Deploy Shib IDP via Azure DevOps

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Table of Contents

• DevOps Overview
• Configuration as Code (CAC)
• Infrastructure as Code (IaC)
• Questions
DEVOPS
OVERVIEW
DevOps Overview
CONFIGURATION
AS CODE
Why CaC?

- Version control
- Reproducibility
- Automation
- Consistency
- Quick recovery
CaC Shibboleth Example

- **Demo** (~2 minutes)
  - Simple update to 4 IDPs
INFRASTRUCTURE AS CODE
Why IaC?

• Version Control
• Reproducibility
• Automation
• Consistency
• Quick Recovery

• Security
• Cost Management
• Portability (nope)
Deploy SHIB IDP via Azure DevOps

- The project/ goals
- Demos
- Lessons learned
- Next steps
The Project

Migrate the authentication stack to Azure containers, while maintaining seamless configuration updates through CI/CD. Enhance the management of CAS and Shibboleth service registry by transitioning to cloud storage and employ CI/CD for streamlined software version updates.

Goals
1. IaC everything
2. Update regularly
3. Automate service updates
4. Scalability
5. Reduce complexity
DevOps IaC

- Shared Services Repo
- IDP IaC Repo

DEV SUB
- IDP
- IDPQA
- Alum IDP
- DOP VARS and VAR Groups

QAP SUB
- IDP
- IDPQA
- Alum IDP
- DOP VARS and VAR Groups

PROD SUB
- IDP
- IDPQA
- Alum IDP
- DOP VARS and VAR Groups
Devops Release for IaC

- **Demo** (~8 minutes)
  - Deployment methodology
  - Variables
  - Variable Groups
  - Tasks
  - Task Groups
DevOps Container
DevOps Container

- **Demo** (~5 minutes)
  - Reuse of variable groups
  - Container security scan
DevOps Service Registry
DevOps Service Registry Reload
DevOps Service Registry Reload

- **Demo** (~4 minutes)
  - Reuse of shared repo
  - Settable attributes
  - Automate reload process
  - Azure Log Stream
  - SSH into container
The Results
Lessons Learned

**Azure Resources**
- Azure App Services and IP ACLs, no go
- Kudu what are you doing?
- Storage: balancing security and accessibility

**DevOps**
- Variables, variables, and more variables
- Repos, repos, and more repos
- Release pipeline, release pipeline, and more release pipelines
- Documentation, documentation, documentation
Next Steps

- Replace CAS with Azure AD Authentication
- SSL Certificate automation
- Automate system testing
- Automate load testing
- Buildout monitoring/alerting
- Lots of testing!
QUESTIONS?
THANK YOU
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