Vulnerability & Misconfiguration Scanner - Trivy

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Agenda

- What did you do for your artifacts to ensure its security & configuration correct?
- What kind of concern are?
- Trivy - An vulnerability & misconfiguration scanner tool
- Difficult to use?
- Q&A

What did you do for your artifacts to ensure its security & configuration correct?

Docker Image

- Push image to registry directly

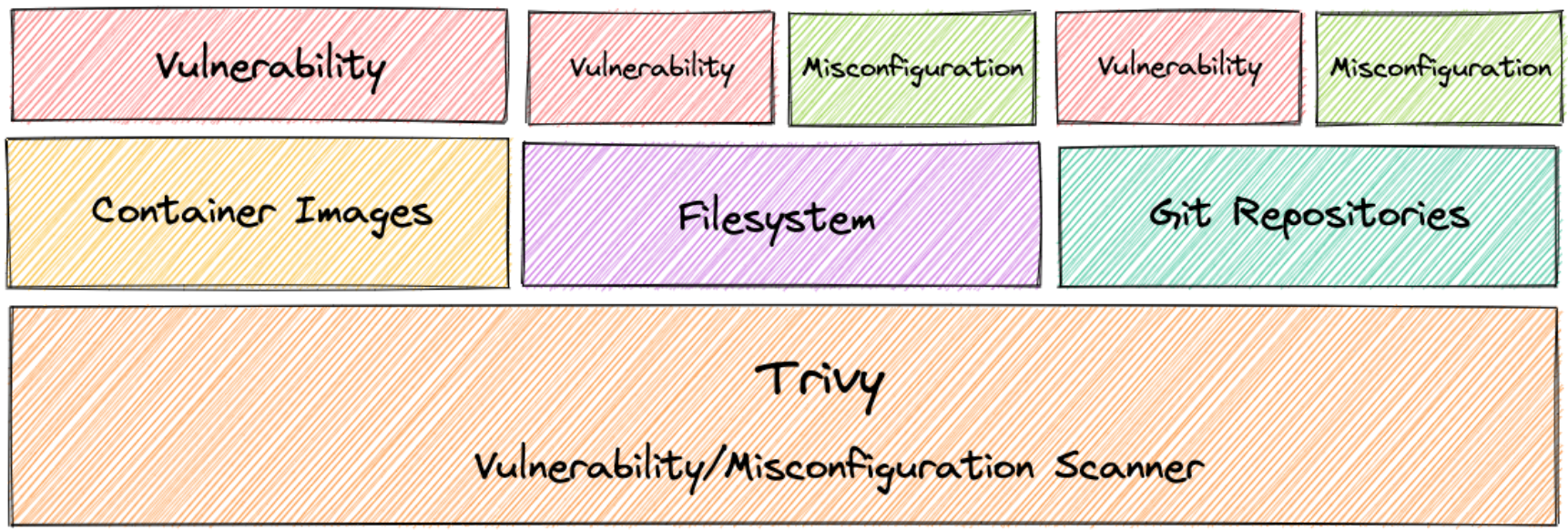
What kind of concern are?

Maybe

- Your base image has know/unfixed vulnerabilities
- Your artifacts contains some wrong config
- Your write some backdoor unconsciously
- ...

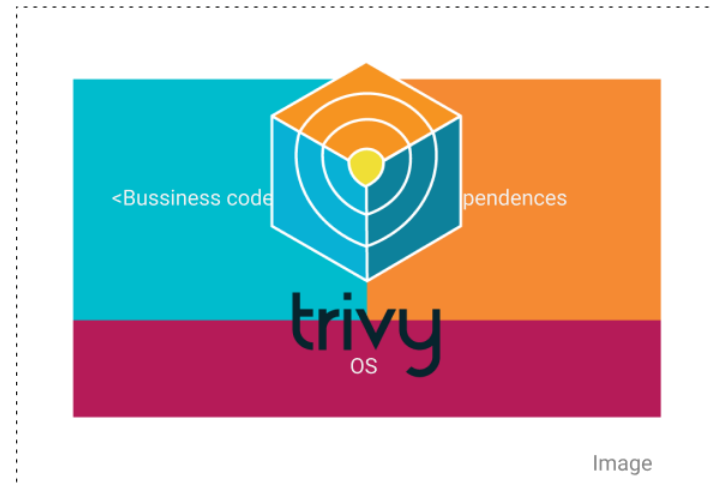
Trivy - An vulnerability & misconfiguration scanner tool

Capability


Vulnerability
Vulnerability
Misconfiguration
Vulnerability
Misconfiguration
Container Images
Filesystem
Git Repositories
Trivy
Vulnerability/Misconfiguration Scanner

