



Central Securities Clearing System PLC

Request for Proposal

Enterprise Data Warehouse & BI Implementation

REFERENCE NO: CSCS/ADS/07/2018

The return date for responses against this RFP is **20th July 2018**

Delivered in the requested manner and to the address advised

Late responses will not be considered. Note that proposals submitted by Joint Ventures shall be considered non responsive.

Date 5th July, 2018

Dear Sir,

TITLE: ENTERPRISE DATA WAREHOUSE IMPLEMENTATION

Ref: CSCS/ADS/07/2018, Return by 20th July, 2018

You are invited to submit your proposal against the requirements detailed in the Request for Proposal (RFP) attached. The information contained within this invitation shall be treated as “Commercial in Confidence” and shall also be subject to the terms of any related Non-Disclosure Agreement signed by the parties.

Part 1 of the RFP gives you information about Central Securities Clearing System PLC. Part 2 is for you to answer and provide details as requested to support your proposal

Proposers are requested to provide one copy of their proposal in paper format and one copy in soft format (either Microsoft Office or PDF). Submissions to this RFP must be returned by the time stated. Late submissions may not be considered by Central Securities Clearing System PLC

Queries

All queries should only be directed to the undersigned. We look forward to your responses soon.

Yours faithfully

Head, Procurement (Admin Department)

Central Securities Clearing System PLC Profile

1. Introduction

1.1 Procurement Policy on Bribery and Corruption

Central Securities Clearing System PLC strictly adheres to professional work ethics and emphasizes zero tolerance to Bribery and any forms of corruption. It is our policy that suppliers involved in offering bribery will be terminated and be excluded from any potential engagement opportunity.

1.2 Executive Summary of Project

This RFP is an invitation to prospective proponents to submit proposals for the Enterprise Data Warehouse implementation. The successful company should be able to manage and meet the requirements for this activity.

The purpose of this RFP is to seek information from potential Bidder's with an intention to establish an agreement between the Company and the successful Bidder. The Contract that follows this process shall bind the Company and the successful Bidder to perform in a specific way for an agreed duration to be agreed in the Contract in an event of the formation of the same.

2. Terms Governing This RFP

2.1 Recipients of this RFP are required to read all the information supplied and have a clear understanding of Central Securities Clearing System PLC requirements. Further information can be made available by contacting nominated persons in Section 4.

2.2 It is a condition of this RFP that all mandatory requirements (indicated in the body of text by the word "must" or expressed or implied accordingly) are met in full. Responses and proposals that do not conform to mandatory requirements will be deemed to be made on the basis that conformance is implied by the proposer. The contents of proposals must be submitted in the same order as that specified in this RFP.

2.3 This RFP is a request for proposal about software, hardware and services. It is not a contract and no contractual obligations shall arise on behalf of CSCS. CSCS will not be liable for any costs incurred in the preparation and submission of a response to this RFP.

2.4 Pricing should include details of all costs related to software, required hardware, conversion of existing data, installation, training, final implementation and annual support costs.

2.5 CSCS will select the successful proposal based upon several evaluation factors including features outlined in the RFP; comprehensiveness of the recommended solution; company stability, experience executing similar projects; conversion, training and implementation plan; technical support; and price. The selection will be decided based on the proposal submitted by a qualified vendor that best meets the needs of CSCS as determined by CSCS. CSCS reserves the right to reject any or all proposals.

2.6 All communications relating to this RFP must be directed to the specified key contact persons listed below. All other communications between a respondent and CSCS staff concerning this RFP are prohibited. In no instance is a respondent to discuss cost information contained in a proposal with the CSCS contact persons or any other staff prior to proposal evaluation. Failure to comply with this section WILL result in disqualification of the proposal.

2.7 Timeline to be observed for this RFP:

Milestones	Due Date
RFP issued by Central Securities Clearing System PLC	6 th July 2018
Supplier acknowledgement to bid	6 TH July 2018
RFP questions received by Central Securities Clearing System PLC in writing	10 th July 2018
RFP questions responded by Central Securities Clearing System PLC	11 th July 2018
RFP response due	20 th July 2018
Presentation date	27 TH July 2018

2.8 All bids shall be submitted by providing one original and three copies of their proposal and will be deposited in the Tender Box, on the 1st floor of Central Securities Clearing System Plc., Head Office Building and should be addressed to

Head, Internal Control
 Central Securities Clearing System Plc.
 1st Floor, Stock Exchange House
 2/4 Customs Street, Lagos
 Lagos, Nigeria
 Email: info@cscsnigeriaplc.com

2.9 Central Securities Clearing System Plc. reserves the right, without giving reasons, not to accept the lowest or any Proposal.

2.10 Central Securities Clearing System Plc. will not accept responsibility for any costs incurred in the formulation of proposal/s or any costs associated with, the requested proposals.

2.11 Central Securities Clearing System Plc. Shall deduct Withholding Tax from payments to suppliers to account for that tax to the local tax authorities. Any agreement with the supplier shall be subject to Central Securities Clearing System Plc. being entitled to make these deductions so that Central Securities Clearing System Plc. will not bear an unnecessary additional cost. Suppliers can usually claim a credit against their tax liabilities in respect of Withholding Tax deducted by Central Securities Clearing System Plc.

2.12 For the avoidance of doubt, this RFP does not constitute an offer by Central Securities Clearing System Plc. And no contract shall be made by Central Securities Clearing System Plc.

2.13 Pursuant to this RFP until agreement(s) between Central Securities Clearing System Plc. and the successful supplier(s) is/are made in writing duly signed by both parties' authorized signatories.

2.14 **Conflict of Interest:** In addition to submitting a proposal in response to this request, all proposals should be sent with a written confirmation that there is no conflict of interest issues that will prevent the firm from taking up this engagement.

2.15 **Procedure after Submission:** CSCS shall evaluate proposals based on their responsiveness to the requirements of this RFP as outlined above. Each responsive proposal will be given a score. A proposal shall be rejected at this stage if it fails to respond to the requirements. The shortlisted vendors shall be invited for an oral presentation before a Committee of CSCS representatives. The vendor with the highest score after the final presentation will be invited for negotiations.

Negotiations will be held with the aim of reaching an agreement on all points and subsequently engage the successful vendor. If negotiations fail, the vendor with the second highest score will be invited to negotiate an agreement.

After negotiations are completed, CSCS will promptly notify other vendors on the shortlist that they were unsuccessful.

2.16 **Key Contacts**

Following are key contacts for information you may seek for enquiries:

- i. Ayokunle Adaralegbe [adaralegbe.ayokunle@cscsnigeria.com]

3.0. **Submission of Proposals**

Original and electronic copies of your proposals should be submitted on or before close of business on Friday, July 20, 2018.

