Nomw Capital Company
ASM Asset Management System
Modules & SOW

Introduction

As part of its growth strategy, NOMW CAPITAL (NOMW) initiated a digital transformation strategy to procure the next generation agile Banking System to enhance existing processes, replace legacy systems with more advanced agile solutions, upgrade its services, streamline its operation, and better service its clients while maintaining complete compliance with global and local regulatory requirements. The proposed core banking shall be flexible, scalable on 24X7 basis that is user friendly, economically viable and easy to integrate.

ASM Solution Main Modules:

1. Back-office module.
2. Front-office module.
3. Real Estate module.
4. CRM module.
5. Fund Administration module.
6. Custody Management module
7. EDAA module.

General Functions:

- Multi-lingual.
- Multi-institution.
- Multibranch.
- Multi-currency.
- Multi profit/cost centers.
- Low-code No-code platform such as adding custom fields.
- Built-in electronic workflow
- Component based solution to optimize and speeds up future upgrades.
- Highly secured compliant with relevant international standards ISO.
- Agile methodology development.
- Vendor shall have a ticketing solution to submit supporting tickets such as Jira.

Technical Architecture

It highly recommended to support high-availability, scalability, and redundancy options. diagrams of deployment architecture of the solution stack diagrams are required.
Its highly required to provide the following:
- Software Installation Design

- Database Servers
- Application Servers
- Reporting Servers
- Web Servers
- Hardware Sizing / Infrastructure Recommendations / Requirements
  - Production Environment
  - Testing Environment (Training environment and Development environment)
  - Workstation Specifications

System Security

- The System Security module (SSM) should handle complete user's access control management and other security controls across the solution enabling comprehensive security and auditing controls.
- The SSM should enable complete setup of role-based access, across the whole solution, profiles, groups, access privileges, maker-checker process, entities, data sensitivity access, branches, timing, devices, etc. restricting system access to authorized users to related functions, data and locations. The SSM should enable the implementation of mandatory access control, discretionary access control and Role-based-access-control based on security policies access control mechanism defined around roles and privileges.
- The SSM should come with its related audit logs, reporting, workflow and controls to facilitate the administration of security and control across the whole solution.
- The SSM should enable the implementation of complicated security policies in addition to standard security policies without any complication.

Knowledge Transfer

- System Documentation Track
- Training, Empowerment and certification Track
- System Documentation & Manuals
- Getting started Guide
- System Administration Guide
- Technical Guide
- User Manual Guide
- Training
  - Providing Training for the Trainers
  - IT Team Training

Data Migration

- Data Migration Scope
- Integration & Interface integration with external systems; It is important to highlight that to be able to conduct the system integration.
- APIs and interface details for the external core solutions.

Report Development

- Custom reports creation.
- Ability to develop external reports and integrate them with system.

Technical Requirements

- **Administrative Tools:**

  Solution is recommended to be a TRUE open architecture platform and is database independent; as a result, Solution should support implicitly any database related administration tool either free, paid or vendor specific that can be used to administer, control and monitor the database. Developer should not impose any restriction on using any tool that NOMW CAPITAL database administration procedures require.

- **Database Characteristics:**

  Solution can be easily configured to use views whereby pseudo-schema are defined and stored for utilization by users without the users becoming involved in the actual schema and sub-schema structures of the data base. Solution shall provide has a comprehensive security system to control utilization of user views by user ID, account, and activity.

- **Data Import/Export Facility:**

  Solution shall include the facility to import/export data; furthermore, Solution being database independent, Solution should support implicitly any database related import/export tool either free, paid or vendor specific that can be used to.

- **Independence:**

  Solution should to be completely browser based and should not require installation on any client machine; the solution is independent of workstation type or transaction type and be able to be accessed from any workstation in the network. Logging, Restart, and Recovery: Solution shall include built in feature to rollback any financial operation upon operation failure and preserve financial data integrity and insure recovery; also, all user activities are being fully audited and logged. Furthermore, Solution is recommended to be a TRUE open architecture system and is database independent; as a result, Solution shall support implicitly any logging, restart and recovery mechanism either free, paid or vendor specific that can be used. Solution should not impose any restriction on using any tool that NOMW CAPITAL database Logging, Restart, and Recovery procedures require.

