2.6 Scope of Work

Scope of Work (SOW) is the most of important component of any tendering process. It is for this that the whole bidding process is entered – to execute the scope of work and deliver outcomes that the Government strives for.

Scope of work directly affects:

- Time to deliver the project
- Cost of delivering the project
- Intended business outcome for the Government
- Delivery of Citizen benefits/services

2.6.1 Scoping Process

Scope of the work should be defined in such a manner that the activities to be carried out and the deliverables are unambiguous.

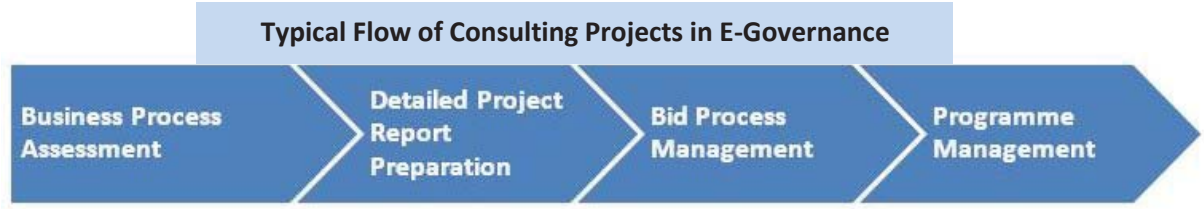
Defining the Scope of Work for Consulting Services is a bit different as the *products, solutions and outcomes* are knowledge based. The quantification of knowledge items to be developed and delivered is one part, but the primary aim should be to ensure that what these knowledge items should contain.

Some key guiding principles for drafting scope of work in Consulting services are:

- "Detailed" specification of requirements is extremely critical – please ensure even standard assumptions on scope of work are laid down and described
- Make sure the specifications are endorsed by key stakeholders
- Identify mandatory and non-mandatory requirements in scope of work
- It should clearly provide the outcomes expected from solution/service delivery
- The scope of work should mention what the outcome is based upon – time or material?
- A check should be made that the final specification of requirements:
    - addresses the targeted outcomes and business objectives
    - meets the agreed stakeholder needs
    - covers whole-of-life of the contract deliverables
- The objective, structure and expected set of contents of each knowledge item/deliverable should be laid down, in as much detail as possible, rendering the best level of clarity to it
- The coverage of services needed in the form of activities like client visits, geographies to be studied, stakeholder meetings / interviews / workshops to be conducted, must be detailed out to avoid delivery compromises

In general, the Consulting Services for E-Governance contain the following Scope of work :

Conceptualization	Design and Development
• Core Service Level Definition • Pre-Feasibility • Base lining and M&E Framework • Detailed Project Report	• Solution Design • Business Process Reengineering (BPR) • Change and Capacity Building • Implementation Planning • Functional Requirement
Implementation	**Post Implementation**
• User Acceptance • Benefit Realization • Knowledge Transfer • Certification	• SLA Monitoring • Contract Management • Knowledge and Exit Management • Impact Assessment



2.6.2 Key Validating Questions for Scoping

The following questions may help in developing the specifications of requirements:

- **Why** are we doing this?
- **What** results do we need to achieve?
- **How** will the services be delivered?
- **How well** – what quality and standards apply?
- **How much** – what business/process reports, knowledge pieces, insight, research output are required?
- **Where** will the services be delivered?
- **When** will the services be delivered – term of contract?
- **Who** will be involved in the delivery: supplier / contract manager etc.?

Characteristic	Explanation

Characteristic	Explanation
Complete	The specification of requirements is contained in one document with no missing information. If the nature of the procurement requires more than one document, the documents must be clearly structured and linked with no repetition or overlap.
Unambiguous	Each requirement is concisely stated without recourse to technical jargon, acronyms (unless defined elsewhere in the document). It expresses objective facts, not subjective opinions. Vague language is avoided. Negative statements and compound statements are discouraged.
Consistent	Each requirement is consistent with all others and any external documents that are referenced.
Current	Each requirement is current and can, in some cases, be future focused to meet planned or predicted future needs.
Feasible	Each requirement can be implemented within the constraints of the project including the budget.
Traceable	Each requirement can be traced back to a stated public policy / business / stakeholder need and is authoritatively documented.
Verifiable	The implementation of the requirement can be determined through one of four possible methods: inspection, demonstration, test or analysis.

