



Open Policy Agent

Policy-based control for cloud native environments.



Agenda

- Community
- Open Policy Agent
 - Features
 - Integrations
 - Use Cases
- Use case deep dive
 - Data Protection
- Q&A



OPA: Community

Inception

Project started in 2016
at Styra.

Goal

Unify policy
enforcement across the
stack.

Users

Netflix
Medallia
Chef
Cloudflare
State Street
Pinterest
Intuit
Capital One
...and many more.

Use Cases

Admission control
Authorization
ACLs
RBAC
IAM
ABAC
Risk Management
Data Protection
Data Filtering

Today

CNCF Incubating
project

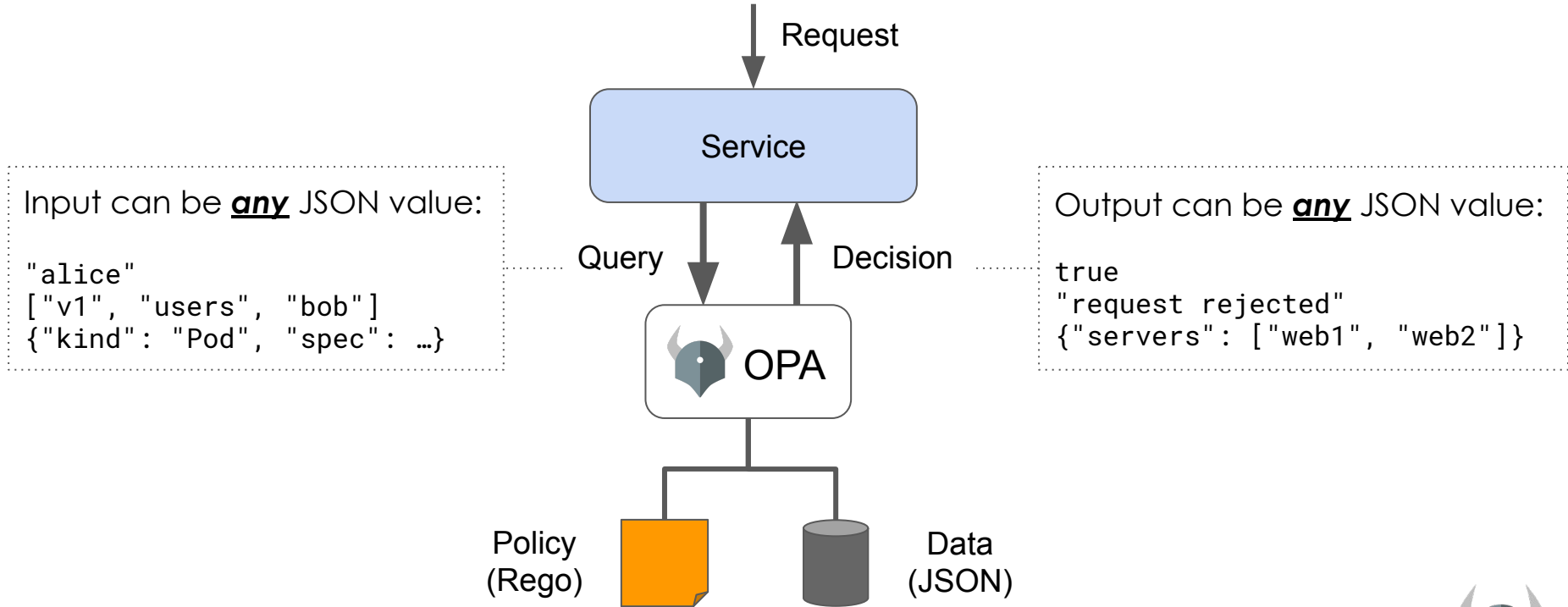
60 contributors
750+ slack members
2000+ stars
20+ integrations



What Is OPA ?

