TATA CONSULTANCY SERVICES
Experience certainty.

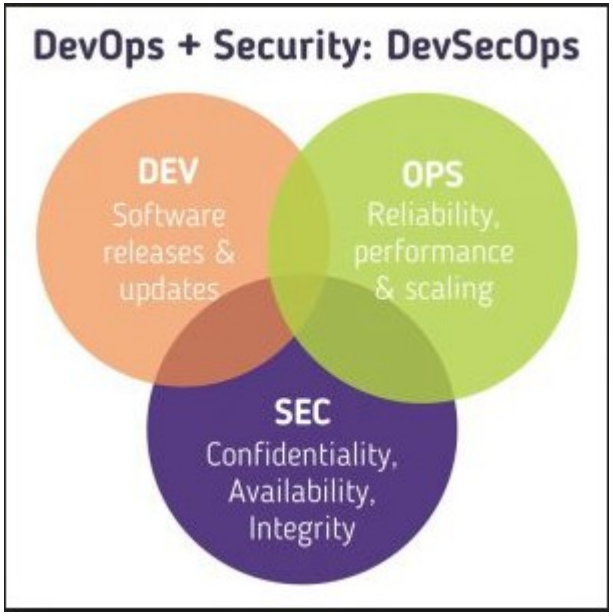
DevSecOps
By Phoenix Team

DevOps to DevSecOps

What is DevSecOps?

DevSecOps is an approach to IT security based on the principles of DevOps. The purpose and intent of DevSecOps is to build on the mindset that "everyone is responsible for security" .

- **DevSecOps Is Full Stack**: DevSecOps spans the entire IT stack, and includes network, host, container, server, cloud, mobile, and application security.
- **DevSecOps Is Full SLC**: DevSecOps also spans the full software life cycle, including development and operations. In development, the focus is on identifying and preventing vulnerabilities, while in operations, monitoring and defending applications are the goals.