The electronic copy should be sent to: rfpsubmission@cscsnigeria.com

Kindly forward sealed, original hard copies to:

Central Securities Clearing System (CSCS) PLC

Attention: Isioma Lawal

Head, Internal Control

13th Floor, NSE Building,

2/4, Customs Street, Marina, Lagos.

3. Supplier Actions Required for this RFP

- 3.1 Read Part 2 carefully which contains the following sections and complete them fully & clearly
- A. Supplier Declaration
 - B. Supplier Information Questionnaire
 - C. Central Securities Clearing System Plc. Statement of Requirements & Supplier Response
 - D. Price schedules
 - E. Evaluation Criteria
 - F. Bid Declaration Form

3.2 Sign declaration (A) above indicating your compliance and acceptance of the terms of this RFP

3.3 Provide your responses to (B) and (C) under the headings in this RFP. They must be precise and concise without unnecessary marketing/advertising materials. If there is any other information which, it is felt should be included because of its relevance to the proposal please feel free to do so but this must be separate from the required structured response.

3.4 Addenda Notices: The Company may issue Addenda notices to the Bid Documents to advise of any changes and clarifications thereto or to respond to queries from Bidder's or for any other reason that the Company deems necessary. Addenda Notices will be numbered and the Bidder shall acknowledge their receipt via email and their inclusion in its Bid.

The Company may issue additional information for reasons that the Company deems necessary at any time for Bid submission as nominated in the Invitation to Bid or subsequent Addendum. Such information shall be included in the Contract award.

The Company shall use its sole discretion to make any changes to the date of Bid closing from that advised in the Bid schedule which may result from an addendum.

3.5 Any request for clarification must be sent in writing to the undersigned or emailed to: rfpsubmission@cscsnigeria.com. CSCS reserves the right to distribute answers to questions to other suppliers who may not have asked that question but where CSCS feels that the answer corrects a mistake, adds clarity or removes ambiguity from the original RFP.

3.6 Authorized representatives of the firm shall initial every page of the RFP and No further questions will be taken or meetings held with regard to this RFP until after the receipt of proposal/s, unless otherwise advised by CSCS.

3.7 Please ensure the declaration is a computation of total cost per annum

- 3.8 **Confidentiality:** The subject matter of the information provided or gained in relation to this Request for Bid may contain valuable property rights of the Company. This information is to be treated in strict confidence by the Bidder and its employees and shall not be used except for the specific purpose of preparing and submitting a Bid. Upon receiving notice, unsuccessful Bidders shall return such information to the Company whose property it shall remain.
- 3.9 Submit response to CSCS in line with the milestone dates stated in 2.3. All responses and correspondence relating to this RFP should be addressed to:

The Head, Internal Control,
Central Securities Clearing System Plc.
13th Floor, Stock Exchange House
2/4 Customs Street, Lagos
Lagos, Nigeria

Part 2 Supplier Responses to this RFP

A. Supplier Declaration

To:

The Head, Internal Control,
Central Securities Clearing System Plc.
13th Floor, Stock Exchange House
2/4 Customs Street, Lagos
Lagos, Nigeria

Dear Sir,

PROJECT TITLE: ENTERPRISE DATA WAREHOUSE IMPLEMENTATION

We have read and have examined this Request for Proposal (RFP) document, Technical Requirements, Specifications, Guidance Notes and the terms and conditions issued with this Proposal. We offer completion of the works required against this RFP for the total price of:

.....
..... excluding VAT or any other similar tax (in words).

This price is further broken down into individual components as requested in this RFP.

This declaration confirms that this Proposal is tendered as a bona fide competitive offer to CSCS, and the information provided in the Supplier Information Questionnaire and Supplier Response to CSCS Statement of Requirements are fully correct and complete.

We, the undersigned further agree that if our offer in these documents is accepted by CSCS, the resulting contract, if any, shall be based on the CSCS Standard Terms and Conditions issued with this RFP (subject to any permitted variations attached to this RFP).

Signature:

Date:

Name:

Job Title :

(Must be at least Director level)

For and on behalf of:

Address:

Email:

Tel:

B. Supplier Information Questionnaire

1. Organization Profile

1.1 Registration & Accreditation	Compliance Statement (Y/N)
<i>Country of Registration & Registration Number (if relevant)</i>	
<i>Business address</i>	
<i>VAT (Value Added Tax) Registration Number</i>	
<i>Submit Certificate of incorporation</i>	
<i>Submit Tax Clearance Certificate</i>	
<i>Submit Paccar Print Out (for local registered firms only)</i>	
<i>Attach three Reference Letters</i>	
<i>Letter Confirming Banking Details</i>	
<i>Letter confirming email address where Purchase Orders and queries will be sent to.</i>	
<i>Fully signed supplier declaration Document as per schedule F</i>	

2. Ownership & Financial Background

2.1 Financial-Related Information	Compliance Statement (Y/N)
<i>Current annual reports or audited financial statements ((Unless previously provided within the last one year, Last 3 years accounts must be attached here))</i>	
<i>Last interim report (if available)</i>	

3. Track Record & Reference

3.1 Industry Experience		Compliance Statement (Y/N)
<i>How many existing clients you have and what countries are involved? Name your key clients</i>		
<i>Major deals undertaken in the past 3 years</i>		
<i>Details of any cancelled deals in the past</i>		
<i>All subcontracting services under this RFP must be indicated</i>		
3.2 Relationship with CSCS		Compliance Statement (Y/N)
<i>Product/services which you provide to CSCS (currently or previously)</i>		
<i>Value of your sales to CSCS for the past 3 years and by product/services</i>		
<i>Percentage of your annual turnover ascribable to CSCS</i>		
<i>Your current CSCS contact person</i>		
<i>Does your organization have a relationship with CSCS? If so, please describe the size of the relationship.</i>		
3.3 Client Reference (Please provide at least 3 clients for deals similar in nature to this RFP)		
<i>Names of companies which can provide reference to CSCS</i>		
<i>Names & job titles of contact person</i>		

<i>Contact details (email address, address, office number)</i>			
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C. Statement of Requirements & Supplier Response

1.0 INTRODUCTION

1.1 Background

The Central Securities Clearing System (CSCS) Plc. was incorporated on July 29, 1992 as a Financial Market Infrastructure (FMI) for the Nigerian Capital Market. It was commissioned in April, 1997 and commenced operations in April 14, 1997. On the 16th of May 2012, CSCS became a Public Liability Company (PLC) by a special resolution.

The Securities and Exchange Commission issued its license as an Agent for Central Depository, Clearing and Settlement of transactions in the Nigerian Capital Market. It operates a computerized depository, clearing, settlement and delivery system for transactions in securities in the Nigerian Capital Market.

