The new IT system for SCPI as a part for E-Government in Azerbaijan

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Gateway to solutions
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Real Estate Registration Project in Azerbaijan

The Project consists originally of the following parts:

- **Part A: Real Estate Registration**
- **Part B: State Property Management and Register**
- **Part C: Mapping and Land Cadastre**
- **Part D: Training, Policy Development and Project Management**

- Due the Decree of dated 24 June 2009 of the President of the Azerbaijan Republic the two Beneficiary organizations mainly for Part A (State Service for Registration of Real Estate, called **SSRRE**) and for Part B (State Committee for Management of State Property, called **SCMSP**) have been amalgamated into **State Committee for Property Issues (SCPI)**.
- Development of new integrated IT system for SCPI deals actually with **Part A and Part B** of the overall project and will be procured via WB’s ICB procedure.
World Trends in Property Registration & Management

Hereby some important ones:

- **Unified Registration as well for Private and State Properties**
- Private oriented management approach for Management of (state) Properties,
- **Integration of Clients / Stakeholders** (Banks, Notaries, RE Agents, etc.)
- Extensive **automation of Clients / Stakeholders**
- Extensive Automation of Property Registration and Management organizations based on: digital data collection, processing and delivery – incl. broad standardization
- **Data Sharing** (No work duplicity: ones collected and stored and used by many)
- As a part of **E-Government**
- **One stop shopping**
- Taxation based on Market values
- Lower transaction cost and cost recovery
- From controlling to serving
One Stop Shopping

Clients asks why they have to go to different organisations for the same topic (like Property Registration)? →

Governmental Supermarket became necessary !!

E- Government

- Realisation of ‘Supermarket’ by making use of ICT is realistic and possible
  However, its requires enormous willingness, co-operation and co-ordination between different government organisations, and much more...
EU initiatives

The **eEurope 2005 Action Plan** from Seville European Council in June 2002 was aiming to develop modern public services and a dynamic environment for e-business. The eEurope 2005 Action Plan is a set of fifteen actions in order to achieve the specific objectives of eEurope and to speed up its progress.

**EU i2010 eGovernment Action Plan** Accelerating eGovernment in Europe for the Benefit of All, focuses on five major objectives for eGovernment:

- **No citizen left behind**: advancing inclusion through eGovernment so that by 2010 all citizens benefit from trusted, innovative services and easy access for all;
- **Making efficiency and effectiveness a reality** – significantly contributing, by 2010, to high user satisfaction, transparency and accountability, a lighter administrative burden and efficiency gains;
- **Implementing high-impact key services for citizens and businesses** - by 2010, 100% of public procurement will be available electronically, with 50% actual usage, with agreement on cooperation on further high-impact online citizen services;
- **Putting key enablers in place** - enabling citizens and businesses to benefit, by 2010, from convenient, secure and interoperable authenticated access across Europe to public services;
- **Strengthening participation and democratic decision-making** - demonstrating, by 2010, tools for effective public debate and participation in democratic decision-making.
Characteristics of IT systems as part of E-Government

- interconnection
- data integration
- e-services access
- content management metadata.

Citizens and business should not need to give the same information twice to different public bodies (key registers principle, NSDI, etc.).

Predominant features of specifications for e-Government:

- **Interoperability** – only specifications relating to interconnectivity, data integration, e-services access and content management metadata specified,
- **Market support** – specifications have to be widely supported by the market,
- **Scalability** – to changes in data volumes, number of users,
- **Openness** – specifications available to the public,
- **International Standards.**
**INSPIRE Obligations to the EU member states**

The Member States of the EU are obliged to establish and operate a network of the following services for the spatial data sets and services:

- (a) **discovery services** making it possible to search for spatial data sets and services on the basis of the content of the corresponding metadata and to display the content of the metadata;
- (b) **view services** making it possible, as a minimum, to display, navigate, zoom in/out, pan, or overlay viewable spatial data sets and to display legend information and any relevant content of metadata;
- (c) **download services**, enabling copies of spatial data sets, or parts of such sets, to be downloaded and, where practicable, accessed directly;
- (d) **transformation services**, enabling spatial data sets to be transformed with a view to achieving interoperability;
- (e) **services allowing spatial data services to be invoked**.
Do we know what the E-technology does means for our organisation?

- **R. Junqueiro:**
  - “If you think that the E-technology will not affect your organization you’re a fool
  
  - If you think to know exactly what kind of impact will the E-technology have, you’re even a bigger fool”

..Therefore it is difficult to forecast the future..., but at least we need to be ready for ... the change
Data sharing / Data exchange between Main Registers as fundament for E-government

- **Persons**
- **Legal Entities** *(State and Private Owned)*
- **Buildings**
- **Addresses**
- **Base map**
- **Property Registration** *(Rights and Cadastre)*
Role of SCPI within E-Government in Azerbaijan

Many functions and data are already under SCPI responsibility →

- Best basis for E-Government in Azerbaijan

Shows what is under the SCPI responsibility
Proposed RERCMS links/interfaces with external systems/ institutions

