CISCO

The bridge to possible

Automating your SecOps and Application Delivery Using CI/CD Pipeline

Gabriel Fontenot

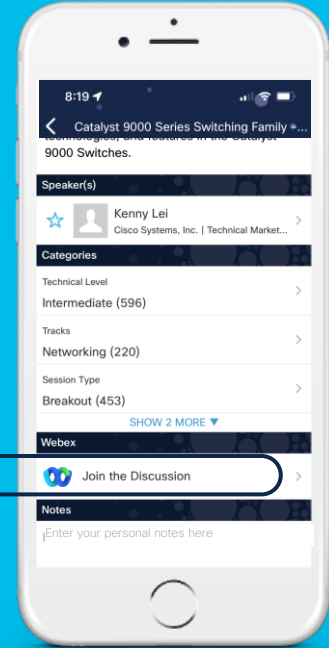# Cisco Webex App

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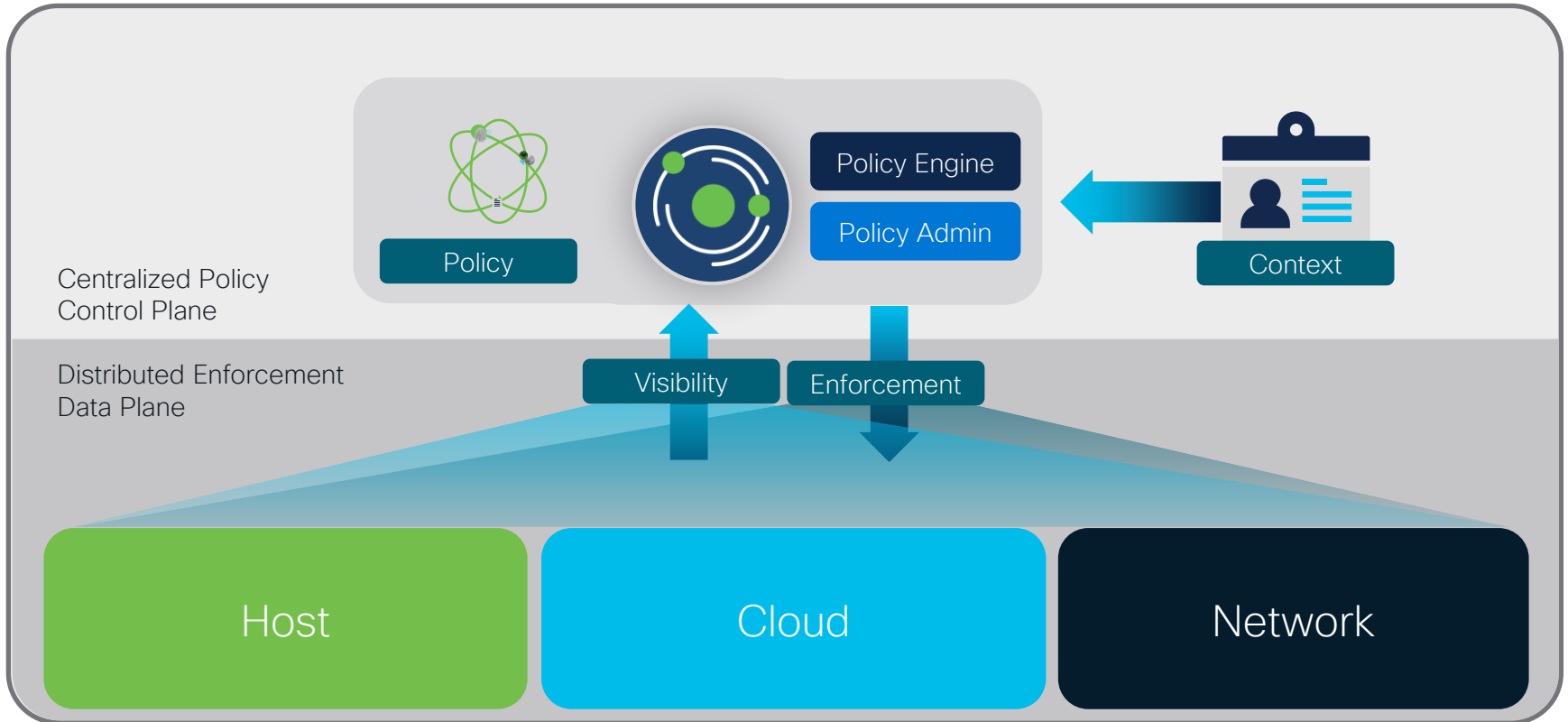
Webex spaces will be moderated
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Agenda

