

SECTION IV. Terms of Reference

Background:

IOM's has developed multiple applications and interfaces over the past 10 years to support its worldwide operations delivering and monitoring services to migrants. These systems have been developed at both a central level to meet the organizational needs and at local level to meet specific mission needs and are developed using various technology sets (refer [Appendix A](#) for detailed breakdown).

Overtime the centralized systems have been enhanced in order to reduce the need of local missions to develop their own applications, however due to the loading of the central team this is not always possible within the mission's timeframe. This has lead to duplicated functionality (refer [Appendix B](#)), a wide variety of implementations that cannot be fully supported with many mission systems completely isolated, so data is not fed into central systems and reporting.

The majority of operational based systems can be broken down into the following functional groupings



Figure 1 IOM Functional Service Groupings

The main system used by over 2600 users in 100 countries is MiMOSA Web and has approximately 400,000 page hits per day. This is treated as the core system upon which all other centralized systems and interface interact with as per the below diagram.

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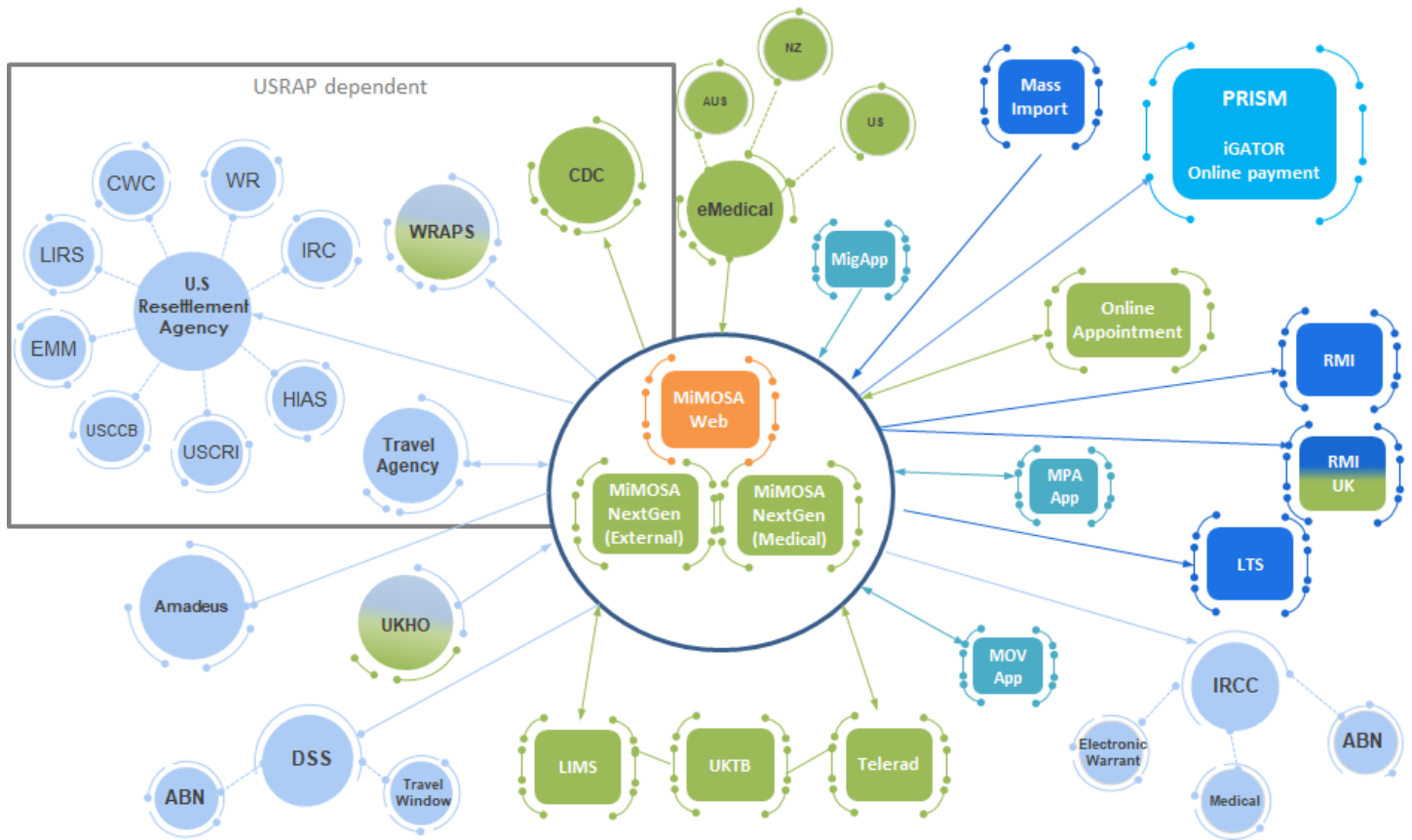


Figure 2 Migrant Applications Ecosystem

Objective:

The objective of this project is to move IOM’s centralized applications from a disparate collection of monolithic applications to a comprehensive microservices framework.

