Ministry of Defence

de&S

Defence Freight Movements Service (DFMS)

RFI Briefing Pack

April 2023

DFMS Briefing Pack – Document Structure

- **Purpose of the DFMS RFI Briefing Pack**
- **The Business Modernisation for Support (BMfS) and DFMS**
- **DFMS Overview**
  - Background and Context
  - Single Statement of User Need
  - Target End State
  - Legacy Environment
  - Key Requirements
  - User Numbers
- **Procurement Approach**
- **Implementation/Rollout Approach**
- **Summary Requirement**

Purpose of the DFMS RFI Briefing Pack

This Request for Information (RFI) will be used gather information from Industry to inform the Authority as it formulates its approach and requirements for the potential Defence Freight Movements Service (DFMS) procurement. All information provided in response to this RFI will be held in confidence.

You must not take this RFI to mean confirmation that the Authority shall launch a procurement or award a contract for this requirement. The Authority is publishing this RFI without any commitment to issue a tender or place a contract. Accordingly, any expenditure, work or effort undertaken before any potential contract award is a matter solely for the commercial judgement of potential suppliers.

This briefing pack is designed to provide background information for the RFI question set and includes:

- Background information necessary to understand the challenge and why it has arisen now.
- Relevant military and security strategic factors.
- An overview of the DFMS requirement including the legacy environment and the target end state.
- The expected high level approach to procurement.
- The expected high level approach to implementation/rollout.
- Enough information to enable the provision of Rough Order of Magnitude (ROM) pricing.

Business Modernisation for Support

The Defence Freight Movements Service is being delivered as part of the wider Business Modernisation for Support (BMfS) Programme, itself part of a wider Support Transformation portfolio of change within Defence.

BMfS is part of Support Transformation, an ambitious portfolio of change programmes improving the way Support is delivered to the frontline, and all those working within Defence Support, within Strategic Command.

BMfS is at the heart of achieving Support Advantage; streamlining business processes so they are enabled by the minimum number of information services, ensuring they are current, resilient and can seamlessly interact to create a better user experience and provide information advantage.

BMfS will transform Support business processes by introducing new digital services aligned to industry best practice. The transformed IS will provide a digitally intelligent, integrated service that will embed modern ways of working into Defence while providing better access to data to enhance Support Decision making.

DFMS Overview: Background and Context (1 of 2)

Background/Context: The Case for Change

- Current Defence Support processes are often **convoluted, single-service, not integrated**, and do not enable the procurement of efficient solutions to support them.
- The current Support Information Services are **complex, expensive, vulnerable, becoming obsolete and carry a significant training burden**.
  - Low quality, incoherent or non-existent data leads to **inadequate management information** and **inefficient decision making**.
  - Sustainment of current Information Services is becoming **increasingly unaffordable**.
- More efficient and readily available **standard market offerings** and developments in modern **best practice** has proven that Defence **can be transformed** to utilize them.

DFMS Overview: Background and Context (2 of 2)

Background/Context: Current User Pain Points

- Stakeholder engagement workshops have identified several key ‘pain points’ that are directly related to the current Information Systems landscape:
  - **Lack of End-to-End visibility** of consignments moving through the Defence Supply Chain. This is compounded by a high degree of manual intervention associated with accessing information.
  - **Lack of integration** between systems leading to overlaps in functionality and a high level of manual ‘swivel chair’ interfaces.
  - **Constraints with deployed use** particularly regarding bandwidth constraints, the ability to work in a highly mobile environment, and the ability to work ‘asynchronously’ mean that current solutions are cumbersome, or rendered redundant, in the deployed environment.
  - **Poor data integrity** caused through a lack of common data standards, poor validation, a high reliance on manual entry, and gaps in coverage by toolsets.
  - **High Training Burden** associated with the complexity of legacy systems leads to a high degree of skills fade.

