Project no. 018340

Project acronym: EDIT

Project title: Toward the European Distributed Institute of Taxonomy

Instrument: Network of Excellence

Thematic Priority: Sub-Priority 1.1.6.3: "Global Change and Ecosystems"

C5.162 Final release of CSSO security infrastructure and concept development for its post EDIT operability

Due date of component: Month 52
Actual submission date: Month 52

Start date of project: 01/03/2006   Duration: 5 years

Organisation name of lead contractor for this component: 9 FUB-INF

Revision: final

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

C5.162 Final release of CSSO security infrastructure and concept development for its post EDIT operability

Objectives

The general objective of the activity covers the design of a security infrastructure and the introduction of a secure Single Sign-On service (SSO) for the platform. The task to be achieved within the fifth JPA concerns the integration of a Community Single Sign-On (CSSO) security infrastructure within the platform.

The CSSO enables the various EDIT service providers to protect their services and resources defining individual access control policies, while users can access different services using only one identity. The security infrastructure bases on the Security Assertion Markup Language (SAML) protocol family. In particular, SAML provides a federation concept to realise the community aspect.

This component reports on the final release of the SAML single sign-on with regard to the current changes in the final release of the Community Single Sign-On (CSSO) security infrastructure and measures to be taken for its future operability.

Final release adaptations

Since the last report, there have been no substantial modifications regarding the software used to set up the CSSO infrastructure components Identity Provider (IdP) and Service Provider (SP). Nevertheless, besides regularly updating the software packages OpenSSO (IdP), Shibboleth (SP) and the Drupal module shib_auth, the Single Logout (SLO) functionality was newly integrated with the platform. Analogously to Single Sign-On (SSO), SLO shall logout users from any applications currently logged in.

Regarding CSSO user experience, an important enhancement was changing the Certification Authority (CA) issuing certificates for CSSO infrastructure components like the IdP to the CA of the Freie Universität Berlin (FUB), which is a subordinated CA of the Deutsche Forschungsnetzwerk (DFN). Now, CSSO users are not any more required to install specific certificate hierarchies within their web browsers. In particular, the necessary RootCA certificate is already included in most modern web browsers (e.g. Firefox).

The DFN-CA offers free CA services to any public institution in Germany. Unfortunately, this service is not open to non-German or non-public institutions. These service providers must find other solutions to get suitable web server certificates. Also, the ownership of EDIT's domain "e-taxonomy.eu" had to be transferred to BGBM in order to enable usage of the FUB CA services.

Post EDIT operability

In order to keep the CSSO infrastructure operable when the EDIT project has finished, the most indispensable requirement is to keep the platform operating stable and secure. Therefore, the complete IdP system and any software platform connected to the IdP must be updated and maintained by an experienced system administrator on a regularly basis. The same requirement applies for managing the user database and profiles located at the IdP system.

The EDIT Developer Wiki prepares several EDIT specific documents describing installation and configuration procedures for all system components currently adapted to the CSSO infrastructure so that future system operators have access to the information necessary to maintain or reinstall the current system components.

With regard to the future development of the CSSO security infrastructure, the focus is on the following prospects. The ESFRI research infrastructure LifeWatch, which is currently being

developed by a preparatory phase project, is interested in taking on the results of the EDIT project to integrate them into their specific environment. Also, there exists a relationship between EDIT and the EU funded Best Practice Network BHL-Europe focussing on establishing and integrating federations of both projects.

Details

For more detailed information regarding CSSO or the current development state of this activity or the documents mentioned above, please refer to the CSSO section within the WP5 developer's wiki[1].

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[1]   Detailed CSSO description in the WP5 developers wiki (http://dev.e-taxonomy.eu/trac/wiki/CSSO)