API Gateway

Approval Note

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| --- | --- | --- |
| To | : | Chief Executive Officer |
| From | : | IT Applications |
| Reference Number | : | IT/API Gateway/2024/001 |
| Date | : | 26-June-2024 |
| Capex | : | xxxx |
| Subject | : | API Gateway Approval Note |

## **Introduction**

As part of Ahlibank’s roadmap towards digital transformation and improving the efficiency of our banking operations, the decision to implement an API Gateway was taken. This platform will provide a centralized point for managing API traffic, ensuring security, and enhancing the performance and reliability of our APIs. This proposal outlines the benefits, vendor evaluation, financial summary, and the recommendation for the implementation of the API Gateway.

## **List of Bidders and Evaluation details**

Based on the RFP response from the vendor a comprehensive evaluation was carried out using our standard vendor proposal evaluation matrix of Functional, Technical and Vendor criteria (FTV) carrying weightage of 50%, 30% and 20% respectively. The complete list of bidders included the following suppliers:

* IBM
* Kong
* Mulesoft

The below table summarizes the Functional, Technical and vendor scoring for the 3 vendors:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Details** | | **IBM** | **Kong** | **Mulesoft** |
| **Functional** | **Score** | **100** | 97.00 | 84.00 | 57.00 |
| **Weightage** | **50%** | 48.50 | 42.00 | 27.50 |
| **Technical** | **Score** | **100** | 98.00 | 83.20 | 82.80 |
| **Weightage** | **30%** | 29.40 | 24.96 | 24.84 |
| **Vendor** | **Score** | **100** | 83.45 | 66.33 | 40.36 |
| **Weightage** | **20%** | 16.69 | 13.26 | 8.07 |
| **Overall FTV** | **Weightage** | **100%** | **94.59** | **80.22** | **60.41** |
| **Ranking** | | **1** | **2** | **3** |

Based on the FTV of the three shortlisted vendors and the evaluation against the above criteria along with the reference site calls conducted, ESS presentation was conducted highlighting the functional, technical and supplier capabilities and limitations, as well as the commercials shared by the three vendors as outlined on **Appendix A** and the management recommended going with the following approach:

1. To acquire IBM API Gateway solution for its comprehensive set of features, strong integration capabilities, and robust performance.

## **Benefits and Justification**

Ahlibank’s IT team has worked on providing the benefits and justification for the required investment in the API Gateway platform. The key benefits include:

* **Security Enhancement**: An API Gateway will provide a centralized point for managing authentication, access control, and traffic encryption. This will significantly reduce the risk of unauthorized access and data breaches, ensuring the security of our systems and customer data.
* **Traffic Management**: The API Gateway can handle various tasks related to traffic management, including rate limiting, request routing, load balancing, and caching. This will ensure the reliability and performance of our APIs, even during high traffic periods.
* **Monitoring and Analytics**: With an API Gateway in place, we will have access to valuable insights into API usage, performance metrics, and error tracking. This information will help us identify issues, optimize API performance, and make informed decisions about future development.
* **Developer Experience Improvement**: The API Gateway will simplify the development process by automatically generating API documentation, client SDKs, and standardized error responses. This will improve developer productivity and reduce time to market for new APIs.
* **Legacy System Integration**: The API Gateway will act as a bridge between modern applications and legacy systems, enabling us to modernize our infrastructure without the need for a complete overhaul.
* **Compliance Assurance**: By enforcing security policies and providing audit logs, the API Gateway will help us ensure compliance with regulatory requirements such as GDPR, HIPAA, and PCI DSS.
* **Scalability and Flexibility**: The API Gateway is designed to scale horizontally to handle increasing traffic and can be deployed in various environments, providing us with flexibility to adapt to changing business needs.
* **Cost Savings**: While there is an upfront cost to implementing an API Gateway, the long-term benefits in terms of improved security, reduced development time, and better performance will lead to cost savings over time.
* **API Monetization**: The bank can effectively monetize APIs by integrating them into their services and operations. Here are detailed use cases we can explore:

|  |  |  |
| --- | --- | --- |
| **Use Case** | **Description** | **Benefit** |
| API-Driven Remittance Services | Develop an API that integrates with international money transfer platforms. | Increases customer retention and revenue through transaction fees. |
| Digital Wallet Integration | Provide APIs for local retailers to integrate bank payment solutions at their checkouts. | Enhances customer experience and generates revenue from processing fees. |
| Personal Finance Management Tools | Offer APIs to fintech developers to create tools for budgeting, spending tracking, and investments. | Increases user engagement; potential for monetizing premium features. |
| API Marketplace for Financial Services | Create a marketplace where developers can access bank APIs to build financial applications. | Generates revenue from API access fees and partnerships with third-party developers. |
| Real-Time Financial Data for SMEs | Provide APIs for SMEs to access real-time financial data via their ERP systems. | Monetizes access through subscriptions and strengthens business client relationships. |
| Automated Compliance Reporting | Develop APIs for automatic generation and submission of compliance reports to regulatory bodies. | Reduces operational costs and risks, can be offered as a service to smaller financial institutions. |
| Cross-Border Trade Finance | Utilize APIs to facilitate the sharing of financial documents and credit letters for international trade. | Enhances efficiency of cross-border transactions, attracts corporate clients, generates service fees. |
| Integration of Embassy Systems | API Gateways can act as intermediaries that connect embassy databases and systems directly with external services that require verification of documents like account statements. This would allow for real-time data verification directly from the source | * Fraud Prevention * Operational Efficiency * Enhanced Customer Experience * Revenue Generation   + API Access Fees: If the bank develops and offers the API Gateway, it can charge third-party users, like other financial institutions, law firms, or real estate companies, for accessing these verification services.   + Subscription Services: Banks can offer tiered subscription services for different levels of verification needs, catering to various user segments. |

Assumptions:

1. It is assumed that CBO would initiate the Open Banking project before FY 2024.

## **Financial Summary**

The below table outlines the **total cost of the project while going with the API Gateway solution providers for the 1st year**:

|  |  |
| --- | --- |
| **Upfront Cost for 1st Year (OMR)** | |
| **Year 1** | **Cost (OMR)** |
| Implementation Service |  |
| **Total Cost payable towards GTN** |  |
| FIT License Cost |  |
| FIT Professional Services Fees/Implementation Fees |  |
| FIT Integration Cost |  |
| FIT Interfaces (Customization) Cost |  |
| **Total Cost payable towards FIT** |  |
| **Gross Cost of Solution (Excluding Taxes)** |  |
| Contingency |  |
| **Total Cost with Contingency to be Approved (Excluding Taxes)** |  |

### **Notes –**

* AMC is mentioned along with the 5-year TCO in **Appendix D**
* GTN Minimum commitment is based on the projections prepared by Business and is included in the 5-year TCO shown in **Appendix D**
* License & Interfaces (Customization) cost breakdown is included in **Appendix E**
* The FIT license is on perpetual basis
* VAT and WHT Taxes are excluded from the requested amount but should be paid to the vendor.
* The note does not include the following cost:
* Infrastructure (post technical discussion on the architecture)
* Integration cost (internal /3rd party systems)
* UAT testing 3rd party testing vendor resource (if needed)
* Out of pocket costs (Travel, accommodation, Visa .. etc), if needed.
* External Penetration Testing cost, if needed.
* Cost savings are showcased in **Appendix F**
* Payment terms related to charges and expenses are included on the proposals as attached in Appendix **G**

## **Recommendation**

Based on the detailed evaluation of API Gateway Solution, both IBM (GBM) platforms and implementation methodologies meets the business requirements and supports the strategic direction of the Bank. It is therefore recommended to accept the proposals from IBM (GBM), at a total cost of **183,125.25+WHT+VAT** from CAPEX …

