The National Number and the Automation of the Civil Records’ Project  
Ministry of Interior – Administration of Civil Records

The National Number Project is considered one of the most endeavoring and pioneering projects in Syria. The Project itself, and the subsidiary projects based on it, create a comprehensive demographical and informational databank and is the backbone for any real e-government.

Within the framework of the project, all traditionally documented records of the Civil Records are transformed into a digital form for the purpose of maintaining and achieving the records and, most importantly, to provide citizens with fast easy services. Also, to provide demographical and statistical information, for both private and public institutions and persons, for academic and organizational purposes.

On the long term, the project aims to utilize technology and automation to enhance and develop the administrative performance of the Ministry of Interior.

The Civil Records Project includes automation of the Civil Records' Administration and Immigration and Naturalization Administration. The key factor to provide a uniformed access to civil and legal records is to give each citizen a National Number as an indexed key for all the civil and legal records. The process of entering each individual Civil Record is an enormous task and is considered the most demanding; however, the project has exceeded all expectations by entering more than 15 million records and its readiness to be fully utilized for a multitude of purposes.
Overview:

The project was initiated by the Ministry of Interior as one of its main tasks (the other task, obviously, is homeland security). The Ministry, through the Administration of Civil Records and the Immigration and Naturalization Administration, maintains all the Civil Records dating back to 1920 (the year of the first official census). The Ministry has 286 centers distributed over cities and towns in Syria. In addition, the Ministry maintains all the immigration and passport records and all police records. The Ministry, through the Administration of Civil Records is also responsible for issuing Identification Cards and family records, Drivers’ Licenses through the Department of Motor Vehicles, and passports through Immigration and Naturalization Administration.

To mainstream all its activities and responsibilities, the National Number Project was initiated to provide the base for other projects relating directly to the tasks and undertakings of the Ministry such as:

- updating the Syrian passport to adhere to international standards
- the new Identification Card
- the Electronic Family Record
- electronic Finger-Printing processing
- automation and expanding the services of the Immigration and Naturalization Administration

The project also provides crucial base for facilitating e-services, especially services requested directly by citizens (such as filing taxes, obtaining licenses and permits, health services…).

Notwithstanding the importance of the project for the Ministry of Interior, it is also considered one of the exemplary projects conducted by the government due to the following facts:

- The utilization of ICT technologies and development to provide services
- Providing the basis for other governmental and private establishments to utilize the National Number to provide all kinds of services (from banks to health care providers)
- Solidifying the base for e-government and e-transformation
- Utilizing the latest archival and administrative concepts such as module-indexing and cross-linking data to create one poll of information.

The Mission of the project:

The National Number and the automation of the Civil Records Project was successfully developed, implemented and programmed by local expertise only. This fact is very important because it ensures the ability to continuously develop and upgrade all the elements relating to the project. The mission of the project can be summarized as follows:

1- Achieving considerable advancements in providing services for citizens by facilitating and easing the process of acquiring, updating and using their Civil Records. All the services relating to the Civil Record is provided from any center and there is no need to travel or to use the postal service to obtain the records. This service was fully implemented June 2004.
2- Creating a comprehensive demographic and population databank. The utilization of the information from the databank exceeds the research and documentation purposes and serves directly in strategic planning of education, health, housing and all aspects of planning for a sustainable development.

3- The linking between the Civil Records and the immigration will vastly ease the process of issuing and renewing passports in addition to provide fast accurate services for immigrants inside and outside Syria. Also, it will advance the service provided at the 23 major boarder-ports as all of these entry points are links to a unified database. As such, all immigration processes have become faster, more reliable, and friendly.

4- Fast, accurate and easy access to general information through an advanced-automated-answering system. Also requesting information over the phone (already implemented, or over the web (in its final stages) will further enhance the services

5- The project adheres and exceeds all international standards which is imperative for up-linking the project with the National Information Network.

6- The project has been developed and implemented by local expertise to ensure the sustainability of support and development of the project. From an HR point of view, the expertise gained by those who worked on and in the project can benefit all similar projects in other ministries and establishments.

7- Ultimately, each citizen will need only one document of identification (or no document at all) as the National Number will be the only thing needed to obtain all the services and information he needs.

**Duration of the project:**

The work on the project started in 2002 after all the programs and modules has been designed and tested. Entering data was expected to be done in mid 2005, without auditing or error-checking. However, all the data-entry was finalized in 2004 and it is expected that all the auditing and finalization of data will be done in 2005, or two years ahead of schedule.

**Beneficiary groups:**

1- Citizens residing in Syria: the Civil Record is the base for any official process or procedure and, in addition to the legal record, is the most used reference by citizens. The National Number will not only ease accessing information to individuals but will cut down the number of records’ requests by just unifying the Civil Record, hence any applicant or beneficiary needs only to submit the National Number instead of acquiring the document.

