



Building a Ground System in 45 Minutes or Less

Scott Reinfeld Solutions Architect reinfeld@amazon.com



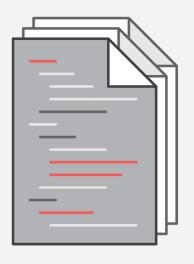
Infrastructure as Code (IaC)

Techniques, practices, and tools from software development applied to creating reusable, maintainable, extensible, and testable infrastructure



Key Takeaways







You **can** code everything

You can start this at your **Enterprise**



Why IaC is Important to you





Structure

Create design patterns and easily replicate them



Speed

Templatize and Define every aspect of your infrastructure



Monitoring

Track current and historical IaC configuration, get notified when changes occur, maintain audit compliance and governance controls



Security Compliance

Ensure the resources you deploy adhere to Security Control requirements



Build and Operate Infrastructure as Software



Application

Source code

Interpreter

Desired application state

Infrastructure

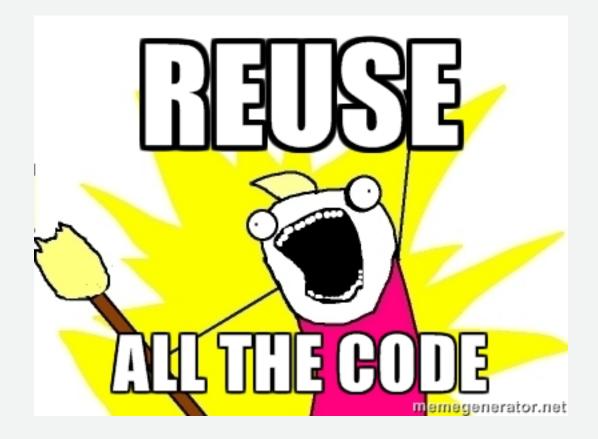
JSON/YAML

Service API

Desired infrastructure state



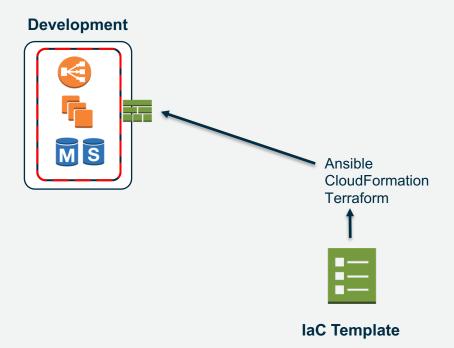






Reusable – Multiple Environments

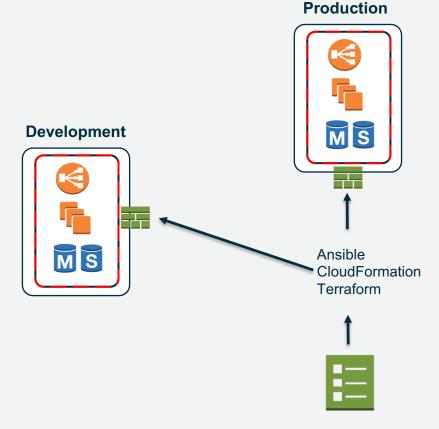






Reusable – Multiple Environments



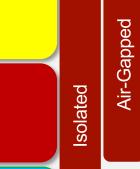


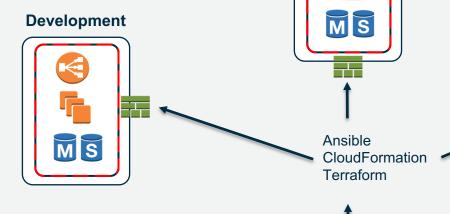


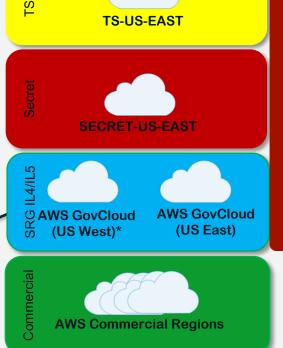










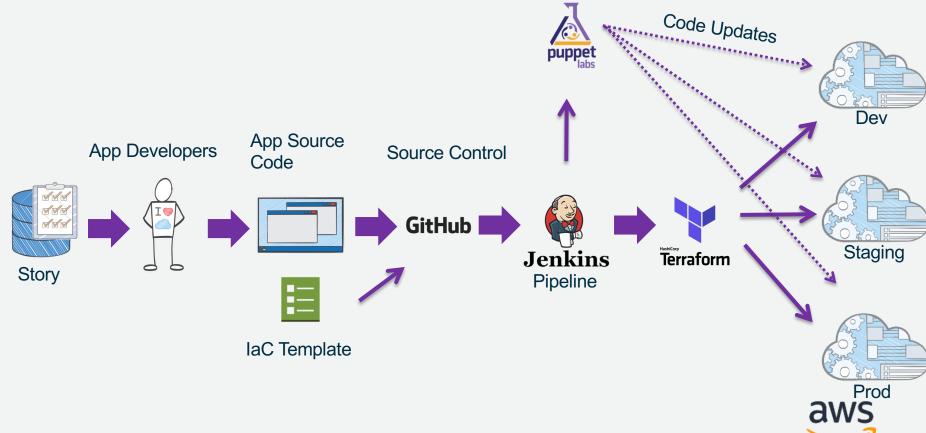




Production

Maintainable – Integrate in CI/CD Pipelines



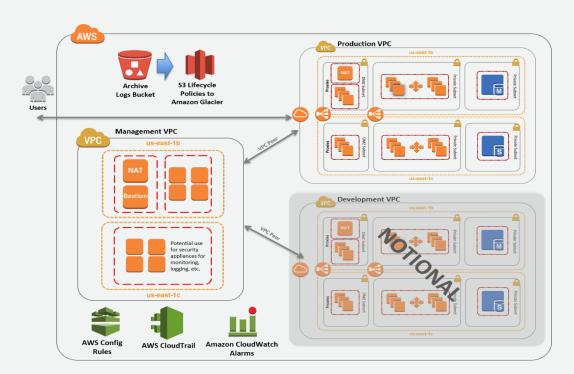


Getting Started



https://aws.amazon.com/quickstart/architecture/compliance-nist/

- ✓ Highly Available
- √ Firewalls
- √ Hardened OS
- ✓ Load Balancers
- ✓ Auto Scaling
- ✓ Logging
- ✓ Auditing
- ✓ NIST 800-53







Questions