## **Stakeholders Approval Tracker**

|  |  |
| --- | --- |
| **Reviewed and Recommended By:** | |
| **Saad Abdullahi**  Head of ePMO & Innovation | **Amor AlMaashani**  Head of Brokerage |
| **Amin AlBalushi**  Head of Business Development, Investment Banking | **Jitin Hiranandani**  Head of Digital Program Development |
| **Abdullah AlHinai**  AGM – Information Technology | **Sriram Balakrishnan**  DGM - Head of Finance |
| **Taher AlBalushi**  GM - Strategy & Transformation | **Hana AlKharusi**  Senior GM – Wholesale Banking |
| **Bilal Anwar**  DCEO – Business Group |  |
| **Approved By:** | |
| **Said AlHatmi**  Chief Executive Officer |  |

## Appendix A

Below is the ESS slides presented to the stakeholders highlighting the Functional, Technical, and Supplier evaluation along with the commercials from the vendors:



## Appendix D

## Below is the complete 5-years TCO required for the investment of the API Gateway Solution, excluding the items mentioned on the notes under the financial summary (i.e. infrastructure, Integrations, Penetration Testing etc):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **5-Years TCO (OMR)** | |  |  |  |  |
| **Year** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** |
| GTN Minimum Commitment |  |  |  |  |  |
| GTN Implementation Fees |  |  |  |  |  |
| **Total Cost payable towards GTN** |  |  |  |  |  |
| FIT License Cost |  |  |  |  |  |
| FIT Professional Services Fees/Implementation Fees |  |  |  |  |  |
| FIT Integration Cost |  |  |  |  |  |
| FIT Interfaces (Customization) Cost |  |  |  |  |  |
| FIT Annual Maintenance Cost (AMC) |  |  |  |  |  |
| **Total Cost payable towards FIT** |  |  |  |  |  |
| **Gross Cost of Solution (Including AMC & Excluding Taxes)** |  |  |  |  |  |
| Contingency |  |  |  |  |  |
| **Total Cost (Including AMC & Excluding Taxes)** |  |  |  |  |  |
| **Total Cost of Ownership (OMR)** |  | | | | |

### **Notes –**

* GTN Minimum commitment is based on the income projections prepared by Business.

## Appendix E

Below is a breakdown of the license cost items as well as the interfaces customizations cost items as attached in FIT proposal on **Appendix G**

|  |  |  |
| --- | --- | --- |
| **Cost Item** | **Description** | **Cost (USD)** |
| **License (Solution Software) items** | | |
| **Customer Onboarding** | **AI Document Scanning**   * Digital / Face Identity Scanning and Verification * Built in KYC/KYB * Risk Profiling and Weights * Zero operation interference (Approve / Reject only) * Built in Workflow for customer Journey |  |
| **FIT Premium Trading Workstation** | Professional Trading workstations licensed for AHLI BANK staff |
| **FIT Premium Web Trading Workstation** | Professional Trading workstations licensed for AHLI BANK HNIs and VIP / Institutional customers |
| **eTrade (Browser Based Trading)** | Browser Based internet trading portal for AHLI BANK customers to trade in MSX (Local Trading |
| **Mobile and Tablet** | * Mobile and Tablet application for **local Trading** (MSX) installed on premises and hosted under AHLI name in Apple Store and Google Play. * Supports iOS iPhone and iPad, and Android Smartphones and Android Tablet |
| **Interfaces Customization items** | | |
| **Interface with ID verification Service (such as https://uqudo.com/)** | |  |
| **Equation Core Banking and IMAL Interface** | |  |
| **Email Exchange System** | |  |
| **SMS Gateway** | |  |
| **Single Sign in Integration** | |  |
| **World Check / AML Screener Interface** | |  |
| **Integration with MCD (expected to be launched by MCD in few months)** | |  |

## Appendix F

Based on the negotiation held with GBM(IBM) following is the savings on API Gateway:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description** | **Initial Cost**  **(in OMR)** | **Negotiated Cost**  **(in OMR)** | **Savings in OMR**  **(Total negotiated cost)** | **% Negotiated** |
|  |  |  |  |  |

## Appendix G

## Proposal details and payment terms for IBM API Gateway can be found proposals attached below:

