

Technology evolution drives towards e-government

Capturing, processing and archiving transactions...

Divisional Director at OITUK, Dr Vijay Magon, discusses below how the combination of mature technologies and newer innovations are underpinning the Government's mandate for online services.



Dr Vijay Magon, Divisional Director

The public sector has traditionally handled large paper volumes and complex record sets, managed internally at departmental level, via a range of technologies, including imaging, document management and workflow. Nowadays, a whole range of pressures are driving organisations to provide web-based facilities that enable external bodies to interact with the core information systems. At its simplest level, members of the public, and multiple government departments, must now link together to extend public services and streamline the Government operations as demanded by Tony Blair. This paradigm shift must operate within the laws of the existing Freedom of Information Act, the Data Protection Act, and for some organisations, the Public Records Office (PRO) regulations. OITUK deliver governmental solutions that address these critical issues.

In hindsight, three key stages towards e-government have been evolving over a 20 year period, with OITUK actively deploying solutions within each stage.

Stage 1

Data capture technologies such as imaging, COLD and microfilm digitisation have eased the burden of those huge paper mountains through electronic availability of information:

- HM Prison Service have used imaging to help create a 'paperless' office environment, demonstrating that technology can contribute significantly to office productivity;
- HM Customs & Excise have used imaging to manage their paper-based supplier VAT records, to support VAT-registered businesses;
- MOD Medical Records have digitised some 45 million images into an electronic document repository to support retrieval requests from around the UK.

Stage 2

A shift in emphasis from document capture to use, control, and flow of information through document management and workflow facilities have improved departmental efficiencies in finding information, automating document processes and enforcing standardisation:

- South Yorkshire Pensions Authority process high volumes of pension related correspondence to and from the Authority's former and current employees, managed on a case basis within the document management repository;
- Essex County Council and Kent County Council scan paperwork related to the buying and selling of products in their Commercial Divisions. Essex also match paper

invoices with electronic reports generated via mainframe computers, for enhanced sales and purchase tracking;

- Swindon & Marlborough NHS Trust created electronic patient records and halved the volume of paper health records, including barcode recognition integrated with the Trust's Patient Administration System (PAS) for improved processing of patient cases;
- Princess Alexandra Hospital (Harlow NHS Trust) combined document management facilities and record tracking to always know the location and status of patients' electronic and paper records.

Stage 3

With lower costs, a more mature technology, higher expectations and a greater hunger for the competitive edge, the requirements for integrated business solutions have become more apparent and complex. Newer web-based content management and portal technologies now deliver the business transaction information in a highly personalised manner, enabling the same information repository to be shared in an authorised environment by multiple government agencies and members of the public:

- At North Tyneside Council, over 350 staff distributed around the Newcastle area are involved with social benefit claims processing. The OITUK system links them to Revenues and Benefits Calculation software and has virtually eradicated paper from the Revenues and Benefits Departments;
- London Borough of Camden deployed a web-based content management system in their

housing maintenance department to enable council workers across all departments to view job statuses. Access by the public for progress checks and queries is a natural extension for the e-government mandate.

The technology backbone

The diagram below shows that the types of applications described are fundamentally based on modular building blocks that connect with central networks and servers. At the heart of the topology is the DocFinity content management engine, gathering diverse information sets from sources such as email, scanned images, word processed documents and citizen online enquiries. DocFinity then relates this content to existing information in other business applications, to create cases of documents to work flow between workers for completion of business transactions.

The portal aspect, in particular, provides an e-business platform, in line with Government mandates for online services, through content access for both citizens and process workers. The content portal provides the web and form facilities for public access, and the workflow drives back office administration to capture, process and archive the transactions.

The web portal screen is profiled to the particular user, and utilises the underlying content management engine to manage document access and security. The idea is that relevant electronic documents, scanned images, reports, workflow tasks, email and more are driven to the portal, rather than the user needing to search for them each time. By linking the portal to other applications, including office tools, schedulers, collaborative discussion

retention, and disposal management. OITUK drive the turnkey project deployments, with services including business analysis, specification, installation, roll-out, training and support. The DocFinity product suite has been successfully deployed with over 3,000 organisations in both the public and commercial sectors. The full scope of the integrated content management suite is as follows:

- Electronic Document Management;
- Internet/Intranet/Extranet Delivery;
- Document Imaging;
- Electronic Forms Processing (Web);
- Records Management;
- Storage Management and Archiving;
- Workflow;
- Portal Profiles;
- COLD/Microfiche Handling;
- XML Business Application Integration;
- Collaboration Facilities.

Over the years, OITUK have assisted government bodies in assessing the benefits derived from these technologies and have concluded that four broad areas of benefit are achievable:

Physical cost benefits:

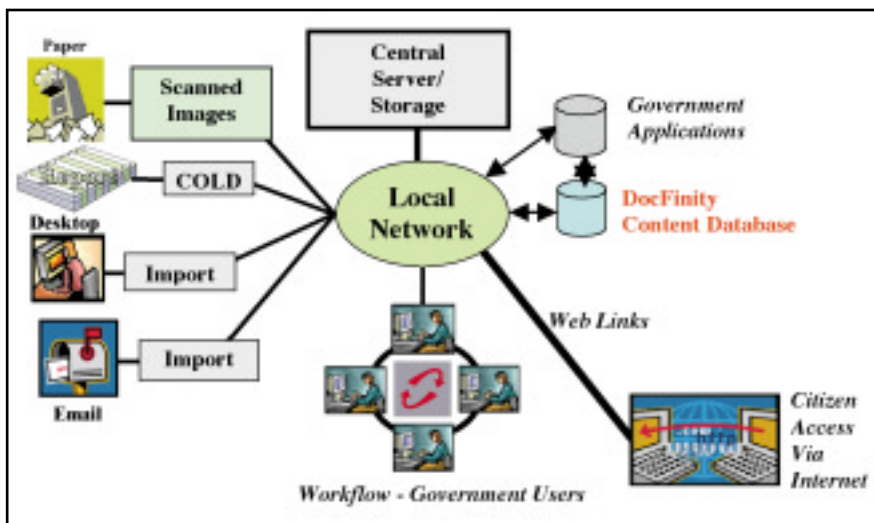
- Staffing redeployments;
- Paper purchase savings;
- Microfilm/Microfiche savings;
- Postal cost savings;
- Phone bill savings;
- Accounted filing space savings.

