InterPARES 2 Project
International Research on Permanent Authentic Records in Electronic Systems

Case Study Proposal
Revenue On-Line Service (ROS)
Focus 3 - Government

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Summary

The proposed case study will centre on the roll out and expansion of the award winning Revenue On-line System (ROS) currently in operation by the Revenue Commissioners of Ireland (Revenue). In the move towards e-government, Revenue has created an on-line system that enables the generation, maintenance, access and preservation of electronic based tax and other records, in a secure and appropriate environment.

Description of Creator

Revenue regards tax collection as its core business and a key output each year is achieving the Budget target. Revenue's mandate derives from legal and other obligations imposed on it by the Irish Government and European Directives. Under Revenue's current corporate plan, it is envisaged that sums in excess of 40 billion Euros will be collected, of which ROS will directly collect 5 billion Euros. Revenue hopes to have 50% of all tax returns and transactions occurring on-line by 2005.

Description of System

ROS is an Internet based system allowing taxpayers to file a series of tax returns on-line and view details of revenue account information in a secure environment. It is also possible to transfer funds electronically to settle tax liabilities.

The ROS system is increasing in functionality and complexity on an on-going basis. The first phase of ROS was released on 29 September 2000 and an additional 7 phases have been released to date, augmenting both the range of tax forms that can be processed by the system, and the range of services available. Two further phases are expected to be released before the end of 2004.

The system allows taxpayers and agents to download ROS software to enable tax returns to be processed off line before connecting on-line to transfer the details electronically. The ROS system can also integrate with at least ten other third party software solutions necessitating sophisticated interfaces for the secure transfer and authentication of data and records.

The ROS Web site was awarded an eGovernment label from the European Commission and Bobby approval from the W3C consortium. The Web site is in English with full translations into Irish, German, French and Spanish (No Italian to date).

The stated benefits of ROS include:

- A speedier, secure and more accurate returns processing and repayments service.
- Avoidance of the need to write cheques for the payment of tax accounts.
- Completion of simpler, user-friendly return forms that have as a feature some mandatory fields and data validation checks to safeguard against the input of errors on the part of the customer.
- Instant acknowledgement of returns.
- Fewer paper transactions and, as a result, a lower error rate and a more effective and efficient use of business hours.
- Availability of on-line calculation facilities to minimise errors.

Rationale for Case Study

The ROS system is one of the very few Irish government Web sites actually creating, managing and preserving electronic records. Specific areas meriting attention are:

- **Focus level – E-Government.**

The creation and management of digital certificates and signatures. In the light of the E-Commerce Act 2000, digital and electronic signatures have been granted the same weight in law as analogue signatures. This study will look at their use in an operational environment in addition to PKI encryption and the associated challenges of preserving encrypted data. ROS includes a certificate management infrastructure and is itself a certifying authority for its digital certificates. An imminent enhancement to the ROS system will be the ability to transfer tax certificates for employees directly into employers' systems running compatible software.

- **Domain 1 – Creation and Maintenance.**

ROS enables taxpayers and agents to record tax returns and other declarations such as excise duty declarations either on or off line, and then file the data electronically. These records form the basis of any study for domains 2 and 3.

To maximise usage of ROS, Revenue offers XML DTDs[1] of all its forms for developers to ensure any third party product can interface with the system. The case study will examine metadata models and standards (if any) used for information creation and exchange.

- **Domain 2 – Accuracy, Reliability and Authenticity.**

Key concerns for Revenue included clear and unambiguous authentication measures, guarantees regarding the integrity and confidentiality of information supplied by users, and the non-repudiation of tax returns. All of these are aspects of the archival record, and the steps taken by Revenue to ensure appropriate control will be examined and assessed.

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[1] Document Type Definitions.

- **Domain 3 – Appraisal and Preservation.**

Revenue has received approval to dispose of various classes of paper-based records providing an equivalent electronic record existed and was retained.[2] The ROS project offers the opportunity to research disposition and appraisal decisions for electronic records in a working environment. Furthermore the requirement to maintain electronic records in line with company and other financial legislation necessitates long-term storage and preservation of electronic records. Little is known at present as to the steps proposed by ROS to ensure the preservation of the records in line with Domains 1& 2.

- **Cross-Domain Level – Policy.**

Revenue would normally process some 3 million tax returns per annum equating to some to million printable pages. Error margin was 20% because of both user and internal mistakes. The introduction of ROS has included technical controls to minimise this margin for error. In addition to issues of accuracy and data input, long-term accessibility of the records is a legislative requirements (See Domain 3 above). These related issues may necessitate the migration of data to alternative formats whilst requiring controls to ensure authenticity and integrity. The lack of analogue back ups requires tight policies and procedures to ensure that records existing exclusively in the electronic domain meet legal and archival requirements. The need for appropriate archival description and the sampling of electronic records may also be included in the study.

Institutional Goals

1. The ROS Web site is one of the few Irish government Web sites actually creating, preserving and distributing electronic records. Working with this system as a case study, will increase knowledge and expertise within the National Archives in electronic records management.

2. As a consequence of this case study it may also be possible to formulate destruction and other disposition certificates for electronic records in line with work undertaken by the Records Acquisition Division.

Methodology

Series of interviews, system architecture examination, on-line and off-line trials.

Team

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[2] National Archives Act 1986 Section 7.

Timeline

September 2003	Approval by InterPARES 2 for case study.
October 2003	Approval from ROS subjects.
October 2003	Begin drafting questionnaires and obtain technical data.
November 2003	Interviews and questionnaires.
December 2003/January 2004	Write up case study/Follow on interviews.
February 2004	Review with Focus 3 members.

Links

www.revenue.ie

Web site for Revenue Commissioners.

www.irlgov.ie/egovernment.asp

Web portal for Irish E-Government services.

http://archives.tcm.ie/businesspost/2003/04/27/story651263591.asp

Sunday Business Post article on ROS service.

http://newperspectives.iia.ie/e_article000125275.cfm

Irish Internet Association report on ROS.