CSCS facilitates the delivery (transfer of securities from seller to buyer) and settlement (payment of bought shares) of securities transacted on the approved Nigerian Exchanges. It enables securities to be processed in an electronic book-entry form thereby substantially reducing the period it takes a transaction to commence and end.

CSCS has made visible strides in the Nigerian Capital Market and will continue to respond to the needs of the securities and commodities market to further enhance transparency and speedy settlement of transactions.

CSCS require the services of a reputable technology company to implement an Enterprise Data Warehouse and Analytics Program in the following phases:

- Build an Enterprise Data warehouse
- Carry out Data Cleansing
- Procure and deploy a Data Analytics, Data Mining and Business Intelligence tools.

The Data warehouse is expected to serve as a central repository data from all sources and store future, current and historical data from legacy core operations, current core system, accounting and workflow systems into one single place.

Data Cleansing service is expected to identify, detect and correct corrupt or inaccurate records from her data set, table, or database. The services would also identify incomplete, incorrect, inaccurate or irrelevant parts of the data and then replace, modify, or correct the dirty or coarse data.

The data analytics, data mining and business intelligence tool is expected to be integrated with the Datawarehouse for easy of creating analytical reports, performing analytics throughout the enterprise. As part of its data management strategy, CSCS is willing to embark on an enterprise data analytics project to enhance its business intelligence (BI) and analytical reporting infrastructure.

1.2 Purpose of the Request for Proposal (RFP)

The purpose of this Request for Proposal (RFP) is to apprise potential bidders for the implementation of an Enterprise Data Warehouse and Business Intelligence (EDW/ BI) as a way of soliciting proposals in line with the requirements outlined within the document.

The interested vendors would also be required to respond to each of the requirements as outlined in this RFP document clearly indicating the ability to meet the requirements and their associated costs.

The CSCS team will then evaluate the various responses submitted and choose a more suited vendor. The awarding of the contract will not be based on the amounts indicated in the proposals but also on the overall suitability of the proposal meeting CSCS's approach, strategic objectives and goals.

2 PROJECT OBJECTIVES, SCOPE, AND GOAL

2.1 Project Objectives

CSCS requires an Enterprise Data Warehouse/ Business Intelligence (EDW/ BI) solution that will be implemented in a phased approach with a Central Repository of single source of data and version of truth by integrating and cross-relating relevant information from various existing source systems and future systems for the purpose of query, analysis and reporting of information using appropriately Business Intelligence (BI) tools for analysis, transformation and presentation.

The strategic commitment is to enable the CSCS use historical and current information to drive CSCS decision-making capabilities to support the business with clear and consistency static reports, standardized information and analytical reports showing business trends.

This solution must also provide a user-friendly system designed to easily query and report data from various online transaction processing (OLTP) systems that will promote a consolidated, collaborative and consistent analytical view of the data which can subsequently be populated data marts used to produce ad-hoc reports, canned reports, and dashboards.

The project is expected to deliver an EDW/ BI that will have the following distinctive features;

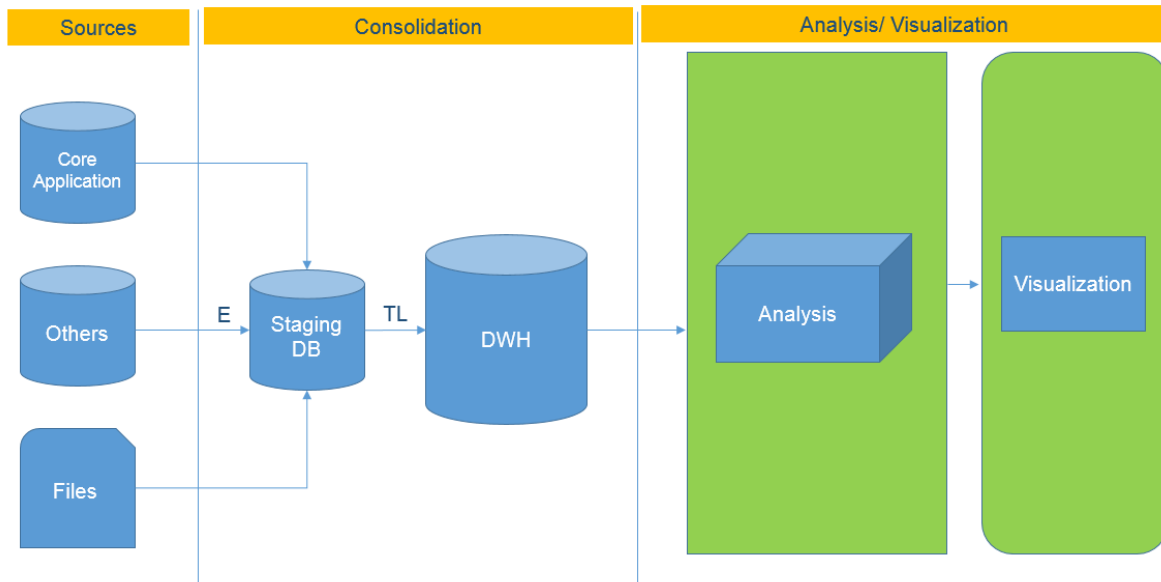
- Dedicated reporting environment with consolidated, aggregated and archived data that will not interfere with transactional operations – Enhanced data quality, reliability, single version of the truth and consistent reports
- Implementing data warehouse and business intelligence system with its associated reporting tools that will be used for generation and modelling reports meant for decision making.
- Improve data consolidation from various systems and create a ‘single version of the truth’ and ‘single customer view’ ensuring that CSCS has an incorporated view of system data.
- Generation of analytical insights for various reporting aspects that include; product, risk management, performance management, revenue assurance, and data mining by embedding data integrity and consistency required by the end users at all levels in the CSCS.
- Introduction of additional tools that would be efficiently useful in analyzing and understanding the value of CSCS customers and their profitability and further establish better and improved service levels that would help grow the business.
- To create a robust basis for good, consistent and quality data solution that facilitates analysis of the numerous business trends and statistics.
- To support the CSCS’s strategy of customer satisfaction. This would be the basis for implementing a Customer Relationship Management (CRM) solution supported by analytical capabilities from EDW/ BI.

