



**TERMS OF REFERENCE**  
**(INDIVIDUAL CONSULTANT)**

**Database Administrator Expert**

**Institution:** Ministry of Finance  
**Country:** Belize  
**Project:** Strengthening Public Expenditure Management in Belize (SPEM)  
**Process ID:** BL-L1038 – P00082  
**Duration:** Eighteen (18) Months  
**Duty Station:** Remote  
**Deadline:** **December 1, 2025; 10:00 a.m. (Local Belize Time)**

**1. BACKGROUND**

The Strengthening Public Expenditure Management Program – SPEM (5353/OC-BL-L1038) is a response to the consolidation efforts to bring public finances back to a sustainable path and create meaningful fiscal space require the adaptation of reforms to reduce inefficiencies in public expenditure, which amounts to 6.3% of GDP at the level of the wage bill, procurement, and transfers, the third highest in the region. To face this challenge the government is committed to implementing a comprehensive fiscal consolidation plan, with a strategy centred on three areas: (i) expenditure reduction (ii) increased revenues; and (iii) debt restructuring.

The Government of Belize, through the Ministry of Finance (MOF) and in collaboration with the Central Information Technology Office (CITO), is undertaking a strategic initiative to develop a centralized data warehouse solution. This initiative aims to improve data accessibility, enhance decision-making capabilities, and streamline data management across government departments. The data warehouse will integrate data from multiple governmental systems, providing a unified platform for real-time analytics and reporting. To support this initiative, the MOF seeks to engage an individual consultant with expertise in data warehouse development, including data modeling, ETL processes, OLAP cube design, and data governance. The consultant will work closely with MOF and CITO to design and implement the core components of the data warehouse.

**2. OBJECTIVE AND SCOPE OF WORK**

The primary objective of this consultancy is to provide expert database administration support to the Data Warehouse Team Leader for the implementation and operation of the

Government of Belize's Data Warehouse environment, ensuring reliable performance, security, and efficient operation. In addition to database administration, the consultant will provide complementary support in data architecture, including the refinement and optimization of the validated Data Warehouse architecture and related database designs, to ensure scalability, efficiency, and data integrity. As a secondary function, the consultant will support CITO in its day-to-day operations in the same areas—database administration and data architecture—for CITO-managed databases, contributing to the stability, performance, and security of the broader government database infrastructure.

This consultancy will be carried out in a hybrid modality, comprising retainer services and product deliverables. The retainer modality will focus primarily on supporting CITO's ongoing operations in database administration and architecture, while the product deliverable modality will address specific outputs for the Data Warehouse Team Leader as described in the deliverables table, including enhancements to database systems—encompassing the Data Warehouse architecture—to ensure scalability, efficiency, and data integrity.

In-country and/or in-office presence will be required at defined points: (a) contract kick-off and initial environment setup; (b) deployment and cutover activities for TEST and PROD, including user acceptance testing; (c) training/workshops and quarterly supervision missions; and (d) other missions agreed by MOF/CITO with at least two (2) weeks' notice. If the successful candidate resides in Belize, they will be expected to work on-site at MOF/CITO a minimum of [2–3] days per week during the retainer period and as needed to meet deliverable milestones; for non-resident candidates, in-country missions will be scheduled in line with the work plan and approved travel.

### **3. RESPONSIBILITIES/ACTIVITIES**

**Under the Retainer Service the consultant will undertake the following activities:**

- i. Participating, when required, in the ongoing database administration and architecture support to CITO's operations, including monitoring, maintenance, and troubleshooting of CITO-managed database systems. Support the Data Warehouse Team Leader in reviewing the implementation, maintenance, and performance of the Data Warehouse environment.
- ii. Recommend targeted enhancements to database operations, security protocols, system integration, and interoperability within the Data Warehouse environment, ensuring alignment with CITO-managed data governance standards
- iii. Participate in internal meetings with CITO technical staff, the Data Warehouse Team, and Government officials to address database-related requirements, issues, and solutions.
- iv. Oversee and support the quality assurance of database configuration, upgrades, patches, and enhancements for the Data Warehouse and its data marts.
- v. Provide technical assistance in database administration and architecture, including security, performance tuning, backup and recovery strategies, data governance, and integration between the Data Warehouse and other government systems within scope

of the SPEM project.

- vi. Prepare and review technical documentation, including configuration guides, architecture diagrams, system specifications, and procurement requirements for database software and hardware within the scope of the SPEM project.
- vii. Review technical deliverables such as database performance reports, vendor proposals, migration/upgrade plans, and security audit findings.
- viii. Participate in missions, including kick-offs, supervision visits, and technical workshops, as required for the Data Warehouse implementation.
- ix. Provide capacity building and training to CITO and MOF staff on database administration, optimization, and security for the Data Warehouse and data marts.
- x. Perform other database administration and architecture tasks within the Program scope, as requested by CITO management and the Data Warehouse Team Leader.