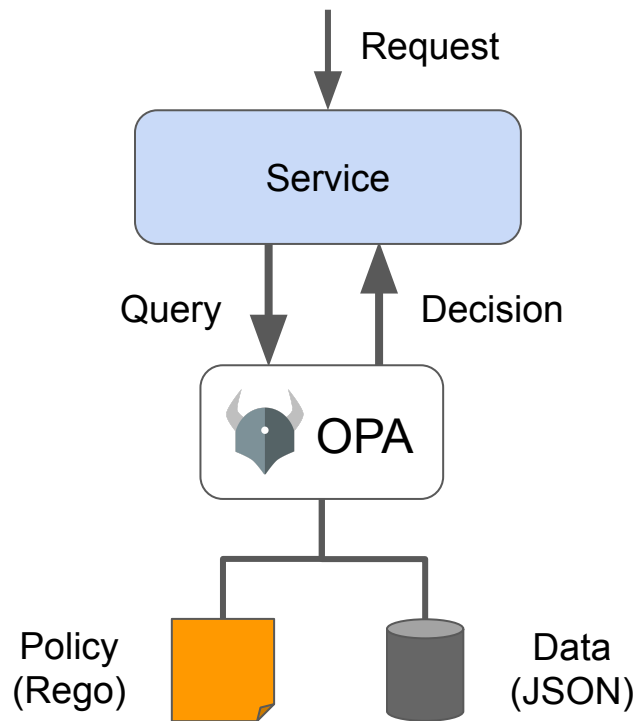


OPA: General-purpose policy engine



OPA: Features

- Declarative Policy Language (Rego)
- Library, sidecar, host-level daemon
- Management APIs for control & observability
- Tooling to build, test, and debug policy



OPA: Integrations



Admission Control

*"Restrict ingress hostnames for payments team."
"Ensure container images come from corporate repo."*



API Authorization

*"Deny test scripts access to production services."
"Allow analysts to access APIs serving anonymized data."*



Linux PAM

SSH & sudo

"Only allow on-call engineers to SSH into production servers."



Data Protection

"Trades exceeding \$10M must be executed between 9AM and 5PM and require MFA."



Data Filtering

"Users can access files for past 6 months related to the region they licensed."



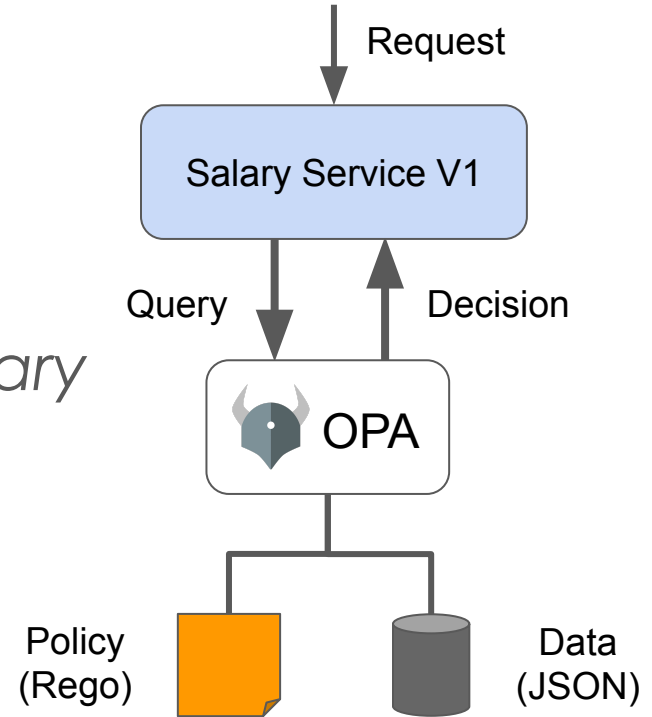
How does OPA work?



How does OPA work?

Example policy

"Employees can read their own salary and the salary of anyone they manage."



OPA: Declarative Language (Rego)

Example policy

Employees can read their own salary and the salary of anyone they manage.

