



InterPARES 2 Project

International Research on Permanent Authentic Records in Electronic Systems

Domain 1 Research Questions

Case Study 20: Revenue On-Line Service (ROS)

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1.1 What types of documents are traditionally made or received and set aside (that is, created) in the course of artistic, scientific, and governmental activities that are expected to be delivered on-line? For what purposes? What types of electronic documents are currently being created to accomplish those same activities? Have the purposes for which these documents are created changed?

- The ROS system is an e-government application used to file tax forms, and pay commensurate tax liability; the existing paper-based system is still available if users would prefer this format. Document types created in the paper environment are not identified in the case study, with the exception of unspecified tax forms, and cheques or credit card information forms providing payment instructions.
- Documents are created and set aside in compliance with Irish Revenue's responsibility to collect and manage taxes and duties within the Irish State, as mandated by obligations imposed by statute and Government, and as a result of Ireland's membership in the European Union.
- The types of electronic documents currently being created, and analyzed in the case study, include:
 - Digital certificates and signatures, facilitating user identification and recognition, and adding to the ability of ensuring the integrity of any data submitted to the system
 - Tax forms, facilitating tax filing and meeting legislative requirements related to the declaring and paying of taxes
 - Debit instruction forms, discharging financial liability under tax legislation
 - Other electronic documents include database entries, generic emails, Adobe Acrobat files, and EDI financial interchange.
- The purposes for which documents are created have not changed, as Revenue continues to be responsible for the collection and management of taxes; ROS is used to replace

- ROS is a high profile e-government service offered to tax agents and customers, operating as either a stand alone or on-line application.
- Rationale behind the creation of the ROS is that the people do not want to “see” Revenue, and Revenue does not want to “see” people.
- ROS is also promoted as a means to reduce the high number of errors noted in analogue tax forms

1.2 What are the nature and the characteristics of the traditional process of document creation in each activity? Have they been altered by the use of digital technology and, if yes, how?

- The five activities examined in the case study are: the creation and delivery of digital certificates; user management; tax form creation; record transactions; and record interfacing and viewing.
 - The traditional process of document creation is not explicitly discussed in the Revenue On-line (ROS) case study, except that information from analogue forms was entered manually into databases by Revenue employees.
 - The traditional document creation process can be presumed to include the filling out of paper forms by individual and tax agents, and the submission of paper cheques or credit card information for debit and payment instruction.
- This process has been altered through the use of digital technology in the following ways:
 - Based on the need for a secure online environment, the ROS system is regulated using PKI; document creation is done, therefore, in a controlled environment.
 - Acknowledgement of receipt of information is sent via email to individuals and tax agents
 - Electronic records are passed to Revenue’s corporate back office systems for processing in the same format as those records generated from paper tax returns.
 - Paper-based returns generate a paper output; electronic returns generate an electronic output; the information, therefore, supplied to back end systems impacts directly on the manner of outputs
 - ROS users are required to apply for and obtain access numbers; individual require a RAN (ROS Access Number) and tax agents require a TAIN (Tax Agent Identification Number).
 - Certain fields of the electronic tax forms are pre-populated and verified, in order to reduce the number of errors that were apparent in analogue formats; these can also be verified using business logic.
 - Information is now added to the database automatically, rather than typed in by Revenue employees

1.3 What are the formal elements and attributes of the documents generated by these processes in both a traditional and a digital environment? What is the function of each element and the significance of each attribute? Specifically, what is the manifestation of authorship in the records of each activity and its implications for the exercise of intellectual property rights and the attribution of responsibilities?

- The documents generated in the traditional, paper-based environment are neither explicitly identified nor described in the case study.
 - The only ROS forms created in paper format are the request for ROS access numbers and subsequent mailing of a user's RAN or TAIN number.
 - The printing of forms from the ROS is also possible.
 - It should be noted that the use of the PKI environment in conjunction with digital certificates is analogous to an individual using his/her PPS number and signature in the analogue environment.

- In the electronic revenue system:
 - There are several elements common to all of the electronic records: these include the Revenue logo, standard web templates, the privacy policy and terms and conditions, copyright statements and the certificate practice statement
 - Digital certificates and signatures are used to sign and encrypt data prior to transfer; their elements include the name of the certificate owner, the dates of issues and expiration, and the user's public key and unique login number
 - Tax forms are HTML pages displaying data originally stored in XML DTD. They have been designed to mirror existing paper-based forms, but have added levels of pre-population and dynamically generated content; their elements include structured data required to meet legislative requirements for tax compliance, instructions, and a time/date stamp
 - Debit instruction forms are HTML pages, signaling to ROS the method and delivery of payment; their elements include a bank account #, sort code, name of the account, and the explicit agreement

- Revenue is considered to be the author of these documents; this is reflected in the consistent URL naming the ROS with strong ties to Revenue.
 - Tax and debit instruction forms, however, are completed by individuals or tax agents who are then responsible for the information they provide.
 - Revenue is also responsible for maintaining the ROS system and related documents in compliance with legislative requirements.