Working principle

1

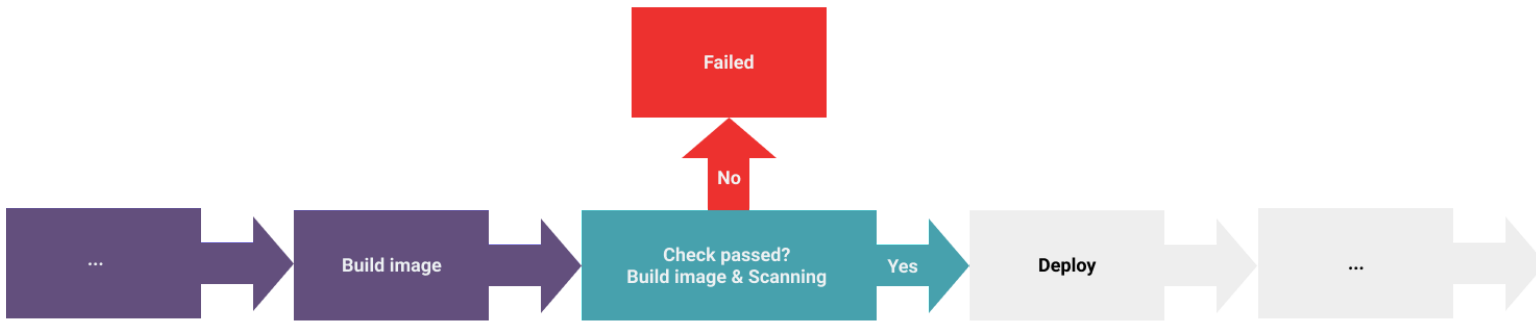


2

Difficult to use?

Talks is cheep, show me code

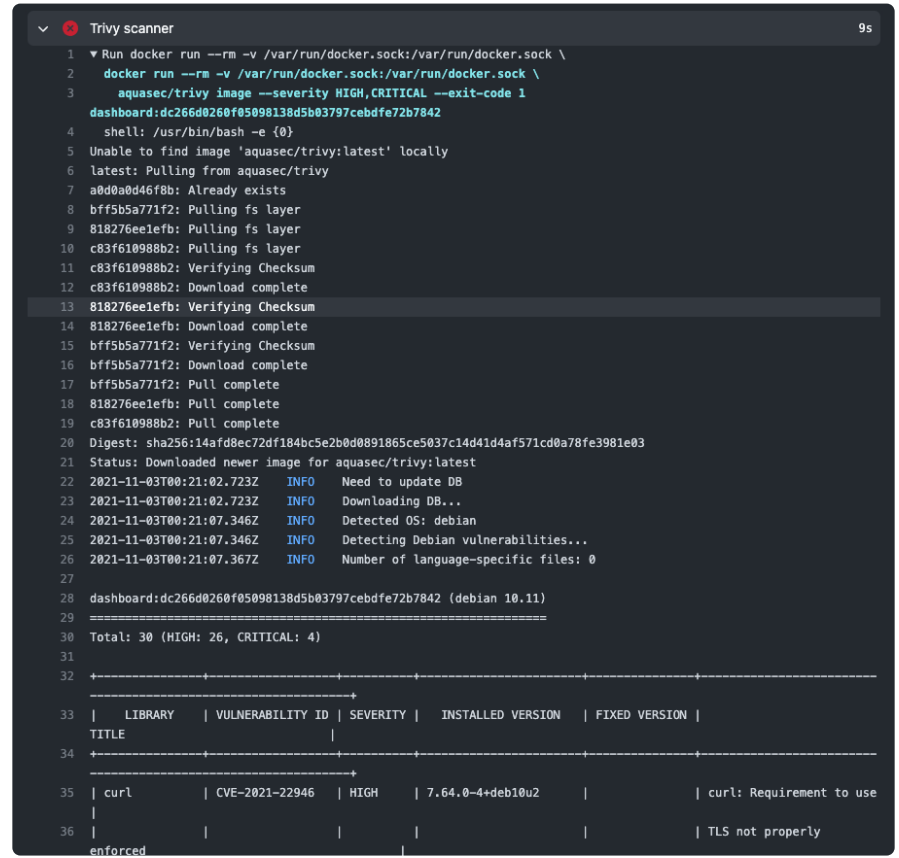
Pipeline


Failed
No
...
Build image
Check passed?
Build image & Scanning
Yes
Deploy
...