Service control benefits:

- Speed and ease of implementing business process changes;
- Improved appreciation of how specific business activities function and perform;
- Lower audit costs via visibility of regulatory compliances and procedures;
- In some cases, the ability to keep the department afloat.

Service analysis benefits:

- Process bottleneck visibility;



There is a clear trend towards the centralised use of the electronic document within the business process and we have seen a gradual transition from using document management systems for electronic filing to using such systems on the desktop, integrated with the core business operations. Organisations are increasingly identifying requirements in terms of solutions which fit into their business strategy and IT infrastructures - the overriding need to provide a better, more responsive service (internal and external). This amounts to rapid processing of business information and its timely delivery to relevant users/consumers.

facilities and line-of-business systems, a 'virtual office' is created from which departmental workers can perform business operations.

OITUK portfolio and benefits

OITUK has been exclusively licensed in western Europe since 1994 to deliver content management solutions based upon the established DocFinity product suite from OIT Inc. (USA). OITUK extend the core suite with the DocFinity Content Portal module, which allows users to view customised content, and the DocFinity Records Manager module, which provides record life-cycle facilities, such as access rights, tracking,

- Detailed transaction knowledge – the who, why, where and when concerning business cases;
- Staff productivity measurements;
- Ongoing process improvement;
- Reduction of errors;
- Increased public service levels.

Service efficiency benefits:

- Faster business reviews or case handling;
- Parallel routing of shared documents and work amongst individuals;
- Automatic prioritisation of workloads;
- Delegation and escalation procedures;
- Alerts for 'nearly due' and alarms for 'overdue' work items;
- Work categorisation simplifies the management of high work volumes;
- Automatic work re-routing during staff sickness or vacations;
- Faster access to individual documents within a 'case';
- Scope for reduced keystroking (and error introduction) between applications;
- Potential to link to public user communities;
- Web-based workflow participation for non-office-based staff.

Case study – Wealden District Council

Wealden is the largest district council in East Sussex. Covering an area of some 325 square miles, with a population approaching 146,000, they are responsible for 62,000 Council Tax accounts, as well as the management of over 20,000 Housing Benefit claims, of which around 12,000 are live at any one time. These documents can result in large quantities of paper-filled filing cabinets, making it difficult to find what is needed to meet customer queries or management demands. To tackle these problems, Bill Lovell, Wealden's Assistant Treasurer, decided

that an electronic document management system was needed.

Lovell's first step was to determine what sort of system would best meet Wealden's requirements in terms of functionality, ease of use and, of course, cost. To ensure the best decision was made, an internal project team was assembled, consisting of personnel from IT and those who would actually be using the system. The team required a system that offered the flexibility of adapting to their exact requirements to meet the needs of their operations, without having to change their own processes. In addition, they also wanted a system whose software provided sophisticated indexing capabilities to cope with large amounts of documentation.

Wealden opted first to install the DocFinity document management system in their Council Tax Department to handle Council Tax documentation. The system enables all paperwork received, such as letters from homeowners, payment information, etc. to be electronically scanned into DocFinity Imaging, accessible by staff from their PCs. Mervyn Yates, Local Taxation Manager, comments, "User acceptance across the organisation has been high".

A second DocFinity application was installed in the Housing Benefits Department, as Ian Nisbet, Benefits Manager, explains, "This system is designed to handle the complicated demands of dealing with benefit claims that involve an eight page application form, along with supporting documentation such as pay slips and bank statements". To process these claims, the DocFinity Workflow module incorporates flexible workflow facilities to monitor a wide range of elements and their progression through Wealden's systems.

Lovell mentions that when the OIT DocFinity system was installed, users were assessed to see how they liked the system. After only one month, 70% of the users were satisfied and after three months, this figure has increased to an impressive 95%. Explains Lovell, "We have been delighted with the success of the systems. The products are good and

we receive excellent support when we have problems or questions. We have also had comprehensive training for all of the staff, although not very much is actually needed because the software is so easy to use. All in all, I think (document management) systems are a superb way for local authorities to handle current requirements of managing Council Tax and Housing Benefits, while providing a platform to deal with changes that may come along in the future. This system will pay for itself by improving efficiency, rather than us having to justify capital expenditure".

Dr Magon's conclusion

"The road to e-government is already paved with the right supporting technologies that can work together to deliver online services. These are a mixture of older but proven back office tools, such as imaging and database connectivity facilities, coupled with newer web-based portal mechanisms and workflow functionality. Together, these deliver integrated services across departmental boundaries, so that citizen transactions can be handled efficiently online. The returns from investments are being realised through careful application of this technology to address strategic business requirements, rather than short-term measures to solve paper problems. The technology is not rocket science, but has evolved gradually as government demands and web accessibility have increased. The DocFinity product suite has mirrored this evolution and now provides a rich capability for handling the e-government requirements."



Dr Vijay Magon
Divisional Director

OITUK

Tel: 01908 269600

sales@oituk.com

www.oituk.com