Automation of SP deployment

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Public Sprint Demo
Abstract

We want to solve challenges in

- Manual processes in deployment
- Configuring SPs within emerging federations

→ Simplify the initial setup through automation
Current frustrations of emerging and low-resource federations

- Infrastructure setup
- Resource constraints
- Diverse technologies
- Trust establishment
- Manual processes
Problem statement

**WHAT**: Challenges in setting up and maintaining the federation’s initial set of SPs

**WHY**: Manual processes, diverse technologies, and a steep learning curve for federation ops
Proposed solution

- Deployment of a proxy in front of SPs
- Deployment of ready-built applications
- Proxy handles business logic, reducing the burden on federation Ops
- GUI for easy selection and deployment
Solution advantages

- Reduced complexity of dealing with configuration permutations
- Streamlined deployment of SPs
Current setup architecture
High-level architecture
Milestones & contributions

- Delving into T&I core concepts
- Progress on initial proxy development
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Hosted entities

**default-sp**
EntityID: https://alpe3.incubator.geant.org/saml-sp
Type: SAML 2.0 SP metadata

**https://alpe3.incubator.geant.org/saml-idp**
EntityID: https://alpe3.incubator.geant.org/saml-idp (hostname: default)
Type: SAML 2.0 IdP metadata

Trusted entities

SAML 2.0 IdP metadata
https://alpe1.incubator.geant.org/saml-idp

SAML 2.0 SP metadata
OpenID Connect Client Registry

Client list

- Test RP

© 2007-2024 SimpleSAMLphp
Demo: OIDC <-> SAML
You are running an outdated version of SimpleSAMLphp. Please update to the latest version as soon as possible.

SimpleSAMLphp is installed in: /var/simpleSAMLphp/
You are running version 2.6.6.

Modules

You have the following modules installed ( ☑ means the module is not enabled):

- SAML 2.0 IdP
- adfs
- admin
- authoauth2
- core
- cron
- exampleauth
- multiauth
- mymodule
- saml
- themes

Details

Diagnostics on hostname, port and protocol
Information on your PHP installation

Your PHP installation
Demo: SAML <-> SAML
Apache2 Ubuntu Default Page

It works!
This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should replace this file (located at /var/www/html/index.html) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview
Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is fully documented in /usr/share/doc/apache2/README.Debian.gz. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the manual if the apache2-doc package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/
  |-- apache2.conf
      |-- ports.conf
  |-- mods-enabled
      |-- *.load
      |-- *.conf
  |-- conf-enabled
      |-- *.conf
  |-- sites-enabled
      |-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
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Diagram:

- Intro to ecosystem
- Proxy setup
  - SimpleSamlPHP
  - Shibboleth
  - IDP deployment
  - SP deployment
- Demo
  - OIDC modules
  - OP setup
  - RP setup
  - SAML-OIDC translation
- Future work
  - Docker
  - Configuration
  - GUI
  - Automation