Financial Comptroller General Office, Anamnagar

Term of Reference (TOR)

Consulting Services to provide support and enhancement on Application/System (TSA, RMIS, FMIS, CGAS and others)

1. Background

1.1 Organization and its functions: Financial Comptroller General Office (FCGO), as the major organization under the Ministry of Finance, is the main agency responsible for the Public Financial Management (PFM) system of Government of Nepal (GoN). The treasury operation is the pivotal function of this office as the central level function. In order to manage the treasury, it also carries out the functions mentioned in the Financial Procedure Act, 2055 (B.S.) and Financial Procedure Regulation, 2064 for this office. Actually these laws for this office have mandated the major functions. As per the said law this office mainly oversees budget implementation, treasury administration, budget expenditure implementation, cash and budget management, expenditure and revenue accounting, expenditure and revenue tracking, other receipts management, human resource management, strengthening the accounting system and preparation of consolidated financial statements of the government.

There are 79 District Treasury and Controller Offices (DTCOs) in 75 districts under this office. The DTCOs release the budget and manage the fund for the expenditure and control the accounts for the offices operating under the line ministries of GoN. DTCOs are making the payment through implementing the Treasury Single Account (TSA) System.

1.2 E-Governance Approach: FCGO has adopted the e-Governance approach for its business operations. In this endeavor, various functions have been digitized and thus replaced the manual process of the operations. For this, different applications have been developed and implemented for the recording, reporting and business processes as well as other PFM works of spending units through the DTCOs. The following information system have been designed and updated in FCGO and are in operation.

- Treasury Single Account – District Expenditure Control System (TSA-DECS):The application is centralized and is developed in Oracle Forms and Reports 10g with Oracle database 11g. TSA DECS is used by all districts for managing budget expenditure, revenue and retention money of Paying Offices of the district and the support required for its operation is provided by FCGO.

- Financial Management Information System (FMIS): This system developed with Oracle Forms & Reports 10g and Oracle Database 11g and is used for compiling entire data of budget release, expenditure, balances, virement, revenue collection, retention money from TSA. The FMIS gives consolidated
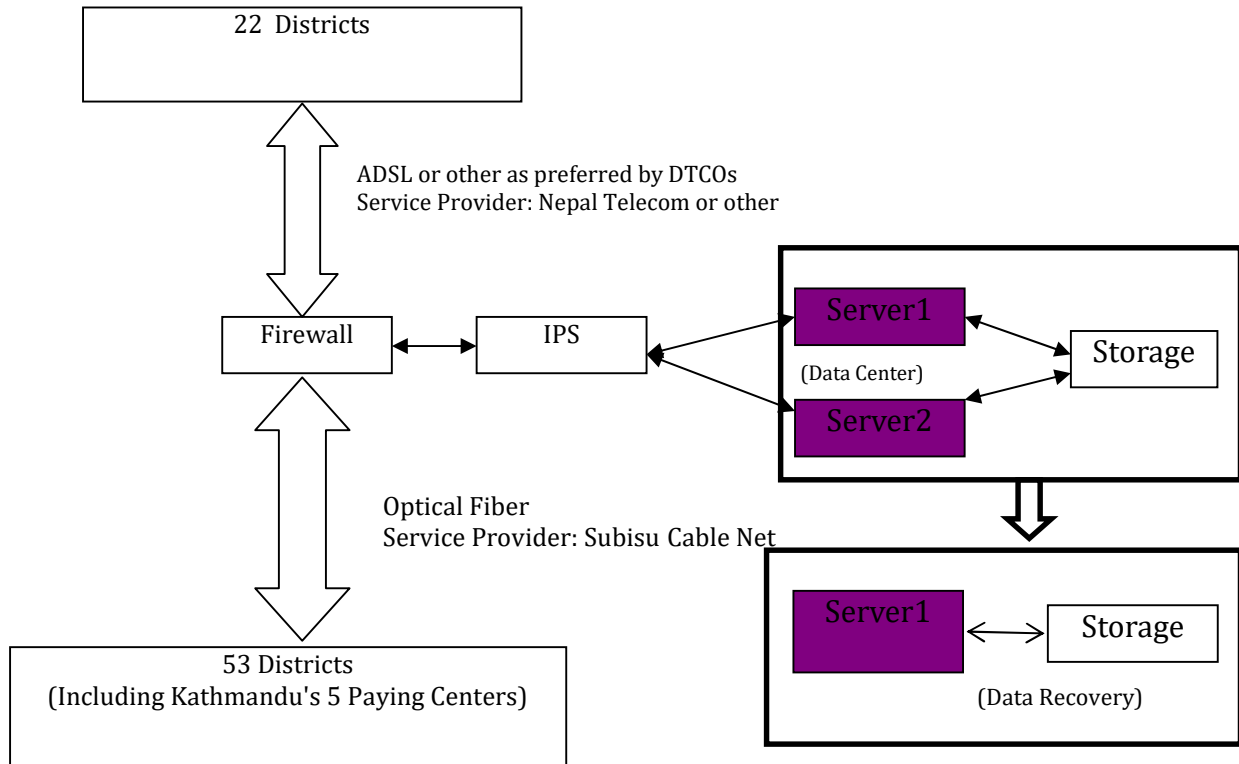
information regarding entire financial performance of the districts obtained from DTCOs. FMIS is the means by which the FCGO exercises control over the DTCOs and ensures that data is accurate, complete and well timed. It is the main source of reporting of the budget execution, revenue collection and retention money. FCGO produces different financial reports at different intervals using such data.

