

Release Management in a Compliant Cloud

Anthony Boyd

Sherlock

San Diego Supercomputer Center @ UC San Diego

WHO ARE WE?



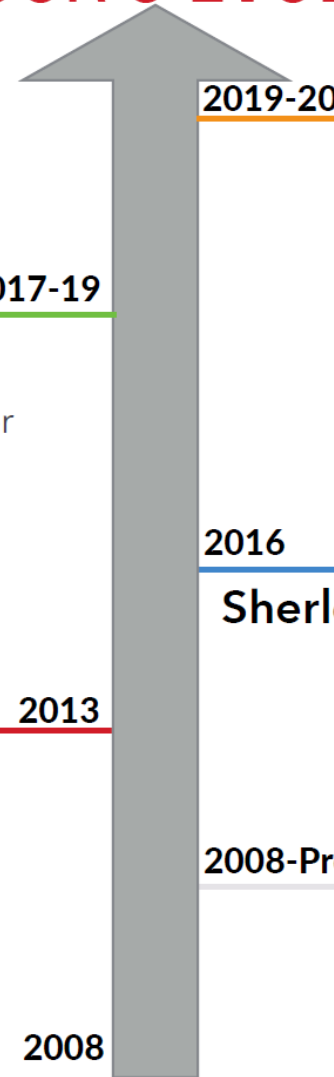
is a division within



is an organized research unit at



SHERLOCK'S EVOLUTION



Hybrid Cloud for Protected Data
Multi-tenant, Hybrid Cloud (SDSC-AWS) for
Academia, Government & Industry

Sherlock HIPAA Cloud
Hosted by SDSC for the last
6 years; built to NIST 800-53
specification

2017-19

2013

2008

FISMA Platform

2019-20

Innovation Accelerator Platforms
Fit-for-Use, turnkey platforms for big
data management, analytics, data
science, machine learning

2016

Sherlock Cloud for Protected Data (HIPAA, CUI)
Multi-tenant, Private Cloud for
academia & research organizations
with varying compliance needs

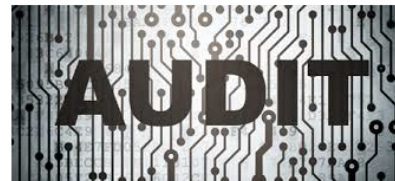
2008-Present

Annual Audit/Assessment
Both external and
internal

OUR ROOTS ARE IN COMPLIANCE & CYBERSECURITY



NIST
National Institute of
Standards and Technology
U.S. Department of Commerce



SDSC SAN DIEGO SUPERCOMPUTER CENTER

BUT WE ARE EVOLVING TOWARDS PROVIDING VALUE ADDED CAPABILITY



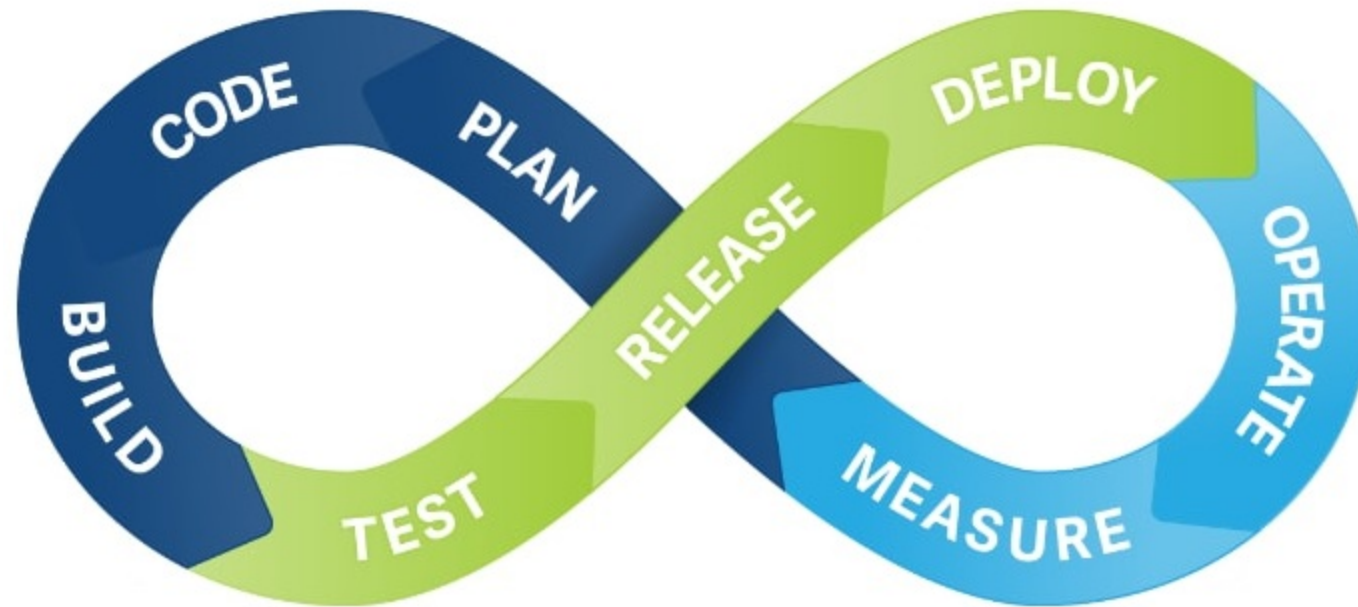
AWS EMR



Microservices



What is CI/CD?



