in requests for clarifications on the tender document	18/06/2020	5:00 PM
Last date for online submission of Bids	03/07/2020	5:00 PM
Opening of Pre qualification Bids	06/07/2020	11:00 AM
Opening of Technical Bids	06/07/2020	11:00 AM

Note: This Tender Document is not transferable.

2.5 Distribution of RFP Document

The tender document can be downloaded from www.tripuratenders.gov.in portal free of cost.

2.6 Pre Bid Conference

The TSCA shall organize a Pre Bid Conference on the scheduled date and time in the Conference Hall, O/o Directorate of Information Technology compound. **TSCA may**

incorporate any changes in the RFP based on acceptable suggestions received during the interactive Pre Bid Conference. The decision of the TSCA regarding acceptability of any suggestion shall be final and shall not be called upon to question under any circumstances. The prospective Bidders shall submit their questions in writing not later than Date and Time indicated under section 2.4 above. It may not be possible at the Pre Bid Conference to answer questions which are received late. However, prospective Bidders are free to raise their queries during the meeting and responses will be conveyed to all the prospective Bidders (by way of hosting amendments/ clarifications on the website i.e. at www.tripuratenders.gov.in in accordance with the respective clauses of the RFP within specified time at section 2.4 above and no participant would be intimated individually about the response of the TSCA. **The prospective participants have to inform TSCA on the email id mentioned in Section 2.8 for attending the pre-Bid conference.**

2.7 Amendment of RFP Document

At any time before the deadline for submission of Bids, the TSCA may, for any reason, whether at own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding document by amendment. All the amendments made in the document would be published on the website www.tripuratenders.gov.in. **The Bidders are also advised to visit the aforementioned website on regular basis for checking necessary updates.** The TSCA also reserves the right to amend the dates mentioned in clause 2.4 of this Bid document.

2.8 Deadline for submission of Proposal

The Bid response shall be submitted in the <http://www.tripuratenders.gov.in>, not later than date and time specified in Section 2.4 of this volume.

Section - III

Eligibility Criteria

Section III Eligibility Criteria

The Bidder must possess the requisite experience, strength and capabilities in providing the services necessary to meet the requirements as described in the RFP document. Keeping in view the complexity & volume of the work involved, the following criteria are prescribed as Pre-Qualification Criteria for Bidder interested in undertaking the project. The Bidder must also possess the Technical know-how and the Financial wherewithal that would be required to successfully provide the required support services sought by the TSCA. The Bids must be complete in all respect and should cover the entire scope of work as stipulated in the tender document. The invitation to Bid is open to all Bidders who qualify the eligibility criteria as given below:

Table 1: Pre-Qualification Criteria

Sl	Clause	Documents Required
1	The Bidder should be registered under the Companies Act, 1956 or Companies Act 2013.	Certificate of Incorporation.
2	The Bidder should be in IT Business not less than 5 years counting from the previous day of floating of the tender.	Relevant document to be submitted
3	The bidder should have positive net worth and turnover of minimum Rs. 150 Crore for each of the last three Financial Years ending on 31.03.2019. The bidder should have been profitable for all these three financial years.	Chartered Accountant certificate for Net-worth, Turnover and PAT (Profit After Tax) should be attached. Copy of the audited profit and loss account/ balance sheet/annual report of last three financial years (up to 31-mar-19) should be attached.
4	The bidder should submit valid letter from the OEMs confirming following: Authorization for bidder Confirm that the products quoted are not end of life products. Undertake that the support including spares, patches for the quoted products shall be available for next 5 years.	OEM include: Compute Infrastructure; Network & Security Infrastructure; Storage Infrastructure;
5	The bidder shall not be under a declaration of ineligibility for corrupt or fraudulent practices or blacklisted with any of the Government agencies.	(Notarised affidavit) in this regard should be submitted by the bidder.
6	The bidder should furnish, as part of its bid, an Earnest Money Deposit (EMD) of Rs. 60 Lakh/-.	Should be submitted as Bank Guarantee.

RFP- for Migration of Tripura State Data Center

7	<p>Bidder's experience of having successfully completed Data Center (DC) setup (supply and installation of equipment) and DC Operation and Maintenance (O&M) work that meets the following criteria:</p> <p>a. DC setup and managed for State/ Central Govt. Agencies or PSUs or PSU Banks or Financial Institutions of State/Central Govt. will be considered.</p> <p>b. Single Project an order values not less than Rs. 25 Crores or Two Projects order values not less than Rs. 18 Crores for each projects or Three or more Projects order values not less than Rs. 12 Crores for each projects will be considered during the period from 1st April 2010 to previous day of date of floating of the tender.</p> <p>c. Bidder's in house Data Centers shall not be considered unless used for commercial use.</p> <p>d. Cost of building construction for DC won't be considered for calculating cost in the above purpose.</p>	<p>Work Order + Completion Certificates from the client;</p> <p>OR</p> <p>Work Order + Installation Phase Completion Certificate (for ongoing projects) from the client.</p>
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The Bidder has to ensure that while submission of the Bids, all the pages of the Bids are signed by the competent authority and also all the pages are numbered and properly indexed. If any of the Bids is found to be without proper signature, page numbers and index, it will be liable for rejection.

Section - IV

Scope of Work

Section IV Scope of Work

4.1 Design, Supply, Installation, Integration commissioning of IT and gap non-IT Infrastructure at new Data Centre (DC) at IT Bhavan building:

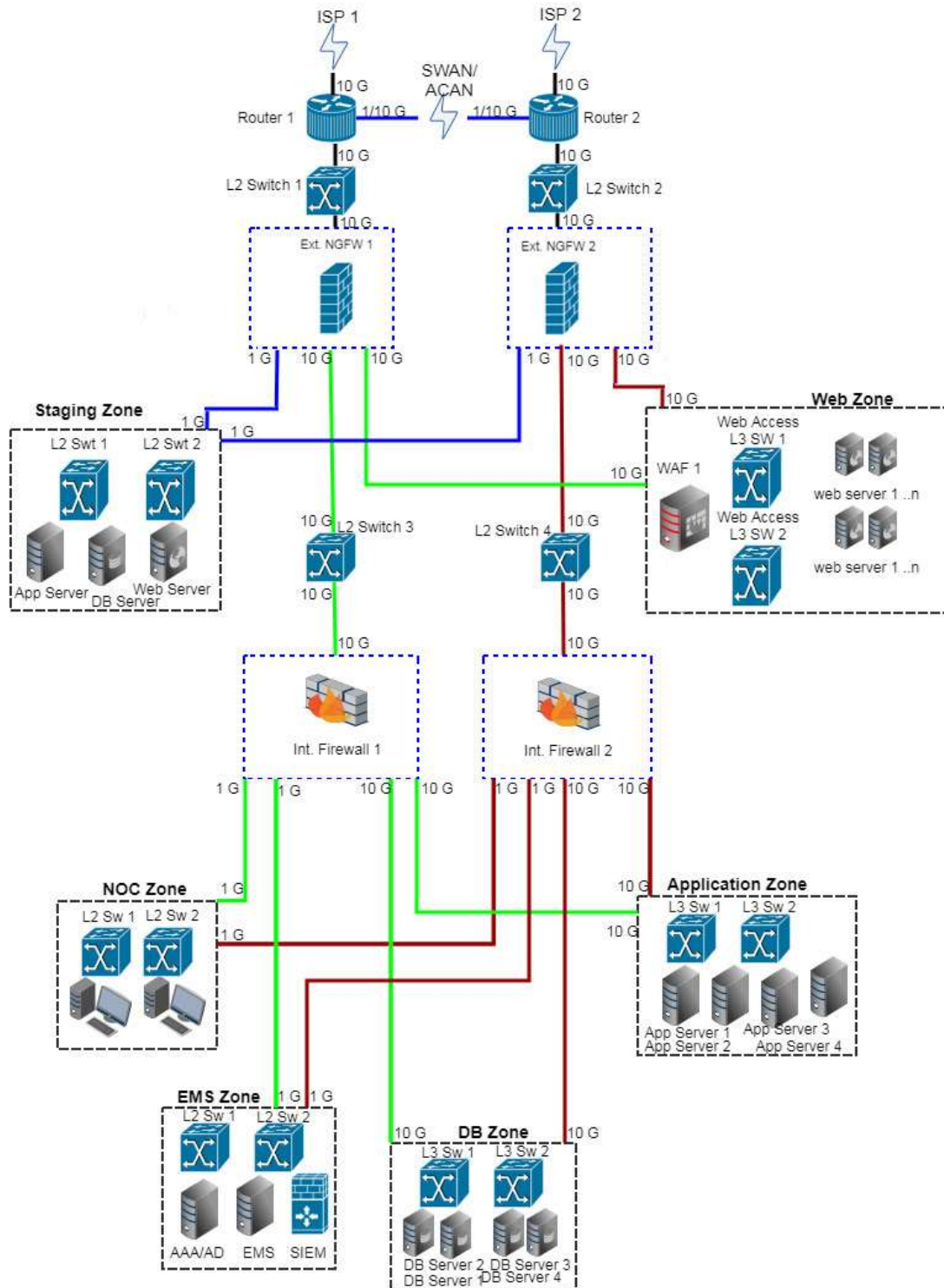
In the 1st floor of IT Bhavan building, Agartala one Data Center (DC) floor space with DC non-IT infrastructure has been created in around 5000 sq ft area for migrating TSDC over there. Brief information on non-IT infrastructure already supplied, installed and at new DC is given at Annexure- IV. Bidder need to provide AMC support for the existing IT and Non-IT equipment at new Data Center from the date of Golive /FAT.

The selected Bidder has to design, supply, install and configure Network, Security, Server, Storage, Application migration, Backup, Disaster Recovery, Cloud, gap non-IT Infrastructure at new Data Centre (DC) of TSDC at new IT Bhavan building, Agartala. **The activities also include the below mentioned points:**

- 4.1.1 Site analysis and requirement : Bidders should analyze the site requirement, its present status, the applications hosting plan, the existing infrastructure and any other relevant details before designing the data center and quoting prices.**
- 4.1.2 Site survey and site preparation report: Bidders will be responsible for site survey to identify the exact situation of the site and then for ensuring site readiness for the implementation of the data center infrastructure. Bidder will submit a detailed site survey report.**
- 4.1.3 The Successful Bidder shall prepare detailed deployment design document (both physical and IT) and shall submit the same for approval to TSCA. However a Solution design has to be provided during the bid process.**
- 4.1.4 Supply of necessary components: The SI shall supply the materials and equipment as required. In case, it is identified that certain components are required for required functionality but not included in the Tender BOQ , SI should include such equipment in the bid value , quote for them as “any other item”. The SI shall note that the specification provided is the minimum requirement and the SI shall procure better equipment if it is required to meet the service levels mentioned in this RFP.**
- 4.1.5 Supply, Installation, Integration and Commissioning of IT Components: The Successful Bidder shall install, integrate and commission the active network equipment as well as passive network components (Cabling etc.) as per approved deployment design. All the work shall be done in a conscientious manner as per the OEM guidelines and best industry practices. The system shall be subjected to inspection at various stages. Local regulation / codes shall be followed at all times. The Successful Bidder shall follow all Safety Regulations and practices.**
- 4.1.6 The Successful Bidder shall not cause any damage to the existing data center, Government buildings /other premises and property and will perform restoration if any damage occurs. Trenches, path-cutting, etc. will be back-filled and restored to the original condition immediately after**

- laying of the conduit/cable. The Successful bidder shall plug conduits and entrance holes where the cabling has been installed with suitable sealing material.
- 4.1.7 All the IT / non IT products quoted should be supported by the successful Bidder for next 5 years from the start date of Go-live.
- 4.1.8 All the software's used for providing data center services shall be licensed to TSCA and will be the property of TSCA.
- 4.1.9 The successful Bidder has to prepare and submit a delivery report including details of all components supplied. The delivery report will be validated by the TSCA.
- 4.1.10 Bidders shall provide a complete data center solution to TSCA as a part of their technical bid. Any activity not mentioned here but required for the implementation of data center shall be taken in note. The solution provided by the Successful Bidder shall meet all the service level requirements. It is recommended that the successful Bidder should thoroughly go through the RFP, to adhere to the service levels as mentioned in the document.
- 4.1.11 The Bidders are free to inspect the site prior to submitting their proposals.
- 4.1.12 Documentation: Provide documentation, which follows the ITIL (Information Technology Infrastructure Library) standards. This documentation should be submitted as the project undergoes various stages of implementation. Indicative list of documents include-
- 4.1.12.1 Project Commencement: Project Plan in MS Project or equivalent giving out micro level activities with milestones & deadlines
- 4.1.12.2 Delivery of Material: Original Manuals from OEMs.
- 4.1.12.3 Process Documentation: The Bidder shall be responsible for preparing process documentation related to the implementation of each and every component in SDC. The prepared process document shall be formally approved by TSCA.
- 4.1.12.4 The selected Bidder shall document all the installation and commissioning procedures and provide the same to TSCA.
- 4.1.12.5 The Selected Bidder shall submit a complete set of Floor Layout Drawings, Single Line diagram, a complete cabling system layout (as installed), including cable routing, telecommunication closets and telecommunication outlet/ connector designations. The layout shall detail locations of all components and indicate all wiring pathways.
- 4.1.12.6 Manuals for configuring cloud platform, servers, switches, routers, and their current setting shall be provided by the selected Bidder.
- 4.1.12.7 The selected Bidder shall be responsible for documenting configuration of all devices and keeping backup of all configuration files, so as to enable quick recovery in case of failure of devices. Documentation should be provided by the selected Bidder on a regular basis as and when desired by the TSCA.
- 4.1.13 Successful bidder need to provision temporary OFC connection from OLD SDC to new SDC (about 500 Mtr OFC) for easy Storage and application migration.
- 4.1.14 Successful bidder need to provision necessary optical fiber LAN in the server farm, UTP cabling at NOC, SOC, Staging room etc. in new DC.

4.2 Proposed network and security architecture



TSDC Network Security Architecture --Proposed - 10 G FC Network, with HIPS, AV at server level

RFP- for Migration of Tripura State Data Center

Network Design considerations: New DC should have minimum 10 G network backbone. 3 tier network and security architecture for Web, App, DB. Separate security zone for Web, App, DB, Staging, EMS, NOC.

Selected bidder has to supply, install and configure IT and non IT Components mention at Section V-Bill of Material. Quoted rates for such item should be valid for 5 years from the date of Go-Live.

4.3 Technical Specification:

Bidder has to comply with the Technical specification mentioned for IT and non-IT Components mentioned at Annexure-.III and Annexure-VI respectively.

4.3.1. Software

Virtualization and Cloud specification

Existing cloud and virtualization solution at OLD SDC will be migrated to the new DC. Successful bidder needs to provide 5 years AMC starting from 25-01-2022 for the existing cloud and virtualization solution. Further, Successful bidder has to supply additional. Hypervisor licenses. The detail of existing cloud and virtualization solution is given at **Annexure-V**. However, bidder may provide new cloud and virtualization solution meeting existing and new requirement from day 1.

4.3.2. DR Implementation

Successful bidder has to supply and install necessary software for cloud based storage replication to be provisioned by TSCA at NDC Bhubaneswar/ any other Cloud (to be decided by TSCA), if possible upgrade of existing Backup and Replication may be proposed.

4.4 Application Migration & Hardware Shifting:

Bidder should be responsible for migration of the existing websites and applications from old TSDC to new Data Center. Application owner will assist during the migration process. Further, selected bidder has to shift existing hardware from old TSDC to new DC and reinstall, re-configure (if needed) and integrate with the new equipment to be supplied by the bidder. List of Application to be migrated and hardware to be shifted, is given at **Annexure-V**. This list is indicative and the requirement may increase or decrease. **The indicative activities should include:**

- 4.4.1 As-Is assessment of current infrastructure of existing Data Center.**
- 4.4.2 Analysis of re-usability of servers, network devices, storages etc.**
- 4.4.3 Planning and migrating existing reusable IT components in new Data Center.**
- 4.4.4 Checking compatibility in co-ordination with Application owners or application development vendors.**
- 4.4.5 Planning of application migration in details along with help from Application owners or application development vendors.**

- 4.4.6 Support application vendors for migration of applications in cloud/virtual environment.**
- 4.4.7 Creating virtual machines and other required infrastructure for application migration.**
- 4.4.8 Make the physical platform ready if the application does not support virtualization.**
- 4.4.9 Allocation of disk space, RAID configuration, installation of OS, providing network connectivity, security measures shall be taken care of by the selected bidder under requisite approvals from TSCA.**

4.5 List of Non-IT Items:

The bidder needs to supply and commission non IT Components mention at Section-V Bill of Material at Table no.5.2 and provide AMC support for existing non IT components mentioned at **Annexure-IV**.

4.6 Cooling

Cooling in server room, staging room and telecom room:

- 4.6.1 Supply of Split Comfort AC:** Selected bidder should supply and install two Split AC at LT panel room with necessary electrification. Power for these Split ACs to be extended from main LT panel of power room at First floor.
- 4.6.2 AMC for existing PACs:** Selected bidder need to provide AMC for PAC (4 nos. of 25TR and 4 nos. of 8.5 TR) for 5 years from the date of go live. Brief on existing PAC system is given at Annexure-IV.
- 4.6.3** Selected bidder need to arrange synchronization mechanism among PACs for scheduled operation automatically based on configuration.
- 4.6.4** Selected bidder needs to integrate the existing PACs with the existing Building Management System (BMS). The detail of existing BMS is given at Annexure-IV.

4.7 Proposed layout of server room

RFP- for Migration of Tripura State Data Center

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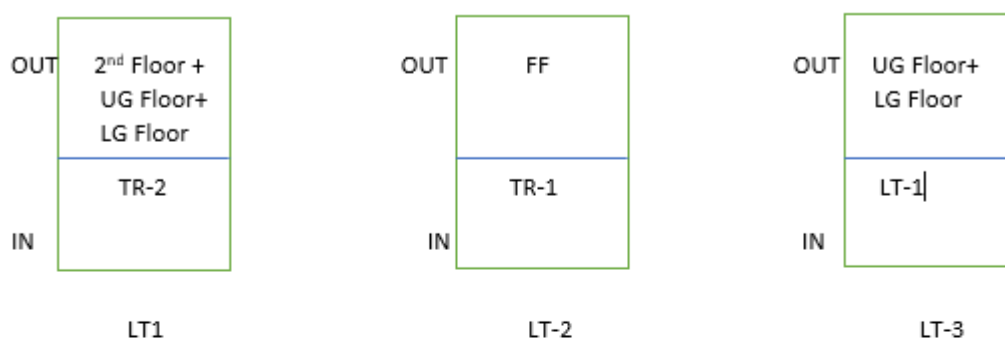
4.8 Electrical Work:

4.8.1 Transformer:

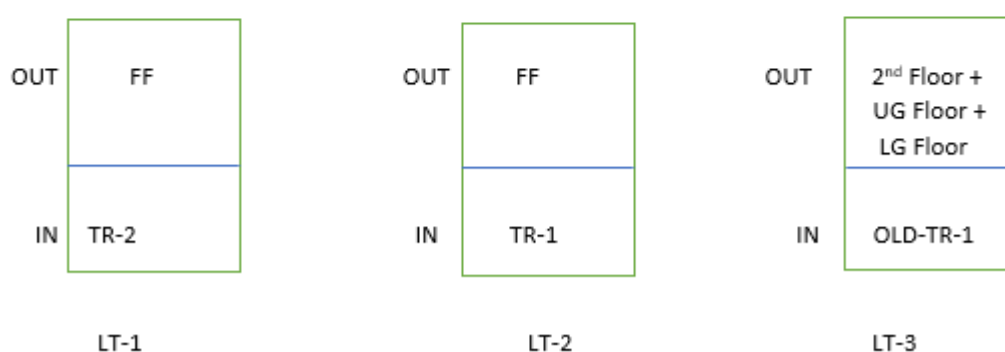
- I. Output of existing LT panel (LT1) connected with second Floor need to be disconnected and connected with output of LT Panel (LT3) used for LG & UG Floors.
- II. LT panel (LT3) connected with UG, LG & Second Floor will be connected with existing transformer of old TSDC using existing cable already laid for this purpose. This transformer need to be disconnected from old TSDC & to be connected with existing HT panel for which cable already been laid.
- III. Output of LT1 to be connected with Main Panel of First Floor using 4 core armour cable (to be supplied) and one manual circuit breaker to be installed.
- IV. Output of LT Panels (LT1 & LT2) to be connected with one ACB (to be supplied) at existing main LT panel at first floor power room.

Make and model of Transformers are given at Annexure-IV.

Existing LT panel at LG floor



Proposed changes in LT panel at LG floor



LT Panel - Low Tension Panel. UG- Upper Ground, LG- Lower Ground, FF- First Floor, TR-Transformer

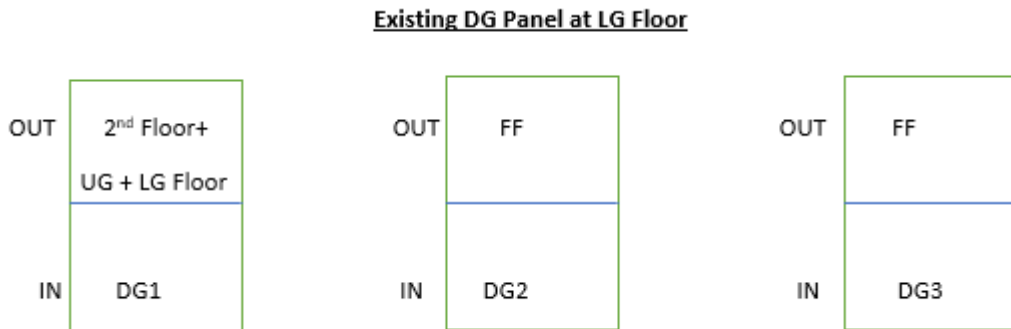
4.8.2 Diesel Generator (DG) sets:

- I. DG2 and DG3 connected with first Floor main panel to be disconnected and connected with newly supplied DG Sync Panel.
- II. Output of DG1 presently connected with 2nd Floor, Lower Ground (LG) Floor and Upper Ground (UG) Floor to be disconnected and need to be connected with newly supplied DG Sync Panel by laying necessary cable from LG floor to First floor.
- III. Output of 1 DGs of OLD TSDC (Old DG1) to be connected with newly supplied DG sync panel at First Floor power room for which
 - a. Output of this DG to be disconnected from old TSDC.
 - b. Output of this DG to be connected with DG Sync Panel at First Floor using 4 core cable which is already laid upto LG Floor.
 - c. One 4 core cable to be laid from LG Floor to DG Sync Panel at First Floor and to be connected with DG Sync panel.
 - d. Both cable ends at LG Floor (One from DG Sync Panel at First Floor and another from Old DG1) to be joined by using one Joint Enclosure Box.
- IV. Another DG of OLD TSDC (Old DG2) will be used for power distribution for UG, LG and 2nd Floor. For which

RFP- for Migration of Tripura State Data Center

- a. Output of this DG to be disconnected from old TSDC.
 - b. Output of this DG to be connected with the cable which is already laid upto LG Floor.
 - c. This cable to be connected with the two cables (disconnected from new DG1) using one joint enclosure Box.
- V. Output of DG Sync panel to be connected with another ACB (to be supplied) at main panel of first floor power room. Output of ACBs (one for Transformers and other for DGs) to be given at common bus bar of main LT panel of power room at first floor in such way that at least one ACB (Air Circuit Breaker) should be ON state.

Make and model of DGs are given at Annexure-IV. AMC need to be provided for these 4 (four) DGs for 5 years from the date of Go-Live.



4.8.3 UPS:

Make and model of existing UPSs are given at Annexure-IV. AMC for UPS to be provided for 5 years from the date of Go-live and warranty including replacement for batteries to be given for 5 years.

Proposed electrical layout for new DC:

RFP- for Migration of Tripura State Data Center

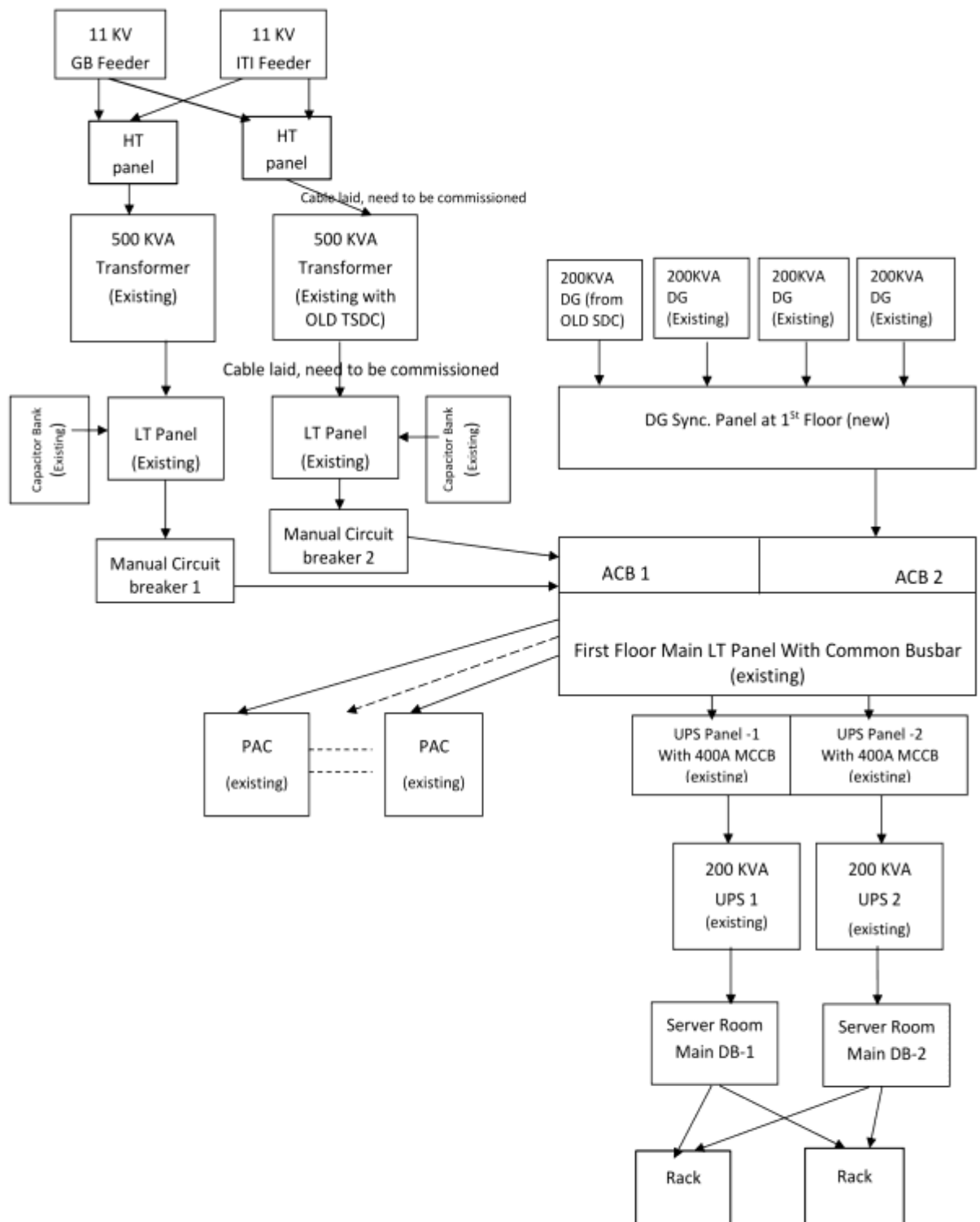


Figure: Proposed Electric Block Diagram

Other Electrical Design requirements:

RFP- for Migration of Tripura State Data Center

1. Comply with prevailing electrical regulations and codes.
2. Ensure continuity and reliability of service.
3. Use electric surge protector.
4. Built and use required number of proper earthing.
5. Ensure complete safety of personal and equipment against electrocution hazards and faults. Suitable safety interlocks and protective features should be incorporated.
6. The losses in the equipment and distribution system to be minimized by proper specifications of equipment and selection of cable and busbar system.
7. Electrical design should consider energy saving opportunities.
8. Switching arrangement at various locations shall be provisioned for ease in operation and thus isolation can be achieved for estimated fault level.
9. In the LT panels, the incoming feeder shall consist of Air Circuit Breaker (ACB), all outgoing circuits up to 800 Amps shall be Moulded Case Circuit Breaker (MCCB) type and 800 Amps and above shall be ACBs.