2.2 Project Scope

The project focuses delivering a data warehouse optimized to meet the reporting needs of the firm. The firm would therefore require the vendor to provide the following;

- High level solution architecture
- Detailed recommendations around most suitable industry standard products for the recommended EDW Solution and associated product and recurring costs
- Detailed level recommendations of the hardware architecture covering storage configuration, capacity planning, scalability, partitioning and indexing, data integration, backup and recovery, including cost of hardware procurement and maintenance
- A high-level business case for the solution approach that can be incorporated by CSCS into its internal business case to senior management.
- The scope of the EDW/ BI solution project will include but not limited to supply, install, implement, maintenance and support.
- Investigation and study the current system and all of the existing source systems to ensure that an 'end to end' approach is adhered to.
- The right size of EDW/ BI solution as regards hardware and software to ensure availability, scalability, redundancy and performance of the solution,
- The EDW/ BI solution that meets technical and functional requirements within the timeframe prescribed by CSCS.
- Design, development, test and Implement an EDWH solution for data integration, data repository, business intelligence, data quality, analytical requirements
- Offer onsite managed facilities for system administration and further facilitating support using adequately qualified and experienced support staff.
- Supply, install, implement and deploy the EDW/ BI SOLUTION as per the terms of the RFP within the timeframe prescribed by CSCS.
- The firm will provide a dedicated test and development environment to conduct end-to-end User Acceptance Tests during the project. The testing should be appropriately applied to ensure all scenarios of testing including load testing.
- Draw a detailed end user training plan and documentation.

2.2.1 Proposed Deployment Architecture



Proposed System Architecture

2.3 Project Goal.

Data management has become a basis for modelling information required for regulatory reporting, compliance, risk management and business trend analysis;

- Provide for end user functional requirements across the areas of customer, product, profitability, marketing, revenue collections, corporate functions, data mining, risk management, performance management and a basis.
- To generate dash boards and score cards required by management and business user including the branch network for decision making.

2.4 Acronyms and Definitions

Acronym	Definitions
<i>DWH</i>	<i>Data Warehouse</i>
<i>EDW</i>	<i>Enterprise Data Warehouse</i>
<i>BI</i>	<i>Business Intelligence</i>
<i>OLAP</i>	<i>Online Analytical Processing</i>
<i>OLTP</i>	<i>Online Transaction Processing</i>
<i>CRM</i>	<i>Customer Relationship Management</i>
<i>SQL</i>	<i>Structured Query Language</i>
<i>RFP</i>	<i>Request for Proposal</i>

3 DATA WAREHOUSE REQUIREMENTS

3.1 Experience and Qualifications

Criteria	Evaluation Parameters
Experience	Must have carried out similar EDW/ BI implementations within FSI space with traceable references.
Qualifications	Should provide CVs and copies of qualifications (minimum bachelor's degree in computer science / data science or any IT related) for staff that will engaged on the project and proof for having worked on an EDW / BI for at least 5 years
Interfaces	Ability to demonstrate that the proposed EDW/ BI solution is compatible with BI tools
Prebuilt Engines / tools	Ability to demonstrate that the proposed EDW/ BI solution has prebuilt engines / tools for regulatory reporting, Basel II, IFRS 9, FTP, ALM and Automated Budget
Functional Requirements and Reports	Ability to demonstrate that the proposed EDW/BI solution will deliver all the functional requirements and reports attached to document
Systems	Demonstration of in-depth understanding of the core CSD system, ERP etc.

3.2 Functional Requirements

3.2.1 Business Reporting and Analysis Requirements

The common attributes of reliable data for decision making that cut across are accuracy, predictive, timely, accessible and / or actionable. The above reporting areas have been broken down into the following specific analysis requirements;

3.2.2 Business Reporting

No	Business Reporting Requirement	Analysis Requirement
1	Risk Management	<ul style="list-style-type: none"> • Customer Credit Risk Profile • Lien/Collateral Analysis • Operational Risk Assessment
3	Regulatory Compliance and Reporting	<ul style="list-style-type: none"> • Revenue Assurance • Market Segmental Reporting • Cost Centre Analysis
4	Business Performance and Profitability	<ul style="list-style-type: none"> • Business Segmentation • Revenue Assurance • Transactions Analysis • Activity Based Costing Analysis • Channel Profitability • Customer Profitability • Product Analysis • Product Profitability

		<ul style="list-style-type: none"> • Profitability Analysis • Transaction Profitability Analysis • Automated Budgeting Tool
5	Customer Relationship and Marketing	<ul style="list-style-type: none"> • Campaign Analysis • Customer Complaints Analysis • Customer Delinquency Analysis • Customer Investment Profile • Customer Loyalty • Customer Profile • Market Analysis
6	Investment Management	<ul style="list-style-type: none"> • Financial Market Analysis • Participant Analysis • Securities liquidity Analysis • Securities Available for Lending

3 Technical Requirements

The selected vendor will be expected to provide systems and services that meet the following technical requirements at the minimum:

1. Solution Design

- a. Architecture Evaluation
- b. Data Warehouse Design
- c. Logical Data Design
- d. Data Mapping
- e. Physical Database Design
- f. Application Design

2. Solution Development

- a) Data Transformation
- b) Database Implementation
- c) Application Development
 - i. Create Front End GUI Application
 - ii. Create Batch Reporting System
 - iii. Ad HOC Query Tool Implementation

3. Solution Implementation

- a) Integrated Implementation/Software Installation
 - i. System Administration Manager
 - ii. Security software
 - iii. Data Management/Operations
 - iv. Integration Test

- v. Performance Test
- vi. System Test

b) Design Reviews

- i. Logical Model Design Review
- ii. Physical Data Base Design Review
- iii. Application Design Review
- iv. Data Management/Operations Review

4. Application Developing by Iterative Approach

- a) Prototype Design
 - b) Prototype Development & Implementation
5. Source systems and APIs that provide data to the warehouse
 6. Data integration technology and processes that are needed to prepare the data for use;
 7. Different tools and applications for querying and mining for a variety of users;
 8. Metadata, data quality, and governance processes to ensure that the warehouse meets its purposes.
 9. Real-time and batch processing, real-time backup, transactional database, user customization of fields and reports

4.1 Data Warehouse Design Requirement

- Design and review enterprise data architecture
- Determine CSCS's existing architecture
- Determine CSCS's desired architecture and plan to achieve
- Enterprise Data Architecture Review
- Review existing enterprise data architecture
- Review existing logical data models
- Determine strategy to create enterprise data architecture in context of data warehouse
- Review existing data administration architecture
- Inventory relevant production systems data stores
- Investigate data quality, redundancy, ownership
- Determine desired data administration architecture
- Determine Metadata management strategy
- Determine data transformation strategy
- Determine data security strategy
- Determine data access strategy

- Determine change management strategy
- Determine capacity planning strategy
- Determine skill sets needed to implement and manage data management strategy
- Review existing application environment
- Determine desired application environment to access data warehouse
- Determine application products and development environment