- Revenue Management Information System (RMIS): The system is developed with Oracle Forms & Reports 10g and Oracle Database 11g. RMIS is the application for recording the collection of revenue and is implemented in 50 districts. In parallel, RMIS for diplomat is also developed and being updated with its implementation in …. Countries. This application is developed with Oracle APEX and Oracle Database 11g as backend.

- Computerized Government Accounting System (CGAS): CGAS records every financial transaction of the government ministries, departments, offices, projects and generates financial reports as and when required. Presently, the system is being developed with complete provision of recording operation level expenditure at government's ministries, departments, offices and projects with customized reporting system.

- Other Systems: Debt Management System, Investment Management System, Treasure Management System, Budget Management System, Reimbursement Management System, Public Assets Information Management System etcs.

Application environment Most of these Systems have been developed using Oracle 11g database as backend, Oracle application server as middle tire and Oracle forms & reports 10g as application development platform. Servers in FCGO are AIX6.1. Nepali Unicode is used for the nepali text in the system and the database. Clients need to be installed with Java 6 in any OS. Client machines are currently using Windows machines for operation.

Apart from the initiatives at FCGO, the systems developed at the ministry of finance will also provide the specific background to the integration of the systems of FCGO.

System Architecture

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                    ┌──────────────────────────┐
                    │      22  Districts        │
                    │                           │
                    └──────────────────────────┘
                              ↕
                     ADSL or other as preferred by DTCOs
                     Service Provider: Nepal Telecom or other

                                              ┌─────────────────────────────────────┐
                                              │   ┌──────────┐          ┌──────────┐ │
    ┌──────────┐      ┌──────────┐            │   │ Server1  │ ←──────→ │ Storage  │ │
    │ Firewall │ ←──→ │   IPS    │ ←──────────┤   └──────────┘          └──────────┘ │
    └──────────┘      └──────────┘            │   (Data Center)                      │
         ↕                                    │   ┌──────────┐                       │
                                              │   │ Server2  │                       │
      Optical Fiber                           │   └──────────┘                       │
      Service Provider: Subisu Cable Net      └─────────────────────────────────────┘
                                                            ↓
    ┌──────────────────────────┐              ┌─────────────────────────────────────┐
    │      53 Districts        │              │   ┌──────────┐          ┌──────────┐ │
    │ (Including Kathmandu's 5 │              │   │ Server1  │ ←──────→ │ Storage  │ │
    │     Paying Centers)      │              │   └──────────┘          └──────────┘ │
    └──────────────────────────┘              │   (Data Recovery)                    │
                                              └─────────────────────────────────────┘
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FCGO is responsible for smooth and consistent operation and maintenance of mentioned IT System. Moreover, FCGO intends to engage *IT consultants (Software)* for the up gradation and support service of these IT systems and development of further required systems.