4.9 Other Non-IT systems:

Provide AMC support for 5 years from the date of Go-live for existing Fire Suppression System (FSS) arrangement, Fire Detection & Alarm System, VESDA, Water Leak Detection, Rodent Repellant System, etc. Bidders may quote for any changes/addition wherever necessary.

4.10 Inclusion or deletion of items during tender process.

Bidders may inform TSCA about the items required to be added in electrical and other non-IT systems for functioning properly, before or during pre-bid meeting process.

4.11 Technical Solution

Bidders have to submit a Technical Solution Document with clear detailed description of the service offerings (with separate section for DC Operation and Maintenance). The said technical solution document will be used for technical evaluation purpose as well as reference document for selected bidder during service delivery period.

4.12 Final Acceptance Test (FAT):

After supply, installation and configuration of all the IT and Non-IT equipment, selected bidder will inform TSCA in writing to carry out FAT. FAT test cases need to be provided in the Bid response. If any change proposed in the FAT test cases or procedure, the same should be finalized mutually by selected bidder and TSCA before starting FAT. **The Acceptance test will include the following**

- **Acceptance Testing to ensure that all functions as per requirements, approved designs, hardware equipment and software deployed are of the exact specifications given in the RFP and operates seamlessly in the SDC infrastructure in terms of performance, reliability and security. The respective OEM must certify the installation of their products in the OEM letter head that the installation has been done as per the standard best**

practices and for any shortcomings/ defect/ malfunction found in the installation during warranty period will be taken care by the OEM.

- All the functionality of the Software installed by the selected bidder will be checked during Final Acceptance Test.
- **Functional Testing: Ensuring that the application functionality as described works adequately in the State Data Center environment. The functional testing of application will necessarily be minimal as this is a core responsibility of the department.**
- **Performance Testing: Ensuring that the application meets performance requirements on the State Data Center equipment by using performance test tools and performance monitoring tools.**
- **Security Testing: Testing for exploitable application security weaknesses that undermine the application security or the security of the infrastructure.**

FAT responsibility lies with selected bidder. After conducting each test, selected bidder will submit test report to TSCA for approval. TSCA will approve test report indicating test was successful or mention correction required (if any) by 15 days from date of submission of the test report, else it will be presumed acceptable to TSCA. If test fail, after necessary correction in the system, test will be carried out again as specified above. After successful completion of FAT activities, TSCA will issue one final FAT certificate to selected bidder, wherein O&M start date i.e. Go-Live will be indicated.

4.13 Scope of Work for Operations & Maintenance:

The selected bidder shall build, operate and maintain the new DC for a period of 5 (five) years from the date of Go-live and henceforth called as Data Center Operator (DCO). The detailed scope of work has been mentioned below.

- A. The selected bidder/DCO has to deploy an onsite team comprising of the resources indicated in this tender document.
- B. The selected bidder has to arrange 5 years warranty for all the IT and Non-IT equipment's supplied under this tender process from respective OEMs to protect the SLA commitment.
- C. Selected bidder has to review, update Standard Operating Procedures (SOPs) for each services of TSDC and may require to establish SOPs, if not found or found not adequate for any service, within first quarter.

4.13.1 DC Operation and Maintenance: The selected bidder will provide 24x7 Operating and Maintenance services for a period of 5 years from the date of Go-live. The scope of the services for overall Physical and IT infrastructure management of new DC should follow ITIL framework during the contract period, it include 365x24x7 Monitoring, Maintenance and Management of the entire DC, along with providing Helpdesk services. The scope of work during the operations phase is divided into the following areas including:

- System Administration, Monitoring, Maintenance & Management Services
- Network Administration, Monitoring, Maintenance and Management Services

RFP- for Migration of Tripura State Data Center

- Storage Administration, Monitoring, Maintenance and Management Services
- Security Administration, Monitoring, Maintenance and Management Services
- Application Administration, Monitoring and Management Services
- Backup & Restore Services
- Physical Infrastructure Monitoring, Maintenance and Management Services
- Help Desk Services
- Coordination with respective department for application Hosting
- Facilitate required support infrastructure for hosted application
- Bandwidth Management Services
- Perform Application migration from old DC to new DC in coordination with application owners / departments.

4.13.2 MIS Reports The bidder shall provide the MIS reports for all the devices installed in the Data Centre and DR Site in a prescribed format and media as mutually agreed with the Client on a periodic basis. Whenever required by Client, DCO should provide additional reports in the required format or as per Client requirement time to time.

4.13.3 System Administration, Maintenance & Management Services: The objective of this service is to support and maintain all the Systems and Servers indicated as a part of this RFP and will include:

4.13.3.1 365x24x7 monitoring and management of the servers in the Data Centre.

4.13.3.2 Operating System administration, including but not limited to management of users, processes, preventive maintenance and management of servers including updates, upgrades and patches to ensure that the system is properly updated. Bidder should include the Cost for 5 years upgrades, updates and patches for the components considered under this RFP for O & M.

4.13.3.3 Installation and Re-installation of the server and other hardware in the event of system crash/failures.

4.13.3.4 Proactive monitoring of all the applications hosted in DC.

4.13.3.5 Regular analysis of events and logs generated in all the sub-systems including but not limited to servers, operating systems, security devices etc. to identify vulnerabilities. Necessary Action shall be taken by the DCO in accordance with the results of the log analysis. Suitable mechanism has to be maintained for ISMS purpose by the DCO forensic or other governmental regulations time to time. Bidders are advised to refer the CERT-In guidelines which are already released for State Data Centre. DCO has to co-ordinate and provide all the support for such requirements during the entire project tenure.

RFP- for Migration of Tripura State Data Center

4.13.3.6 Adoption of policies and procedure, compliances, guideline or international standard as defined by the Client.

4.13.3.7 Provide integration and user support on all supported servers, data storage systems etc.

4.13.3.8 Troubleshoot problems with web services, mail services, applications software, desktop/server relationship issues and overall aspects of a server environment. Problems shall be logged in at the Help Desk and resolved as per the SLAs defined in this RFP.

4.13.3.9 Manage and monitor server configuration, performance and activity of all servers.

4.13.3.10 Document containing configurations of all server, IT infrastructure etc.

4.13.3.11 Hardening servers in line with security policies.

4.13.4 Network Management: The objective of this service is to ensure continuous operation and upkeep of the LAN & WAN infrastructure at the DC including all active and passive components. The scope excludes maintenance of WAN links which shall be the responsibility of SWAN Implementation Agency. However, for overall functioning of the new DC, the selected bidder shall be responsible to coordinate with SWAN team for WAN link related issues.

The services to be provided for Network Management include:

- a) Ensuring that the network is available 365x24x7 as per the prescribed SLAs.
- b) Attending to and resolving network failures and issues.
- c) Support and maintain the overall network infrastructure including but not limited to LAN passive components, routers, switches etc.
- d) Configuration and backup of network devices/ equipment including documentation of all configurations.
- e) 365x24x7 monitoring of the network to spot the problems immediately.
- f) Provide information on performance of Ethernet segments, including capacity utilization and error statistics for the segment and the top-contributing hosts, WAN links and routers.

4.13.5 Application Monitoring: It should include monitoring of:

- Web Services
- Application Server
- Database Server
- Middleware

- Others

4.13.6 Backend Services: The selected bidder is required to maintain and support all the Backend Services implemented at the DC. The services include:

- Directory Services
- Database Services
- User rights & policies

4.13.7 Directory Services: It should include the following services:

- Domain management;
- Group management;
- User management;
- Implementation of policies and standards.

4.13.8 Storage Administration and Management Services

The bidder shall be responsible for the management of the storage solution and shall provide the following services:

- a. Identify key resources in the Storage solution
- b. Identify interconnects between key resources in the Storage solution
- c. Receive asynchronous notification that the configuration of the Storage solution has changed
- d. Identify the health of key resources in the Storage solution
- e. Identify the available performance of interconnects in the Storage solution
- f. Receive asynchronous notification that the performance of the Storage interconnect solution has changed
- g. Identify the zones being enforced in the Storage solution
- h. Create/delete and enable/disable zones in the Storage solution
- i. Identify the storage volumes in the Storage solution
- j. Create/delete/modify storage volumes in the Storage solution
- k. Identify the connectivity and access rights to Storage Volumes in the Storage solution
- l. Create/delete and enable/disable connectivity and access rights to Storage Volumes in the Storage solution
- m. Storage administration – facilitates the in connecting to the Storage later and gives them access rights as required.

4.13.9 IT Security Administration Services

The objective of this service is to provide a secure environment through the operation and maintenance of the ISO 27001 ISMS Standard (latest). This service includes:

- a) Addressing the ongoing needs of security management including, but not limited to monitoring of various devices / tools such as firewall, intrusion detection, content filtering and blocking, virus protection and vulnerability protection through implementation of proper patches and rules.
- b) Maintaining an updated knowledge base of all the published security vulnerabilities and virus threats for related software and microcode etc.
- c) Ensuring that patches / workarounds for identified vulnerabilities are patched / blocked immediately.
- d) Respond to security breaches or other security incidents with root cause analysis and coordinate with respective OEM in case of a new threat is observed to ensure that workaround / patch is made available for the same.
- e) Provide a well-designed identity management system, security of physical and digital assets, data and network security, backup and recovery etc.
- f) Maintenance and management of security devices, including, but not limited to maintaining firewall services to restrict network protocols and traffic, detecting intrusions or unauthorized access to networks, systems, services, applications or data, protecting email gateways, firewalls, servers from viruses.
- g) Ensuring that the security policy maintained and update various relevant procedures, guidelines and other ISMS documents as per ISO 27001 standards and implement these procedures accordingly.
- h) A process must ensure the continuous improvement of all elements of the information and security management system. (The ISO/IEC 27001 standard adopts the Plan-Do-Check-Act [PDCA] model as its basis and expects the model will be followed.

4.13.10 Backup / Restore Services

- a) Backup of Application and Database as per the defined policies.
- b) Backup of storage as per the defined policies.
- c) Monitoring and enhancing the performance of scheduled backups, schedule regular testing of backups and ensuring adherence to related retention policies as defined by the Client.
- d) Prompt execution of on-demand backups of volumes and files whenever required or in case of upgrades and configuration changes to the system.
- e) Real-time monitoring, log maintenance and reporting of backup status on a regular basis.
- f) Media management tasks, including, but not limited to, tagging, cross-referencing, storing, logging, testing, and vaulting in fire proof cabinets (onsite and offsite).
- g) 365x24x7 support for file and volume restoration requests at the Data Centre.

- h) Off-site Backup – Data (backup) meant for Offsite locations will be handed over by DCO in secured manner to designated officer(s) of Client or TSCA. TSCA will be responsible for maintaining the Off-site location.

4.13.11 Physical Infrastructure Management and Maintenance Services

All the devices installed in the Data Centre as part of the physical infrastructure shall be centrally and remotely monitored and managed on a 24x7x365 basis via industry leading infrastructure management solution deployed to facilitate monitoring and management of the Data Centre Infrastructure on one integrated console. The physical infrastructure management and maintenance services shall include:

- a) Proactive and reactive maintenance, repair and replacement of defective components (IT and Non-IT/ Hardware and Software). The cost for repair and replacement shall be borne by the selected bidder.
- b) The selected bidder shall have to stock and provide adequate onsite and offsite spare parts and spare components to ensure that the SLA is met for the entire contract period. To provide this service it is important for the selected bidder to have necessary back to back arrangement with the respective OEMs / vendors.
- c) Component that is reported to be down on a given date should be either fully repaired or replaced by temporary substitute (of equivalent configuration) within the time frame indicated in the Service Level Agreement (SLA). In case the selected bidder fails to meet these standards, penalty will be imposed on DCO, as specified in the SLA.
- d) The selected bidder shall also maintain log/records of all maintenance activities for the new DC equipment/components and shall maintain a logbook on-site that may be inspected by Client at any time during contract period.

4.13.12 Help Desk Services

The help desk service will serve as a single point of contact for all ICT related incidents and service requests. The service will provide a Single Point of Contact (SPOC) and also resolution of all the incidents with root cause analysis that may arise during the Operations phase. This service also includes the non-IT infrastructure for the DC. The scope of work includes:

- a) 24x7x365 Help Desk facility for reporting issues / problems with the IT infrastructure as well as Non IT components.
- b) To provide a service desk facility and the set up all necessary channels for reporting issues to help desk. The incident reporting channels will be the following:
 - email (TSCA will provision)
 - telephone (TSCA will provision and pay telephone bills)
 - web based
- c) To implement a call logging system in line with the severity levels as mentioned in the SLA.
- d) The Help Desk shall undertake the following activities:

RFP- for Migration of Tripura State Data Center

- Log issues / complaints related to IT/Non-IT infrastructure at the Data Centre under the scope of work of DCO/ application hosted in Data Center and issue an ID number against the issue / complaint.
 - Assign severity level to each issue / complaint.
 - Track each issue / complaint to resolution
 - Escalate the issues / complaints to Client, if necessary, as per the escalation matrix defined in discussion with TSCA.
 - Provide feedback to the callers.
 - Analyze the issue / complaint statistics
 - Creation of knowledge base on frequently asked questions to aid the users of the IT infrastructure.
- e) TSCA will provision Help Desk software licenses for operating the Helpdesk facilities.
- f) The Helpdesk solution should be configured for in built work flow for helpdesk automation.
- g) Constant follow-up with user Department for outstanding payment (hosting charges) to TSCA.

4.13.13 Maintenance Activities

DCO has to carry out the Preventive & reactive maintenance of DC infrastructure / components. This includes carrying out the necessary repairs and replacement of parts wherever needed to keep the service & operation levels of the IT & non-IT equipment of DC in tune with the requirements of the SLA. Such preventive maintenance shall not be attended during the normal office Hours (i.e. 10 am to 6 pm on weekdays) of DC operations. DCO needs to maintain the Log Book for such preventive and reactive maintenance activities. For such preventive maintenance, DCO needs to inform Client prior to 3 days and undertake the activity with written consent of the client. For Scheduled and Preventive Maintenance by DCO for the Hardware /or Software /or Active /or Passive shall be done with written prior intimation to client at least 72 hours in advance. Preventive Maintenance should be carried out at least once in every quarter, which includes:

- i. Checking for any loose contacts in the cables & connections for the respective infrastructure and equipment.
- ii. Run diagnostics tests on respective infrastructure and equipment.
- iii. Cleaning and removal of dust and dirt from the interior and exterior of the equipment.
- iv. Ensuring that wiring is done as per the standard.
- v. Ensuring that wiring diagrams are updated, whenever there are modifications.
- vi. Ensuring the management of rack space equipment as needed.
- vii. Ensuring that all Software, Tools (CD / DVD), OEM Documentation (Knowledge base), TSDC documentation (with Manuals), other or backup tapes, disks and other media are kept properly labelled and organized in Catalogue.

RFP- for Migration of Tripura State Data Center

- viii. Carrying out and verifying back-ups consistency on regular interval.
- ix. Checking and listing all wear and tear of the equipment and site environment.
- x. Ensuring no flammable material is present.
- xi. Clearing up of any unnecessary items or Spares. DC operator needs to ensure cleanliness within DC.

4.13.14 Hosting of application:

DCO team will be responsible to host any application/Website etc. TSCA/User Departments will provide the deployment content.

4.14 Roles and Responsibility of project stake-holders

Below mentioned Table summarizes the roles and responsibilities of stakeholders involved in the project.

TSCA- Tripura State Computerisation Agency.

DCO – Tripura State Data Centre Operator / Bidder

Sl No	Activity	TSCA	DCO	Remarks
1	Providing required information, guidelines for building new Data Center of Tripura State Data Center	Y		
2	Engagement of DCO	Y		
3	Provision of Building Space for new DC	Y		
4	Providing dedicated raw power with energy meter to the new DC	Y		
5	Providing the required bandwidth	Y		DCO shall also ensure such bandwidth are integrated seamlessly with DC Infrastructure
6	DC site preparation (as specified in this document)		Y	
7	Migration of Application to new DC.		Y	
8	Shifting of existing hardware from old TSDC and recommissioning at new DC.		Y	
9	Procurement, Supply, installation & Commissioning of IT and gap Non-IT infrastructure for new DC.		Y	
10	Final Acceptance Testing	Y	Y	
11	Preparation of SOPs, policies, procedures for DC O&M as per standard requirements		Y	
12	Approval of SOPs, policies, procedures	Y		

RFP- for Migration of Tripura State Data Center

13	Operations & Management of the new DC of TSDC as per SLA		Y	TSCA would be responsible for providing policies for management
14	SLA Audit	Y		
15	Data backup and Replication	Y	Y	All works pertaining to backup and replication would be the responsibility of DCO. DR space would be provided by TSCA.
16	Recurring expenditure like electricity, diesel, etc. during operation.	Y	Y*	Electricity bill payment by TSCA. * DCO will make payment for Diesel, etc. and raise the bill to TSCA. TSCA will reimburse the same to DCO

4.15 Project Timeline

Sl No.	Activity	Timeline
1	Design, supply, installation and configuration of Network, Security, Server, Storage, Backup, DR, shifting and recommissioning of existing hardware, Application migration, Supply & Commissioning of non-IT Infrastructure at new Data Centre (DC) of TSDC.	6 months from Agreement effect date.
2	Operation and Maintenance (O&M) service	5 years from the date of Go-Live.

Note: Bidders has to submit a Project Plan with timeline and milestones in Technical bid

4.15.1 Incentive for early Implementation

Incentive will be provided for early implementation of the Project as per below table

SL no	Implementation Timeline	Incentive amount
1	If completes in 5 months	0.5% of Capex
2	If completes in 4 months	1% of Capex
3	If completes in 3 months	1.5% of Capex

4.16 Required resources

Sl	Description	Min Qualification, Relevant Experience & Certifications	Minimum No. of
1	Project Manager/ Project In-Charge	MBA/B.E./B.Tech., 7 Years, ITIL/ ITSM certified	1
2	DC Physical Infrastructure Administrator/Expert	B.E./B.Tech, 3 Years, Relevant Certifications	1
3	Security Administrator /Expert (L3)	B.E./B.Tech./MCA/MSc. IT, 5 Years, Relevant Certifications,	1

RFP- for Migration of Tripura State Data Center

4	System Administrator /Expert (L3)	B.E./B.Tech./MCA/MSc. IT, 5 Years, Relevant certifications and having experience Linux or other Open source platform	1
5	Network Administrator /Expert (L3)	B.E./B.Tech./MCA/MSc IT, 5 Years, CCNP certifications or equivalent.	1
6	Network Administrator /Expert (L2)	B.E./B.Tech./MCA/MSc IT, 3 Years, CCNA/ relevant certifications	1
7	Storage Administrator /Expert	B.E./B.Tech./MCA/MSc. IT, 3 Years, Relevant Certifications	1
8	Database Administrator /Expert (L3)	B.E./B.Tech./MCA/MSc. IT, 5 Years, DBA Certifications	1
9	Database Administrator /Expert (L2)	B.E./B.Tech./MCA/MSc. IT, 3 Years, DBA Certifications	1
10	Security Administrator /Expert (L2)	B.E./B.Tech./MCA/MSc. IT, 3 Years, Relevant Certifications	1
11	System Administrator /Expert (L2)	B.E./B.Tech./MCA/MSc. IT, 3 Years, Relevant Certifications.	1
12	Infrastructure Support Engineer	B.E./B.Tech., 2 Years, Relevant certifications	2
13	NOC Engineer	B.E./B.Tech./MCA/MSc.IT, 2 Years, ITIL Knowledge	4
14	Helpdesk Staff	Graduate/ Diploma (3 years), 1 Year, Relevant certifications	4
15	Infrastructure Support Staff	1 Year experience as electrician/AC Technician, ITI certificate, etc.	2 (electrician & AC Technician)
16	Back Office Staff		1

4.17 Roles and Responsibilities of DCO team members**Project In-Charge / Project Manager –**

Responsible for overall management of the data center, user SLA commitments, performance, availability, response time, problem resolution, Should be responsible for effective Resource management, System & Resource planning, based on business

RFP- for Migration of Tripura State Data Center

forecast. Should be the single point contact (SPOC) for managerial responsibilities and direct interface with the Client/ TSCA. Data Centre Manager should have capabilities in team management, capacity planning and process documentation. Should have exposure to ISO 20000 and ISO 27001 process. Should be ITIL or ITSM certified. Should have a proven track record of managing operational IT support teams including establishment of DC / processes, Technology & Staffing.

Datacenter Physical Infrastructure Administrator/Expert

Responsible for all the physical infrastructure of TSDC including the availability of UPS, PAC, DG Set, Civil work, Electricity, Fire detection and Suppression System, Physical Security etc.

Storage Administrator –

Storage Service Management, Storage Systems Management, Backup etc. Responsible for system configuration, scalability, performance, load balancing, OS administration / management, troubleshooting & Debugging and monitoring of servers/ Storage. Should implement the back-up plan for storing and retrieving of data, maintain servers and also responsible in resolving the real time (RT) requests raised by users as per SLA.

Network Administrator

Responsible for network uptime, security, performance, monitoring and other related services. Network monitoring and proactive network uptime maintenance is essential. The candidate should be well versed with routing and switching devices and technology like ATM, MPLS, and wireless, broadband and protocol analysis tool. Must have beginner to intermediate skills in information security technologies like firewalls, IPS content filtering, encryption, and VPN thread management, antivirus and be familiar with security audit parameters. Network management (routing), Router Configuration and Troubleshooting, up gradation, Link Performance Management of all L3 Switch and L2 Switch at the TSDC, Managing the TSDC on day to day basis. Required to support for network related Problem and Change Management Process. Support administration, Change Management, Liaison with Bandwidth Provider officials and external vendors, proactive monitoring and managing of network, bandwidth and facility management, responsible for TSDC services across client departments and citizens of Tripura State as per the agreed Service Levels.

Security Administrator –

Responsible for Firewall Management, Intrusion Management, Antivirus & Patch Management and Implementing of NAT/PAT, SSH, signatures, etc. Plan & Implement comprehensive security policies and practices for entire infrastructure. Signatures updating, blocking of unwanted traffic, Antivirus updates, Patch updates, managing the TSDC security on day to day basis in line with ISO 27001 standard requirements.

Database Administrators –

Should be responsible for database management, Should have exposure of Oracle DB, MS SQL, PostgreSQL, MySQL, MariaDB etc. Also responsible for management of database repository, creation, deletion, modification, backup and restore of databases and their tables. Must have technical certification and experience in Data Base Administration.

RFP- for Migration of Tripura State Data Center

System Administrator –

H/W & S/W support and would provide help to the data center operations and management. Core team in quick resolution of problems in the technical support team and ensure uptime of services. Internet Management, Mail management, Service Management, Systems Management, Managing proxy and user access to internet Add, delete and modify mail accounts, managing Messaging servers , System maintenance, storage, backup, hosting of application etc.

Infrastructure Support Engineer/Support Staff –

Responsible for electrical, civil work, cooling, Data Cabling, all Building management components, Fire Detection and suppression system etc.

NOC Engineer –

Managing and operating EMS/NMS and Helpdesk tool issues. Network Monitoring. Should be well versed with Routing and Switching devices and technologies like ATM, Frame Relay, MPLS, Wireless, Broadband and Protocol Analysis Tools. Should have beginner to intermediate skills in Information Security technologies like Anti-virus, Firewalls, 2 & 3 factor Authentication, IDS, IPS, Content Filtering, Encryption, VPN, Threat Management and be familiar with Information Security Audit parameters.

Help Desk-

Logging of support calls, escalation of calls, recording of configuration items and service calls monitor and control the Service levels and underlying service quality Creating MIS reports for management purpose Managing and Supporting the Helpdesk System (tool) for day-to-day operations. Managing and operating Helpdesk tool issues.

Section - V

Bill of Material

Section V Bill of Material (BOM)

5.1 List of IT Components

Sl. No.	Item Description	Make	Model
I	II	III	IV
1	Network Equipment		
1.1	Router		
1.2	L3 Switch		
1.3	L2 Switch		
2	Security equipment/items		
2.1	Firewall External		
2.2	Firewall (Internal)		
2.3	SIEM Solution		
2.4	WAF		
2.5	Antivirus Agent License		
2.6	Antivirus Server License		
2.7	Server Security software (HIPS)		
3	Compute		
3.1	Blade Server 2 processor		
3.2	Blade Chassis		
4	Storage		
4.1	SAN Storage unit for DC		
4.2	SSD harddisk 30 TB for SAN		
4.3	SAS harddisk 70 TB for SAN		
4.4	SAN Switch		
5	Backup, Recovery and DR		
5.1	Backup and recovery solution - VM Replication service with local backup & DR Cloud service with necessary software licenses for 100 TB		
5.2	Tape Library with 50 tapes		
6	Software		
6.1	Latest Windows standard Edition		
6.2	Latest Windows Enterprise Edition		
6.3	RHEL Enterprise Edition		
6.4	MS SQL Enterprise Edition		
6.5	Oracle DB Enterprise License		
6.6	Hypervisor license (per 2 Socket) for existing Cloud Solution		
6.7	Cloud Orchestration (pr 2 socket/proc) for existing Cloud		
6.8	Enterprise Management System (EMS)		
7	Other		
7.1	Server Rack 36U		
7.2	PDU for Server Rack		
7.3	Network Rack 36U		
7.4	KVM Switch		

RFP- for Migration of Tripura State Data Center

7.5	Desktop computer		
7.6	Laptop computer		
7.7	Apple MacBook Pro		
7.8	Display panel		
7.9	LAN Cabling		
7.10	OFC Connection from OLD SDC to new SDC		
7.11	Shifting and recommissioning of Existing IT Hardware and Applications & NOC Setup		
8	AMC for existing Storage Rack (Hitachi)		
9	AMC for existing Storage (EMC)		
10	AMC for existing Virtual Storage (Hitachi)		
11	AMC for existing SAN Switch		
12	AMC for existing Hypervisor (Citrix Xen Server 6.5) for 4 years starting from 25-01-2022		
13	AMC for existing Cloud Management Solution (Locuz Cloutor) for 4 years starting from 25-01-2022		
14	AMC for existing Blade Server (HP) for 4 years starting from 25-01-2022		
15	AMC for existing Blade Enclosure (HP) for 4 years starting from 25-01-2022		
16	Support for Oracle DB Enterprise for 4 years		
17	Any other IT Item		

5.2 List of Non IT Components

Sl. No.	Item Name	Make	Model
1	Electrical		
1.1	ACB for Transformer		
1.2	Manual Circuit Breaker		
1.3	Necessary Cabling and recommissioning of Transformers		
1.4	AMC for 2 existing Transformers		
1.5	DG Sync panel		
1.6	ACB for DG		
1.7	Necessary Cabling and recommissioning of DG		
1.8	AMC for 3 existing DGs		
1.9	AMC for 1 DG at OLD SDC		
1.10	AMC for 2 existing UPS		
1.11	Warranty including replacement of batteries		

RFP- for Migration of Tripura State Data Center

	for UPS		
1.12	AMC for 3 existing three DG panel		
1.13	AMC for 2 existing transformer panel		
1.14	AMC for 1 existing DC main panel at First Floor		
1.15	AMC for 1 existing UPS main breaker panel (having one ACB)		
1.16	AMC for 1 existing UPS in-out breaker panel		
1.17	AMC for other electric items and distribution system of DC		
2	Cooling		
2.1	Supply & Install of 1.5 ton Split AC with necessary Electric cabling		
2.2	AMC for existing PAC (4 nos. 25TR, 4 nos. of 8.5 TR) from the date of golive		
3	Fire Alarm and Detection System		
3.1	AMC of existing Fire Alarm and Detection System from the date of golive		
4	VESDA		
4.1	AMC of existing VESDA from the date of golive		
5	Fire Suppression		
5.1	AMC of existing Fire Suppression System from the date of golive		
6	RODENT REPELLENT SYSTEM		
6.1	AMC for existing Rodent Repellent System from the date of golive		
7	WLD System		
7.1	AMC for existing WLD System from the date of golive		
8	Furniture		
8.1	Computer Table		
8.2	Computer Chair		

Note: In the bid response bidder should submit list of all IT and non-IT Items to be supplied by the bidder along with technical bid.

