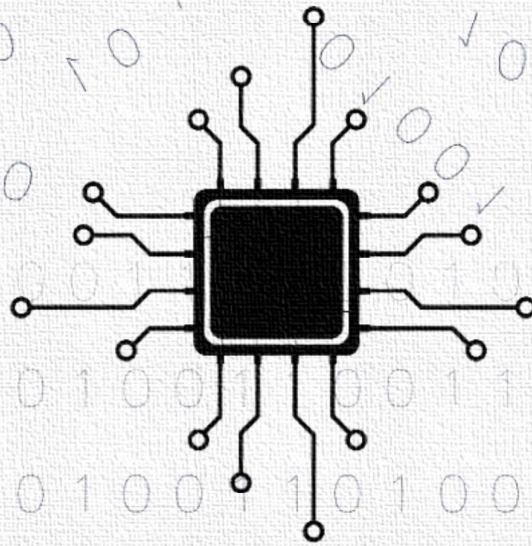


Chapter 1

Introduction



Chapter I

Introduction and Audit Framework

1.1 Introduction

The State Government introduced online tendering during the year 2008 by using the e-Procurement system/ portal developed by National Informatics Centre (NIC). The objective of the e-Procurement system was to eliminate human interface; bring transparency in the functioning of tendering activities; facilitate faster dissemination and easy access to information related to tenders; and provide a fair, competitive platform that would safeguard authenticity and enhance efficiency in procurement. Initially, tenders costing more than ₹50 lakh were floated through e-Procurement portal from July 2008 in four major engineering departments *i.e.*, Works, Rural Development, Water Resources and Housing & Urban Development Department. From January 2009, all tenders costing ₹20 lakh and above, and from April 2009, all tenders costing ₹10 lakh and above, were made compulsory to be floated through e-Procurement portal. The e-tendering for all tenders costing ₹5 lakh and above except for Urban Local Bodies (ULBs) were started from August 2015. For ULBs the ceiling was fixed at ₹1 lakh and above for mandatory adoption of e-tendering through e-Procurement portal, which was subsequently (03 January 2018) enhanced to ₹2 lakh. Online receipt of tender paper cost and Earnest Money Deposit (EMD) was implemented from December 2017.

During the period from 2011-12 to 2016-17, NIC extended support as part of Government e-Procurement (GePNIC) Mission Mode Project (MMP) under National e-Governance Plan (NeGP) funded by Government of India (GoI). The cost for 2017-18 was borne by NIC using its own resources. Later, Government of Odisha (GoO) paid¹ project cost of ₹402.15 lakh to NIC for implementation and maintenance of GePNIC for three years from April 2018 to March 2021. Further, Works Department in GoO paid ₹388.26 lakh (September 2021) to NIC for extension of GePNIC roll out services for further period of three more years from April 2021 to April 2024.

As of 31 March 2022, total 3,74,806 tenders with tender value of ₹3,31,908.51 crore were floated through e-Procurement portal. 2,637 officials were registered as Departmental Users and 27,359 were registered as Bidders. Out of 40 Departments of GoO, 29 Departments² along with PSUs under these Departments were using the e-Procurement system and remaining 11

¹ 27 December 2018 – ₹183.71 lakh and May 2019 – ₹218.44 lakh

² Housing and Urban Development Department, Rural Development Department, Department of Water Resources, Works Department, ST and SC Development Department, Agriculture Department, Department of Home, Department of School and Mass Education, Industries Department, Department of Steel and Mines, Food Supplies and Consumer Welfare Department, Department of Energy, Department of Tourism and Culture, Forest and Environment, Department of Health and Family Welfare, Department of Handlooms Textiles and Handicrafts, Department of Co-operation, Commerce and Transport Department, Odia Language literature and Culture Department, Department of Law and Justice, General Administration Department, Fisheries and Animal Resources Development Department, Skill Development and Technical Education, Revenue and Disaster Management Department, Department of Social Security and Empowerment of Persons with Disabilities, Department of Higher Education, IT Department, Sports and Youth Services Department, Department of Finance

departments³ have not used e-Procurement system and have been using other channels like e-NIVIDA, Government e-Marketing (GeM) and manual tendering for procurements.