The discovery phase will concentrate on development/ validation of the architectural design, documentation of the business requirements/ user stories, UX design of workflows and data mapping. It is also to provide recommendations for appropriate/ available technologies (including COF applications) for SaaS, PaaS or IaaS cloud offerings/ options.

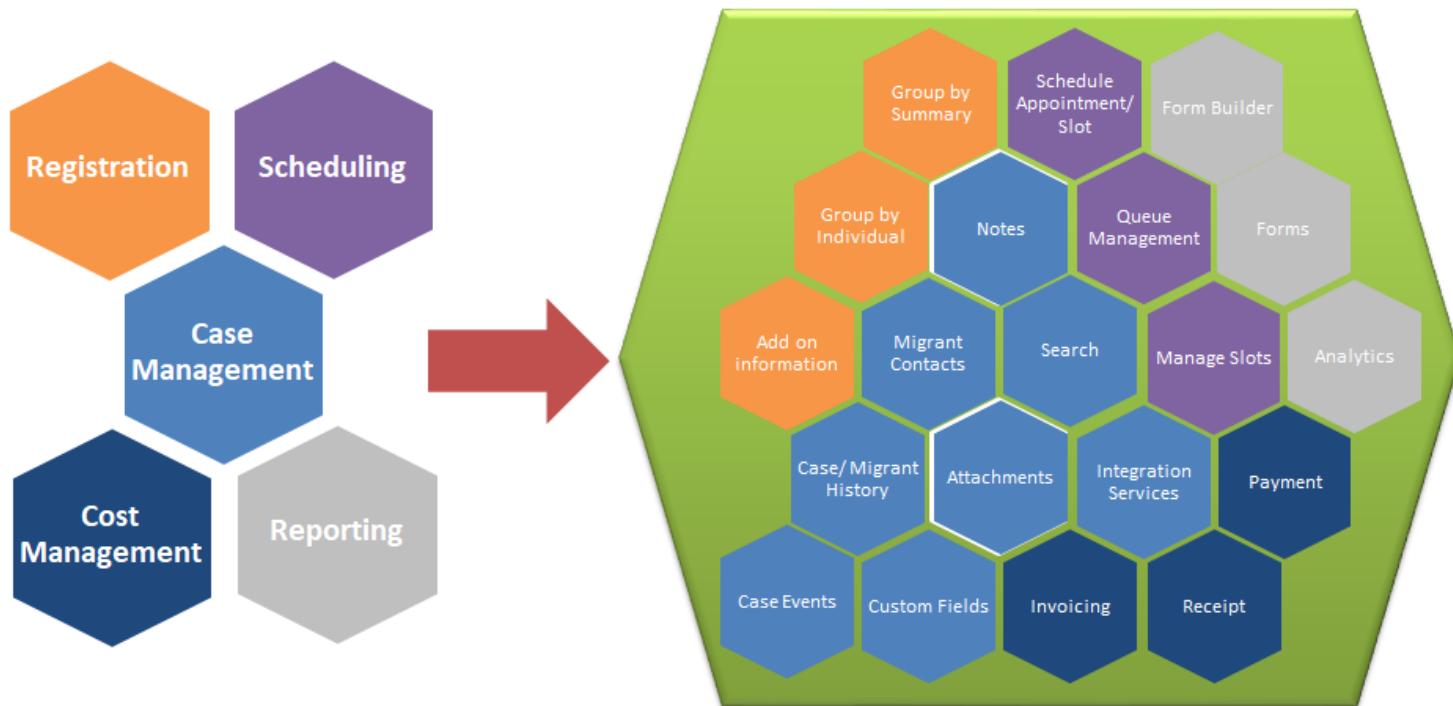


Figure 3 example of moving from monolithic to microservices

Reusability & deployment

Services will be able to be reused by central and local (mission) ICT teams to quickly bundle and deliver applications that meet the business needs but ensures consistent data capture and delivery in a secure and centralized manner. They must be able to be deployed across multiple channels (desktop, web, mobile) and be deployable on premise and on the cloud.

Security

Data security is a high priority and designs must comply with ISO 27001 standard. Design must be resilient against intrusion, as well as detecting malicious behavior. A comprehensive audit log of activities is required.