Section - VI

Service Level Agreement

Section VI Service Level Agreement

The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to clearly define the levels of service which shall be provided by the DCO to Client for the duration of this contract.

The benefits of this SLA are to:

- Trigger a process that applies DCO's and Client's attention to an aspect of performance when that aspect drops below an agreed upon threshold, or target.
- Makes explicit the expectations that Client has for performance from the DCO.

The DCO and Client shall regularly review the performance of the services being provided by the DCO and the effectiveness of this SLA.

6.1 Definitions

For the purpose of this SLA, the definitions and terms shall have the meanings set forth below:

- **“Availability”** shall mean the time for which the services and facilities are available for conducting operations from the equipment hosted in the Tripura state Data Centre.
- **“Capex”** Shall mean any capital infrastructure equipment which has a depreciation value over a period of time (item1 to item47 given BoQ under financial bid are Capex Items). To ensure a reasonable and realistic ratio of CAPEX and OPEX, **a bid may be liable to be rejected after scrutiny if total CAPEX happens to be more than 60% of the overall bid value.**
- **“Opex”** shall mean any operational expenditure. (item48 to item130 given BoQ under financial bid are Opex Items)
- **“Downtime”** is the time the services and facilities are not available and excludes the scheduled outages planned in advance for the Data Centre and the link failures that are not DCO's responsibility.
- **“Helpdesk Support”** shall mean the 24x7x365 support centre which shall handle Fault reporting, Trouble Ticketing and related enquiries during this contract.
- **“Incident”** refers to any event / abnormalities in the functioning of the Data Centre Equipment / Services that may lead to disruption in normal operations of the Data Centre services.
- **“Service Window”** shall mean the duration for which the facilities and services shall be available at the Data Centre. Service window in this case shall be 24x7x365.

6.2 Category of the SLA

This SLA document provides for minimum level of services required as per contractual obligations based on performance indicators and measurements thereof. The DCO shall ensure provisioning of all required services while monitoring the performance of the same to effectively comply with the performance levels. The services provided by the DCO shall be reviewed by the Client that shall:

- Regularly check performance of the DCO against this SLA
- Discuss escalated problems, new issues and matters still outstanding for resolution.
- Review of statistics related to rectification of outstanding faults and agreed changes.
- Obtain suggestions for changes to improve the service levels. The SLA has been logically segregated in the following categories:
 1. Implementation Service Levels.
 2. IT Infrastructure related service levels.
 3. Physical Infrastructure related service levels.
 4. Help desk Services.
 5. Compliance and Reporting Procedures.

The following measurements and targets shall be used to track and report performance on a regular basis. The targets shown in the following table are applicable for the duration of the contract.

6.3 Service Levels-Implementation

Measurement	Target	Penalty
Installation of all IT , Non-IT Components Integrated Testing and Final Acceptance test (FAT) and Go-Live.	6 Months from the signing of Agreement	A Penalty of 0.25% of Capex for every week or part thereof delay upto 8 weeks delay. Beyond 8 weeks, a penalty would be 0.5% of Capex for every week or part thereof.

However, total penalty should not exceed 10% of Capex. Delay beyond 20 weeks may lead to cancellation of the contract/agreement. If any component could not be commissioned due to

RFP- for Migration of Tripura State Data Center

dependency beyond DCO's control, in such cases DCO should intimate TSCA through written communication and TSCA reserves the right to waive of any penalty and may declare Go-Live of Data Center if desired data center services are commissioned and operational by DCO.

6.4 Service Levels –IT Infrastructure

Following section outlines the service level indicators & and the target performance levels to be maintained by the Agency during the contract period. This shall be used to track and report performance on a regular basis. These SLAs shall be strictly imposed, and a third party audit/certification agency may be deployed for certifying the performance of the Agency against the target performance metrics as outlined in the table below. The SLA will be measured on Quarterly basis.

S. No.	Items	Target	Penalties in case of breach in SLA	Remarks
1	Server and Storage Availability (including the OS running on it)	99.982%	For each 0.5 slab (lower) a penalty 0.05% on QGR shall be charged for each server.	For each component =>99.482 to <99.982 - 0.05% of QGR =>98.982 to <99.482 - 0.1% of QGR =>98.482 to <98.982 - 0.15% of QGR And so on If the uptime goes below 96.982, additional penalty of 0.1% will be charged on QGR for each slab 1% downtime.
2	Network Infrastructure Availability (Active and passive components)	99.982%	For each 0.5 slab (lower) a penalty 0.25% on QGR shall be charged for each component.	For each component =>99.482 to <99.982 - 0.25% of QGR =>98.982 to <99.482 - 0.50% of QGR =>98.482 to <98.982 - 0.75% of QGR And so on If the uptime goes below 96.982%, additional penalty of 0.5% will be charged on QGR for each slab of 1% downtime.

RFP- for Migration of Tripura State Data Center

3	Security Infrastructure Availability	99.982%	For each 0.5 slab (lower) a penalty 0.5% on QGR shall be charged for each component.	For each component =>99.482 to <99.982 - 0.5% of QGR =>98.982 to <99.482 - 1% of QGR =>98.482 to <98.982 - 1.5% of QGR And so on If the uptime goes below 96.982%, additional penalty of 1% will be charged on QGR for each slab of 1% downtime.
4	Hypervisor availability	99.982%	For each 0.5 slab (lower) a penalty 0.05% on QGR shall be charged for each server.	For each component =>99.482 to <99.982 - 0.05% of QGR =>98.982 to <99.482 - 0.1% of QGR =>98.482 to <98.982 - 0.15% of QGR And so on If the uptime goes below 96.982%, additional penalty of 0.1% will be charged on QGR for each slab 1% downtime.
5	Virtual Machine (VM) availability	99.982%	For each 0.5 slab (lower) a penalty 0.05% on QGR shall be charged for each server.	For each component =>99.482 to <99.982 - 0.05% of QGR =>98.982 to <99.482 - 0.1% of QGR =>98.482 to <98.982 - 0.15% of QGR And so on If the uptime goes below 96.982%, additional penalty of 0.1% will be charged on QGR for each slab 1% downtime.
6	Availability of DR Site	99.982%	For each 0.5 slab (lower) a penalty 0.05% on QGR shall be charged for each server.	For each component =>99.482 to <99.982 - 0.05% of QGR =>98.982 to <99.482 - 0.1% of QGR =>98.482 to <98.982 - 0.15% of QGR And so on

RFP- for Migration of Tripura State Data Center

				If the uptime goes below 96.982, additional penalty of 0.1% will be charged on QGR for each slab 1% downtime.
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Note: - No HDD/ storage system of TSDC will go out from TSDC for repairing/ replacement.

6.5 Service Levels – Physical Infrastructure related service levels

S. No	Items	Target	Penalties in case of breach in SLA	Remarks
1	Power Availability to servers, network and security equipment's	99.982%	For each 0.25 slab (lower) a penalty 0.5% on QGR shall be charged for each component.	For each component 99.482-99.732 - 0.5% of QGR 99.232-99.481- 1% of QGR 98.982-99.231- 1.5% of QGR And so on If the uptime goes below 96.982%, additional penalty of 1% will be charged on QGR for each slab of 1% downtime.
2	Repairing (Civil work or Electrical work or other minor work)	All repairs within 2 days of reporting the problem at the Help Desk	For lower Performance (i.e. more than 2 days), penalty of Rs 1000 shall be charged per day basis.	Rs.1000/- per day
		All replacements within 4 days of reporting the problem	For lower performance (i.e. more than 4 day) a penalty of Rs 1000 shall be charged for each day.	
		All emergency repairs or replacement within 12 hour of reporting the problem at the Help Desk	For lower Performance (i.e. more than 12 hours), penalty of Rs 2000 shall be charged per day basis.	Rs.2000/- per day

The SLA will be measured Quarterly basis.

6.6 Service Level – Help Desk

Sl. No.	Items	Target	Penalties in case of breach in SLA	Remarks	
1	Helpdesk	Average Resolution time of all calls within 30 minutes.	No Penalty. However if resolution time of any individual call exceeds 60 min then there will be additional charge of 0.01% on each exceeded call (As per Table B mentioned below)	If resolution time for each call exceeding 60 min then there will be additional charge of 0.01% on each exceeded call	
		Average Resolution Time more than 30 minutes for all types of calls.	Table A. – Average		30 min-35 min = 1% of QGR
			>30>=35	1% of QGR	35 min-40 min = 2% of QGR
			>35>=40	2% of QGR	> 40 min=3% of QGR
>40 min.	3% of QGR	If resolution time for each call exceeding 60 min then there will be additional charge of 0.01% on each exceeded call			
		Table B. – Individual			
		More than 60 min. (for each call)	Additional 0.01% of QGR		

6.7 Service Levels – Compliance & Reporting procedures

Sl. No.	Items	Target	Penalties in case of breach in SLA	Remarks
1	Submission of MIS Reports	Report for the previous month shall be submitted by the 3rd of the	For a delay of each one day, a penalty of Rs 1000.00 shall be charged on QG	T+1 = 1000 T+2 = 2000 And so on (T = 3rd of every month)
2	Maintenance of Inventory	100% as per the inventory log committed and maintained by DCO	DCO shall be responsible for any mismatch	

6.8 Service level for onsite Required Resources:

The selected bidder/DCO has to take written approval from the TSCA before deployment of any manpower resource (first time/ replacement) for the onsite team. TSCA at its discretion may add/remove any number of resources based on actual requirement. Any replacement of onsite manpower resource need to complete in zero (0)

day gap, else TSCA will deduct wages for non-deployed manpower resources in the onsite DCO team and TSCA will deduct penalty as per following rate,

Job role	Penalty per Working Day
Project Manager/Project In-Charge	2% of Monthly wages
DC Physical Infrastructure Administrator/Expert	2% of Monthly wages
Security Administrator/Expert (L3)	2% of Monthly wages
System Administrator/Expert (L3)	2% of Monthly wages
Network Administrator /Expert (L3)	2% of Monthly wages
Network Administrator /Expert (L2)	2% of Monthly wages
Storage Administrator/Expert	2% of Monthly wages
Database Administrator /Expert (L3)	2% of Monthly wages
Database Administrator /Expert (L2)	2% of Monthly wages
Security Administrator /Expert (L2)	2% of Monthly wages
System Administrator /Expert (L2)	2% of Monthly wages
Infrastructure Support Engineer	2% of Monthly wages
NOC Engineer	2% of Monthly wages
Helpdesk Staff	2% of Monthly wages
Infrastructure Support Staff	2% of Monthly wages
Back Office Stuff	2% of Monthly wages

6.9 SLA Compliance Requirements

The prime objective of Tripura SDC Project is to provide high-quality services / support to Tripura Govt. offices, departments and citizens. In order to ensure that required services are available round the clock, in an efficient manner, the Service Level Agreement (SLA) shall be signed between TSCA and the Successful Bidder (who will be referred as DCO thereafter). Therefore, this SLA would be the critical in implementation of this Project, as all the remuneration to the Successful Bidder shall depend on the same.

6.10 SLA review Process

- Either Client or DCO may raise an issue by documenting the business or technical problem, which requires being resolved within a stipulated timeframe
- A meeting or conference call will be conducted to resolve the issue in a timely manner.
- The Client and the DCO shall develop an interim solution, if required, and subsequently the permanent solution for the problem at hand. The DCO will then communicate the resolution to all stakeholders.

6.11 Penalties

- The total quarterly penalty deduction should not exceed 10% of quarterly payment.

Section - VII

Instruction to Bidders

Section VII: Instructions to the Bidders

7.1 Procedure for Submission of Bids

7.1.1 Download of Tender Document

The tender form can be seen and downloaded from the website <https://tripuratenders.gov.in> and also from Directorate of IT website at <https://dit.tripura.gov.in>, <https://tripura.gov.in>. The stated Tender is in e-Tender mode with built-in e-Bid and their online evaluation and can only be accessed through <https://tripuratenders.gov.in>.

7.1.2 Modes of Submission

Bidders have to submit Bid response in 4 (four) parts, post registration in <https://www.tripuratenders.gov.in>, as under:

PART-I

Tender Fee and EMD: Bidders need to submit a **tender fee** of Rs 60,000 /- (non-refundable) to be paid online in the <https://tripuratenders.gov.in> portal.

The bidders have to submit **EMD** of Rs. 60,00,000/- (Rupees Sixty Lakh only). as Bank Guarantee as per the Template at Format 5, Section IX.

Online payment of Tender Fee

Tender Fee is to be paid electronically using the Online Payment Facility provided in the Portal. For online payment of Tender Fee please follow the following process.

- a. After initiating the Bid Submission Process from "My Tender" option, an "Online Payment" page will appear which will display the total Tender Fee
- b. On submission of Tender Fee payment option, System will redirect to the SBI Bank MOPS window.
- c. SBI MOPS will have two option for Net Banking- "SBI" & "Other Banks". Bidder can choose any of the options as desired and can complete the Online Payment process.
- d. Tenders which are not accompanied by Tender fee or incomplete in any respect will be rejected out rightly.

Submission of EMD

- a. Scanned copy of Bank Guarantee for EMD is required to be mandatorily uploaded along with other document as part of Prequalification Bid. The Bank Guarantee for EMD should be valid for 180 days from the last date of submission of the bid.
- b. The Bank Guarantee instrument in Physical form has to reach TSCA, in a Sealed Envelope super-scribing the Tender Reference Number and Tender ID, to be delivered in person or by Post before the date of technical Evaluation. The Bid will not be considered for evaluation, unless the Physical Bank Guarantee is received before the date of Technical Evaluation.

RFP- for Migration of Tripura State Data Center

- c. EMD of the bidder may be forfeited if in any case found to have made in false Declaration or Claims.
- d. Bidders exempted under specific Government order/ rules from submitting EMD have to furnish Scan copy of the related Governments order/rules in English language, along with the tender in support of their claim exemption.

PART-II: Pre-qualification Bid

Pre-qualification bid response documents need to be digitally signed before uploading in the above said portal. All documents to be submitted as pre-qualification bid responses are free-format. For all the free-format documents, Bidder is expected to scan the relevant documents into PDF format (in 100 dpi scan resolution).

PART-III: Technical Bid

Complete technical details, solution, data sheet, technical specification for the item offered, Bill of Material as per templates at section V & any other relevant documents.

PART-IV: Financial Bid

Complete financial details as per BoQ

A bid submitted without the tender fee (to be submitted online) and EMD (to be submitted as Bank Guarantee) and incomplete or conditional bids shall not be considered and the same will be rejected.

7.2 Authentication of Bid

The response Bid shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. A letter of authorization shall be supported by a written Power-of-Authority accompanying the Bid. All pages of the Bid, except for un-amended printed literature, shall be initialed and stamped by the person or persons signing the Bid.

7.3 Validation of interlineations in Bid

The Bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.

7.4 Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its Bid including cost of presentation for the purposes of clarification of the Bid, if so desired by the TSCA. TSCA will in no case be responsible or liable for those costs, regardless of the outcome of the Tendering process.

7.5 Clarification on Tender Document

- A prospective Bidder requiring any clarification on the RFP Document may submit his queries, in writing, at the mailing address and as per schedule indicated in

RFP- for Migration of Tripura State Data Center

“Invitation for Bids / Key Events and Dates” in section 2.4. The queries must be submitted in the following format only to be considered for clarification:

S. No	Section No.	Clause No.	Reference/ Subject	Clarification Sought
..

The queries not adhering to the above mentioned format shall not be responded.

- TSCA will respond to any request for clarification to queries on the Tender Document, received not later than the dates prescribed in Invitation for Bids / Key events and dates. The clarifications (including the query but without identifying the source of inquiry) will be uploaded on the website (<https://www.tripuratenders.gov.in> or <https://www.dit.tripura.gov.in>)

7.6 Language of Bids

The Bids prepared by the Bidder and all correspondence and documents relating to the Bids exchanged by the Bidder and TSCA, shall be written in English language. Any printed literature furnished by the Bidder may be written in another language so long the same is accompanied by a duly attested English translation in which case, for purposes of interpretation of the Bid, the English translation shall govern.

7.7 Documents Comprising the Bids

The Bid prepared by the Bidder shall comprise the following components. The Bids not conforming to the requirements shall be summarily rejected.

- **Tender Fee and EMD:**

Bidders need to submit a **tender fee** of Rs 60,000 /- (non-refundable) to be paid online in the <https://tripuratenders.gov.in> portal.

The bidders have to submit refundable **EMD** of Rs. 60,00,000/- (Rupees Sixty Lakh only) to be submitted as Bank Guarantee (BG).

- **Pre Qualification Bid**

In support of eligibility, a Bidder must submit the following documents (besides the other requirements of the tender), original copies or attested copies, as the case may be, in the absence of which the Bid will be rejected.

- Section IX – Format 1: Pre-qualification Bid Letter
- Section IX – Format 2: General information about the Bidder
- Section IX – Format 3: Declaration regarding Clean Track Record
- Section IX – Format 4: Declaration of acceptance of Terms & Conditions in the RFP.

RFP- for Migration of Tripura State Data Center

- Section IX – Format 5: Format for Submitting Bank Guarantee as Earnest Money Deposit (EMD). Scan copy to be uploaded.
- All required document for eligibility criteria mentioned at Section-III.

• Technical Bid

The Technical Bid, besides the other requirements of the Tender, shall comprise the following:

- Section X – Format 1: Technical Bid Letter
- Section X – Format 2: Technical Solution
- Section X – Format 4: Manpower Details
- Section X – Format 5: Deviations from the Tender Terms & Conditions
- Section X – Format 6: Project Experience Details
- Section V- Bill of material
- Compliance sheet on Technical Specification of IT Components-Annexure-III
- Compliance sheet on Technical Specification of non IT Components-Annexure-VI
- All necessary data sheets and any other documents.

• Financial Bid

The Commercial Bid, besides the other requirements of the Tender, shall comprise the following:

- Filled BoQ.

To ensure a reasonable and realistic ratio of CAPEX and OPEX: a bid may be liable to be rejected after scrutiny if total CAPEX happens to be more than 60% of the overall bid value.

7.8 Bid Prices

The Bidder shall prepare the Bid based on details provided in the Tender Document. It must be clearly understood that the scope of work is intended to give the Bidder an idea about the order and magnitude of the work and is not in any way exhaustive and guaranteed by the TSCA. The Bidder shall carry out all the tasks in accordance with the requirement of the Tender Document & due diligence and it shall be the responsibility of the Bidder to fully meet all the requirements of the Tender Document. If during the course of execution of the project any revisions to the work requirements like Technical specifications, Equipment sizing etc. are to be made to meet the goals of the TSCA, all such changes shall be carried out within the current price.

7.9 Firm Prices

- Prices quoted in the Bid must be firm and final and shall not be subject to any upward modifications on any account whatsoever. However, the TSCA reserves the right to negotiate the prices quoted in the Bid to effect downward modification.

RFP- for Migration of Tripura State Data Center

- The Commercial Bid should clearly indicate the price to be charged and should include all taxes, duties, fees, levies, works contract tax and other charges as may be applicable in relation to the activities proposed to be carried out. However, should there be a change in the applicable taxes, in case taxes increases then TSCA will pay extra, in case taxes decreases TSCA will pay less.
- Prices, in any form or by any reason, should not be revealed before opening of the Commercial Bid, failing which the offer shall be liable to be rejected.

7.10 Bid Currencies

Prices shall be quoted in Indian Rupees (INR).

7.11 Bid Security (Earnest Money Deposit)

The Bidder shall submit EMD (as Bank Guarantee) of Rs. 60,00,000/- (Rupees Sixty Lakh only) as mentioned at this tender document.

The Bidder shall be disqualified in the Pre-Qualification process if the prescribed EMD is not submitted. The EMD (Bid security) of the unsuccessful Bidder/s will be discharged / returned as promptly as possible, but not later than 60 days after the issuance of Letter of Intent (LoI) to the successful Bidder. No interest will be payable by TSCA on the amount of the Bid Security.

The Bid security may be forfeited because of the following reasons:

1. If a Bidder withdraws the Bid or increases the quoted prices during the period of Bid validity, or its extended period, without the explicit consent of the department, if any; or
2. In the case of a successful Bidder, if s/he fails within specified time limit to:
 - Sign the Agreement; or
 - Furnish the required Performance Bank Guarantee (PBG)

7.12 Bid Validity Period

Period of Validity of Bids

Bids shall remain valid for 180 days after the date of opening of Bids prescribed by the TSCA. **A Bid valid for a shorter period may be rejected as non-responsive.** However, the prices finalized after opening the tenders shall not increase throughout the period of implementation and operation. The prices of components quoted in the Financial Bid by the Bidder shall remain valid for the project period.

Extension of Period of Validity

In exceptional circumstances, TSCA may request the Bidder(s) for an extension of the period of validity. The request and the responses thereto shall be made in writing (or by fax).

7.13 Withdrawal of Bids

Written Notice

The Bidder may withdraw its Bid after the Bid's submission, provided that TSCA receives written notice of the withdrawal, prior to the last date prescribed for receipt of Bids.

Signing and Marking of Notice

The Bidder's withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions said earlier. A withdrawal notice may also be sent by fax but followed by a signed confirmation copy, post marked not later than the last date for receipt of Bids.

7.14 Opening of Bids

An evaluation committee will be formed for evaluation of the bids. Decision of the committee would be final and binding upon all the Bidders. The Client will first open the Pre-Qualification Bid, next Technical Bid, next Financial Bid in the presence of the representatives of the Bidders who choose to attend, at the time, date and place, as mentioned in section 'Invitation for Bids – Key Events & Dates' (or communicated later to all qualified bidders). In the event of the specified date of Bid opening being declared a holiday for the Client, the Bids shall be opened at the appointed time and location on the next working day. Bid response details considered appropriate will be announced at the bid opening.

Bids Not Considered For Evaluation

Bids that are rejected during the Bid opening process due to incomplete documentation or late receipt shall not be considered for further evaluation.

7.15 Evaluation of Pre-Qualification Bid, Technical Bid and Commercial Bid

- A three-stage procedure will be adopted for evaluation of bids, with the pre-qualification being completed (as per pre-qualification criteria) in first stage, technical evaluation at second stage and financial evaluation at third stage.
- Technical Bids will be opened only for the Bidders who succeed the pre-qualification criterion. Technical bids will be evaluated as per technical bid evaluation criteria and a technical score will be given to the technically qualified bidders.
- The commercial Bids of only the technically qualified Bidders will be opened and evaluated as per specified criteria.
- Conditional Bids are liable to be rejected.
- The evaluation process of the Tender, proposed to be adopted by TSCA is indicated under the clauses 7.16, 7.17, 7.18 and 7.19. The purpose of these clauses is only to provide the Bidders an idea of the evaluation process that TSCA may adopt. However, TSCA reserves the right to modify the evaluation process at any time during the Tender process, without assigning any reason, whatsoever and without any requirement of intimating the Bidders of any such change.

7.16 Evaluation of Pre-Qualification Bid

- Bidders need to fulfill all the pre-qualification conditions mentioned in Pre-Qualification Criteria of the RFP. TSCA will examine the Bids to determine whether they are complete, whether the Bid format confirms to the Tender requirements, whether any computational errors have been made, whether required Tender Fee and EMD (as Bank Guarantee) have been submitted, whether the documents have been properly signed, and whether the Bids are generally in order.
- A Bid determined as not substantially responsive will be rejected by TSCA and may not subsequently be made responsive by the Bidder by correction of the nonconformity.
- The TSCA may waive any informality or non-conformity or irregularity in a Bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.
- The TSCA may at any point of time ask clarifications from the Bidders for getting more clarity of the proposal received. The clarification shall be given in writing immediately, but no change in the price shall be sought, offered or permitted.

7.17 Evaluation of Technical Bid

- After qualifying the Pre-qualification criteria, Technical Bid document will be evaluated as per the requirements specified in the RFP.
- Technical Bids of the short-listed Bidders will be reviewed to determine whether these are substantially responsive. Bids that are not substantially responsive are liable to be disqualified.
- **Technical bid evaluation will be done based on the Technical Bid Evaluation Criteria specified in the RFP. All the Bidders who score a Technical Score of (70%) or more will be declared as technically qualified.** It is, however, clarified that, subject to other provisions of this Document, every Bidder will have to comply the minimum technical specifications laid down in the RFP for being qualified technically.
- In order to assist in the examination, evaluation and comparison of Bids, TSCA may at its discretion ask the Bidder for a clarification regarding its Bid. The clarification shall be given in writing immediately, but no change in the price shall be sought, offered or permitted.
- The TSCA may request the Bidders to make a presentation on their proposal to an Evaluation Committee to be constituted for the purpose.
- The TSCA may waive any informality or non-conformity or irregularity in a Bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

7.18 Evaluation of Financial Bids

- The commercial Bids of only the technically qualified Bidders will be opened and reviewed to determine whether the commercial bids are substantially responsive.
- The commercial Bids would be evaluated as per specified criteria.
- The commercial Bids would be evaluated based on the overall price quoted.

7.19 Criteria for Final Evaluation of Bids

- The final evaluation of substantially responsive bids will be made on Quality - Cum – Cost Basis (QCBS), with a weightage to quality of services and cost in the ratio of 60:40. Calculations are as follows:

The commercial scores will be calculated as, $F_n = (F_{min}/F_b) * 100$

Where

F_n = Normalized financial score of the bidder under consideration

F_b = Evaluated cost for the bidder under consideration

F_{min} = Minimum evaluated cost among all financially qualified bidders

Evaluation of Bid - Final Evaluation

The overall final score will be calculated as, $B_n = 0.6 * T_n + 0.4 * F_n$

Where

B_n = overall score of bidder under consideration

T_n = Technical score for the bidder under consideration

F_n = Normalized financial score of the bidder under consideration

Bidder getting the maximum total score (B_n) would be considered as the successful bidder (i.e. L1 Bidder).

7.20 Rectification of Errors

Arithmetical errors in the Financial Bid will be rectified on the following basis.

- If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and will be considered for future calculations.
- If there is a discrepancy between words and figures, the amount in words shall prevail.

Note: In any other case of discrepancy, TSCA reserves the right to pick the value which it considers as beneficial to the government.

7.21 Contacting the TSCA

Contact by Writing

No Bidder shall contact TSCA on any matter relating to its Bid, from the time of Bid opening to the time the Contract is awarded. If the Bidder wishes to bring additional information to the notice of TSCA, it should be done in writing.

Rejection of Bid

Any effort by a Bidder to influence the TSCA in its decisions on Bid evaluation, Bid comparison or contract award may result in rejection of the Bidder's Bid.

7.22 Notification of Award

Notification to Bidder

Before the expiry of the period of validity of the proposal, TSCA shall notify the successful Bidder in writing by registered letter or by fax or by email, that its Bid has been accepted. The Bidder shall acknowledge in writing receipt of the notification of selection and shall send his acceptance to enter into agreement within seven (7) days of receiving the notification.

