

No. HQ/IT/SAP/AMS

21.11.2024

CALL FOR QUOTATION FOR SAP MIGRATION AUDIT AT DFCCIL

1. Quotations are invited by GM (IT) on behalf of Dedicated Freight Corridor Corporation of India (DFCCIL) for SAP Migration Audit as per Scope of Work.
2. **Scope of Work** SAP Migration Audit of Cutover Activity. The relevant details as attached in Annexure -1
 - a. Application Environment: SAP ECC-6 EhP8 on HANA Database
 - b. Application Modules:
 - i. SAP - Finance & Controlling
 - ii. SAP - Project Systems
 - iii. SAP - Material Management (only Purchasing)
 - iv. SAP - Human Capital Management (includes Payroll as well as ESS Enterprise Portal)
3. Interested firms are requested to submit their quotations by 11:30hrs on 25 Nov 2024 in a password protected file at email id kkailash@dfcc.co.in with heading as "**QUOTATION FOR SAP MIGRATION AUDIT AT DFCCIL**". The quotation should clearly indicate the development cost and taxes separately. Work will be awarded to L1 inclusive of taxes.
4. The password for opening the file will be shared by the bidder on email id corpfin01@dfcc.co.in before 14:00hrs on 25 Nov 2024. Bidders whose passwords are not received by DFCCIL before the due time limit will be rejected.
5. The application must be completed in all respects within 120 days of award of work.
6. **Payment Terms.** The payments made on submission of the Migration Audit Report duly approved by the GM/IT. No advanced payment will be made under any circumstances.
 - a. 100% Payment will be made on completion of work
 - b. No advance payment will be made.
7. Payment will be released on satisfactory completion of work.



Manager/IT

SCOPE OF WORK:

DFCCIL has been using the SAP system since 2013. DFCCIL has undertaken a cutover activity by uploading the balances from Tally to SAP system in Sept 2023. Post cutover the balances on Tally to SAP, DFCCIL intends to audit the SAP system for its integrity and consistency including Financial Controls. Post cutover SAP system Audit should encompass correctness of cut over activity from pre and post cutover SAP system and also the correctness of data migration from Tally to SAP system.

For the same DFCCIL aims to carry out a third-party audit / assessment of the ERP SAP system, by taking into consideration the following key scope points.

- a) Pre & Post cutover SAP to SAP
- b) Pre & Post cutover Tally to SAP
- c) Review of cutover documentation
 - i. Pre and post cutover documentation
 - ii. Progress/Unaddressed items as on date on issues highlighted by Audit report by M/s E& LLP in 2021.
- d) Segregation of Duties
- e) Compliance Review.

1 DFCCIL would like to understand the current assessment of its ongoing SAP process configuration, master data, and controls.

2 Current state SAP review

2.1 DFCCIL is using SAP for multiple years, hence Identify the gaps in the existing ongoing SAP processes and suggest appropriate process redesign solution available in the standard application, if any.

2.2 Identify overlapping, unused, unmapped and redundant processes.

2.3 Integration and linking of various modules.

2.4 Review of major business processes from control and business risk perspective.

3 In-house developed Modules Functional Assessment

3.1 Conduct a functional assessment of critical custom-built modules/reports in SAP and recommend how to minimize customization wherever possible

3.2 DFCCIL has undertaken a cutover activity by uploading the balances from Tally to SAP system. Post cutover the balances on Tally to SAP, DFCCIL intends to audit the SAP system for its integrity and consistency including Financial Controls.

4 The migration assessment will cover FICO, TM, MM, PS, HCM, ESS modules and will be conducted in accordance with the leading practices of audit and also as per the annexed ICAI guidelines.