1.2 System information and workflow

The System has been developed by NIC using the following platforms:

- Operating System: Linux
- Web Server: Apache Tomcat
- Database: PostgreSQL
- Front End: Java/J2EE

The software and the data are held in servers at National Data Centre, New Delhi with disaster recovery site at Hyderabad maintained by NIC.

The web-based application contains the following modules:

Registration Module: Registration/Enrolment of Government officials and bidders with/without Digital Signature Certificate (DSC).

Publishing of tender: Tender creation and publishing, publishing of corrigendum, publishing of pre-bid meeting documents, clarification on the tenders published.

Bid submission: Online bid submission/re-submission as many times as required, freezing of bids, facility for online payment collection through bank payment gateway, encryption of bids submitted by the bidder, facility for single/multiple cover bid system.

Tender opening: Tender opening online.

Technical evaluation: Provision of automatic technical evaluation available.

Financial bid opening: Opening of financial bid online.

Financial evaluation: Evaluation of the financial bid through automatic comparison of Bill of Quantity (BoQ) and selection of L1 bidder.

Award of contract (AOC): Module for awarding to contract to selected bidder(s).

A schematic diagram showing the various modules available on the e-tendering portal / GePNIC is shown in **Figure No.1**.

³ Excise, Information & Public Relations, Labour & Employees' State Insurance, Micro, Small & Medium Enterprise, Panchayati Raj & Drinking Water, Parliamentary Affairs, Planning & Convergence, Public Enterprises, Science & Technology, Women & Child Development and Mission Shakti

Figure No 1: Schematic diagram showing various modules available on the e- tendering portal/GePNIC



Source : System Requirement Specification (SRS) Document

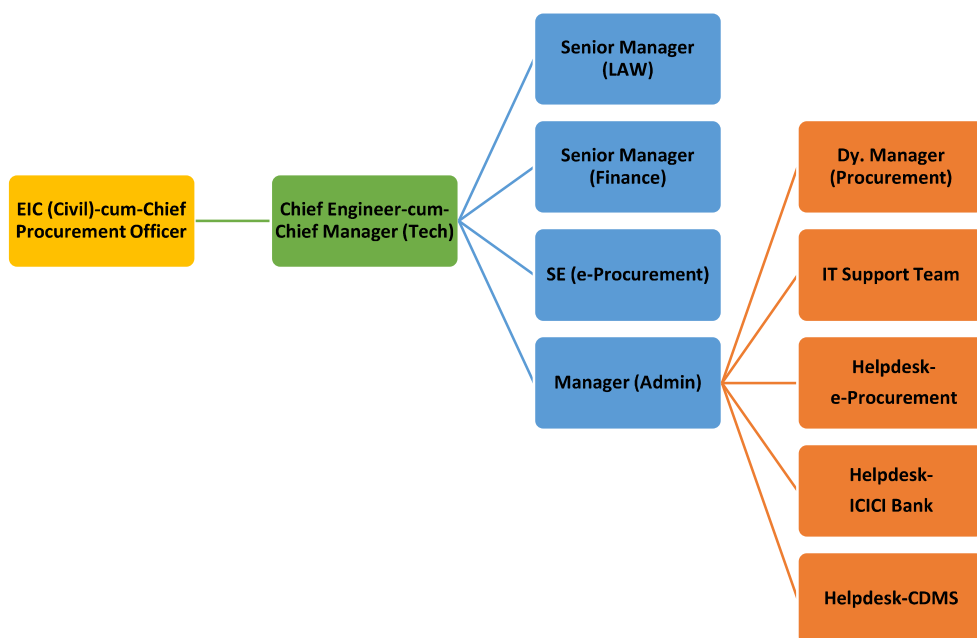
The GePNIC system is certified by STQC, MEITY in compliance with Guidelines for Compliance to Quality requirement of e-Procurement System (GCQE) dated 31 August 2011 issued by Department of Electronic & Information Technology, New Delhi (DEITY) and the certification is current and valid for three years from 21 December 2020.

1.3 Organisation Set Up

With the objective of supervision of the full roll out of the e-Procurement in four Engineering Departments and PSUs, State Government constituted (May 2008) the “State Procurement Cell” under the administrative control of Works Department with EIC⁴ (Civil) Odisha as the Chief Procurement Officer and with officers from Law, Finance, IT and Engineering Departments as members to act as an umbrella organisation to sustain, manage, and carry forward the changes. A help desk has been made operational to give technical solutions to tender-related issues of departments and bidders.