- **Multiple Environments:**

  As earlier described, Vendor must establish a test environment or training environment separate from the production environment with clear hardware requirements and configuration steps.

- **Multi-Tasking:**
Solution shall permit simultaneous database accesses, permitting simultaneous access to files and queuing update requests at the record or field level when field contention prevents simultaneous updates. In addition, Solution shall permit concurrent processing of batch and on-line jobs accessing and updating the same data files and data base while maintaining desired performance levels.

- **Performance and Activity Statistics:**
Solution is commended to be a TRUE open architecture system and is database independent; as a result, Synergies support implicitly any performance monitoring tools and activity statistics reporting either free, paid or vendor specific that can be used. Vendor must not impose any restriction on using any tool that NOMW CAPITAL database procedures require to monitor Statistics on data base access rates (both update and query) by program, workstation, IP address and ID, and by time of day.

- **Referential and Entity Integrity:**
The system must be designed by on relational database, providing rules for maintaining entity integrity and referential integrity.

- **Script Execution:**
Solution should be a TRUE open architecture and is database independent; as a result, Solution shall support implicitly any database related script execution tool either free, paid or vendor specific that can be used to schedule scripts / postings for deferred, unattended execution. Vendor must not impose any restriction on using any tool that NOMW CAPITAL database procedures require.

- **Structured Query Language:**
Solution must a True Open RDBMS, such as Oracle, SAP, IBM DB2, PostgreSQL, MS SQL Server. It is up to NOMW CAPITAL to select the required RDBMS.

- **Solution Security Framework Summary**
In business, information is often one of the most important assets a company possesses. Information differentiates companies and provides leverage that helps one company become more successful than another.

The goal of software security is to maintain the confidentiality, integrity, and availability of information resources to enable successful business operations. This goal must be accomplished through the implementation of security controls.

Implementation methodology of the appropriate security controls, a few key questions that need to be in place:
  - What are we trying to protect?
  - Why are we trying to protect it?
  - How will we protect it?

Based on the above, Solution has to be designed and built based on the financial technology System security industry best practices to provide the most possible secured platform and to cover security measures that minimize and even eliminate in many cases the related security threats.

These implemented measures cover the full software development cycle ranging from design of the product to its release and include, but not limited, to the below:

- Design & Development Best Practices
- Application Security Risks
- Securing Communication – HTTPS (SSL/TLS)
- Session Token – User & API
- Password Security
- Data Validation and full Audit & Audit log
- Access Configuration & Control
- Data Layer isolation

ASM Scope of Work:

1- Back Office Module

- Asset Classification includes Funds, Equity (Quoted/Unquoted), Fixed Income (Fixed Deposit / Murabaha / Bonds / Sukuk), Money Market and Private Equity.
- Fund Management provides all the core features and functions to create and manage different types of funds.
- Portfolio Management features and functions supports managing multiple portfolios in multiple currencies and in multiple exchanges.
- Dynamic Fee Structure provides an inherently complex yet easy to manage fee structure that can cover a wide spectrum of fee types.
- Accounting key features includes dynamic chart of account, financial report designer, integrated vouchers, revaluations, reconciliations and Financial Reports.
- Corporate Actions such as bonus shares, cash dividend, Splits and Rights will be accumulated in this module.
- Pricing is maintained in system and can also be Integrated with Reuter or Mubasher.
- Trades provides for daily consolidated positions of all trades exchange.
- Cash Transaction provides the facility for all kind of cash Transaction (Injection / withdrawal / Expense / Interest / Due Transaction / Incentive Fee / Bank transfers etc.
- Unit Management provides the facility to Add/Edit/view fund Transaction (Subscription/ Redemption / Split / Fund to Fund Transfer / pledge.
- NAV generation is specialized task done using a comprehensive NAV calendar and based on a configurable user-defined NAV report generator.
- Shareholder Position. Provides the facility to view Shareholder Certificate Movement and Balance by NAV Date.

- Reporting Module contains a significantly large set of reports covering Portfolio position, performance, registry, accounting, regulator and other reports.
- Compliance CMA Compliance, reporting, UN and CMA blacklist customer list.
- Integration with any third party is available as per additional CR.