Input Data

```
method: "GET"  
path: ["salary", "bob"]  
user: "bob"
```

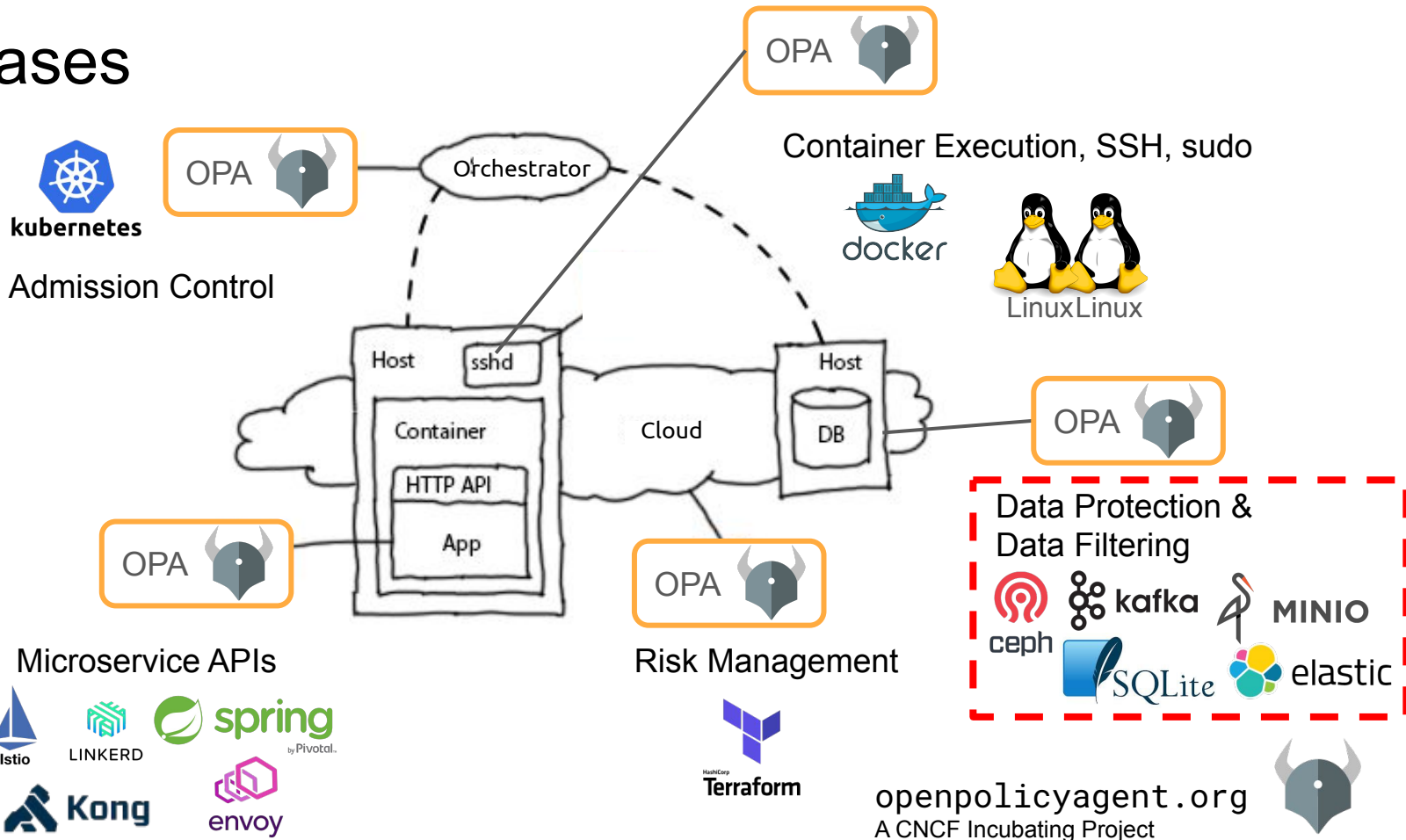




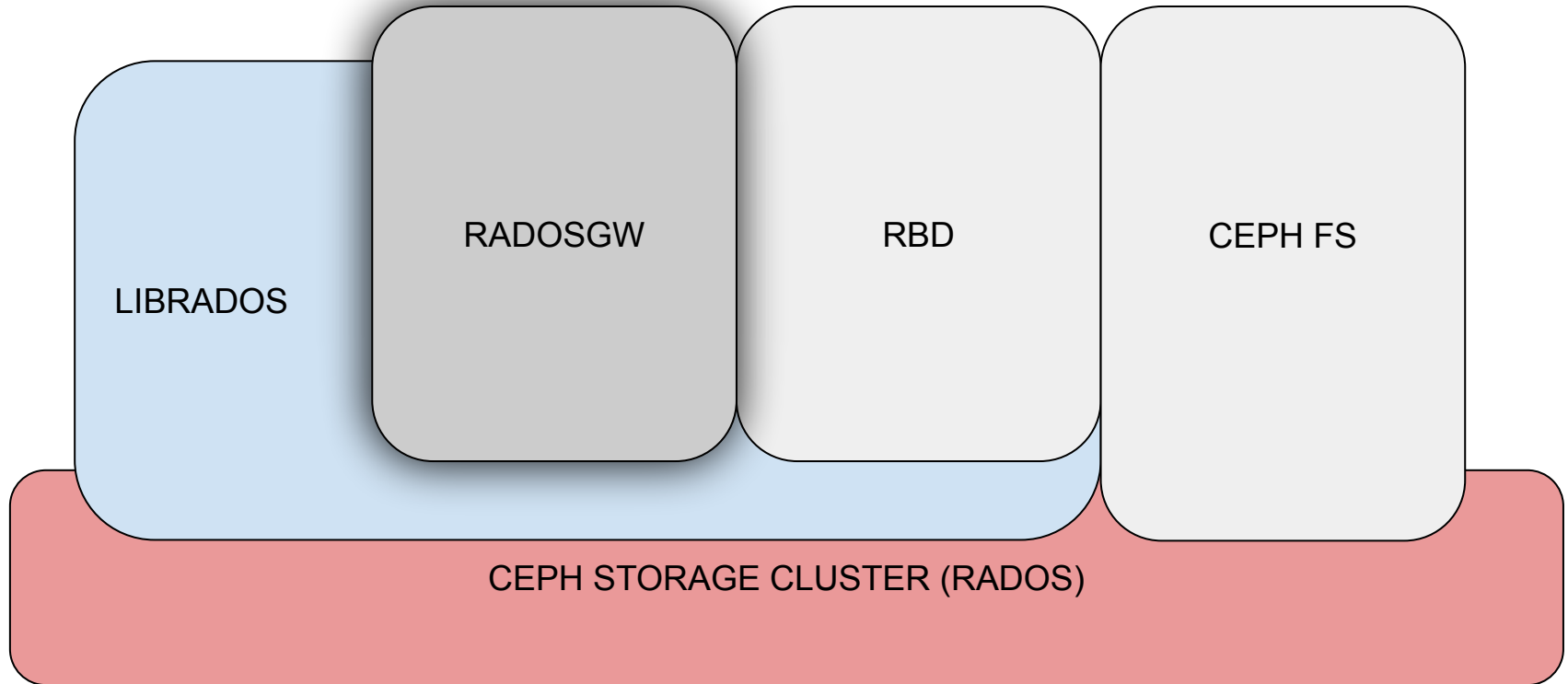
OPA: Use Cases



Use Cases