The Rights

Don't forget to test your specification of requirements against the following **Rights**:

- Right quality
- Right place
- Right time
- Right price

2.6.3 Templates for Different Types of Scope of Work

Different templates for Scope of work for various e-Governance projects are provided in this section. The user has to contextualize and make necessary changes in these documents before using it in the RFP document.

2.6.3.1 Template for Preparation of Detailed Project Report (DPR)

a. Visioning: It will be essential to draw up a vision by involving all key stakeholders. Identification of key departments in consultation with project sponsors and chalking out their level of involvement would be a pre-requisite at this stage. Current functional constraints in achieving efficiencies, similar initiatives in other States and best practices from industry should be enumerated to the stakeholder group with active facilitation for drawing up the vision statement.

b. Establishment of Scope & Strategy: Consultant is expected to draw up a strategy for deployment of the solution. The consultant is required to evaluate the merits and risks of a pilot deployment followed by statewide roll-out after consolidation of pilot learning. The pilot should cover the complete functionalities of the <concerned department/function>. The study of the department shall include functionalities at all levels starting from head quarters, generally located at <Location of HQ> and covering field offices situated in two other districts. All related sub-modules <exemplify> should be included as may be decided by the Project sponsors. The pilot project schedules with all key tasks and dependencies, factoring in realistic time requirements based on the effort that needs to be expended, roles and responsibilities of various user departments should be defined by the consultant.

c. Analysis of Business Processes: Given the specific nature of this engagement, it would be necessary to study the business process both at <provide levels at which analysis has to take place> and their interactions. Improvements resulting from introduction of ICT should be duly recognized to draw up a set of new processes. The draft operational procedure would need to be defined as a result of this exercise. This exercise should span the entire scope of operations, even if phased/partial implementation is envisaged.

The new work approach should clearly identify the role and involvement of various stakeholder agencies/departments <provide details> needed for effective execution of work at the back office. Any changes resulting from the revision of existing processes and introduction of new processes should be clearly articulated and a formal concurrence obtained from the concerned Department(s).

d. Assessment of Current Status of IT: Critical evaluation of existing applications and IT infrastructure and the gaps in supporting the future vision should be assessed. Given this requirement, it would be necessary to involve Departments where such applications are in reasonable use. In case multiple applications are in use, a comprehensive criteria for qualifying such applications would need to be defined along with a functional gap assessment so that the same could be considered for re-engineering select software application(s), especially where investments have already been made by the state in getting these developed through NIC or a third party vendor.

e. Study of Comparable other state solutions: The motive is here to bring in the learning's from other states which have already undertaken such initiatives. This may include visit to those states (may be two states) to study their approach, key learning/success factors etc.

f. Electronic Forms & Data Standards: Consistent with the proposed method of operation, all forms should be changed and optimized for electronic use, where applicable. In addition a strategy for data interchange across departments would need to be evolved, so that there is no need for any

repeated manual data entry. All forms will be standardized for the state and no separate forms for the department are envisaged at this stage. This would signify that the data formats and standards for interchange are defined.

g. Enabling Provisions: The <relevant procedures, Circulars, rules, guidelines, Orders, Acts etc>, should be examined. Specific recommendations to be made by the consultant to ensure that the new process could be adopted without any problems. The same to be planned and initiated within the pilot / project deadlines.

h. Formulation of Requirements: The department will provide the base set of process and high level requirements. Based on the proposed set of processes and high level requirements, a comprehensive set of functional and non-functional requirements should be documented. Such requirements should be holistic, end-to-end and cover macro and micro level functions including MIS, data archival and analysis that would be necessary both at operational level and policy decisions.

i. Solution Architecture: Based on the revised process structure, consultant should create an open-ended architecture for back office functions that can be adopted uniformly across all the Departments in the State. The architecture, while addressing the needs of <Department concerned> in totality, should allow for easy evolution to allow interfacing of other functions, since both these modules generally impact all other areas.