2- Traveling and returning citizens: by greatly reducing the processing time for verification and authentication of passports and travel documents.

3- Foreign visitors and non-immigrants residents

4- All governmental and public agencies and institutions

5- Planning bodies and officials responsible for planning on a macro or national levels (fields of education, health, services, supplies, etc.)

6- Researchers and academics in the fields of demography, sociology, statistics, economics, health and many other fields needing demographical information
Description of the project:

As mentioned earlier, the project is one of the biggest undertakings to update the Civil Records from before the independence. The first official census to take place in Syria dates back to 1920. Although decadal census were conducted regularly thereafter, however, all the Civil Records were kept in local achieves distributed over 286 centers. The project is the first move to update the Civil Record through creating a national network linking all the centers together electronically; and to create a national database for the Civil Record. The National Number is a key factor to the success of the project as it provides the fastest indexing methodology for retrieving Civil Records.

The National Number is composed from 11 digits and is unique to every record. Each number is given only once to each record upon entry. The composition of the National Number is designed so the first two digits reflect the municipality, the second two digits reflect the Civil Records’ center, and the remaining seven digits reflect the serial number of the record in the database and is provided by the system to eliminate human errors. The system can accommodate 10 million records in each center and 99 centers in each municipality and 99 municipalities and without repeating the same number twice. In other words, the system was designed from the beginning to accommodate billions of records and for decades to come. Each citizen will be given one unique number that will be his virtually forever. The number was designed to be used by all systems and being based on numbers only, it is the easiest way for verification of matching names or name change cases. Another sub-project is the Family Number where each family is given a Family Record entered for each marital record. The primary use for the family number is demographical and statistical purposes.

Once the number is provided, it will be available for use by all official entities to verify the Civil Record and the Legal Record without the need for obtaining the record from the Administration of Civil Records. In case of need, the record can be obtained from any center immediately and without the need to travel to the municipality or wait for its delivery via postal service.

The ability to link other records (e.g. driver’s license, passport, military service records, etc.) will make it easier for the individuals and official bodies to verify and authenticate personal information without any redundancies.

Currently, the number of entered records exceeded 15 million of a total of 26 million records which is the total number of records from 1922. The 26 million records were the result of redundancies of records due to registering the wife’s record in the husband’s center records without moving the wife record from her family center. The redundancies date back to 1922. By cross-linking records and eliminating redundancies, the Administration was able to enter 18 million records of a total of 20 million individuals. The remaining records are to be entered and verified by the first quarter of 2005.

The national network connecting all the centers became fully operational by the end of 2004 utilizing PDN technology.
The whole system was designed as web-enabled and although it is now operating as an intranet, it is easy to upload the services over the internet. Another benefit of such design is the safety from losing the data as it is distributed over the servers of the centers. In addition to that, backup measures were designed to maintain fully operational up-to-date records in case of natural disasters and system failures. Finally, interactive (mirror) servers were installed in some municipalities for backup and services purposes.

To further facilitate the usage of the national number, the Ministry of Interior is issuing a new Identification Card having the National Number in written and bar-code formats. The new card adheres to the highest international standards for counterfitting and usability. Parallel to the automation of the Civil Records, the Legal (criminal) Record was fully automated and put into active service in June 2004. Through the new system, all police certificates can be obtained from any center and without the need to travel.

**Training and Human resources aspects:**

Special training courses were provided from the early stages of the project in the central administration. More than 500 employees, technicians, and engineers were trained specifically to handle all the technical and administrative aspects of the project. A joint committee was formed to directly supervise and direct the project headed by the deputy minister of Interior, and including all the directors of the major centers, advisors from the Syrian Computer society and Damascus University, and senior engineers from the central Administration of the Civil Records. The committee developed the plan of action, benchmarking methodology and a weekly reporting system to monitor the progress of implementation. The committee is supervised by a higher committee headed by the minister of Interior, four directors from the Ministry of Interior, directors of IT directorates of the Ministry, and ICT experts. The main task of the high committee is to review the progress and to take actions on the strategic level if the need arises to pave any obstacle.

The project was designed, programmed, implemented and developed by local expertise. The software and modules used in the project were developed by local programmers and with the help of local private and public software houses jointly working under one unit. Operating, maintaining and developing the software used by the project are done by the engineers and technicians of the administration.

**Work flow and technical aspects:**

The process of entering data/records is done in the Central Center of Administration and not by the municipal centers for the following reasons:

- Data entry requires more hardware (computers/terminals) than updating/retrieval; hence to equip all the centers with more than needed computers will render the project unfeasible on the long term.
- Real-time streaming of records requires a massive database server, huge networking traffic and difficulty in decentralizing the database once all the records has been entered.
- The number of human resources to be trained and employed will delay the project.
By centralizing the process of records’ entry and creating a state-of-art specialized center, the Administration was able to focus all its recourses on one point. The centers were not overloaded with the work and the training required for the process of entering the records is kept to a minimal.