4.2 Data Mapping Requirement

- Determine potential primary system sources for CSCS.
- Determine issues of conflict regarding proper source or integrity between competing systems.
- Determine data files as sources
- Determine file and data element sources of primary keys for entities.
- Determine format and domain of data source.
- Determine record counts from source systems and row counts for target data base. Determine referential integrity quality and any issues with foreign keys.
- Determine file and data element sources of attributes for entities.
- Determine format and domain issues between source and logical model for attributes. Resolve source of data elements when conflicts exist with users and data administration.
- Determine criticality of missing data elements.
- Present data map to Users, IT Data Management and Executive Management
- Identify source files.
- Design initial load of data.
- Design cyclical loads of data to handle changes, new data, and deletion from source system.
- Determine conversion of formats and domains.
- Determine edit and validations needed for scrubbing data.
- Determine record counts from source systems and row counts into target data bases.
- Determine merges of data sources.
- Determine splits of data sources.
- Determine and design enrichment and scoring of data requirements.
- Determine frequency of extracts.
- Determine outputs of conversion and extract process which will be inputs to data warehouse.
- Design load processes into target databases.
- Determine validation process for loads to data warehouse.

- Determine update process to Metadata when data warehouse is modified.

3.2.3 Enterprise Data Warehouse

The EDWH should be a centralized data repository of single source of data from all OLTP systems with a single version of truth for all current and future analytical applications.

- The proposed solution should define a road map for integration/implementation of the current interfaces for the applications to be integrated with EDW solution,
- The EDW should be the Centralized Repository of single source of data with single version of truth for all current sources and should be open for incorporating future applications.
- The EDW should be adaptive, responsive and resilient to change to allow integration with any new applications that CSCS may implement in future and any new requirements that may come.
- The EDW must allow for support of Unstructured Data Analysis (analysis on data from external sources).
- The Technical Architecture should cover broadly three major areas;
 - Data Architecture
 - Application Architecture
 - Infrastructure (Hardware)

3.2.4 Business Intelligence (BI)

- Ability to generate standardized reports which can be accessed by multiple users online.
- Activation of pre-packaged analytical applications for providing predefined reports and metrics that business units can use to measure their performance.
- Ad hoc reporting and analysis for business users to analyze information faster and provide trends.
- The BI tool should allow the analysis and ad hoc reports being manipulated and analyzed by the business and any other end-user and still be able to provide user friendly reports.
- Ability to allow generation of scheduled reports with increased consistency and accuracy.
- Ability allow users to perform predictive analysis and data mining.
- Ability to provide dynamic presentation through dashboards and interactive display of up-to-date critical management data.
- Ability to allow users to drill down into granular details underlying the summaries in reports and dashboards.
- Ability to provide house-keeping and exceptional alerts upon reaching certain thresholds for operational or transactional information

3.2.5 Extract Transform and Load (ETL)

- Ability of extracting data online or in batches at scheduled times or period.

- Ability to process and unlock meaning of data from different sources.
- Ability to be standardize and / or aggregate data from various data sources prior to actual loading into EDW solution.
- Ability to profile, cleanse, enrich, control, and sustain data by incorporating any data quality management tool (DQM) to improve quality with ease of implementation and use.
- Ability to generate data quality exceptional reports in conjunction with the DQM tool on data from all sources.
- Open system that has the ability to interface / interact with any type of database and load data into the data warehouse without additional enhancements.
- The incremental data to be loaded into EDW from the individual source applications must be using transactional logs and provided as a part of solution for ETL System in line with the business rules validated by CSCS.

3.2.6 Database:

- The database system provided should be Tier 1 database.
- The database should be the single version of truth for reporting and analysis.
- The database should be relational database.
- The database should support OLAP and MOLAP.
- The database should support integration with BI tools on application layer.
- The database should be with prebuilt partitioning feature without need for incurring extra fees.
- The database should allow for storage of structured and un-structured data.
- The database should be scalable and allow for big-data in the future including data storage and retrieval capabilities.
- The database system should allow integration to multiple sources by providing connection to different data sources through the ETL.
- The database should support data mining and analytical data processing.
- The database system should support multiple physical storage from different storage suppliers e.g. IBM, Sun Microsystems etc.
- The database system shall support and allowed to be linked with data model solutions from different suppliers.
- The database shall allow the definition of Data marts or predefined data models and its usage by multiple BI tools suppliers for reporting.
- The database shall be easily mapped between itself and multiple structured and un-structured data sources.

3.2.7 Metadata

- **Technical metadata:**

- Source of data, data type, time of data refresh for all analytical usage
- Data lineage from data sources to reports, analytical and ad hoc usage
- Data Model report including definitions of entities, attributes
- Publish user accessible information from Data Warehouse
- **Process Metadata**
 - Should provide and publish on a portal the EDW system status including the job status, data refresh or release date, BI performance data details including query usage, processing and response time.
 - Should provide and publish job status of reports, dashboards, scorecards, data access by individual users or groups
- **Business metadata**
 - Definitions of KPIs, reports, dashboards, scorecards across the CSCS
 - Business rules for origination of KPIs
 - User Training materials for all the metadata should be published on a common portal

3.3 Non-Functional Requirements

3.3.1 Security and Accessibility

- Ability to restrict direct access to data on the data warehouse. Internal / External user access should only be driven through BI tools. Ad hoc requests to extract data from data warehouse are not provided directly.
- Ability to create roles and access to information based on the function and level
- Establish governance for approving access requests for data warehouses
- Test environment will be created masking the necessary fields as guided CSCS's needs
- Define data warehouse security policy and establish data governance practices for security

3.3.2 Implementation Requirements

- Ability to supply DWH integrated with BI within the agreed project plan and budget
- Ability to demonstrate successful implementation of similar projects in size and nature
- Ability to provide build and tested solutions regarding data models, data marts, reports, external engines
- Ability to provide tested calculation engines for Revenue assurance, Customer Average positions
- Experience in integration the DWH solution with core application of institution, Enterprise Resource Planning system and all the other available applications
- Ability to demonstrate capability of post-migration support of both EDW/ BI solutions
- Ability to offer technical / system administration and end-user training during the project.
- Ability to document all project processes and provide system documentation.

- Ability to provide reference sites of similar business nature where DWH implementations have successfully been undertaken.

3.3.3 Proof of Concept Requirements

Prior to the selection of a solution, CSCS requires software vendor to collaborate with CSCS on the execution of a Proof of Concept project that will meet the following objectives:

- i. Build on CSCS's understanding of the software capabilities, methodologies and best practices.
- ii. Validate key functionality works as expected and meets business requirements.
- iii. Validate that the solution will integrate with existing CSCS infrastructure and key technologies.

3.3.4 Compliance to ISO 27001:2013 Standards

Solution should be demonstrably compliant with ISO 27001:2013 and other information security standards.

