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Conformity Assessment Requirements

For Quality Assurance in eGovernance



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Conformity Assessment Requirements For Quality Assurance in eGovernance

Executive Summary

The Conformity Assessment Requirements (CARE) document is the second in a set of documents on a Quality Assurance Framework (QAF) for eGovernance projects. The first document, the QAF is a Concept Document, explained the rationale for a QAF for eGovernance projects and outlined the components of this framework.

This document explains one of those components – conformity assessment requirement – in terms of its concept, purpose, design, execution and constituent parts. It is meant to be read together with the QAF Concept Document.

To recap, the three principal objectives of quality assurance in eGovernance are:

- Ensuring system (in terms of processes, products and services) requirements are defined(definition)
- Ensuring the system conforms to requirements (Verification)
- Ensuring user satisfaction with the system, once it goes ‘live’, (Validation)

This document outlines an approach to achieving these objectives through: (a) mapping the solution architecture of an eGovernance system with CARE (b) identifying the Component of Interest in the architecture, (c) applying a relevant Quality Gate to the “Component of Interest” and finally (d) assessing conformity of “Component of Interest” to the quality standards comprising that Quality Gate. The entire process of indentifying Components of Interest and applying Quality gates is termed as Conformity Assessment.

The “Component of Interest” is any module of the architecture of an eGovernance system that is intended to undergo a conformity assessment exercise. These modules are defined in the eGovernance Architecture consisting of the user layer, technology layer and organisation layer. The level of assurance required on that particular module is based on the needs of the organization which can be derived from the organisation’s policies, environment, project scale, risk associated with the “Component of Interest” and the resources available.

A Quality Gate (QG) is a supporting set of processes which enables controls and assurance to achieve the desired level of confidence. It is intended to provide a minimum level of confidence that essential quality requirements of a project are adhered to. The Quality Gates should be identified in the RFP/contract document by the project leader and may be used for objective evaluation to ensure that the “Components of Interest” are capable of achieving predefined goals.

Each QG consists of a set of quality requirements relevant to that project phase. QGs are further divided into two categories: essential and desirable with each project is recommended for mandatory to clear the essential QG regardless of scope or duration. Desirable Quality Gates are applicable to the Component of Interest and support the building of fundamental project attributes for quality eGovernance.

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The essential QGs relate to four key areas:

- Quality Processes in the Organisation (Gate 1)
- Software Application Quality (Gate 2)
- Management of Information Security (Gate 3)
- IT Service Management (Gate 4)

Desirable QGs relate to such aspects as project documentation, use of recognised standards and architectures, business continuity planning etc. Desirable QGs can be incorporated into project planning based on need and applicability, derived from analysis of risks, the context of environment criticality and resource availability.

Main purpose of conformity assessment process is enforcement of standards and best practices identified for eGovernance projects.

This document is structured in the following manner. The User Guide following this section maps this document, the CARE Document, to the subsequent volumes that provide details on various components and aspects of the framework.

Chapter 1 sets the context of the current document by linking CARE to the earlier QAF Concept Document.

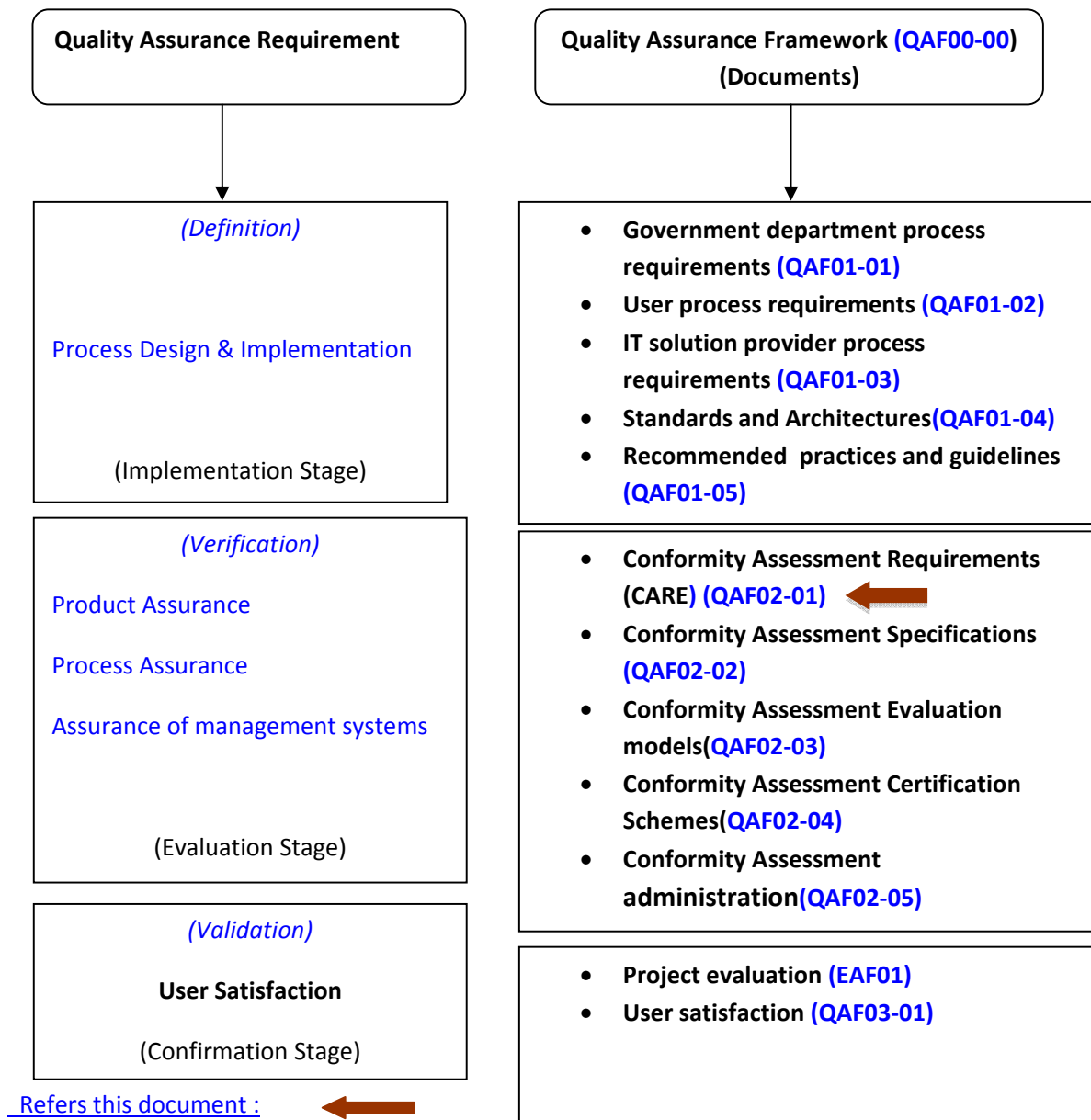
Chapter2 defines the Conformity Assessment Framework Requirements (CARE). The purpose and the basic principles on which CARE is based are explained in this chapter. The chapter also brings out the differences among the various levels of assessment while explaining Conformity Assessment (CA) activities. It addresses how CA requirements may be positioned in the project life cycle and provides an insight into Components of Interest and Quality Gates (essential and desirable).

Chapter 3 describes the subject area of CARE and briefly discusses the key subject areas of Conformity Assessment architecture. These key subject areas are based on International Standards and associated with essential and desirable Quality Gates.

Structure & User Guide for Navigation

0.0 Structure & Scope

The Quality Assurance Framework (QAF) consists of a number of components which are covered in different volumes of related documents. The map above provides a guide to the reader to the contents of all the documents related to the QAF. The structure for Navigation is as follows:



[Navigation Guide for User](#)

0.1 Purpose

The purpose of defining **Conformity Assessment Requirements (CARE)** is to enforce implementation of standards in e-Governance solutions throughout its lifecycle. By defining these requirements solution provider (or Implementing Agency) will know well in advance the requirements against which solution will be assessed and accordingly build up its capabilities for delivering a compliant solution. Conformity assessment will provide an indicator of the degree of compliance of the solution to its requirements.

0.2 Target Audience

Target readers for these Conformity Assessment Requirements are the RFP Writers & the solution providers/vendors

Policy makers and administrators should read the QAF and this document (CARE) for a conceptual view of the framework as well as to know which phases of a project should have the appropriate quality assurance mechanisms in place. These two documents are also appropriate for the general reader who wishes to be familiar with the broad framework without wishing to go into technical details of every component.

Chapter 1

Introduction and Context

Governments all over the world are striving to achieve good governance by increasing their efficiency, effectiveness and transparency using Information and Communications Technology (ICT). In the process of developing better services for enterprises and citizens, governments often find it a challenge to incorporate a variety of user interests without a standardised model to map these user requirements.

In India, the National e-Governance Plan (NeGP) has the vision to make all government services accessible to the common citizen in her locality, through service delivery outlets and ensure efficiency, transparency, reliability and cost effectiveness of such services. To justify the significant investments in infrastructure and institutional reforms, public administrations need to show social and economic returns on investment and at the same time achieve value for money. However, if e-Governance services are not used by the citizens, costs may even be seen to be unwarranted. Therefore, expectations and interests of the user need to play an important role in the planning and implementation of e-Governance systems.

However, user's interests is only one of the challenges for public administrations to succeed in designing e-Governance programmes – clear concepts and appropriate requirements need to be developed, government employees have to be trained, administrative procedures need to be re-engineered and sometimes even entire institutional settings have to be altered. In the post-implementation phase the key challenges are to have a strategic control of applications and data. Further areas of challenge are the establishment of a Service Level Agreement (SLA) measurement and monitoring system and assurance of information security to ensure confidentiality and avoid data corruption.

If web enabled services are in place, citizens, entrepreneurs and government officials will benefit significantly. eGovernance would allow the user to receive improved customer services through up-to-date accurate information in a timely manner. Together with simplified government procedures and formalities, this will enable the citizen to access public services more efficiently. However, once electronic services become the preferred mode of interaction, their proper functioning needs to be guaranteed. Users need to be reassured that e-Governance services are reliable and meet their expectations in terms of quality, security, privacy, availability, accessibility. Hence there is a need for citizens and businesses to have confidence in this new model of governance in order to increase their participation.

To obtain the user's confidence in these e-Governance applications and services it is essential to ensure that fulfilment of the user's requirements are measured. This could be achieved by evaluating the quality and security of the solution by deploying a Quality Evaluation Methodology based on international best practices. The evaluation carried out by an independent and technically competent agency will generate increased confidence of the stakeholders in e-Governance: users, policy makers, solution providers, project managers, funding agencies and procurement bodies.

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1.1 Strategic Objectives

The overall objective of the CARE is to strengthen eGovernance initiatives that are ready for independent third party evaluation and the provision of reliable, repeatable and reproducible results. This will inspire greater confidence amongst government, regulatory authorities, funding agencies and citizens in the e-Governance system. This translates into the following strategic objectives:

- To enable an objective and independent evaluation of e-Governance programmes based on standards and global best practices
- Build trust and confidence of the stakeholders by helping them to assess the strengths and weaknesses of eGovernance initiatives
- To reduce risks by providing inputs for early monitoring and timely corrections
- To allow for systematic learning about the key factors for successes and failures of eGovernance initiatives

1.2 Envisaged Benefits

The main benefit of CARE is to provide trust and confidence in eGovernance services to its users. CARE helps to create a mutual understanding between suppliers and buyers by specifying common transparent quality standards to which all parties involved in the transaction can be measured against.

CARE promotes mutual understanding by specifying common assurance processes thereby ensuring that suppliers and buyers take less time in understanding and recognizing each other's requirements. Proven solutions which conform to a set of standards reduce the risks and are likely to be more compatible. Furthermore CARE encourages the spread of new technology. If new technology solutions conform to the same specifications its outreach becomes greater.

CARE can be effectively used by different user groups like the administrators and policy makers in government, project managers, solution providers, users, funding agencies and procurement bodies for respective purposes. The specific benefits as perceived by these groups are outlined below.

Administrators and Policy Makers

Administrators and policy makers face a management challenge in implementing programmes and ensuring that long-term value is provided through e-Governance solutions. The Conformity Assessment Requirements helps them in:

- Enhancing stakeholder confidence in the solution
- Achieving the project vision and objectives
- Addressing stakeholder concerns

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- Obtaining supporting evidence in case of disputes with respect to project quality
- Developing strategies for handling complex problems.
- Meeting requirements of government rules, procedures, policies, decisions and processes

Project Managers

For providing inputs for preparing procurement documents (RFP) and contract documents for payment purposes.

Solution Providers

- Using it as a common methodology
- Criteria for declaring that the appropriate technologies have been chosen and the solution is designed in a way so as to achieve the desired results.
- Using it as a well-structured approach based on acceptable international standards.
- Working on a level playing field with evaluations, which are accurate, repeatable, reproducible and done by a competent independent third party.

Users Groups

- Confidence that the solution functions properly and meets the requirements of government rules, regulations, procedures, policies, decisions and processes.
- Ensures legal compliances and protects citizens' rights to privacy, security, data integrity and availability of information
- Solutions are usable, human centric, efficient, reliable and easy to maintain.
- Ensures that the solutions are in line with the citizen's charter and meet the desired service levels.

Funding Agencies

To procure evidence that a particular phase of the project is completed, has met the project / programme goals that the agency is supporting and payments can be released accordingly

Procurement Bodies

To use evaluation reports and certificates for making the necessary payment ("What was required" vs. "What is supplied") as per the contract.

Conformity Assessment is likely to create greater confidence in e-Governance solutions among the government, regulatory authorities, financial institutions/ funding agencies and citizens because the results of Conformity Assessment are achieved through engineering processes of verification and validation supported by verifiable, objective evidence which is reliable, repeatable and reproducible. Indicative benefits of completing a conformity assurance exercise include:

- Fosters national/ international acceptance of the quality of an eGovernance project
- Provides the purchaser with confidence in suppliers, products or services procured
- Helps businesses to be competitive providers of eGovernance solutions
- Facilitates buy-side and sell-side trust in procurement and supply

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- Provides a visible link between quality standards and the market for eGovernance systems

On the other hand, detailed conformity assessment procedures could also increase compliance costs for enterprises and government alike, increase the complexity of procurement and inhibiting product innovation.

It is advised to do cost benefit analysis while detailing conformity assessment requirement as exhaustive conformity assessment may increase compliance cost, increase complexity of procurement, and inhibit product innovations.

Chapter 2

Conformity Assessment

This chapter provides a concept of conformity assurance, the requirements of conformity assurance and a model to implement a conformity assurance exercise. It also outlines the role of quality standards in the conformity assurance process.