DFMS Overview: Single Statement of User Need

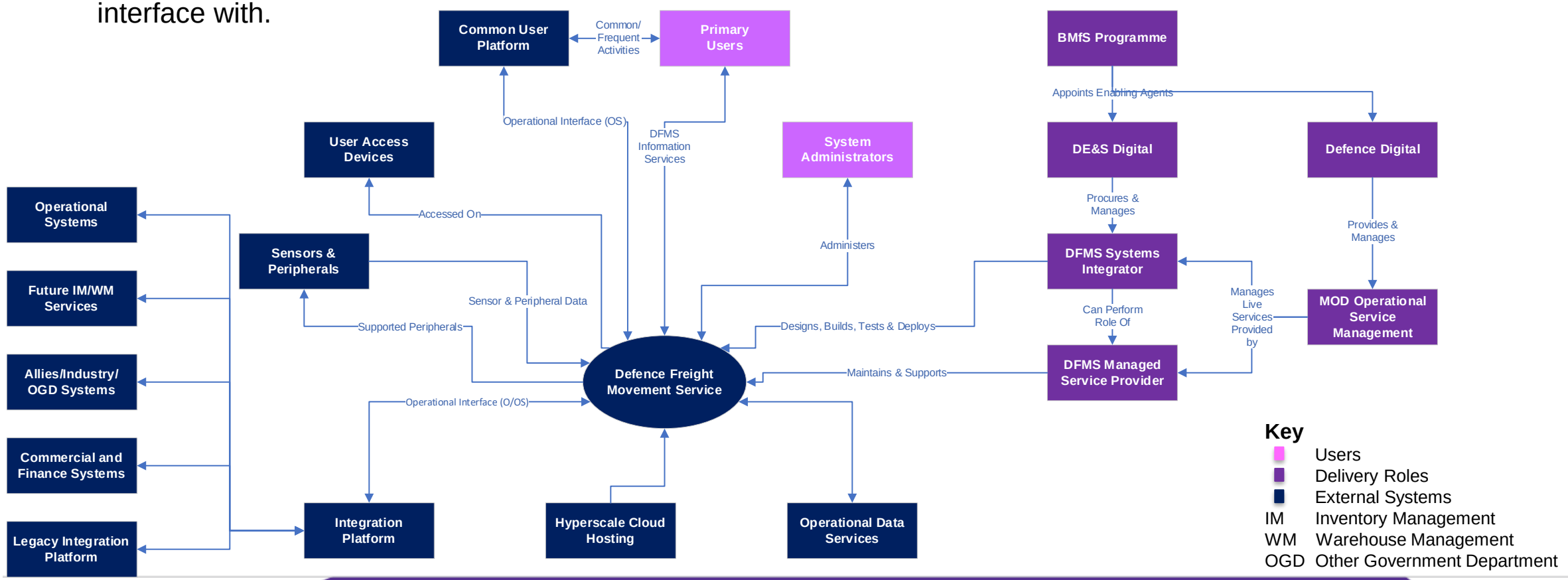
The DFMS project has been established by the Authority in response to the challenges identified with the current support to the delivery of Materiel and Equipment across the Defence Support Chain. A Single Statement of User Need has been created to describe the DFMS capability:

> *"An affordable pan-Defence Freight Movement capability, providing a secure, intuitive, and easily accessible service to* ***plan, task, control and execute*** *the movement of* ***Equipment and Materiel*** *through the Defence Support Chain. Scalable, upgradeable, and easy to learn, the DFMS must be* ***usable in all global workplace settings*** *and be* ***effective regardless of network connectivity****. Data generated by the DFMS must be standardized, coherent, available and* ***support full interoperability*** *with Industry, Partners Across Government, and Coalition Forces in support of true End-to-End Movement Capability and to* ***support Operations, Readiness and Training****."*

DFMS Overview: Target End State (1 of 4)

DFMS End State: Context Diagram

The Context Diagram below places the Defence Freight Movement Service in the context of those things it will interface with.



