

Wikimedia Single Sign-on

Abstract

This document outlines what Single sign-on is in a general sense, how it is adopted and how the Wikimedia/Mediawiki platforms tackle issues around Identity Access Management. This document will also point out the benefits of using single sign on in the mediawiki platform as well as the disadvantages thereof.

Introduction

With many companies moving their web hosting, DNS and other services to the cloud, they are faced with challenges on how to authenticate employees into the various services or systems the company is using. Users are accessing services from more than just desktop computers or laptops, all of which require authentication using unique and strong passwords. This raises the issue of whether there can be a better way to manage user credentials for all the systems in a way that will not frustrate the users.

Single Sign-On allows a user to use one username and password to access all the necessary systems within their scope. It permits users' access to cloud- and premises-based applications regardless of where they are located. Using SSO makes it easier for the IT department to audit where and how the credentials are used

Wikimedia as a large platform with multiple systems would obviously have the problem of Identity Access Management because users could be subscribed to multiple wikis, forums or any other service that is offered. This makes Single Sign-on relevant for this platform.

Single Sign on Wikimedia

SSO in Wikimedia is addressed by the usage of extensions in the Wikimedia applications. Extensions are basically imports of externally implemented code to be used within the system via APIs. Wikimedia has different extensions for SSO and will be discussed below;

- **Extension: MultiAuthPlugin**

This extension manages all authentication scenarios that could arise with the development of a Single Sign On infrastructure based on SimpleSAMLphp and Shibboleth (Wiki SSO services). MultiAuthPlugin provides SSO services that are flexible and easy to configure for any application.

There are already extensions out there providing simple SSO capabilities, but all these are incorporated within the MultiAuthPlugin.

The extension allows you to:

- Configure multiple authentication methods in parallel currently: Shibboleth, SimpleSAMLphp, local.
- Selectively activate/deactivate each method without losing the configuration

- Auto-create local user accounts if authenticated externally.
- Send e-mail notification (e.g. about auto-created users) to a specified e-mail address.
- Completely forbid local authentication, if you like.

Criticism: This extension is not necessary for small scale applications since it covers for scenarios where multiple methods of SSO are used. It would be better to use the simple extensions when dealing with small scale applications.

- **Extension: Phpbb Single Sign On**

This extension uses phpBB sessions to address single sign on. It is basically used to integrate the forum and wiki sign ons, sign in to one and automatically into the other. One can replace one login/out with the other, since they work either way.

Criticism: This extension is a little bit hard to configure. But once configured it works like a charm.

- **Extension: CentralAuth**

Allows global accounts shared between projects. CentralAuth was designed specifically for Wikimedia projects which already had millions of accounts that needed to be merged into a global table. This however is not an SSO solution.

Criticism: A loss of availability of the system can result in denial of access to all systems unified under the SSO.

Some general criticisms of SSO:

- As single sign-on can provide access to many resources/systems at once using a single credential. This may be misused in case the credentials are available with other person.
- A loss of availability of the system can result in denial of access to all systems unified under the SSO.

Conclusion

SSO in Wikimedia is important to have a centralized point of login for easy access to systems, however there are always security risks and costs that need to be considered.

The best SSO to use on the Wikimedia platform would be the MultiAuthPlugin because it incorporates the other SSO plugins and one would only have to choose which to use.

References

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