2.1 Concept and Principles

Conformance is defined as an affirmative indication or judgment that a product or service has met the requirements of a relevant specification, contract or regulation. The demonstration of fulfilment of requirements is known as Conformity Assessment (CA). Conformity Assessment is concerned with all activities used in determining that the relevant requirement in the standards or regulations are fulfilled. This includes techniques like sampling, testing, inspection, certification, management system assessment and registration as well as accreditation. Conformity Assessment can be applied to a product, service, a process, a system, a body or person. Conformity Assessment encourages the development of products and services to specifications which have a wider acceptance.

To demonstrate conformity there are three types of assessment:

First-party assessment: Conformity Assessment activity that is performed by the person or organization that provides the object.

Second-party assessment: Conformity Assessment activity that is performed by a person or organization that has a user interest in the object i.e. where the supplier's client (purchaser) issues an attestation for the product/service he is purchasing.

Third-party assessment: Conformity Assessment activity that is performed by a person or body that is independent of the person, organization that provides the object, and of user interests in that object i.e. attestation, which is given by a body independent of both supplier and the client.

For e-Governance applications, third Party assessment is relevant, based on the following principles:

- *Proportionality:* Optimum assessment --- balance between the risk associated with the project, degree of assurance required and the cost implications
- *Accountability:* Objectivity of assessment -- stress on evaluation by an independent accredited third party which follows international norms and best practices
- *Consistency:* Reliability, reproducibility and repeatability of evaluation results
- *Targeting:* Use of International Open Standards and NeGP e-Governance standards as reference criteria

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- *Transparency*: Evaluation criteria, Test Methods Procedures are transparent and regularly audited by an accreditation body.

2.2 Conformity Assessment Body

The agency assessing and evaluating the e-Governance solutions for conformity with the requirements is called the Conformity Assessment Body (CAB). The CAB should be an independent third party body. The body should have well defined processes in place to ensure the quality of the Conformity Assessment. This will in turn ensure the reliability and reproducibility of the results. The body should furthermore possess adequate technical infrastructure, skill sets, education and training to perform professional work.

The Key requirements of CAB are summarized as below:

- Operate impartially
- Maintain confidentiality
- Have a system to redress complaints and appeals
- Establish a management system
- Have a procedure for disclosure of information
- Act as an independent third party
- Be competent in its operation
- Have processes and a quality system in place so that the results are reliable and reproducible
- Have a technical infrastructure, skill sets, education and training to perform professional work
- Note: Conformity Assessment Body is sometime a part of Conformity Assessment Agency where Conformity Assessment Agency performs other support functions also. Generally, these terms are used interchangeably.
- The Conformity Assessment Body should fulfill the requirements as per the applicable national standard like IS: ISO 17025 for software test laboratory and IS: ISO 17020 for inspection body. The requirements are specified in document **Conformity Assessment-administration(QAF02-05)**
- List of CABs that are empanelled with CERT-In (for website security) can be seen at <http://Cert-In.org/panelofauditors.htm>. STQC, a directorate of Department of IT, GOI, has been doing 3rd party assessments for various e-Governance projects some of which include MCA-21, Passport Seva, Income Tax, NSDG, India Portal, Land Records, Property Registration, Municipality, etc.

For details, visit the STQC website, <http://www.stqc.nic.in>

2.3 Extent of Conformity

Normally, assurance has only been associated with IT products and systems composed of a hardware and software, and referred to as product or system assurance. It is now recognized that to address a wider range of risks, there is a need for assurance on quality, security and, service objectives and as well as organizational processes.

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Assurance requirements are unique to each environment due to the myriad government administration requirements of each environment. Therefore, the same deliverable may not be suitable to other environments without modifications or tailoring. Hence the extent of conformity needed depends on the risks involved in the associated projects and the confidence required.

The minimum requirement of a particular e-Governance solution to the RFP/contract document is evaluated to ensure basic functional requirements. The application quality is evaluated on the basis of the quality model, security of the complete information system is assessed and SLA compliance of IT services should be ensured to ensure delivery of government services defined in the declared citizen's charter. The organisation shall implement basic quality processes for operational and governance efficiency. These shall be mandatorily required for eGovernance Project.

However, it is recommended, when the organisation's objectives are more focused on interoperability requirements (transaction and integration), in addition to compliance with minimum requirements, compliance with standardised process models, standardised data models and with standards and architectures described in RFP (RFP needs to be specially designed for this) shall be ensured.

To increase the possibility of success of eGovernance project including attainment of objectives and user satisfaction, government organisations should follow systematic process approach of acquiring IT system and embedding the same in governance systems. It is recommended that organisation should follow lifecycle approach in acquiring eGovernance system.

The extent of Conformity should be clearly defined in the RFP.

2.4 Conformity Assessment Model

The purpose of the e-governance Quality Assurance Framework is to provide assurance that work products (solutions) and Processes comply with predefined provisions and plans. As a result of successful implementation of this Framework, users get the confidence that services delivered are as per his requirement and his objective of availing services is fulfilled.

These are achieved by performing the following activities:

- i) Process Design & Implementation (Processes for government, project, vendor & user)
- ii) Product Assurance (Software Application, Hardware & networking components), Process Assurance (Risk management, Asset management, Disaster Recovery ...) and Assurance of management systems (ISMS, ITSM, QMS....) and
- iii) Measurement of user satisfaction

Conformity assessment provide assurance of products, process and management systems (ii above). In context of a typical eGovernance architecture (Figure 1 below), for total assurance, each layer (user, technology, government organisation) should conform to their respective requirements.

- i) Each layer is a set of components (example, access layer has components like biometric, smart card, website, etc.), and these components needs to be assessed for quality. Quality

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criteria are defined for each of these components. The quality characteristics of these components are given in Annexure 1.

- ii) For any eGovernance project there may be one or more components from each layer. The components used in eGovernance project are known as components of interest (example, a particular project may use only smart card or only website as access mechanism).
- iii) Quality criteria (or certification schemes in some cases) are defined for each component, at few critical points, controls need to be exercised and demonstrated. These are known as Quality Gates. These Quality Gates requirements are defined in this document (conformity assessment requirements).
- iv) Quality Gates are classified as “essential” and “desirable”. The essential Quality Gates are based on “Requirement Standards” meant for assessing conformity and awarding certification. It identifies the criteria clearly and not prescriptive in nature. These quality gates are common for all the projects.
- v) These “Requirement Standards” of essential quality gate consists of a set of **control objectives**, the compliance to which can be demonstrated by implementing a set of processes. Some of these control objectives are critical in nature due to their high risk value, and for complex/high value projects it is desirable to have an exhaustive demonstration of compliance with these control objectives. The selection of these control objectives is termed as desirable quality gate and these will vary from project to project.

Desirable Quality Gates has a technical link with essential quality gate and have high level of granularity/details. These are practise based standards and compliance is assessed with the “principles” used in the Standard.

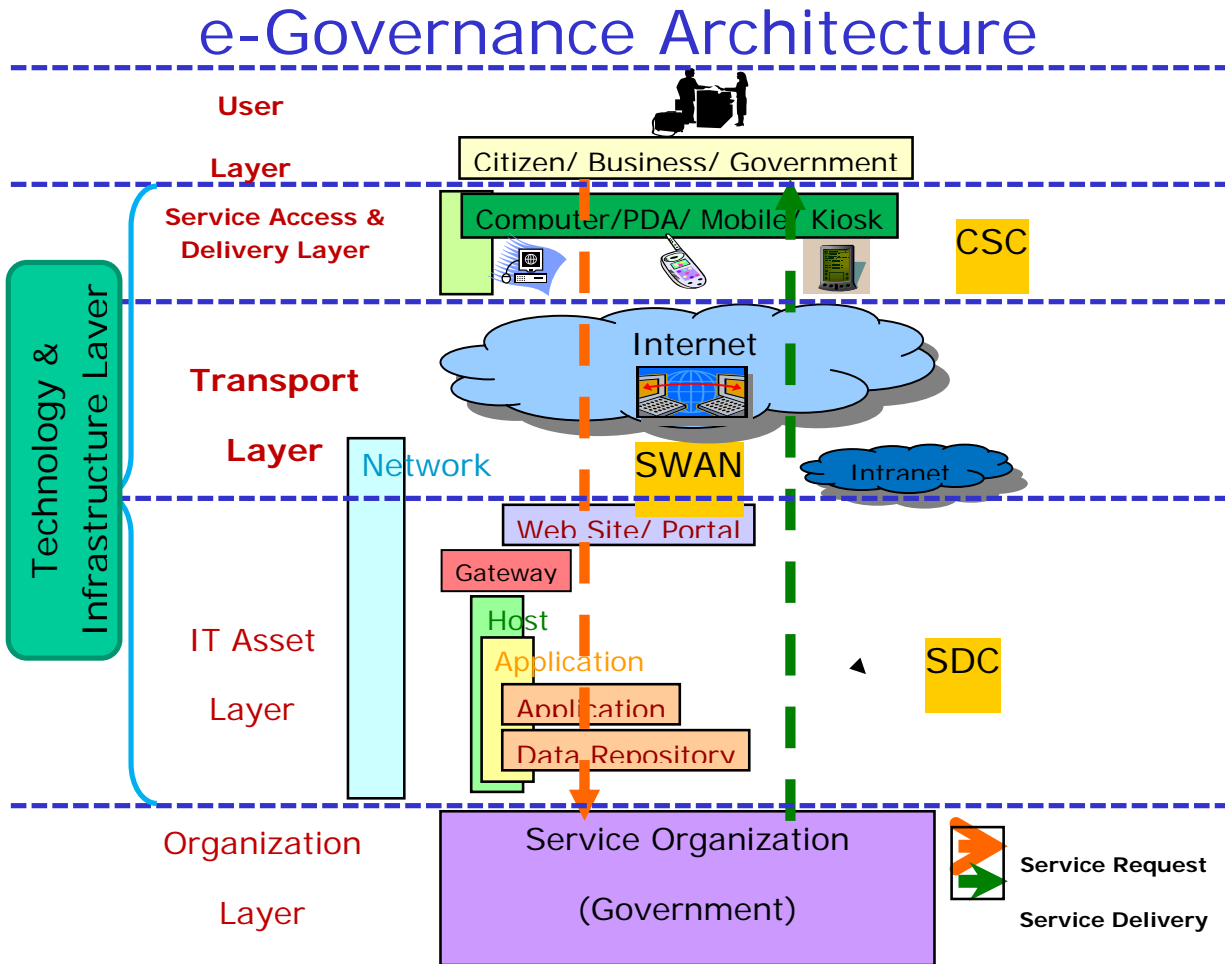
The term essential and desirable in this model are used from “Conformity assessment point of view” and not for eGovernance per say. For some eGovernance projects these may be requirements for implementation, but conformity assessment may not be required, as described in chapter 3.

Crossing of Quality Gate implies conforming to a set of prescribed processes and achieving the desired level of confidence.

Note: *To know whether the solution provider claim to conform to a particular standard are correct? Conformance to standard has become an increasing concern, this requires*

- a) *Standards used for conformity assessment are “requirement based standards” so that conformance can be demonstrated and certification can be avoided.*
- b) *There should be independent certification services to verify conformance, These bodies shall be accredited by the members of the international accreditation forum.*

FIGURE 1: EGOVERNANCE ARCHITECTURE LAYERS



CARE's architecture includes four essential Quality Gates and Ten Desirable Quality Gates. The approach and the method of identifying quality gate is given in Chapter 3.

2.5 Standards and Conformity Assessment

A Standard is defined as a technical specification, recommended practices or guidelines available to the public, drawn up with the cooperation and consensus or general approval of all interests affected by it, based on the consolidated results of science, technology and experience, aimed at the promotion of optimum community benefits and approved by a body recognized at the national, regional or international level.

Standards which prescribe set of rules, conditions or requirements play an important role in building the architecture of eGovernance. The essential requirements of interoperability, security, usability and reduction in cost can only achieved through standardization and use of standards.

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eGovernance Standards may be classified in numerous ways, these include technical standards, design standards product, process and management system standards. Technical standard describe the characteristics of applying accumulated technical or management skills or methods in the creation of the product (ex. Document storage format, character set and encoding for web content, data transformation for presentation etc.) or performing a service, whereas the product standard defines what constitute completeness and acceptability of items that are used or produced formally or informally during the software engineering process. A process standard deals with the series of activities and tasks used in making or achieving a product or service.

One of the important use of standards is to be a reference basis for conformity assessment process which, in turn becomes the basis for many agreements. Hence standards used in conformity assessment activities can have tremendous impact on Public Private relationships and their Business Model. For the purpose of eGovernance, Conformity assessment includes activities like sampling and testing; inspection, review, certification, management system assessment and registration etc.

However, in general when products (or solution) can be defined in terms of required performance characteristics, the resulting performance standards tend to be less restrictive than design standards. Performance standards are also more likely to allow the inclusion of technological innovations in the product (or solution) and to prevent unnecessary barriers to trade. CARE encourages to define performance characteristics or the solution (SLA) irrespective of its design, which shall follow standard based approach. This approach tends to be less restrictive leading to greater technological innovation, increased investment and business opportunities, technical regulations and standards in terms of performance rather than design.

Standards used in conformity assessment should also be chosen so that they specify all essential characteristics of a product or solution necessary for achieving the objective of the conformity assessment activity. For example, if assurance of the security of information system is the performance requirement of the eGovernance system then it should be matched with the design objective of the chosen standard. The chosen standard will identify the requirements of achieving the same. EGovernance standard division is publishing guidelines and best practices to provide sufficient guidance to the user. The identified standard should be appropriately reflected in the RFP and contract documents.

By this way, the conformity assessment becomes a tool to systematically enforce standard implementation in various stages of eGovernance life cycle.

2.6 Conformity Assessment Activities

The conformity assessment requirements are based on the principle that to achieve quality objectives, it is necessary to demonstrate compliance with requirement, best practices and processes. This includes following activities:

- i) *Identify Conformity Assessment Requirements for eGovernance Project to be put in RFP.*
This activity needs to be done at the stage when project team is working on the RFP. Apart from technical team, purchase and finance functions shall also be involved, as some of the activities and milestones will be linked with the release of payment. The task involves at this stage are to understand, when conformity assessment activities will be required.

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The essential quality gates requirements identified in this document are mandatory and exclusions are not recommended. For desirable quality gates, conformity assessment requirements shall be evaluated based on project schedule, cost, complexity, feasibility, risk level (low, medium, high) etc. Exclusions for desired quality gates shall be recorded with rational and justification. (Refer chapter 3).

Responsibility: RFP team of PMU

ii) Insert Conformity Assessment Requirement in RFP:

Once agreed and approved as this will be a cost component to be born by the solution provider (except quality gate 1, as it is required before RFP stage in Project Life Cycle a separate chapter in RFP as Conformity Assessment Requirements should be inserted. This can include milestones (activity, timelines, deliverable etc., specifying an entry and exit criterion is also recommended). Annexure-II of this document provides a template to carry out this activity.