2 – Front-office Module

Customer portal

- Customer's portfolio position.
- Customer's subscribe/redemption transactions.
- Customer's deposit/withdrawal transactions.
- Beneficiary management.

3 - Real Estate Module

Unitholders Management

- Defining Customer Groups with pick and choose from the list
- Commitments from Customers; commitment details can be print
- Capital calls against commitments, it can be full or partial and several calls can be placed until full capital is collected
- Receiving committed amount against capital calls
- NAV calendar and NAV Calculations
- Liquidation/Distribution Schedule
- Liquidation Entitlements and payments
- Transfer of Units (customer to customer)

Fee & Taxes Management

- Dynamic Fee Slab module to cater the requirement of fees calculation for the given funds/portfolios, it will cover Management Fee (calculate on Net Asset Value or Market Value), VAT on Management Fee, Regulator Fees, Performance Fees, Selling & Marketing Expenses, Other Variable fees, other Fixed Expenses.

Investment Properties

- Allows to define Land, building and equipment as fixed asset and based on defined life system will depreciate automatically each asset accordingly and report in balance sheet.
- System allows to categorized properties as Residential, Commercial, Warehouse, Hospitality or Industrial.
- System allows to list land with per square meter area
- System allows to list building and define property units manually or upload through excel sheet with options of unit number and area of each unit or sub-unit
- Allows to add Impairments of Property
- Allows to define fees and expenses incurred at the time of Property acquisition

Right of Use (RoU) properties

- Facility of add RoU properties with cost of land and building
- An auto system to measure present value (PV) of right of use properties
- Sub-lease of RoU properties allows to measure "Investment in Financial Lease" (IFL)
- Calculation of Amortization of land and building based on total RoU age (total days)
- Calculation of net investment in financial lease where a sub-lease term is more than a specified percentage of head lease.
- Calculation of Present Value of all future rents to be received from properties subject to IFL.
- Calculation of interest and principal component for each rent payment of IFLs.
- Calculation of Lease Receivable, e.g., Account receivable rent RoU.
- RoU Unbilled rent calculation (difference between the Actual rent and Average/straight-line method rent.
- Calculation of Present Value (PV) of all land rent payable including interest and principal component.

Tenant Management

- System allows to add Tenants with the contact and other related information which are important to communicate with them.
- Systematic agreement with tenants where the increment in rents also considered.
- Auto-generation of rental invoices in addition to VAT
- Inclusion of Service Fee (defined through Fee Slab) + VAT on Service Fee once a year in rent invoice
- Facility to receive rent manually from the provided tools which allow to maintain
- Calculation of Unbilled Revenue (to report in balance sheet) based on the difference in actual rent and average rent over the period.
- Calculation of Unearned Rent based on rents paid in advance
- Tenant account statement

VAT Calculations

- System will calculate VAT receivable from Tenants
- System will calculate VAT payable to GAZT
- Reports for VAT Filing to GAZT

Property Manager

- System allows to appoint property manage for each property or to specific units of any property.
- System will book commission on new or renewal of rental agreement automatically through predefined slabs.
- System will also book commission on each rent invoice for property manager.

Developing Projects

- ➢ Development Property Projects
  - o Maintain owned lands purchased either in cash or through in-kind subscription
  - o Maintain progress of development on land through Contract management
  - o Maintain Cost of Sales at Unit level
  - o Allows you to sell Units in cash

- ➢ Define Contractors
  - o Define contractors with basic and in detail information
  - o Define contractors bank account details
  - o Maintain Cost of Sales at Unit level
  - o Allows you to sell Units in cash

Contract Management

- Maintain Contractors with contract details, period, accounting related information, Property units' details.
- Detail of down payment percentage, retention percentage and other relevant information
- Contracts invoices receiving and input in the system, where it auto calculates the down-payment amount deduction, retention deduction and VAT
- Invoice payment approvals
- Invoice Payment management
- Maintain Contracts and their progress along with down payments, retention amount and invoices status

Property Units Sale

- System allows to book sales of property units or sub-units
- Provide byer information including VAT exemption (if any) and exempted amount with exemption certificate
- Sell price of given unit
- Commission against the selected broker or agent
- Attachment of documents
- Execution of sale of units will generating accounting entries including impact on work in progress, land, cost of sales, commission, VAT on commission, VAT output, VAT receiving (exempted VAT Amounts)

