

## **CASE STUDY**

### **Implementing & Customizing Document Management & Archiving System**

#### **Summary:**

This case study presents the implementation and customization of Document Management & Archiving System (DMAS) at Al-Bireh Municipality.

ITLAQ Technologies whom implemented the solution focused on delivering world-class and high-quality electronic services to the Al-Bireh Municipality in Palestine by implementing and customizing its DMAS product (which was built on Microsoft Office SharePoint Server 2007 platform) to facilitate and accelerate its daily requests services and workflows, to archive historical files and data, to archive historical & daily inward/outward documents including faxes and emails (with option to route document, fax or email to employees as a task to get their comments and then delegate to other employee to put his/her comments and so on), to archive document files in all sections and departments, to integrate the DMAS with other existing non-Microsoft applications (HR, Payroll, Financial, Inventory, Engineering) and to give people in Al-Bireh city the authority to check their application status online through the official web portal of the municipality.

#### **Introduction:**

Al-Bireh Municipality established in 1937 in Palestine. Its one of the 4 biggest municipalities in Palestine. 300 employees support and serve approximately 250000 citizen in Al-Bireh city.

Al-Bireh Municipality processes and services in the past depend on paper-based transactions, DMAS now enable Municipality to operate all processes by indexing, processing, editing, sharing, following and distributing documents in an easy manner with full secured web-based interface and easy to understand and use.

The service went live in Jan 2009, employees began use DMAS and also Al-Bireh citizens who have able to check their requests online. So far, the response has been very positive. *"In fifteen year of working here, I never found a single document quickly, but using the easy-of-use, simple/advanced search features; now I find 99% of what I'm looking for. In addition, the powerful automation workflow services empower the system increasing productivity and improve efficiency in its service life cycle"* Raed Al-Taweel said, head of Citizens Services Department. *"The search feature of DMAS does provide the needed results with the most ease-of-use"* Lamia said, Waste Water Engineer.

DMAS gives its users the ability to manage any types of documents or Data files structures in its native format, whether users work in records, pictures, audio, video, images, scanned documents, office documents such as Word, Excel, and PowerPoint. The DMAS include powerful / graphical integrated workflow software that provides easily implemented automation of document's work processes.

*"We felt that new document management and archiving system integrated seamlessly with our existing Microsoft technologies and non-Microsoft technologies. In the long run, we plan to continue development on the Microsoft platform",* Ziad said, Head of Accounting Dept.

Employees in the Al-Bireh Municipality begin use DMAS and also Al-Bireh citizens who have able to check their requests online.

*"DMAS enables Al-Bireh Municipality to spend less time on Management & Archiving Documents and to build better responses; decrease time spent on following clients applications, increase search through documents, and, ultimately, saving all Municipality's Documents safely".* IT Consultant, Al-Bireh Municipality

#### **Challenges:**

The biggest challenges of Al-Bireh Municipality were that there is no existing of electronic DMAS inside (either as a procedures or mentality).

The Al-Bireh Municipality had decided to take the first step and to seek for an automation and scalable solution to support their activities, Process, services and needs for now and the future.

Several off-the-shelf solutions have been reviewed and evaluated, including DMAS from ITLAQ Technologies (which as mentioned before built-in MS SharePoint Server 2007 platform). DMAS has been chosen for many reasons such as: its integration with (1) MS office applications, (2) Windows Active Directory and/or LDAP, (3) External business applications (4) and its supports by many third party tested tools (i.e. Nintex Workflow, Dark Blue Duck scanning utility, IceFire Multilingual GUI) which represents a strong platform for future development and customization.

At that point, Al-Bireh Municipality hired an external consultant to specify the DMAS requirements and put the Terms of References and advise them on the best way to proceed.

### **Solution:**

In order to increase the efficiency of Al-Bireh Municipality daily working processes, Municipality adopt strategy to transfer from manual process of all services through deploying Electronic Document Management & Archiving System EDMAS.

The automated workflow and document management in EDMAS helped all departments and sections staff steering the process to create, review, and approve processes (including Building Licensing, Residency Certificate, Vacation Application, location plan application, internal memos and complaints) in a more structural way, while increasing collaboration. Out-of-the-box workflows enable initiation, participation, tracking, and reporting for common business processes such as document review and approval.