DFMS Overview: Target End State (2 of 4)

DFMS End State: Context Diagram – User Roles

Role	Role Type	Description
Primary Users	User	These are stakeholders that are directly served by the system and for which the system is designed to support. The following personas have been identified: • Consignor/Consignee • Supply Chain Manager • Operations /Exercise Logistics Coordinator • Transport Planner • Yard Operative • Port Operative • Drivers • Transport Operator/Fleet Manager • Global Network Designer • Customs Compliance Manager
System Administrators	User	Secondary users that are there to support the primary users through effective administration of the system.

DFMS Overview: Target End State (3 of 4)

DFMS End State: Context Diagram – Delivery Roles

Role	Role Type	Description
BMfS Programme	Delivery Role	BMfS is a digitally enabled business transformation programme that will transform Support across Defence so far as to deliver “one robust, evergreen, integrated set of digitally enabled services that delivers world class support for Defence”. The DFMS project is one constituent project within the BMfS Programme.
DE&S Digital	Delivery Role	An Enabling Agent, that will source and procure the DFMS Systems Integrator and eventual Managed Service Providers, and then manage their performance, coordinating testing, validation and manage transition of the system.
DFMS Systems Integrator	Delivery Role	The organisation that will design and integrate the technologies, applications and infrastructure to meet the DFMS requirements and enable the deliver of the associated business change and benefits.
DFMS Managed Service Provider(s)	Delivery Role	The organisation(s) that will manage and provide the enduring DFMS Digital/IT services, as designed, build and deployed, by the DFMS Systems Integrator. Note, the DFMS Systems Integrator may also transition into and undertake this role.
MOD Operational Service Management	Delivery Role	MODs Defence Digital’s capability that manages the day-to-day provision and change of Digital / IT services provided by multiple managed service providers to ensure an agreed level of end-to-end services is maintained. Both the DFMS Systems Integrator and Managed Service Providers will be onboarded to this capability to ensure the integrated management of the services provided by these delivery partners.

DFMS Overview: Target End State (4 of 4)

DFMS End State: Context Diagram – External Systems

Role	Role Type	Description
Common User Platform	External System	Defence Users (of which DFMS Primary Users are a sub-set) will access services via a common platform that provides access to the DFMS solution, and which will also interface directly to the DFMS solution in order to provide users with a common User Experience. The Common User Platform will also provide a Governance and Security layer as well as providing some Business Process Management capability.
User Access Devices	External System	DFMS will be accessed from a range of MOD approved End-User Devices (eg Laptop, Tablet, Mobile Phone).
Sensors and Peripherals	External System	DFMS will be required to interface with sensors and peripherals either directly or via an end user device in order to support system functionality (eg printing, scanning, sensors, etc).
Integration Platform	External System	The Integration Platform will provide connectivity through to other future and/or legacy systems. It will include: Orchestration Services, App & Data Integration Services, Security Services, Monitoring Services, API Management Services, Notifications, and Events/Messaging Platform Services.
Hyperscale Cloud Hosting	External System	For the fixed OFFICIAL (including all descriptors and caveats) level of working, DFMS can be hosted on and consume the infrastructure services provided by MOD sourced MODCloud Public Cloud offerings, or through any MOD and Government accredited Public Cloud offering that is accredited to handle OFFICIAL-SENSITIVE workloads. Any hosting solution must offer Hyperscale Cloud Hosting in line with the Cloud Strategic Roadmap for Defence.
Operational Data Services	External System	Operational Data Services will provide: Master and Reference Data Management Services, Near-Real-Time Data Services, Unstructured Data Services, Data Retention and Archiving Services, Data Warehousing Services, and Data Quality Services.

