CEN

WORKSHOP

AGREEMENT

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English version

Discovery of and Access to eGovernment Resources - Part 2: Reference Ontology and Metadata Schema

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties, the constitution of which is indicated in the foreword of this Workshop Agreement.

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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Contents

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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− Institute for Cognitive Sciences and Technologies (ISTC-CNR) - National Research Council, Italy

− 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 4, 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

This part 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.

2 Definitions

2.1 Definitions

For the definitions, see part 1 of this CWA.