

Rapid Deployment for Federation “Just AASC”

July 4th 2013

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Australian Access Federation

- What is AAF?
 - The corporation
 - The people
 - The identity federation
- What do we do?
 - <http://dashboard.aaf.edu.au/>
- What federated services are available?
 - <http://www.aaf.edu.au/servicecatalogue/>

AASC

- AAF Automated Software Configurator
- A software framework for rapid deployment and configuration of federation software components
- Implemented using Perl, Puppet, Git
- Command line tool – interactive or scripted modes
- Created to reduce the time and complexity involved in deploying Shibboleth Service Providers, but can be extended
- Currently in beta release - <https://github.com/ausaccessfed/aasc>

Benefits of AASC

- Has reduced time to deploy and configure Shibboleth Service Provider instances from hours to minutes.*
- Configures a Service Provider that is ready to integrate immediately into the Australian Access Federation.
- Reduces number of support calls received by reducing the number of errors encountered when setting up a Service Provider.

* Dependent on metadata refresh time of IdPs in the federation

Applications for AASC

- Used internally by the AAF technical team to rapidly deploy Service Providers, test new releases of Shibboleth Service provider software, and help with AAF training courses
- Used externally by Service Provider administrators to cut down time to deploy Service Provider instances.

How AASC Works

- Bootstrap Script (written in PERL) - go
 - Checks the environment
 - Prepares the host by installing some required packages
 - Downloads Puppet manifests from GitHub
 - Populates some variables required for installation
 - Hands over to Puppet
- Puppet
 - Applies the Puppet manifests downloaded from GitHub

How AASC Works

- Puppet
 - Installs and configures web server software
 - Installs and configures SAML Service Provider software
 - Installs and configures NTP (if required)
 - Install a simple web application for testing purposes
- Create Service Provider record in Federation Registry
 - This is not currently handled by AASC and must be undertaken manually.

Perl

- Practical Extraction and Reporting Language
- A favourite of system administrators
- Version 5
- Is ubiquitous – Linux, UNIX variants, Windows
- CPAN – vast catalogue of modules

Git

- A distributed version control and source code management system
- Originally designed and developed by Linus Torvalds for Linux kernel development
- Has since been adopted by many other projects
- Designed for *speed*
- Has largely superseded RCS, CVS, SVN
- GitHub - <https://github.com/>

Puppet

- Open source configuration management tool
- Cross platform – Linux variants, BSD variants, Solaris, HP-UX, AIX, Mac OS X, Windows
- Implemented in Ruby and uses a Ruby-esque syntax
- Is a declarative language used to describe system configurations
- Leverages a utility called Facter

Currently Supported Software

- Red Hat Enterprise Linux 6, CentOS 6
- Apache 2.2.x
- Shibboleth Service Provider 2.5.2
- Simple PHP “Show Attributes” application

Installation

- As root:

```
# wget --no-check-certificate
```

```
https://raw.githubusercontent.com/ausaccessfed/aasc/master/go-redhat
```

```
# source go-redhat
```

- Follow the bouncing ball...

Demo

Note

- Having a working Service Provider does not necessarily guarantee your service will work for all IdPs.
 - Not all IdPs currently do automated attribute release.
 - It's a good idea to make your service(s) check the validity of attributes provided by IdPs. Don't assume all information provided by IdPs is 100% correct.

The Code

- <https://github.com/ausaccessfed/aasc>

Ideas AAF has for AASC

- Automation of registration with Federation Registry
- Support other Service Provider software e.g. SimpleSAML
- Support other operating systems e.g. Windows
- Support other web server software e.g. IIS
- Support IdP deployment
- Support hosted IdP environment
- Support hosted SP environment
- Support demo applications in other frameworks e.g. Grails, RoR

AASC Questions

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