DFMS Overview: Legacy Environment (1 of 2)

Legacy Environment – Current Systems

- Current Capability
  - VITAL, CPT, Paragon and TMS are all legacy systems that are due to be decommissioned no later than Jun 27.
  - DOSDA, RAMP and CCMIS represent ‘bespoke’ applications and are not therefore considered appropriate as part of the future Movements Management landscape.
  - Llamasoft is a COTS product for which the MOD holds two licenses; however, it is operated ‘stand-alone’ with no integration to other parts of the environment.
- Capability Gaps
  - None of the legacy applications deals with the requirements associated with the movement of Dangerous Goods (UN Classes 1-9).
  - There is very little integration between the current Movements Management applications.
  - There is only a small degree of integration with non-Movements Management applications.

DFMS Overview: Legacy Environment (2 of 2)

Legacy Environment – Current Systems

- The table below details the 'as-is' MOD Logistics IS applications currently used in the Movements arena

System	Description
DOSDA	The DSCOM Operational Scheduling and Demand Applications is a suite of 'Power Apps' that support the requests for Movement Capacity or Item Level Movement, the Scheduling of Mil Air and Mil Sea assets, and the allocation of freight to Transport Solutions.
VITAL	The Visibility In Transit Asset Logging application allows users to create Transport Packages and Consignments, and to manage their movement through the Defence Support Chain. VITAL interfaces with the current MOD Inventory and Warehouse Management systems.
RAMP	The Remote Access Movements Portal supports the request for movement of materiel, as well as the management and handling of freight in transit through Air Ports of Embarkation and Disembarkation. It also supports the Customs Declarations process.
CPT	The Central Planning Tool forms the core system for the daily planning of material movement. The application is run once each working day to produce a daily movement plan.
Paragon	Paragon is a commercially sourced application which handles the batching and routing of materials for MOD fleet vehicles.
TMS	The Transport Management System creates driver manifests derived as an output from CPT for the MOD fleet. The key objective of TMS is to provide the days debrief, which is fed back into CPT (in the form of replans) for the following days planning.
CCMIS	The Customs and Compliance Management Information Service allows the MOD to submit compliant 'Declaration Instructions' through a 3rd Party Declarant into HMRC to support all movement of materiel in and out of the UK Customs Boundary.
Llamasoft	Llamasoft is currently used by DSCOM to model, optimise and simulate their supply chain operations. Llamasoft is a COTS product and could be retained as part of an end-state solution.

DFMS Overview: Key Requirements (1 of 5)

Scope of Services: Future State Logical Components

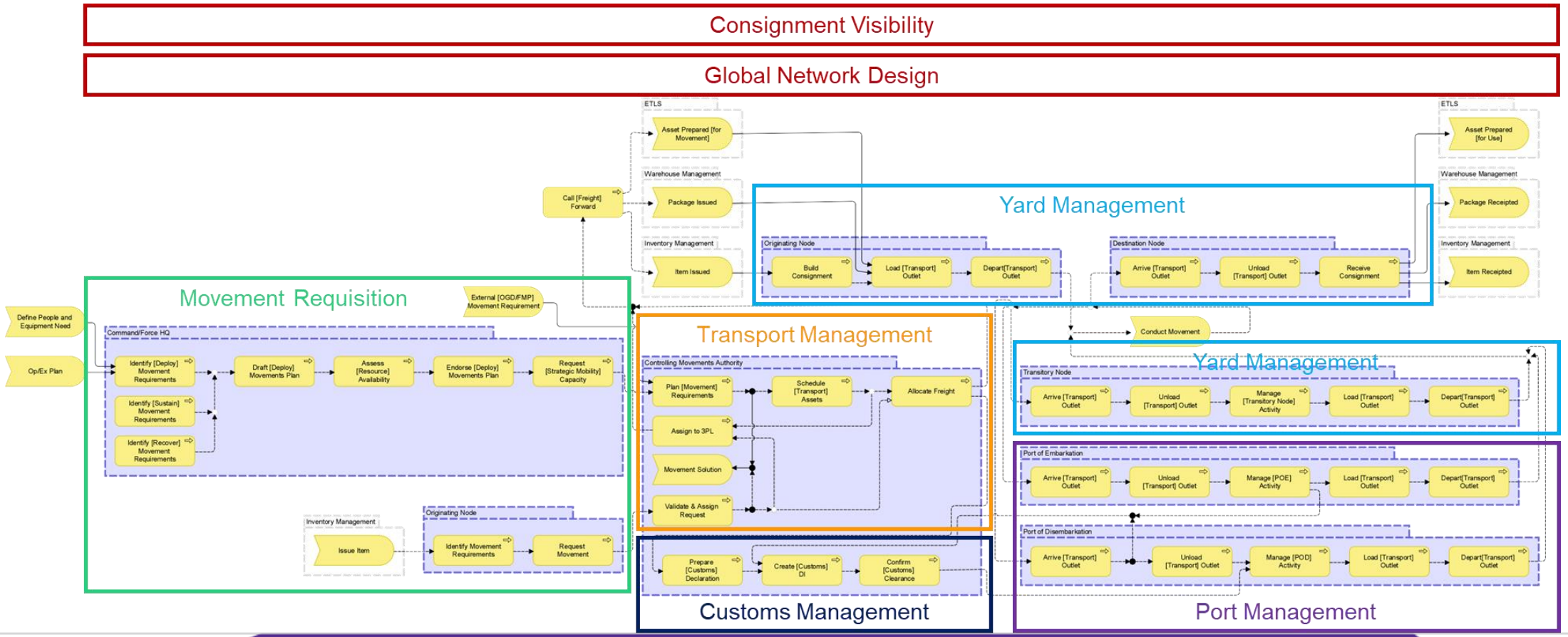
- A set of 'future state' Logical Components' have been created that encapsulate the intended scope of functionality that will be provided by the DFMS

