

Connect

Calico Whisker
Free Tool for Kubernetes Policy
Troubleshooting and Network Visibility

Davide Sellitri | Product Manager @ Tigera





Agenda 👀

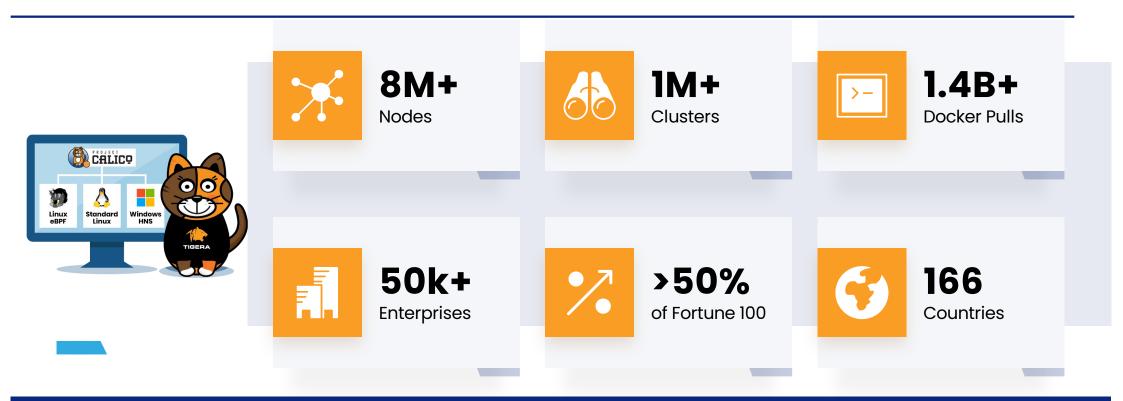
- Introduction
- Security and Observability
 Challenges
- Calico Network Policies
- Calico Whisker
- Demo







Introduction: Calico Open Source



Most adopted container networking and security solution



Introduction: Calico Open Source

Choice of Data Plane

- › Pluggable Data Plane
- eBPF, Linux, Windows, VPP





Best in class performance

- › Blazing fast performance
- Minimal CPU usage & occupancy
- Lower costs

Full Kubernetes Network policy support

- Full implementation Kubernetes network policies
- Additional support for policies across namespaces







Workload Interoperability

- Unified policy across hosts, baremetal, VMs, and containers
- Mix and match workload types

Kubernetes Native Security Policy Model

- Declarative security policies
- Unified model from host to application layers





Scalable Networking with Encryption

- › Exceptional scalability
- Advanced IP Address Management



Introduction: Red Hat Partnership & Support



Product

Red Hat OpenShift Container Platform 4.12 - 4.x

Architecture: x86 64

Certification type

RHOCP 4 Application



Tigera Operator installs and manages Project Calico and Calico Enterprise for OpenShift Container Platform environments



Security and Observability Challenges

You Can't You Can't See



Security and Observability Challenges

- Outages due to policy misconfiguration
- Difficult be compliant
- Is my application misbehaving?
- How can I troubleshoot network issues in my cluster?
- What traffic is my application generating?



Calico Network Policy

Provides richer set of capabilities compared with Kubernetes Policy

- Endpoint, Namespace, and Service Account <u>Selectors</u>
- Supports Policy Ordering/Precedence
- Supports additional <u>actions</u> (allow, deny, log, pass)
- Supports both Namespace-Scoped and Global-Scoped
- Can protect VMs and host interfaces (not just pods)
- Enables testing and auditing of policy behavior before deployment with
 Staged Policies





Calico Solution

- √ See real-time network flows
- √ Observe before enforcing a policy
- ✓ Filter by namespace, pod, protocol, or policy







Demo



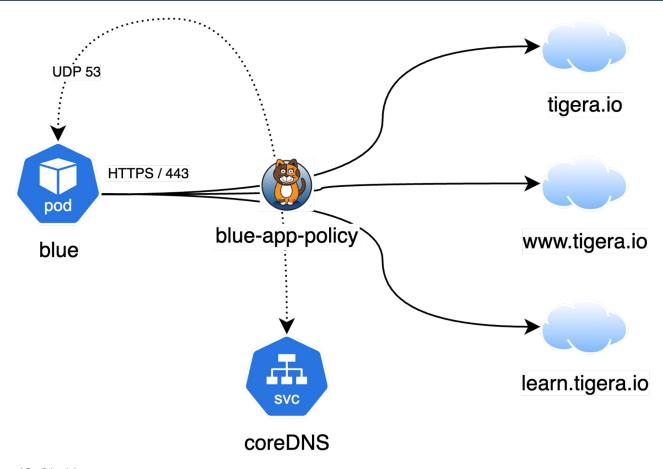
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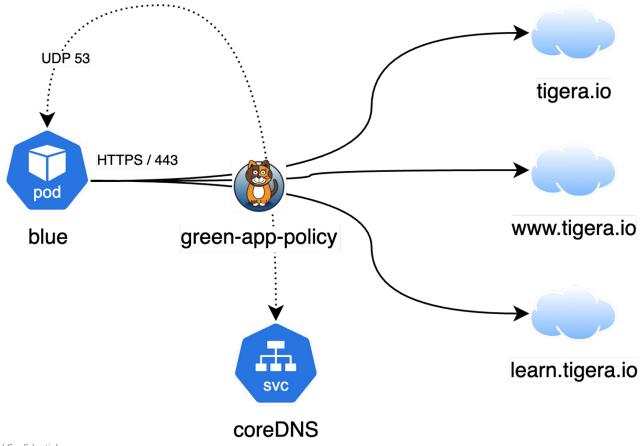


Demo 1 - Policy Misconfiguration



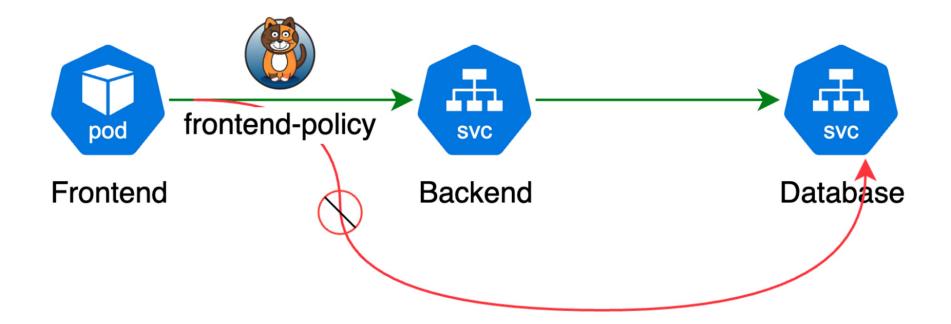


Demo 2 - Policy Misconfiguration with Staged Policy





Demo 3 - Supply Chain Attack





Q&A



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