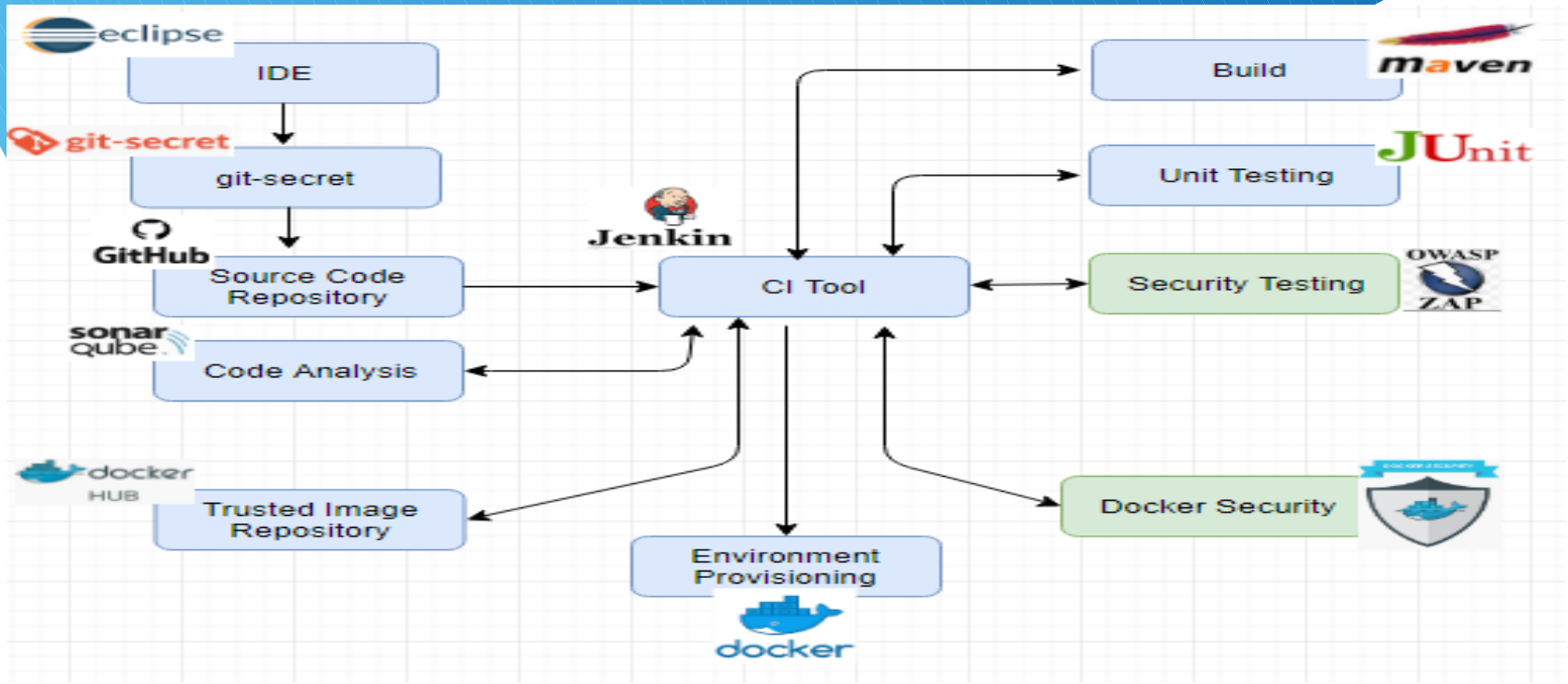
Baking Security in DevOps

Why DevSecOps?

- DevSecOps seeks to bring security to the table to be involved and integrated into the DevOps team and their responsibilities.
- DevSecOps is to simply detect vulnerabilities as early as possible in the software development process.
- By shifting security left, the team reduce risks in their software by finding and fixing security vulnerabilities early in the SDLC.

Approach - Security in CICD Pipeline

Architecture



Pipeline

Security Tools Integrated

Security Tools