2 Objective of the Consulting Service:

The main objective of the proposed consultancy service is to build strong IT infrastructure and organizational chart for smooth, consistent and accurate IT operations. Thus the major objective of the service are, but not limited to following:

- Data center and data recovery Administration and management
- Network Administration and management for smooth network infrastructure.
- Application development with system analysis
- Database Configuration and Administration
- Application support and enhancement for smooth and regular operation

3 Scope of the Services:

In order to attain the objectives and carryout the specific roles and responsibilities the consultant shall cover the following areas of concern in this job category:

3.1   System Administration and management: Server and related hardware administration, management and monitoring at both data center and data recovery center.

3.2   Network Administration and Management: Administration, Management and monitoring of network for smooth network operation and regular inspection to ensure the efficiency and consistency.

3.3   System Analysis and Development: Analysis and development of the proposed system with complete documentation that includes Software Requirement Specification, Software Design Document, Software Test Document, Software Implementation Specification as well as complete software in CD-Drive.

3.4   Review and study of the IT Systems: Review and study technical features of the present IT systems (applications) of FCGO.

3.5   Monitor the functionality of the systems in FCGO: Monitor the functionality of the software component of the IT systems in FCGO and gather the recent status of the systems. If the systems are not functioning well, should initiate remedy actions immediately and inform the chief of the IT and other concern section. Should work together with other engineers and technicians of IT section of FCGO for intact and workable IT systems.

3.6   Modification and up gradation of the systems: Modification and up gradation of the systems (FMIS, TSA-DECS, RMIS, CGAS and other system operated in FCGO) in order to accommodate the requirements of FCGO. The up gradation shall be documented with documents as mentioned above.

3.7   Exploring and fixing the bugs: Monitor for exploring the bugs in the system, fix and neutralize them as soon as possible without any delay.

3.8   Support Service: Provide support service for smooth and consistent development and maintenance of the system.

3.9   Training and knowledge Transfer: Provide training to users according to the requirements on the systems e.g. BMIS, FMIS, TSA-DECS, LMBS, CGAS, RMIS, etc. It is also necessary to prepare training material and update it regularly for the knowledge transfer. Knowledge transfer does not only include the operational knowledge but also the technical knowledge as well.

3.10   Enrichment of the systems: Receive comments and feedbacks from DTCOs and other users and analyze them to detect the viability of the requirements and integrate them into the system as applicable.

3.11   Familiar with the Accounting/Financial Management Procedures/ process of the System: Prepare her/him-self for being familiar with the accounting, financial management procedures and technical process & features of the systems for the smooth functioning of the systems.

4   Specific Responsibilities to be performed by the Consultants :

The Responsibilities of the consultant are defined as, but not limited to, following:

- System Configuration, Administration and Management: The consultant is required for the server and other hardware configuration (Web server, mail server, DNS server configuration), Administration, management, regular monitoring to ensure the optimum functioning of the hardware (server, desktop and other related devices).

- Network Configuration, Administration and Management: The consultants is required for Network Configuration, regular network administration, management and close monitoring of the network infrastructure and ensure smooth and consistent network operations.

- Analyze and develop the System: The consultant is required to study and analyze the system to develop the requirement specification and develop the required systems with complete documentation.

- Database Configuration and Administration: The consultant should configure the database with data warehouse and perform regular administration for optimum utilization of resources and consistent and efficient database operation.

- Change, Modifications and upgradation of the system: Modify and upgrade the systems as per requirement of the FCGO and MoF with complete documentation.

- Bugs Management: Ensure the smooth operation of the system without the bugs. Examine and find out the bugs of the systems and take necessary actions for required remedies in close collaboration with concern staff of FCGO. Fix the bugs in the systems to make the system fresh and fine.

- Educate and empower stated IT personnel: The IT Personnel as directed by the management need to be educated about system of FCGO regularly and also train them for smooth and consistent operation and maintenance of TSA-DECS, CGAS, RMIS, FMIS and other software. Make them abreast of latest development in the said field on daily basis, if required, with proper communication mechanism.

- Security Management: Ensure the system is operating in a secured way. In this case it requires to manage Security Features of the systems, and database in FCGO and DTCOs including antivirus, firewall and other related software etc.

- Maintain the Data Flow Management: Data flow between different systems should be maintained on a real time basis with automation (no manual intervention).