VAT Calculations

- System will calculate VAT on Contractors' Invoices
- System will calculate VAT on Property Units Sales
- Reports for VAT Filing to GAZT

Lending/Borrowing (Capital Call / Liquidation / Money Market)

- Allow you to maintain Capital Calls
- Allows you to liquidate Fund

- System allows to manage borrowing from institutions for the purpose of land/building acquisition or lease and calculate daily interest accruals.
- System allows to manage lending of excess funds in money market.

Fund Accounting

- Defining Chart of Account against each Fund
- Maintaining Fixed Fee and expenses
- Maintaining variable-based fee and expenses including management fee and VAT
- Auto generated entries for Unitholders transactions (subscriptions/capital calls, Redemptions/liquidation)
- Auto generated entries for buy/sell of properties
- Auto generated entries rental invoices and their receiving
- System auto book entries for unbilled and un earned revenues
- System auto book entries for contractors' invoices and their payments including VAT, advances and retention amounts
- Sales of property units accounting entries including Cost of sales, work in progress, Land, commission, VAT on commission, VAT Output, VAT Receiving (from Ministry of Housing in case of exempted VAT amount)
- Auto entries for Borrowing and Lending deals and their auto accrual for bank charges or profit receivables.
- Auto calculation of depreciation of fixed assets and their treatment in G/L
- Credit/Debit Notes and their accounting treatments.
- Manual JVs
- NAV Calculation and NAV Report
- Trial Balance
- Ledger Reports
- Sub-ledger Reports
- Balance Sheet Report
- Income Statement Report

Notifications & emails

- System allows to send rental invoices automatically to tenants after generating
- Notifications will be served to tenants in receiving rents
- Reminder will be sent to tenants if rents are not paid on-time

Reports

- Occupancy report considering units and area
- Rents receivable (property-wise, tenant-wise)
- Monthly VAT report
- Monthly properties report including property name with area and address
- Tenants report including the contents, start of contract, end of contract, property/unit(s), actual rent, average rent, total rent received and total rent due in future.
- Statement of new contracts during the month and contract that are under renewal.

- Monthly Income and Expense report in comparison with previous month
- Monthly revenue and expenses forecasts
- Contract Wise Summary and Details
- Contractor wise summary and details
- Project wise Summary and Details

4- CRM Module

- Customer Relationship Management Work Flow starting with Leads/Prospects tracking till onboarding is part of the solution. Any interaction done with the lead or Prospect is recorded for future reference.
- Customer Onboarding screen is a comprehensive one covering all the mandatory information along with document upload, tasks management, risk profiling etc.
- Dynamic Form Designer is a tool comes as a built-in utility using which one can design any supporting forms for capturing either questionnaire, KYC, risk profiles or related information. The form designer is equipped with various controls required to build a simple or a complex form.
- Branch Structure is maintained to provide segregation based on the location. Different RMs or other staff members are assigned to branches so they can manage respective customer base.
- Complaint Management is done using the tracking process which uses a work flow for recording, assigning and tracking a compliant.
- Incentive Management is a complete process which uses the definition of products, employee and corresponding slabs to calculate the incentives and based on the payout schedules generate reports.
- Dashboard is there with a large set of widgets library. Using the drag and drop functionality users can generate as many dashboards as they like.
- Reports for different aspects of CRM is available as part of the standard solution.

5- Fund Administration Module

Fund Administration involves collecting data from the ongoing investment activities and then creating financial reports used by investment managers, investors, and regulators to make decisions, calculate taxes, and ensure compliance with regulations.

Fund Accounting:

- Net Asset Value (NAV) Calculation: Fund administrators calculate the NAV of the fund, which represents the per-share value of the fund's assets after accounting for liabilities. This is typically done daily for mutual funds and periodically for other funds.
- Portfolio Valuation: Regularly valuing the fund's investments, including stocks, bonds, and other assets, to determine their current worth.
- Income and Expense Accounting: Tracking income generated by the fund (e.g., dividends, interest, capital gains) and recording expenses (e.g., management fees, operational costs).