Sherlock's approach to supporting CI/CD

- Turnkey Solutions
 - Automated build-outs for CI/CD workflows
- Ease of Use
 - We want developers to use the tools they're used to
- Customization
 - We can create a CI/CD framework that meets your needs
- Limiting Costs
 - Pay per use, utilize cloud services
- Make the cloud easier for customers so they can focus on their work



Challenges Meeting Compliance

- Overhead of managing infrastructure and security
 - Administrating systems, implementing security controls, maintaining compliance
- Detecting security issues before they become a problem...
 - Patch management, software upgrades, monitoring threats
- A lack of integrated security tools
- Security testing slowing down processes

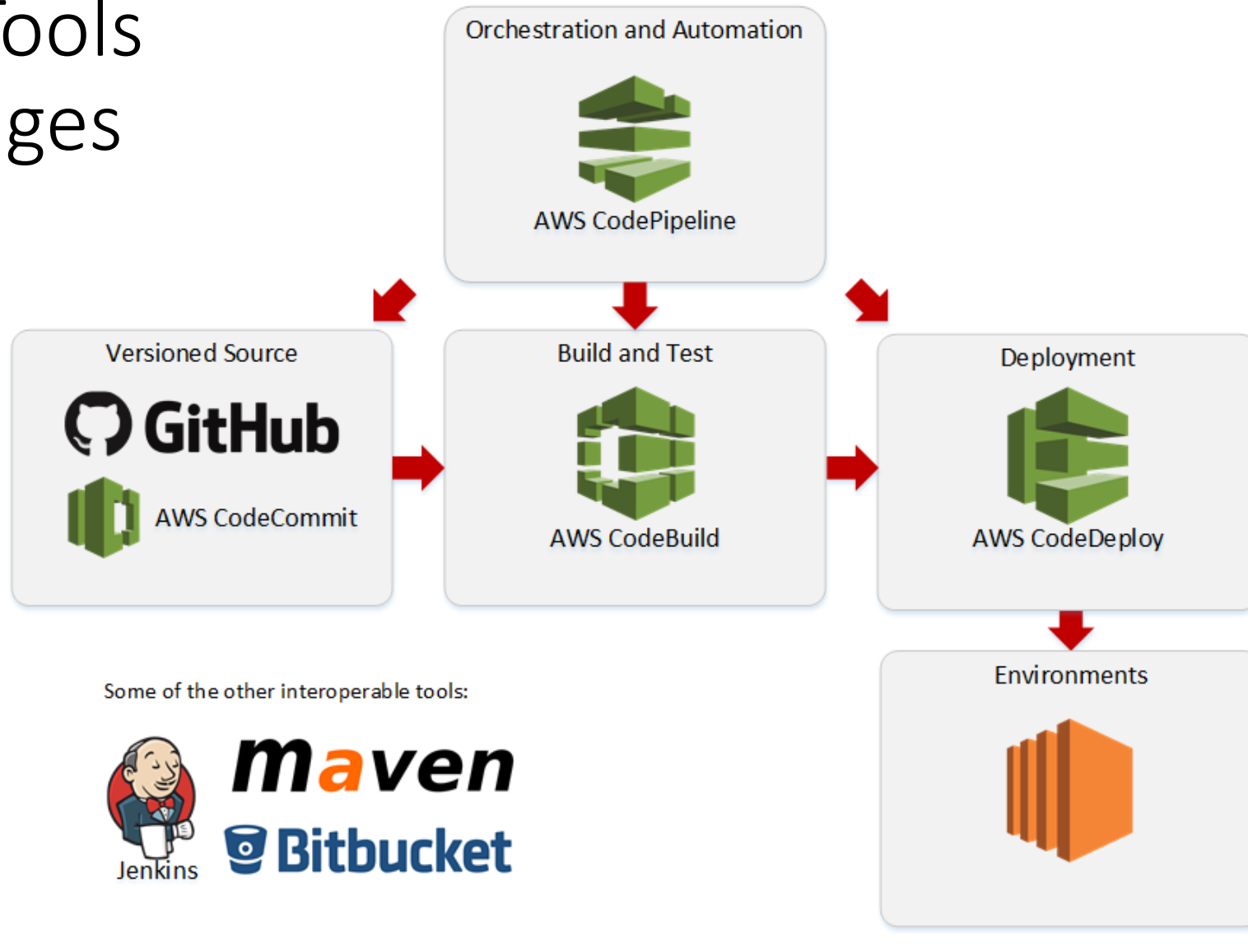


How Sherlock Handles these Challenges

- Automation
 - Build-outs, patch management, management tasks
- Leveraging RedLock's signatures for compliance
 - Scans cloud platforms against HIPAA, NIST 800-53 Rev4, SOC 2, and other signatures
- CIS compliant AMIs
 - Custom built compute images with security tools included
- SIEM with Splunk
 - Logging the entire platform to catch threats
- Perimeter UTM with WAF IPS
 - Control and gain insight into what's coming in or going out