The following security tools have been integrated in the CI-CD pipeline :

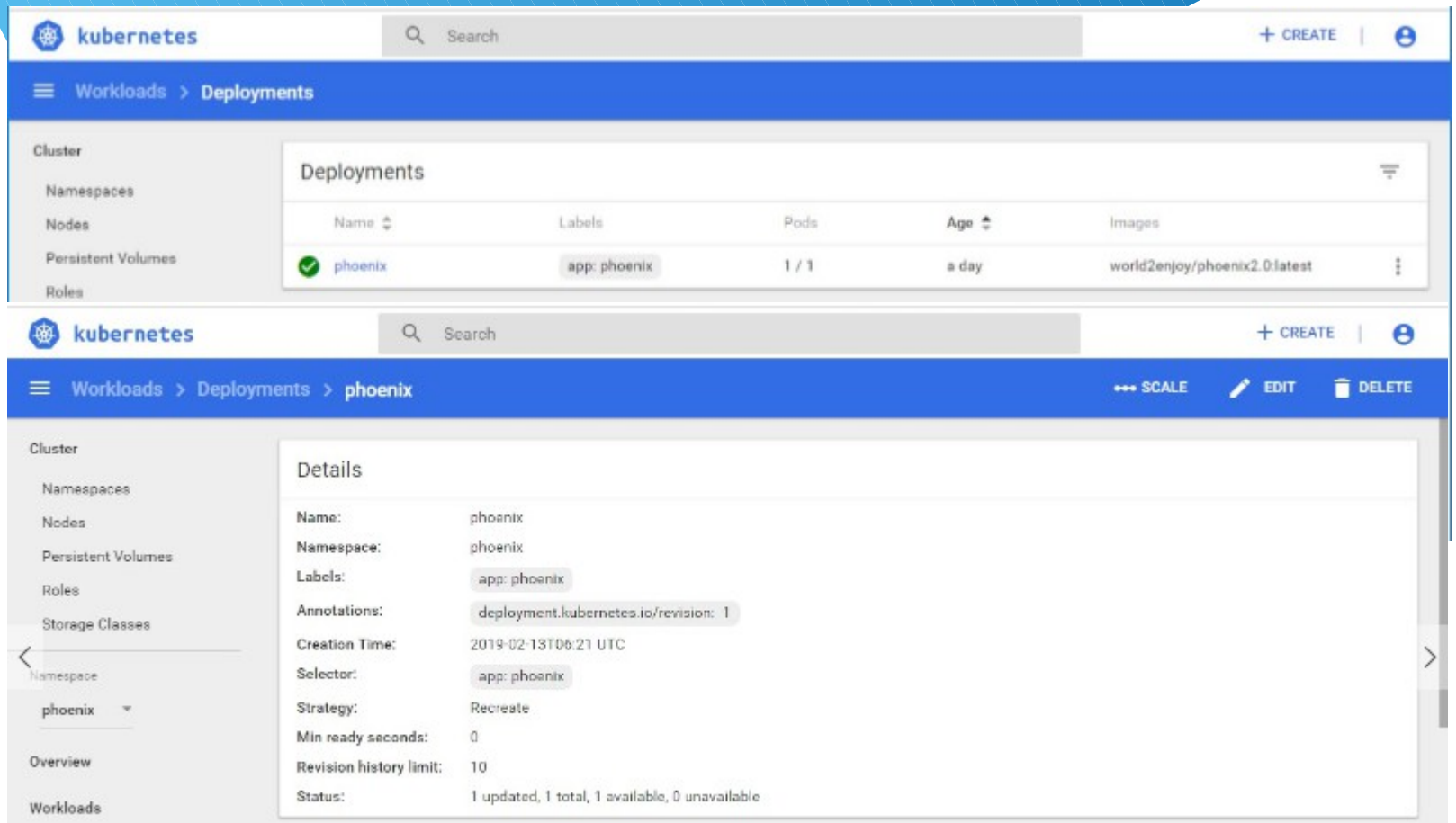
- **Git-Secrets:** To prevents committing files with sensitive data for example credentials, into git repositories.
- **Docker Bench:** The Docker Bench for Security checks for common best-practices around docker images and deploying Docker containers in production. The tests are all automated, and are inspired by the **CIS Docker Community Edition Benchmark v1.1.0**
- **OWASP-ZAP:** The Zed Attack Proxy (ZAP) is an open source tool to automatically find vulnerabilities in web applications.