Signing of Contract

The notification of the Selection shall constitute signing of the agreement. The signing of agreement will amount to award of contract and Bidder will initiate the execution of the work as specified in the agreement. At the same time as notifies the successful Bidder that its Bid has been accepted, TSCA will send the Bidders the Proforma for Contract, incorporating all agreements between the parties. Within 7 days of receipt of the Contract, the successful Bidder shall sign and date the Contract and return it to the TSCA.

Discharge of Bid Security

Upon the successful signing of the agreement, TSCA shall promptly request the Bidder to provide performance Bank guarantee. On receipt of the performance guarantee, the Bid security of the selected Bidder will be released.

7.23 Failure to Abide by the Agreement

The conditions stipulated in the agreement shall be strictly adhered to and violation of any of the conditions will entail termination of the contract without prejudice to the rights of TSCA with such penalties as specified in the Bidding document and the Agreement.

7.24 Bank Guarantee for Contract Performance

- Within 14 days of signing Agreement, the successful Bidder shall furnish the performance security in accordance with the Terms & Conditions of Contract.
- Failure of the successful Bidder to comply with the requirement shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD. In case of exigency, if TSCA gets the work done from elsewhere, the difference in the cost of getting the work done will be borne by the successful Bidder.

7.25 Rejection Criteria

Besides other conditions and terms highlighted in the tender document, Bids may be rejected under following circumstances:

Pre Qualification Rejection Criteria

- Bids submitted without or with improper EMD (as Bank Guarantee).

RFP- for Migration of Tripura State Data Center

- Bids which do not conform to unconditional validity of the Bid as prescribed in the Tender.
- Pre-Qualification Bid containing commercial details.
- If the information provided by the Bidder is found to be incorrect / misleading at any stage / time during the Tendering Process.
- Any effort on the part of a Bidder to influence the Bid evaluation, Bid comparison or contract award decisions.
- Bids received by TSCA after the last date prescribed for receipt of Bids.
- Bids without signature of person (s) duly authorized on required pages of the Bid
- Bids without power of authorization and any other document consisting of adequate proof of the ability of the signatory to bind the Bidder.
- Failure to furnish proofs for information provided

Technical Rejection Criteria

- Technical Bid containing commercial details.
- Revelation of Prices in any form or by any reason before opening the Commercial Bid.
- Failure to furnish all information required by the RFP Document or submission of a Bid not substantially responsive to the Tender Document in every respect.
- Failure to furnish proofs for information provided
- Bidders not quoting for the complete scope of Work as indicated in the Tender documents, addendum (if any) and any subsequent information given to the Bidder.
- Bidders not complying with the Technical and General Terms and conditions as stated in the RFP Documents.
- The Bidder not conforming to unconditional acceptance of full responsibility of providing services in accordance with the Scope of work and Service Level Agreements of this tender.
- If the Bid does not confirm to the timelines indicated in the Bid.

Commercial Rejection Criteria

- Incomplete Price Bid
- Price Bids that do not conform to the Tender's price Bid format.
- Total price quoted by the Bidder does not include all statutory taxes and levies applicable.

7.26 Concessions permissible under statutes

Bidder, while quoting against this tender, must take cognizance of all concessions permissible under the statutes including the benefit under Central Sale Tax Act, 1956, failing which it will have to bear extra cost where Bidder does not avail concessional rates of levies like customs duty, excise duty, sales tax, etc. TSCA will not take any responsibility towards this. However, TSCA may provide necessary assistance, wherever possible, in this regard.

7.27 Income Tax Liability

The Bidder will have to bear all Income Tax liability both corporate and personal tax.

7.28 GST Liability

The Bidder will have to bear all GST

Section - VIII

General Conditions of Contract

Section VIII General Condition of Contract

8.1 Definitions

In this Contract, the following terms shall be interpreted as indicated:

8.1.1 “Business Day” means any day that is not a Sunday or a public holiday (as per the official holidays observed by Tripura Government.

8.1.2 “Confidential Information” means any information disclosed to or by any Party to this Contract and includes any information in relation to the Parties, a third party or any information with regard to any other stake holder who is covered within the ambit of this Contract , that the Information:

8.1.2.1 is by its nature confidential or by the circumstances in which it is disclosed confidential or

8.1.2.2 is designated by the disclosing Party as confidential or identified in terms connoting its confidentiality;

8.1.2.3 but does not include information which is or becomes public knowledge other than by a breach of this Contract.

8.1.3 “Contract” means the Agreement entered into between the TSCA and the “DCO” as recorded in the Contract form signed by the TSCA and the “Implementation Agency” including all attachments and Annexes thereto, the Tender and all Annexes thereto and the agreed terms as set out in the bid, all documents incorporated by reference therein and amendments and modifications to the above from time to time;

8.1.4 “Implementation Agency’s Representative” means the person or the persons appointed by the DCO from time to time to act on its behalf for overall coordination, supervision and project management.

8.1.5 “Document” means any embodiment of any text or image however recorded and includes any data, text, images, sound, voice, codes or and databases or microfilm or computer generated micro fiche.

8.1.6 “Effective Date” means the date on which this Contract is signed and executed by the parties hereto. If this Contract is executed in parts, then the date on which the last of such Contracts is executed shall be construed to be the Effective Date;

8.1.7 “Intellectual Property Rights” means any patent, copyright, trademark, trade name, design, trade secret, permit, service marks, brands, propriety information, knowledge, technology, licenses, databases, computer programs, software, know how or other form of intellectual property right, title, benefits or interest whether arising before or after the execution of this Contract and the right to ownership and registration of these rights.

8.1.8 “Kick off Meeting” means a meeting convened by the Client to discuss and finalize the work execution plan and procedures with Implementation Agency.

8.1.9 “Data Centre Operator Team” means the successful Bidder who has to provide services to the Client under the scope of this Tender / Contract. This definition shall also include any and/or all of the employees of Bidder, their

authorized agents and representatives and approved Sub-Implementation Agency or other personnel employed or engaged either directly or indirectly by the DCO for the purposes of the Contract.

- 8.1.10 “Parties”** means the Client and the DCO and “Party” means either of the Parties.
- 8.1.11 “Service”** means facilities/services to be provided as per the requirements specified in this tender document and any other incidental services, such as installation, implementation, maintenance, and provision of technical assistance and other such obligations of the DCO covered under the Contract.
- 8.1.12 “Service Specification”** means and include detailed description, statements to technical data, performance characteristics, and standards (Indian as well as) as applicable and as specified in the Contract as well as those specifications relating to Industry standards and codes applicable to the performance of the work, work performance quality and the specifications affecting the works or any additional specification required to be produced by the DCO to meet the design criteria.
- 8.1.13 “Site”** means the entire Data Centre Area including Server Area, NOC Area, Staging Area, Media, Accessories Room and other auxiliary areas as approved by the Client for the purposes of the contract wherein the operations/services/facilities as specified in the scope of work are to be provided/ carried out.
- 8.1.14 “The Contract Price/Value”** means the price payable to the DCO under the Contract for the full and proper performance of its contractual obligations.
- 8.1.15 “TSCA”** shall mean Client and shall include its legal representatives, successors and permitted assignees.
- 8.1.16 “Client’s Representative”** shall mean the person appointed by the Client from time to time to act on its behalf at the site for overall coordination, supervision and project management at site.

8.2 Interpretation

In this Contract unless a contrary intention is evident:

- 8.2.1 The clause headings are for convenient reference only and do not form part of this Contract;
- 8.2.2 Unless otherwise specified a reference to a clause number is a reference to all of its sub-clauses;
- 8.2.3 Unless otherwise specified a reference to a clause, sub-clause or section is a reference to a clause, sub-clause or section of this Contract including any amendments or modifications to the same from time to time;
- 8.2.4 A word in the singular includes the plural and a word in the plural includes the singular;
- 8.2.5 A word importing a gender includes any other gender;
- 8.2.6 A reference to a person includes a partnership and a body corporate;
- 8.2.7 A reference to legislation includes legislation repealing, replacing or amending that legislation;
- 8.2.8 Where a word or phrase is given a particular meaning it includes the appropriate grammatical forms of that word or phrase which have corresponding meanings.

8.2.9 In the event of an inconsistency between the terms of this Contract and the Tender and the Bid, the terms hereof shall prevail.

8.3 Conditions Precedent

This Contract is subject to the fulfilment of the following conditions precedent by the Implementation Agency.

8.3.1 Obtaining of all statutory and other approvals required for the performance of the Services under this Contract.

8.4 Representations & Warranties

In order to induce the Client to enter into this Contract, the DCO hereby represents and warrants as of the date hereof, which representations and warranties shall survive the term and termination here of the following:

8.4.1 That the DCO has the requisite experience in providing Data Centre site operation and maintenance services, the technical know-how and the financial wherewithal, the power and the authority that would be required to successfully provide the Services sought by the Client for the purposes of this Contract.

8.4.2 That the DCO is not involved in any major litigation or legal proceedings, pending, existing and potential or threatened that may have an impact of affecting or compromising the performance or delivery of Services under this Contract.

8.4.3 That the representations and warranties made by the DCO in the bid or will be made in this contract are and shall continue to remain true and fulfill all the requirements as are necessary for executing the obligations and responsibilities as laid down in the Contract and the Tender and unless the Client specifies to the contrary, the DCO shall be bound by all the terms of the Bid and the contract through the term of the contract.

8.4.4 That the DCO has the professional skills, personnel and resources/authorizations that are necessary for providing all such services as are necessary to fulfill the Scope of Work stipulated in the Tender and this Contract.

8.4.5 That there shall not be any privilege, claim or assertion made by a third party with respect to right or interest in ownership, mortgage or disposal of any asset, property, movable or immovable as mentioned in any Intellectual Property Rights licenses and permits.

8.4.6 That the DCO shall use such assets of the Client as the Client may permit for the sole purpose of execution of its obligations under the terms of the Bid, Tender or this Contract. The DCO shall however have no claim to any right, title, lien or other interest in any such property and any possession of property for any duration whatsoever shall not create any right in equity or otherwise merely by fact of such use or possession during or after the term hereof.

8.4.7 That the DCO shall procure all the necessary permissions and adequate approvals and licenses for use of various software and any copyrighted process/product free from all claims, titles, interests and liens thereon and shall keep the Client indemnified in relation thereto.

RFP- for Migration of Tripura State Data Center

- 8.4.8 That the execution of the Services and the Scope of work herein are and shall be in accordance and in compliance with all applicable laws.
- 8.4.9 That all conditions precedent under the Contract has been satisfied.
- 8.4.10 That neither the execution and delivery by the DCO of the Contract nor the Implementation Agency's compliance with or performance of the terms and provisions of the Contract (i) will contravene any provision of any Applicable Law or any order, writ, injunction or decree of any court or Governmental Authority binding on the Implementation Agency, (ii) will conflict or be inconsistent with or result in any breach of any or the terms, covenants, conditions or provisions of, or constitute a default under any Contract, Contract or instrument to which the DCO is a party or by which it or any of its property or assets is bound or to which it may be subject or (iii) will violate any provision of the Memorandum and Articles of Association of the Implementation Agency.
- 8.4.11 That the DCO certifies that all registrations, recordings, filings and notarizations of the Contract and all payments of any tax or duty, including without limitation stamp duty, registration charges or similar amounts which are required to be effected or made by the DCO which is necessary to ensure the legality, validity, enforceability or admissibility in evidence of the Contract have been made.
- 8.4.12 That the DCO owns, license to use or otherwise has the right to use, in all its Intellectual Property Rights, which are required or desirable for performance of its services under this contract and regarding the same the DCO does not, so far as the DCO is aware, in carrying on its business and operations, infringe any Intellectual Property Rights of any person or third party. So far as the DCO is aware, none of the Intellectual Property Rights, owned or enjoyed by the DCO or which the DCO is licensed to use, which are material in the context of Implementation Agency's business and operations for the performance of this contract are being infringed nor, so far as the DCO is aware, is there any infringement or threatened infringement of those Intellectual Property Rights licensed or provided to the DCO by any person. All Intellectual Property Rights (owned by the DCO or which the DCO is licensed to use) required by the DCO for the performance of the contract are valid and subsisting. All actions (including registration, payment of all registration and renewal fees) required to maintain the same in full force and effect have been taken thereon and shall keep the Client indemnified in relation thereto.
- 8.4.13 That time is the essence of the Contract and hence the DCO shall at all times maintain sufficient manpower, resources, and facilities, to provide the Services in a workmanlike manner on a timely basis.
- 8.4.14 That its security measures, policies and procedures are adequate to protect and maintain the confidentiality of the Confidential Information.
- 8.4.15 That in providing the Services or deliverables or materials, neither DCO nor its agent, nor any of its employees, shall utilize information which may be considered confidential information of or proprietary to any prior employer or any other person or entity.

8.5 Scope of work/contract

- 8.5.1 Scope of the CONTRACT shall be as defined in this CONTRACT, Scope of work including specifications and drawings and the Service level agreement and annexes thereto of this tender.
- 8.5.2 Client has engaged the DCO for design, supply, installation and configuration of Network, Security, Server, Storage, Backup, Application Migration, DR, Cloud, gap non-IT Infrastructure at new Data Centre (DC) of TSDC at new IT Bhavan building, Agartala and it's Operation and Maintenance . The DCO is required to provide such services, support and infrastructure as necessary during the term of this Contract and includes all such processes and activities which are consistent with the proposals set forth in the Bid, the Tender and this Contract and are deemed necessary by the Client in order to meet its business requirements (hereinafter 'scope of work').
- 8.5.3 If any services, functions or responsibilities not specifically described in this Contract are an inherent, necessary or customary part of the Services are required for proper performance or provision of the Services in accordance with this Contract, they shall be deemed to be included within the scope of the work to be delivered for the Charges, as if such services, functions or responsibilities were specifically described in this Contract.
- 8.5.4 The Client reserves the right to amend any of the terms and conditions with mutual agreement in relation to the Scope of Work and may issue any such directions which are not necessarily stipulated therein if it deems necessary for the fulfillment of the Scope of Work.

8.6 Duration of the contract

The CONTRACT shall remain valid from the agreement effect date and upto 5 (Five) years from the date of FAT/Go-Live. However, TSCA reserves the right to extend the contract for further period.

8.7 Contract Performance Guarantee

Within 14 days after the signing of Contract the successful Bidder shall furnish Contract Performance Guarantee to the Client which shall be equal to 10% of the value of the Contract and shall be in the form of a Bank Guarantee Bond from a Nationalized Bank/Scheduled Commercial Bank in the Performa given at Annexure-II.

8.8 DCO Obligations

- 8.8.1 The DCO would be required to design, supply, install and configure Network, Security, Server, Application Migration, gap non-IT Infrastructure at new Data Centre (DC) of TSDC and maintain and manage facilities. It will be the DCO's responsibility to ensure compliance to the requirements of the TSDC and continued operation of the Data Centre in accordance with and in strict adherence to the terms of this Bid, the Tender and this Contract.
- 8.8.2 In addition to the aforementioned, the DCO shall:

RFP- for Migration of Tripura State Data Center

- 8.8.2.1 Perform the Services specified by the Client and make available the necessary equipment / facilities / services/ documents as may be necessary and other ‘Scope of work’ requirements as specified in the tender and changes thereof.
- 8.8.2.2 The DCO shall ensure that his team is competent, professional and possesses the requisite qualifications and experience appropriate to the task they are required to perform under this Contract. The DCO shall ensure that the Services are performed in accordance with the terms hereof and to the satisfaction of the Client. Nothing in this Contract relieves the DCO from its liabilities or obligations under this Contract to provide the Services in accordance with the Client directions and requirements and as stated in this Contract and the Bid to the extent accepted by the Client and the DCO shall be liable for any non-performance, non-compliance, breach or other loss and damage resulting either directly or indirectly by or on account of its Team.
- 8.8.3 The DCO’s representative shall have all the powers requisite for the performance of services under this contract. The DCO’s representative shall liaise with the Client’s Representative for the proper coordination and timely completion of the works and on any other matters pertaining to the works. DCO will extend full co-operation to Client’s Representative in the manner required by them for supervision / inspection / observation of the Data Centre facilities, equipment/material, procedures, performance, reports and records pertaining to the works. DCO shall also have complete charge of its personnel engaged in the performance of the works and to ensure internal discipline, compliance of rules, regulations and safety practice. DCO shall also co-ordinate and co-operate with the other Service Providers / Vendors / consultants / other agencies / Government Departments of the Client working at the Site/offsite for activities related to planning, execution of scope of work and providing services under this contract.

8.9 Reporting Progress:

- 8.9.1 DCO shall monitor progress of all the activities specified in the contract and submit free of cost daily/weekly/ monthly/(as required by the client) progress report about various aspect of the work to the Client. The Client on mutual agreement between both parties may change the periodicity of such reports. Extracts of the progress report to be termed, as “Executive Summary” shall be submitted in 3 copies, along with 3 copies of monthly progress report. The same is required to be submitted in soft copy as well. Formats for such reporting shall be provided by TSCA.
- 8.9.2 The Data Centre facilities / services and/or labour to be provided by the DCO under the Contract and the manner and speed of execution and maintenance of the work are to be conducted in a manner to the satisfaction of Client’s Representative in accordance with the Contract. Should the rate of progress of the work compliance to the requirements of the Data Centre/its facilities or any part of them at any time fall behind the stipulated time for completion or is found to be too slow to ensure completion of the works or insufficient for satisfactory

operation of the Data Centre the Client's Representative shall so notify the DCO in writing.

- 8.9.3 The DCO shall reply to the written notice giving details of the measures he proposes to take to expedite the progress so as to complete the works by the prescribed time. The DCO shall not be entitled to any additional payment for taking such steps. If at any time it should appear to the Client or Client's Representative that the actual progress of work does not conform to the approved programme the DCO shall produce at the request of the Client's Representative a revised programme showing the modification to the approved programme necessary to ensure completion of the works within the time for completion or steps initiated to ensure compliance/improvement to the stipulated requirements
- 8.9.4 In case DCO services do not meet the desired requirements, DCO shall deploy extra manpower, resources, infrastructure to make up the progress or to meet the requirements. Programme for deployment of extra man power/ resources/ infrastructure will be submitted to the Client for its review and approval, which approval shall not be unreasonably withheld. All time and cost effect in this respect shall be borne by the DCO unless otherwise expressly provided in the Contract.

8.10 Knowledge of Site Conditions:

- 8.10.1 The DCO's undertaking of this Contract shall be deemed to mean that the DCO possesses the knowledge of all Tripura State Data Centre, DC related requirements as stipulated in the RFP Document including but not limited to environmental, demographic and physical conditions and all criteria required to provide O&M services to the Tripura State Data Centre.
- 8.10.2 The DCO shall be deemed to have understood the requirements and have satisfied himself with the data contained in the Bidding Documents, the quantities and nature of the works and materials necessary for the completion of the works, etc. and in-general to have obtained himself all necessary information of all risks, contingencies and circumstances affecting his obligations and responsibilities therewith under the Contract and his ability to perform it. However, if DCO detects any obstructions affecting the work, the DCO shall take all measures to overcome them.
- 8.10.3 DCO shall be deemed to have satisfied himself as to the correctness and sufficiency of the Contract Price for the works. The consideration provided in the Contract for the DCO undertaking the works shall cover all the Implementation Agency's obligation and all matters and things necessary for proper execution and maintenance of the works in accordance with the Contract and for complying with any instructions which the Client's Representative may issue in accordance with the connection therewith and of any proper and reasonable measures which the DCO takes in the absence of specific instructions from the Client's Representative.

8.11 Data Centre Operator Team

- 8.11.1 The DCO shall supply to the Client 5 (five) days prior to the effective date of commencement of works/services or kick-off meeting whichever is earlier, an organization chart showing the proposed organization/manpower to be established by the DCO for execution of the work/facilities including the identities and Curriculum-Vitae of the key personnel to be deployed. The DCO shall promptly inform the Client in writing of any revision or alteration of such organization charts.
- 8.11.2 The DCO shall be responsible for the deployment, transportation, accommodation and other requirements of all its employees required for the execution of the work and for all costs/charges in connection thereof.
- 8.11.3 The DCO shall provide and deploy manpower on the Site for carrying out the work, only those manpower resources who are skilled and experienced in their respective trades and who are competent to execute or manage/supervise the work in a proper and timely manner.
- 8.11.4 The Client appointed representative may at any time object to and require the DCO to remove forthwith from the site a supervisor or any other authorized representative or employee of the DCO or any person(s) deployed by DCO or his sub-Implementation Agency, if in the opinion of the Client's Representative the person in question has mis-conducted himself or his deployment is otherwise considered undesirable by the Client's Representative the DCO shall forthwith remove and shall not again deploy the person in question of the work site without the written consent of the Client's Representative.
- 8.11.5 The Client's Representative may at any time request the DCO to remove from the work / Site the DCO's employees/supervisor or any other authorized representative including any employee of the DCO or his sub-Agency or any person(s) deployed by DCO or his sub-Agency for professional incompetence or negligence or for being deployed for work for which he is not suited. The DCO shall consider the representative's request and may accede to or disregard it. The Client's Representative having made a request as aforesaid in the case of any person which the DCO has disregarded, may in the case of the same person at any time but on a different occasion and for a different instance of one of the reasons referred to above in this Clause object to and require the DCO to remove that person from deployment on the work which the DCO shall then forthwith do and shall not again deploy any person so objected to on the work or on the sort of work in question (as the case may be) without the written consent of the Client's Representative.
- 8.11.6 The Client Representative shall state to the DCO in writing his reasons for any request or requirement pursuant to this clause.
- 8.11.7 The DCO shall maintain backup personnel and shall promptly provide replacement of every person removed pursuant to this section with an equally competent substitute from the pool of backup personnel.
- 8.11.8 In case of change in its team composition owing to attrition the DCO shall ensure a reasonable amount of time-overlap in activities to ensure proper knowledge

RFP- for Migration of Tripura State Data Center

transfer and handover/takeover of documents and other relevant materials between the outgoing and the new member. The exiting team member should be replaced with an equally competent substitute from the pool of backup personnel.

8.12 Statutory Requirements

- 8.12.1 During the tenure of this Contract nothing shall be done by the DCO in contravention of any law, act and/ or rules/regulations, there under or any amendment thereof governing inter-alia customs, stowaways, foreign exchange etc. and shall keep TSCA indemnified in this regard
- 8.12.2 The DCO and their personnel/representative shall not alter / change / replace any hardware component proprietary to the TSCA and/or under warranty or AMC of third party without prior consent of the TSCA.
- 8.12.3 The DCO and their personnel/representative shall not, without consent of the TSCA, install any hardware or software not purchased / owned by the TSCA.

8.13 Contract Administration

- 8.13.1 Either party may appoint any individual / organization as their authorized representative through a written notice to the other party. Each representative shall have the authority to:
- 8.13.1.1 Exercise all of the powers and functions of his/her Party under this Contract other than the power to amend this Contract and ensure the proper administration and performance of the terms hereof and
 - 8.13.1.2 Bind his or her Party in relation to any matter arising out of or in connection with this Contract
- 8.13.2 The DCO shall be bound by all undertakings and representations made by the authorized representative of the DCO and any covenants stipulated hereunder with respect to this Contract for and on their behalf
- 8.13.3 For the purpose of execution or performance of the obligations under this Contract the TSCA's Representative would act as an interface with the nominated representative of the SI. The DCO shall comply with any instructions that are given by the TSCA's Representative during the course of this Contract in relation to the performance of its obligations under the terms of this Contract and the Tender
- 8.13.4 A Committee comprising representatives from the TSCA and the DCO shall meet on a monthly basis during implementation period and quarterly basis during O&M period to discuss any issues / bottlenecks being encountered. The DCO shall draw the minutes of these meetings and circulate to the TSCA.

8.14 Right of Monitoring, Inspection and Periodic Audit

- 8.14.1 The TSCA reserves the right to inspect by itself or through a Third Party agency and monitor/assess the progress / performance/ maintenance of the SDC

RFP- for Migration of Tripura State Data Center

components at any time during the course of the Contract, after providing due notice to the SI. The TSCA may demand any document, data, material or any other information which it may require to enable it to assess the progress of the project.

- 8.14.2 The TSCA shall also have the right to conduct, either itself or through another Third Party as it may deem fit, an audit to monitor the performance by the Third Party of its obligations/functions in accordance with the standards committed to or required by the TSCA. The DCO undertakes to cooperate with and provide to the TSCA / any other DCO appointed by the TSCA, all documents and other details as may be required by them for this purpose. Any deviations or contravention identified as a result of such audit/assessment would need to be rectified by the DCO failing which the TSCA may without prejudice to any other rights that it may have issue a notice of default.

8.15 TSCA's Obligations

- 8.15.1 The TSCA's Representative shall interface with the DCO to provide the required information, clarifications, and to resolve any issues as may arise during the execution of the Contract. TSCA shall provide adequate cooperation in providing details assisting with coordinating and obtaining of approvals from various governmental agencies, in cases, where the intervention of the TSCA is proper and necessary.
- 8.15.2 TSCA shall ensure that timely approval is provided to the DCO, where deemed necessary.
- 8.15.3 The TSCA shall approve all such documents as per the above Clause.

8.16 Information Security

- 8.16.1 The DCO shall not carry and/or transmit any material, information, layouts, diagrams, storage media or any other goods/material in physical or electronic form, which are proprietary to or owned by the TSCA, out of State Data Centre premises without prior written permission from the TSCA.
- 8.16.2 The DCO shall adhere to the Information Security policy developed by the TSCA.
- 8.16.3 DCO acknowledges that TSCA business data and other TSCA proprietary information or materials, whether developed by TSCA or being used by TSCA pursuant to a license agreement with a third party (the foregoing collectively referred to herein as "proprietary information") are confidential and proprietary to TSCA and DCO agrees to use reasonable care to safeguard the proprietary information and to TSCA prevent the unauthorized use or disclosure thereof, which care shall not be less than that used by DCO to protect its own proprietary information. DCO recognizes that the goodwill of TSCA depends, among other things, upon DCO keeping such proprietary information confidential and that unauthorized disclosure of the same by DCO could damage TSCA and that by

RFP- for Migration of Tripura State Data Center

reason of SI's duties hereunder. DCO may come into possession of such proprietary information even though DCO does not take any direct part in or furnish the services performed for the creation of said proprietary information and shall limit access thereto to employees with a need to such access to perform the services required by this agreement. DCO shall use such information only for the purpose of performing the said services.

8.16.4 DCO shall, upon termination of this agreement for any reason or upon demand by TSCA, whichever is earliest return any and all information provided to DCO by TSCA including any copies or reproductions, both hard copy and electronic

8.17 Ownership of Equipment

The TSCA shall own all the equipment, Licenses and any solution supplied by the DCO arising out of or in connection with this Contract

8.18 Risk Management

DCO shall at his own expense adopt suitable Risk Management methodology to mitigate all risks assumed by the DCO under this Contract. DCO shall underwrite all the risk related to its personnel deputed under this Contract as well as equipment and components of the DC, tools and any other belongings of the DCO or their personnel during the entire period of their engagement in connection with this Contract and take all essential steps to reduce and mitigate the risk. TSCA will have no liability on this account.

Further, the hosted applications and data in TSDC is very vital asset for TSCA. DCO should at his own cost adopt suitable Risk Management methodology to mitigate any risk of damage/loss of application and data during migration. DCO should be responsible for any loss/compromise or damage to Data Center's application and data and should ensure smooth uninterrupted transition across all the applications.

8.19 Indemnity

8.19.1 The DCO shall execute and furnish to the TSCA a Deed of Indemnity in favour of the TSCA in a form and manner acceptable to the TSCA, indemnifying the TSCA from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during and after the Contract period out of:

8.19.1.1 Any negligence or wrongful act or omission by the DCO or the Implementation Agency's Team / or any third party in connection with or incidental to this Contract; or

8.19.1.2 A breach of any of the terms of the Implementation Agency's Bid as agreed, the Tender and this Contract by the Implementation Agency, the Implementation Agency's Team or any third party

The indemnity shall be to the extent of 100% in favour of the TSCA.