1.4 Does the definition of a record adopted by InterPARES 1 apply to all or part of the documents generated by these processes? If yes, given the different manifestations of the record's nature in such documents, how do we recognize and demonstrate the necessary components that the definition identifies? If not, is it possible to change the definition maintaining theoretical consistency in the identification of documents as records across the spectrum of human activities? In other words, should we be looking at other factors that make of a document a record than those that diplomatics and archival science have considered so far?

- The creator considers all digital entities identified to be records because of their relationship to tax filing and payment transaction, reinforced by the commitment to retain the security wrapper and its contents in original form.
 - The definition of a record, as adopted by InterPARES 1, applies to all of the above-noted documents; diplomatic analysis has shown that the documents in the ROS satisfy all necessary components of a record.

- ROS records satisfy the requirements of a record in the following ways¹:
 - The ROS has stable medium and content, and a fixed form; records are saved daily on backend servers, are affixed to an n-tiered system using business rules dictating record creation and maintenance, and mirror existing paper forms.
 - The ROS participates in several actions, including assessment of taxes, receipts of payment, maintenance, and the provision of access to Irish citizens.
 - The ROS records possess several archival bonds; for example, records have a bond with like records generated from the same process, and the entirety of transactions received from a customer are stored individually within a “security wrapper”.
 - The ROS records demonstrate the involvement of all persons required (author, addressee, writer, creator and originator).
 - The ROS records possess identifiable juridical-administrative, provenancial, procedural, documentary and technological contexts.

1.5 As government and businesses deliver services electronically and enter into transactions based on more dynamic web-based presentations and exchanges of information, are they neglecting to capture adequate documentary evidence of the occurrence of these transactions?

- The evidential weight of ROS records is dependent upon supporting documents and technology, including the PKI environment and user authorization; Revenue maintains that the system offers and supports a chain of authenticity.
- Transactions are documented through the formal act of signing and submitting a tax form to the Revenue Commissioners via ROS; this is evidence of a record.
- The legal obligations applying to the ROS include: the Data Protection Act, 1998; the Official Secrets Act, 1963; the Freedom of Information Act, 1997; the E-Commerce Act, 2000; the Taxes Consolidation Act, 1997; and the Official Languages Act, 2004.
- The Taxes Consolidation Act 1997 allowed for the electronic filing of taxes, and the E-Commerce Act 2000 articulates policy regarding the creation, use and management of digital signatures, and giving parity in weight to paper and electronic records.

1.6 Is the move to more dynamic and open-ended exchanges of information blurring the responsibilities and altering the legal liabilities of the participants in electronic transactions?

- Revenue currently remains aware of its responsibilities and legal liabilities in regards to the electronic records generated in the ROS
 - Revenue is still responsible for the collection and management of taxes in the Irish State.
 - Revenue must still adhere to their legal mandates related to law and to the Irish State’s membership in the EU
 - The ROS must also comply with the E-Commerce Act 2000.

¹ For a more in-depth discussion of how the ROS satisfies record requirements, see “Case Study 20 Diplomatic Analysis.”

1.7 How do record creators traditionally determine the retention of their records and implement this determination in the context of each activity? How do record retention decisions and practices differ for individual and institutional creators? How has the use of digital technology affected their decisions and practices?

- Revenue abides by the National Archives Act as a guide to retention practices for all paper-based records, and requires authorization to destroy any tax forms; Revenue has a recordkeeping and archives system, automated wherever possible. This system has access privileges and restrictions.
- No strategy, however, has been articulated to date to deal with the retention of those records found within, and produced from, the ROS.
 - The case study notes that it is work practices and an increased use of IT driving the retention and preservation of records, rather than only legislative needs; Revenue is conscious of the need to preserve accurate financial records over time.
 - ROS maintains only a subset of records, retaining the records only of active users and agents.
 - A copy of submissions and transactions are maintained in a user's inbox, but it is unclear for how long.
 - It is also unclear for how long older public keys and digital certificates are maintained.
 - Tax form records are not currently considered archival, and will be destroyed at an as yet unspecified date.
 - ROS also does not distinguish between current and non-current records.
 - It is assumed that debit instruction forms are maintained for a specified time in line with financial and companies legislation
 - It is also noted that the preservation of tax records is not appropriate given the level of personal information within them, and their lack of suitability for archival preservation
 - The electronic nature of the records affects their retention in the following ways:
 - Since digital certificates must be routinely reissued for security reasons, their life span is limited
 - Revenue intends to offer seven years of historical records to users, since tax records remain live