Transformation of the Land Registration Service

Agenda

• Project Overview
• Project Objectives
• Registration Service Re-Engineering
• System Overview
Project Overview

Future Vision

There is a vision within senior levels of Government that:

- Land ownership needs to be protected by a sovereign authority, underpinned by secure and accurate land ownership and base map information.

- Land registry and associated legal processes need to be improved so that Libya can compete more effectively for foreign investment flow.

- Monetary losses to government arising from duplicate compensation claims on compulsorily purchased land need to be eliminated.
The Future Land Registry Office

The future Land Registry therefore needs to be able to:

• Provide a countrywide secure, accurate database of land ownership
• Have the ability to share land ownership information with other government agencies and departments
• Use the latest available ‘proven’ technology enabling a fast response to land registry enquiries
• Safe and secure archive and retrieval facilities
• Provide its employees with a good working environment, training and career development
• Provide the citizen with an efficient service and good customer experience
• Accurately resolve land ownership disputes

The team

LRA
Core team

KPMG UK
Programme Management and Consultancy

ESRI NeA
Integrated Cadastre Land Registry Solution

IBM Global Services
Project Objectives

• Implementation of new working practices within the LRA (design and implementation of new business processes).

• Design, development and implementation of a pilot Land Registry system to meet the needs of this government agency

• Securing the existing mapping data and hard copy archive material to prevent further deterioration

• Full rollout and handover of a solution following acceptance of the pilot system

• Training and development of LRA employees to ensure that they are able to carry out their roles in an appropriate way

Data Conversion

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The data set

5,000 Ledger

20,000 Map sheet

1,255,000 files

Central Data Conversion Center

- Establishment of central data conversion center in Tripoli
- Data sets are shipped from regional offices to the center on daily basis
- Joint team from LRA and ESRI NeA.
- Continuous knowledge transfer and capacity building
Legacy Database \[\rightarrow\] Conversion Procedures \[\rightarrow\] Verification Procedures \[\rightarrow\] Central GeoDatabase Repository

Data Conversion Workflow

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QC - Corrections & Modification

LRA \[\rightarrow\] QC Reports

Data Entry Application

User 1

User 2

Revision

Ledgers QC

Corrections & Modifications

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Cadastre Service Re-Engineering

BPR - Study the current service:

1. Define processes for each operation
   - Process 1: Request submission
   - Process 2: Cadastral investigation
   - Process 3: Cost estimation & Fees payment
   - Process 4: Survey scheduling & Field Survey
   - Process 5: Mutation Form & CIF issuing
   - Process 6: Registration
   - Process 7: Legalization

2. Define workflow for each process

3. Define information requirements
   - External from the client
   - Internal from the system

4. Define role based authorization depending on the job legal requirements

5. Define needed spatial layers

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Service Re-Engineering Objectives:

- Follow the operational aspect of the service
- Eliminate bottlenecks within the service flow
- Standardize the service inputs and outputs
- Improve the working environment for better service
- Unify internal and external communication channels
- Apply the global cadastre standard
- Build the required infrastructure (IT, Operation, Construction...)
- Build the required capacities

System Overview
Solution Requirements – Distributed System

The system Backbone: ESRI NeA Cadastre Suite

Built using the Service Oriented Architecture
LRS High Level Architecture

Land Registry HQ
- HQ Manager Module
  - Reporting
  - Map Viewer
- Central Database
  - Replicated Data from Departments

Regional Offices (45 Offices)
- LRS Modules
  - Registrar Applications
  - Cadastre Applications
- Dept. Database
  - Department Files

Manual Replication

Headquarters System Architecture

HQ
- Directory Server
- Database Server 1
- Database Server 2

Application Server (IIS)
Content Management Server
Regional Office

Regional Office (45 Offices)

- Direction Server
- Database Server 1
- GIS Server + IIS
- Workflow Server
- WebSphere Process Server
- Application Server 2
- WebSphere Application Server
- Content Management Server

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Application Overview

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FIG Congress 2010
Facing the Challenges – Building the Capacity
Sydney, Australia, 11-16 April 2010
Transaction Validation

Transaction Status Notification
Thank You