EDMAS enables Al-Bireh Municipality to comply with corporate requirements by building those requirements into the automated workflow (pre-defined WF). For example, when client apply to service (such as location plan application that are located at a certain zones/quarters/parcels/) at the customer's service section, the appropriate individuals can be notified automatically with e-mail alerts as soon as the user has reject/approve/suspend or delegate the request to other employee/s form. The workflow is build-in using Nintex Workflow technology, its User-defined and Visualized GUI.

Also, when employees need to search for document, they can use the basic/advanced search capabilities of EDMAS (which is available in the menu bar on every web page). With EDMAS, Al-Bireh Municipality staff can search all type of documents, file shares, email, in/out documents & faxes, ..etc.

Through document-life tracking, Al-Bireh Municipality also is able now to manage audits. EDMAS enables tracking and historic control of document and process creation, review, and approval. The expiration and retention policies included in the system allow Al-Bireh Municipality to carefully track its archives and contents.

Al-Bireh Municipality now is able to use enhanced security features to safeguard the fidelity of all system components. Since many people are involved in the daily processes at different times, using EDMAS is enabling Municipality to help ensure appropriate security levels. System Administrator can define document management and compliance policies through access rights at a per-item (document/folder) and per-user level to manage security concerns. In the other hand, by selecting from a series of access policies parameters, Administrator is able to set rules for "who can perform which operations" in a given access. For example, access rights can be defined for users to read, edit, print, or share the incoming/outgoing documents or faxes.

In addition the DMAS is an open architecture, so that the IT team of the Municipality can customize and develop the user interface, features and procedures with ASP.NET and Web Parts. While the out-of-the-box search interface and workflow provided by EDMAS provides all that users ever need.

Part of the DMAS implementation included identifying the key elements of the solution so that in the event of a disaster, the mission critical parts of the system could be restored and be available rapidly, significantly minimizing the down time.

### Benefits:

By implementing a DMAS web-based solution, Municipality expects to experience several improvements in its daily processes. Using the new automated workflow, archiving and document collaboration solution, Municipality Customer Service professionals will be able to respond to new business application faster, and improve the quality of those responses. The detailed information on key performance indicators for some services generation process indicates the following results:

Key Performance Indicator	Type of KPI Impact
Average service turn-around time (2 days to complete a service)	Reduce errors, efforts, costs and time
Average percentage of re-print service	Reduce errors, efforts, costs and time
Compliance with the service requirements	Reduce errors, efforts, costs and time
Average to access documents	Reduce efforts, costs and time

#### ▶ *Reduced Average Cost of Service Development*

The DMAS solution enables Municipality to decrease its average cost of services and processes. By making it easier to reuse pre-defined workflow, internal memos, follow-up complaints and application requests. All of these processes can be completed more quickly. Speeding up the process will ultimately decrease the average cost of services development.

#### ▶ *Improved Compliance with Corporate Services Processes*

By automating notifications for individuals in certain roles and workflows to review specific request status during the process, Municipality can more easily comply with its corporate framework. Built-in notifications not only will help ensure that the right individuals are being notified, but also that they are involved in the process early.

#### ▶ *Improved Services Quality*

The new solution will enable Al-Bireh Municipality to create better quality services by decreasing the presence with clients. Clients now could access and follow-up their services online from the official website of Al-Bireh Municipality without the need to physically presence in Municipality.

#### ▶ *Improved Data Quality*

The new system provides far greater exposure of the data over the old manual system. It highlights errors and encourages people to rectify errors such as bad document references or duplicate information.

#### ▶ *Improved Employee Morale*

By reducing the amount of administrative workflow tasks, paperwork handling, traditional search for document required to successfully prepare service, Municipality expects to increase the job satisfaction of its customer service employees and other employees.

In the other hand, the new solution covers the following general benefits:

- Reduces the chance of a document being accidentally lost or destroyed. Unlike paper-based environments, electronic documents within system backed up on a

regular basis and an accidentally deleted document can be retrieved within minutes from a backup media.