At the same time, all centers were updated with computers and networks. The plan was to equip each municipality with a central server for the specific purpose of issuing Identification Cards. Each of the servers is connected with centers in the municipality to enable issuance of the Identification Card. Through this scheme, the servers and the equipment used for the purpose of issuing Identification Cards are also used for the process of automation and records’ entry. The process also simplified and cut down the time needed for verification of records. This is done by entering the record for the purpose of issuing the Identification Cards, and at the same time, to transfer the record to the records’ database in the central Administration center. The web-enabled design enabled utilization of leased lines, ISDN and Dial-Up services already available. Through this, the process of entering the record became not only very fast and efficient, but also dynamically structured as the number of experts needed to be on-site became minimal. Overall, the design and implementation saved time, money and resources to be used and to reallocate them to renovate and update the centers and the Administration as a whole. The evident result is the installation of more than 1000 computers in major centers and more than 600 computers in automation centers, all networked and connected to create one of the most advanced services in the country.

**Difficulties faced during the project:**

In the initial phase of the project, there was a great lack and need for experts and specialists in the ICT field, especially programmers and system analysts, and the lack of qualified technicians IT administrators in the centers. This lack necessitated intensive training for existing employees and the recruitment of university graduates in the program with, at the same time, polling all the experts in these fields from Damascus University and the Syrian Computer Society to work and train in the project.

For various technical and non-technical reasons, the issuance of the new Identification Card faced some problems that were eventually solved through contracting with a specialized French supplier.

Other information systems used by other ministries could not fully utilize the National Number and the need for change or updating such systems is another daunting problem.

Perhaps the most difficult and problematic issue faced the project was the redundancy of the records and the inaccuracy of original record. This problem created a considerable latency due to the time needed for verifying each transferred or inaccurate record.

Another impediment faced, and still facing, the project is the incompleteness of information such as education, change of residence, marital status changes, etc. Although considerable efforts were made to acquire such information through the new
Identification Card application, the ability to cross-reference the accuracy is still time-consuming and difficult.

The process of automation and design of the flow faced a big challenge to accommodate the regulations, administrative and procedural standards, and the current processes.

The biggest difficulty facing the project currently, however, is how to maximize its utilization by other ministers and institutions. The limited use and low penetration of the internet by private citizens and governmental agencies alike is the biggest hurdle, because the lack of access to a service is the same as if this service does not exist.

**A Pilot project or a special case:**

The ability to implement the project in other countries in the Euro-Mediterranean region:

The primary element contributed to the project’s success is the accurate and meticulous planning. From planning of training cadres and human resources to distribution of workloads and processes, every little aspect affecting the flow of work was examined and tested before implementation. As the results show, millions of records were entered in a record-time with virtually no faults. And most importantly, the project has no special factors that render it unique or difficult to be implemented by other ministries or countries.

Besides good planning, which is essential, other elements contributing to the success of implementing such project in other countries include:

1- **Financing**: financing is the basic element of any project and needs no special explanation. The Syrian government has secured all the financing required to ensure the successful implementation of the project.

2- **Human resources**: training and allocating expertise is the backbone of successful implementation. Exchanging expertise in programming and software design, especially from other Arab countries.

3- **Material resources and infrastructure**: although an external factor depending on the overall progress of the technological infrastructure, it is however, one of the most important factors. Without it, the initiation and utilization of any project will be very difficult. Notwithstanding the limited existence of a modernized communication infrastructure in most of the Arab countries, the new advancements in satellite communications make bridging the gap a less difficult task. Considering the overall advantages of updating and modernizing the communication and IT infrastructure, this issue is of a strategic importance and the benefits on all tracks is evident.
Conclusion:

In short, any such project cannot be isolated from the overall move towards a sustainable development and progress. At the same time, it is an excellent indication to the level of commitment of any government to elevate the standards of living and the implementation of a real comprehensive program of development. This is highly evident in Syria where this project, and many other projects, were supported by the highest levels as part of the serious efforts towards modernization.

For the past few years, Syria engaged in a total progressive development process as H.E. president Bashar Al-Assad continuously insist on developing the ICT infrastructure and modernizing the governmental sector as the base of reformation and economic growth. For this purpose, the Government of Syria took several important steps such as establishing the ICT Ministry, allocating funds and budgets for automation and modernization of the public and governmental sector to accelerate the process of providing E-government services, modernizing regulations and laws slowing or contradicting the distribution and utilization of ICT, establishing IT educational and training institutes, restructuring ministries and redistributing of tasks to streamlining the processes and procedures, launching automation projects such as the automation of tax services and putting the ICT and programming standards by the Ministry of ICT. Other important projects has already started in almost all the ministries and organizations leading towards an accelerated path of development.