8.20 Confidentiality

- 8.20.1 The DCO shall not use any Information, name or the logo of the TSCA except for the purposes of providing the Service as specified under this contract;
- 8.20.2 The DCO may only disclose Information with the prior written consent of the TSCA to a member of the SI's Team ("Authorized Person") if the Authorized Person is obliged to use it only for the performance of obligations under this contract.
- 8.20.3 The DCO shall do everything reasonably possible to preserve the confidentiality of the Information including execution of a confidentiality agreement to the satisfaction of the TSCA.
- 8.20.4 The DCO shall sign a Non Disclosure Agreement (NDA) with the TSCA. The Implementation Agency, its antecedents shall be bound by the NDA. The DCO will be held responsible for any breach of the NDA by its antecedents or delegates.
- 8.20.5 The DCO shall notify the TSCA promptly if it is aware of any disclosure of the Information otherwise than as permitted by this Contract or with the authority of the TSCA.
- 8.20.6 The DCO shall be liable to fully recompense the TSCA for any loss of revenue arising from breach of confidentiality. TSCA reserves the right to adopt legal proceedings, civil or criminal, against the DCO in relation to a dispute arising out of breach of obligation by the DCO under this clause.
- 8.20.7 The DCO shall not take away or remove in whatever manner any information on any media like but not limited to Digital Drives, CDs, DVDs, email etc from TSDC without the specific written permission of TSCA. SI, if required, shall take specific permission for each such event.
- 8.20.8 The DCO shall not use any information which might have come to its knowledge in whatever manner during the discharge of its obligation under the contract for any purpose except strictly for discharging his obligation under the contract and no more.

8.21 Term and Extension of the Contract

- 8.21.1 The term of this Contract shall be for a period as indicated in the contract and contract shall come to an end on expiry of such period except when its term is extended by TSCA.
- 8.21.2 The TSCA shall reserve the sole right to grant any extension to the term mentioned above on mutual agreement including fresh negotiations on terms and conditions

8.22 Prices

Prices quoted must be firm and shall not be subject to any upward revision on any account whatsoever throughout the period of contract. Client however reserves the right

RFP- for Migration of Tripura State Data Center

to review and negotiate the charges payable to incorporate downward revisions as applicable and necessary.

8.23 Change Orders/Alteration/Variation

The DCO agrees that the Data Centre O&M requirements given in this RFP are minimum requirements and are in no way exhaustive and guaranteed by the TSCA. It shall be the responsibility of the DCO to meet all the requirements and shall not constitute a change order and shall be carried out without a change order and shall be carried out without any time and cost effect to TSCA. Any upward revision and/or additions consequent to errors, omissions, ambiguities, discrepancies in the specification which the DCO had not brought out to the TSCA notice in his tender shall not constitute a change order and such upward revisions and/or addition shall be carried out by DCO without any time and cost effect to TSCA.

Change Order

- The change order will be initiated only in case-
 - (i) the TSCA directs in writing the DCO to include any addition to the Scope of Work covered under this Contract or delete any part of the scope of the work under the Contract
 - (ii) DCO requests to delete any part of the work which will not adversely affect the operational capabilities of the facilities and if the deletions proposed are agreed to by the TSCA and for which cost and time benefits shall be passed on to the TSCA.
- Any change order comprising an alteration which involves change in the cost of the works (which sort of alteration is hereinafter called a “Variation”) shall be the Subject of an amendment to the Contract by way of an increase or decrease in the Contract Price and adjustment of the implementation schedule, if any.
- However if any deviation / alteration/ variation is proposed by TSCA, then an increase of maximum 25% of total contract value will be allowed.

Procedures for Change Order

- The representatives of both the parties will discuss on the new requirement for better understanding and to mutually decide whether such requirement constitutes a change order or not
- If it is mutually agreed that such Requirement constitutes a “Change Order” then a joint memorandum will be prepared and signed by the DCO and TSCA to confirm a “Change Order” and basic ideas of necessary agreed arrangement
- Upon completion of the study referred to above Clause, the results of this study along with all relevant details including the estimated time and cost effect thereof with supporting documents would be submitted to the TSCA to enable the TSCA to give a final decision whether DCO should proceed with the change order or not in the best interest of the works. The estimated cost and time impact indicated by DCO

RFP- for Migration of Tripura State Data Center

shall be considered as a ceiling limit and shall be provisionally considered for taking a decision to implement change order. The time impact applicable to the Contract shall be mutually agreed, subsequently, on the basis of the detailed calculations supported with all relevant back up documents. In case DCO fails to submit all necessary substantiation/calculations and back up documents, the decision of the TSCA regarding time and cost impact shall be final and binding on the DCO

- If TSCA accepts the implementation of the change order under Clause mentioned above in writing, which would be considered as change order then DCO shall commence to proceed with the relevant work stipulated in the change order pending final agreement between the parties with regard to adjustment of the Contract Price and the Construction Schedule

Conditions for extra work/change order

- The provisions of the Contract shall apply to extra work performed as if the Extra work / Change order has been included in the original Scope of work. However, the Contract Price shall increase / decrease and the Time Schedule shall be adjusted on account of the Extra work / Change orders as may be mutually agreed. The SI's obligations with respect to such work remain in accordance with the Contract

8.24 Suspension of Work

8.24.1 The DCO shall, if ordered in writing by the TSCA's Representative, temporarily suspend the works or any part thereof for such a period and such a time as ordered. The DCO shall not be entitled to claim compensation for any loss or damage sustained by him by reason of temporary suspension of the Works as aforesaid. An extension of time for completion corresponding with the delay caused by any such suspension of the works as aforesaid shall be granted to the DCO, if request for same is made and that the suspension was not consequent to any default or failure on the part of the DCO. In case the suspension of works is not consequent to any default or failure on the part of the DCO and lasts for a period of more than 2 months, the DCO shall have the option to request the TSCA to terminate the Contract with mutual consent.

8.24.2 In the event that the TSCA suspends the progress of work for any reason not attributable to the DCO for a period in excess of 30 days in aggregate, rendering the DCO to extend his performance guarantee then TSCA shall bear only the cost of extension of such Bank Guarantee for such extended period restricted to the normal bank rates as applicable in the international banking procedures subject to the DCO producing the requisite evidence from the bank concerned.

8.25 Completion of Contract

Unless terminated earlier, the Contract shall terminate on the completion of term as specified in the Contract

8.26 Payment Schedule

- The fee amount will be equal to the amount specified in *Format for Tender Response – Commercial Bid*

Payments will be released only on satisfactory acceptance of the deliverables for each Task as per the following schedule:

Payment Schedule

Sl No	Payment schedule	Fee payable
1	Successful FAT & Golive	80% of the Capex
2	Operation and Maintenance Charges to be paid on Quarterly basis.	5% (per quarter) of the OPEX for Operation and Management (O&M) for 5 years and 1% of Capex.

- The amount of the Quarterly Guaranteed Revenue (QGR) for O&M will be paid after raising invoices at the end of each quarter. While making QGR payment the applicable penalties shall be deducted as per SLA applicable.

8.27 Events of Default by the Implementation Agency

- The failure on the part of the DCO to perform any of its obligations or comply with any of the terms of this Contract shall constitute an Event of Default. The events of default as mentioned above may include, but not limited to, inter alia, the following also:
 - The DCO has failed to perform any instructions or directives issued by the TSCA which it deems proper and necessary to execute the scope of work under the Contract; or
 - The DCO has failed to adhere to any of the key performance indicators as laid down in the Key Performance Measures / Contract or if the DCO has fallen short of matching such standards/targets as the TSCA may have designated with respect to any task necessary for the execution of the scope of work under this Contract. The above mentioned failure on the part of the DCO may be in terms of failure to adhere to timelines, specifications, requirements or any other criteria as defined by the TSCA; or
 - The DCO has failed to remedy a failure to perform its obligations in accordance with the specifications issued by the TSCA despite being served with a default notice which laid down the specific deviance on the part of the DCO to comply with any stipulations or standards as laid down by the TSCA; or
 - DCO Team has failed to conform with any of the Service / Facility Specifications / Standards as set out in the Scope of Work of this Tender Document or has failed to adhere to any amended direction, modification or clarification as issued by TSCA during the term of this Contract and which TSCA deems proper and necessary for the execution of the Scope of Work under this Contract; or

RFP- for Migration of Tripura State Data Center

- The DCO has failed to demonstrate or sustain any representation or warranty made by it in this Contract with respect to any of the terms of its Bid or the Tender and this Contract; or
- There is a proceeding for bankruptcy, insolvency, winding up or there is an appointment of receiver, liquidator, assignee, or similar official against or in relation to the SI; or
- DCO Team has failed to comply with or is in breach or contravention of any applicable laws

Where there has been an occurrence of such defaults inter alia as stated above, TSCA shall issue a notice of default to the SI, setting out specific defaults / deviances / omissions and providing a notice of Sixty (60) days to enable such defaulting party to remedy the default committed.

8.28 Consequences in Event of Default

- Where an Event of Default subsists or remains uncured beyond permissible or reasonable time, the TSCA may/shall be entitled to the following:
 - For cases where permissible time is not indicated in the contract, TSCA will decide, at its discretion, the quantum of reasonable time to cure the default
 - TSCA may impose any such obligations and conditions and issue any clarifications as may be necessary to inter-alia ensure smooth continuation of Services and the project which the DCO shall be obliged to comply with. This may include unilateral re-determination of the consideration payable to the DCO hereunder. The DCO shall, in addition, take all available steps to minimize loss resulting from such event of default
- The TSCA may by a written notice of suspension to the DCO, suspend all payments to the DCO under the Contract provided that such notice of suspension:
 - Shall specify the nature of the failure, and
 - Shall request the DCO to remedy such failure within a specified period from the date of receipt of such notice of suspension by the SI.
- The TSCA reserves the right to terminate the contract with 30 days' notice.

8.29 Termination of the Contract

- Retain such amounts from the payment due and payable by the TSCA to the DCO as may be required to offset any losses caused to the TSCA as a result of such event of default and the DCO shall compensate the TSCA for any such loss, damages or other costs, incurred by the TSCA in this regard. Nothing herein shall effect the continued obligation of other members of its Team to perform all their obligations and responsibilities under this Contract in an identical manner as were being performed before the occurrence of the default

RFP- for Migration of Tripura State Data Center

- Invoke the Performance Bank Guarantee and other Guarantees furnished hereunder, enforce the Deed of Indemnity, recover such other costs/losses and other amounts from the DCO may have resulted from such default and pursue such other rights and/or remedies that may be available to the TSCA under law.

8.30 Termination

The TSCA may terminate this Contract in whole or in part by giving the DCO prior written notice indicating its intention to terminate the Contract under the following circumstances:

- Where the Client is of the opinion that there has been such Event of Default on the part of the DCO which would make it proper and necessary to terminate this Contract and may include failure on the part of the DCO to respect any of its commitments with regard to any part of its obligations under its Bid, the Tender or under this Contract.
- Where it comes to the Client's attention that the DCO (or the Implementation Agency's Team) is in a position of actual conflict of interest with the interests of the Client in relation to any of terms of the Implementation Agency's Bid, the Tender or this Contract.
- Where the DCO's ability to survive as an independent corporate entity is threatened or is lost owing to any reason whatsoever including inter-alia the filing of any bankruptcy proceedings against the DCO, any failure by the DCO to pay any of its dues to its creditors, the institution of any winding up proceedings against the DCO or the happening of any such events that are adverse to the commercial viability of the DCO. In the event of the happening of any events of the above nature, the Client shall reserve the right to take any steps as are necessary to ensure the effective transition of the project to a successor Implementation Agency/service provider, and to ensure business continuity.

Termination for Insolvency:

The Client may at any time terminate the Contract by giving written notice to the DCO without compensation to the Implementation Agency, if the DCO becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Client.

Termination for Convenience:

The Client may by prior written notice sent to the DCO at least 3 months in advance terminate the Contract in whole or in part at any time for its convenience. The notice of termination shall specify that termination is for the Client convenience, the extent to which performance of work under the Contract is terminated and the date upon which such termination becomes effective.

The DCO may subject to approval by the Client, terminate this Contract before the expiry of the term by giving the Client a prior and written notice at least 6 months in advance indicating its intention to terminate the Contract.

8.31 Consequences of Termination

In the event of termination of this contract due to any cause whatsoever the DCO shall be blacklisted.

- In the event of termination of this Contract due to any cause whatsoever, [whether consequent to the stipulated Term of the Contract or otherwise] the Client shall be entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective business continuity of the project which the DCO shall be obliged to comply with and take all available steps to minimize loss resulting from that termination/breach and further allow and provide all such assistance to the Client and/or the successor Implementation Agency/service provider, as may be required to take over the obligations of the erstwhile DCO in relation to the execution/continued execution of the scope of this Contract.
- Where the termination of the Contract is prior to its stipulated term on account of a Default on the part of the DCO or due to the fact that the survival of the DCO as an independent corporate entity is threatened/has ceased or for any other reason whatsoever the Client through unilateral re-determination of the consideration payable to the DCO shall pay the DCO for that part of the Services which have been authorized by the Client and satisfactorily performed by the DCO up to the date of termination. Without prejudice any other rights the Client may retain such amounts from the payment due and payable by the Client to the DCO as may be required to offset any losses caused to the Client as a result of any act/omissions of the Implementation Agency. In case of any loss or damage due to default on the part of the DCO in performing any of its obligations with regard to executing the scope of work under this Contract, the DCO shall compensate the Client for any such loss, damages or other costs incurred by the Client. Additionally the sub DCO / other members of its team shall perform all its obligations and responsibilities under this Contract in an identical manner as were being performed before the collapse of the DCO as described above in order to execute an effective transition and to maintain business continuity. All third parties shall continue to perform all/any functions as stipulated by the Client and as may be proper and necessary to execute the scope of work under the Contract in terms of the DCO's Bid, the Tender and this Contract.

RFP- for Migration of Tripura State Data Center

- Nothing herein shall restrict the right of the Client to invoke the Bank Guarantee and other Guarantees furnished hereunder, enforce the Deed of Indemnity and pursue such other rights and/or remedies that may be available to the Client under law.
- The termination hereof shall not affect any accrued right or liability of either Party nor affect the operation of the provisions of this Contract that are expressly or by implication intended to come into or continue in force on or after such termination.

8.32 Penalty

Commencement of activities for TSDC O&M and ongoing performance and service levels shall be as per timelines and parameters stipulated by the TSCA in this contract, failing which the TSCA may at its discretion impose penalties on the DCO as defined in the Service Level Agreement of this RFP document

8.33 Force Majeure

- Force Majeure shall not include any events caused due to acts/omissions of such Party or result from a breach/contravention of any of the terms of the Contract, Bid and/or the Tender. It shall also not include any default on the part of a Party due to its negligence or failure to implement the stipulated/proposed precautions, as were required to be taken under the Contract.
- The failure or occurrence of a delay in performance of any of the obligations of either party shall constitute a Force Majeure event only where such failure or delay could not have reasonably been foreseen or where despite the presence of adequate and stipulated safeguards the failure to perform obligations has occurred. In such an event, the affected party shall inform the other party in writing within five days of the occurrence of such event. TSCA will make the payments due for Services rendered till the occurrence of Force Majeure. However, any failure or lapse on the part of the DCO in performing any obligation as is necessary and proper to negate the damage due to projected force majeure events or to mitigate the damage that may be caused due to the above mentioned events or the failure to provide adequate disaster management/recovery or any failure in setting up a contingency mechanism would not constitute force majeure, as set out above.
- In case of a Force Majeure, all Parties will endeavor to agree on an alternate mode of performance in order to ensure the continuity of service and implementation of the obligations of a party under the Contract and to minimize any adverse consequences of Force Majeure.

8.34 Liquidated Damages

TSCA may without prejudice to its right to affect recovery by any other method deduct the amount of liquidated damages from any money belonging to the DCO in its hands (which includes the TSCA's right to claim such amount against SI's Bank Guarantee) or

which may become due to the DCO. Any such recovery or liquidated damages shall not in any way relieve the DCO from any of its obligations to complete the Works or from any other obligations and liabilities under the Contract

8.35 Dispute Resolution

- TSCA and the DCO shall make every effort to resolve amicably by direct informal negotiations any disagreement or disputes arising between them under or in connection with the Contract
- If, after Thirty (30) days from the commencement of such direct informal negotiations, the TSCA and the DCO have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanism specified in the below clauses
- In the case of a dispute or difference arising between the TSCA and the DCO relating to any matter arising out of or connected with this Contract, such dispute or difference shall be referred to the award of two Arbitrators. One Arbitrator to be nominated by the TSCA and the other to be nominated by the DCO or in case of the said Arbitrators not agreeing then to the award of an Umpire to be appointed by the Arbitrators in writing before proceeding with the reference and in case the Arbitrators cannot agree to the Umpire he may be nominated by the Secretary, Indian Council of Arbitration, TSCA.
- The Arbitration and Conciliation Act 1996, the rules there under and any statutory modification or reenactments thereof, shall apply to the arbitration proceedings.
- The venue of arbitration shall be Agartala(Tripura), India
- TSCA may terminate this contract by giving a written notice of termination of minimum 30 days to the DCO.
- Continuance of the Contract:

Notwithstanding the fact that settlement of dispute(s) (if any) under arbitration may be pending, the parties hereto shall continue to be governed by and perform the work in accordance with the provisions under the Scope of Work to ensure continuity of operations.

8.36 Conflict of Interest

The DCO shall disclose to the TSCA in writing, all actual and potential conflicts of interest that exist, arise or may arise (either for the DCO or the DCO's Team) in the course of performing the Services as soon as practically possible after it becomes aware of that conflict.

8.37 Severance

In the event any provision of this Contract is held to be invalid or unenforceable under the applicable law, the remaining provisions of this Contract shall remain in full force and effect.

8.38 Governing Language

The Agreement shall be written in English language. Language of the Agreement shall govern its interpretation. All correspondence and other documents pertaining to the Contract that are exchanged by parties shall be written in English language only.

8.39 “No Claim” Certificate

The DCO shall not be entitled to make any claim, whatsoever against TSCA under or by virtue of or arising out of this contract, nor shall the TSCA entertain or consider any such claim, if made by the DCO after he shall have signed a “No claim” certificate in favour of the TSCA in such forms as shall be required by the TSCA after the works are finally accepted.

8.40 Publicity

The DCO shall not make or permit to be made a public announcement or media release about any aspect of this Contract unless the TSCA first gives the DCO its written consent.

8.41 General

Relationship between the Parties

- Nothing in this Contract constitutes any fiduciary relationship between the TSCA and DCO / DCO’s Team or any relationship of employer employee, principal and agent, or partnership, between the TSCA and DCO
- No Party has any authority to bind the other Party in any manner whatsoever except as agreed under the terms of this Contract
- The TSCA has no obligations to the DCO’s Team except as agreed under the terms of this Contract

No Assignment

The DCO shall not transfer any interest, right, benefit or obligation under this Contract without the prior written consent of the TSCA.

Survival

The provisions of the clauses of this Contract in relation to documents, data, processes, property, Intellectual Property Rights, indemnity, publicity and confidentiality and ownership survive the expiry or termination of this Contract and in relation to confidentiality, the obligations continue to apply unless the TSCA notifies the DCO of its release from those obligations

Entire Contract

The terms and conditions, Scope of Work, SLA etc. laid down in the Tender and all annexure thereto as also the Bid and any attachments/annexes thereto shall be read in consonance with and form an integral part of this Contract. This Contract supersedes any prior Contract, understanding or representation of the Parties on the subject matter

Governing Law

This Contract shall be governed in accordance with the laws of India

Jurisdiction of Courts

The High Court of Tripura, will have exclusive jurisdiction to determine any proceeding in relation to this Contract

Compliance with Laws

The DCO shall comply with the laws in force in India in the course of performing this Contract

Notices

A “notice” means:

- a. a notice; or
- b. consent, approval or other communication required to be in writing under this Contract

All notices, requests or consents provided for or permitted to be given under this Contract shall be in writing and shall be deemed effectively given when personally delivered or mailed by pre-paid certified/registered mail, return receipt requested, addressed as follows and shall be deemed received 7 days after mailing or on the date of delivery if personally delivered whichever is earlier:

To TSCA

at:

Member Secretary,
Tripura State Computerisation Agency
ITI Road, Indranagar
Agartala-799006
Phone/Fax No. 0381-2355751
Email address: itdept-tr@nic.in

To DCO at:

Attn:

[Phone:]

RFP- for Migration of Tripura State Data Center

[Fax:]

Any Party may change the address to which notices are to be directed to it by notice to the other parties in the manner specified above

A notice served on a Representative is taken to be notice to that Representative's Party

Waiver

- Any waiver of any provision of this Contract is ineffective unless it is in writing and signed by the Party waiving its rights
- A waiver by either Party in respect of a breach of a provision of this Contract by the other Party is not a waiver in respect of any other breach of that or any other provision
- The failure of either Party to enforce at any time any of the provisions of this Contract shall not be interpreted as a waiver of such provision

8.42 Response to RFP

Proofs needed

The DCO is required to furnish the necessary certificates/proofs from clients as mentioned in the RFP response format during the process of Bidding. If necessary proofs cannot be obtained from the client, then reasons for non-procurement need to be clearly stated. It is left to the discretion of TSCA to deem the claim as valid

Note: Proofs submitted by the DCO which are deemed invalid by TSCA may lead to disqualification of the Bidder from the Bidding process

8.43 Modification

Any modification of this Contract shall be in writing and signed by an authorized representative of each Party

8.44 Application

These General Conditions shall apply to the extent that provisions in other parts of the Contract do not supersede them

8.45 IT Act 2000

Besides the terms and conditions stated in this document, the contract shall also be governed by the overall acts and guidelines as mentioned in IT Act 2000, and any other guideline issued by TSCA from time to time.

Section - IX

Formats for Response to the Tender: Pre - Qualification Bid

Section IX: Format for Response to the tender: Pre Qualification Bid

This section provides the outline, content and the formats that the Bidders are required to follow in the preparation of the Pre-Qualification Bid

Format 1 – Pre-Qualification Bid Letter

To,
Member Secretary,
Tripura State Computerisation Agency
ITI Road, Indranagar
Agartala-799006

Subject: Engagement of an Agency for Design, Supply, Installation and Commissioning of IT and non-IT Infrastructure for Data Center Migration and it's Operation and Maintenance.

Reference: Tender No: <TENDER REFERENCE NUMBER> Dated <DD/MM/YYYY>

Sir,

We, the undersigned Bidders, having read and examined in detail all the Tender documents, do hereby propose to provide the services as specified in the Tender document number <TENDER REFERENCE NUMBER> Dated <DD/MM/YYYY> along with the following:

1. EARNSET MONEY DEPOSIT (EMD)

We have submitted EMD (as Bank Guarantee) for the sum of Rs. 60,00,000/- (Rupees Sixty Lakh only). This EMD is liable to be forfeited in accordance with the provisions of the Section VIII - General Conditions of the Contract.

2. CONTRACT PERFORMANCE GUARANTEE BOND

We hereby declare that in case the contract is awarded to us, we shall submit the contract performance guarantee bond in the form prescribed in Annexure II - Performa and as per Section VIII - General Conditions of Contract.

RFP- for Migration of Tripura State Data Center

We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.

We understand that our bid is binding on us and that you are not bound to accept a bid you receive.

Thanking you,

Yours faithfully,

(Signature of the Bidder)

Printed Name

Designation

Seal

Date:

Business Address:

Format 2 - General Information about the Bidder

Details of the Bidder (Company)				
1.	Name of the Bidder			
2.	Address of the Bidder			
3.	Status of the Company (Public Ltd/ Pvt. Ltd)			
4.	Details of Incorporation of the Company		Date:	
			Ref. #	
5.	Details of Commencement of Business		Date:	
			Ref. #	
6.	Valid Goods and Service Tax (GST) registration no.			
7.	Permanent Account Number (PAN)			
8.	Name & Designation of the contact person to whom all references shall be made regarding this tender			
9.	Telephone No. (with STD Code)			
10.	E-Mail of the contact person:			
11.	Fax No. (with STD Code)			
12.	Website			
13.	Financial Details (as per audited Balance Sheets) (in crore)			
14.	Year	2016-2017	2017-2018	2018-2019
15.	Net Worth			
16.	Turn Over in INR			

RFP- for Migration of Tripura State Data Center

Format 3 - Declaration Regarding Clean Track Record

To,

Member Secretary,
Tripura State Computerisation Agency
ITI Road, Indranagar
Agartala-799006

Sir,

I have carefully gone through the Terms & Conditions contained in the RFP Document [No. _____] regarding Engagement of an Agency for **Design, Supply, Installation and Commissioning of IT and non-IT Infrastructure for Data Center Migration and it's Operation and Maintenance** at new IT Bhavan building, Agartala. I hereby declare that my company has not been debarred/black listed by any Government / Semi-Government organizations in India. I further certify that I am competent officer in my company to make this declaration.

Yours faithfully,

(Signature of the Bidder)

Printed Name

Designation

Seal

Date:

Business Address:

RFP- for Migration of Tripura State Data Center

Format 4 – Declaration of Acceptance of Terms & Conditions in the RFP

To,

Member Secretary,
Tripura State Computerisation Agency
ITI Road, Indranagar
Agartala-799006

Sir,

I have carefully gone through the Terms & Conditions contained in the RFP document [No.] For **Design, Supply, Installation and Commissioning of IT and non-IT Infrastructure for Data Center Migration and it's Operation and Maintenance** at new IT Bhavan building, Agartala.

I declare that all the provisions of this RFP/Tender Document are acceptable to my company. I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)

Printed Name

Designation

Seal

Date:

Business Address:

Format 5 – Format for Submitting Bank Guarantee as Earnest Money Deposit (EMD)

To
Member Secretary,
Tripura State Computerisation Agency
ITI Road, Indranagar
Agartala-799006

WHEREAS (Bidder's name) (Thereinafter referred to as "Bidder"), a Corporation/ Company/ Firm having its registered office at is required to deposit with you, by way of Earnest Money, Rs.60 Lakhs (Rupees Sixty Lakhs only) in connection with its tender for the work with reference to Tender No: <TENDER REFERENCE NUMBER> Dated <DD/MM/YYYY> as per specification and terms and conditions enclosed therein.

WHEREAS the Bidder has agreed to establish a Bank Guarantee in Your favor through us valid up to (Date) for Bid Security.

We (Bank) hereby agree and undertake to pay you on demand the said amount of Rs.60 Lakhs (Rupees Sixty Lakhs only) without any protest or demur in the event the Bidder/Tenderer after submission of his tender, withdraws his offer or modifies the terms and conditions thereof in a manner not acceptable to you or expresses his unwillingness to accept the order placed and/or letter of intent issued on the Bidder/Tenderer or fails to sign the contract within stipulated period for the work under Tender No: <TENDER REFERENCE NUMBER> Dated <DD/MM/YYYY>

1. Your decision as to whether the Bidder/Tenderer has withdrawn his offer or has modified the terms and conditions thereof in a manner not acceptable to you or has expressed his unwillingness to accept the order placed and/or Letter of Intent issued by you on the Bidder/Tenderer for the work Notice Inviting Bid (Tender No: <TENDER REFERENCE NUMBER> Dated <DD/MM/YYYY>) in this regard, shall be final and binding on us and we shall not be entitled to question the same.
2. Notwithstanding anything contained in the foregoing, our liability under this Guarantee shall be restricted to Rs.60 Lakhs (Rupees Sixty Lakhs only).
3. This Guarantee shall remain valid and in full force and effect up to (Date) and shall expire thereafter unless an intimation is given to the Bank by you earlier in writing discharging us from our obligation under this Guarantee.