During Solution architecting feasibility of usage of ERP or other off the shelf Products as a whole or as base shall also be undertaken. The solution architecture should not be biased towards any technology/platform. It is very much possible that some of the other departments are already using an IT solution <the names of such applications and broad features of the software should be provided>. The proposed architecture shall have provision of integration of such systems to the proposed Solution.

Examination and adoption of some best practices to the extent possible is also envisaged to be part of this sub-phase.

j. Data Migration Plan and Strategy: There needs to be critical mass of data to enable operational effectiveness of the new solution. This may involve transfer of data both from current system that are in electronic form as well as paper documents. Additional effort may be required to map existing data items to possible new codifications schemes/structures that could be introduced as part of the new processes. The guidelines related to the migration of data, estimation of data volumes; formats/standards to be adopted for data elements (including digitization of documents, if applicable), data/document retention period and approach to be adopted in respect of data migration need be laid down by the consultant. Specifically, consultant would need to provide mechanisms on co-existence of paper and electronic records including digital authentication mechanisms where necessary (depending on the approach that has been proposed).

For any data entry work, the consultant should conduct a time and motion study for data entry and quality check for sample records. This would help the consultants, department and the potential bidders in estimation of the time and effort.

k. Mode of Operation: Alternative methods of deployment, if feasible, should be analyzed so as to determine the most optimal method of operation. Identification of offices for Pilot roll-out of shall be made.

There could be multiple approaches for deployment, like a centralized deployment which are used by all functions. The consulting agency is required to evaluate the various deployment approaches and recommend the best suited one for the state. The finalization of the mode of operations would determine on aspects such as ease of maintenance and further expansion of functionality, managing changes and the overall costs of ownership arising out of such factors. Since some of the self service functions will not be accessible to those without knowledge or access to the digital infrastructure, suitable arrangements will need to be proposed by the Consultant to facilitate inclusion. Security issues and access rights should be specifically included.

l. Estimation of Project Cost: An estimate of the pilot project cost and rollout cost and the model for cost allocation to various functions/department should be computed by the Consultant. These costs should be categorized into capital and operational expenditure over a five year operations period based on approximate market values. Cost items should be clearly segregated into cost of common components and Department specific items and include all support costs such as data migration, costs associated with certification, etc. Cash flow projections based on the estimated cost shall form part of this exercise.

In case of significant deviations of these costs from the budget available, the consultants would suggest the most pragmatic manner of taking up of this project. This could be based on the following :

a) Whether there is a feasibility of State Department funding the incremental costs
b) Whether there is a possibility of increasing the citizen charges to meet the deficit, in which case
c) Whether there is a possibility of reduction of the costs/hardware by relooking at the solution proposed

m. Consolidation of inputs from various targeted activities for the e-Governance and preparation of DPR. The components of the DPR Documents should be consistent with the outcomes of the "Mission Mode Project" should be available at the concerned Ministry website).

The consultant should facilitate the Department in obtaining Central Assistance in accordance with the *Guidelines for operational Model for Implementation of State MMPs issued by the Department of Information Technology, Government of India* (available at http://www.mit.gov.in/content/templates-guidelines).

2.6.3.2 Assistance in Carrying out Business Process Re-engineering (BPR)

As -Is Assessment

a. Field-level study in the department for a sample offices

b. Interaction with employees/officials and understanding the key issues faced currently in various roles/functions to be covered under the initiative

c. Facilitate stakeholder consultation (to be organized by the Department) to obtain feedback on pain areas, areas for improvement, roles and responsibilities etc.

d. Analysis of data collected during field study and stakeholder consultation.

e. Defining project vision, objectives, expected outcomes

f. Listing of the different services offered by the department, Assessment of the current level of performance of these services (in case it is manual, random sample should be taken for estimation of the current service levels)

g. Compilation of the ICT infrastructure in terms of networks, hardware, application etc. at various office locations, which are to be covered under this initiative

h. Identification of the processes behind the services, assessment of the bottlenecks in the processes, assessment of the performance of the processes

i. Mapping of the Work flow (not IT enabled workflow) and the administrative processes for the services to be covered

j. Study the Internal and external interfaces of the Department/Ministry E.g. – internal interfaces will include interactions with other departments, between other offices, between the different hierarchies of the government at center, state and district; external interfaces etc.