User Stories

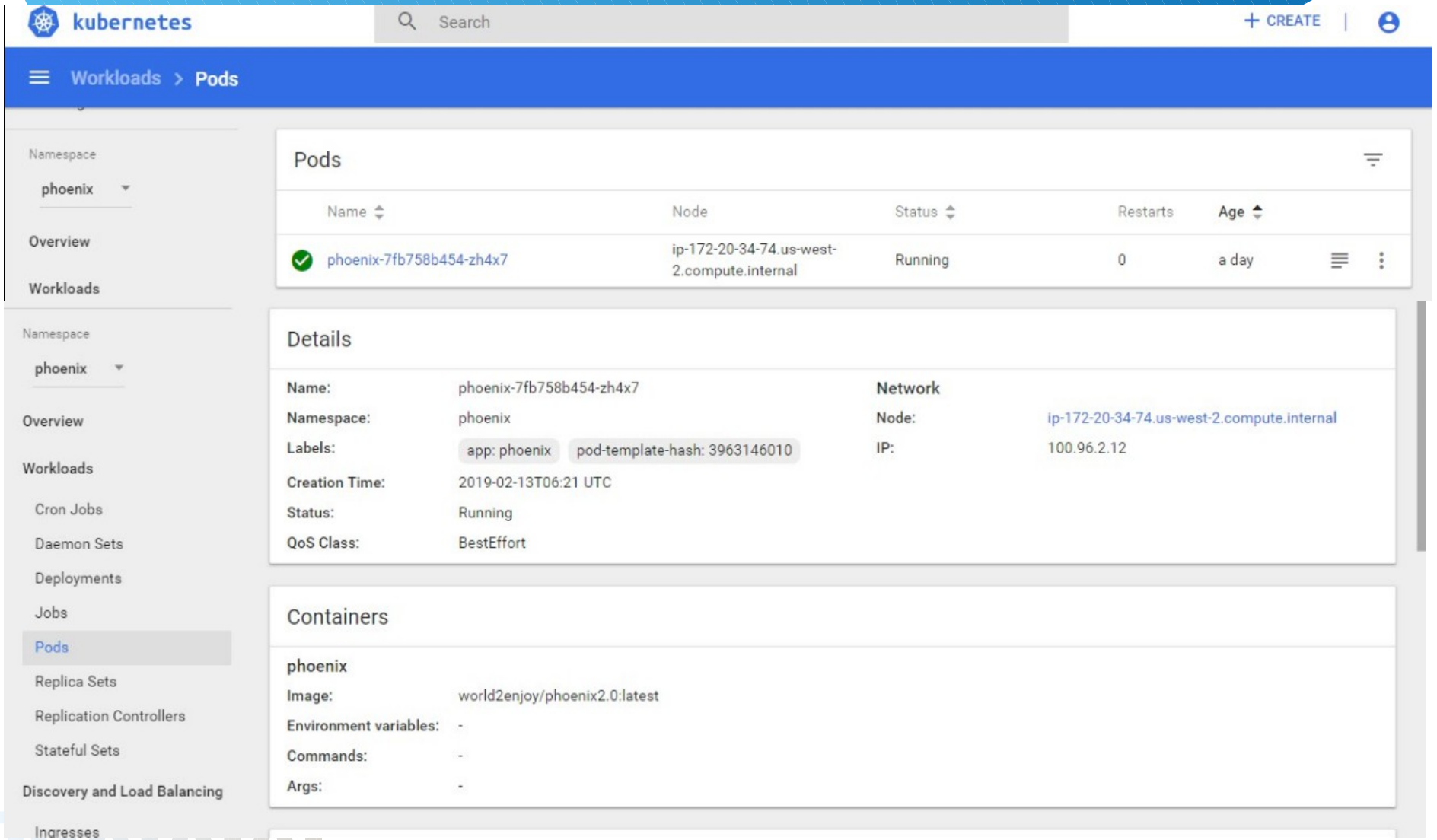
User Stories

Kubernetes Dashboard - Monitoring Deployments

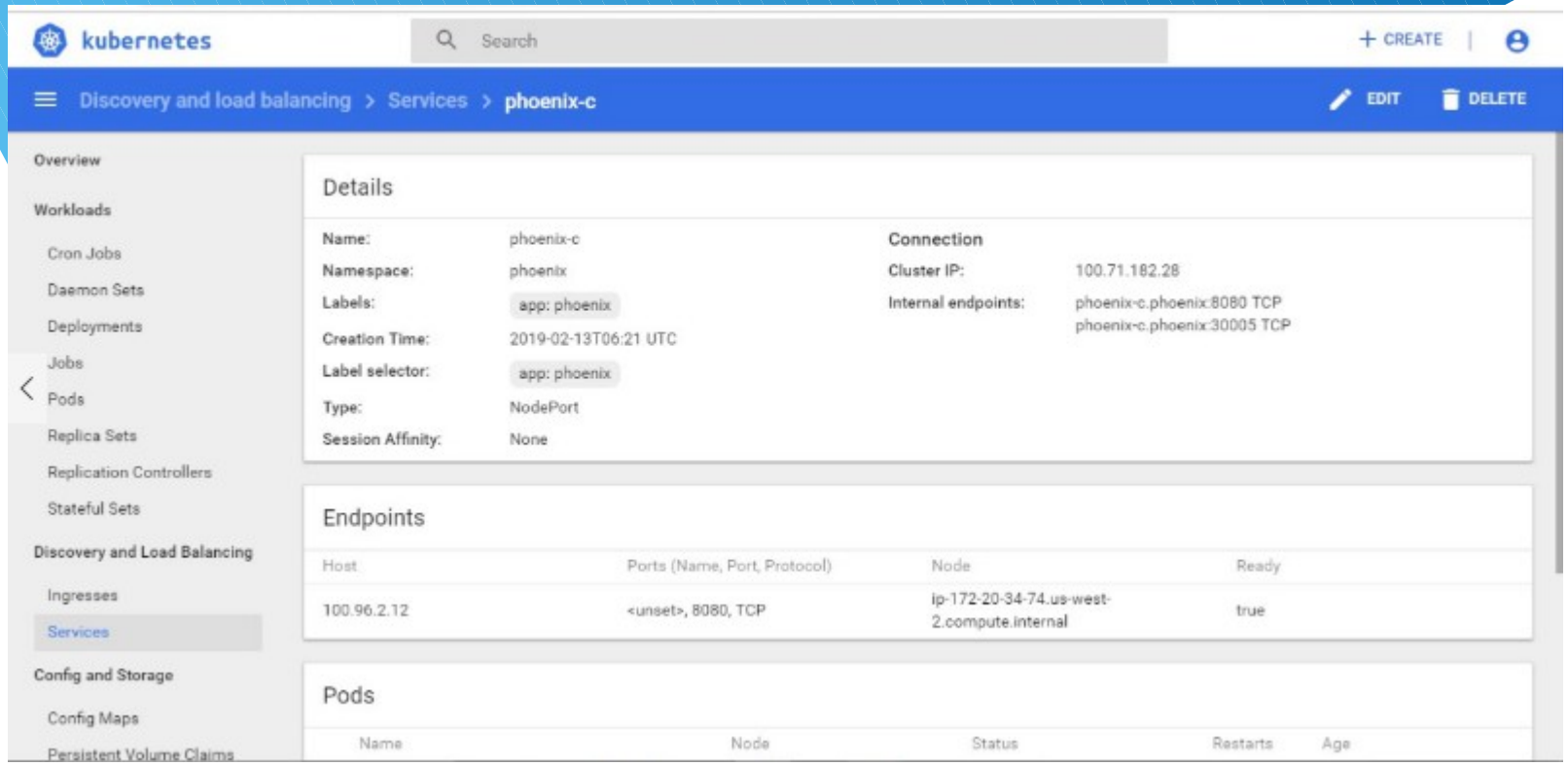
The containerized application has been deployed to a Kubernetes cluster. The Kubernetes dashboard is used to troubleshoot the application and manage the clusters.



Kubernetes Dashboard - Monitoring Pods



Kubernetes Dashboard - Monitoring Services



Q & A

TATA CONSULTANCY SERVICES
Experience certainty.

TATA

THANK YOU

Phoenix Team