**Under the product deliverable modality, the consultant will develop the following products:**

**i. Database Administration and Optimization**

- a. Review, maintain, and optimize the configuration and performance of the Data Warehouse, including the tools involved in the implementation, such as SSRS, SSIS, SSAS and Power BI among others.
- b. Implement and document backup, restore, and disaster recovery procedures for all supported environments within scope.
- c. Provide periodic database health and performance reports with recommendations and implementation of improvements.
- d. Collaborate in the definition and adoption of standards for metadata, tagging, naming and indexing databases and Data Warehouse.

**ii. Data Warehouse implementation**

- a. Install and configure all necessary tools to implement the Data Warehouse and their different environments.
- b. Implement the necessary routines to automate processes and interactions between environments.
- c. Collaborate with the Data Warehouse expert in the design and implement data marts to serve specific stakeholder requirements.
- d. Configure and implement the data governance and quality assurance tools for the Data Warehouse.

iii. **ETL Processes**

- a. Implement ETL processes to extract, transform, and load data from multiple government systems into the Data Warehouse.
- b. Optimize ETL workflows to ensure efficiency, reliability, and data integrity.

iv. **Reporting and Analytics**

- a. Develop and configure Power BI dashboards, SSRS reports, and other analytics tools as required.
- b. Collaborate in implementing OLAP cubes for multi-dimensional analysis to support decision-making.

v. **Data Security and Governance**

- a. Implement role-based access controls, encryption, and other security measures for the Data Warehouse and data marts.
- b. Ensure compliance with governmental data privacy and security regulations.

vi. **Knowledge Transfer and Documentation**

- a. Collaborate in executing training sessions for MOF and CITO staff on database administration, data Warehouse and tools installation and configuration, optimization, security, and architecture principles.
- b. Develop comprehensive technical documentation, configuration manuals, and user guides for all systems and processes implemented.

#### 4. KEY OUTPUTS/DELIVERABLES

The consultant will present the following deliverables:

Deliverables	Estimated Duration for Completions	Estimated Working days
<b>1. Activity Report for Supported Services for CITO</b>	<b>120 days over 18 months</b>	<b>120</b>
<ul style="list-style-type: none"> <li>○ The consultant must deliver 6 activities reports during the contract period (1 every 3 months).</li> <li>○ Each report must include the number of days worked during the period and the following:               <ul style="list-style-type: none"> <li>○ Provide comprehensive database administration and architecture support, for the Data Warehouse Team Leader.</li> <li>○ Monitor, maintain, troubleshoot, and optimize the performance of the Data Warehouse environment.</li> <li>○ Recommend improvements to data warehouse operations, security, integration, and interoperability.</li> <li>○ Participate in coordination meetings with CITO, the Data Warehouse Team, and Government officials.</li> <li>○ Oversee quality assurance for database configurations, upgrades, patches, and enhancements.</li> <li>○ Prepare and review technical documentation and specifications for database systems.</li> <li>○ Assess and provide feedback on technical deliverables and security audit findings.</li> <li>○ Contribute to missions, supervision visits, and technical workshops.</li> <li>○ Deliver training and capacity building for CITO and MOF staff on database administration, optimization, and security.</li> <li>○ Perform other related database administration and architecture tasks within the program scope.</li> </ul> </li> </ul>		
<b>2. A comprehensive work plan outlining activities, deliverables, and timelines.</b>	<b>1 week</b>	<b>4</b>
<b>3. Data Warehouse Configuration Manual for TEST and PROD Environments</b>	<b>6 weeks</b>	<b>20</b>