- CI/CD Overview

- Secure Workload Overview

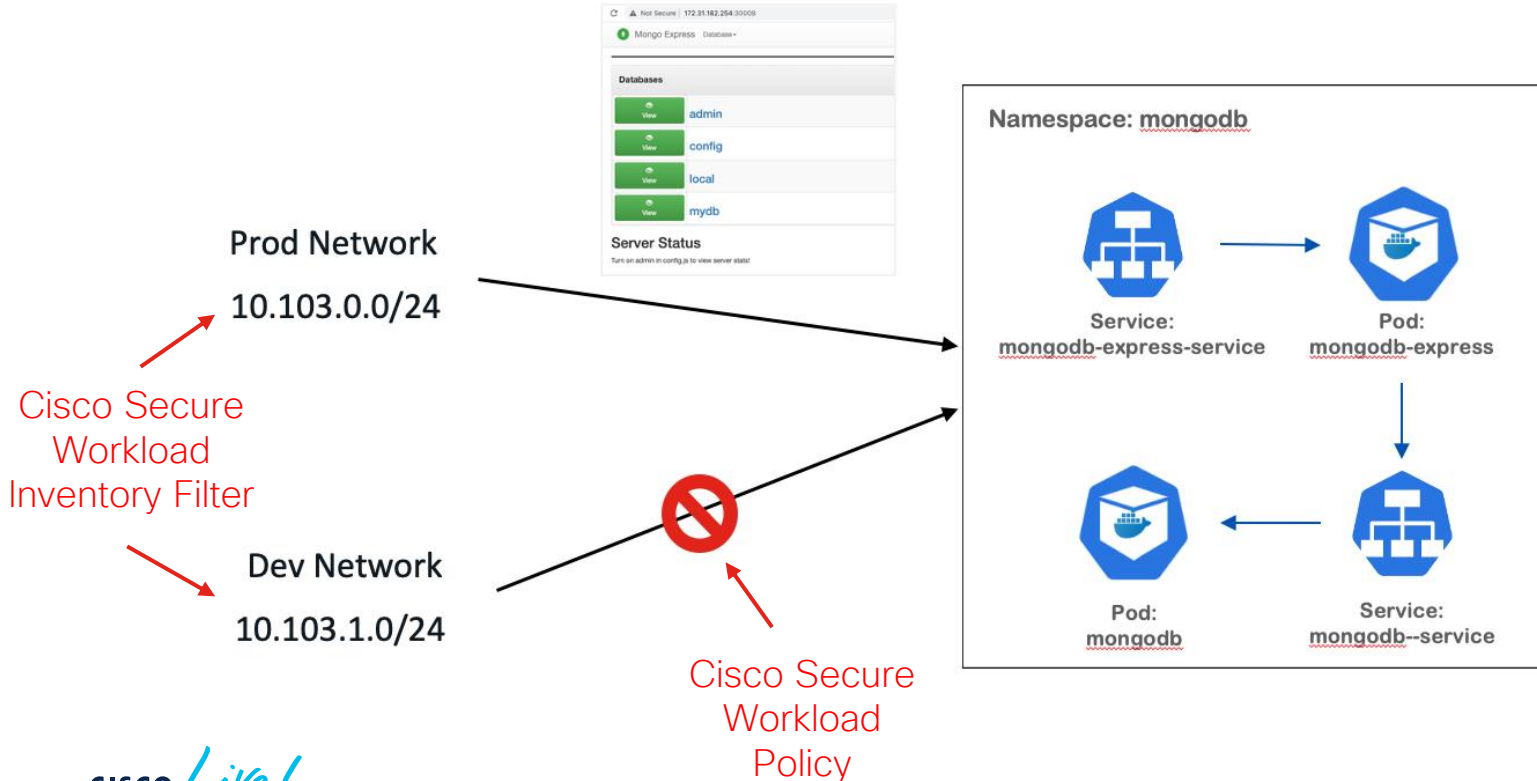- Putting it all Together

- Demo

- Conclusion

Continuous Integration and Continuous Deployment (CI/CD)

- Policy-as-code- a method of defining and managing security rules, criteria, and conditions through code

- Policies written in a high-level language- easy to understand and consistent across users

- Benefits
  - Version Control – stored as simple text files together with your source code and are managed by the version control system
  - Automation - policies are stored along with the source files and easily automated
  - Best Practices – users can group similar policies into policy sets and enforce policies across all stages of application deployment

Cisco Secure Workload: Overview

Centralized Policy Control Plane

- Policy
- Policy Engine
- Policy Admin
- Context

Distributed Enforcement Data Plane

- Visibility
- Enforcement

- Host
- Cloud
- Network

Sock-Shop online application

Prod Network

10.103.0.0/24

Cisco Secure
Workload
Inventory Filter

Dev Network

10.103.1.0/24

Cisco Secure
Workload
Policy

Namespace: mongodb

Service:
mongodb-express-service

Pod:
mongodb-express

Pod:
mongodb

Service:
mongodb--service

Putting it all together: Secure Workload + CI/CD + GIT

- Sock Shop is the Application

- Cisco Secure Workload is Policy Enforcement Engine

- GIT workflows to mange policy resources, merge and commit

- CI/CD pipeline to validate user data and access, **FILTERS** and **POLICIES**

- Python API to mange policy life cycle in Secure Workload

- Demo

Security Testing

Plan > Code > Build > Test > Release > Deploy > Operate > Monitor

Demo

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