

Applying PAPI and SimpleSAML to web applications: two samples (DokuWiki and CMS Made Simple)

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1. EXECUTIVE SUMMARY

User identifiers and their associated passwords constitute the habitual resource for identification and authentication on the most of the computing applications, and nowadays web applications are not an exception to this fact. However, the increasing number of services available on the net entails a parallel increase of the number of passwords each user is enforced to keep in mind, with the derived security and usability problems we all know.

1.1. The passwords nightmare

Current solutions for these and other issues turn around Single-Sign-On, identity technologies and federated access to applications, where SAML is increasingly becoming the preferred standard for data and message interchange between Identity Providers (IdP) and service providers (SP). Nevertheless, the main obstacle for a massive application of these technologies is related to its complexity and to the difficulty for applying them to a great number of existing, legacy web applications still using their own access control mechanisms.

PHP is one of the most used programming languages for web applications and these could get a great benefit of being able to dispose of some SAML based mechanism for managing access control.

1.2. Looking for simplest solutions

In this paper we propose a neat and simple solution based on two systems already available:

PAPI (Point of Access to Providers of Information) is a system developed by RedIRIS, the Spanish NREN, for providing access control to restricted information resources. It's based on the concepts of Point of Access (PoA) and benefits of libraries and tools in diverse programming languages, Perl, PHP y Java. The current PHP version, although simplified, it's fully compatible with the canonical one but with a easier implementation and constitutes the simplest way to put single-sign-on into already existing PHP applications.

SimpleSAMLphp is a clever SAML 2 SP and IdP PHP implementation developed by norwegian NREN Uninett and easily integrating any service in that language with any identity management infrastructure using SAML 2. It's the simplest way to put federation into PHP applications and is being used to adapt some existing web applications, as well.

Our proposal makes use of both mechanisms in an integrated way for giving to some applications the ability to share an unique access control.

1.3. Assembling the blocks: DokuWiki and CMS Made Simple

DokuWiki is a well-known and very widespread tool for shared documentation elaboration. On its side, CMS Made Simple is a content management system of intuitive and easy utilization but with a great funcionality because of its wide plugins collection. The proposal presented here uses the above pointed identity mechanisms for giving to both of these applications a single-sign-on solution, provided by the PAPI component, and federated access thanks to SimpleSAMLphp.