Responsibility: RFP team of PMU

Selection of Conformity Assessment Body

Conformity Assessment Body can be selected from list of empanelled bodies available at STQC website based on competitive bidding.

Responsibility: PMU

iii) Agreement on Criteria and Methodology of Conformity Assessment

When project kicks-off, system integrator/solution provider and designated team of Conformity Assessment Body shall agree on the granularity of criteria and methodology (test environment and methods of measurements testing, audit etc.) of Conformity Assessment involving project team of concerned ministry.

Responsibility: Jointly by PMU, implementing agency/solution provider and CAB.

iv) Develop Conformity Assessment Plan

Conformity Assessment Body develops a Conformity Assessment Plan identifying tasks, team leader from CAB, resources allocated method of reports format to be used, reference standards and timelines, assigned person from Govt. organization and solution provider/system integrator.

CAB will identify the technique for evaluating conformity with the requirements like reviews, assessment, testing, audit etc. of various components in the plan.

Responsibility: Conformity Assessment Body

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v) *Gather Information fulfilling CARE*

CAB shall study the various system documents like SRS, User Manual, Security Manual, Statement of Applicability, IT Service Manual and other applicable document and gather information for designing the test, evaluation and assessment scenarios

Responsibility: Conformity Assessment Body

vi) *Review Adequacy, completeness and correctness*

The team leader of CAB shall review all the above for the following characteristics: correctness, clarity (Unambiguous), completeness, consistency, verifiability, modifiability, traceability, and aspects of document control and conformance to agreed standards.

If team leader of CAB is satisfied with the adequacy of the system defined, he seeks permissions from the ministry and system integrator to initiate testing and auditing process. If not satisfied CAB leader shall provide a discrepancy report to representative of implementing agency/system integrator.

Responsibility: Conformity Assessment Body

vii) *Decision to Proceed for evaluation*

If review results indicate system is adequately defined then proceed for compliance evaluation.

Responsibility: Conformity Assessment Body

viii) *Evaluation of developed system with respect to defined system*

As per assessment plan, testing and evaluation is carried out by Conformity Assessment Body of the application software, databases and other component as applicable audits of various management systems like information security management system, IT Service Management System, Govt. organization processes with respect to Quality Management System as applicable etc. and other Quality Gates whichever are identified in the RFP. In case any discrepancies are observed with respect to the defined system, discrepancy report is prepared and submitted to the system integrator/solution provider and Govt. organization as applicable for necessary corrections. Once these corrections are confirmed CAB carries out regression testing and re-audit as applicable to close the discrepancy. CAB carries out the overall evaluation of the system by collating data from various channels and submits the reports to the project of the Govt. organization.

Responsibility: Conformity Assessment Body

ix) *Statement of compliance with CARE*

If all the conditions as defined in RFP/Contract document are satisfactorily fulfilled, Conformity Assessment Body issues a statement of compliance with the CARE of the project.

Responsibility: Conformity Assessment Body

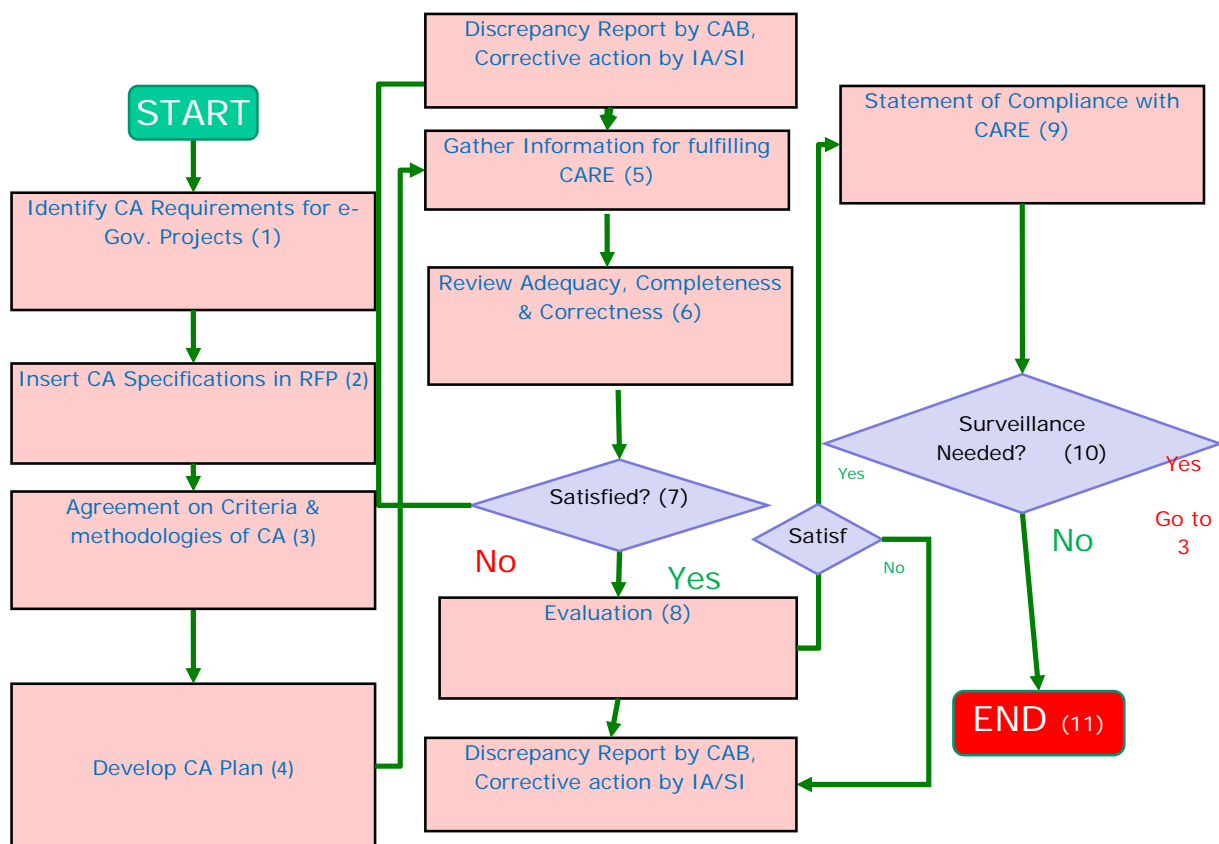
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x) *Surveillance*

If Govt. Organization and/or System Integrator is interested, surveillance activity can be planned and designed based on a contract agreement.

Responsibility: Project Management Unit (PMU)

FIGURE 2: FUNCTIONAL APPROACH TO CONFORMITY ASSESSMENT



2.7 Conformity Assessment Requirements and PPP Projects of eGovernance

Public-Private-Partnerships (PPP) describe a government service or private business venture which is funded by and operated through a partnership of government and one or more private sector companies. It involves a contract between a public sector authority and a private party in which the private party provides a public service or project and assumes substantial financial, technical and operational risk in the project. Government in PPPs see value for

Conformity Assessment Requirements For Quality Assurance in eGovernance

money. The model for success is true partnership, leadership and shared business. The critical elements are degree of mutuality, retention of organisational identity and ability to communicate and collaborate effectively. The other key success factors are:

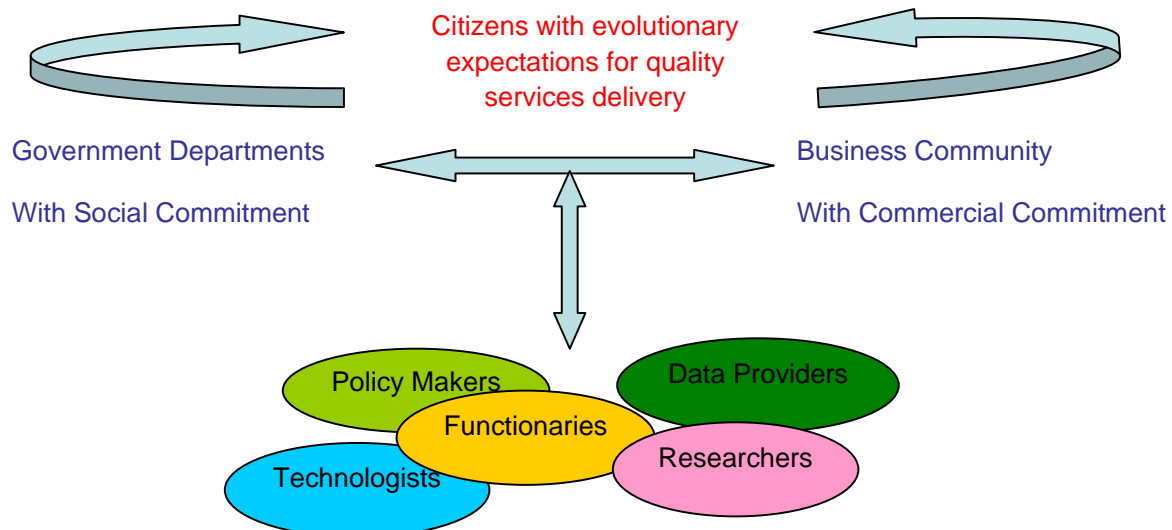
- Transparent partner motivations, expectations and benefits
- Willingness to embrace change and remain flexible
- Clear plan with goals, objectives and accountability

The trust and confidence between public and private partners is built based on clear definition of processes, responsibilities, milestones, deliverables, and demonstration of compliance of artefacts with the contractual requirements. At RFP stage itself making clear “what, how and whom to demonstrate” facilitates the building of trust and confidence leading to development of sound professional relationship between public and private partners. The alignment of public and private partner’s processes and a confidence in the relationships will result from a) agreement of the use of identified standards

b) Mechanism to ensure that these standards are adhered to

Aim of Conformity Assessment is to enforce standards, best practices and process on both public sector (Government Department) & Private Sector (Business Community) to make the partnership successful & sustainable, as shown in the figure below.

Need For Alignment of Public and Private Partners



Chapter 3

Quality Gates

For service assurance it is necessary that the government organization shall address the functional (how, where and when), information (what and how much), organizational (who and why) and infrastructure (enabler) requirements in a unified way. Accordingly the eGovernance architectural view shall address the following:

- i. What are the strategic *business* objectives of the organization?
- ii. What *information* is needed to support the *business*?
- iii. What *applications* are needed to provide *information*?
- iv. What *technology* is needed to support the *applications*?

From quality assurance perspective each aspect of the above needs to be assured by implementing processes and demonstrating conformance independently that implemented processes are effective. The quality gates are designed to achieve these objectives by providing assurance that:

- Quality management system is implemented in the organization and is effective to support the strategic business objectives.
- Information is available in a confidential and integrated manner to the user (assurance of confidentiality, integrity and availability).
- Applications are capable (in terms of functionality, security, usability, performance, reliability, etc.) to provide the information.
- Technology is capable (in terms of capacity, availability of service, service continuity, management of relationships and management of service levels).

To ensure that these four objectives are fulfilled, quality gates are identified. These are common for all the eGovernance projects irrespective of its size or scale. It is envisaged by definition eGovernance means availability of online service in a secured environment as per defined service levels.

3.1. Essential Quality Gates

Quality gates are assurance points in progression from user's perspective. The user gets levels of assurance starting from availability of information (informed user-if application is quality assessed) to confidence that his personal information and transactions are secure (secure user- if information system is security assessed) and a fulfilment of promise regarding the availability of services (assured user-

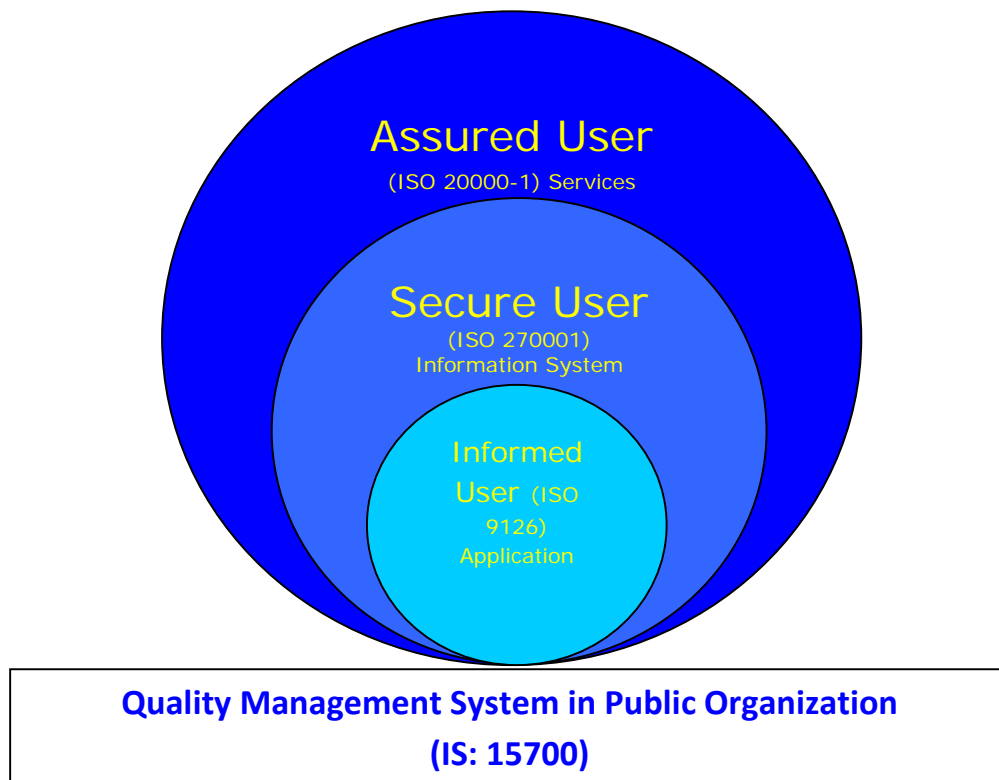
Conformity Assessment Requirements For Quality Assurance in eGovernance

service is available as per declared service levels) . Therefore the quality gates for conformity assessment for eGovernance projects identified are:

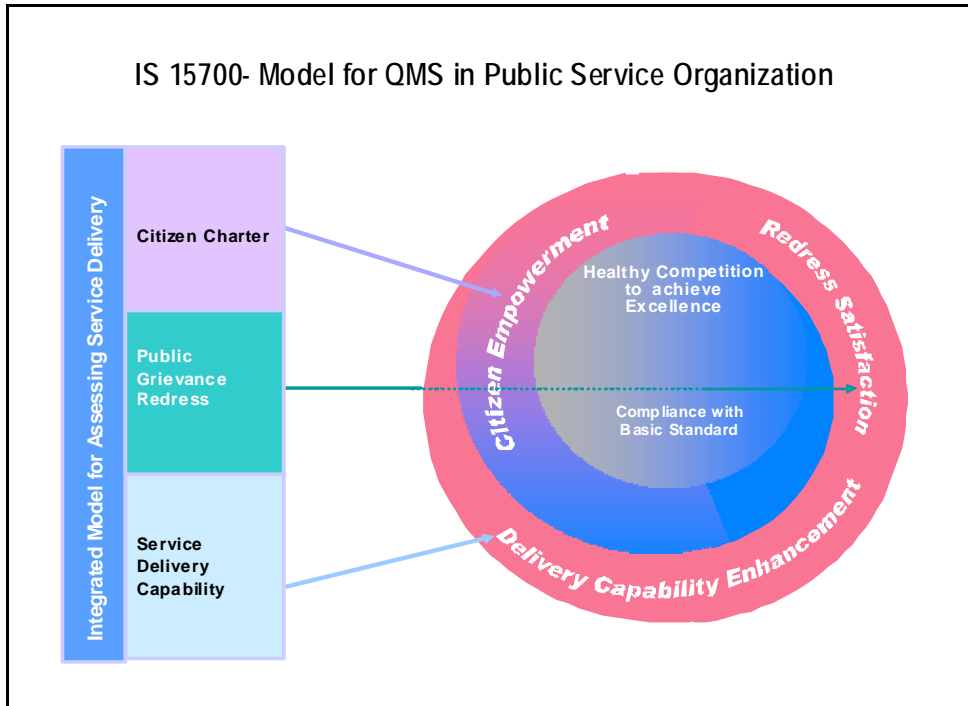
a) Essential Quality Gates

- Quality Management System in Government Organization (means of demonstration is compliance of the organization's quality management system with IS 15700) (QG 1)
- Software Application Quality (means of demonstration is compliance of software with ISO 9126) (QG 2)
- Information Security Management System (means of demonstration is compliance of information system and the organization with ISO 270001) (QG 3)
- IT Service Management (means of demonstration is compliance of information technology service management system with ISO 20000-1) (QG 4)

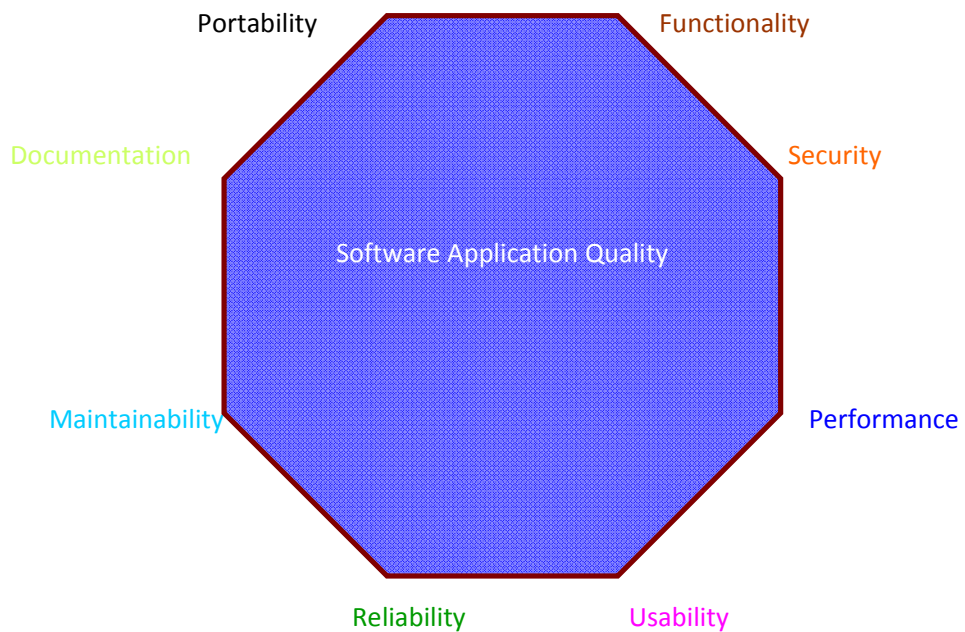
These quality gates support implementation of above identified standards and facilitate meaningful evaluation of resulting implementation.



QG-1 QMS in Public Service Organization

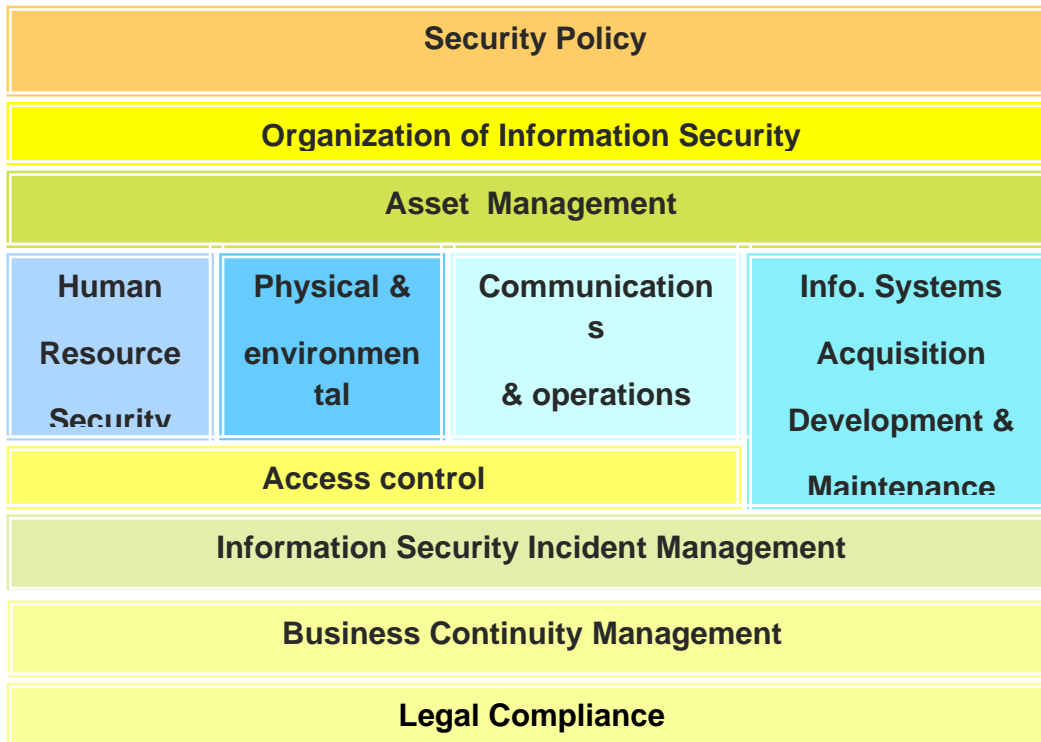


QG-2 Application Quality (IS: ISO 9126)

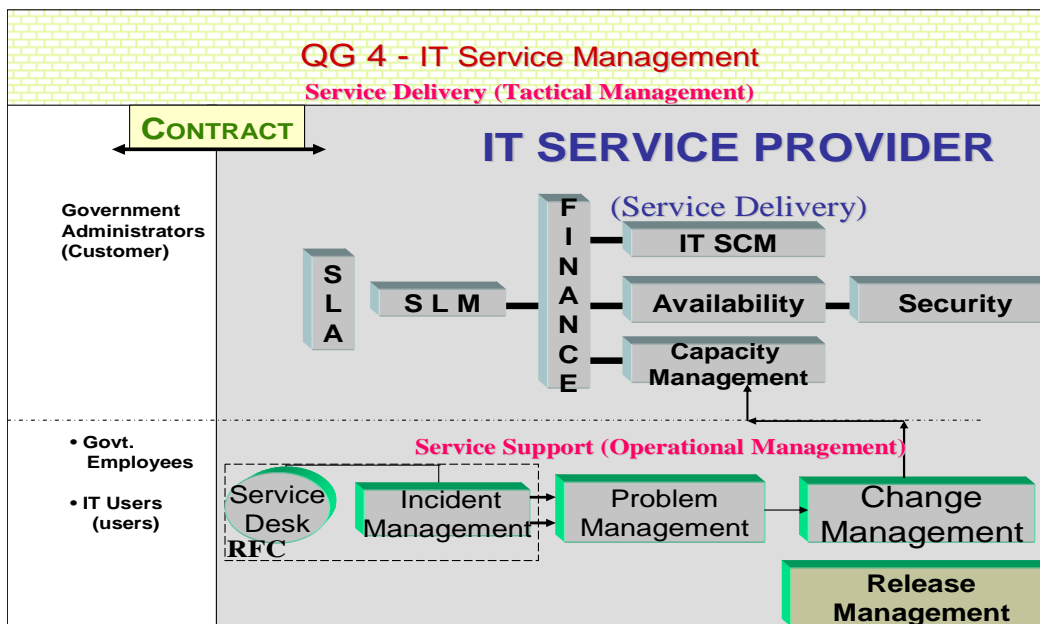


Conformity Assessment Requirements For Quality Assurance in eGovernance

QG- 3 IS: ISO27001 model for information Security Management System



QG-4 IT Service Management (IS: ISO 20000-1)



3.2. Desirable Quality Gates

For complex high value projects apart from the essential quality gates it may be necessary that additional checks and controls are required. It is desired to check conformity of the following nodes (output of a milestone) of the eGovernance lifecycle. This will facilitate the mitigation of the potential risk. The identified desirable quality gates (conformity assessment points) are

- Government Process Re –engineering (QG 5)
- Technical Standards and Architectures (QG 6)
- Acquisition and outsourcing (QG 7)
- Request for proposal and Service Level Agreement (QG 8)
- Documentation (QG 9)
- Risk Management (QG 10)
- Asset Management (QG 11)
- Business Continuity Planning (QG 12)
- Disaster Recovery Management (QG 13)
- Digital Preservation & Information Archiving (QG 14)

The rational of selecting these as a desirable quality gates are

In complex, high value projects additional assurances are required because of huge investment, criticality of the project and high risk of not meeting the project objectives. Management will like to get the assurance that the above processes are conforming to the specified requirements. The selection of the desirable quality gates are based on principal of exclusion where the risk of each desirable quality gate if not assured for quality is documented with a sound rational and approved by the project owner. For small and low risk projects only process implementation with internal controls of desirable quality gates will be sufficient and third party conformity assessment may not be required.

One of the difference between essential and desirable quality gates is that standard chosen for essential quality gates are requirement based conformance standards where conformity can be assessed objectively and certification can be granted where as the standard identified for desirable quality gates have a high degree of prescription in their normative requirements and conformity can be assessed on the principles used in the standard rather than the requirements given in the standard.

Quality Gates are identified in the Figure given below. The granularity of these Quality Gates can be further enhanced based on the needs and checks required.

The following Table depicts the essential and desirable quality gates

Quality Gates:

Quality Gate	Title	Purpose	Description	Standard	Reference
Essential					
QG1	Quality Management System in Public Service Organization	To ensure Quality Management System is established in the Govt. Organization	It requires restructuring of Govt. administrative processes and fulfilling quality requirements like citizen's Charter, Service specification and effective system of grievances and complaint handling. For more details refer DAR&PG website : DARPG	IS:15700	QAF01.01
QG2	Quality of Software Application	To ensure work processes are captured correctly and application complies with Quality characteristics	The application is tested and evaluated as per Quality Model describing functionality, performance, reliability usability, security, maintainability and portability as quality characteristics	ISO:9126	QAF02.03
QG3	Information Security Management System	To ensure the Information System and infrastructure relevant to the project is secured	<p>The Information security management system is designed considering risk assessment and treatments, following control objectives are implemented:</p> <p>Risk Assessment and Treatment</p> <ul style="list-style-type: none"> i) Security Policy ii) Organisation of Information Security iii) Asset Management iv) Human Resource Security v) Physical and environmental Security vi) Communications and Operation Management vii) Access Control viii) Information Systems acquisition, development and maintenance ix) Information Security Incident Management x) Business Continuity Management and 	ISO:27001	QAF0203.01

Conformity Assessment Requirements For Quality Assurance in eGovernance

			compliance		
QG4	IT Service Management	To ensure the Quality of IT Service is maintained and Service Levels are managed	IT Service Provider implements the following processes: Service support processes <ul style="list-style-type: none"> • Incident & Problem Management • Configuration, change & Release Management Service delivery processes <ul style="list-style-type: none"> • Service Level Management and Relationship Management • Capacity & Availability Management • Service Continuity & Security Management 	ISO:20000-1	QAF020302
<i>Desirable</i>					
QG5	Government Process Re-engineering	Redefine Govt administrative processes to make it more efficient and align with IT	The existing process is studied "as is", controls with high risk areas are identified, and process is re-structured to make it efficient ("to be")	IEEE1362	QAF01.04.01
QG6	Technical Standards and Architectures	To use of technical standards and architecture will enhance interoperability, reusability, openness, scalability, reduction of costs and risks.	List of notified Standards and Policies for eGovernance are compiled for quick reference. The RFP writer shall ensure that mandatory standard and policies are complied with and if required it is desirable that Conformity with critical standards to be checked by independent body		QAF01.06
QG7	Acquisition and outsourcing	For acquiring IT, Govt. Department shall have necessary processes in place. This will avoid any failures in IT Governance	A minimum level of process maturity shall exist in the Govt Department to manage acquisition of IT and its integration into the governance and administrative system. This will support the 6 principles of IT governance: Responsibility, Strategy, Acquisition, Performance, Conformance, Human Behaviour	eSCM ISO:38500	QAF0105-07

Conformity Assessment Requirements For Quality Assurance in eGovernance

QG08	Request for proposal and Service Level Agreement	Purpose of this document is to provide the guideline and process for preparing eGovernance RFP & SLAs.	For eGovernance preparation of RFP is multidisciplinary subject involving expertise from various areas. The RFP process its structure, content and legal implications are highlighted.	-	QAF0105-06
QG9	Documentation	The purpose of documentation and record management is to define the procedures and maintain the evidences.	e-documentation and record management consist of : <ul style="list-style-type: none"> • Description and recording of information about a system throughout its life cycle • Assist the usability and maintainability of the Information System • Help control the life-cycle process • Communicate information about the system to those who need it. 	ISO: 32000-1	QAF0201
QG10	Risk Management	eGovernance Project being complex in nature are surrounded by societal, technical, financial, political, security, functionality, project, environmental risks. A formal risk management process will assist in mitigating the above.	<ul style="list-style-type: none"> • Technical and Management Processes • Manage the project Risk Profile • Plan and Implement Risk Management Process • Perform Risk Analysis • Perform Risk Monitoring • Evaluate the Risk Management Process 	ISO:16085	QAF0105-03
QG11	Asset Management	Asset management guides development of infrastructure assets towards optimal benefit at minimal cost.	Asset Management includes demand, planning, procurement, operation, maintenance, rehabilitation, disposal and replacement to maximise the return on investment at the required standard of service to current and future generations. It refers to special policies and programmes designed to preserve the long term value of assets.	ISO:19770	QAF0201
QG12	Business Continuity Planning	To provide the guidelines for preparing a Business Continuity Plan	To maintain business continuity a strategy based management approach is required. This includes IT Service and Business Continuity planning the Business Continuity Management System, implementing and operating the BCMS monitoring and reviewing the BCMS, maintaining and improving the BCMS.	BS25999-2	QAF0105-04