k. Assessment of the organization structures and the Roles and responsibilities as related to delivering the services to the stake holders.

l. Assessment of the current capacities in terms of the skills of the employees to deliver the services

m. Assessment of the statutory requirements, provisions, legal framework, policies, rules and norms

n. Assessment of the needs of policy makers for effective Interventions in the departments

Deliverable

1. The needs and expectations of stakeholders
2. Current state of systems, processes, and ICT infrastructure
3. The services & service levels
4. The performance of the different processes
5. The performance problems and the root cause analysis
6. The impact of the processes on the overall performance of the Employment Exchanges
7. The possibilities of automation / IT enablement and the candidate technologies

National & International Best Practice Study

As a part of the assignment, the consultant is required to study the best practices from strategy, process, people & technology perspective and prepare the report with recommendations to add value in the initiatives envisaged under the project. As a part of the assignment, the consultant shall undertake the following key activities:

a. Study the practices of the private initiatives relevant for the services provided by the Department.

b. Study the IT initiatives in same department in advanced States / Nations (cover at least 2 national / International)

The Best practices report shall contain those practices which have the potential of being incorporated in the proposed project.

Deliverable

1. The processes and practices of comparable nature
2. The ideas which can be adopted
3. The solution options / possibilities
4. Possible targets for process performance / service levels

To-be Processes

As part of scope of work under this section, the consultant is required to list all the processes of the prioritized services and arrive at the most impacting and feasible (core & common) processes. The consultant is required to re-engineer these processes.

The size and nature of the process reengineering efforts must be balanced with the degree of feasibility of implementation of the outcome of such efforts. In addition to this, a required balance must be maintained between the efforts in the areas of process reengineering, technology and change management. However, if required, the consultant may recommend Organization redesign (restructure) to implement the outcome of BPR exercise.

The Process Redesign activity will take inputs from the As-is report, the benchmarking survey and the lessons learnt from the implementation of other eGovernance. Each process flow shall clearly identify the input, process, output, and control elements together with the success/ failure criteria for that particular process/ service. As a part of "Process Redesign", Consultant is required to undertake the following key tasks:

i. Designing the process maps & process metrics
ii. Designing the service levels
iii. Designing the work flow
iv. Reengineering customer interface
v. Designing optimum organization structure
vi. Recommending rules & procedures
vii. Reengineering application forms
viii. Designing interfaces with external entities and systems

The study by the Consultant in the area of BPR should be aligned with the spirit of rules and regulations framed by GOI & State governments.

Deliverable

1. As-is Report
2. Best practices report
3. The Business Process Re-engineering (BPR) Report

2.6.3.3 Development of Technical Requirements and Solution Design

It should be expected that the consultants design the Technical Solution on at least 2-3 different stacks covering various suite of products. This exercise should be done prior to the publishing of the SI RFP. The SI bidders should be provided to choose any of the options for their bids.

This should be based on the exact requirements identified during this phase. It should be kept in mind that the end solution proposed by the SI Bidders is the responsibility of the consultants and hence it should not be left to any interpretation of the bidders. Hence the consultants should provide enough details in each of the areas of the Scope of work, which helps the bidders in right estimation of current and future demands. The information which has to be provided by the Consultant should conform to RFO information standards as provided in the relevant section of the SI RFP Model Document.

a. **Software Development**: The Functional Requirement specification & Software requirements and Use case Analysis should be provided to estimate the effort. Sufficient details for each module and sub-module must be provided, so that there is no duplication of effort by the SI at a subsequent stage. These details can be categorized as mandatory and desirable.

b. **Hardware Requirement**: The Consultant should carry out an exercise to identify the hardware present in each of the office locations. The objective is to identify the existing hardware which can be leveraged for the project. During this exercise, the specifications of the hardware should also be captured, so that the compatibility and end-of-life for the hardware can be forecasted and the correct estimation of the hardware can be made.

c. **Data Centre Hardware, software and database**: The consultant should identify the hardware and licenses availability with the State Data Centre / (existing data centre of the department) and plan the solution in a manner that the existing assets are optimally utilized. Hence the Consultants should prepare a gap assessment for the hardware /licensed software/database requirements and specified for various stacks.