3.3.5 Timeframe for Completion

Please provide a timeframe for completion of the project. This timeframe will be evaluated. Be advised that timeframes will be part of the contractual agreement; therefore, a realistic timeframe for completion should be provided.

4.3.6 POST IMPLEMENTATION SUPPORT

- Availability of local / regional support office / staff
- Feasible structure for support and escalation levels and timelines
- Plan for patch, product, or system upgrades should be adhered to at all times.

D. PRICE SCHEDULE

Note: Proposals must clearly indicate:

- **Financial Proposals**

Provide costs for the following;

- Cost of Hardware / Servers in line with the agreed specifications for both production and fallback environments.

- Cost of integration BI tools, Database, and ETL Software license fee structure
- Full Implementation costs including pre built Data marts, reports cost until go-live, including professional fee rates.
- Post implementation costs after go-live support and Annual Maintenance Charge (AMC) for the production and backup environments
- The Quotation Validity Period of at least 90 days
- The Payment Terms will be 30 days after delivery and certification of goods/Services
- Completion Period

Bidders must try as much as possible to use a template similar to the table below

Line Item No.	Description	Total Price
1		
2		
3		
Line Item No.	Description	Total Price
1		
2		
Name of Bidder:		
Authorized Signature of Bidder:		

A least cost-based evaluation shall be used for the financial evaluation of the proposals.

E. EVALUATION CRITERIA

The evaluation shall be undertaken in three stages, the **Preliminary Evaluation** (which shall consider responses from bidders in section “A” and “B” above), **Technical Evaluation** (which shall mainly consider responses to section C above as well as the criteria in the table below) and the **Financial Evaluation** (which shall consider items under section “D”) above.

Note that proposals submitted by Joint Ventures shall be considered non responsive.

1. Preliminary evaluation Criteria

The Qualification Information and Bidding forms to be submitted are as follows:

To be eligible bidders shall submit the documents below which will be considered under Preliminary Evaluation:

Description	COMPLIANT/ NON COMPLIANT	REFERENCES Please Refer to Your proposal page document indicating how compliance is met (Mandatory).	TECHNICAL EXPLANATIONS SUPPORTING COMPLIANCE
a. Copies of Valid Tax Clearance Certificate (where applicable)			
b. Copies of Certificate of Incorporation/Registration,			
c. Bid Form (Service Provider’s Bid) to be properly signed by authorized official named in the Power of Attorney,			
d. The Power of Attorney shall be from Management or Board of Directors or Company Secretary (Company Lawyer).			

e. Bid Securing declaration for five (5) years as per template in schedule F.			
f. Audited Financial Statements for the last two (2) years 2016, 2015 or 2014. The Audited Financial statements shall be submitted together with the signed Auditors Opinion.			
g. The Bidder shall provide three reference letters from satisfied their customers and their contact details.			
h. The Bid Validity shall be 90 days from the date of tender opening			
i. Copies of Certificate of Incorporation/Registration,			
j. Should provide CVs and copies of qualifications (minimum bachelor's degree in computer science / data science or any IT related) for staff that will engaged on the project and proof for having worked on an EDWH / BI for at least 5 years			
k. Provide documentation to show the firm has carried out similar EDWH implementations with at least 5 institutions with traceable references.			

Non-compliance with these requirements will result into disqualification of the bid at Preliminary Evaluation Stage and the Bidder shall not proceed to the Technical Evaluation Criteria.

2. Technical Evaluation Criteria

No	Description	Compliance (Y/N)	REFERENCES Please Refer to Your proposal page document indicating how compliance is met (Mandatory).	TECHNICAL EXPLANATIONS SUPPORTING COMPLIANCE
	CSCS requires an Enterprise Data Warehouse (EDWH) solution that will be implemented in a phased approach with a Central Repository of single source of data and version of truth by integrating and cross-relating relevant information from various existing source systems and future systems for the purpose of query, analysis and reporting of information using appropriately Business Intelligence (BI) tools for analysis, transformation and presentation.			
	The strategic commitment is to enable CSCS use historical and current information to drive the firm’s decision-making capabilities to support the business with clear and consistency static reports, standardized information and analytical reports showing business trends.			
	This solution must also provide a user-friendly system designed to easily query and report data from various online transaction processing (OLTP) systems that will promote a consolidated, collaborative and consistent analytical view of the data which can subsequently be populated data marts used to produce ad-hoc reports, canned reports, and dashboards.			
	The project is expected to deliver an EDWH that will have the following distinctive features;			