Function	Description
Movement Requisition	**Movement Requisition (Transport Booking)** enables a user to request different types of movement, including individual item-level movements, as well as bids for future movement capacity in support of operations and exercises. They can be for urgent movements, or for longer-term needs.
Transport Management	**Transport Management** supports the management of Transport Demand including Movement Planning and Scheduling for organic transport assets and the allocation of freight to movements solutions (including commercial movements solutions).
Yard Management	**Yard Management** extends the immediate boundary of a Warehouse or Stores Location and will support the building of consignments (from Inventory), Despatch and Arrival processes, the loading and unloading of vehicles and any cross-docking requirements.
Ports Management	**Ports Management** supports the management of freight within an MOD owned/managed Air/Sea Port, including the Despatch and Arrival of freight, the handing of freight within the port boundary, reconfiguration of freight and loading/unloading activities.
Customs Management	**Customs Management** ensures that the MOD can make the necessary customs declarations (through a 3rd Party declarant) to comply with HMRC regulatory requirements for all freight being moved on its behalf irrespective of mode of transport.
Consignment Visibility	**Consignment Visibility** supports a user to gain visibility of the progress of the movement of freight in transit from the point of the initiation of a request, through to receipt at the final destination, or to subscribe to alerts associated with key events during the E2E movement.
Global Network Design	**Global Network Design** supports the optimisation of the location, function, and ownership of supply, manufacturing, and distribution networks in support of overarching strategy as well as known and emerging customer requirements.

DFMS Overview: Key Requirements (2 of 5)

Scope of Services: Future State Logical Components

- A mapping of the Logical Components to a Logical Process Model can be seen in the diagram below:



DFMS Overview: Key Requirements (3 of 5)

Key User Requirements

Requirement Descriptor
TUSBAT[1] generate movement requisitions for the movement of Equipment and Freight through the Defence Support Chain
TUSBAT Generate Transport Plans and Asset Schedules that are optimised to the constraints of Defence
TUSBAT support the management of freight at geographical nodes in the Defence Supply Chain
TUSBAT track the progress of consignments in the Defence Supply Chain
TUSBAT submit HMRC Customs Declaration Instructions on behalf of the MOD
TUSBPW[2] historic, current and predictive performance data and metrics of nodes, network routes and transport assets
TUSBAT model, simulate & optimise the global Defence Supply Chain network
TUSBAT access and utilise the system globally, 24/7/365, safely and securely and without interruption or loss of service
TUSBAT undergo training to use the system
TUSBAT utilise harmonised business processes to exploit data pan-Defence and throughout the DSN
TUSBAT carry out Movement of UN Class 1-9 Items (Dangerous Goods)

