

# Harbor, the trusted cloud native registry for Kubernetes

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## User Problems & Concerns

- I want consistency of policy and access for my registry
- I want a common way to describe a policy for consistency and security
- I want peace of mind my artifacts are free from vulnerabilities and secure before deployment to Kubernetes
- I want to enforce compliance policies for my artifacts



A Cloud Native Computing Foundation Incubating project

[goharbor.io](https://goharbor.io)



**12k**  
Stars



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# Harbor

Open source registry that secures artifacts with policies and role-based access control, ensures images are scanned and free from vulnerabilities, and signs images as trusted

Delivers compliance, performance, and interoperability to help you consistently and securely manage artifacts for Kubernetes



**Mission** - *To be the most secure, performant, scalable, and available cloud native repository for Kubernetes*



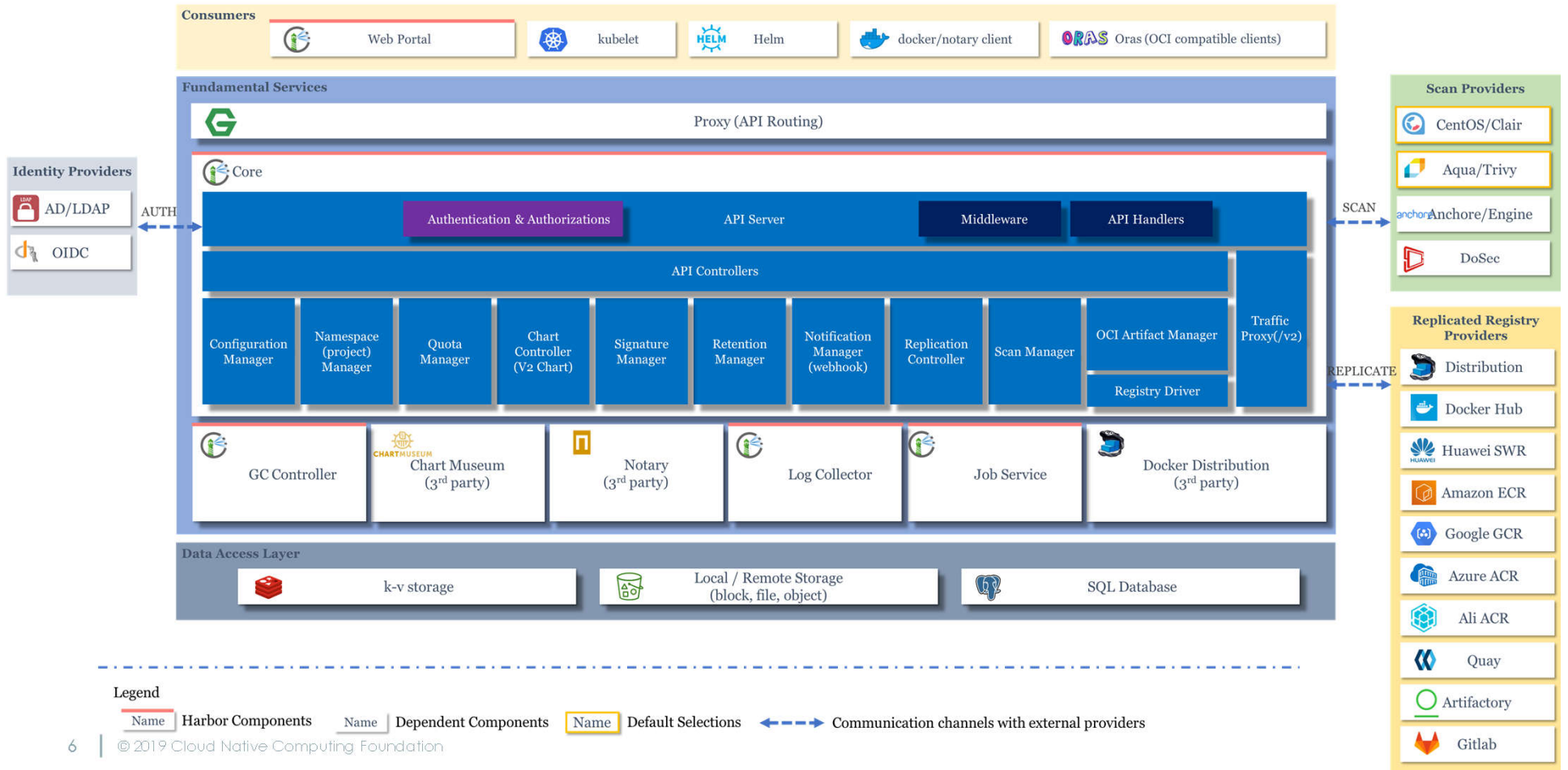
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# Core Tenets