- The System interface for the State Land and Cadastre Committee (SLCC)
- The System interface for the Ministry of Internal Affairs (MIA)
- The System interface for to the Ministry of Finance (MF),
- The System interface for to the State Committee for Securities
- The System interface for other Ministries and central agencies
- The System interface for the Ministry of Taxes
- The System interface for the Ministry of Justice (MoJ)
  - The System interface for Notaries
  - The System interface for Courts
  - The System interface for Register of Legal Entities
- The System interface for other institutions
  - Municipalities
  - Mediators
  - Real Estate valuators and agencies
  - Financial institutions (Banks)
  - Insurance companies
- Private Individuals
Main RERCMS automation goals

Direct they can be summarized as:
- Registration and Cadastre operations
- Maximal automation of internal business case procedures
- Integration of kind of SAP (storing and managing of administrative data) and GIS,
- Delivery and exchange of information,
- Improving the link with external stakeholders.

Including E-Government characteristics:
- Interconnection
- Data integration
- E-services access
- Content management metadata

Predominant features of e-Government:
- Interoperability
- Market support Scalability
- Openness,
- International Standards.

Including the INSPIRE Obligations as they are accepted by EU member states
Mapping of functionality of the new system (RERCMS)
Two important architectural principles are:

- Separate processes from business services
- Integrate business services with the same responsibility
Consolidated model SCPI will improve IT Infrastructure and Operation maturity in a central Data Center.

One consolidated controlled access point simplifies access security and delivery to Internet browsers and web services for external organizations and customers. There will be no IT personal in the regions and only standard end-user devices are used without expensive electricity requirements.

Terminal Server solution is the most cost effective thin client solution for internal (fat) application users; the PC applications of multiple users run on the same terminal server. It is a highly available and scalable architecture.

High bandwidth requirements between the server (database- and fileserver) and the client are provided by the high speed, low cost Data Center Gb LAN.

Virtual Desktop Infrastructure (VDI) is an alternative implementation of thin client computing, but this is dedicated for more specialized users (software developers and system administrators).
Network Infrastructure and Communications

In the last two years the communication infrastructure in Azerbaijan is improved, today Delta Telecom can provide 100 Mbps Metro Ethernet to 20 or more regional offices of SCPI.

The internal Datacenter network will utilize a redundant network topology where servers are connected to two separate switches to provide high availability. Consolidation on the internal network level to increase security and manageability is implemented in the Routing & Policing (R&P) layer in the Data Center. The compartments are interconnected via the R&P layer with layer 3 routing devices; access of network services and protocols is based on necessity. Network traffic is monitored (policing); some traffic will be denied (security policy) while others will get priority. Used techniques are ACLs, TCP/IP Packet Shapers and Quality of Service tags.
Challenges

- 60-70 % of IT system developments are not successful
- Short development time
- Complexity of the system
- Various “blood types” within SCPI (from former SSRRE and former SCMSP)
- Lack of professional IT resources to run and maintain such a large IT system at SCPI and in Azerbaijan
- Overall paper oriented culture,
- Administration boundaries between parties involved, possible lack of co-operation with external stakeholders
- Challenge in the re-engineering of the business processes (80% of profit in this type projects comes from re-engineering, 20% from direct automation)
- How far is the rest for Azerbaijan ready for full electronic co-operation in the frame of E-government concept?
- Anyway RERCMS offers the best basis for development of this kind of E-Government concept
### RERCMS Planning

#### 1. System (Software) Development
- **(Various stages)/(Application Development Plan)**
  - System prototype developed
  - SW Supplier/SCMSP

#### 2. Preparing Specifications for HW + Networking
- **(User needs, major processes, procedures, configuration, etc.)**
  - Specifications ready for procurement
  - SW Supplier + CO SCMSP + WB

#### 3. Site Preparation Plan + Site preparation
- **Electricity Supplies, Furniture’s, Security Rooms, etc.**
  - Sites prepared
  - CO + SW Supplier

#### 4. Tender for HW + Networking
- **(Publication, EOI, Short List, Tender Evaluation)**
  - Supplier selected
  - CO + WB

#### 5. System Training
- **(Various target groups; according to Training Strategy and Tr. Plan)**
  - Staff identified and mobilized for training
  - CO + SW Supplier

#### 6. New system Piloting
- **(Pilot in one office, Comments, Improvements)**
  - Pilot selected, new system evaluated
  - CO + SW Supplier

#### 7. Testing and Acceptance
- **(according to Test Plan)**
  - Acceptance of the System
  - SW Supplier

#### 8. System implementation (Rollout)
- **Hardware (via HW Supplier)**
  - System implemented and installed
  - SW Supplier

- **Software (via SW Supplier)**
  - Data into new system converted; Data recorded in new standardized dB
  - SW Supplier & CO

#### 9. Data Conversion
- **(conversion from old digital DB +some A&D conversion)/ (Day forward)**
  - Systems ready for the new productions and daily operations at all 
  - CO

#### 10. System fully Operational
- **(recording of new titles produced)**
  - Systems ready for the new productions and daily operations at all 
  - CO

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