

CEN

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WORKSHOP

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AGREEMENT

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English version

Discovery of and Access to eGovernment Resources - Part 1: Introduction and Overview

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The formal process followed by the Workshop in the development of this Workshop Agreement has been endorsed by the National Members of CEN but neither the National Members of CEN nor the CEN Management Centre can be held accountable for the technical content of this CEN Workshop Agreement or possible conflicts with standards or legislation.

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Foreword

This CWA is part of a set of CWAs which has been prepared by the CEN/ISSS Workshop on 'Discovery of and Access to eGovernment Resources' (WS/eGov-Share)

The CWA consist of six parts:

- Introduction and overview (Part 1);
- A common reference ontology for description of eGovernment resources (Part 2);
- A protocol for exchange of information and change management (SDShare) (Part 3);
- Common approach for federation of terminological resources and vocabularies (Part 4);
- Reference ontology for cultural elements (Part 5);
- Evaluation and Recommendations (Part 6).

The final review/endorsement round for this CWA was successfully closed on 3 February 2009.

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The following workshop members approved the CWA:

- Office des publications officielles des Communautés européennes, Luxembourg
- Standard Norge / Standards Norway, Norway
- TIE Nederland BV, Netherlands
- Oy KREST Sales and Consulting Services Ltd, Finland
- More Software Solutions AS, Norway
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- University of Duisburg-Essen, Germany
- Stichting ICTU, Netherlands
- State Capital Düsseldorf, Germany
- Ministry of Public Administration, Slovenia
- National Technical University of Athens, Greece
- Pensive SA, Belgium

Introduction

The objective of this CWA is to provide a set of specifications and guidelines to designers and developers of eGovernment systems and services to enable the exchange of descriptions of eGovernment resources in the widest sense and to build and maintain federated repositories that integrate resources created and managed by several agencies creating a single point of access to users.

Acknowledging that local solutions are being based on local requirements, the CWA does not aim to standardize local solutions but instead concentrates on enabling the exchange of information. In doing so, it does not propose a solution for distributed searching but instead focuses on resource federation where the system manages to decide on which resource they want to bring together to meet their users' needs. As such the CWA aims to provide "back-office" data integration tools that can be used in various ways to provide enhanced "front-office" user interfaces.

On the basis of the specifications, an example implementation was developed that is based on ISO Topic Maps on the semantic layer and ATOM feeds on the interchange layer. The specifications, however, do not mandate these technologies and other technologies could be used for both the semantic as well as the interchange layer.

The specifications contained in the CWA are considered to be a starting point and further implementations are encouraged to build experience with the specification that may lead in the future to revision of the CWA.

The CWA consists of six parts:

Part 1 of the CWA describes the overall objectives and approach for the work and provides a glossary and links that are relevant for the understanding of the other parts of the CWA. This part is intended for anyone who wants to get information on the rationale and objectives of the work and any user of one of the other parts of the CWA to get an overview of the relationships of the various aspects of the work.

Part 2 presents the ontology for the description of eGovernment resources and the metadata schema that is used in the work. The reference ontology is intended to work with existing metadata schemas. In Part 2, section 3, there is a table that proposes a mapping from commonly known metadata standards and approaches. This table can be extended based on contributions from the community. This part is aimed at implementers and information modelling experts.

Part 3 describes the protocol (SDShare) to be used for the exchange of information about eGovernment resources, with examples of its usage and test cases for the implementation of the protocol, and deployment guidelines for the tools developed as a reference implementation. This part primarily addresses architects and implementers of eGovernment-oriented information systems, especially registries. It is equally pertinent for implementers of registries and data federation solutions in other domains.

Part 4 addresses the interoperability issues related to terminology that occur when different authorities use different terms to describe resources, different interfaces to publish them and different ways of semantics to understand and interpret data that has been exchanged. Based on the specification of a data model, this part describes the realisation and integration of the Terminological Resource Network with a hands-on description of instances of terminological resources and their relationship with real-world examples. It also contains the description on how existing terminological data sources may be included, especially ebXML RR systems as defined in the ADNOM CWA.