- Ownership & Deployment
- Multitenancy
  - RBAC, Project Isolation
- Policy
  - Quotas, Retention, Immutability, Signing, Vulnerability
- Security & Compliance
  - I&AM, Scanning, CVE Exceptions
- Extensibility - Compatible with existing investments in infra & services
  - Webhooks, Replication, Pluggable Scanners, REST API, Robot Accounts, CLI Secrets



# Architecture



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# Feature Progress up to Harbor v2.0

1. Image Retention Policies
2. Project Quotas
3. Webhook Events
4. Introducing new Replication Targets
5. CVE Exception Policies
6. Immutability
7. Pluggable Scanners
8. I&AM improvements (OIDC Groups, Limited Guest, and more)



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# Harbor News

- Harbor v2.0 release
- New website
- New documentation (including search)
- Harbor Operator is released
- CNCF Graduation vote





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# Harbor 2.0

OCI image compliant

Aqua's Trivy is now the default scanner

Service-to-Service SSL

Robot Account expiration

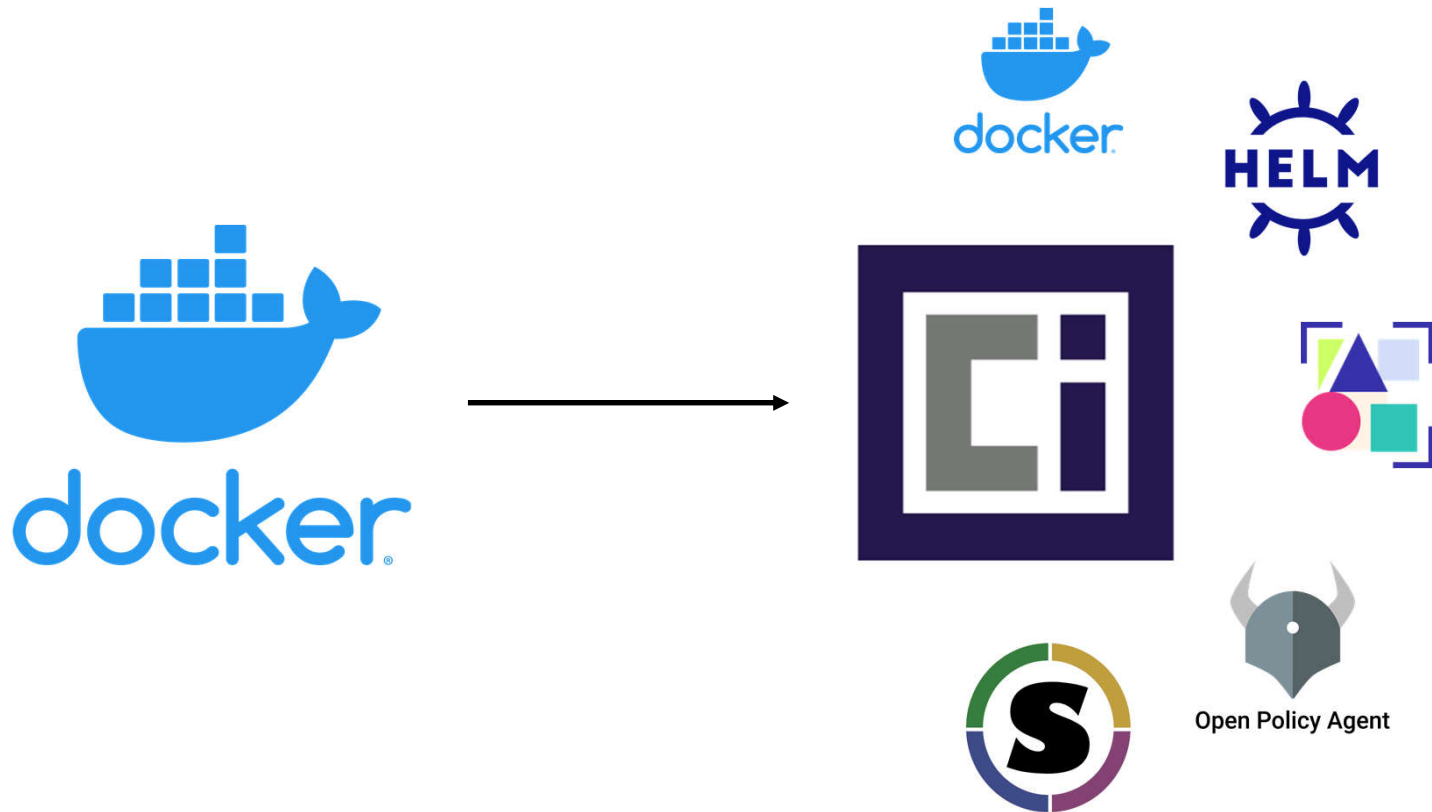
Webhook trigger customization and Slack integration