	<ul style="list-style-type: none"> • Dedicated reporting environment with consolidated, aggregated and archived data that will not interfere with transactional operations – Enhanced data quality, reliability, single version of the truth and consistent reports • Implementing data warehouse and business intelligence system with its associated reporting tools that will be used for generation and modelling reports meant for decision making. • Improve data consolidation from various systems and create a ‘single version of the truth’ and ‘single customer view’ ensuring that CSCS has an incorporated view of system data. • Generation of analytical insights for various reporting aspects that include; product, risk management, performance management, revenue assurance, and data mining by embedding data integrity and consistency required by the end users at all levels IN CSCS. • Introduction of additional tools that would be efficiently useful in analyzing and understanding the value of CSCS customers and their profitability and further establish better and improved service levels that would help grow the business. • To create a robust basis for good, consistent and quality data solution that facilitates analysis of the numerous business trends and statistics. • To support the CSCS’s strategy of maintaining customer centric data 			
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<p>Project Scope</p> <p>The project focuses delivering a data warehouse optimized to meet the reporting needs of the firm. CSCS would therefore require the vendor to provide the following;</p> <ul style="list-style-type: none"> (a) High level solution architecture (b) Detailed recommendations around most suitable industry standard products for the recommended EDW Solution and associated product and recurring costs (c) Detailed level recommendations of the hardware architecture covering storage configuration, capacity planning, scalability, partitioning and indexing, data integration, backup and recovery, including cost of hardware procurement and maintenance (d) A high level business case for the solution approach that can be incorporated by CSCS into their internal business case to senior management. <ul style="list-style-type: none"> • The scope of the EDWH solution project will include but not limited to supply, install, implement, maintenance and support. • Investigation and study the current system and all of the existing source systems to ensure that an ‘end to end’ approach is adhered to. • The right size of EDWH solution as regards hardware and software to ensure availability, scalability, redundancy and performance of the solution, • The EDWH solution that meets technical and functional requirements within the timeframe prescribed by CSCS. • Design, development, test and Implement an EDWH solution for data integration, data repository, business intelligence, data quality, analytical requirements 			
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	<ul style="list-style-type: none"> • Offer onsite managed facilities for system administration and further facilitating support using adequately qualified and experienced support staff. • Supply, install, implement and deploy the EDWH SOLUTION as per the terms of the RFP within the timeframe prescribed by CSCS. • CSCS will provide a dedicated test and development environment to conduct end-to-end User Acceptance Tests during the project. The testing should be appropriately applied to ensure all scenarios of testing including load testing. • Draw a detailed end user training plan and documentation. <ul style="list-style-type: none"> - Build a robust and scalable Data warehouse - Integrate data from multiple sources into a single database and data model. - Consolidate legacy operational system and current core operations system data - Provide a congregation of data to single database so a single query engine can be used to present data in an ODS. - Maintain data histories, even if the source transaction systems for all data sources did not store these histories. - Integrate data from multiple source systems, enabling a central view across the enterprise. - Improve data quality, by providing consistent codes and descriptions, flagging or even fixing bad data. - Present a single sources of truth (SSOT) information system for consistence. - Provide a single common data model for all data of interest regardless of the data's source. - Restructure the data so that it makes sense to the business users. 			
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<ul style="list-style-type: none"> - Restructure the data so that it delivers excellent query performance, even for complex analytic queries, without impacting performance of operational systems. - Add value to operational business applications, notably customer relationship management (CRM) systems. - Make decision–support queries easier to write. - Organize and disambiguate repetitive data - Mitigate the problem of database isolation level lock contention in transaction processing systems caused by attempts to run large, long-running, analysis queries in transaction processing databases. - Should cater for unstructured v structured data - Accommodates large volume of data up to 25TB during ETL - Minimum of 10 years data retention period - Provision of failover to avoid downtime of mission critical systems - Provision of data warehouse disaster recovery - Modular deployment approach for EDW <p>Data Cleansing</p> <ul style="list-style-type: none"> - Recommend and provide a data cleansing tool suitable for capital market records - Provide a data cleansing consultancy for all data in the Datawarehouse to ensure that corrupt, inconsistent, inaccurate, irrelevant, dirty data and typographical error are identified and cleaned - Enhance and enrich the data available through improved process 			
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	<p>Data Analytics, Data Mining and Business Intelligence</p> <ul style="list-style-type: none"> - Recommend and implement a data analytics, data mining and business intelligence tool and solution - Implement the data analytics tool/solution to automate enterprise wide reports - Leverage on the Datawarehouse and BI Platform to carry out autonomous or semi-autonomous examination of data or content to discover deeper insights, make predictions, or generate recommendations. - Recommend and provide solutions for data monetization - Provide relevant training for internal resources - CSCS should be able to view the real time analytics dashboard via: <ul style="list-style-type: none"> a. Mobile App b. Corporate intranet and extranet c. BOTs <p>It should support data science</p> <ul style="list-style-type: none"> - Solution should automatically detect hidden relationships and suggest additional types of analysis to be performed - Have the ability to expose data and analytics to external systems. 			
	<p>Project Goal</p> <p>Data management has become a basis for modelling information required for regulatory reporting, compliance, risk management and business trend analysis;</p> <ul style="list-style-type: none"> • Provide for end user functional requirements across the areas of customer, product, profitability, marketing, revenue collections, corporate functions, 			

	<p>data mining, risk management, performance management and a basis for CRM.</p> <ul style="list-style-type: none"> To generate dash boards and score cards required by management and business user including the branch network for decision making. 			
	<p>Interfaces: Ability to demonstrate that the proposed EDWH solution is compatible with BI tools</p>			
	<p>Prebuilt Engines / tools: Ability to demonstrate that Budget</p>			
Functional Requirements and Reports				
	<p>Functional Requirements and Reports: Ability to demonstrate that the proposed EDWH solution will deliver all the proposed functional requirements ,reports and dashboard requirements attached to document (Must Fully Comply with Requirements Relating to Business Requirements Reporting, Business Reports, Detailed Report Requirements, Matrix Functional Requirements, Management Dashboards of the RFP.</p>			
	<p>Systems: Demonstration of in-depth understanding of the core system (CSD application or other core system)</p>			
	<p>Enterprise Data Warehouse The EDWH should be a centralized data repository of single source of data from all OLTP systems with a single version of truth for all current and future analytical applications.</p> <ul style="list-style-type: none"> The proposed solution should define a road map for integration/implementation of the current interfaces for the applications to be integrated with EDW solution, 			

	<ul style="list-style-type: none"> • The EDW should be the Centralized Repository of single source of data with single version of truth for all current sources and should be open for incorporating future applications. • The EDW should be adaptive, responsive and resilient to change to allow integration with any new applications that CSCS may implement in future and any new requirements that may come. • The EDW must allow for support of Unstructured Data Analysis (analysis on data from external sources). • The Technical Architecture should cover broadly three major areas; <ul style="list-style-type: none"> ○ Data Architecture ○ Application Architecture ○ Infrastructure (Hardware) 			
	<p>Business Intelligence (BI)</p> <ul style="list-style-type: none"> • Ability to generate standardized reports which can be accessed by multiple users online. • Activation of pre-packaged analytical applications for providing predefined reports and metrics that business units can use to measure their performance. • Ad hoc reporting and analysis for business users to analyze information faster and provide trends. • The BI tool should allow the analysis and ad hoc reports being manipulated and analyzed by the business and any other end-user and still be able to provide user friendly reports. • Ability to allow generation of scheduled reports with increased consistency and accuracy. 			

	<ul style="list-style-type: none"> • Ability allow users to perform predictive analysis and data mining. • Ability to provide dynamic presentation through dashboards and interactive display of up-to-date critical management data. • Ability to allow users to drill down into granular details underlying the summaries in reports and dashboards. • Ability to provide house-keeping and exceptional alerts upon reaching certain thresholds for operational or transactional information 			
	<p>Extract Transform and Load (ETL)</p> <ul style="list-style-type: none"> • Ability of extracting data online or in batches at scheduled times or period. • Ability to process and unlock meaning of data from different sources. • Ability to be standardize and / or aggregate data from various data sources prior to actual loading into EDW solution. • Ability to profile, cleanse, enrich, control, and sustain data by incorporating any data quality management tool (DQM) to improve quality with ease of implementation and use. • Ability to generate data quality exceptional reports in conjunction with the DQM tool on data from all sources. • Open system that has the ability to interface / interact with any type of database and load data into the data warehouse without additional enhancements. • The incremental data to be loaded into EDW from the individual source applications must be using transactional logs and provided as a part of solution for ETL System in line with the business rules validated by CSCS. 			