- Reduce the number of physical copies required for paper-based documents. Backups of important documents can be done electronically rather than using photocopiers and printers. This reduces paper and printing costs and can potentially result in the need for fewer printers and photocopiers.
- One of the major hidden costs in a paper-based workflow environment is the time required for employees to retrieve a paper file, perform an action with it, and then re-archive the file. Suppose the average time required to walk to the records room and locate the file is 5 minutes. If an employee is required to access an average of four files each day then roughly 85 hours per year is spent on this activity by this person. When this amount is extrapolated throughout the Municipality, thousands of hours can be spent each year on this activity resulting in hidden costs of tens to hundreds of thousands of dollars to the Municipality. These costs can be substantially reduced by utilizing a system that enables employees to locate and archive documents within seconds.
- Cost savings as a result of a reduction in office and storage space requirements.
- Improved internal management and processing times for key Municipality services, such as, benefits administration and planning.
- Control the performance of employees through requesting on-demand KPI reports.

Within 3 months of the new system going live, an online user survey was conducted to gauge the user's reaction. The project proved highly successful with over 95% of those that responded voting the application a hit.

Many users said how much easier it now to save and find the right document. Plus, some users have managed to use the system and successfully retrieve documents without even being trained (on-going demand training now for normal users are no longer the case). This is a massive improvement of the new system. The Municipality Customer Service has also received calls from users saying how much they like the new system!

*"The biggest short term benefit is that the users are happy!" said Jamila/ mayor head office assistance. "The combination of the simple user interface with the effective workflow, indexing and searching capabilities of EDMAS has meant rapid adoption and frequent use of the solution" again said Jamila.*

In addition, there is no need from client to check his/her paper from other institutions such as the ministry of finance for (TAX Estimations) the municipality is acting now as a one stop shop for all information needed by the citizens.

*"Spending less time on service development will enable Municipality to build better responses, increase time spent on designing the service (i.e. create workflow), and, ultimately, increase Municipality's performance rate" Musa jwayed / City Engineer said.*

### **Future Trends:**

The DMAS implementation was carefully designed so that it could not only meet the Municipality's requirements now, but also scale to meet future needs, including increased collaborative working in the future, for example employee can apply online his/her application/request.

Municipality has big plans for adding more features to EDMAS with cooperation with ITLAQ Technologies as a part of its global portal initiative, including:

- Setting up sharable work-space. *As IT Consultant explained, "Municipality need to convert from saving employees backup into file system to saving them inside DMAS, this issue will prevent files from virus defection, apply crawl search and keep backup safely".*
- Setting-up internal Knowledge-base to allow employees find resources they need.
- Adding SMS technologies, to notify employees and citizens about different issues and applications.

- Establishing the online payments and orders using Credit Card, so the citizens outside Palestine can pay for their taxes and tracks their properties issues inside the country.
- Expanding the number of services as need for the future with easy and fully integration.
- Providing multilingual user interfaces for international partners.
- Establishing central location for all services required.

Municipality plans to quantify the Return-On-Investment (ROI) provided by the new technology (DMAS) by encourage investors to invest and build in the home land, but in the meantime, the business benefits are obvious, no time-consuming tasks of employees and customers satisfaction through facilitating the routine procedures.

#### **Conclusion:**

DMAS demonstrates that it can serve enterprises needs from basic to highly sophisticated requirements and aims. Continuing a longstanding and mutually beneficial relationship, Al-Bireh Municipality turned to ITLAQ Technologies to build, customize and deploy rapidly a Customer Service Workflow, to Manage & Archive Documents and to design unbelievable search engine. Municipality found DMAS from ITLAQ easy to customize using the widely familiar SharePoint 2007 platform and .NET development environment, also found it easy to install and manage, it can runs form any PC having internet browser. At the same time, DMAS had provided highly granular permission-based indexing and document control, user-defined and visualized workflow, advanced multilingual search capabilities and a host of other cutting-edge features, many of which Municipality plans to use in the future.

#### **For More Information:**

For more information about ITLAQ Technologies products and services call company at:

##### **ITLAQ Technologies**

**Tel: +970-2-2402228**

**FAX: +970-2-2402228**

**P. O Box 4625 Al-Bireh**

**Al-Bireh-Nablus Main Road, Al-Rami Motors Building - Second Floor  
Palestine**

**Email: [info@ITLAQ.com](mailto:info@ITLAQ.com) [www.ITLAQ.com](http://www.ITLAQ.com)**

##### **To contact Al-Bireh Municipality:**

**Tel: +970-2-2404737**

**FAX: +970-2-2404431**

**P. O Box 3506 Al-Bireh**

**Al-Bireh-Al-Bireh Municipality Street  
Palestine**

**Email: [info@al-bireh.com](mailto:info@al-bireh.com) [www.al-bireh.org](http://www.al-bireh.org)**