Table of contents

| | Page Number |
|--|----------------|
| Table of contents | j |
| Preface | V |
| Executive Summary | vii |
| Chapter I - Introdution | |
| 1.1 Introduction | 1 |
| 1.2 System information and workflow | |
| 1.3 Organisation Set Up | |
| 1.4 Audit Objectives | |
| 1.5 Scope of Audit | 4 |
| 1.6 Audit Sampling | 5 |
| 1.7 Audit Criteria | 5 |
| 1.8 Audit methodology | 6 |
| Chapter II - Project Management and Executi | ion |
| 2.1 Absence of Agreement/ MoU with NIC for impleme-Procurement system | |
| 2.2 Non-implementation of key Modules of GePNIC | |
| 2.3 Partial implementation of the e-tendering module | 8 |
| 2.4 Absence of master data management functionality contractors, in e-Procurement system | , |
| 2.5 Absence of integration with Works and Accounts Management Information System | |
| 2.6 Absence of executive instructions to revise the thr for mandatory e-procurement | eshold value |
| 2.7 Absence of functionality in the system to manage bidders | privileged |
| 2.7.1 Wrongful selection of bidder | |
| • | |
| 2.7.2 Awarding contract at a higher price | 10 |
| Chapter III - User Management | |
| 3.1 Inadequate validation controls during registration | of users17 |
| 3.1.1 Registration of incorrect DSC/ mapping of | of same DSC |

| 3.1.2 Absence of application control to verify the validity period of DSC used by bidders |
|---|
| 3.2 Deficiencies in application control to correctly record PAN for registered bidders |
| 3.2.1 Recording invalid PAN during registration of bidders 18 |
| 3.2.2 Mapping the same PAN to multiple user IDs during bidder registration |
| 3.2.3 Manual entry of incorrect PAN by bidders during submission of bids |
| Chapter IV - Tender Creation and Submission |
| 4.1 Deficiencies in the workflow for tender creation23 |
| 4.2 Absence of application control to enforce minimum period for submission of bids |
| 4.3 Absence of application control to enforce two-cover process for tenders with value more than ₹50 lakh25 |
| 4.4 Loss of tender fees due to absence of mapping of fees based on the tender value |
| 4.5 Deficiencies in computation of tender value27 |
| 4.5.1 Deficiency in validation controls in BoQ template published in tenders28 |
| 4.5.2 Deficiency in processing controls to compute tender value based on BoQ |
| Chapter V - Bid Creation and Submission |
| 5.1 Deficiencies in the workflow for creation/ submission of bids31 |
| 5.1.1 Absence of application controls to prevent submission of bids after expiry of tender closing time31 |
| 5.1.2 Absence of validation controls to enforce chronological sequencing of actions |
| 5.2 Absence of application controls to prevent mapping of same mobile number to multiple bidders32 |
| Chapter VI - Bid Opening and Evaluation |
| 6.1 Packet opening and bid decryption35 |
| 6.1.1 Risk of change in bid openers through manual intervention at the back end of the system |
| 6.1.2 Risk of modification of decrypted bid data through manual intervention at the back end of the system |
| Chapter VII - Award of Contract |
| 7.1 Award of Contract |

| 7.1.1 Awarded value more than quoted amount39 |) |
|---|---|
| Chapter VIII - Timestamp Management and Application Security | |
| 8.1 Gap in sequential numbers in database tables41 | 1 |
| 8.2. Unreliable and incomplete user logs42 | 2 |
| 8.3 Use of SHA1 instead of minimum SHA242 | 2 |
| 8.4 Absence of provision for verification of digital signatures of bidders43 | 3 |
| 8.5 Maintenance of logs | 3 |
| 8.5.1 Missing logs44 | ļ |
| 8.5.2 Non Maintenance of DBA Logs46 | |
| Chapter IX - Conclusion | |
| 9.1 Conclusion48 | 3 |
| Appendices | |
| Appendix-1 | |
| Sampling Methodology51 | |
| Appendix – II | |
| Statement showing discrepancy or missing logs of various datesin the events of record creation where there were missing sequences (gap) between two consecutive ID numbers of a table | , |
| Glossary of Abbreviations59 |) |
| | |



This Report of the Comptroller and Auditor General of India on Information Technology Audit of e-Procurement System in Government of Odisha for the year ended March 2022 has been prepared for submission to the Governor of Odisha under Article 151 of the Constitution of India and under provisions of Section 19A of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971, as amended from time to time, for being laid before the Legislature of the State.

The audit was conducted 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; and adequate controls have been built into the system.

The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.