	<p>Database</p> <ul style="list-style-type: none"> • The database system provided should be Tier 1 database. • The database should be the single version of truth for reporting and analysis. • The database should be relational database. • The database should support OLAP and MOLAP. • The database should support integration with BI tools on application layer. • The database should be with prebuilt partitioning feature without need for incurring extra fees. • The database should allow for storage of structured and un-structured data. • The database should be scalable and allow for big-data in the future including data storage and retrieval capabilities. • The database system should allow integration to multiple sources by providing connection to different data sources through the ETL. • The database should support data mining and analytical data processing. • The database system should support multiple physical storage from different storage suppliers e.g. IBM, Sun Microsystems etc. • The database system shall support and allowed to be linked with data model solutions from different suppliers. • The database shall allow the definition of Data marts or predefined data models and its usage by multiple BI tools suppliers for reporting. • The database shall be easily mapped between itself and multiple structured and un-structured data sources. 			
	<p>Metadata</p> <ul style="list-style-type: none"> • Technical metadata 			

	<ul style="list-style-type: none"> ○ Source of data, data type, time of data refresh for all analytical usage ○ Data lineage from data sources to reports, analytical and ad hoc usage ○ Data Model report including definitions of entities, attributes ○ Publish user accessible information from Data Warehouse ● Process Metadata <ul style="list-style-type: none"> ○ Should provide and publish on a portal the EDW system status including the job status, data refresh or release date, BI performance data details including query usage, processing and response time. ○ Should provide and publish job status of reports, dashboards, scorecards, data access by individual users or groups ● Business metadata <ul style="list-style-type: none"> ○ Definitions of KPIs, reports, dashboards, scorecards across CSCS ○ Business rules for origination of KPIs ○ User Training materials for all the metadata should be published on a common portal 			
Non-Functional Requirements				
	<p>Security and Accessibility</p> <ul style="list-style-type: none"> ● Ability to restrict direct access to data on the data warehouse. Internal / External user access should only be driven through BI tools. Ad hoc requests to extract data from data warehouse are not provided directly. ● Ability to create roles and access to information based on the function and level 			

	<ul style="list-style-type: none"> • Establish governance for approving access requests for data warehouses • Test environment will be created masking the necessary fields as guided by the CSCS's needs • Define data warehouse security policy and establish data governance practices for security 			
	<p>Implementation Requirements</p> <ul style="list-style-type: none"> • Ability to supply DWH integrated with BI within the agreed project plan and budget • Ability to demonstrate successful implementation of similar projects in size and nature • Ability to provide build and tested solutions regarding data models, data marts, reports, external engines • Ability to provide tested calculation engines for Fund Transfer Pricing (FTP), Cost allocation, Cost and yield, Revenue assurance / Profitability analysis, Customer Average Balances • Experience in integration the DWH solution with TCS BaNCS or other core systems, Enterprise Resource Planning system and all the other available applications outlined under the current environment above. • Ability to demonstrate capability of post-migration support of both DWH and BI solutions • Ability to offer technical / system administration and end-user training during the project. • Ability to document all project processes and provide system documentation. 			

	<ul style="list-style-type: none"> Ability to provide reference sites of similar business nature where DWH implementations have successfully been undertaken. 			
POST IMPLEMENTATION SUPPORT				
	Availability of local / regional support office / staff			
	Feasible structure for support and escalation levels and timelines			
	Plan for patch, product, or system upgrades should be adhered to at all times			
	Suitability of the transfer of knowledge program (training): <ul style="list-style-type: none"> Updating of policies and documentation. Provision of adequate training to staff and final handover. Ability to demonstrate capability of post-migration support of both DWH and BI solutions 			
	<ul style="list-style-type: none"> The proposed solution should define a road map for integration/implementation of the current interfaces for the applications to be integrated with EDW solution, Provide Project Scope Proposed methodology of DWH implementation including gap analysis 			
	Interface: Ability to demonstrate that the proposed EDWH solution is compatible with existing 3 rd party systems			
	Prebuilt Engines / tools: Ability to demonstrate that the proposed EDWH solution has prebuilt engines / tools for regulatory reporting, IFRS 9,			
	Responsiveness			

Only Bidders that will qualify at the Technical Evaluation Stage shall proceed to the Commercial Evaluation Stage

3. Commercial Evaluation

Bidders must try as much as possible to use a template similar to the table below

A. One off costs					
Line Item No.	Description	UOM	Quantity	Unit Price	Total Price
1					
2					
3					
B. Recurring costs					
Line Item No.	Description	UOM	Quantity	Unit Price	Total Price
1					
2					
Subtotals (to Grand Summary Table)					
Name of Bidder:					
Authorized Signature of Bidder:					

Bidders should note:

- a. Bidders should provide costs for the following:
 - o Cost of Hardware / Servers in line with the agreed specifications for both production and fallback environments.
 - o Cost of integration BI tools, Database, and ETL Software license fee structure
 - o Full Implementation costs including pre built Data marts, reports cost until go-live, including professional fee rates.
 - o Post implementation costs after go-live support and Annual Maintenance Charge (AMC) for the production and backup environments

- b. VAT and other Taxes must be indicated separately;
- c. All pricing for equipment must be DDP.
- d. Payment will be made within 30 days of delivery and full acceptance by CSCS;
- e. Quotation validity 90 days;
- f. Payment Terms should be indicated. Bidders requesting for advance Payment must provide CSCS with a performance guaranty from a reputable Bank.
- g. Completion/Delivery Period should be indicated. Project implementation schedule should be shared separately

A least cost based evaluation shall be used for the financial evaluation of the proposals.

F. BID SECURING DECLARATION

BID-SECURING DECLARATION

IFB: *[insert: title and number of IFB]*

To: *[insert: name and address of Procuring Entity]*

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

We accept that we, and in the case of a Joint Venture all partners to it, will automatically be suspended from being eligible for participating in bidding for any contract with you for the period of time of *[5 YEARS]*, in case of, and starting from the date of, breaching our obligation(s) under the bidding conditions due to:

- (a) withdrawing our bid, or any part of our bid, during the period of bid validity specified in the Bid Submission Form or any extension of the period of bid validity which we subsequently agreed to; or
- (b) Having been notified of the acceptance of our bid by you during the period of bid validity, (i) failing or refusing to execute the Contract Agreement, or (ii) failing or refusing to furnish the performance security, if required, in accordance with the Instructions to Bidders.

We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of the period of bid validity.

If the submission of alternative bids was permitted, and in case we did submit one or more alternative bids, this Bid-Securing Declaration applies to these parts of our bid as well.

Signed: *[insert: signature of person whose name and capacity are shown below]*

Name: *[insert: name of person signing the Bid-Securing Declaration]*, in the capacity of *[insert: legal capacity of person signing the Bid-Securing Declaration]*

Duly authorized to sign the bid for and on behalf of: *[insert: name of Bidder]*

Dated on _____ day of _____, 20__

[Add Corporate Seal (where appropriate)]