Use Cases: Ceph Data Protection

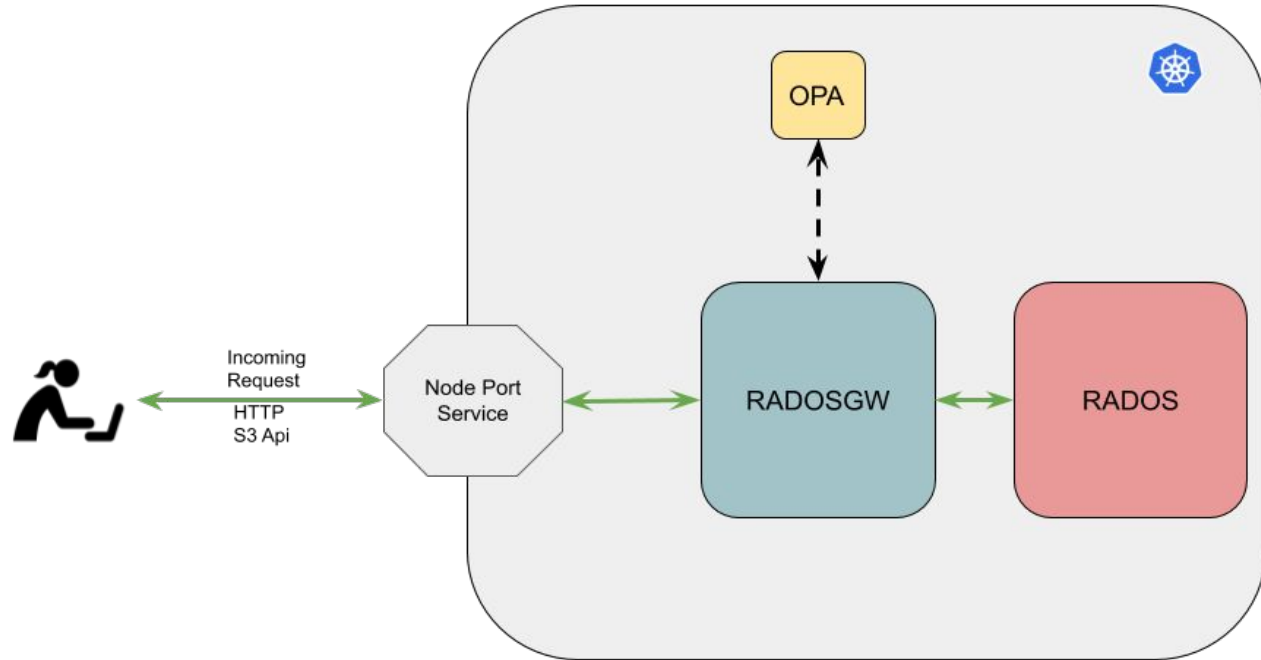




OPA: Demo



Demo: Setup



Thank You!



openpolicyagent.org



slack.openpolicyagent.org



github.com/open-policy-agent/opa