Users

Users of the services will be both internal and external and thus authentication must cover use of both internal ADF and external organizations authentication directories. Users also have a variety of roles the services must ensure service and data access is authenticated against the user and role. IOM prefers a SSO across each service/app

Interoperability

IOM has a large number of interfaces with external parties and these need to be isolated from the switch from their current data sources

Performance

IOM works in many low bandwidth and infrastructure challenged locations. This coupled with the demands of the self-payer programmes (where IOM competes with other organizations) demands that the design be

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resilient to limited bandwidth and communication interruptions as well as providing high availability and scalability, thus should also provide users with an offline capability to minimise end user workflow interruptions.

Data Mapping

As part of the discovery phase, the project will review existing data sets and data security mapping and provide the proposed data sets along with suitable data security and protection architectures in compliance with IOM's data protection principles and information security standards.

SCOPE OF SERVICES

This RFP is for the supply and delivery of the following services and deliverables:

- Work with the IOM Project Manager in scheduling meetings/workshops, to collect and document requirements for the Migrant Application NextGen Project from the subject matter experts.
- Participate/initiate the face-to-face and web-meetings, or conference-calls to discuss project status, risks, issues and other relevant matters concerning the project.
- Prepare a weekly report on the status of the BRD development.
- Prepare a weekly report on the status of the architectural development.
- Prepare the BRD using a structured approach in gathering, analyzing and documenting requirements including but not limited to business processes, functional and non-functional requirements, use cases/ user stories, workflows and data models.
- Prepare the architectural design and roadmap for implementation including data security, application architecture and infrastructure architecture
- Ensure architectural design complies with ISO 27001 and OM's organizational standards
- Prepare the BRD/ User stories with enough and adequate level of information and contents required to drive the design, development and preparation of test cases for the implementation/ build phase of the project
- Prepare UX Designs for major workflows
- Prepare the BRD in accordance to IOM's standards and guidelines.
- Participate in the preparation of Request for Information (RFI)/Request for Proposal (RFP) and any other tender related documents needed for the implementation phase/ build of the project.
- Perform any other tasks that might be applicable.

Delivery Date: The BRD and Architectural Design must be completed by 15 May 2019.

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Note: Due to the nature of IOM's operations, all project staff must be able to travel

Appendix A

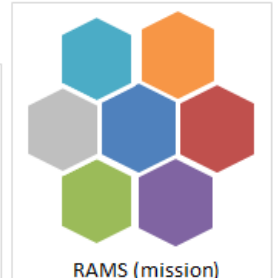
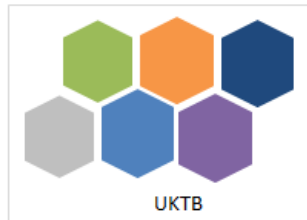
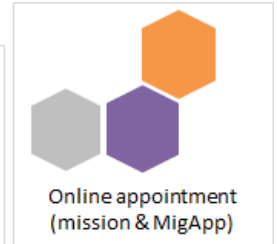
This section details the technical aspects of the various centralized systems

Term	Definition
Amadeus	.NET Framework 4.52, Amadeus API library
CDC interface	SSL WS-Security Web Service, XML (HL7) SOAP
DSS - ABN	SSL, WS-Security, Synchronous Web Service, ebXML, SOAP, Weblogic
DSS – Travel Window	SSL WS-Security Web Service, ebXML SOAP
eMedical Interface	SSL, WS-Security, Synchronous Web Service, ebXML, SOAP, Weblogic
IRCC - ABN	SSL, WS-Security, Synchronous Web Service, ebXML, SOAP, Weblogic
IRCC - Medical	SSL, WS-Security, Synchronous Web Service, ebXML, SOAP, Weblogic
IRCC - Warrant	SSL, WS-Security, Synchronous Web Service, ebXML, SOAP, Weblogic
LIMS	.NET Framework 4.6, MVC 5, .NET Core, AngularJS, PetaPOCO, MS SQL 2016, Log4Net, Bootstrap
LTS	.NET Framework 4.52, C#, ASP .NET Web Forms, MSSQL Server 2014
Mass Import	.NET Framework 4.52, ASP .NET Web Forms, MSSQL Server 2014
MigApp	Javascript, Kony mobile fabric, Kony Visualiser
MiMOSA NG	.NET Framework 4.6.2, MVC 5, Microsoft Unity Container, AngularJS, PetaPOCO, MS SQL 2016, Log4Net, Bootstrap
MiMOSA Web	.NET Framework 4.52, MVC 4, javascript, C#, ASP .NET Web Forms, MSSQL 2014 SQLRS 2014, Log4Net
Mov App	Javascript, Kony mobile fabric, Kony Visualiser
MPA App	Javascript, Kony mobile fabric, Kony Visualiser
Online Appointment	Javascript, Kony mobile fabric, Kony Visualiser, MSSQL Server 2014
RMI	Java J2ee, MSSQL 2016, Weblogic 2.2, Hybernate, Spring
RMI UK	.NET Framework 4.6 .NET Core, AngularJS, MSSQL 2016
Telerad	.NET Framework 4.52, MVC 4, C#, MSSQL 2104
Travel Agency	VPN, WS-Security, Synchronous Web Service, XML, SOAP
UKHO	.NET Framework 4.52, ASP .NET Web Forms, MSSQL Server 2014
UKTB	Java, SLQRS 2016 MSSQL 2016, Weblogic, Hybernate, Spring
US Resettlement Agency	SSL, WS-Security, Synchronous Web Service, XML, SOAP, Weblogic
WRAPS eABN Interface	VPN, WS-Security, Synchronous Web Service, XML, SOAP, WebLogic
WRAPS Medical Interface	SSL, WS-Security Web Service, XML (HL7) SOAP