Conformity Assessment Requirements For Quality Assurance in eGovernance

QG13	Disaster Recovery Management	These guidelines provide the requirements for disaster recovery management.	This describes maximum recovery time objectives: RTO (time, maximum recovery point objective: RPO(time)retention(time) and label of protection	ISO/IEC2476 2	QAF0105-05
QG14	Digital Preservation & Information Archiving	A process based approach to establish a system for archiving information,	This is a information life cycle management approach for preparing digest, defining environment and preserving the information controlling the media with time.	ISO14721	QAF0201

Annexure I

CARE Templates

Template – Front Page

Request for Proposal for eGovernance Project

Conformity Assessment Requirements of ABC Project

Terms of Reference for 3rd Party Conformity Assessment Agency (3PCAA)

XYZ Ministry of --- Government of India

Version 1.0, Nov. 2009

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	2.2 Project Charter
	2.3 Project Implementation Approach
	2.4 Service Delivery Approach
	2.5 Project Implementation Timelines
3.	Roles and Responsibilities
	3.1 Client
	3.2 Concessionaire (Implementation Partner or Solution Provider)
	3.3. 3PCAA or STQC
4.	Conformity Assessment
	4.1 Conformity Assessment – Purpose & Objectives
	4.2 Conformity Assessment - Norms
	4.3 Conformity Assessment - Scope
	4.4 Conformity Assessment - Phases
	4.5 Conformity Assessment – Inputs
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5.	Offers
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	5.3 Calendar
	5.4 Other Terms
6.	Annexure A : Location for Project , Annexure B: Timeline for the Project,

Conformity Assessment Requirements For Quality Assurance in eGovernance

Template – Body of CARE-TOR Document

1.0 Purpose of the Present Terms Of Reference:

- *Carryout Comprehensive Audit*
- *Lay down a set of guidelines and perform a complete health check on the system & related aspects*

2.0 Project Details:

2.1 Project Background:

- *Project is a part of NeGP*
- *Is a part of Financial Inclusion Agenda of the government*

2.2 Project Charter:

(To be filled by the RFP writer)

2.2.1 Vision (of the Project)

“To deliver all services to the citizens in a timely, transparent, more accessible and reliable manner and in a comfortable environment through streamlined processes and committed, trained and motivated workforce”.

2.2.2 Objectives of Project:

- *Establish a secure & error-free system that compares with the best in the world*
- *Provide a portfolio of ONLINE services to the citizens*

2.3 Project Implementation Approach:

- *The project would be implemented in a Public Private Partnership mode.*
- *The project would be initially implemented on a Pilot basis*

2.4 Service Delivery Approach:

- *System is to be designed, developed, implemented and operated following a Service Oriented Approach*
- *Department is primarily interested in the **outcomes** i.e. citizen services delivered in compliance with the Service Level Agreement (SLA).*

Conformity Assessment Requirements For Quality Assurance in eGovernance

2.5 Project Implementation Timelines:

Sr. No.	Milestone	Timeline
1.		
2.		
3.		
4.	--	
5.		
6.		
7.		
8.		
9.		
10.		

3.0 Roles and Responsibilities:

3.1 Roles and Responsibilities of Client (Govt. Organization):

-
-
-
-

3.2 Roles and Responsibilities of Concessionaire:

-
-
-

3.3 Roles and Responsibilities of 3PCCA:

-
-
-

4.0 Conformity Assessment:

The primary goal of conformity assessment is to get a confidence that the project meets the objectives and requirements prescribed by the RFP

4.1 Conformity Assessment - Purpose & Objective:

- *To ensure that the Vision and objectives of the project, spelt out above are realized.*
- *The Terms of Reference is to define the scope of work for the 3rd Party Conformity Assessment Agency (3PCAA).*

Conformity Assessment Requirements For Quality Assurance in eGovernance

- *The primary objective of Conformity Assessment is to ensure that the project meets requirements, standards, and specifications as set out in the RFP and as needed to achieve the desired outcomes.*

4.2 Conformity Assessment - Norms:

-
-
-

4.3 Conformity Assessment - Scope:

- *Acceptance testing, assurance on conformance to standards & specifications with respect to application software, IT and Non IT Hardware, the design and deployment of the front offices and compliance to SLA's as detailed in the RFP.*
- *All the locations specified in the RFP. The scope shall further include*
 - *Audit of Processes & Artifacts*
 - *System Integration Audit*
 - *User Acceptance Testing (UAT) Execution with mutually Agreed Test Plans.*
 - *Certification for GO LIVE readiness*
 - *System security Audit and conformance with ISO 27001*

4.3.1 Details of Scope:

4.3.1.1 Functional Requirements Review

4.3.1.2 Infrastructure Compliance Review

4.3.1.3 Review of the Application Software

4.3.1.4 Security Review

- *Audit of Network, Server and Application security mechanisms*
- *Assessment of authentication mechanism provided in the application /components/ modules*
- *Assessment of data encryption mechanisms implemented for the solution*
- *Assessment of data access privileges*
- *Assessment of data back-up & archival mechanisms, retention periods and restoration mechanism*
- *Server and Application security features incorporated*

Conformity Assessment Requirements For Quality Assurance in eGovernance

- *Preparedness of system with respect to ISO 27001 certification*
- *System, organizational as well as IT-enabled, for management of Digital Signature Certificates for both client and SP personnel*
- *Security culture nurtured and practiced by client and SP in the project ecosystem*
- *Any other aspect relevant to system as per the Security policy defined*

4.3.1.5 Performance

- *Performance of the Core and Critical Assets like DC, DRC, Application Software and Networks;*
- *Performance of the systems at the Facilitation Center/Seva Kendra.*
- *Performance of the systems at the Back Office*
- *The response times of the system for accessing various functionalities and services shall be critically examined w.r.t industry benchmarks and the specifications of the RFP while conducting the performance review.*

4.3.1.6 Manageability Review

-
-

4.3.1.7 SLA Management System

-
-

4.3.1.8 Review of Strategic Control Systems

-
-

4.3.1.9 Project Documentation

-
-

4.3.1.10 Data Migration Process

-

Conformity Assessment Requirements For Quality Assurance in eGovernance

-

4.4 Conformity Assessment - Phases:

The conformity assessment is required to be carried out in 2 phases specified below:

- **Phase-I** - Pre-Go-Live assessment of the Pilot Phase and statement-of-compliance of the Pilot sites at -----.
- **Phase-II** - Pre-Go-Live assessment of the complete Rollout of project and statement-of-compliance of the Rollout.

4.5 Conformity Assessment - Inputs:

- Request For Proposal (RFP)
- Terms of Reference (TOR) for Annual Audit
- products & process documents and related records
- Change Requests

4.6 Conformity Assessment - Outputs:

- Audit Plan
- Audit Checklist / Questionnaire
- Audit Recordings / Logs
- Audit Report
- Non-Conformity / Observation Closure Report

4.7 Conformity Assessment - Locations :(e.g.)

- Data Centre
- Exchange Server
- Disaster Recovery Centre
- Department
- Services /Department Locations

4.8 Conformity Assessment - Process & Deliverables:

The Conformity assessment process to be followed will include the following:

- Define CA objectives to assure compliance with the project and service objectives, as set out in the RFP.
- Identify risks to the project during implementation and operational phases
- Establish appropriate processes for notifying deviations to Program Management Committee
- Review all project deliverables, including the following with respect to the defined scope:
 - The solution architecture

Conformity Assessment Requirements For Quality Assurance in eGovernance

- *Implementation methodology and tools*
- *Constructed application*

Sr. No.	Project – Mile Stones	Timeline (Weeks)	Specific Deliverables By Conformity Assessment Agency
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

5.0 Offers

5.1 Format of Offers

The Proposal submitted by the Bidder shall comprise the following documents:

- *Bidder's profile including all the relevant forms and annexure listed in section II of this document*
- *Technical Proposal including all the relevant forms and annexure listed in section II of this document*
- *Commercial Proposal including all the relevant forms and annexure listed in section II of this document*

5.2 Terms of Payment:

5.3. Calendar

Conformity Assessment Requirements For Quality Assurance in eGovernance

Calendar for Entrustment Process

The tentative calendar for entrustment process of the 3PAA is as below:

Events	Date

5.4 Other Terms

Annexure A – Locations for project

(to be filled by the project manager)

Conformity Assessment Requirements For Quality Assurance in eGovernance

Annexure B – Timeline for the project (example)

Sr. No.	Milestone	Time for Completion
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Annexure C – List of Services Planned for the Pilot Phase

Sr. No.	Service	Department	Act under which required
1			
2			
3			
4			
5			
6			
7			
8			

Conformity Assessment Requirements For Quality Assurance in eGovernance

Sr. No.	Service	Department	Act under which required
9			
10			

Annexure II

Model Request for Proposal for eGovernance Projects

CARE (EXAMPLE)

Conformity Assessment Requirements of ABC Project

Terms of Reference for 3rd Party Conformity Assessment Agency (3PCAA)

XYZ Ministry of --- Government of India

Version 1.0 , Nov. 2009

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5.	Offers

Conformity Assessment Requirements For Quality Assurance in eGovernance

	5.1 Format for Offers
	5.2 Terms of Payment
	5.3 Calendar
	5.4 Other Terms
6.	Annexure A : Location for Project Annexure B: Timeline for the Project Annexure C – List of Services Planned for the Pilot Phase

1.0 Purpose of the Present Terms of Reference:

The aim of the Conformity Assessment Requirements of eGovernance System is to carry out comprehensive audit in order to assess that various project components and related aspects such as hardware systems, software applications, network, infrastructure and processes are working in compliance to the project requirements and adhering to the established standards. The objective of the proposed audit of system is to lay down a set of guidelines and perform a complete health check on the system & related aspects, in following internationally accepted norms and e-Governance Standards.

2.0 Project Details:

2.1 Project Background:

The Government of India (GoI) has been making efforts on several fronts to improve the investment climate in the country by simplifying the procedures for grant of approvals, by reducing the delays, by reengineering the regulatory processes prescribed under various legislations, etc. The National e-Governance Plan (NeGP) approved by the Government of India includes many high impact e-Governance initiatives and projects that have been identified as Mission Mode Projects (MMP's). The NEGP contemplates implementation of 27 Mission Mode Projects (MMPs) including certain Integrated Services projects in a time bound manner committing the required resources of the public and private sectors for achieving measurable outcomes and goals.

The XYZ (*Name of the Ministry/Department*), Government of India is currently implementing the ABC Mission-Mode Project (MMP) which is one of the integrated services projects figuring in the National E-Governance Plan of India (NEGP). ABC is one of the Integrated Services projects figuring in the NEGP,

Conformity Assessment Requirements For Quality Assurance in eGovernance

which has been conceptualized to significantly improve the experience of businesses dealing with multiple Governments, and to serve as a model for similar collaborative and integrated service delivery efforts between Governments in the future.

Following are the key elements of the project that have been envisaged by ABC project to achieve the above objective:

2.2 Project Charter:

(To be filled by the RFP writer)

2.2.1 Vision (of the Project)

“To deliver all services to the citizens in a timely, transparent, more accessible and reliable manner and in a comfortable environment through streamlined processes and committed, trained and motivated workforce”.

2.2.2 Objectives of Project:

- i. Establish a secure & error-free system that compares with the best in the world
- ii. Render miscellaneous services (e.g. passport services, change in address and other personal particulars) on the date of application itself
- iii. Render the above services through simplified procedures and in conditions of comfort for the public (e.g. Passport)
- iv. Provide a portfolio of ONLINE services to the citizens

2.3 Project Implementation Approach:

The implementation approach of the project is as follows:

- a) The project would be implemented in a Public Private Partnership mode with M/s MNO Ltd. as the Concessionaire/ Project Implementation Partner/ Solution Provider.
- b) The project would be initially implemented on a Pilot basis in (e.g. 5 states -Andhra Pradesh, Maharashtra, Haryana, Tamilnadu and Delhi, with an initial set of 29 G2B services belonging to the Central, State and Local Governments. The Pilot Phase of the project would be for 3 years. The list of services planned for the Pilot Phase is provided in Appendix A.)

2.4 Service Delivery Approach:

The ABC System is to be designed, developed, implemented and operated following a Service Oriented Approach. Client (XYZ) intends to implement the project on a **Public-Private-Partnership** model, wherein the responsibility of delivering efficient services of high quality is cast on all the Partners- Private as well as Public- to varying degrees. All the efforts would be focused on ensuring that the public and private

Conformity Assessment Requirements For Quality Assurance in eGovernance

investments into the project result in tangible and measurable benefits to all the stakeholders. XYZ is primarily interested in the **outcomes** i.e. citizen services delivered in compliance with the Service Level Agreement (SLA).

2.5 Project Implementation Timelines:

The pilot phase of the project is expected to Go-Live in x months. The following are the indicative timelines for the various milestones involved in the project implementation for the pilot phase:

Sr. No.	Milestone	Timeline
1.	Pilot Phase - Project Start Date	T
2.	BPR Study	T + 12 weeks
3.	Implementation of Platform & Portal	T + 20 weeks
4.	--	T + 24 weeks
5.		T + 24 weeks
6.		T + 28 weeks
7.		T + 28 weeks
8.		T + 28 weeks
9.		T + 30 weeks
10.		T + 30 weeks
11.		T + 34 weeks
12.	Data Center and DR Site Commissioning	T + 36 weeks
13.	Go-Live of Pilot Phase	T + 38 weeks
14.	Launching of services	T + 75 weeks
15.	Operations & Maintenance	T + 3 years

Conformity Assessment Requirements For Quality Assurance in eGovernance

3.0 Roles and Responsibilities:

3.1 Roles and Responsibilities of Client (Govt. Organization):

Client shall be responsible for the following activities required for the successful implementation of the project:

- a) Design, development and implementation of an overall architecture and strategy for achieving the objectives of the project.
- b) Coordinating between the implementation partner, the partner departments and the states in selection of G2B services and the design, development and implementation of the applications to support such services.
- c) Selection and approval of services to be included in the project beyond the set of y services, taking into consideration the recommendations of the Concessionaire and the approved business model.
- d) Deciding on the roadmap for extension of additional services to be provided through the web portal in consultation with the State Governments in relation to the services provided by them.
- e) Owning the core and critical assets of the Project and exercising strategic control over the project;
- f) Laying down the policies relating to the G2B services and business transactions to be effected through project, issues related to ownership of data, and selection of value added services.
- g) Constituting a Project Monitoring Unit (PMU) for facilitating smooth implementation of Project.
- h) Reviewing the performance of the Concessionaire and PMU
- i) Issuing directions to the PMU and/or Concessionaire as may be needed
- j) Engaging an agency for Third Party Conformity Assessment (3PCAA) of the application & infrastructure of the Project.
- k) Facilitating Change Management efforts by issuing of circulars, instructions, etc., to effect changes to existing roles and responsibilities of employees, adoption of reengineered processes in participating departments and such other matters as may be necessary from time to time.
- l) Coordinating with the Central Government departments, State Governments and other agencies for smooth operations relating to transactions.
- m) Facilitating the communications and awareness programs that will be conducted by the Concessionaire for popularizing the new web portal.