- Assist in Training: Assist in conducting intensive central and regional IT training on the systems to users as per requirement. Provide functional training on the systems to users as per requirement. Explain and transfer knowledge and expertise on overall architect of the system to the technical staffs of MOF and FCGO on an organized manner.

- Prepare and upgrade manuals: Revise, Develop and upgrade operational manuals of the systems and exercise manuals for providing training on the system as and when required.

- Support service: Provide support service for smooth and consistent development and maintenance of the system.

- Receive Feedbacks and comments and manage: It is an integral part of assignment; so the consultant should regularly deal with comments and feedbacks about the system operation and analyze their viability to integrate them into the systems as required.

- Self Up-gradation: The consultant should regularly upgrade themselves with the up-gradation of the technology and should always direct subordinates and own-self towards best adopted technology.

- Maintain harmony and cooperation/collaboration: The consultants need to maintain close cooperation and harmony while working with the fellow consultants, staffs and the supervisor of the work. They should have the feeling of togetherness in the effective functioning of the IT system operation of FCGO and DTCOs.

- Establishment linkage with other government system when needed.

5   Availability of Previous Study Documents and Data:

The consultant shall be made available the following books/documents for the accomplishing the obligations under the assignment:

- Technical Specifications of the IT systems

- Configuration of the layout of Hardware

- The functional flow of the FCGO

- Users' Manuals of the IT systems

- Latest status of the systems and

- The relevant information and documents, if any, from FCGO and the concerned DTCOs.

6   Consulting Firm Qualification and Experience:

The consulting firm should have the following qualifications and experience to carry out the work

- Company/Firm/Business registration certificate.
- VAT and PAN registration
- Tax clearance certification.

Experience of the consulting firm
- General experience: The Consulting Firm must have 5 Years of Experience in the field of application development, System Administration and Network Administration in the public /private sector entity.
- Specific Experience: The Consulting form must have min 3 years Experience in Oracle Database Administration, Comparative Network Administration and Application development with Oracle Forms and Reports.
- Special Experience as advantage: Consultant having experience in the field of public financial system shall have added advantage.

7 Consultants Requisition, Qualifications and Experience:

7.1 Server Administrator: A Server Administrator is required for the server and other hardware configuration (Web server, mail server, DNS server configuration and similar), Administration, management, regular monitoring to ensure the optimum functioning FCGO servers. S/He is required to be available on call for FCGO datacenter and data recovery. The estimated time for the requirement would be equivalent to 3 months per year.

     Educational Requirement: Bachelor in Computer Application or equivalent.

     Experience: Should have 5 years of experience in the field of linux server Configuration, administration and management. Experience of both linux and Windows server will be preferable.

7.2 Network Administrator: As FCGO has a huge network infrastructure, thus a regular network administrator is required for Network Configuration, regular network administration, management and close monitoring of the network infrastructure. The estimated time for the requirement would be equivalent to 3 months per year in FCGO and may require visiting various related sites as well.

     Educational Requirement: Bachelor in Computer Application or equivalent.

     Experience: Should have 5 years of experience in the field of Network Configuration, Administration and Management.

7.3 Programmer: A Programmer would be required for regular in house application development, modification, up-gradation and system updates as and when required. The Programmer must also perform as system analyst on FCGO requirement. The estimated time for the requirement would be equivalent to 8 months per year.

     Educational Requirement: Bachelor in Computer Application or equivalent.

     Experience: Should have 5 years of experience in Programming with JAVA and Oracle and experience of application development in Oracle Forms and Reports.

7.4 Database Administrator: FCGO database require regular administration for database optimization, thus a DBA for timely visit to monitor and administer as and when required. DBA may have to work as database designer on requirement. The estimated time for the requirement would be equivalent to 3 months per year.

     Educational Requirement: Bachelor in Computer Application or equivalent.

Experience: Should have 5 years of experience in database design, configuration, Administration and management of Oracle 11g or higher.

7.5 Operational Support: Application developed in FCGO require regular operational support. Thus the support would incur multiple full time personnel for smooth and consistent operations.

7.5.1 Senior Support officer: 3 senior support officers for high level support would be required for full time basis in order to support through data correction, user creation and management and solutions to various recurrent problems. S/He is required to report for application modification for recurrent problems as and when required.

