Rapid Deployment for Federation
“Just AASC”

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Australian Access Federation

• What is AAF?
  – The corporation
  – The people
  – The identity federation

• What do we do?

• What federated services are available?
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/](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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