3.2 Roles and Responsibilities of Concessionaire:

M/s MNO Ltd has been selected as the Concessionaire/ Project Implementation Partner/ Solution Provider and shall be responsible for the design, development, implementation and maintenance of the Solution for a period of 10 years. This includes implementation of the Pilot Project for 3 years and Expansion of the Project for 7 years thereafter. Partner Government Departments are the Central, State Government Departments and Local Bodies participating in the implementation of the pilot phase of the project.

Concessionaire/ Project Implementation Partner/ Solution Provider shall be responsible for the following activities required for the successful implementation of the project:

Conformity Assessment Requirements For Quality Assurance in eGovernance

- a) Undertaking of requirements study, and preparing the System Requirement Specifications (to be approved by the Client/ PMU)
- b) Designing of solution in conformity with the architectural principles and standards specified in the RFP.
- c) Undertaking the business process reengineering activities as specified
- d) Development of solution in conformity with the design
- e) Undertaking testing of software initially through its internal processes and then through the third party conformity assessment agency (3PCAA) appointed by client.
- f) Establishing the supporting IT infrastructure to meet the targeted transaction volumes for the web portal during the Pilot Phase
- g) Implementing the solution, consisting (e.g. initially of 29 Services, to be scaled to 50 Services by the end of the Pilot Phase)
- h) Providing training to the employees of the departments participating in the Pilot Phase of the Project
- i) Providing operational support and maintenance of the solution during the Pilot Phase & full rollout phase.
- j) Designing an appropriate business model for the expansion of the project.
- k) Launching additional Services in accordance with the expansion model
- l) Promoting the usage of the web portal by the business users so as to achieve the targeted numbers of users and the transactions
- m) Providing training to the employees of the departments participating in the Expansion Phase of the Project
- n) Providing operational support and maintenance of the solution during the Expansion Phase.

3.3 Roles and Responsibilities of 3PCCA:

- a) 3PCCA will review all documents, processes covering all aspects of project development and implementation which shall include software, hardware and networking consisting the processes relating to the design of solution architecture, design of systems and sub-systems, coding, testing, business process description, documentation, version control, change management, security, service oriented architecture, performance in relation to compliance with SLA metrics, interoperability, scalability, availability and compliance with all the technical and functional requirements of the RFP and the agreement.
- b) 3PCCA will establish appropriate processes for notifying the Concessionaire of any deviations from the norms, standards or guidelines at the earliest instance after noticing the same to enable the Concessionaire to take corrective action.
- c) Should acceptance tests not be concluded to the satisfaction of the client, the client shall have the right to reject the solution/ or identified faulty components in respect of which the acceptance tests are not satisfactorily concluded.
- d) 3PCCA and Concessionaire will work together as per agreed terms between them, for settlement of all non-confirmatory issues, within a stipulated timeframe.
- e) 3PCCA will be involved with the project early in the development stage to ensure that the guidelines are being followed and to avoid large-scale modifications pursuant to testing done after the application is fully developed.
- f) 3PCCA to sign a Non Disclosure agreement (NDA) with Concessionaire.

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4.0 Conformity Assessment:

The primary goal of conformity assessment is to get a confidence that the project meets the objectives and requirements prescribed by the RFP

4.1 Conformity Assessment - Purpose & Objective:

The purpose of conformity assessment of the project is to ensure that the Vision and objectives of the project, spelt out above are realized.

The Terms of Reference is to define the scope of work for the 3rd Party Conformity Assessment Agency (3PCAA).

The primary objective of Conformity Assessment is to ensure that the project meets requirements, standards, and specifications as set out in the RFP and as needed to achieve the desired outcomes.

The conformity assessment is to verify that the project meets:

- a) The objectives and performance requirements prescribed in the project RFP.
- b) The requirements, standards, specifications set out in the RFP.
- c) Verify that all the RFP requirements have been implemented appropriately (i.e., Completely & Correctly).
- d) Identify defects/ nonconformities & ensure that they are addresses before deployment.
- e) Any additional item agreed between client, SP, and 3PCCA.

4.2 Conformity Assessment - Norms:

This engagement should conform to generally accepted industry principles for such similar exercises and as a minimum should be:

- 1) Carried out with due professional care, technical competence and independence
- 2) Based on sufficient evidence upon which an opinion (conclusion) is based
- 3) Planned after due assessment of appropriate project controls
- 4) Reported as per generally accepted levels of adequacy that is expected of such an engagement, or, otherwise state explicit assertions as to why a decision could not be reached during the audit process.

4.3 Conformity Assessment - Scope:

- 1) Conformity assessment for the purpose of this engagement will include acceptance testing, assurance on conformance to standards & specifications with respect to application software, IT and Non IT Hardware, the design and deployment of the front offices and IT upgradation of back offices as specified in the RFP and compliance to SLA's as detailed in the RFP.

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- 2) The project covers all the locations specified in the RFP. The project also calls for setting up Front Offices all over India (Including four Showcase Front offices at all metros, eight Front Office at the Special Economic Zones). A comprehensive list of all offices is provided in the RFP. For the purpose of compliance of the non-IT infrastructure and IT infrastructure, the audit shall be for the full assets or for a representative set , as specified below:
 - a) 100% of the IT and non-IT assets in DC, DRC and Call Center;
 - b) 100% of the modules and sub-modules of the application software and system software;
 - c) 100% of the IT and non-IT infrastructure in pilot Facilitation Center/Seva Kendra and respective Police Nodal offices and 100% of the IT infrastructure in respective Back Office;
 - d) 100% of the IT and non-IT infrastructure in 15% of the remaining Facilitation Center/Seva Kendra, selected in consultation with client, and respective Police Nodal Offices and 100% of the IT infrastructure in respective Back Office..
- 3) The offices/ locations that would be audited in the pilot phase and the all India roll out phase is also detailed in Annexure – 2.
- 4) The 3PCAA is to be involved with project from an early stage to ensure that
 - a) The relevant guidelines are followed
 - b) Large-scale modifications are avoided pursuant to testing done after the application is fully developed and deployed.

The proposed conformity assessment is expected to be broad based involving an examination of the controls within the boundaries of the IT solution, spanning the information systems, practices and operations. The proposed audit should therefore assess if the information systems are safeguarding assets, maintaining data integrity and operating effectively and efficiently to achieve project objectives consistent with the accepted nature of the IT/IS audits.

- **Audit of Processes & Artifacts**
- **System Integration Audit**
- **User Acceptance Testing (UAT) Execution with mutually Agreed Test Plans.**
- **Certification for GO LIVE readiness**
- **System security Audit and conformance with ISO 27001**

Spilling down to the activities like:

- a) Verify consistency of Solution (Coding & Data Synchronization) at DC & DR.
- b) Application Controls & Security and its related aspects including infrastructure
- c) Interface controls with other applications like payment gateways, etc.
- d) Software Change Management (including defect fixing, upgradations &
- e) enhancements)
- f) Adequacy and review of Solution documentation
- g) Validation of deployed solution against RFP/ Solution Documents
- h) Usability issues
- i) User Authorisation & Access Management
- j) Asset Management
- k) Methodology and tools deployed for SLA measurement including verification of their adequacy & suitability
- l) Compliance to Bill-of-Materials (BOM)
- m) Performance & Availability of IT infrastructure including Network
- n) Vulnerability Assessment

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- o) Intrusion detection and prevention system like Penetration Test etc
- p) Risk Management
- q) Capacity Management
- r) Continuity & Availability Management
- s) Configuration Management, Application Software Release to Production & associated QA activities\
- t) Process and controls related to defect fixes and other changes carried out in the production environment (including OS, hardware/software changes, software upgrades, etc.)
- u) Incident & Problem Management
- v) Help Desk

The scope of work of the **3rd Party Conformity Assessment Agency (3PCAA)** also includes the following components/ audit items:

- 1) Review of the Project **Documentation** ,
- 2) Audit of the Project **Risk management process**,
- 3) Review of the **Strategic Control Systems** put in place to facilitate exercise of respective roles and responsibilities of client and SP,
- 4) Testing of the **Application Software** developed by the SP including functionality, performance, security, usability and interoperability.
- 5) Testing & Audit of the information **Security** system including, vulnerability assessment, penetration testing and necessary preparedness for ISO 27001 compliance & but.
- 6) Website quality certification as per national requirement.
- 7) Measuring the **Performance** of the system, especially w.r.t peak load conditions,
- 8) Assessment of the **Manageability** of the system including, but not limited to, mandatory compliance to ITIL/ITSM.
- 9) Review of **Infrastructure** Compliance, including verification of the BoM, and adherence to the Architecture and standards specified in the RFP.
- 10) Review of the **SLA Management System**, tools and methodology, including review of compliance with the **SLA metrics**,
- 11) Review of **Data Migration process?**

As part of Conformity Assessment, performed through a third party conformity assessment agency to be nominated on the basis of the response to the Terms Of Reference laid down in this document, client shall review all aspects of project development and implementation covering software, hardware and networking including the processes relating to the design of solution architecture, design of systems and sub-systems, coding, testing, business process description, documentation, version control, change management, security, service oriented architecture, performance in relation to defined requirements, interoperability, scalability, availability and compliance with all the technical and functional requirements of the RFP and the agreement.

Any issues/ gaps identified by the agency, in any of the above areas, shall be addressed by SP to the complete satisfaction of client. Client requires the acceptance testing and 3rd party certification to be completed in a maximum of three rounds. The time to be elapsed from the completion of 1st round of testing and closure of all NCRs (i.e. conformance with all the requirements) by SP must not exceed four months.

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It may be noted that client is taking steps to position the 3rd Party Audit Agency (3PAA) almost simultaneously with the selection of the Service Provider (SP) for the Passport Seva Project. This is to achieve the following objectives:

- a) 3PAA is fully aware of the functional and technical requirements of the project sufficiently early in the design and development phases of the project;*
- b) 3PAA can keep itself abreast of the design and development methodologies adopted by the SP and suggest corrections if any;*
- c) 3PAA has enough time to design its own formats, templates and methodologies for conducting the audit and communicate the same in advance to the SP, during the design phase itself, to enable the later to align to the requirements and expectations of the audit process.*
- d) As a result of a, b and c above, the actual audit cycle is shortened considerably, enabling the go-live to happen as scheduled.*
- e) The responsibility of the 3PAA in the pre-audit stage is extremely critical as it would enable compliance with basic aspects like conformance of design with the architectural requirements of RFP, adoption of the right methodologies for design and development by the SP and conformance to standards.*

4.3.1 Details of Scope:

4.3.1.1 Functional Requirements Review

The system developed/customized by SP shall be reviewed and verified by the agency against the FRS and SRS signed-off between client and SP. Any gaps, identified as severe or critical in nature, shall be addressed by SP immediately prior to Go-live of the system. One of the key inputs for this testing shall be the traceability matrix to be developed by the SP for system. Apart from verifying the Traceability Matrix, 3PAA will develop its own testing plans for validation of compliance of system against the defined requirements.

3PAA will conduct the review not only from the perspective of the software application development in conformity with the RFP, but especially from the **usability** of the various services and functionalities by the end users – employees of client, agents of the SP, citizens, police departments of states and system administrators. User Interfaces provided for all these users will be critically examined and deficiencies and gaps pointed out and improvements suggested. Special emphasis may also be laid on the design of navigational convenience, uniformity of look and feel and aesthetics of the screens.

3PAA shall initially prepare a master list of functional requirements specified in the RFP and classify them as critical and ordinary. The degree of compliance with each functional requirement shall be rated on a scale of 0 to 4, along with specific comments in support of the rating, the gap observed and the suggested remedy.

4.3.1.2 Infrastructure Compliance Review

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3PAA shall perform the Infrastructure Compliance Review to verify the conformity of the Infrastructure supplied by the SP against the requirements and specifications provided in the RFP and/or as proposed in the proposal submitted by SP. This includes

Verification of the specifications of the hardware, networking equipment and system software w.r.t the BOM submitted by SP in their bid proposal and the design documents.

Load testing of the infrastructure

Assessing the scalability of the system, especially the servers and the network equipment.

Verification of the IT and non-IT infrastructure at the Facilitation Centers, Back Office on a sample basis and the entire equipment at the CPPF

Verification of the compliance with the basic requirements of the client Gateway, in terms of separation of the front-end from backend and interoperability.

4.3.1.3 Review of the Application Software

3PAA shall undertake extensive review of the application software to assure the following:

That the software has been developed using an industry-standard methodology quoted by the SP in their proposal bid;

That SP has put in place adequate systems for version control and management;

That there are no bugs in the code especially those that vitiate the functionality;

That the application has been designed and tuned to give the best possible performance;

That all the possible scenarios have been provided for while designing the system;

That the application architecture conforms to Service Oriented Architecture;

That the application does not perform functions unintended by the RFP

3PAA shall critically examine the design documents of the SP and shall deploy standard testing tools for the purpose of application testing.

4.3.1.4 Security Review

The software developed/customized for client system shall be audited by the agency from a security & controls perspective. The review shall be with reference to the Security Policy laid down in Section 9 of Volume I of the RFP and the Operational Procedure Documents designed by the SP on ISMS and shall cover entire project ecosystem including DC, DRC, Gateway, Front Office and Back Office, Call Center & Help Desk. Such audit shall also include the IT infrastructure and Network deployed for system. Following are the key activities to be performed by the agency as part of Security Review. The security review shall subject the system for the following activities:

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Audit of Network, Server and Application security mechanisms

Assessment of authentication mechanism provided in the application /components/ modules

Assessment of data encryption mechanisms implemented for the solution

Assessment of data access privileges

Assessment of data back-up & archival mechanisms, retention periods and restoration mechanism

Server and Application security features incorporated

Preparedness of system with respect to ISO 27001 certification

System, organizational as well as IT-enabled, for management of Digital Signature Certificates for both client and SP personnel

Security culture nurtured and practiced by client and SP in the project ecosystem

Any other aspect relevant to system as per the Security policy defined

4.3.1.5 Performance

Performance is another key requirement for system and agency shall review the mechanism put in place for achieving the desired performance of the deployed solution as per the SLA and other related terms defined in the RFP and agreed between client and SP. The performance review shall also include verification of scalability provisioned in the system for catering to the requirements of E- application volume growth in future. Performance shall be assessed from the following perspectives:

Performance of the Core and Critical Assets like DC, DRC, Application Software and Networks;

Performance of the systems at the Facilitation Center/Seva Kendra.