d. **Data Digitization:** The Consultants should identify the data which can be a) ported from the existing systems and b) records which needs to be scanned and digitally kept and c) data entry.

a. Data ported from the existing system: The Consultant should study the quality of the data existing in the current application. Secondly the technical feasibility of migration of the data needs to be carried
b. Records which needs to be scanned : The Consultants should identify the records which needs to be scanned, catalogued digitally for reference purposes
c. Data Entry: The consultant need to identify the records/files and the period for which the data entry has to be done. The consultant should also carry out a “time and motion study” for data entry of the existing records selected randomly. This can be done on

*.rtf and *.docx file for understanding the effort involved in data entry. The consultant should also discuss and finalize the commitment of the resources to carry out the data quality check, post data entry.

e. Site Preparation: The site preparation requirement should be assessed by the Consultant and it should include amongst other things specifications for earthing and power back-up requirements. Consultants should carry out the cost-benefit analysis of procuring items like modular furniture, flooring, roof etc. by the SI versus procuring it separately.

f. Training: The consultant should identify the training needs assessment of the users of the system. The consultant should recommend appropriate trainings for the various training groups. An assessment of the number of trainees and the training course for each one of them should be provided.

g. Networking: The Consultant should carry out a technical feasibility study of the establishing/extending the SWAN network to the offices. The hardware and service requirements at each of the location for connecting to the SWAN / any other network should be identified and provisioned in the Bill of Material. The existing contracts of the network services provider should be studied and gaps in hardware / responsibility should be identified and recommended

The solution proposed by the consultant should adhere to the industry acceptable RFP information standards. [Please refer the relevant section of SI RFP for details on acceptable RFP information standards]

Deliverables:

1. 2-3 solution stacks as options for the bidders
2. Bill of material
3. Detailed Scope of work for the SI Vendor

2.6.3.4 Assistance in Bid Process Management (Including RFP Preparation)

The nodal agency and the consultant should ensure the alignment of the RFP, as per the template provided for Selection of Implementation agencies under this engagement. **It is suggested empathetically that the information standards regarding the Scope of work of the SI should be as per Section 2.7 of Guidance Note (Model RFP for Implementation Agencies)**.

a. Preparation of RFP Document: Consolidation of inputs and Preparation of RFP Documents. The components of the RFP Documents should be consistent with the outcomes of issues finalized in DPR. Consultant should facilitate the Department in obtaining necessary approvals to initiate the Bid process and engage a project implementation partner. This should be done as per the DIT(GoI) Guidelines and Model RFP template.

b. Selection and scoring criteria: Determination of qualification criteria, method of selection and scoring patterns for the prospective project implementation partner.

c. Preparation of Contract: A draft contract agreement for the prospective project implementation partner should be prepared by the consultant and the same is to be vetted with the Department and with the Legal Department of the State Government, if necessary. This draft contract will form part of the RFP Document.

d. Bid Management Support: Facilitation / support for release of tender, pre-bid meeting, proposal evaluation and finalization of implementation partner as part of the bid management. Consultant should work in tandem with the Department and the various committees that have been set up for this purpose.

e. Contracting: Facilitation for contract finalization with the selected implementation partner.

Deliverables:

1. RFP Document
2. Draft Contract
3. Tender Completion report

2.6.3.5 Project Management and Change Management Support

Key Tasks:

a. Implementation and Pilot Rollout: Facilitate the implementation and pilot rollout activities as per the plan defined including the data migration task. As envisaged the pilot scope should also be provided.

b. Incorporation of Pilot Learning and State wide rollout: The consulting agency shall consolidate the learning's of the pilot phase and propose the course correction to be performed by the Implementing agency. It shall also ensure that such corrections are made before the state-wide roll-out.

c. Steady State Operations: It is essential to achieve steady state operation within an optimal timeframe and also facilitate the establishment of Help Desk that would be needed to address various technical problems encountered by the Departmental users as well as external stakeholders.

d. Establish Measurement Framework: Consultant shall arrive at a complete understanding with the Implementation Partner on the interpretation and approach to the measurement of the SLA at the initial stage itself.