⁴ Engineer-in-Chief (Civil)

Figure No 2: Organisation Chart of E-Procurement Cell



1.4 Audit Objectives

The objectives of the audit were to assess whether:

- the e-procurement system has been effectively implemented and utilised to achieve the objectives of promoting competition, transparency and accountability
- business rules have been adequately mapped onto the system
- completeness, integrity, and reliability of data in the system was being maintained
- adequate controls have been built into the system.

1.5 Scope of Audit

The audit focussed on analysing the implementation and utilisation of the e-Procurement portal for procuring goods, works and services from the date of roll-out up to 2021-22. Audit examined the portal with reference to general controls, system and network security, application controls, change management controls, disaster management and business continuity plan. Besides, analysis of the database and the data / information uploaded onto the portal by departmental offices and bidders was also done. Data samples, wherever required, were verified through field audit in the respective departmental offices to substantiate the audit findings.

1.6 Audit Sampling

For sample selection of tenders, the tenders published during the last five years *i.e.*, from 2017-18 to 2021-22 were taken as universe. 10⁵ out of 29⁶ user departments were selected through stratified random sampling using risk-based assessment scores (*Appendix-I*). From amongst the 10 selected departments, a total of 48 out of 678 (seven *per cent*) departmental offices or tender-inviting authorities (TIAs) were selected through stratified random sampling based on population proportionate to size. 10 tenders from each selected TIA were selected through stratified random sampling based on risk scores. Total 486⁷ tenders amounting to ₹943.89 crore were selected out of 1,68,178 tenders valuing ₹1,68,517.00 crore for field verifications.

1.7 Audit Criteria

The criteria for audit were derived from the following sources –

- Technical documentation including Software Requirement Specification of each application/ module;
- Relevant acts, rules and policies *i.e.*, IT Act 2000 and subsequent amendments, National e-Governance policies and standards, *etc.*,
- Service level agreements (SLAs), Request for Proposals (RFPs), *etc.*;
- Odisha Public Works Department Code;
- e-Procurement implementation guidelines of GePNIC;
- Guidelines for Compliance to Quality Requirements of e-Procurement System;
- Guidelines issued by Central Vigilance Commission (CVC), Government of India on e-Procurement system;
- Odisha General Financial Rules (OGFR)

⁵ Housing and Urban Development Department, Rural Development Department, Department of Water Resources, Works Department, Industries Department, Department of Steel and Mines, Forest and Environment Department, Odia Language literature and Culture Department, Fisheries and Animal Resources Development Department

⁶ Housing and Urban Development, Rural Development Department, Department of Water Resources, Works Department, ST and SC Development Department, Agriculture Department, Department of Home, Department of School and Mass Education, Industries Department, Department of Steel and Mines, Food Supplies and Consumer Welfare Department, Department of Energy, Department of Tourism and Culture, Forest and Environment Department, Department of Health and Family Welfare, Department of Handlooms Textiles and Handicrafts, Department of Co-operation, Commerce and Transport Department, Odia Language literature and Culture Department, Department of Law and Justice, General Administration Department, Fisheries and Animal Resources Development Department, Skill Development and Technical Education Department, Revenue and Disaster Management Department, Department of Social Security and Empowerment of Persons with Disabilities, Department of Higher Education, IT Department, Sports and Youth Services Department, Department of Finance

⁷ Six additional tenders selected based on finding of data analysis

1.8 Audit methodology

Audit objectives, criteria, scope, sample and methodology of audit were shared with GoO through an Entry Conference on 18 July 2022.

Field audit in the selected departments and offices (TIAs) was conducted involving scrutiny of sample selected files, and collection of documentary and electronic evidence from the e-Procurement portal. Analysis of data, log files, and other electronic documents in the e-Procurement portal database as received from NIC was done using computer-assisted audit techniques (CAATs) like VB Script, JAVA, Python, PostgreSQL, Burp suite, IDEA *etc.*

The audit report contains detailed findings arranged in various chapters: Introduction, Project Management and Execution, User Management, Tender Creation and Publication, Bid Creation and Submission, Bid Opening and Evaluation, Award of Contract, Timestamp Management & Application Security, and other issues. The exact names of tables and columns as in the system database have not been used in view of system security.

Exit meeting was conducted on 25 May 2023 with the Departments to discuss the findings. The replies of Department were considered while finalising the report.