Data Migration Review

4.1 Pre-data-migration

4.1.1 Review the pre-data-migration strategy adopted for data cleansing, mapping, loading and reconciliation.

4.2 Data Integrity Review:

4.2.1 Verification of critical data elements between Tally and SAP ECC.

- 4.2.2 Reconciliation of financial balances and transactional data across all the interlinked modules in SAP.
- 4.2.3 Assessment of data consistency and duplication.
- 4.3 **Master Data:**
 - 4.3.1 Review and validate the migration of master data, including GL, Assets, Bank, customer, vendor, and employee details.
 - 4.3.2 Confirm that all relevant information such as contact details, addresses, and payment terms has been accurately transferred.
- 4.4 **Transaction Verification:**
 - 4.4.1 Traditional GL balance checks and master data checks to be carried out, while validating opening balances in SAP as against the closing balances from Tally.
 - 4.4.2 Verify the balances from the Trial Balance in old GL on the date of migration to the Trial Balance from the migrated system. The balances may be verified at the GL level and adjusted for groupings as required.
 - 4.4.3 A cross-reference of the GLs in the Old and the new systems has been maintained at the extraction side as a mapping. This needs to be validated. This includes the product wise break-up of any GL balance.
 - 4.4.4 Review and compare the closing balances of each Bank accounts in both SAP and Tally.
 - 4.4.5 Verify that all bank transactions have been accurately migrated.
 - 4.4.6 Ensure that all tax-related data, including GST or other applicable taxes, has been migrated correctly.
 - 4.4.7 Verify that tax codes and rates are accurate in SAP.
 - 4.4.8 Check for the correct migration of financial documents such as invoices, receipts, and purchase orders.
 - 4.4.9 Validate document numbering and sequence mapping pattern.
 - 4.4.10 Validate and verify Open items before and after migration (Comprehensive List to include open invoices (accounts receivable and payable), unpaid receipts, and any other forms of unsettled transactions) etc will be provided by DFCCIL.
- 4.5 **GL Balances Reports:**
 - 4.5.1 Review of General Ledger Balances report in SAP, ensuring it matches the General Ledger report generated from Tally.
- 4.6 **Process Evaluation:**
 - 4.6.1 Review of the data migration plan and execution.
 - 4.6.2 Evaluation of the data mapping, transformation, and loading processes.
 - 4.6.3 Controls and checks available in all BDCs and LSMW available in SAP System
 - 4.6.4 Review and comment on Mandatory/Optional/Choose in line with best industry practices in Master/transaction Data
 - 4.6.5 Review DFCCIL data and scenario and comment on Master/Transaction data should be centralized/decentralized as per best industry practices.
 - 4.6.6 Review and comment on all the Custom programs/reports which are functional and in use.

4.6.7 Review and comment on the system of moving TRs is after proper documentation.

4.6.8 Examine T codes in the post migrated SAP which can be standardised.

4.7 System Performance:

4.7.1 Assessment of the impact of migrated data on SAP ECC performance.

4.7.2 Verify the exception reports (errors/integrity error reports) generated during data, migration procedure and ensure that all the exceptions have been rectified and necessary sign off has been obtained.

4.7.3 The migration audit should be done in due accordance with the leading practice audit guidelines.

5 Documentation Review: Post-migration test document.

5.1 An audit of DFCCIL SAP system was conducted by M/s E&Y LLP in the year 2021. (Copy of the Audit reports will be shared with the successful bidder by DFCCIL). Identify issues from the Audit report which remain unaddressed/ open after the migration to SAP.

6 Compliance Review

6.1 Review of Previous Findings:

6.1.1 Analysis of the previous compliance review report.

6.1.2 Assessment of actions taken in response to past recommendations.

6.1.3 To compare the current compliance status of the SAP system with the previous review.

6.1.4 The control testing has been carried out in the following manner accepted to DFCCIL

- JIT (Just in Time) during the execution of the project
- In reference to the date of Cutover i.e 22.09.2023.

6.2 System and Process Evaluation:

6.3 Review of current SAP system configuration, customizations, and controls.

7 ICAI Technical Guide

7.1 The auditor must perform the audit following the ICAI "Technical Guide on IT Migration Audit". Annexure "A"

8 Segregation of Duties (SoD Review)

8.1 Ruleset review.

8.2 User access SoD review.

8.3 Identify users with access to company codes / business divisions outside their area of activity.

8.4 Role level SoD review.

ICAI Technical Guide on IT Migration Audit

1. Migration Lifecycle

1.1 Scoping and Planning

- 1.1.1 Details of existing applications, OS, and hardware that are being Migrated
- 1.1.2 Estimated downtime for Application/IT infrastructure downtime that was proposed to be migrated
- 1.1.3 Audit of migration scripts
- 1.1.4 Compatibility Checks