Investor Servicing:

- **Investor Onboarding:** Registering new investors.
- **Subscription and Redemption Processing:** Handling investor transactions, including purchases (subscriptions) and redemptions (withdrawals).
- **Distributions:** Calculating and distributing income and capital gains to investors.
- **Reporting:** Providing regular statements, tax documents, and other communications to investors

Compliance and Regulatory Reporting:

- **Compliance Monitoring:** Ensuring the fund adheres to its investment guidelines, risk limits, and regulatory requirements.
- **Regulatory Reporting:** CMA related regulatory reports.
- **Tax Compliance:** Ensuring the fund complies with tax regulations and providing necessary tax reporting to investors and tax authorities.

Multi-Currency and Multi-Asset Support:

- Ability to handle multiple currencies and asset classes.

Data Management:

- **Data Storage:** Maintaining centralized data repositories for accurate record-keeping.
- **Data Reconciliation:** Ensuring data accuracy by reconciling data with custodians, brokers, and other sources.
- **Integration:** Integrating with external data providers and market data feeds to obtain up-to-date information.

Performance Reporting:

- **Performance Calculation:** Measuring and reporting the fund's performance, including returns, alpha, beta, and other relevant metrics.
- **Investor Reporting:** Generating performance reports.

Security and Audit Trail:

- System supports robust security measures to protect sensitive financial data.
- Maintaining a comprehensive audit trail to track changes and actions taken within the fund administration system.

6- Custody Management Module

For Back Office operations, Custody Management Solution should be designed to manage and secure financial assets held in custody by a financial institution on behalf of its clients. The functions and features are below.

Account Management:

- Manage Master client with basic information and to maintain profiles, including contact information and account preferences.
- Manage Safekeeping account under each master client.
- Defining bank accounts of master client and mapping with safekeeping accounts for different type of activities.
- Configuration of SWIFT codes

Asset Tracking:

- Track and record all types of financial assets, including common equity, bonds, sukuks, treasury bills, money market placement and cash.
- Monitor asset movements, transfer of funds from clients' underlaying bank accounts.
- Portfolio position management based on the valuation of different kind of assets.

Transaction Processing:

- Facilitate the execution and settlement of financial transactions, such as trades, dividends, interest payments, and corporate actions.

Reporting:

- Generate reports for clients, providing details on their portfolio holdings, transactions, and performance.

Corporate Actions Processing:

- Manage and process corporate actions, such as mergers, acquisitions, dividends, and stock splits.
- Provide clients with timely information and options for responding to corporate actions.

Invoice Management:

- Invoice generation through defined fee slab for both AuC and per transaction rates
- Auto sending invoices to underlaying customers
- Invoice summaries
- Invoice settlements

SWIFT Integration:

- Connect with SWIFT (Society for Worldwide Interbank Financial Telecommunication) for secure messaging and communication.

Audit Trail and Compliance Monitoring:

- Maintain a comprehensive audit trail of all activities and transactions.
- Implement tools for ongoing monitoring and auditing to ensure compliance with internal policies and external regulations.

User Access and Permissions:

- Manage user roles and permissions to control access to sensitive information and functionalities.
- Implement multi-factor authentication and other security measures to protect against unauthorized access.

Client Communication:

- Facilitate communication between the financial institution and its clients, providing updates, statements, and alert notifications through email and other defined media.

7- EDAA Module

Functions:

Custody management system should provide and support the functions available in central securities depository (EDAA) which are as follows:

- o Investor Management
- o Securities Account Management
- o Real Time Settlement instructions (Trades) Capturing
- o Safekeeping securities
- o Settling Settlement Instructions
- o Hold/Release Settlement Instructions
- o Perform Share Transfers
- o Rights Subscriptions
- o Corporate Actions
- o Pledge Maintenance
- o EOD (End of day) Statements

ASM Project Deliverables

- Source code.
- BRD – business requirement document.
- FRD - functional requirement document.
- ERDs – Entity relation diagrams.
- Processes and work flow ERDs.
- Knowledge transfer documents such as user manuals and guides.

Vendor should submit the following:

- Financial & technical proposal.
- AMC cost + SLA
- Deliverables must be submitted on completion of each project phase.

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