CI/CD Tools and Stages



Approvals

The screenshot shows a vertical pipeline with three stages:

- Source** (green checkmark):
 - Source: AWS CodeCommit
 - Succeeded - 7 minutes ago
 - 790c45c6
 - Source: Testing Deployment 790c45c6
 - Disable transition button
- Approval** (blue checkmark):
 - Manual-Approval
 - Manual approval
 - Waiting for approval -
 - Review button
 - Source: Testing Deployment 790c45c6
 - Disable transition button
- BuildAndDeploy** (green checkmark):
 - CodeBuild
 - AWS CodeBuild
 - Succeeded - 3 minutes ago
 - Details
 - Source: Testing Deployment 790c45c6



The modal dialog is titled "Approve or reject the revision" and contains the following elements:

- Close button (X) in the top right corner.
- Section header: "Comments"
- Text input field containing "Looks good.|"
- Buttons at the bottom: "Cancel", "Approve", and "Reject".



SHERLOCK

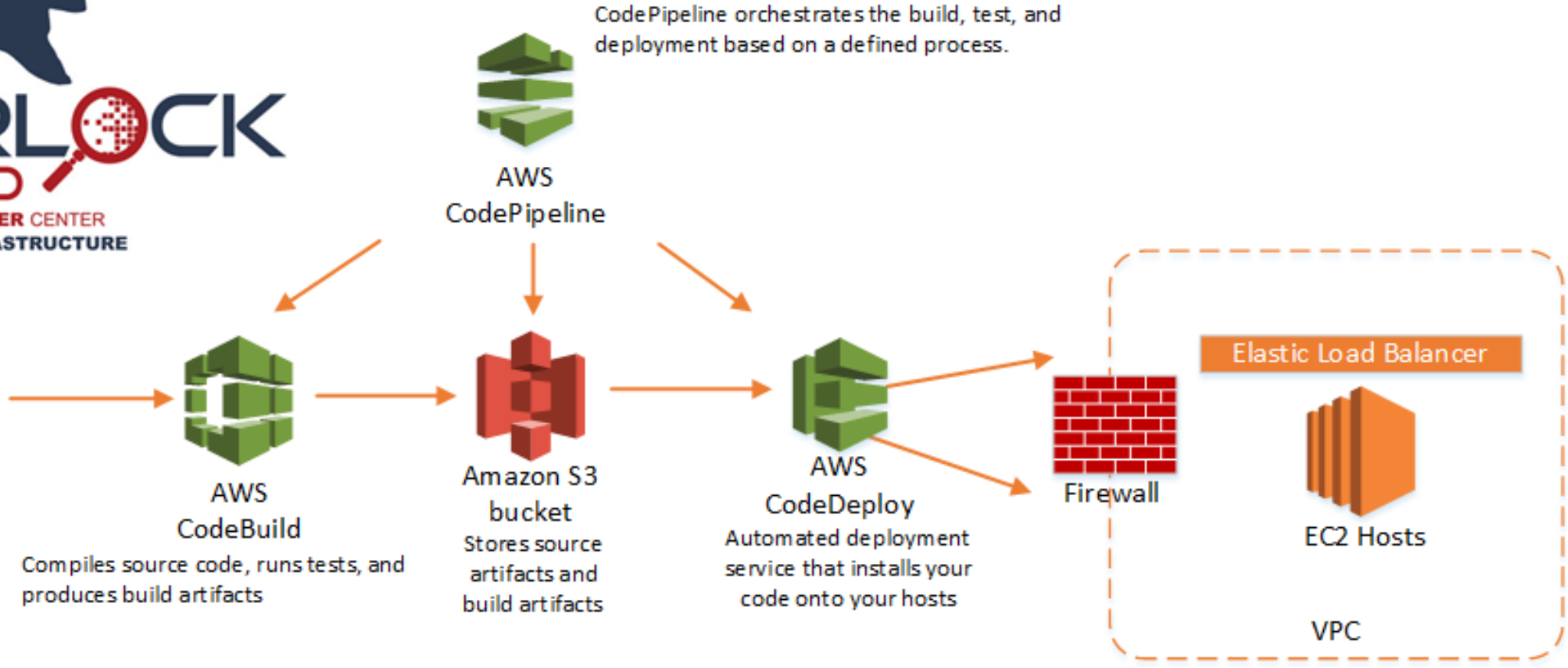
ELEVATED
SAN DIEGO SUPERCOMPUTER CENTER
CLOUD & DATA CYBERINFRASTRUCTURE



GitHub



Developers





Thank you!

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