

SERVICE DESCRIPTION

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1. INTRODUCTION

- 1.1 The Debt Management Office (DMO) is an Executive Agency of Her Majesty's Treasury and its responsibilities include debt and cash management for the UK Government, lending to local authorities and managing certain public sector funds. This DMO requirement is to define its reference IT architecture and supporting processes so that all change activities are appropriately driven to minimise risk and cost. Expert input is required to ensure that the end result is in line with best practice and the work has to be completed as soon as possible so that the output can be used to deliver value to the DMO at the earliest opportunity. The DMO is seeking proposals from organisations with specialist expertise and experience of working with application architectures in organisations similar to the DMO.

2. PURPOSE

- 2.1 A key theme of the DMO business plan is to minimise operational risk by ensuring the DMO's business operations are fully supported by resilient and efficient systems and processes. The definition of a reference IT architecture at this stage of the life cycle of the key systems is necessary in order to continue to assure the operation of the IT systems supporting the DMO's business processes.

3. BACKGROUND TO THE AUTHORITY

- 3.1 As the Government's treasury manager, the UK Debt Management Office (DMO) aims, with HM Treasury, to lead, develop and deliver the Government's debt and cash management objectives.

The DMO was established as an Executive Agency of HM Treasury in 1998 and is a public sector organisation operating in a private sector environment. Its focus is on achieving value for money in delivering its objectives and it aims to follow best practice to market standards in particular in financial and risk management.

The DMO operates at the centre of the financial markets, interacting with major financial institutions to balance the cash flows to and from Government on a daily basis and transacting in Government bonds (Gilts) and Treasury bills, to meet the Government's financing requirements.

4. BACKGROUND TO REQUIREMENT/OVERVIEW OF REQUIREMENT

- 4.1 The DMO's IT environment and technical architecture has evolved incrementally since the DMO's inception and is made up of a number of systems from different sources (mainly purchased or developed in-house although there are some legacy applications) that are tightly coupled using specific point to point interfaces. The 'core' comprises around 25 applications/systems of which 8 are provided by third party vendors with the remainder developed and managed in-house. In total and including a number of critical spread sheet applications, there can be considered to be around 160 applications in the DMO environment.

The DMO is considering possible alternative options to its current systems architecture to address these challenges and which will allow changes to be made incrementally and in a way that allows these to be insulated from one another.

The DMO intends to establish a longer term systems strategy and roadmap for its portfolio of core applications and supporting infrastructure by rationalising and simplifying the systems

environment in a way that reduces operational risk, enhances business agility and contains costs.

The DMO has taken independent advice on the most appropriate way to achieve this and realise the benefits sought. It now needs to formally define its target state reference architecture and technical requirements in sufficient detail such that they can be applied to new and changed systems in order to ensure that DMO systems are taken in the direction they need to go in order to realise the desired benefits.

In summary, this reference architecture will set out what IT components will exist in the future to deliver DMO business processes and how they will be deployed and inter-relate with each other.

- 4.2 The following additional information is offered to help inform the likely scale of the work:
- 4.2.1 The DMO has 4 core high-level business functions - Debt Management, Cash Management, Local Authority Lending and Fund Administration.
 - 4.2.2 Key processes involved in the above functions include execution of auctions and tenders, bilateral dealing in the gilt and money markets, trader support, trade entry, processing and settlement, cash flow forecasting, credit and market risk management, collateral management, accounting, loan management, trade analytics, instrument pricing, issuance history database and publication.
 - 4.2.3 Within these processes however it should be noted that the proposed approach for the DMO is to have one core trading system that delivers all 4 core business functions from front to back office and therefore the focus of much of this piece of work is to focus more on those processes that won't be delivered by the trading system. It will also inform the non-functional requirements for a trading system at the DMO.
 - 4.2.4 The DMO has very high value but low volume trading activity (averaging around 240 trades per business day with annual turnover typically in the £3 trillion to £4 trillion range). Instruments traded are typically straightforward and limited to fixed income, rates and money market products (e.g. sale and repurchase agreements (repo), fixed, floating and indexed bonds, bills, CDs, CP).
 - 4.2.5 The DMO has around 100 members of staff in total including a team of traders, trader support staff, risk analysts and settlement staff.
 - 4.2.6 There are around 25 core systems and in total around 160+ applications in the DMO systems environment including a number of critical spread sheet applications. Several of these are 3rd party applications integrated with some bespoke applications (some developed in-house and some inherited). All services apart from one (live website) run on an IT infrastructure which is managed and maintained in-house.
 - 4.2.7 The technology employed is a mixture of Microsoft Windows and AIX. The data layer is implemented on a mixture of SqlServer and Oracle databases (mostly SqlServer) dictated by the requirements of core applications.
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5. SCOPE OF REQUIREMENT