Performance of the systems at the Back Office

Performance of the systems at Police nodal offices

Performance of the systems at CPPF

The response times of the system for accessing various functionalities and services shall be critically examined w.r.t industry benchmarks and the specifications of the RFP while conducting the performance review.

4.3.1.6 Manageability Review

The agency shall verify the manageability of the system and its supporting infrastructure using the Enterprise Management System (EMS) deployed by the SP. The manageability requirements such as remote monitoring, administration, configuration, inventory management, fault identification, fault analysis etc. shall have to be tested out, as per the terms defined in the RFP and agreed between client

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and SP. Fault identification tool should be such that it provides for exact identification of the component that has failed so that the recovery time is kept to the minimum.

3PAA shall audit the systems, policies and procedures put in place and verify the mandatory compliance with ITIL/ ITSM as well as necessary preparedness for ISO 9001 and ISO 20000 certifications.

4.3.1.7 SLA Management System

SLA Management is the heart of the system during the O&M period. The payments to the SP are dependent on the performance against the SLA. To this extent the SLA Management system of the Project should be **accurate, reliable and trustworthy**. It is the responsibility of the 3PAA to ensure that the design, deployment and management of the SLA Management System fulfill this requirement.

As per the RFP, the SP shall design and implement the SLA Management System which includes a comprehensive and robust tool required to monitor all the performance indicators listed under SLA prescribed in Volume III of the RFP. The agency shall verify the accuracy, reliability and completeness of the information captured by the SLA monitoring system implemented by the SP and shall certify the same. The system shall be capable to calculate the billable transactions logged and transaction-based payout due to SP in a defined period as per specifications provided in the RFP.

4.3.1.8 Review of Strategic Control Systems

ABC Project handles very sensitive functions. The sovereign control over the ABC systems shall vest with the client. A framework for client to exercise such a control has been designed and prescribed in the RFP. The SP is required to design an appropriate system for giving effect to the Strategic Control Framework. The 3PAA shall review the Strategic Control Systems and related Policies & Procedures designed and developed by the SP to facilitate exercise of respective roles and responsibilities of client and SP as defined in the RFP and verify full conformance to the requirements of strategic control.

4.3.1.9 Project Documentation

The Agency shall review the project documents developed by SP including those relating to system requirements, system design, source code, installation procedures, training and administration manuals, version management and others as specified in the RFP. 3PAA shall take care to assure conformance to the standard industry practices and the methodology proposed by the SP in their bid proposal.

4.3.1.10 Data Migration Process

The Agency shall perform the Data Quality Assessment for the data digitized/ prepared by SP for migration to the system, before as well as after moving the data into production environment. The errors/ gaps identified by the agency during the Data Quality Assessment shall be addressed by SP immediately as complete & accurate data migration is one of the milestones for Go-live of the solution. To ensure minimum rework, the 3PAA shall pre-audit the data migration strategy designed by the SP.

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4.4 Conformity Assessment - Phases:

The conformity assessment is required to be carried out in 2 phases specified below:

- 1) **Phase-I** - Pre-Go-Live assessment of the Pilot Phase and statement-of-compliance of the Pilot sites at -----.
- 2) **Phase-II** - Pre-Go-Live assessment of the complete Rollout of project and statement-of-compliance of the Rollout.

4.5 Conformity Assessment - Inputs:

- 1) Solution products & processes documents (like RFP, Technical and Functional Solution Design Documents) plus all other related records
- 2) Review Comments from agencies (e.g. NISG, NSDG and other associated agencies) involved in Solution Designing.
- 3) Access to solution, system logs, reports & related information

The following documents were used as sources of information for the audit:

- Request For Proposal (RFP)
- Terms of Reference (TOR) for Annual Audit
- products & process documents and related records
- Change Requests

4.6 Conformity Assessment - Outputs:

- 1) Audit Plan
- 2) Audit Checklist / Questionnaire
- 3) Audit Recordings / Logs
- 4) Audit Report
- 5) Non-Conformity / Observation Closure Report

4.7 Conformity Assessment - Locations :(e.g.)

- 1) Data Centre(ex. NIC , Laxmi Nagar, New Delhi)
- 2) --- Exchange Server(ex. NIC, Laxmi Nagar, New Delhi)
- 3) Disaster Recovery Centre(ex.NIC, Hyderabad)
- 4) Department(Name of the Department)
- 5) Services /Department Locations (as & when required) Refer Appendix -A

4.8 Conformity Assessment - Process & Deliverables:

The key audit activities comprised of reviews, testing & audit of products & processes of. These activities were performed on the system including hardware, software, Network & IT infrastructure and processes, various documents and associated information of the system

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The Conformity assessment process to be followed will include the following:

- a) Define CA objectives to assure compliance with the project and service objectives, as set out in the RFP, for the different phases and the standards and testing procedures as specified therein and/ or as agreed with client.
- b) Identify risks to the project during implementation and operational phases, develop mitigation measures and short, medium and longer term action plans and recommendations as appropriate
- c) Establish appropriate processes for notifying Program Management Committee or Project Director of the Project and the Service Provider of any deviations from the norms, standards or guidelines at the earliest instance after noticing the same, to enable the Service Provider to take corrective action.
- d) Review all project deliverables, including the following with respect to the defined scope:
 1. The solution architecture
 2. Implementation methodology and tools
 3. Constructed application
 4. Developed code (Bespoke Software)
 5. Customized COTS Products & Solutions
 6. Elements of Strategic Control mechanism
 7. The IT infrastructure at DC, DRC, CPPF, Call Center and Police Nodal Offices, including all the relevant items such as:
 - a. Servers
 - b. Data storage systems
 - c. Tape library
 - d. Network
 - e. Active components – switches, routers
 - f. Passive components – backbone
 - g. Racks
 - h. Telecom equipment
 - i. Bandwidth pipes
 - j. Firewalls
 - k. IDS
 - l. VPNs
 - m. Antivirus system
 - n. Power supply
 - o. UPS and backup
 - p. Fire detection and suppression
 - q. Humidity, Ventilation and air-conditioning
 - r. Data/ Telecom cabling
 - s. Access control system
 - t. Enterprise and Network management system
- e) Front offices including all the related IT & Non IT equipments/ systems and Electronic Queue Management System
- f) Gateway including all the related IT and Non IT Hardware
- g) Disaster Recovery Site including all the related IT and Non IT Hardware
- h) GSR including all the related IT and Non IT Hardware
- i) Web Portal including Portal payment engine
(Please refer to Project - RFP for a comprehensive listing)

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- j) Data Migration – completeness and accuracy of migrated data including data from legacy database as well as that stored on any back-up media – especially with respect to creation of Master Database, checking of consistency, validation of key fields and data completeness on sampling basis.
- k) Document Migration – accuracy of Scanning, authentication and Verification by Digital Signatures
- l) Data migration from the charge documents, NIC’s database, etc – Creation of Master Database, checking of consistency, validation of key fields and data completeness
- m) Application and project documentation including FRS/ SRS documents, system design document and system/ user manuals
- n) Mechanisms, policies and procedures for Strategic Control
- o) Operational policies and procedures for updating the Government Secure Repository(GSR)
- p) Review gap analysis reports on departments’ back office, confirm adequacy, compliance and suitability of the respective services to be included having regard to the relevant SLAs.
- q) IT operational policies and procedures including Standard Operating Procedures (SOP), data backup & restore, disaster recovery and business continuity for different failure scenarios
- r) Non-IT operational policies and procedures including manpower management and training plans (Personnel, Venue, Curriculum, duration, etc)
- s) Contingency plans and risk mitigation measures to take care of any system degradation, even if temporarily, with respect to security and performance
- t) Scrutinize configuration of installed infrastructure against Bills of Material as per the Service Provider’s proposal and verify compliance.
- u) Prepare Acceptance Test Plan and test cases and obtain approval. Carry out Acceptance Testing till test objectives are fulfilled and recommend to Program Management Committee of Passport on acceptability of the developed system and the deliverables.
- v) Conduct simulated business continuity/ disaster recovery drills under typical user loads of volume and mix (involving 100% switchover to DR site and contingency plans) and confirm compliance of Business Continuity Plans as well as the related documentation, with the requirements; repeat as required till set objectives of recovery and performance are reached.
- w) Weekly reports during the pilot stage will cover exceptions with implications over the near, medium and longer terms, classified as high/ medium or low impact, and will include recommended actions over near, medium and longer terms. The reports will also highlight outstanding and overdue compliance actions.
- x) The list of deliverables by the 3PCAA agency with respect to the time schedule of the Project is provided below. The time T1 indicates the date of start of the project (01.03.2005). The timelines for the project are given at Annexure 3.

Sr. No.	Project – Mile Stones	Timeline (Weeks)	Specific Deliverables By Conformity Assessment Agency
1.	Audit Requirement	T+ 8	A detailed Audit Plan including the audit methodologies, templates, calendar timelines, governance structure and Audit Program Management methodologies
2.	Solution development / customization	T + 24	Report on Compliance with RFP/ SRS, Functionality Completeness & Accuracy, and Usability & Reliability Testing, Technical testing and Adequacy Report, as

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			explained in this document
3.	Data digitization & migration	T + 24	Report on Completeness and accuracy of data migrated into the new system, as explained in this document
4.	Implementation of DC, DRC, Gateway, CPPF, Call Center & Help Desk, Pilot Facilitation Center and completion of work at respective Back Office & Police nodal offices	T + 32	Report on Compliance with BOM/ RFP/ SRS for all the sites and Technical testing & Adequacy Report with regard to IT & non-IT infrastructure, the requirements of security, availability, performance, manageability, and scalability at these sites and Strategic Control systems, as explained in this document
5.	Pilot Run, Testing, Stabilization, and 3 rd Party Certification for Pilot sites (also Pilot locations Go-Live)	T + 44	Report on Compliance with RFP/ SRS including, but not limited to, the requirements of security, availability, performance, manageability, and scalability, as explained in this document and certifications for fulfillment of Conditions Precedent, SLA Management System and Pilot Go-Live.
6.	Implementation including software & hardware in Wave 1 locations (i.e. 16 Facilitation Center and respective Back Office & Police nodal offices)	T + 56	Report on Compliance with BOM/ RFP/ SRS including, but not limited to, the requirements of security, availability, performance, manageability, and scalability, as explained in this document
7.	Implementation including software & hardware in Wave 2 locations (i.e. 25 Facilitation Center and respective Back Office & Police nodal offices)	T + 66	Report on Compliance with BOM/ RFP/ SRS including, but not limited to, the requirements of security, availability, performance, manageability, and scalability, as explained in this document
8.	Implementation including software & hardware in Wave 3 locations (i.e. 31 Facilitation Center and respective Back Office & Police nodal offices)	T + 76	Report on Compliance with BOM/ RFP/ SRS including, but not limited to, the requirements of security, availability, performance, manageability, and scalability, as explained in this document
9.	ABC eGov. System and Project documentation (also Project Go-Live)	T + 76	Report on Compliance with RFP/ SRS, as explained in this document and certification for Project Go-Live.

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T, as referred above, is the date of EITHER the 'award of contract' notification issued by client to selected Service Provider OR the signing of contract between selected Service Provider and client OR the meeting conducted by client to kick-off the project; whichever happens the earliest.

5.0 Offers

5.1 Format of Offers

- The Proposal submitted by the Bidder shall comprise the following documents:
 1. Bidder's profile including all the relevant forms and annexure listed in section II of this document
 2. Technical Proposal including all the relevant forms and annexure listed in section II of this document
 3. Commercial Proposal including all the relevant forms and annexure listed in section II of this document
- Each of the above parts of the offer shall be in a **separate sealed envelope** along with a soft copy. All the three sealed covers should be sent in a separate single sealed cover. Two sets of the bid shall be submitted. One set shall be clearly marked "ORIGINAL". The second set shall be marked "DUPLICATE". Both the sets should be sent in a single cover marking "**PROPOSAL FOR THIRD PARTY AUDIT- PROJECT**"
- Offers once submitted cannot be modified. Bidders can enter into a consortium with reputed agencies. ***The Implementation partner TCS (including the consortium partners) and their Associate Firm(s) are not qualified to take part in the bidding process.***
 1. **Bidder's profile** (to be prepared and supported with documentation with reference to the pre qualification and evaluation criteria enclosing certificates, audit reports, annual reports and any other published documents) including details and evidence of memberships of professional associations and quality and other professional certifications. In case of consortium, the profiles of all partners should be presented in similar format.
 2. **Technical proposal** to be prepared with reference to the evaluation criteria enclosing certificates/ proofs of claims and should include the following aspects:
 3. Past relevant experience:

5.2 Terms of Payment:

- a) 10% of the total fee shall be payable as advance along with letter of acceptance
- b) 10% of the fees after the acceptance of the report on IT and Non-IT Infrastructure verification at the pilot sites including HQ, ROC, RD and Front Offices as listed in Annexure – 2.
- c) 20% of the fees after the acceptance of the report on Bespoke Software (Core Functions) and PeopleSoft ERP Package (Establishment Functions) of Pilot Project.
- d) 15% of the fees after the acceptance of
 1. The report on Data Centre and the DR Site
 2. The report on Data Migration and Data Digitization at the pilot sites
 3. The report on networking for the total project

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- e) 20% of the fees after the acceptance of the report on IT and Non-IT Infrastructure verification at all other ROC/RD and Front Offices excluding those covered during the pilot phase as listed in Annexure – 2.
- f) 20% of the fees after the acceptance of the report on total roll out of the project
- g) 5% of the fees shall be paid after three months of the successful completion/roll out of the project
- h) The firms should submit a Bank Guarantee for an amount of 20% of the professional fees within a period of fifteen days from the date of signing the agreement. The BG shall be valid for a period of six months over and above the date of completion of the project on all India basis.

The 3PCAA should submit a Bank Guarantee for an amount of 20% of the total fees within a period of fifteen days from the date of issuance of the letter of appointment. The BG shall be valid for a period of six months over and above the date of completion of the project i.e. E-BizSystem Go-Live.