<b>Deliverables</b>	<b>Estimated Duration for Completion s</b>	<b>Estimated Working days</b>
o Configure SQL Server to support data warehousing operations and integrate with Active Directory for centralized authentication.		
o Install, configure and implement SQL Server and SQL Server Integration Services (SSIS) for ETL processes, Master Data Services (MDS), SQL Server Analysis Services (SSAS) for OLAP and data mining, SQL Server Reporting Services (SSRS), SQL Server Management Studio (SSMS), and Power BI.		
o Deliver an installation and configuration manual.		
<b>4. Data Mart and Data Warehouse Design Document and Source Code</b>	<b>12 weeks</b>	<b>20</b>
o Collaborate with Data Warehouse expert in the design of the first data mart and the first data warehouse, including implementation in both environments.		
o Implement the ETL processes to populate the data mart and data warehouse, including source code and automation configuration.		
<b>5. Master Data Management and Metadata Definition Implementation Document</b>	<b>3 weeks</b>	<b>10</b>
o Install and configure the tools for the creation of the first metadata catalogue (MDS		
o Collaborate in the creation of the metadata catalogue primary entities (MDS). Publish the created catalogue		
<b>6. ETL Development Training Material</b>	<b>3 weeks</b>	<b>8</b>
o Conduct a two-day training/workshop on the implementation of ETL processes and automation.		
<b>7. Report and Analysis Design Document and Source Code for the Selected Stakeholder</b>	<b>8 weeks</b>	<b>16</b>
o Implement the cube on SSAS.		
o Create two reports for the selected stakeholder.		
<b>8. Installation and Configuration Document for Data Mining Tools</b>	<b>4 weeks</b>	<b>15</b>
o Install and configure data mining tools.		
o Create one data extraction and analysis routine for the selected stakeholder.		
o Collaborate in the conduction of a three-day training/workshop on data mining and analytics tools.		
<b>Total</b>	<b>37 weeks</b>	<b>213 days</b>

## **5. QUALIFICATIONS AND EXPERIENCE**

### **Academic and Education Qualification: (submit relevant attestations)**

- Minimum of a Bachelor's degree in Computer Science, Information Systems, Information Technology, Data Science/Data Analytics, or a related field.
- Master's Degree in Computer Science, Information Systems, Information Technology, Data Science/Data Analytics or related field will be considered an asset.

### **General Work Experience:**

- Minimum of ten (10) years of progressive experience in database administration and/or data architecture, preferably in complex, multi-system environments.

### **Specific Experience:**

- Minimum of five (5) years of hands-on database administration experience, including monitoring, performance tuning, indexing, partitioning, and backup/recovery.
- Minimum of five (5) years of data architecture experience, including data modelling, integration design, and metadata management.
- Successful track record in at least two (2) selected projects involving the design, development, or enhancement of data warehouses, data marts, or other enterprise database systems for government or large organizations is required.
- Proven experience in designing and implementing data warehouse schemata, including the ability to determine appropriate schema designs (e.g., star vs. snowflake) based on business requirements is considered an asset.
- Experience working within the public sector is required.
- Experience working in developing countries in Latin America or the Caribbean is considered an asset.
- Experience designing, developing, and optimizing ETL processes and data pipelines using Microsoft SSIS or similar tools, including integrating data from multiple government or enterprise systems is considered an asset.
- Experience supporting both operational database environments and data warehouse implementations is considered an asset.
- Demonstrated ability to design OLAP cubes, develop multi-dimensional analysis solutions, and create interactive reporting using tools such as Power BI and SSRS is considered an asset.
- Experience implementing data governance and security strategies, including role-based access control, encryption, and compliance with governmental data privacy regulations is considered an asset.
- Experience providing training, mentoring, and knowledge transfer to technical staff in database administration and architecture is considered an asset.

## **Desired Skills, Knowledge, and Abilities**

Candidate should possess the following:

- Advanced proficiency in Microsoft SQL Server and its associated tools:
  - SSMS (SQL Server Management Studio)
  - SSIS (Integration Services)
  - SSRS (Reporting Services)
  - SSAS (Analysis Services)
- Strong knowledge of data governance frameworks, metadata management, and information security best practices.
- Ability to design and manage data architectures that ensure scalability, performance, and interoperability across diverse systems.
- Strong communication skills for engaging with stakeholders, explaining technical concepts to non-technical audiences, and collaborating across teams (e.g., CITO, MOF, and other government units).
- Proven ability to troubleshoot critical data issues under pressure and deliver solutions within tight deadlines.
- Familiarity with digital transformation processes in public institutions, including integration with existing government systems.

*Applicants are encouraged to ensure that the materials submitted are comprehensive and tailored to demonstrate their capacity to fulfil the objectives of this Terms of Reference.*

## **6. REPORTING RESPONSIBILITY**

The consultant will report directly to the MOF's designated project manager and will work closely with CITO technical staff to ensure seamless implementation.

Regular progress updates and review meetings will be required.

## **7. PAYMENT SCHEDULE**

Compensation for consultancy is a fixed amount of US\$109,390.00 which includes consultancy rate based on the deliverables detailed below, travel ticket for 4 trips to Belize (estimated 5 days each) and per diem, approximately US\$13,540. Payments will be made according to the corresponding product deliverable and upon approval from the responsible party in the area affected by the product.