e. Monitor Performance: Consultant shall ensure measurement of the SLAs as per the agreed model and shall, at all times, ensure the reliability and accuracy of such measurements. Consultant shall ensure that the measurements are formally recorded in support of the award of incentives and/ or penalties to the Implementation Partner.

f. Recommend Payments: Based on these measurements and conclusions drawn thereon, the Consultant shall recommend to the Department the payments to be made to the Implementation Partner.

g. Corrective Measures: In case the performance parameters are not found to be conforming to the required levels, the Consultant shall proactively inform the Implementation Partner and suggest appropriate corrective measures and ensure that these are implemented.

h. Escalation: Escalate project issues to the Implementation Partner and/or the Department to monitor resolution thereof in a timely and conducive manner.

i. Change Management: Facilitate change management processes limited to items covered within the scope of the solution including validation to changes that may be implemented. In addition, oversee the version control of software and its controlled deployment in the production environment.

j. Oversight: Monitor Implementation partner's engagement/ agreement/ contract with other third parties as may be reasonably required to meet with Performance obligations and SLA requirements.

k. Asset Control: Facilitate transfer of IT and software assets to the Department as may be specified in the agreement with the Implementation Partner.

l. Audits, Assessments and Surveys: Assist in annual audits and user surveys as may be reasonably aligned with the objectives of the Service Delivery needs of the Department. Also ensure

that periodic assessments are done to ensure compliance to standards and guidelines, Security Requirements, Capacity Management and such other planned tasks.

m. Exception Management: Assist the Department to manage exceptional and contingency situations.

Deliverables:

1. Provide Project Monitoring Functions consistent with the requirements;
2. Periodic Reports on routine / exceptional matters and Review Meetings.

2.6.3.6 User Acceptance Testing (UAT) Management

User Acceptance Testing

a. The Acceptance Testing would be carried out in order to ensure that the application put in place by the Implementation Agency (IA) / System Integrator (SI) meets requirements, standards, specifications and performance as spelt out in the RFP and fulfill the functional requirements of the department. The Consultant shall prepare the acceptance test plan.

b. The SI would be responsible for preparing detailed test cases for UAT and Functional Compliance Test. The Consultant shall verify these test cases and ensure that they cover all aspects of the application requirement. In case it identifies any shortcomings, it should immediately be brought to the notice of the SI and the department.

c. The Consultant shall use test cases to test and report functional, technical and operational compliance of the application. It shall execute the test cases to test and report whether the IT infrastructure and system software procured and set-up by the SI meets the standards and performance metrics as set out in the RFP for the IA/SI.

d. The Consultant should report whether the IT infrastructure (at Data Centre, DR, SWAN) and system software complies with applicable standards, best practices, requirements and specification of the RFP for SI to meet the project and service objectives. The Consultant shall review the business continuity/ disaster recovery plans of the SI under typical user loads of volume and mix (involving 50% switchover to DR site and contingency plans). As part of the IT infrastructure acceptance, the Consultant will also scrutinize configuration of implemented infrastructure against Bill of Material and certify compliance. It should be noted that while the primary responsibility of providing tools for testing rests with the SI and it is the responsibility of the Consultant to ensure that this should be a part of the RFP.

e. As part of this acceptance process, the Consultant shall also test the accurateness and usability of the SLA monitoring tools deployed by the SI. The objective of this exercise would be to verify whether the tools deployed provide an accurate, correct, measurable and verifiable estimation of the system performance, as per the Service Level Requirements listed in the RFP.

Performance Testing

f. The SI will propose guidelines and standards, as per best known International standards that will be followed for the testing of the performance in relation to compliance with SLA metrics and compliance with all the technical and functional requirements of the RFP and the related agreement. These documents shall be reviewed by the Consultant and in case of any modification required the same shall be proposed by the Consultant.

g. The SI shall develop exhaustive test cases to test aspects of the application like security, infrastructure, etc for compliance with the RFP including test cases for performance and load testing. The Consultant shall verify these test cases and ensure that they cover all aspects of the application. In case if it identifies any shortcomings, it shall immediately bring the same to the notice of the SI and the department.

h. The Consultant shall use the test cases to test and report whether the application/system performs optimally as per the Technology and Performance SLA criteria stated in the RFP. While the SI would be responsible for providing tools required to perform this audit yet in case the Consultant finds such tools to be insufficient in meeting its objectives it would be required to bring in customized tools from its own inventory. The tools which have been proposed by bidder in the technical criterion shall be used while performing this audit.