Part 5 specifies the structure for the formalized description of cultural elements and its integration with the general ontology of Part 1 and an initial taxonomy of soft cultural elements capturing the ten elements that are identified as the most urgent ones. This part is relevant for architects of eGovernment information systems as well as experts in software localization and internationalization across domains.

Part 6 documents the test data registration, analysing the pros and cons of the registration process. It also proposes an approach for ensuring continuous operation and contains a report on findings and outcomes of the workshop with recommendations and a roadmap for the future. As such, this part is intended for specifically those managers of eGovernment resources and repositories who want to know how the tools delivered by the Workshop can be used and how they can be developed and maintained in the future.

1 Scope

The present document provides an introduction and an overview to the discovery of and access to eGovernment resources.

This part describes the overall objectives and approach for the work and provides a glossary and links that are relevant for the understanding of the other parts of the CWA. This part is intended for anyone who wants to get information on the rationale and objectives of the work and any user of one of the other parts of the CWA to get an overview of the relationships of the various aspects of the work.

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2 Definitions

2.1 Definitions

Cultural Element: A data item for computer use that may vary dependent on language, territory, or other cultural circumstances (ISO/IEC 15897: http://www.iso.org/iso/catalogue_detail?csnumber=29452)

eBusiness: Electronic business may be defined as the utilization of information and communication technologies (ICT) in support of all the activities of business.

eGovernment: Refers to the use of internet technology as a platform for exchanging information, providing services and transacting with citizens, businesses, and other arms of government.

eServices: A highly general/generic term usually referring to the provision of services via the Internet.

Locale: An identifier that refers to a set of user preferences that tend to be shared across significant swaths of the world (Unicode TR35: <http://unicode.org/reports/tr35/>).

Metadata: "Data about data", of any sort in any media. An item of metadata may describe an individual datum, or content item, or a collection of data including multiple content items and hierarchical levels, for example a database schema. In data processing, metadata is definitional data that provides information about or documentation of other data managed within an application or environment.

Ontology: In computer science and information science, an ontology is a formal representation of a set of concepts within a domain and the relationships between those concepts.

Portal or Web portal: A site that provides a single function via a web page or site. Web portals often function as a point of access to information on the World Wide Web. Portals present information from diverse sources in a unified way.

Protocol: A convention or standard that controls or enables the connection, communication, and data transfer between two computing endpoints. In its simplest form, a protocol can be defined as the rules governing the syntax, semantics, and synchronization of communication.

Registry: A storage location in where metadata definitions are stored and maintained in a controlled method. A registry can be compared to a phone book registering many different entries and their references. It is typically used for describing and discovering elements (see <http://www.oasis-open.org/committees/regrep>).

Repository: A database which is containing and managing data entities which are often described by registries. Repositories typically support a message store that can be queried, and functionality for versioning, logging and auditing (see <http://www.oasis-open.org/committees/regrep>).

Resource: Following the Oxford American Dictionary, resources are seen as assets that can be drawn on by a person or organization in order to function effectively. Resources may include services, process descriptions, standards, interoperability frameworks and documents. Note that the term "resource" is polyvalent. The RDF Primer understands it as all "things that can be identified on the Web, even when they cannot be directly retrieved on the Web". This includes many types of entities (e.g. organizations, people, concepts) that are not resources according to our definition of the term.

Service: According to the European NESSI Initiative, a service is an abstract entity consisting of a set of capabilities offered by one or more providers to consumers. The service is provided by means of consumer service requests. The capabilities of the service and information how to use these capabilities are described in a service description. It can be realized by living beings, information systems, machines, etc. (source: <http://www.nexof-ra.eu/node/212>)

Soft Cultural Element: A cultural element that is not currently part of typical locale data.

Taxonomy: Taxonomy (from Greek taxis meaning arrangement or division and nomos meaning law) is the science of classification according to a pre-determined system, with the resulting catalogue used to provide a conceptual framework for discussion, analysis, or information retrieval. (http://searchcio-midmarket.techtarget.com/sDefinition/0,,sid183_gci331416,00.html#)