The retainer service payment will be made every two months based on number of # of days within that period. Daily rate will be fixed at US\$450.00 per day. The consultant will

report on the number of days worked in each report. The maximum Retainer days should not exceed one hundred twenty (120) days over the eighteen (18) month period.

<b>Deliverables</b>	<b>Estimated Duration for Completion</b>	<b>Payment US\$</b>
<b>1. Activity Report for Supported Services for CITO</b>	<b>120 days</b>	<b>54,000</b>
The consultant must deliver 6 activities reports during the contract period (1 every 3 months).		
Each report must include the number of days worked during the period and the following:		
Provide comprehensive database administration and architecture support, for the Data Warehouse Team Leader.		
Monitor, maintain, troubleshoot, and optimize the Data Warehouse environment.		
Recommend improvements to database operations, security, integration, and interoperability.		
Participate in coordination meetings with CITO, the Data Warehouse Team, and Government officials.		
Oversee quality assurance for database configurations, upgrades, patches, and enhancements.		
Prepare and review technical documentation and specifications for database systems.		
Assess and provide feedback on technical deliverables and security audit findings.		
Contribute to missions, supervision visits, and technical workshops.		
Deliver training and capacity building for CITO and MOF staff on database administration, optimization, and security.		
Perform other related database administration and architecture tasks within the program scope.		
<b>2. A comprehensive work plan outlining activities, deliverables, and timelines.</b> <b>3. Data Warehouse Configuration Manual for TEST and PROD Environments</b>	<b>7 weeks</b>	<b>10,800</b>

o Configure SQL Server to support data warehousing operations and integrate with Active Directory for centralized authentication.		
o Install, configure and implement SQL Server and SQL Server Integration Services (SSIS) for ETL processes, Master Data Services (MDS), SQL Server Analysis Services (SSAS) for OLAP and data mining, SQL Server Reporting Services (SSRS), SQL Server Management Studio (SSMS), and Power BI.		
o Deliver an installation and configuration manual.		
<b>4. Data Mart and Data Warehouse Design Document and Source Code</b>	<b>12 weeks</b>	<b>9,000</b>
o Collaborate with Data Warehouse expert in the design of the first data mart and the first data warehouse, including implementation in both environments.		
o Implement the ETL processes to populate the data mart and data warehouse, including source code and automation configuration.		
<b>5. Master Data Management and Metadata Definition Implementation Document</b>	<b>6 weeks</b>	<b>8,100</b>
o Install and configure the tools for the creation of the first metadata catalogue (MDS)		
o Collaborate in the creation of the metadata catalogue primary entities (MDS). Publish the created catalogue		
<b>6. ETL Development Training Material</b>		
o Conduct a two-day training/workshop on the implementation of ETL processes and automation.		
<b>7. Report and Analysis Design Document and Source Code for the Selected Stakeholder</b>	<b>8 weeks</b>	<b>7,200</b>
o Implement the cube on SSAS.		
o Create two reports for the selected stakeholder.		
<b>8. Installation and Configuration Document for Data Mining Tools</b>	<b>4 weeks</b>	<b>6,750</b>
o Install and configure data mining tools.		
o Create one data extraction and analysis routine for the selected stakeholder.		
o Collaborate in the conduction of a three-day training/workshop on data mining and analytics tools.		
<b>Sub -Total</b>	<b>109</b>	<b>95,850</b>

<b>Tickets and Per diem</b>		<b>\$13,540</b>
<b>Total</b>		<b>\$109,390</b>

**8. DURATION**

The consultancy is expected to be for a period of eighteen (18) months. This will include six (6)-month implementation phase followed by 12 months' support.

**9. CRITERIA FOR SELECTION**

The selection for this contractual position will be in accordance with the procedures set out in the Inter-American Development Bank: Policies for the Selection and Contracting of Consultants financed by the Inter-American Development Bank GN-2350-15 and the Government of Belize policies and best practices and is open to all eligible candidates as defined in the policies. The Consultants will be selected based on qualifications including a positive professional reference check.

**10. APPLICATION PROCEDURES**

Applications should be submitted in the English language before or on **December 1, 2025, 10:00 a.m. (Local Belize Time). Late applications will not be accepted.** Please note that the required application template should be utilized. The Template can be obtained online at <https://procurement.gov.bz/opportunities/>.

Applications should be submitted in one (1) pdf document via email to [procurement@ceu.mof.gov.bz](mailto:procurement@ceu.mof.gov.bz) or three (3) hardcopies and put in the tender box at the below address:

**Procurement Specialist  
Central Executing Unit  
Ministry of Finance  
3<sup>rd</sup> Floor Sir Edney Cain Building  
Belmopan, Belize**

**Ref: Database Administrator Expert - BL-L1038- Your name**