Educational Requirement: Bachelor in Computer Application or equivalent.

Experience: Should have 3 years of experience of application development using Oracle Forms and Reports and Oracle Database. Experience of government financial system will be preferable

7.5.2 IT Technician: 3 IT Technicians to support senior technical officers and for mobility would be required for full time basis.

Educational Requirement: Diploma in IT/computer science (PCL Level)

Experience: Should have 3 years of experience of application support, hardware maintenance and basic networking.

8 **Evaluation Criteria**: The evaluation criteria for evaluation of the proposal will be as mentioned below.

- ➢ Experience of Consulting Firm
  - General Experience
  - Specific Experience
  - Special Experience
- ➢ Qualification of Manpower
  - System Administrator
  - Network Administrator
  - Programmar
  - Database Administrator
  - Operational Support (Senior Support Officers & IT Technicians)
- ➢ Methodology of Job accomplishment and work plan
- ➢ Knowledge Transfer
- ➢ Understanding of TOR

9 **Duration of Services**:

- The service period of the consultant shall be 12 months from starting date.
- Downstream of the services: The service may be extendable upon the satisfactory performance.

10 **Facilities/Utilities and Logistics to be provided by the Client**:

The consultant him/herself shall be responsible for arranging all required utilities/facilities and logistics for the completion of the assignment. However, the consultant shall be made available the following facilities/logistics during the service period, if required:

- Shall be made available shared office room with the counterpart employees of the concerned assignment.
- Shall have access to the computer and communication facilities (e-mail, telephone, fax etc.) during the obligations performing hours at FCGO, DTCOs and paying offices.
- The relevant information and documents, if any, from FCGO and the concerned DTCOs.
- Travel allowance and daily allowance shall be paid as per rules and regulations of GoN applicable for Gazetted Third Class Officer.

11 **Selection Method**: The selection method will be Consultant's Qualification selection (CQS) method as per World Bank Procurement Guidelines.

12 **Reporting Requirements and Deliverables**:

The consultant should report during or at the completion of the assignment the following reports and deliver the following outputs:

12.1 Reporting Requirements: The Consultant shall prepare and submit the following reports/documents:

- Action / Work Plan of the Assignment: The consultant should submit the annual work plan / action plan reflecting the detailed job responsibilities mentioned in the ToR. The plan should specify monthly breakdown for the period of fiscal year. The plan needs to be submitted to IT section of FCGO within the *fifteen days* from the date of signing of the agreement.
- Monthly Report: The consultant should submit monthly performance report (MPR) to the IT section of FCGO within seven days after the completion of the preceding month. The format and contains of MPR will be finalized mutually. However, the report should clearly explain the actions performed by the consultant in comparison with the agreed work plan. The technical documentation as directed should be exclusively attached with the report. It should also contain

perfections, deficiency and recommendations for improvements with a view to strengthening the IT systems.

- Annual Report: The consultant should also submit annual report to the IT section of FCGO within fifteen days after the completion of the preceding year as per MPR modality.

12.2 Deliverables:

The assignments should deliver the followings:

- IT infrastructure Diagram (hardware and network architecture in defined standard format)
- The Technical Documentation of System or modules Developed or changed which includes: System Requirement Specification, Database Detail Report (with Table structure and description of each fields), Design Specification, Quality Analysis Report and Operational Manual on development of system or module before implementation.
- All responsibilities and tasks stipulated in the ToR to be performed in the right time and in qualitative manner.
- Intact and workable IT systems in FCGO and DTCOs.
- Monthly Performance Report (MPR) and Annual Report in English in the given time and format.

13   **Follow up and Monitoring**: Monitoring Team lead by the Joint Financial Comptroller General will oversee the performance of the team and team will thoroughly and regularly review the reports submitted. Concerns section chief (TSA, RMIS, CGAS) and IT Section chief will supervise and monitor regularly .

14   **Skill Transfer and Dissemination**:

The Consultant should perform the following activities for the skill transfer and training:

- The consultant should adopt the approach of skills and expertise transfer to the other IT personnel and users in FCGO, DTCOs and Paying Offices of GoN while working with them.
- He/she should organize a half day training every month about the status of the job and performance.