- 5.1 Review the existing DMO core applications architecture, supporting infrastructure and related requirements and issues (business and technical).
- 5.2 Review the DMO proposed approach to simplifying its applications architecture and footprint, and the business case for this approach.
- 5.3 Work with DMO technical specialists to develop the IT Architecture Policies and Principles produce a structured document describing these in detail. These will define the relevant policies and principles to be followed when defining any changes to the IT environment and they are designed to ensure a consistent approach to all IT work. For example these will include policies and principles in areas such as:
- how the DMO will decide whether to buy or build a specific IT service
 - which specific technologies (e.g. database type) that will be used to deliver DMO services
 - should DMO applications use database stored procedures or should all coding be separated from the databases

The target architecture will be designed to be consistent with these policies and principles. Governance arrangements will be implemented to ensure they are applied appropriately and consistently.

- 5.4 Work with DMO technical specialists to develop the Target IT Reference Architecture (with particular emphasis on the data layer) and produce a document describing this in detail. The target state IT reference architecture will define how the future IT environment is planned to be structured in terms of applications, data and integration. It will be expressed in terms that are meaningful to DMO staff and traceable from the existing set-up.

This will be further developed from the existing proposed high-level architecture, take into account current assumptions on timing and maintenance requirements and establish specific plans of action across the IT estate, specifically including the web site and the DMO's debt portfolio system. It will also inform the selection criteria for the procurement of any new systems in the future and will state clearly where architectural components can be left to depend on selected solutions.

- 5.5 Work with DMO technical specialists to develop the IT Architecture Roadmap to produce a document describing this in detail. The roadmap will detail the steps (at project level) required for each system included in the scope section below to migrate from the current IT estate into the target reference architecture.
- 5.6 Develop and document governance arrangements that ensure compliance with the target architecture.
- 5.7 Deliver presentations on all the above to the DMO senior management team
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6. SERVICE LEVELS AND PERFORMANCE

- 6.1 The DMO will measure the quality of the Supplier's delivery by:
- 6.1.1 the experience and qualifications of the consultants supplied to the DMO to carry out the work
 - 6.1.2 timeliness and detail of interim feedback, be it verbal or written, to judge progress and influence direction of work
 - 6.1.3 frequency and duration of workshops and/or consultations held with DMO staff
 - 6.1.4 the final output, in document form and the extent to which it addresses the DMO's requirements.

7. ADDITIONAL REQUIREMENTS

- 7.1 HM Treasury payment terms and conditions shall apply.

8. LOCATION

- 8.1 The location of the Services will be carried out at the DMO offices at:

UK Debt Management Office
EastCheap Court
11 Philpot Lane
London, EC3M 8UD

9. [SECURITY REQUIREMENTS]

- 9.1 There are no specific security requirements for this project.

10. BUDGET

- 10.1 DMO budget for this work is limited to £40k and it will therefore not be possible to consider tenders for amounts larger than this.
- 10.2 Prices should be inclusive of expenses and exclusive of VAT.