1.2 Actual migration event

- 1.2.1 Backup of data being migrated is taken and tested
- 1.2.2 If the migration is a data migration, then data is cleansed for duplication, deterioration, errors and missing fields
- 1.2.3 Data integrity checks are conducted by the migration team to check for completeness and accuracy of data.
- 1.2.4 Sign-off is obtained from the end users for the completion of the migration process.
- 1.2.5 Decommissioning of the original source of data

1.3 Post-migration audit

- 1.3.1 Data integrity checks
 - 1.3.1.1 Raw data integrity
 - 1.3.1.2 Business rules / configuration rules
 - 1.3.1.3 Data relations
- 1.3.2 Log Analysis for errors and mitigation

1.4 Pre-Migration Audit

- 1.4.1 Audit of Scripts
- 1.4.2 Load / Stress Tests
- 1.4.3 Compatibility Checks
 - 1.4.3.1 New applications should be compatible with the OS and databases
- 1.4.4 Business Continuity Plan Review
 - 1.4.4.1 To identify the risks associated with migration
 - 1.4.4.2 To analyze the business impact in case of delayed or failed migration
- 1.4.5 Legal compliance and Checks

1.5 Audit Procedures– Migration Events

- 1.5.1 Database Migration
 - 1.5.1.1 Check whether a proper database migration plan has been drawn up

- 1.5.1.2 Check whether risk assessment exercise has been done.
- 1.5.1.3 Operating System readiness assessment
- 1.5.1.4 Database readiness assessment
- 1.5.2 Check whether proper data profiling and data mapping techniques have been deployed
- 1.5.3 Verify whether appropriate data integrity checks have been done

2 ERP Migration

2.1 Audit of pre-migration activities

- 2.1.1 Check whether a migration plan has been prepared
- 2.1.2 Verify the business blueprint or business process mapping document
- 2.1.3 Check whether a conference room pilot has been done
- 2.1.4 Check whether proper risk assessment exercise has been conducted
- 2.1.5 Check the migration plan for migration of data relating to ERP

2.2 Audit of post-migration activities

- 2.2.1 Verify whether User Acceptance Testing has been carried out
- 2.2.2 Check the new ERP configurations with the business blueprint requirements
- 2.2.3 Verify whether the organization's DOA has been properly incorporated in the new system.
- 2.2.4 Verify whether users have been provided adequate training
- 2.2.5 Traditional GL balance checks and master data checks to be carried out

2.3 Application Migration

- 2.3.1 Verify whether a case for migration to the new application has been defined and documented with reasons and expected results
- 2.3.2 Check whether a proper migration plan has been prepared and key migration points have been identified. The plan should also include BCP and DR plans
- 2.3.3 Check whether the application access control security requirements are met in the new application
- 2.3.4 Check whether all configurations in the old application have been implemented in the new application
- 2.3.5 Verify whether backup of all the data in the previous application has been created and tested for restoration
- 2.3.6 Verify whether the application has been tested and user acceptance has been received before the actual migration event
- 2.3.7 Check whether the vendor of the new application has provided the company with adequate user and system documentation
- 2.3.8 Check whether data integrity checks have been carried out

3 Case Studies

3.1 SAP Migration: Migration from disparate legacy business applications to Enterprise-wide

- 3.1.1 Standardizing enterprise business applications to support and unify business processes that are changing and evolving
- 3.1.2 Creating a single view of the customer to cut order costs and increase

customer satisfaction

3.2 Major phases in SAP implementation

- 3.2.1 Vendor Selection
- 3.2.2 Business Process Re-engineering
- 3.2.3 Change management

3.3 Data validations available in SAP

- 3.3.1 Semantic – This is a contextual verification of data. Whether the piece of data represents a customer or material item, or vendor is an instance of semantic validation.
- 3.3.2 Structural – Under this validation, the parent – child relationships are checked. E.g.: Header and line items of invoices.
- 3.3.3 Dependency – Under this validation, data is validated against other master records or dependent transaction detail.

3.4 Post-migration Checks

- 3.4.1 User / Profile and SOD Review
 - 3.4.1.1 The IS auditor should validate roles, profiles and rights assigned in SAP with the functional roles performed by the users and identify any discrepancies between them
 - 3.4.1.2 The IS auditor should identify users with access to company codes / business divisions outside their area of activity
 - 3.4.1.3 Critical violation of segregation of duties controls should be identified
- 3.4.2 User Training review
- 3.4.3 Documentation review