Security Audit

a. The consultant (or Third Party Assessor-TPA) should propose guidelines and standards, as per the requirements set out in the RFP and known International standards that will be followed for testing the Security features of the application.

b. The Consultant would be responsible for preparing a detailed audit plan consisting of test cases for performing Security & Implementation audit. These test cases shall be prepared in conjunction with the SI and shall cover all aspects of the system security.

c. The test cases shall ensure that all loopholes within the system are identified. The test cases shall cover all security related requirements suggested in the RFP as well as the prevailing best global standards.

d. The TPA shall execute the test cases to test and report whether the IT system complies with the security requirements stated in the “RFP for Implementation and Maintenance of Project” and that the application is safe and secure for handling ‘live’ transactions. Only when the security audit report is received detailing the security readiness of the hardware infrastructure, the Project Director will allow ‘live’ transactions to begin through the IT system. The security audit should include activities of Penetration testing, vulnerability assessment of critical systems, application security and assessment.

e. While the primary responsibility of providing tools for testing rests with the SI, in case the TPA finds such tools to be insufficient for meeting its objectives then it may use those proposed by it in its Technical Proposal. The Department shall not for provide any tools required for the audit.

Deliverables

1. Publishing guidelines and standards for design, development, test and acceptance of the IT system; including its hardware, software, security, performance, etc. The report will be prepared in conjunction with the SI.
2. Monthly reports on compliance to guidelines and standards specified previously and actions required / taken to ensure compliance.
3. Publishing of detailed test cases for performing security and penetrative audit of the system.
4. Report on enhancements required over test cases drafted by SI.

5. Review Report on security implementation and security readiness of the hardware infrastructure.
6. Individual Final Audit reports on defects and deficiencies (if any found), including actions to ensure compliance for the following:
    a. Functional, Technical and Operational Compliance;
    b. Performance and SLA compliance Audit of IT system;
    c. IT infrastructure and system software compliance audit of the IT system;
    d. Security audit of the IT system

The Consultant and the Department may agree on any additional reports or deliverables which may be required for delivering services under this RFP. Such reports or deliverables would be based upon the factual assessment done by both the parties and have to be listed out as part of the agreement signed. Any additional reports during the course of the contract will be mutually agreed by both the Consultant and Department.

2.6.3.7 Third Party Assessments

Consultant (or specifically the Third Party Assessor – TPA) is required to provide dedicated manpower for various periodic audit activities, monitoring of SLA parameters as per the Agreement and provide suitable manpower for functional and security audit of the software.

a. Third Party Audit shall include monitoring the performance SI with a view to ensure desired Quality of Service (QoS) as defined in the SLA, signed between Department and SI. These Guidelines define the broad areas of work, which TPA shall perform for a period <insert period> from the date of issue of Work Order/LOI. However, the agreement can be extended for a further period of one year on the same terms and conditions.

b. To understand the Project, TPA would be required to

i. Study the contract signed between the <Nodal Agency>and the SI
ii. Study the software, network architecture & design and the services envisaged.
iii. Review communication process among the stakeholders.
iv. Create frameworks and procedures for audit
v. Study the functionalities of the IT Systems installed in the Department and identify gaps, if any, required for TPA scope of work. The additional module/tool including hardware/software required for the same will be procured by <Nodal Agency> and TPA would assist the state with the procurement process for the same.
vi. Review of the escalation mechanisms being followed to resolve any issues between <Nodal Agency>and SI related to the project.
vii. TPA would also conduct audit of the process, plan and results of the System implemented by SI. TPA shall verify availability of all the defined services as per the contract signed between <Nodal Agency> and SI.

c. Inventory

i. TPA audit would include verification of completeness of bill of material for each location.
ii. TPA audit would include review that all hardware and software items have been installed at the sites as per the contract.
iii. TPA audit would include maintenance of an inventory register to have office location wise equipment list, including hardware and software. TPA audit would also include updating inventory register in event of any changes in the inventory.
iv. Inventory Audit is to be performed annually and the relevant changes in the year of the audit shall be recorded. Inventory Details shall be provided by the SI and TPA shall maintain a record at its end, which shall be updated by TPA based on information provided by the SI. Also, the verification will be done through tools and through site visits.