[1] The User Shall Be Able To
[2] The User Shall Be Presented With

DFMS Overview: Key Requirements (4 of 5)

Integration Requirements

- App-to-App integration will be via an MOD provided Integration Platform. The solution architecture anticipates:
  - 3 high complexity interfaces
  - 6 medium complexity interfaces
- Users will access via a Common Portal
  - Will provide Identity and Access Management (IdAM Token)
- DFMS will consume a number of Operational Data Services
  - Master and Reference Data Management
  - Data Retention and Archiving
  - Data Quality Management
- DFMS will be required to feed the following Operational Data Services
  - Near Real-time Data Services
  - BI and Analytics Services

DFMS Overview: Key Requirements (5 of 5)

Operating Environment

- The highest classification of data on the service will be OFFICIAL-SENSITIVE

Security and Sovereignty

- Aligned with the Data Strategy for Defence[1], DFMS must allow the MOD to:
  - Exercise *sovereignty* over data, including accountability and ownership.
  - *Secure digital* data at creation, curation, when handling, storing and transmitting.
    - Secure and Digital by Design.

[1] https://www.gov.uk/government/publications/data-strategy-for-defence

DFMS Overview: User Numbers

User Numbers

- The table below sets out a view of the estimated number of users for each logical component, including for ‘steady-state’ and for ‘surge’

Function	Steady State[2,3]	Surge[2,3]
Movement Requisition[1]	3000	5000
Transport Management	250	400
Yard Management	2000	5000
Ports Management	350	500
Customs Management	100	150
Consignment Visibility[1]	3500	5000
Global Network Design	100	150

[1] Movement Requisition and Consignment Visibility contain a high number of ‘occasional users’
[2] Some users will access multiple components so totals are not cumulative
[3] Total Number of cumulative users is 5000 Steady State and 10,000 Surge

Procurement Approach (1 of 2)

What are we procuring?

- A Systems Integrator to Design, Build, Test and Deploy the DFMS solution, as well as providing initial ‘in-service’ support
  - System Integrator will select appropriate solution components
  - System Integrator will ensure DFMS solution works within legacy and future Defence Support Chain environment

What are we not procuring?

- The MOD is not looking to procure hardware or peripherals as part of this project
  - Hosting should be via an approved and accredited cloud hosting solution
  - The solution should be compatible with MOD User Access Devices (including Laptops, Tablets and Phones)
  - The solution will interact with standard MOD peripherals

Procurement Approach (2 of 2)

Integrated, Evergreen, and Sustainable

- The MOD is looking for a solution that is based on well-founded COTS products that it can expect to be maintained in line with their vendor product roadmaps
  - Key tenant is that we will configure not customize to reduce through-life costs
- Requirements that can not be met by a COTS solution will be considered for ‘Trading Out’
  - Bespoke coded solutions are not considered to meet the MOD overarching requirements for an evergreen solution
- Solution must be fully portable
  - The MOD should have the flexibility to migrate to a new ‘Managed Service Provider’
    - Portability of licenses, data, configuration components, etc.

Implementation/Rollout Approach

Implementation/Rollout Approach

- The user base for DFMS is large and geographically dispersed which does not lend itself to a ‘big bang’ rollout approach
- The MOD current view is to roll functionality out in 4 broad increments:
  - **Release 1** Movement Requisition, Transport Management and Global Network Design
  - **Release 2** Yard Management and Consignment Visibility
  - **Release 3** Ports Management
  - **Release 4** Customs Management
- Each release presents its own challenges in terms of business and technical complexity, but aligns to a logical breakdown of the business components
- The MOD is flexible to considering alternate implementation approaches

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