RFP- for Migration of Tripura State Data Center

4. We shall not revoke this Guarantee during its currency except by your consent in writing.
5. This Guarantee shall not be affected by any change in the constitution of the Bidder/Tenderer or yourselves or ourselves but shall ensure to your benefit and be enforceable against our legal successors or assignees by you or your legal successors.
6. Notwithstanding anything contained herein above unless a demand or claim under this Guarantee is made on us in writing within three months from the date of expiry of this Guarantee we shall be discharged from all liabilities under this Guarantee thereafter.
7. We have power to issue this Guarantee under our Memorandum and Articles of Association and the undersigned who is executing this Guarantee has the necessary power to do so under a duly executed Power of Attorney granted to him by the Bank.

Signed and Delivered

For and on behalf of..... Bank

(Banker's Name)

Name of Bank Manager

Address.....

Section - X

Formats for Response to Tender: Technical Bid

Section X Format for Response to Tender: Technical Bid

Format 1 – Technical Bid Letter

To,

Member Secretary,
Tripura State Computerisation Agency
ITI Road, Indranagar
Agartala-799006

Sir,

Subject: Engagement of an Agency for Design, Supply, Installation and Commissioning of IT and non-IT Infrastructure for Data Center Migration and it's Operation and Maintenance at new IT Bhavan building, Agartala.

Reference: Tender No: <Tender Reference Number> Dated <dd/mm/yyyy>

We, the undersigned Bidders, having read and examined in detail all the Tender documents do hereby propose to provide the services as specified in the Tender document number <Tender Reference Number> Dated <dd/mm/yyyy> along with the following:

1. Earnest Money Deposit (EMD)

We have submitted EMD (as Bank Guarantee) for the sum of Rs. 60,00,000/- (Rupees Sixty Lakh only). This EMD is liable to be forfeited in accordance with the provisions of - *General Conditions of the Contract*.

2. Deviations

We declare that all the services shall be performed strictly in accordance with the Tender documents except for the variations, assumptions and deviations, all of which have been detailed out exhaustively in the following statements, irrespective of whatever has been stated to the contrary anywhere else in our Tender:

- Statement of Deviations from Tender Terms and Conditions is as specified in General Terms and Conditions

Further we agree that additional conditions or assumptions, if any, found in the Tender documents other than those stated in deviation schedule shall not be given effect to.

3. Contract Performance Guarantee Bond

RFP- for Migration of Tripura State Data Center

We hereby declare that in case the contract is awarded to us, we shall submit the Contract Performance Guarantee Bond in the form prescribed in the RFP.

4. Bid Validity Period

We agree to abide by this Bid for a period of 180 days after the date fixed for Bid opening or for any further period for which Bid validity has been extended and it shall remain binding upon us and Bid may be accepted at any time before the expiration of that period.

We hereby declare that our Bid is made in good faith, without collusion or fraud and the information contained in the Bid is true and correct to the best of our knowledge and belief.

We understand that our Bid is binding on us and that you are not bound to accept a Bid you receive.

Thanking you,

Yours faithfully,

(Signature of the Bidder)

Printed Name

Designation

Seal

Date:

Business Address:

Format 2 – Technical Solution

1. The Bidder is required to describe the proposed Technical Solution in this section. Following should be captured in the explanation:
 - Clear articulation and description and technical solution (including calculations wherever applicable)
 - Extent of compliance to technical requirements specified in the scope of work
 - Technical solution and clear articulation of benefits to the TSCA of various components of the solution vis-à-vis other options available.
 - Strength of the Bidder to provide services including examples or case-studies of similar solutions deployed for other Clients.
2. The Bidder should provide detailed design, information, sizing and calculation for the following listing all assumptions that have been considered:
 - a. Physical Component Design**
 1. Data center Space and Floor layout
 2. Data Centre LAN cabling Plan.
 3. Electrical work
 - b. IT Component design**

Approach & Methodology for Installation & Configuration of

 1. Network infrastructure
 2. Security infrastructure
 3. Server and storage infrastructure
 4. Hardware and Application Migration Plan
 5. Backup, Replication and Recovery
 6. DR Solution
 - c. Operations & Maintenance**
 1. Proactive and Reactive maintenance
 2. The kind of support and maintenance hired from different OEM's and vendors with relevant proofs
 3. Detail of helpdesk and support structure for call maintenance
 - Escalation Plan
 4. System Maintenance & Management
 5. System / Storage / Database / Network / Security Administration
 6. Backup & Restoration

d. Approach & Methodology for Commissioning of complete Data Centre

e. Approach & Methodology for expansion of Data Centre

f. Adherence to Best practices like ISO, ITIL, ISO27001, ISO20000 etc.

- Design, Establishment, Operation, Monitoring, Review, Maintenance and Improvement Plan for ISO 20000-1 and ISO 27001 in new DC of TSDC.
3. Bidder shall provide a detailed project plan with timelines, resource allocation, milestones etc. for new DC of TSDC.

Bidders need to attach the necessary documents inline, wherever required.

Note: If the proof of attachments is not accompanied in the response, then that response will not be taken into consideration for technical evaluation.

Format 3 – Technical Evaluation Criteria**Criteria for Evaluation and Comparison of Technical Bids**

The criterion as mentioned in section below shall be used to evaluate the technical Bids. All the Bids scoring at least 70% (70 marks out of 100 marks as per the evaluation criteria below) and above in the technical evaluation will be qualified for commercial Bid opening.

The financial Bids of only those Bidders will be opened and considered who have scored at least 70 marks in the Technical Evaluation as specified above.

	Criteria	Documents Required	Point System (Total 100 Marks)
1	The bidder should have average turnover of minimum Rs. 150 Crore for each of the last three Financial Years ending on 31.03.2019.	Copy of the audited profit and loss account/ balance sheet/annual report of last three financial years (up to 31-March-19) should be attached.	Average Turnover >= 150 Crore to <= 300 Crore= 6 marks, Average Turnover > 300 Crore to <=450 Crore= 8 marks, Average Turnover > 450 Crore = 10 Marks
2	Bidder's experience of having successfully completed Data Center (DC) setup (supply and installation of equipment) and DC Operation and Maintenance (O&M) work that meets the following criteria: a) DC setup and managed for State/ Central Govt. Agencies or PSUs or PSU Banks or Financial Institutions of State/Central Govt. will be considered. b) Single Project an order values not less than Rs. 25 Crores or Two Projects order values not less than Rs. 18 Crores for each projects or Three or more Projects order values not less than Rs. 12 Crores for each projects will be considered during the period from 1 st April	Work Order + Completion Certificates from the client; OR Work Order + Installation Phase Completion Certificate (for ongoing projects) from the client.	1 project unit = 6 marks 2 project units= 8 marks 3 or more project units=10 marks

RFP- for Migration of Tripura State Data Center

	<p>2010 to previous day of last date of floating of the tender.</p> <p>Any of the combination of above project categories will be treated as one project unit.</p> <p>c) Bidder's in house Data Centers shall not be considered unless used for commercial use.</p> <p>d) Cost of building construction for DC won't be considered for calculating cost in the above purpose.</p>		
3	<p>Network Items Proposed</p> <p>i. Router (4 marks)</p> <p>ii. Layer 3 switches (2 marks)</p> <p>iii Layer 2 switches (2 marks)</p>	Proposal indicating Make, Model and Specification	8 marks
4	<p>Security Items Proposed</p> <p>i. Firewall external (FW). (3 marks)</p> <p>ii. Firewall internal (3 marks)</p> <p>iii. SIEM (3 marks)</p> <p>iv. WAF (3 marks)</p>	Proposal indicating Make, Model and Specification	12 marks
5	<p>Servers– Proposed</p> <p>i. Blade Server (4 marks)</p> <p>ii. Blade Chassis (4 marks)</p>	Proposal indicating Make, Model and Specification	8 marks.
6	<p>Storage Solution</p> <p>i. SAN Storage (4 marks)</p> <p>ii. SAN Switch (2 marks)</p> <p>iii. Tape Library (2 marks)</p>	Proposal indicating Make, Model and Specification	8 marks;
7	<p>Non-IT Works</p> <p>i. Electrical work (8 marks)</p>	Proposal indicating Make, Model and Specification of the items and services required.	8 marks.
8. O&M proposal with onsite team offered (Total 16 Marks)			
8.1	Onsite DCO team (10 marks)	Proposal	10 marks;
8.2	AMC service offering for IT components under scope of work	Proposal	3 marks

RFP- for Migration of Tripura State Data Center

	and assurance on SLA compliance (3 marks)		
8.3	AMC service offering for Non-IT components under scope of work and assurance on SLA compliance. (3 marks)	Proposal	3 mark
9	Overall Technical Solution for DC setup starting to Final Acceptance Test (FAT) (10 marks)	Technical Solution Proposal	10 marks;
10	Presentation on overall understanding of the bidder on requirement of RFP	Presentation	5 marks.
11	Presentation on proposed solution	Presentation	5 marks.

Format 4 – Manpower Details

The Bidder should provide a detailed resource deployment plan to ensure that technically qualified staff is available to deliver the project. All the resources proposed should be directly on the payroll of the Company.

- A. The Bidder should provide the summary table of details of the manpower that will be deployed on this project for **Operations and Maintenance**:

Sl. No	Role	Onsite			Offsite	Qualifications	Certifications	Overall IT Experience (Years)	Relevant experience in the respective role (Years)
		Shift 1	Shift 2	Shift 3					
1									
2									
3									
4									

RFP- for Migration of Tripura State Data Center

B. Format of CV for proposed staff of bidder

S. No	Item		Details	
1	Name			
2	Specify role to be played in the project			
3	Current job title			
4	Experience in yrs. (Provide details regarding name of organizations worked for, Designation, responsibilities, tenure etc.)			
5	Name of Organization	From	To	Designation/ Responsibilities
6	Number of years with the Current Organization			
7	Current job responsibilities			
8	Summary of professional / domain experience			
9	Skill sets			
10	Highlights of assignments handled			
11	Educational Background, Training / Certification including institutions.			
12	Degree (including subjects)	Year of Award of Degree	University	% of marks

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes qualifications and experience mentioned above and proposed staff member is a permanent employee of our organization. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Signature of Staff Member

Date:

Signature of Authorized Signatory

Date:

Format 5- Deviations from Tender Terms & Conditions

The given format should be followed while marking out the deviations from Tender terms and conditions:

Sl. No.	Section No.	Clause No.	Page No.	Statement of deviations and variations.	Remarks
1					
2					
3					
4					
5					
6					

Format 6- Project Experience Details

S. No	Item	Details
General Information		
1	Customer Name/Government Department	
2	Name of the Contact Person and Contact details for the project	
Brief description of scope of project		
Size of the project		
3	Contract Value of the project (in crore)	
4	Capital Expenditure involved (by the govt./ client)	
5	Total cost of the services provided (by the Bidder)	
6	Please provide copies of Work Order or Certificate of Completion.	
Project Details		
8	Name of the project	
9	Start Date/End Date	
10	Current Status (work in progress, completed)	
11	Contract Tenure	
12	No. of locations	
13	Man-month effort involved	
14	Type of Project.	
15	Solution architecture employed & core Components	
16	Scope of Service Delivery system	
17	Tools deployed. modelling, design, development, testing, project management, EMS	

Section - XI

Response to the Tender: Commercial Bid

Section XI Response to Tender: Commercial Bid

Filled BoQ to be uploaded online as per attach Format

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Section - XII

Annexure

Section XII Annexure

Annexure - I: Bidding Document Acknowledgement Form

Dated:

To,

Member Secretary,
Tripura State Computerisation Agency
ITI Road, Indranagar
Agartala-799006

Dear Sir,

We hereby acknowledge receipt of a complete set of Bidding Documents consisting of Annexures (along with their Appendices) enclosed to the "Invitation for Bid" pertaining to providing of _____ services against _____ tender no. _____.

We have noted that the closing date for receipt of the tender by the TSCA is _____ at < > hrs. (IST) and opening at < > hrs. (IST) on the same day.

We guarantee that the contents of the above said Bidding Documents will be kept confidential within our organization and text of the said documents shall remain the property of the TSCA and that the said documents are to be used only for the purpose intended by the TSCA.

Our address for further correspondence on this tender will be as under:

Telex no:

Fax no: Telephone no:

Personal attention of:

(if required)

Yours faithfully,

(Bidder)

Note: This form should be returned along with offer duly signed

Annexure – II: Proforma of Bank Guarantee towards Performance Security

PERFORMANCE GUARANTEE

Ref. No. _____ Bank Guarantee No _____

Dated _____

To,

Member Secretary,
Tripura State Computerisation Agency
ITI Road, Indranagar
Agartala-799006

Dear Sir,

In consideration of TSCA, having its office at Directorate of Information Technology Building, 1st floor, ITI Road, Indranagar Agartala 799006 (hereinafter referred to as 'TSCA', which expression shall, unless repugnant to the context or meaning thereof, include all its successors, administrators, executors and assignees) after receipt of the work order dated _____ with M/s _____ having its registered/head office at _____ (hereinafter referred to as the 'CONTRACTOR') which expression shall, unless repugnant to the context or meaning thereof include all its successors, administrators, executors and assignees) and TSCA having agreed that the CONTRACTOR shall furnish to TSCA a performance guarantee for Indian Rupees for the faithful performance of the entire CONTRACT.

2. We (name of the bank) _____ registered under the laws of _____ having head/registered office at _____ (hereinafter referred to as "the Bank", which expression shall, unless repugnant to the context or meaning thereof, include all its successors, administrators, executors and permitted assignees) do hereby guarantee and undertake to pay immediately on first demand in writing any /all moneys to the extent of Indian Rupees. (in figures) _____ (Indian Rupees (in words) _____) without any demur, reservation, contest or protest and/or without any reference to the CONTRACTOR. Any such demand made by TSCA on the Bank by serving a written notice shall be conclusive and binding, without any proof, on the bank as regards the amount due and payable, notwithstanding any dispute(s) pending before any Court, Tribunal, Arbitrator or any other authority and/or any other matter or thing whatsoever, as liability under these presents being absolute and unequivocal. We agree that the guarantee herein contained shall be irrevocable and shall continue to be enforceable until it is discharged by TSCA in writing. This guarantee shall not be determined, discharged or affected by the liquidation, winding up, dissolution or insolvency of the CONTRACTOR and shall remain valid, binding and operative against the bank.

RFP- for Migration of Tripura State Data Center

3. The Bank also agrees that TSCA at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance, without proceeding against the CONTRACTOR and notwithstanding any security or other guarantee that TSCA may have in relation to the CONTRACTOR's liabilities.
4. The Bank further agrees that TSCA shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said CONTRACT or to extend time of performance by the said CONTRACTOR(s) from time to time or to postpone for any time or from time to time exercise of any of the powers vested in TSCA against the said CONTRACTOR(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said CONTRACTOR(s) or for any forbearance, act or omission on the part of TSCA or any indulgence by TSCA to the said CONTRACTOR(s) or any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
5. The Bank further agrees that the Guarantee herein contained shall remain in full force during the period that is taken for the performance of the CONTRACT and all dues of TSCA under or by virtue of this CONTRACT have been fully paid and its claim satisfied or discharged or till TSCA discharges this guarantee in writing, whichever is earlier.
6. This Guarantee shall not be discharged by any change in our constitution, in the constitution of TSCA or that of the CONTRACTOR.
7. The Bank confirms that this guarantee has been issued with observance of appropriate laws of the country of issue.
8. The Bank also agrees that this guarantee shall be governed and construed in accordance with Indian Laws and subject to the exclusive jurisdiction of Indian Courts of the place from where the purchase CONTRACT has been placed.
9. Notwithstanding anything contained herein above, our liability under this Guarantee is limited to Indian Rupees. (in figures) _____ (Indian Rupees (in words) _____) and our guarantee shall remain in force until _____. (Indicate the date of expiry of bank guarantee)

Any claim under this Guarantee must be received by us before the expiry of this Bank Guarantee. If no such claim has been received by us by the said date, the rights of TSCA under this Guarantee will cease. However, if such a claim has been received by us within the said date, all the rights of TSCA under this Guarantee shall be valid and shall not cease until we have satisfied that claim.

In witness whereof, the Bank through its authorized officer has set its hand and stamp on this..... day of20__ at.....

RFP- for Migration of Tripura State Data Center

WITNESS NO. 1

(Signature)
Full name and official
Address (in legible letters)

(Signature)
Full name, designation and
address (in legible letters)
with Bank stamp

Attorney as per power of
Attorney No.....
Dated.....

WITNESS NO. 2

(Signature)
Full name and official
Address (in legible letters)

Annexure - III: Technical Specification of IT Components**Technical Specification of Major IT Components****1. Router**

Sl.	Features	Minimum specification	Compliance (Yes / No)
1	Bandwidth	60 Gbps (minimum)	
2	Ports	4x 10G ports and 8 x 1G Ports (Bidder need to size the transceivers requirement as per their solution and if required need to include additional transceivers for the workability of solution)	
3	RAM	4GB (minimum)	
4	Routing protocol	OSPF, OSPF V3, IS-IS, BGP, static IPv4 routing, static IPv6 routing, RIP V1/V2	
5	Management	Telnet, SSHv2, SNMP	
6	Encapsulation	802.1q VLAN	
7	Features support	MPLS, IPv6 support, Quality of Service (QoS), Security through ACL, RADIUS, VRRP, NAT, IGMPv2 and v3, IPV6.	
8	Industry standard	UL, IEC	
9	Redundant hardware component	Redundant power supply;	
10	Gartner's Quadrant	OEM should be in the Gartner's Leader Quadrant for Data Center networking during last 3 years.	
11	Warranty	5 years	

2. L3 Switch

Sl	Minimum specification	Compliance (Yes/ No)
1	OEM should be in the Gartner's Leader Quadrant for Data Center networking during last 3 years.	
2	Throughput 300 Gbps	
3	1 Gbps Base-T - 48 Nos.	
4	10 Gbps SFP port - 4 Nos.	
5	40 Gbps QSFP+ port - 2 Nos.	
6	Min VLAN support – 3000	
7	Switch should not have any single point of failure like power supplies and fans etc. should have 1:1/N+1 level of redundancy	
8	The Switch should support Layer 2 switching and Layer 3 routing	

RFP- for Migration of Tripura State Data Center

9	Switch should support IPv4 and IPv6 services. Switch must be IPv6 Ready from Day 1.	
10	The switch should support 32k routes entries in the routing table.	
11	Switch should support for OSPF, BGP.	
12	Should support ACL, HSRP/VRRP, IGMP, Spanning Tree Protocol,	
13	Switch should support Open Flow/Open Day light/Open Stack controller	
14	Switch should support for external database for AAA using: TACACS+ or RADIUS or equivalent	
15	Warranty : 5 years	

3. L2 Switch

Sl	Minimum specification	Compliance (Yes/ No)
1	OEM should be in the Gartner's Leader Quadrant for Data Center networking during last 3 years.	
2	Switching capacity - 176 Gbps	
3	Forwarding rate - 130 Mpps	
4	1G Base-T port - 48 Nos	
5	10 G SFP+ port - 4 Nos	
7	Redundant and hot-swappable power supply and fans	
8	Openflow Support	
9	Routing tables - 4k prefixes	
10	Support ACL, Spanning Tree Protocol	
14	MAC address support - 32K	
15	VLAN support – 4096	
16	Should support IPv4 and IPv6 Static routing	
17	Warranty : 5 years	

4. Firewall External

Note external and internal firewall should be proposed from two different OEM

Sl	Minimum specification	Compliance (Yes/ No)
1	Ports: 4x1G-RJ445, 4X1G SFP, 4x10G-SFP+ (Should be supplied with multimode transceivers)	
2	Concurrent session - 4 M	
3	Should support minimum 1,30,000 new connections	
4	NGFW throughput (FW+IPS+AVC) - 5 Gbps	
5	IPS throughput – 5.5 Gbps	
6	IPSec VPN throughput – 6.5 Gbps	

RFP- for Migration of Tripura State Data Center

7	Redundant hot-swappable power supply from day 1	
8	High Availability Configurations - Active / Active	
9	Support IPv6	
10	Firewall should support minimum VLAN Feature	
11	Firewall should support antimalware capabilities	
12	Solution should uncover threats hidden in SSL links and communications.	
13	Dynamic Routing Mode - RIP, OSPF, BGP, & Multicast	
14	Should support Policy based routing	
15	Should support NAT Feature	
16	Support integration with SIEM	
17	OEM should be in the Gartner's Leader Quadrant for Enterprise Network Firewall during last 3 years	
18	5 years onsite support & warranty back to back with OEM	

5. Firewall (Internal)

Sl	Minimum specification	Compliance (Yes/ No)
1	Ports: 4x1G-RJ445, 4X1G SFP, 4x10G-SFP+ (Should be supplied with multimode transceivers)	
2	Concurrent session - 4 M	
3	Should support minimum 1,30,000 new connections	
4	NGFW throughput (FW+IPS+AVC) - 5 Gbps	
5	IPS throughput – 5.5 Gbps	
6	IPSec VPN throughput – 6.5 Gbps	
7	Redundant hot-swappable power supply from day 1	
8	High Availability Configurations - Active / Active	
9	Support IPv6	
10	Firewall should support minimum VLAN Feature	
11	Firewall should support antimalware capabilities	
12	Solution should uncover threats hidden in SSL links and communications.	
13	Dynamic Routing Mode - RIP, OSPF, BGP, & Multicast	
14	Should support Policy based routing	
15	Should support NAT Feature	
16	Support integration with SIEM	
17	OEM should be in the Gartner's Leader Quadrant for Enterprise Network Firewall during last 3 years	
18	5 years onsite support & warranty back to back with OEM	

6. Security Incident Event Management (SIEM)

Functional Requirement:

RFP- for Migration of Tripura State Data Center

SL No	Requirement	Compliance (Yes/No)
1	Security Analytics = Security Information Event Management (SIEM) + Network Analysis and Visibility (NAV) + Security User Behavior Analytics (SUBA).	
2	All components of the security analytics (Logger, SIEM, NAV, SUBA) solution should be on the single platform.	
3	The solution should monitor cloud-hosted infrastructure. The solution should monitor cloud applications that host sensitive data.	
4	The solution should have different search and investigation features like text based, visualization, etc	

Technical Requirement of SIEM:

SI	Minimum specification	Compliance (Yes/ No)
1	The SIEM platform should be based on a purpose build hardware solution of the collection engine, the logging engine and the correlation engine.	
2	The SIEM Solution should be 2000 Sustained EPS as total and must be capable of handling any Burst upto 10000 EPS without any log drop . All logs (Raw and normal) must be retained at Logging layer on box or on remote storage .	
3	The SIEM Solution licensing should be by the number of events per second, the license must allow incoming events from unlimited number of assets	
4	The SIEM Solution must normalize and categorize all events in a single standard used by the solution, regardless of the form of data collection.	
5	The solution should have support for IPv6	
6	The solution should provide a single pane of glass view for all events and incidents across the organization with real time analysis and reporting.	
7	The SIEM solution should support Integration with existing/proposed Firewalls, IPS, , WAF, servers, routers, switches etc	
8	The solution should provide capability to integrate with external storage such as SAN to store events for historical reporting and analysis	
9	The solution should have the capabilities/process for preserving the digital chain of custody, and ensuring data integrity	

RFP- for Migration of Tripura State Data Center

10	The SIEM solution must have the ability of integrating with at least one threat intelligence system with information from global risks and use the information collected on this system in the correlation of events	
11	The SIEM Solution should provide a formula of threat which should be customized to allow increasing or decreasing the level of risk with at least the following types of correlation: a. Geo Location based correlation, b. Historical Correlation - Proposed SIEM solution should support the replay of historical data against the correlation engine to determine if the newly discover threats based on a new correlation rule has happened in the past, c. Vulnerability Based Correlation, d. Risk based Correlation, which should do not be dependent on correlation rules	
12	The solution should provide reports that should be customizable to meet the regulatory, legal, audit, standards and management requirements.	
13	The solution should also provide Audit and Operations based report. SIEM solution should have a defined integration with Identity and Access Management Solutions.	
14	The SIEM solution should provide Native support for Incident Management Workflow	
15	The solution should support dynamic filtering.	
16	5 years onsite support & warranty back to back with OEM	

7. WAF

S1	Minimum specification	Compliance (Yes/ No)
1	WAF Throughput - 5 Gbps	
2	Interface - 4x 10G	
3	HDD - 2x2 TB	
4	Memory - 32 GB	
5	Leaders or Challengers Gartner's Magic Quadrant for Web Application Firewalls during last 3 Years	
6	Should be Dedicated Platform based solution.	
7	The solution must address and mitigate the OWASP Top Ten web application security vulnerabilities.	
8	Prevents application vulnerability attacks such as SQL injection; cross-site scripting and remote file inclusion; business logic attacks such as site scraping and comment spam; botnet and layer 7 DDoS attacks; and account takeover attempts in real-time, before fraud can be performed	
9	Flexible, automated XML security policies should protect web services, SOAP, HTML 5 Web Sockets and Web 2.0 applications	
10	vulnerability scanning for web applications	
11	Constantly update threat intelligence	
12	Automated Learning of User Behavior	
13	Dynamically learns applications' "normal" behavior and correlates	

RFP- for Migration of Tripura State Data Center

	this with the threat intelligence and updated in real time to deliver superior protection	
14	Reputation Service—Filters traffic based upon latest, real-time reputation of source. Proactively filter traffic from known bad sources	
15	Enforces HTTP standards compliance to prevent protocol exploits and evasion techniques	
16	Enforce strict adherence to RFC standards or allow minor deviations	
17	Correlated Attack Validation capability should examines multiple attributes such as HTTP protocol conformance, profile violations, signatures, special characters, and user reputation, to accurately alert on or block attacks with the lowest rate of false positives	
18	Provides both pre-defined and fully-customizable reports	
19	Capable to be integrated with leading SIEM.	
20	Redundant, hot-swappable components including redundant power supplies and hard drives	
21	Support for SSL acceleration - hardware based	
22	Intelligent Platform Management Interface	
23	Support IPv6	
24	Solution Should have the ability to prevent, detect and restore web defacement using Anti Web Defacement feature	
25	WAF appliance should have application-aware load-balancing engine to distribute traffic and route content across multiple web servers for HTTP and HTTPS based traffic.	
26	HTTP concurrent connection - 1M	
27	HTTPS concurrent connection - 700K	
28	New connections/second - HTTP - 100K	
29	New connections/second - HTTPS - 25K	
30	It should be integrated with local sandbox solution for providing prevention from 0 day threat.	
31	5 years onsite support & warranty back to back with OEM	

8. Server Security software (for 100 VM/physical server)-HIPS

S1	Minimum specification	Compliance (Yes/ No)
1	The solution must provide single platform for complete server protection over physical, virtual & cloud:	
2	Complete protection from a single integrated platform: addresses all of the ‘Gartner top ten server security priorities’.	
3	Provides layered defense against advanced attacks and shields against known vulnerabilities in web and enterprise applications and operating systems.	
4	The solution should prevent access to malicious web sites	
5	The solution should have the capability to Monitor inter-VM traffic and protects Hypervisor.	

RFP- for Migration of Tripura State Data Center

6	The proposed solution provides self-defending servers; with multiple integrated modules below providing a line of defense at the server: firewall, Anti-Malware ,HIPS, Application control etc.	
7	Must have option to be integrated with VM Security Endpoint APIs, no agent needed in the virtual machine.	
8	Must be able to provide HIPS/HIDS feature with agent & agentlessly VM platform & with agent in Physical servers.	
9	Must feature a high-performance deep packet inspection engine that examines all incoming and outgoing traffic for protocol deviations, content that signals an attack, or policy violations.	
10	Includes out-of-the-box vulnerability protection for over 100 applications, including database, Web, email, and FTP services	
11	Should support Fail open & fail close feature in HIPS & malware exploit mitigation support.	
12	Must be able to monitor critical operating system and application files, such as directories, registry keys, and values, to detect and report malicious and unexpected changes.	
13	Provide virtual protection which shields vulnerable systems that are awaiting a security patch. Automatically shields vulnerable systems within hours and pushes out protection to all VMs/physical servers within minutes.	
14	The proposed solution must support event tagging so that Administrator can add fully customizable & editable "tag" to events generated by the solution	
15	The solution should have the capability to integrate with proposed on premises Anti-APT solution for Zero day attack prevention.	
16	Support platform: The solution must be integrated to SIEM system	
17	5 years onsite support & warranty back to back with OEM	

9. Blade Server with 2 processor

Sl	Minimum specification	Compliance (Yes/ No)
1	Each blade shall have two numbers of Intel Xeon Scalable 6000 Processors (or equivalent) with Min. 16 cores per processor each having Min. 2.1 GHz processor speed. Processor cache min. 20 MB L3.	
2	Chipset compatible with the offered processors.	
3	Memory min. 512 GB	
4	Server should be configured with 2 Nos of 600 GB 12Gbps SAS 10K HDDs in Raid 0, 1; hot-swappable. The server should support SSD hard disk drives.	
5	The Blades should have support/option for Boot from SAN.	
6	The Blade server should provide minimum Dual port 10Gb Ethernet & Dual port 10Gbps FC adapters.	
7	Network: If separate Adapters are not provided, Blade server can offer converged solution.	

RFP- for Migration of Tripura State Data Center

8	Network: The blades to be provided with port level & card level redundancy	
9	Blade server should be hot pluggable	
10	Redundant hot swappable power and cooling fan units	
11	Blade server should support virtualization.	
12	HBA card (with necessary ports, interfaces and cables for the solution to work).	
13	The server should be capable of generating pre-failure alerts for CPU, memory, hard-disks, power modules, Fans etc.	
14	Integrated management module with remote diagnostics	
15	5 years onsite support & warranty back to back with OEM	

10. Blade Chassis

S1	Minimum specification	Compliance (Yes/ No)
1	Single blade chassis should accommodate 8 or higher hot pluggable blades	
2	Should support two processor based blade of latest generation.	
3	Blade Chassis shall accommodate hot swappable Interconnect Modules, Power supplies, Fans, Management Modules etc.	
4	It shall include all accessories so that it can be mounted on an Industry Standard 42 U Rack.	
5	The chassis should provide redundant switch modules for proposed I/O connectivity.	
5	The Blade solution should provide minimum of 4x10Gb SFP + Ethernet or 8*10GbE converged Fabric ports through each Redundant Switch modules for external connectivity.	
6	Redundant SAN Switch Module having minimum 4 ports of minimum 8 Gbps (all port licensed). It should connect to the external SAN Switch to get connected with SAN Storage System.	
7	The power subsystem should support N + N power redundancy (where N is atleast equal to 2) for a fully populated chassis.	
8	The enclosure should be populated fully with power supplies of the highest capacity.	
9	It shall be supplied with the PDUs to connect Power Cables to the Chassis power input terminals.	
10	Each blade enclosure should have a cooling subsystem consisting of redundant hot pluggable fans or blowers enabled with technologies for improved power consumption and acoustics	
11	Remote management capabilities including remote KVM should be included	

RFP- for Migration of Tripura State Data Center

12	Management Solution which provides a single point of control for intelligent management of the entire console. It should provide setup & Control of Enclosure, should report asset and inventory Information for all the devices in the Enclosure. It should report Thermal & Power Information of per Server and it should provide IP KVM functionalities & Access for all the Server Blades from the Management Module.	
13	Should include all necessary licenses for management for a fully loaded chassis.	
14	5 years onsite support & warranty back to back with OEM	

11. Enterprise SAN Storage 100 TB (for DC) raw

Sl	Minimum Specification	Compliance (Yes/ No)
1	OEM should be in Leaders in latest Gartner's Magic Quadrant for Primary Storage report during last 3 years.	
2	The Storage Systems should be Enterprise Class Storage System and supplied with 100 TB raw capacity with 1.2 TB or higher SAS drives	
3	Proposed system should be Hybrid Storage Array with SSD: SAS = 30:70	
4	The Storage should support RAID 5, RAID 6, RAID10	
5	Front End Port: 48 nos all FC 16 Gbps	
6	Back end port: 12 nos all 32 Gbps	
7	The storage system should have minimum 60 GB cache. The write cache must be mirrored.	
8	IOPS: 1 M. The read/write would be in the ratio of 50:50.	
9	Protocol support: Minimum FC, ISCSI (10 GbE), FCoE, FCIP, FCP	
10	Proposed Storage should have at least dual active-active redundant, hot swappable controllers for high-availability.	
11	The storage should be with No Single Point of Failure (SPOF). All the components should be redundant and hot swappable including power supply, fans, batteries etc. The proposed storage must support non-disruptive replacement of hardware component. The storage must provide non-disruptive firmware/micro code upgrade	
12	The storage should be able to provide availability parameter of 99.9999 % from the date of acceptance of the SAN to be calculated on an annual basis.	
13	The storage should have protection of cache data during a power down either scheduled or unexpected power outage by battery backup for at least 72 hours OR by de-staging the data in cache to non-volatile Disk.	
14	The proposed storage system should support both Synchronous and Asynchronous Data Replication to remote site.	
15	The storage system should have support for multi-path configuration for redundant path to connected hosts. Any Licenses	

RFP- for Migration of Tripura State Data Center

	required for this should be provided with Storage.	
16	The storage should have Virtual/Thin provisioning and traditional raid group provisioning for Storage allocation to hosts.	
17	The storage should support dynamic LUN expansion/concatenation while LUN is mounted on the host	
18	The storage should support data tiering between different storage tiers namely SSD, SAS within the same storage array.	
19	The storage should have LUN masking or equivalent feature to prevent access of a LUN from unauthorized Hosts	
20	The storage should be able to generate audit logs to record activities including host-initiated actions, physical component changes, attempts blocked by security control.	
21	The storage should support multiple operating systems such as Windows, Unix, Linux, Solaris etc. on a single port	
22	The storage should support clustering solutions such as Microsoft cluster, MS SQL cluster, SUN Solaris cluster, Linux cluster etc.	
23	The storage should be supplied with Storage management, virtual/thin provisioning, local copy (clone and snapshots both), remote replication copy (sync and Asysnc both) Sub- Lun Data Tiering and other required software for entire capacity (i. e. 200TB).	
24	Storage management software should provide interface/wizards to perform configuration operations like create LUNs present LUNs to host, set LUN attributes etc. Management software must include both GUI and CLI tools and performance tuner, FAST	
25	Storage management software should be able to perform and monitor local and remote replication operations	
26	Storage management software should provide real time monitoring and historical analysis of storage performance data such as total IOPS, read%, write %, cache-hit %, throughput, bandwidth, etc. for analyzing performance of the systems	
27	5 Years, Comprehensive, Support Warranty including part replacement /repairs within 24 hours of reporting, and Software support for updates, upgrades, patches, and bug fixes for supplied s/w from OEM. SSD drives should be covered for irrespective of read/writes on them. In case of Disk failure the faulty disk will be maintained /destroyed by TSCA. Proactive storage monitoring & support from OEM should be enabled. The proposed bidder will need to ensure support of product & change of components @ zero cost in case of any part becoming obsolete	
28	All the required or necessary licenses must be perpetual and provided for the Full capacity of the storage from Day one. This should include licenses for Management and monitoring module and all the storage features such as Snapshot, SnapView, BCU, Cloning, Sync and Async Replication etc. Upgrade in capacity should not incur any additional license cost.	

RFP- for Migration of Tripura State Data Center

29	The storage array must support policy based compression for SAN (Block) workload. Vendor should provide the necessary licenses for offered full usable capacity of Storage	
30	The storage array should support in-line data de-duplication for storage pools. Vendor should provide the necessary licenses for offered full usable capacity of the storage.	
31	The storage system must support Heterogeneous or 3rd Party storage virtualization. System/hardware should support virtualization without any additional cost on the hardware	
32	The storage system must be supplied with Data-at rest encryption and key management solution (for Storage).	
33	All required cable and connectors to be supplied and the power cables to be IEC C13-14	

12. SAN Switch:

SI No	Specification	Compliance (Yes/No)
1	SAN switch must be rack-mountable	
2	The switch should be 48 ports and must be configured with license for 48ports	
3	All 48* FC Ports for device connectivity should be 8/16 Gbps auto sensing Fiber Channel Ports loaded with 16 Gbps FC modules	
4	The switch must have hot-swappable redundant power supply & fan module	
5	The switch shall support hot-swappable Small Form Factor Pluggable (SFP) transceivers.	
6	The switch must support hardware ACL-based Port Security, Virtual SANs (VSANs), Port Zoning/LUN Zoning	
7	Switch should support SSHv2 and SNMPv3	
8	The switch must support port mirroring feature	
9	The switch must support TACACS+ or RADIUS authentication when managing from GUI, console or telnet to prevent unauthorized access	
10	should support IPv6.	
11	Warranty : 5 years	

13. Backup, Replication and recovery solution for 100TB

SI	Minimum Specification	Compliance (Yes/ No)
1	Centralized web based common management system to automates backup, replication and recovery for heterogeneous enterprise data	

RFP- for Migration of Tripura State Data Center

2	Solution should have wizards to guide setup and modification of device configurations and backup jobs, including snapshots and recovery.	
3	Should support various level of backups including full, incremental, differential, synthetic, image and virtual synthetic backups	
4	Should support Local backup and DR Cloud service	
5	Should support Storage area networks (SANs), network-attached storage (NAS), and direct-attached storage (DAS).	
6	Should support various operating system platforms such as Windows, Linux and UNIX for backup and restore.	
7	The software should support virtual platform like VMWare, KVM, Citrix Xen Server (throughout existing version 6.5) and Hyper V, licensing of such environments should be based on physical hosts not on the number of virtual instances.	
8	Should provide bare metal recovery for all major OEM. (Physical, virtual servers and Logical H/W partitions)	
9	Proposed solution should have backup storage options including, tape drives and libraries, virtual tape libraries and disk arrays.	
10	Should have integrated snapshot management for existing (Hitachi VSP & EMC) and proposed storage arrays from end-to-end within the backup software including configuration of snapshot backup to recovery.	
11	Backup solution should have ability to natively backup and restore databases like Oracle, Microsoft SQL Server, MySQL, SAP, PostgreSQL.	
12	Must be able to perform data reduction by removing duplicate data at the block level in the repository.	
13	The proposed software must have capability of Inline Deduplication & Compression.	
14	The proposed software must be able to compress and encrypt data at destination and should be available even when utilizing de-duplication.	
15	The proposed software should provide for 256 bit AES encryption for data at rest at DC and DR and for data travelling during replication and should not have any future cost implications.	
16	Should ensure integrity of the backed-up data (or at the time of restoration) returned during a restore by verifying the block data read with a checksum of the data.	
17	Backup software solution must have capability to do trend analysis for capacity planning of backup environment.	
18	Allow recovery of data locally or remotely from any remote office using a common web interface for backup, replication and archive.	
19	The proposed solution should have inbuilt feature for extensive alerting and reporting with pre-configured and customizable formats.	
20	The Backup software should have the ability to report inactive files, which will help the customer decide what to backup/archive.	
21	Bidder must ensure that the proposed backup software can use the	

RFP- for Migration of Tripura State Data Center

	proposed backup appliance (tape library) simultaneously.	
22	The proposed backup software should be configured in such a way that no extra license for client is required while moving from LAN to SAN based backup or vice-versa.	
23	Should support integration of LDAP and Active Directory	
24	Proposed solution must come with special hardware based appliance and must be deployed in High Availability mode at DC	
25	Shall have four controller system with automatic failover. If four controller system is not available, 4 single controller systems can be quoted & they have to be configured in automatic failover.	

14. Tape Library (latest) with 50 tapes

Sl	Minimum Specification	Compliance (Yes/ No)
1	The Tape Library unit shall be configured with Linear Tape Open (LTO) Gen-8 Tape Drives or higher with 9 TB native and 22.5 TB compressed capacity (when 2.5:1 compression is used).	
2	The Tape Library should be offered with minimum 2 slots of LTO-8 tape drives populated from day 1.	
3	Should be offered with minimum 10 Cartridge slots	
4	Tape library shall provide web based remote management which will be part of Single Management Console	
5	Offered LTO-8 drive shall support 360MB/sec in Native mode and a compressed speed of at least 750MB/sec for 2.5:1 compression.	
6	Tape Drive shall support AES 256-bit embedded hardware encryption with compression.	
7	Offered Tape Library shall provide 8 Gbps native FC connectivity to SAN switches.	
8	The Tape Library should have a Bar-Code Scanner	
9	Tape Library should have dual power supply	
10	Tape Library shall be provided minimum 50 LTO-8 Tape Cartridges.	
11	The Tape Library should have support for minimum 7 Years, and must be quoted with 5 Years ONSITE SUPPORT & warranty.	

15. Enterprise Management System (EMS)

Sl No.	Specification	Compliance (Yes/ No)
1	Server, Device & infrastructure health checkup, Device discovery, Monitoring & Management	
1.1	The system should provide discovery of heterogeneous physical network devices like Layer-2 & Layer-3 switches, Routers and other IP devices and do mapping of LAN & WAN connectivity with granular visibility up to individual ports level.	
1.2	The system should support maps grouped by network topology,	

RFP- for Migration of Tripura State Data Center

	geographic locations of the equipment's and user group/departments. These should help in understanding physical Network, virtual Network services and relationships between them.	
1.3	Help Root Cause analysis and Pinpoint specific causes of outages and performance issues.	
1.4	Controlling, tracking and remediating changes across hundreds of network devices.	
1.5	Provide a single platform for monitoring physical, virtualized and cloud environments	
1.6	It delivers pre-packaged and easily customizable reports, alerts and dashboards.	
1.7	Correlate among multiple events and suppresses symptomatic alarms in order to deliver targeted insights.	
1.8	Monitor parameters like Device Availability, Link Availability, Bandwidth Utilization, Rx, Tx etc. directly as well as through user created VLANs.	
1.9	Monitor QoS parameters like Jitter, Latency and Packet Loss	
1.10	Solution should be a single platform solution for proactive fault isolation, root cause analysis, change management, service aware management, IP services management, policy management, and reporting for network devices across multiple network technologies.	
1.11	Provides highly scalable management platform that can provision for up to many hundreds of network device management from a single optimized hardware.	
1.12	Proposed fault management must be able to clearly identify configuration changes as root cause of network problems	
1.13	Proposed solution must have an in-built capability to carry out configuration management without the use of any external software to reduce integration efforts and increase ease of deployment	
1.14	SLA violation alarms must be generated to notify whenever an agreement is violated or is in danger of being violated.	
1.15	Proposed solution must provide holistic view of availability of host servers on network and their performance data for fault management in a single pane of application	
1.16	Should be able to provide insight on the relationship between physical resources and virtual entities for virtual network environments.	
1.17	Should be able to provide Dashboard view to show the types of inventories in your virtual network, and their growth over time	
1.18	Solution should provide capability to monitor any device based on SNMP v1, v2c & 3	
1.19	Solution must be capable of monitoring the availability, health, and performance of core networking devices including but not limited to CPU, memory, temperature, interface bandwidth utilization.	
1.20	Solution should have the ability to receive SNMP traps and syslog	
1.21	Solution should automatically collect and store historical data so users can view and understand network performance trends.	
1.22	Solution should be capable of monitoring packet loss, Packet QOS,	

RFP- for Migration of Tripura State Data Center

	Packet Errors on one or more ports	
1.23	SMS and email notification to users against critical alarms, hardware change notification (configurable) etc.	
2	Virtualization Monitoring	
2.1	Manage hosts & guests and workloads with automatic discovery of pools, hosts, host CPUs, etc.	
2.2	Monitor key parameters of Host like CPU Cores, Memory, VMs running, etc. and VM key parameters like CPU, Memory and Disk Usage, etc. Tracing of VMs across host servers.	
2.3	Supports stand platform VMware ESX/ESXi, Microsoft HyperV, KVM, Citrix and Suse/Red hat Linux and other open stack/open source platforms	
2.4	Application monitoring monitor individual applications with respective application specific important parameters.	
2.5	Supports Web Servers like Apache, Tomcat, IIS, etc.; Application Servers like JBOSS, J2EE, Oracle etc.	
2.6	Support for new devices for traps and automatically generate alarms	
2.7	Server Monitoring should be with and without Agent (Agent-less) loaded on the servers. The Solution should monitor through agent Based (Non-SNMP), agent less (Non- SNMP), agent based (with-SNMP) heterogeneous operating systems for both physical and virtual environments OS including but not limited to Windows 32/64 bit, All Major Flavors of Linux, Solaris, HP-UX etc. Agent less or remote monitoring for critical servers only.	
2.8	Performance monitoring of servers from all major vendors running on any OS like Windows, Linux, Solaris, AIX etc.	
2.9	Granular level analysis and tracking of individual processes & services running on each servers to track performance issues.	
2.10	Server specific overviews for key parameters like CPU, Memory, Disk & HD Utilization, Server Health, etc.	
3	Application Performance Monitoring	
3.1	Application Uptime, response time measurement, problem area identification, root cause analysis, code analysis, pin points problems and extract customizable report	
3.2	The proposed solution should measure the end users' experiences based on transactions without the need to install agents on user desktops in a customizable dashboard.	
3.3	Solution shall work based on the passive listening of the network traffic to and from the Web servers, and analyzes the transactions without affecting the performance or availability of the IT infrastructure in any way.	
3.4	The proposed solution must provide ability to monitor performance of Java/.Net/PHP methods based on simple parameters (Strings, Numbers) passed to the methods 24x7 in production environments with negligible impact on monitored application	
3.5	The proposed system must be able to detect user impacting defects and anomalies and reports them in real-time: 1) Slow Response Time	

RFP- for Migration of Tripura State Data Center

	2) Fast Response time 3) Low Throughput 4) Partial Response 5) Missing component within transaction	
3.6	The proposed solution should provide Browser Response Time Metrics such as Page Load, AJAX, and JavaScript Function.	
3.7	The proposed solution must have integrated ability to store historical performance data without requiring external database to be configured for any length of time.	
4	Database Performance Monitoring	
4.1	The solution should monitor multiple database servers and multiple versions of each server including: <ul style="list-style-type: none"> • Oracle • SQL Server • MySQL • PostgreSQL 	
4.2	Solution should Provide SQL Response Time for Monitoring Custom Queries	
4.3	The solution must support SQL Agent monitoring - failed jobs, long running job.	
4.4	The solution must support Database Health and Settings - Check database status (offline, suspect), Check database options (auto grow, auto shrink, auto close etc.)	
5	Service Desk Management	
5.1	Solution should provide a web based service support system to automate incident, problem, change, knowledge management, interactive support, self-service	
5.2	Solution should support request management, change order management, incident management, problem management, configuration management.	
5.3	Solution should provide an identity management system that allows user/role management and integration with authentication systems	
5.4	Solution should support multi-tenancy to enable different tenants	
5.5	Solution should provide a distributed and scalable architecture that caters to growth in number of analysts, end-users and call volumes.	
5.6	Solution should provide Workflow tool or engine to help in modeling and automating Service Management System (SMS) workflows in order to meet complex process or workflow needs. The Workflow tool or engine shall allow building processes/workflows that allow decision-based branching, parallel processing, custom input and approval forms, and integration with home-grown and third-party systems via a variety of integration tools	
5.7	Solution should offer features like workflows, Knowledge Base, Ticket Notification, Help Desk Reports	
6	Service Level Agreement	
6.1	Intelligent SLA monitoring through proactive violation alerting and comprehensive reporting.	

RFP- for Migration of Tripura State Data Center

6.2	Resource level SLA specification and support for multiple SLA templates. Option to choose from the default templates to maintain service policies.	
6.3	Separate specification for Outage, Business Hours and Holidays. Enable SLA Timers to prevent unnecessary escalations.	
6.4	The solution should have a consolidated, automated graphical report for SLA compliance with ability to drill down to reason for non-compliance"	
6.5	Deliver service level information and alerts directly to IT Operations and Service Support consoles	
7	General requirement	
7.1	Bidders must quote "Commercial of the Shelf" product, with back to back OEM support.	
7.2	The proposed EMS solution should provide a single console that should be able to recognize devices.	
7.3	Proposed system should provide integration with the proposed BMS/ Non IT systems and should provide a single integrated console along with IT systems or separate consoles for the IT and non IT.	
7.4	Server, Device& infrastructure health checkup, Device discovery, Monitoring & Management (with or without agent) should be licensed for minimum 100 devices	
7.5	Application performance Monitoring (includes Java, .Net and PHP packs) should be licensed for minimum 100 Application	
7.6	Database Performance Monitoring should be licensed for minimum 100 databases.	
7.7	Service Desk Management should be licensed for minimum 10 users	
7.8	Bidder shall provide licenses as mentioned herewith and support for next 5 years.	

16. Server Rack 36U with PDU

Sl	Feature	Minimum specification	Compliance (Yes/No)
1	Dimension	36U (H) x 800 mm (W) x 1200 mm (D)	
2	Door	Single Perforated Front Door, Split Perforated Rear Door with lock and key at both Doors.	
3	Side Panel	Removable side panel split into two, pass-through type in front and rear side, with preinstalled wire brush.	
4	Castor Wheels	Castor Wheels and adjustable levelling feet from underneath or above	
5	Roof	Two large cable access slots for high density cabling and brush strips for air containment.	

RFP- for Migration of Tripura State Data Center

6	Mounting Channels	Rack should be supplied with accessories mounting channels - 04 no's in rear (2 in left and 2 in right) to mount zero U rack PDUs. Each channel should be capable to mount 2 Rack Intelligent PDUs.	
7	Earthing	For earthing, enclosures shall be bonded to the protective earth system or communications earth system (CES) using a minimum 2.5 sq. mm.conductor.	
8	Coating	Colour should be Black. Rack to be powder coated with Nano ceramic pre-treatment process using a zirconium coat. Powder coating thickness shall be 80 to 100 microns. The Powder coating process should be ROHS compliant.	
9	Compatibility	Each rack should be compatible with floor- throw as well as top-throw Data centre cooling system.	
10	Warranty	5 years	

17. KVM (Keyboard, Video & Mouse) Switch

Sl	Minimum Specification	Compliance (Yes/ No)
1	It should have a minimum of 16 ports	
2	It should support 4 remote users and 1 user at the rack with 16 ports	
3	It should take control of servers at BIOS Level	
4	It should facilitate both in-band & out-of band access	
5	It should be able to integrate with intelligent power strips, so as to be able to reset power of remote device at port level.	
6	Remote access of both Servers and serial devices such as routers (through same or different appliances).	
7	It should have facility to integrate with secure management device	
8	Virtual Media Support of multiple media including 'ISO image' files	
9	Dual (redundant) Power supply	
10	Dual Gigabit Ethernet with Failover	
11	PC selection – On screen Display menu hot key	
12	19 inch Rack mountable design	
13	KVM access over IP	
14	Support for resolution of 1600*1200	
15	Single window access to all equipment.	
16	Equipment access logs and event history and send email alerts based on logs details as triggers	
17	Perfect mouse synchronization without changing server mouse settings	
18	Connect via LAN or Internet	
19	Native Windows and Java clients support Windows, Linux users	
20	Multi-browser access for Internet Explorer, Chrome, and Firefox access	

RFP- for Migration of Tripura State Data Center

21	Server Connectivity Modules available for PS/2, USB and USB with virtual media,	
22	Server Connectivity Modules supporting analog VGA video, HDMI	
23	Support for Dell, HP, Cisco, and IBM blade servers	
24	Warranty: 5 years	

18. Display Unit (55 inch)

Sl	Feature	Minimum specification	Compliance (Yes/No)
1	Monitor Type	LED	
2	Panel Technology	IPS	
3	Screen Size	Minimum 55" (diagonal)	
4	Aspect Ratio	(16:9)	
5	Native Resolution	1,920 x 1,080 (Full HD) or higher	
6	Brightness	450nit or higher	
7	Contrast Ratio	1,200 : 1 or more	
8	Dynamic CR	400,000 : 1 or higher	
9	Viewing Angle (H x V)	178 x 178 degree	
10	Response Time	Up to 12ms (GTG σ)	
11	Orientation	Portrait & Landscape both	
Inputs			
12	Digital	HDMI(1),DVI-D(1) , 1 no RJ45	
13	Analog	RGB(1), Component (RGB Shared), AV	
14	Audio	PC Audio In-1, AV/Component Audio In (RCA-1)	
15	External Control	RS232C(1), RJ45(1), IR(1)	
16	USB	1 or more	
Outputs			
17	Digital	DVI-D(1) or Display Port (1) as required	
18	Analog	RGB(1)	
19	Audio	External Speaker-1	
20	External Control	RS232C(1)	
21	Bezel to Bezel Gap	4.9 mm or less	
22	Warranty	5 years	

19. Desktop Computer

Sl	Feature	Minimum specification	Compliance (Yes/No)
1	Processor	8 th generation Intel® Core™ i5 (1.7 GHz base frequency, up to 3.3 GHz with Intel® Turbo Boost Technology, 6 MB cache, 4 cores) or Higher	
2	Memory	16 GB DDR4	

RFP- for Migration of Tripura State Data Center

3	Hard Disk	1 TB SATA, 7200 RPM	
4	Graphics	NVIDIA GeForce or AMD Radeon with min 2 GB graphics with min resolution 3840x2560 @60Hz	
5	Monitor	Minimum 22'' LED Monitor of same brand of PC. Max. Resolution FHD 1920 x 1080 Ports: Min 1xHDMI, 1xDP Energy Star complied	
6	I/O Port	Minimum 1xUSB 3.0, 2xUSB 2.0, 1 RJ45, 1 VGA interface and standard audio ports	
7	Ethernet	Integrated 10/100/1000 Gigabit Ethernet LAN	
8	Mouse	USB OEM optical Mouse	
9	Keyboard	USB OEM keyboard	
10	Optical Drive	DVD-Writer	
11	Audio	High definition Integrated Audio	
12	Form factor	Tower/ Mini Tower/ All in one desktop	
13	Operating System	Windows 10 Professional (64Bit)	
14	Other Software	1. Commercial Antivirus (5 years subscription) 2. Microsoft Office Professional Edition	
15	Warranty	5 years	

20. Laptop

Sl	Feature	Minimum specification	Compliance (Yes/No)
1	Processor	8th Generation Intel Core i5 (minimum 1.6 GHz base frequency, upto minimum 3.4 GHz with Intel® Turbo Boost Technology, 6 MB cache, 4 cores)	
2	Graphics Type	Integrated	
3	Graphics	2 GB, Intel UHD / NVIDIA Geforce	
4	Operating System	Windows 10 Professional (64Bit)	
5	Type of Hard Disk Drive	SSD	
6	Hard Disk Drive Size	Minimum 256 GB	
8	RAM Size	8 GB DDR3/DDR4	
9	Wi-fi Connectivity	Intel® 802.11a/b/g/n/ac	
10	Bluetooth	4.2 or higher	
11	USB 3.0 or Higher(Standard)	2 No.	
12	USB 3.0 or Higher (Type-C)	1 No.	