v. These exercises would include review of documentation, physical verification of 20% locations every year.

d. SLA Monitoring Audit

SLA monitoring would include audit of the performance of SI including the components provided by Department. TPA would carry out the following tasks:

a. TPA audit would include preparation of templates for reports to be submitted by SI vendor to Department and report to be submitted by the TPA to Department. TPA shall also tabulate measurable parameters as defined in the respective SLA's.
b. TPA would proactively convey to the stakeholders any concerns based on the information generated using the reports.

e. TPA would provide **quarterly certification of work** carried out by SI and perform penalty computation for each bill, as per the SLA and payment conditions mentioned in the agreement between SI and Department (on Monthly basis).

f. TPA would also undertake **proactive monitoring of the links** provided by the bandwidth service provider.

g. TPA audit would also include **site inspection** to verify those parameters of the SLA which cannot be monitored using Software Tools. These site visits would be done for at least 5% of the sites per quarter.

h. Usage Audit : TPA would appraise <Nodal Agency> about the health of the Software Application, Hardware and Network through reports indicating the utilization, scalability requirements as per the current and envisaged State level applications etc.

i. Security Audit
ii. TPA would perform security audit of complete system as per standard Industry Norms and submit recommendations to <Nodal Agency> indicating the risk elements in the system.
iii. TPA would perform the penetration testing and vulnerability testing on the system.
iv. TPA would review the rules and policies for network components such as firewall, IDS etc.
v. TPA would review the network security policy of the system and suggest recommendations if any.
vi. TPA would review the policy of granting access to the application.
vii. TPA would conduct the Security Audit yearly.
viii. TPA would review the mechanism of obtaining data on user satisfaction, feedback on quality of service & post analysis of the same, and would submit a report with recommendations to <Nodal Agency>. This task would be done on a yearly basis.

i. Exit Process Support

This role is envisaged with the objective of ensuring preparedness of <Nodal Agency>at all the time for any eventuality resulting in termination of contract. TPA audit includes support/ advice in the event of exit of the BOOT operator. The Agency would:

i. Review the exit process as per the contract.

ii. Advise the <Nodal Agency> on documentation, process and procedures necessary for taking over the system from the SI.
iii. Provide advisory support during the transition period from the current SI to the new operator.
iv. Conduct audit readiness of the State for such an eventuality on a Yearly basis

2.6.4 Deliverables

The specification of requirements will lead to the identification of a deliverable or set of deliverables. A deliverable is something that must be provided under the contract. It is a tangible/real output. One, or several, deliverables may result in an outcome. Examples of deliverables include: a report, a training session, a strategic plan etc.
Contract deliverables can be tied to milestones. A milestone is a measurement of progress toward an outcome. For a typical review project, milestones might be the completion of review and delivery of a draft report, then revision of draft report and delivery of the final report.
Where a contract adopts a milestone approach payment to the supplier can be tied to the successful completion of each milestone. This allows for implementation to be tracked and monitored against budget.

Deliverables form the most critical outcome of a project. When specifying the deliverables, he following should be borne in mind:

- Government must be clear on what it is expecting from the vendor and from the project, and differentiate between the two
- The deliverables of two or more vendors involved in different phases of a project must also be clearly laid out and differentiated
- The deliverables must clearly specify whether they would be time & material based or outcome/performance measure based
- Time & material based services are those where scope of work is not clear at the beginning to both the Government client and the Consulting vendor/consultant. In this situation, to move things forward, working on a time and material basis the consultant can start to scope and plan the assignment and be paid on a ‘pay as you go’ basis
- The deliverable for PMU Consulting services should be man-months/hours of commitment on the project and not based on project performance/outcomes
- It should also be clearly specified whether the deliverable for a Consultant is its report OR SI vendor’s delivery outcome(s); it cannot be both
- If two deliverables are dependent on each other or have dependent activities, then their delivery timelines should accommodate for that and be set accordingly