Appendix B

This section demonstrates the overlapping of services provided by the various IOM systems

Examples of some systems



Glossary

Term	Definition
Amadeus	Interface between MiMOSA and the Amadeus system for reservations
CDC	Interface with the Centre for Disease Control in Atlanta
DSS	Department of Social Services Australia
DSS - ABN	Movement information for DSS
DSS – Travel Window	Travel Window advice from DSS on when a refugee can arrive in Australia
eMedical	Interface with the eMedical system (used by Australia for visa health assessment processing) to receive biographic and medical data into MiMOSA
IRCC	Immigration, Refugee and Citizenship Canada
IRCC - ABN	Movement information for IRCC
IRCC - Medical	Interface with IRCC for invoicing of health assessment services
IRCC - Warrant	Interface with IRCC for passing of travel loan data
LIMS	Laboratory Information Management System
LTS	Loan Tracking System – used for reconciling of US Refugee Travel loans
Mass Import	System to bulk register cases in MiMOSA
Medical	Covers Health Assessment, work up and treatment and pre-departure assessment and monitoring activities
MigApp	Mobile application for use by migrants. Interfaces with MiMOSA to allow migrants to book a visa related health assessment with an IOM medical clinic
Migrant Protection and Assistance	This thematic area covers the assistance to vulnerable migrants including trafficked victims, exploited individuals,
Migrant Training	Covers scheduling and managing of attendance and special needs of training and cultural orientation classes
MiMOSA NG	Application built for use by external doctors tailored to the US Refugee Medical processing
MiMOSA Web	IOM’s main migrant information management tool and is used to manage all aspects of case processing covering medical, movement, migrant protection and assistance as well as migrant training
Mission	Refers to the country where IOM has Office. A mission may have more than one office within a country.
Mov App	A mobile app that allows field staff to manage movement departures, transit and arrivals. Integrates with MiMOSA
Movement	An individual or group of individuals that have travel from and to the same destination
MPA App	A mobile app that allows field staff to register cases, perform vulnerability checks and screen for trafficking victims offline and interface to MiMOSA when connection is available

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Online Appointment	A Web app that allows migrants to request a visa related health assessment appointment
RMI	Receiving Mission Interface – an application used by US and Canadian offices for quality control checking of movement and travel loan data relating to refugees. RMI interfaces with MiMOSA
RMI UK	Receiving Mission interface UK is an a programme monitoring tool specifically designed for our London mission to track the KPIs of the missions working on the UK Resettlement programme. RMI UK interfaces with MiMOSA
Telerad	This application is used by the radiology centres in Manila and Nairobi (Kenya) to view and record chest x-ray readings for tuberculosis detection. I
Travel Agency	This interface is used by the IOM New York office for secure request/ receipt of domestic travel bookings for refugees to get to their final destination.
UKHO	Interface from the UK Home Office to register refugee cases in MiMOSA
UKTB	UK Tuberculosis Detection System
US Resettlement Agency	Interface for travel information of US bound refugees to the systems of the various stateside resettlement agencies that assist refugees on arrival.
Warrant	Travel Loan for Canadian bound refugees
WRAPS	WRAPS is the US State Departments case management system for refugee information
WRAPS Interface eABN	The WRAPS interface transmits movement data from MiMOSA to the WRAPS system for US bound refugees
WRAPS Interface Medical	The WRAPS interface transmits medical data from MiMOSA to the WRAPS system for US bound refugees