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13	Display Size	13 to 15 inch (diagonal)	
14	Display Resolution	1920 x 1080 Pixel	
15	Weight	Maximum 2.5 kg	
16	Display Type	Full HD LED Backlit IPS Scratch Resistant Anti-glare Display	
17	Speakers	Integrated Audio with inbuilt 2 stereo speakers.	
18	WebCam (HD or better)	Available	
19	Keyboard	Backlit	
20	Finger Print Reader	Optional	
21	Optical Drive	Optional	
22	Accessories	1) Power adapter 2) HDMI Display adapter (if HDMI not onboard) 3) USB3 Ethernet adapter (if not onboard) 4) Carry Case 5) Wireless mouse	
23	Other Software	1) Microsoft Office Professional Edition 2) Commercial Antivirus (5 years subscription)	
24	Warranty	5 years	

21. Apple MacBook Pro

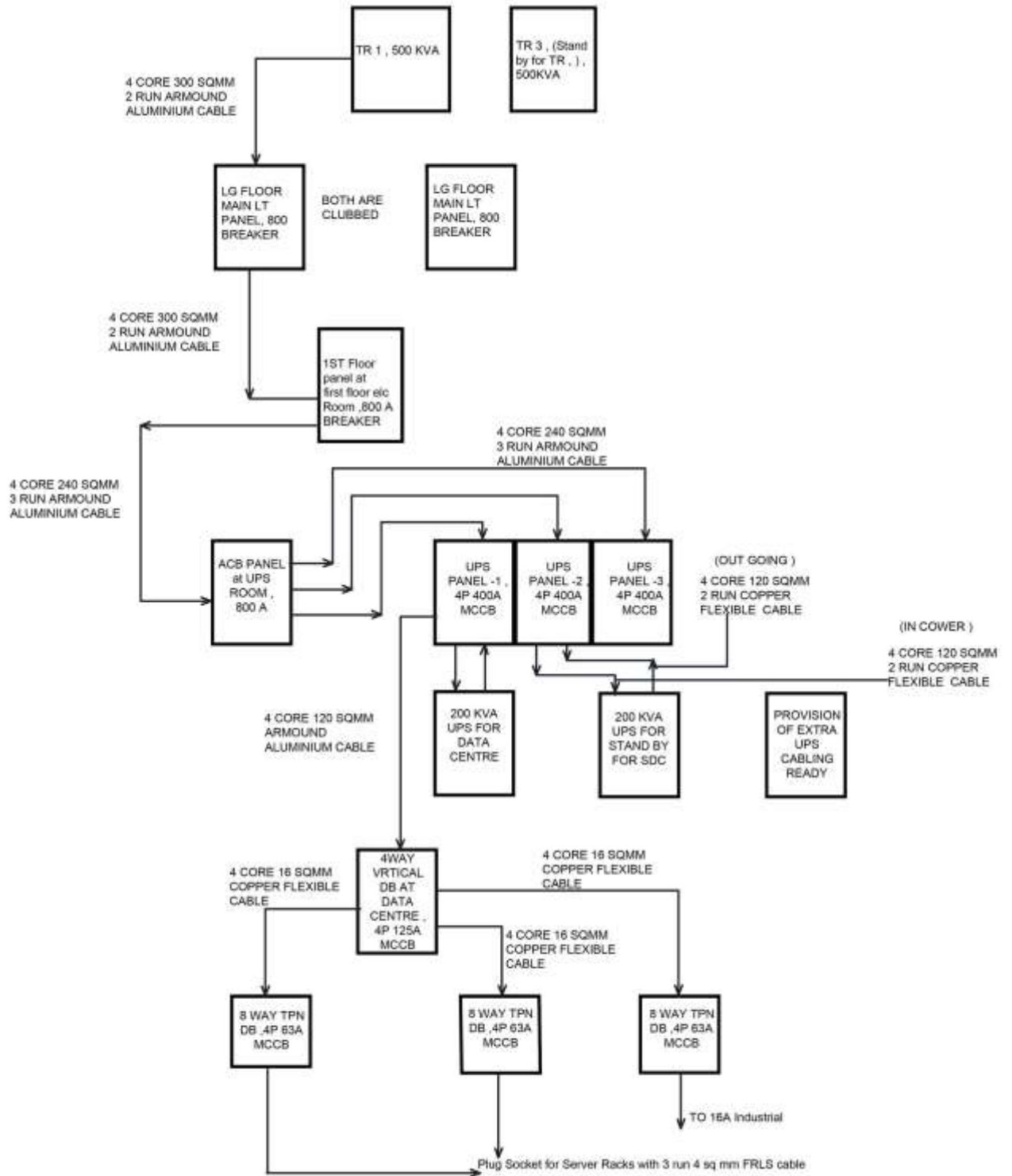
Sl	Specification		Compliance (Yes/No)
1	Processor	2.3GHz quad-core Intel Core i5	
2	Graphics	Intel Iris Plus Graphics 655	
3	Operating System	macOS Mojave	
4	Hard Disk Drive Size	1 TB SSD	
5	RAM Size	16GB	
6	Wi-fi Connectivity	Intel® 802.11ac	
7	Bluetooth	5.0	
8	USB 3.0 or Higher (Type-C)	4 No.	
9	Display Size	13.3-inch (diagonal)	
10	Display Resolution	2560 by 1600 pixels	
11	Display Type	LED-backlit display	
12	Display Brightness	500 nits	
13	Speakers	Stereo speakers with high dynamic range.	
14	Battery	Integrated 58.0-watt-hour lithium-polymer	

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		battery	
15	Accessories	1) Carry Case 2) Wireless mouse USB Type-C to USB 3.1 Gen1 Female Adapter	
16	Other Software	1) Microsoft Office Professional Edition 2) Commercial Antivirus (5 years subscription)	
17	Warranty	5 years	

Annexure - IV: Existing non IT Components

Layout of existing electric connection is given below:



Brief information on non-IT infrastructure already existed at new DC:

1. Electric work:

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2x500 KVA transformers are working for TSDC and 3x500 KVA new transformers have been installed in new IT Bhavan building. New IT Bhavan building requires 4x500 KVA working transformers and 1 standby transformer. 2x500 KVA transformers require for DC at new building, 1x500 KVA transformer require for DIT and common utilities and 1x500 KVA transformer require for STPI for top 3 floors and half of HVAC's power load.

HT panel:

Existing: 7 HT panels (2 incomer, 5 outgoing) have already been installed in the power room at ground floor of IT Bhavan building. 11 KV wire of Power sub division came to HT incomer panels and from 3 HT outgoing panels it goes to 3 transformers. Wire laid for extending connection from remaining HT outgoing panels to transformers.

LT panel (main):

Existing: 4 LT panel installed in the power room at ground floor of IT Bhavan for extending power from 4 distribution transformers. From 1 such LT panel of ground floor power extended to LT room of 1st floor/ DC floor.

Diesel Generator (DG) sets:

Existing: Old TSDC has 3x200 KVA DG sets of Jackson (one to be connected with new DC). 3x200 KVA DG sets of Kirloskar have been installed for new IT Bhavan (2 for DC, 1 for other). DG panel is installed in power room of ground floor of IT Bhavan building.

UPS:

Existing: 2x200 KVA UPS has been installed for new DC, which will be mainly used for server, network and security equipment's of DC server, staging and telecom room. Battery make, model etc. given below:

Battery Make: Amaron (QUANTA)

Battery Type: SMF

Rating: 12V, 200AH

No. of Batteries: 136

LT panel (DC floor):

Existing: One LT panel is provisioned in DC floor for new DC to distribute power to PACs, lighting, etc. There is a provision for only 1x500 KVA Distribution Transformer (DT) incomer in 1st floor LT panel.

Power cable:

Existing: Power cable laid in the server room from one 200 KVA UPS only.

Brief on exiting Transformer, DG and UPS is given below:

Sl.	Description of Item	Make	Model No.	Qty
-----	---------------------	------	-----------	-----

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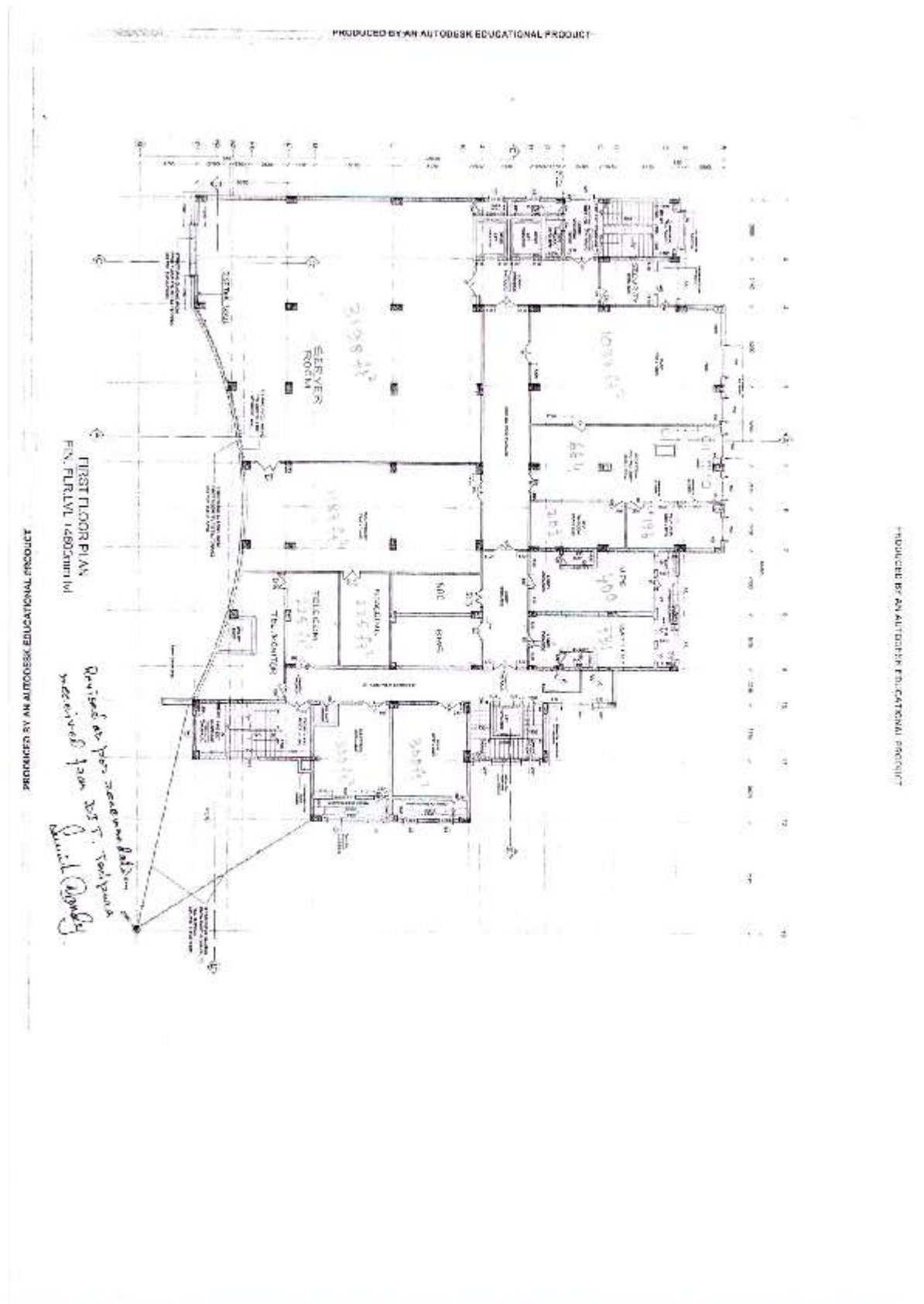
1	DG- 200KVA DG Set (at new IT Bhavan)	Kirloskar	6SL 1500TAG2	3
2	DG – 200 KVA (at old SDC)	Jackson	JSP 200	1
2	500KVA Outdoor Transformer, 11KV/433 volts including HT panel, LT panel, power distribution along with sockets, electrical cabling, etc	Kirloskar	500/474	2
4	200 KVA UPS (93E) with 30 minutes battery backup (72 nos. of 12V/200AH SMF) and accessories (racks, link set, cables).	Eaton	93E	2

2. **Precision AC (PAC):** 4x25 TR PAC in server room, 2x8.5 TR PAC in staging room & 2x8.5 TR PAC in telecom room has already been installed.

Sl.	Description of Item	Make	Model No.	Qty
1	25 TR PAC	Emerson	Libert PEX	4
2	8.5 TR PAC	Emerson	Libert PEX	4

3. **Civil:** False flooring and false ceiling is available at server room, staging room, and telecom room in the new DC. The physical layout of the new DC is given below:

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Staging room: 225 sq ft. (approx.)

Telecom room: 225 sq ft. (approx.)

NOC room: 1187 sq ft. (approx.)

SOC room: 200 sq ft. (approx.)

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BMS room: 200 sq ft. (approx.)

UPS room: 400 sq ft. (approx.)

Battery room: 331 sq ft. (approx.)

DC LT panel room in the same floor: 300 sq ft (approx.)

Distribution Transformers (DT) and Diesel Generator (DG) sets for TSDC are placed outside the building.

In the ground floor of new IT Bhavan building there is a power room. HT panels, LT panel and Capacitor panels are placed there.

Area of new DC:

Server room: 3198 sq ft. (approx.)

- 4. Fire Alarm & Detection System:** Intelligent addressable fire alarm panel, photo-electric smoke detectors and multi sensor (smoke + heat) detectors above false ceiling, bellow false ceiling, bellow false flooring. Brief on the system is given below.

Sl.	Description of Item	Make	Model
1	Fire Alarm and Detection system	Schneider	FX-3NET

- 5. VESDA:** laser based smoke detector, aspirator and filter.

VESDA BOQ AS IPLEMENTED				
Sl. No.	Item Description	QTY	Units	Make
1	Supply and installation of Power Supply Unit for the VESDA Detectors	4	Sets	System sensor Honeywell
2	Supply, Installation, testing and commissioning of Aspiration Tubes as per the detailed specification for Aspiration Smoke Detection System	500	Nos.	
3	Supply, Installation, testing and commissioning of Capillary Tubes as per the detailed specification for Aspiration smoke Detection system	24	Nos.	
4.	Supply, installation, testing and commissioning of Air Termination (Nozzles) as per the detailed specification for Aspiration Smoke Detection System	24	Nos.	
5.	Supply, installation and commissioning of VESDA Configurator software as per the detailed specification for Aspiration Smoke Detection System	1	Set	
6.	Supply, installation and commissioning of High Level Interface as per the detailed specification for Aspiration Smoke Detection System	1	No	System sensor Honeywell
7.	Electronic Hooter with built in module and	4	Nos.	

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	shall be operated in case of VESDA Panel activated			
8.	And fixing of 2C x 1.5 sqm mm. Cu Armoured Cable with suitable fixing accessories	180	Mtrs.	
9.	Addressable input / output modules for sending indications to TACP	1	No.	
10	Supplying, installing, testing and commissioning approved make MS conduits on ceiling / wall / floor etc complete with accessories like, junction boxes, Collars, Bends etc of 25 mm dia	50	Mtrs.	
11.	Indicating lamps at security for monitoring the status of VESDA system	1	No.	

6. Fire Suppression System (FSS):

Sl. No.	Item description	Quantity
1.	120 lit capacity Seamless Cylinder CCOE Approved, complete with valve assembly and arrangement for supervisory switch connection for monitoring cylinder pressure, a pressure gauge with a safety burst disc and a safety cap etc complete and suitable to fill the gas quantity as mentioned	13
2	NOVEC 1230 OF approved make	1360
3	Eletro pneumatic Actuator Head operated electrically from the detection & control system operational within release pressure of max 53 bar upto minimum 9 bar within temperature range of 20°C to + 50°C.	6
4	Pneumatic Actuator pressure head valve, operational in the range of 100 to 9 bar cylinder pressure at the temperature range of 20°C to + 50°C, to allow pressure actuation to NOVEC 1230 & mounted directly on top of the Cylinder	18
5	Discharge Nozzles are designed to provide the proper flow rate and distribution of NOVEC 1230 to total flood a hazard area 180 deg. / 360 deg	42
5.1	2"	5
5.2	1.1/4"	3
5.3	1"	8
5.4	3/4"	3
5.5	1/2"	2
6	Master Cylinder Adapter Kit for operating pressure upto 220 bar & bursting resistance upto pressure 960 bar used to actuate the Slave cylinder (adapters, tee's, elbows etc)	6
7	Flexible discharge Hose to route the NOVEC 1230 Agent from the storage cylinders to the discharge piping by flexible rubber hose braided with Zinc plated steel, for operating pressure upto 60 bar & bursting resistance upto pressure 265 bar at the temperature range of 20°C to + 50°C	10
8	Manifold Brass Check Valve installed at the discharge manifold to allow removal of any NOVEC 1230 cylinder at min opening	18

RFP- for Migration of Tripura State Data Center

	pressure of 1 bar & max operating pressure of 42 bar, while retaining the closed system	
9	M S Container Strap	6
10	Flexible Actuation Hose of rubber material braided with Zinc plated Steel (Pilot pressure is directed to a pressure operated control head on each cylinder valve using ¼ onch actuation hose) for operating pressure up to 60 bar & bursting resistance up to pressure 265 bar at the temperature range of 20 ⁰ C to + 50 ⁰ C	42
11	C.S. Seamless pipes as per ASTM A 106 Gr. B. of varied size as per load requirement with necessary fittings	6
12	Forged M.S. Seamless Piping, fittings & supports, etc. Pipes shall be sch. 80/40 of varied size as per load requirement	6
13	Pressure switch	6
14	Abort Switch	6
15	Release Switch	6
16	Electronic hooter cum strobe	6
17	6 Zone Gas Release Panel with Battery Backup	6
18	Conventional Smoke Detector	36
19	2C x 1.5 Sq. Mm. Cu. Armoured Cable	605
20	Warning Plate for use of Outside room	6
21	Warning Plate for use at inside room	6

7. WLD

Sl.	Description of Item	Make	Model
1	Water lick detection system	Star Electronic Concept	H20 Alert

8. Rodent Repellent System:

Sl.	Description of Item	Make	Model
1	Water lick detection system	Star Electronic Concept	Ultra NW

9. Existing BMS

Sl	Description of Item	Make	Model	Qty
A	Central Monitoring Station			
1	BMS SERVER- Intel® Xeon® E3-1220 (3.10GHz/4-core/8MB/80W, 1333, Turbo 1/2/3/4) /8MB Intel® Smart Cache/ 8 GB (2x4GB) PC3-10600E DDR3 UB ECC/ HP 2X250GB 3G SATA 7.2K rpm LFF (3.5-inch)/ HP NC112i 1-Port Ethernet Server Adapter (x2)/ With Windows Server 2008 R2 32-bit or 64-bit.	IBM	X3100 M55457IYA	2

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2	Struxureware	Schneider		
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10. Existing lighting system at DC: Detail on existing lighting system is given below

SL	Description of Item	Make	Qty
1	Lighting at DC Area (Large Size)	Havells	86

Annexure - V: List of Application and Hardware at OLD SDC to be Shifted to new DC**1. Existing Application and Websites**

SI No	No. of Application and Website	Platform
1	52	Linux/Apache/Tomcat/PHP/PgSQL
2	30	Windows/Apache/PHP/PGSQL
3	72	Windows/IIS/ASP.Net/MSSql
4	5	Windows/IIS/ASP.Net/Oracle
5	48	Windows/Apache/Tomcat/PHP/PGSQL

2. Existing Cloud Solution: AMC to be given for 5 Years (AMC Available upto 24-01-2022)

SL NO	Type	Item	OEM	Qty
1	Hypervisor	Citrix Xen Server 6.5	Citrix	4 nos. 2 socket license
2	Cloud Management Solution (Cloud orchestration)	Locuz Cloutor	Locuz	For 4 nos. blade servers as given at 2.1

2.1 Existing Cloud Servers (2 Management Servers, 4 Node Servers) : AMC to be given for 5 Years (AMC Available upto 24-01-2022)

SL NO	Type	OEM	Model	Serial No.	Qty
1	Blade Server	HP	HP BL460c Gen9	SGH617XPR3	1
2			HP BL460c Gen9	SGH617XPR2	1
3			HP BL460c Gen9	SGH617XPEA	1
4			HP BL460c Gen9	SGH617XPE6	1
5			HP BL460c Gen9	SGH617XPEC	1
6			HP BL460c Gen9	SGH617XPE8	1
7	Blade Enclosure				1

3. Existing other IT Hardware for shifting to New DC:

SL NO	Type	OEM	Model	Serial No.	Qty
1	Rack Server	HP	ProLiant DL360p Gen8	SGH501Y678	1
2			ProLiant DL360p Gen8	SGH501Y674	1
3			ProLiant DL360p	SGH501Y67E	1

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			Gen8		
4			ProLiant DL360p Gen8	SGH501Y676	1
5			ProLiant DL360p Gen8	SGH501Y672	1
6			ProLiant DL360p Gen8	SGH501Y670	1
7			ProLiant DL360p Gen8	SGH501Y67A	1
8			ProLiant DL360p Gen8	SGH501Y67C	1
9			ProLiant DL360p Gen8	SGH501Y66X	1
10			ProLiant DL580 Gen7	SGH139X8SR	1
11			ProLiant DL580 Gen7	SGH139X8SP	1
12	Network RACK	Cyberack	32 U		6
13	Server Rack	Cyberack	32U		17
14	Storage Rack	Hitachi	42U		1
15	Storage	EMC	VNX 5200	CKM00145000668	1
16	Virtual Storage Platform	HITACHI I	HITACHI VSP	92063	1
17	Extension Switch	Brocade	Brocade 7800	ASS2542K01Y	1
18	Extension Switch	Brocade	Brocade 7800	ASS2542K01N	1
19	SAN Switch	CISCO	Cisco 9184	JAF1451ARPG	1
20			Cisco 9184	JAF1841ATPR	1
21	SAN Switch	EMC	EMC DS -300 B	BRCALJ1949K0K1	1
22			EMC DS -300 B	BRCALJ1949K0H3	1
23	Fire Safe (Fire Protected Almirah)	Lampertz	S/N- 9543S14		1

3.1 AMC for Exiting other IT Hardware

SL NO	Type	OEM	Model	Serial No.	Qty
1	Storage Rack	Hitachi	42U		1
2	Storage	EMC	VNX 5200	CKM00145000668	1
3	Virtual Storage Platform	HITACHI I	HITACHI VSP	92063	1
4	SAN Switch	EMC	EMC DS -300 B	BRCALJ1949K0K1	1
5			EMC DS -300 B	BRCALJ1949K0H3	1

Annexure - VI: Technical Specification non IT Components**1. DG Sync Panel:**

Sl.No	Description	Compliance (Yes/No)
1	DG Synchronizing Panel	
2	400A, FP, 36kA MCCB with Thermal Magnetic Release	
3	325A FP Power Contactor	
4	Current Transformer	
5	Digital Ammeter With ASS	
6	Digital Voltmeter with VSS	
7	AC Lamp	
8	Push Button	
9	Emergency Stop Push Button	
10	Auto Manual Selector Switch	
11	6A, 10kA FP MCB	
12	6A, 10kA DP MCB	
13	25A, 10kA DP MCB	
14	16A, 10kA DP MCB	
15	16A, 10kA FP MCB	
16	VMR	
17	Eazygen 2500	
18	Battery Charger trickle & boost	
19	DC Ammeter with Shunt 0-30A	
20	DC Voltmeter 0-50V, Analoge	
21	Start & Stop Push Button	
22	Emergency Stop Push Button [for DG]	
23	24V DC Lamp	
24	24V DC Auxiliary Contactor	
25	230V Auxiliary Contactor	
26	Outgoing Feeder having-	
27	1000A FP EDO ACB with Thermal Magnetic Release	
28	Digital Ammeter with ASS	
29	Digital Voltmeter with ASS	
30	Indication Lamp	
31	Push Button	

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32	Auto Manual Selector Switch	
33	Busbar :	
34	Main Busbar 1000A TPN Aluminium with Colour Coated heat shrinkable PVC sleeves- 1 Job	
35	Warranty : 5 Years	

2. Computer Table

SL no.	Technical Specification		Compliance (Yes/No)
1	Overall Length of Table	1250mm	
2	Overall Width of Table	890mm	
3	Height of Table	980mm	
4	Material of Table Top	Laminated MDF board with Balancing Lamination on back side	
5	Type of Wood	Plywood	
6	Thickness of Table Top	6	
7	Hole for the Cable in the Top	YES	
8	Material of Frame Structure	mild steel	
9	Material of Modesty Panel	Both side Laminated MDF board	
10	Material of Key Board Tray	Plywood	
11	Length of Key Board Tray	350 mm	
12	Warranty	5 years	

3. Chair

SI No	Specification	Compliance (Y/N)
1	Height: 33.0 inches, Width: 22.0 inches, Depth: 25.0 inches	
2	Warranty: 5 years	

Annexure – VII: Abbreviations

AAA	<i>Authentication, Authorization and Accounting</i>
ACL	<i>Access Control List</i>
ACAN	<i>Agartala City Area Network</i>
ARP	<i>Address resolution protocol</i>
BGP	<i>border gateway protocol</i>
BOQ	<i>Bill of Quantity</i>
CPU	<i>Central Processing Unit</i>
DCO	<i>Data Centre Operator</i>
DHCP	<i>Dynamic Host Configuration Protocol</i>
DMZ	<i>De-Militarized Zone</i>
DNS	<i>Domain Name Server</i>
EMS	<i>Enterprise Management System</i>
FC	<i>Fiber Channel</i>
FCIP	<i>Fiber Channel over IP</i>
FTP	<i>File Transfer Protocol</i>
FAT	<i>Final Acceptance Test</i>
G2B	<i>Government To Business</i>
G2C	<i>Government To Citizen</i>
G2G	<i>Government To Government</i>
GBIC	<i>Giga Bit interface</i>
Gbps	<i>Gigabits per second</i>
GE	<i>Gigabit Ethernet</i>
GHz	<i>Giga Hertz</i>
GUI	<i>Graphical User Interface</i>
H/W	<i>Hardware</i>
HDD	<i>Hard Disk Drive</i>
HIPS	<i>Host Intrusion Prevention System</i>
HTML	<i>Hypertext Markup Language</i>
I/O	<i>Input/ Output</i>
IDS	<i>Intrusion Detection System</i>
IP	<i>Internet Protocol</i>
IEEE	<i>International electrical and electronics engineers</i>
IPS	<i>Intrusion Prevention System</i>
IT	<i>Information Technology</i>
ITIL	<i>Information Technology Infrastructure Library</i>
Kbps	<i>Kilobits per second</i>
L2	<i>Layer 2</i>
LACP	<i>Link Aggregation Control Protocol</i>
LAN	<i>Local Area Network</i>
LUNs	<i>logical unit number</i>
LG Floor	<i>Lower Ground Floor</i>
MAC	<i>Media Access Control</i>
Mbps	<i>Megabits per second</i>
NAT	<i>Network Address Translation</i>
NOC	<i>Network Operation and Control</i>
OEM	<i>Original Equipment Manufacturer</i>
OFC	<i>Optical Fiber Channel</i>
OS	<i>Operating System</i>

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<i>QoS</i>	<i>Quality of Service</i>
<i>QGR</i>	<i>Quarterly Guaranteed Revenue</i>
<i>UG Floor</i>	<i>Upper Ground Floor</i>
<i>RAM</i>	<i>Ran Access Memory</i>
<i>RDBMS</i>	<i>Relational Database Management System</i>
<i>S/W</i>	<i>Software</i>
<i>SAN</i>	<i>Storage Area Network</i>
<i>SAS</i>	<i>Secure Attention Sequence</i>
<i>SFP</i>	<i>Small Form Factor Pluggable</i>
<i>SLA</i>	<i>Service Level Agreement</i>
<i>SNMP</i>	<i>Small Network Management Protocol</i>
<i>SI</i>	<i>System Integrator</i>
<i>TB</i>	<i>Terra Byte</i>
<i>TCP</i>	<i>Transmission Control Protocol</i>
<i>VLAN</i>	<i>Virtual Local Area Network</i>
<i>VPN</i>	<i>Virtual Private Network</i>
<i>WAN</i>	<i>Wide Area Network</i>
<i>XML</i>	<i>Extensible Markup Language</i>