Tag improvements

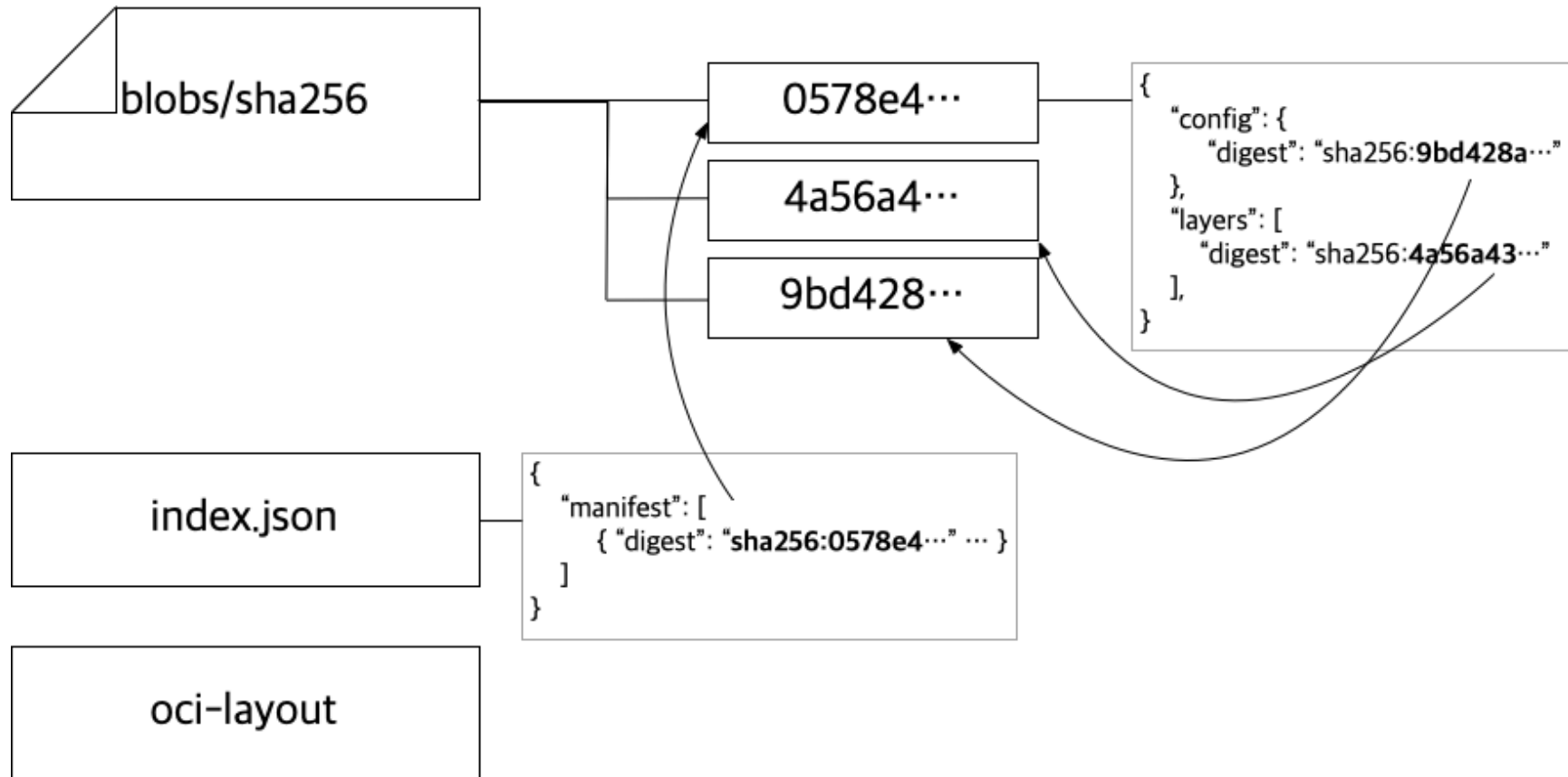
UI Dark Mode



# OCI Support



# OCI Index / Docker Manifest List



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# Trivy, by Aqua Security

The default scanner in Harbor

Simple, Comprehensive, and Fast Vulnerability Scanner for Containers, Suitable for CI with High accuracy

OS package support

Application dependency scanning

Deep scanning

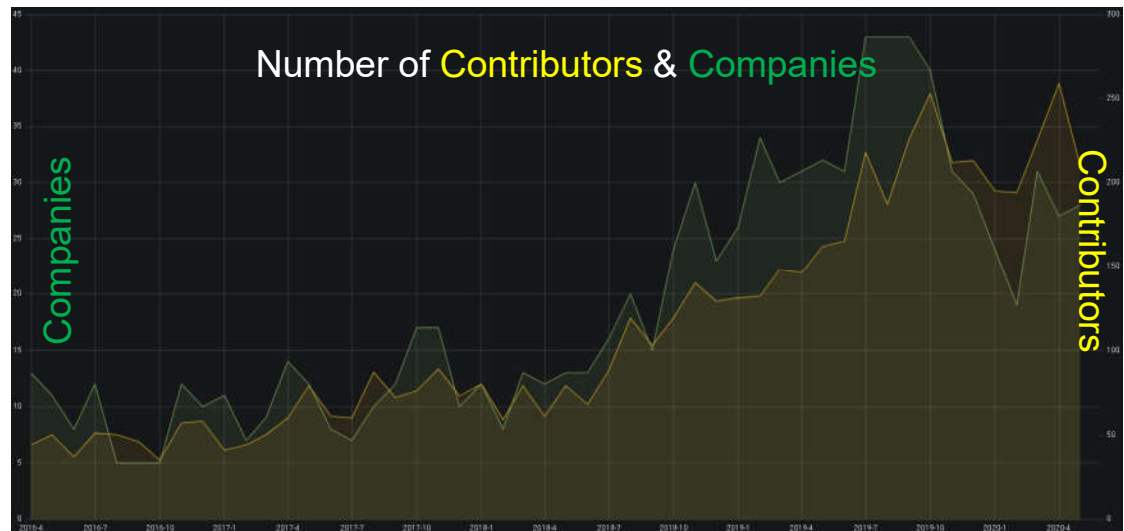


trivy

Demo!

# Harbor Community

12k GitHub Stars	206 Committers 3k Contributors	3.2k Forks
13 Maintainers	4 major releases (since May 2019)	5k Downloads (in last 2 weeks for v2.0 binaries)
1.1k Slack members	12k+ Slack messages	1900 Twitter followers
12k Commits	13 Blogs 5 Webinars	5.5k PRs
83 Contributing Companies	66k GitHub Views (in last 2 weeks)	14k GitHub Unique Visitors (in last 2 weeks)



Updated 5/28/2020

# Roadmap

## Management



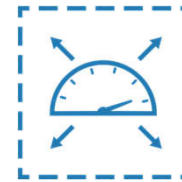
Kubernetes Operator



Signing Policy Replication



Garbage Collection



Perf & Scale



Observability

## Image Distribution



Proxy Cache



P2P Distribution

## Security



I&AM  
Enhancements



Interrogation  
Services



# Collaborate with the Harbor team

GoHarbor.io



[lists.cncf.io/g/harbor-users](https://lists.cncf.io/g/harbor-users)  
[lists.cncf.io/g/harbor-dev](https://lists.cncf.io/g/harbor-dev)



#harbor  
#harbor-dev



[demo.goharbor.io](https://demo.goharbor.io)  
• Sign up for an account



@project\_harbor



<https://goharbor.io/community/>  
• APAC+EU: 9pm UTC+8 time zone  
• Americas: 1pm Pacific time zone