5.3 Calendar

Calendar for Entrustment Process

The tentative calendar for entrustment process of the 3PAA is as below:

Events	Date
Issue of TOR	R
Agency's queries for clarification/Pre- bid conference	R + 1 week
Department's response to queries/Issue Revised TOR	R + 2 weeks
Submission of Proposal by the Agency	R + 4 weeks
Evaluation of proposal/ Technical and Financial	R + 5 weeks
Finalization	R + 6 weeks
Issue of Letter of Appointment/ Award of Contract	R + 6 weeks

5.4 Other Terms

- The Bidder is expected to examine all instructions, forms, terms, client's requirements and other information in the RFP documents. Failure to furnish all information required by the RFP documents or submission of a Proposal not substantially responsive to the RFP documents in every respect will be at the Bidder's risk and may result in rejection of its Proposal.

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- To assist in the examination, evaluation, and comparison of Proposals, the client may, at its discretion, ask any Bidder for clarification of its Proposal. The request for clarification and the response shall be in writing or by facsimile, but no change in the price or substance of the Proposal shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the client in the evaluation of the Proposals. However, this doesn't absolve the bidder of furnishing the information sought in the RFP.
- The client committee may at its discretion cancel the bidding process without assigning any reason. Client reserves all rights to reject any bid without assigning any reason.
- Information relating to the examination, clarification, evaluation and comparison of Proposals, and recommendations for the award of the project shall not be disclosed to Bidders or any other persons not officially concerned with such process.
- Client reserves all rights to change, modify, add, delete the scope of work, any conditions specified in the RFP without prior notification. The changes shall be communicated to the bidders in advance to make necessary changes in their proposals.
- Client at its sole discretion may call for price negotiations with the bidder who has been short listed through the above process, if required.
- 3PCCA is expected to submit a techno-commercial proposal as per the terms and requirements specified in this document.
- 3PCCA is expected to address details like approach & methodology proposed, tools to be used, team proposed and timelines. It is being emphasised here that the team proposed should have experts in the areas of ISO (9001, 20000, and 27001) audit, ITIL audit, Information System audit and Information System Security audit; having relevant industry certifications like CISA and CISSP. The proposal shall contain the CVs of all the personnel proposed to be deployed on this assignment.
- 3PCCA is expected to examine all instructions, terms, E-Biz project requirements and other information in this document. The agency may seek any other information, that it deems necessary to prepare its proposal which the client may consider providing to the agency on conditions decided by the client. However, submission of a Proposal not substantially responsive to the requirements specified in this document in every respect will be at the agency's risk and may result in rejection of its Proposal.
- To assist in the examination and evaluation of Proposal, the client may, at its discretion, ask 3PCCA for any clarification of its Proposal. The request for clarification and the response shall be in writing or by fax or by email, but no change in the price or substance of the Proposal shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the client in the evaluation of the Proposal. However, this doesn't absolve the agency of furnishing the information sought in this document.
- The client may at its discretion cancel the entrustment process without assigning any reason.
- Client reserves all rights to reject 3PCCA's proposal without assigning any reason.
- Client reserves all rights to change, modify, add, delete the scope of work, any conditions specified in the TOR without prior notification. The changes shall be communicated to 3PCCA in advance to make necessary changes in its proposal.

The complete set of RFP containing 4 Volumes will be provided to 3PCCA.

Annexure A – Locations for project

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(To be filled by the project manager)

Annexure B – Timeline for the project (example)

Sr. No.	Milestone	Time for Completion
1.	Requirements Study, Validation and preparation of SRS*	T + 4 Weeks
2.	Sign-off for SRS	T + 6 Weeks
3.	Solution Design*	T + 12 Weeks
4.	Sign-off on Solution Design	T + 14 Weeks
5.	Solution Development/Customization*	T + 24 Weeks
6.	Data Digitization & Migration*	T + 24 Weeks
7.	Third party Application Software Testing*	T + 28 Weeks
8.	Data Quality Review & Testing*	T + 28 Weeks
9.	Preparation of pilot site(s), DC, DRC, Call Center	T + 20 Weeks
10.	Procurement of h/w for pilot site(s) and core infrastructure	T + 24 Weeks
11.	Preparation & Procurement for PBO(s) attached to pilot PFC(s)	T + 24 Weeks
12.	Preparation & Procurement for Police office(s) identified for pilot PFC(s)	T + 24 Weeks
13.	Training of pilot location staff, related PBO & Police staff and first batch of CPV/DIPP officials	T + 30 Weeks
14.	Implementation including required software and hardware in pilot location(s), and core infrastructure	T + 32 Weeks

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Sr. No.	Milestone	Time for Completion
15.	Pilot Run, Testing, Stabilization, and 3 rd Party Certification (Pilot location(s) Go-Live)*	T + 44 weeks
16.	Preparation of sites for Phase 1 (10 Facilitation Center/Seva Kendra)	T + 46 Weeks
17.	Procurement of hardware for Phase 1 locations	T + 46 Weeks
18.	Training of staff for 25 Facilitation Center/Seva Kendra (including 10 of Phase 1 and 15 of Phase 2) , related PBOs & Police staff and second batch of CVP/ DIPP officials	T + 46 Weeks
19.	Implementation including required software and hardware in Phase 1 locations*	T + 56 Weeks
20.	Preparation of sites for Phase2 (20 PFCs)	T + 56 Weeks
21.	Procurement of hardware for Wave 2 locations	T + 56 Weeks
22.	Training of staff for 25 Facilitation Center/Seva Kendra s (including 10 of Phase 2 and 15 of Phase 3) , related PBOs & Police staff and next batch of CVP/ DIPP officials (if any)	T + 56 Weeks
23.	Implementation including required software and hardware in Phase 2 locations*	T + 66 Weeks
24.	Preparation of sites for Phase 3 (36 Facilitation Center/Seva Kendra)	T + 66 Weeks
25.	Procurement of hardware for Phase 3 locations	T + 66 Weeks
26.	Training of staff for remaining Facilitation Center/Seva Kendra, related PBOs & Police staff and next batch of CVP/ DIPP officials (if any)	T + 66 Weeks
27.	Implementation including required software and hardware in Phase 3 locations*	T + 76 Weeks
28.	Project and project Documentation	T + 76 Weeks
29.	Project GO LIVE (G)*	T + 76 Weeks
30.	Overall Project Operation and Maintenance Support	G + 72 Months

Annexure C – List of Services Planned for the Pilot Phase (example of MCA)

In project Pilot phase, 29 services have been short listed from Central, State Government departments and local bodies - Central Government Services (18 Services), State Government Services (8 Services), Local Bodies (3 Services). The geographical scope for the 29 services listed below will include the Central Government Departments, State Governments.

Sr. No.	Service	Department	Act under which required

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Sr. No.	Service	Department	Act under which required
1	Issue of Name Availability Letter	Ministry of Corporate Affairs (MCA)	Companies Act 1956
2	Issue of Director Identification Number		
3	Issue of Certificate for Corporation		
4	Issue of Certificate for Commencement of Business		
5	Issue of Permanent Account Number (PAN)	Central Board of Direct Taxes (CBDT)	Income Tax Act 1961
6	Filing of Returns by Companies (Form 1)		
7	Tax Deduction Account Number of Income Tax Dept		
8	Excise Tax Registration (Form R-1)	Central Board of Excise and Customs (CBEC)	Central Excise Act 1944
9	Filing monthly returns for production and removal of goods (Form E.R. 1)		
10	Service Tax Registration (Form ST-1)		
11	Filing Half-yearly Service Tax Returns		
12	Issue of Industrial Entrepreneur Memoranda	Department of Industrial Policy & Promotion (DIPP)	Industries (Development & Regulation) Act 1951
13	Issue of Industrial License		
14	Issue of Importer Exporter Code	Director General of Foreign Trade (DGFT)	FT (Development & Regulation) Act 1992
15	Application for Environmental Clearance	Ministry for Environment and Forests (MOEF)	Environment (Protection) Act 1986
16	Filing of FC-GPR (Reporting of Forex Transaction)	Reserve Bank of India (RBI)	FEMA 1999
17	Filing for Employees State Insurance Corporation	ESIC, M/o Labour & Employment	Employees State Insurance Act 1948
18	Filing for Employees Provident Fund Organization	EPFO, M/o Labour & Employment	PF Act 1925
19	Issue of Registration Certificate under Value Added Tax	State Commercial Taxes Deptt (CTD)	VAT Act
20	Filing of Returns by Dealers		

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Sr. No.	Service	Department	Act under which required
21	Registration of SSI unit under the Industries Development and Regulation Act, 1951	State Industries Department	Micro, Small, and Medium Enterprises Act
22	Registration under Shops and Establishment Act	State Labour Department	Concerned State Shops & Establishment Act
23	Issue of license under Factories Act, 1948	State Factories Department	Factories Act 1948
24	Filing of Annual Returns under Factories Act, 1948		
25	Payment of Property Tax	Municipal Authority	Municipal Act/ Byelaws
26	Application for power connection from DISCOM	State Electricity Department	Electricity (Supply) Act 1948
27	Permission to Charge the Line		
28	No Objection Certificate from Pollution Control Board	Pollution Control Board	Pollution Control Board
29	Registration for Profession Tax	State Commercial Taxes Department	

Annexure III

Suggestive Quality Gate for Component Of interest

Architectural Layer	Component of Interest	Quality Characteristics	Suggestive Quality Gate
User Layer	Users	<p>Feedback on Quality Of Service Consumed</p> <p>Information Security and Privacy</p>	<p>Quality Management System in Public Organizations (QG1)</p> <p>Information Security(QG3)</p>
Technology Layer			
Access Sub Layer	Websites	<p>Government Of India Identifiers</p> <p>Building confidence</p> <p>Content Management</p> <p>Quality Of Content</p> <p>Design</p> <p>Development</p> <p>Website Hosting</p> <p>Website Promotion</p> <p>Website Management</p>	<p>Application Quality(QG2)</p> <p>Information Security(QG3)</p>

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	Smart Cards	Physical and Electrical Characteristics Microprocessors Functionality Smart Card Operating System Cryptographic modules and algorithm Quality Management System at smart card manufacturing site	Application Quality(QG2) Information Security(QG3)
	Biometrics	False accept rate (FAR) or false match rate (FMR) False reject rate(FAR) or false non match rate (FNMR) Receiver (or) relative operating characteristic (ROC) Equal error rate (ERR) Failure to enrol rate (FTE or FER) Failure to capture rate (FTC) Template capacity	Application Quality(QG2) Information Security(QG3)
	Mobile Devices	Privacy and security Protecting against loss of data Management of security policy for many devices Accessibility Mobile authentication Mobile payments Content and presentation management	Application Quality(QG2) Information Security(QG3)

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		issues	
Transport Layer	Local Area Network	Fault Management	Information Security(QG3) IT Service Management(QG4)
	SWAN Network	Configuration Management Accounting Management Performance Management Security Management	
IT Asset Layer	Application (SDC)	Functionality Security Performance Reliability Usability Portability Maintainability Documentation	Application Quality(QG2) Information Security(QG3) IT Service Management(QG4)
	Data Repository(SDC)	Accuracy Completeness Consistency Credibility Currentness	

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	Gateway	Interoperability Integration of services Performance Security Reliability	
Organization Layer	Government Department	Quality Management System in Public Organizations (QG1)	Quality Management System in Public Organizations (QG1)

Annexure IV

Glossary

Standards

From conformity assessment practices there are three types of standards (with a lower case “s”) documents – Standards (with a capital “S”), Recommended Practices and Guides. The types of standards are differentiated by the degree of prescription in their normative requirements. *Standards* contain requirements for conformance, generally characterized by the use of the verb “shall”. *Recommended Practices* (RP) presents proffered position and procedures. They are characterized by the verb “should”. *Guides* suggest alternative approaches to good practice but generally refrain from clear cut recommendations; they are characterized by the use of the verb “may”. It is important to note, that any of the three documents can contain any of the three verb forms with any of the three types of documents. Although in the case of the guide or an RP claim may not be strong one.

Conformity Assessment: Demonstration that specified requirements relating to a product, process, system, person or body are fulfilled.

First-party Conformity Assessment activity: Conformity Assessment activity that is performed by the person or organization that provides the object.

Second party Conformity Assessment activity: Conformity Assessment activity that is performed by a person or organization that has a user interest in the object.

Third party Conformity Assessment activity: Conformity Assessment activity that is performed by a person or body that is independent of the person or organization that provides the object, and of user interests in that object.

Conformity Assessment body: A body that carries out Conformity Assessment services.

Accreditation body: An authoritative body that gives accreditation

Conformity Assessment system: Rules, procedures and management for carrying out Conformity Assessment.

Testing: Determining one or more characteristics of an object of Conformity Assessment, according to a procedure (3.2).

Inspection: Examination of a product design, product (3.3) process or installation and determination of its conformity with specific requirements or, on the basis of professional judgement, with general requirements

Audit: A systematic, independent, documented process for obtaining records, statements of fact or other relevant information and assessing them objectively to determine the extent to which specified requirements are fulfilled

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Peer assessment: Assessment of a body against specified requirements by representatives of other bodies in, or candidates for, an agreement group.

Review: Verification of the suitability adequacy and effectiveness of selection and determination, activities, and the results of these activities, with regard to fulfilment of specified requirements by an object of Conformity Assessment.

Attestation: Issuing a statement, following the review that the fulfilment of specified requirements has been demonstrated.

Appeal: Request by the provider of the object of Conformity Assessment to the Conformity Assessment body or accreditation body for reconsideration by that body of a decision it has made relating to that object.

Complaint: Expression of dissatisfaction other than appeal by any person or organization to a Conformity Assessment body or accreditation body relating to the activities of that body, where a response is expected.

Gateway: Equipment that is used to interface with networks so that a terminal on one network can communicate with the services or a terminal of another.

ICT: The convergence of Information Technology, Telecommunications and Data Networking Technologies into a single technology.

Impact: Measure of how the business is critically affected by an incident. Often equal to the extent to which an Incident leads to distortion of agreed or expected service levels.

Impact analysis: The identification of critical business processes, and the potential damage or loss that may be caused to the organization resulting from a disruption to those processes. Business impact analysis identifies:

The form that the loss or damage will take

How that degree of damage or loss is likely to escalate with time once business processes continue to operate at a minimum acceptable level

The time within which they should recover

IT Service: A described set of facilities, IT and non IT, supported by the IT service provider that fulfils one or more needs of the customer and that is perceived by the customer as a coherent whole.

IT Service Provider: The role of the IT service provider is performed by any organizational unit, whether internal or external, that deliver and support IT services to a Customer.

Key Performance Indicator: A measurable quantity against which specific performance criteria can be set when drawing up the SLA.

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Metric: The measurable element of a service process or function.

Operational Level Agreement (OLA): An internal agreement covering the delivery of services which supports the IT organization in their delivery of services.

Outsourcing: The process by which functions performed by the organization are contracted out for operation, on the organisation's behalf, to third parties.

Process Control: The process of planning and regulating, with the objective of performing the process in an effective and efficient way.

Quality of Service: An agreed or contracted level of service between a service customer and a service provider.