Image

```
docker run --rm -v \
  /var/run/docker.sock:/var/run/docker.sock \
  aquasec/trivy image \
  --severity HIGH,CRITICAL \
  --exit-code 1 \
  dashboard:${{ github.sha }}
```

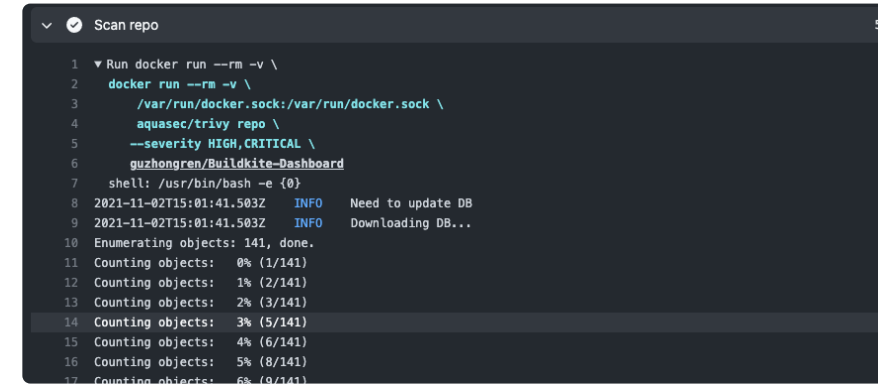
- https://github.com/guzhongren/Buildkite-Dashboard/runs/4087037441?check_suite_focus=true

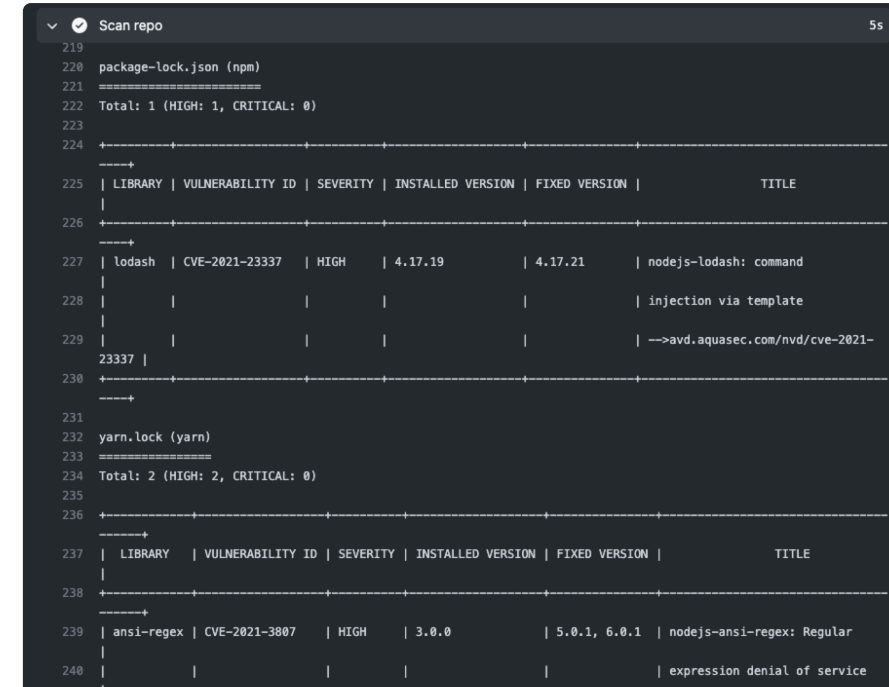


Repo

```
docker run --rm -v \
  /var/run/docker.sock:/var/run/docker.sock \
  aquasec/trivy repo \
  --severity HIGH,CRITICAL \
  --exit-code 1 \
  https://github.com/guzhongren/Buildkite-Dashboard
```

- https://github.com/guzhongren/Buildkite-Dashboard/runs/4093499534?check_suite_focus=true

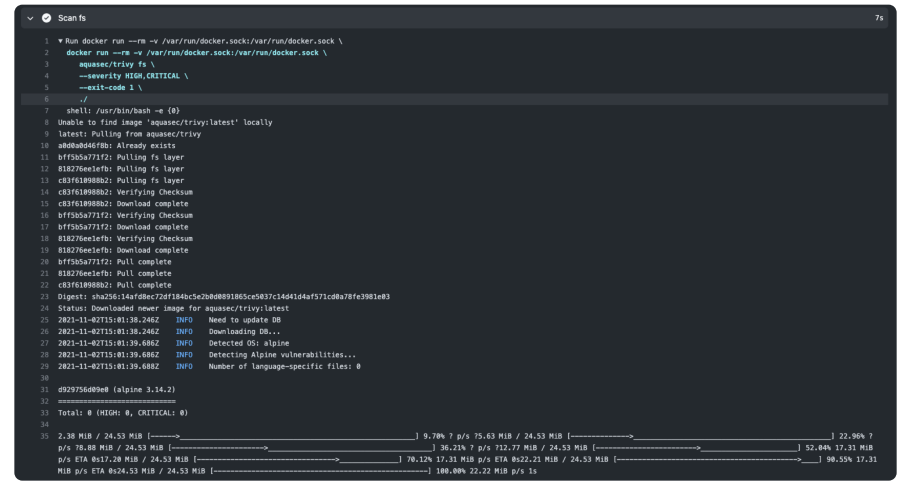




FS

```
docker run --rm -v \
  /var/run/docker.sock:/var/run/docker.sock \
  aquasec/trivy fs \
  --severity HIGH,CRITICAL \
  --exit-code 1 \
  ./
```

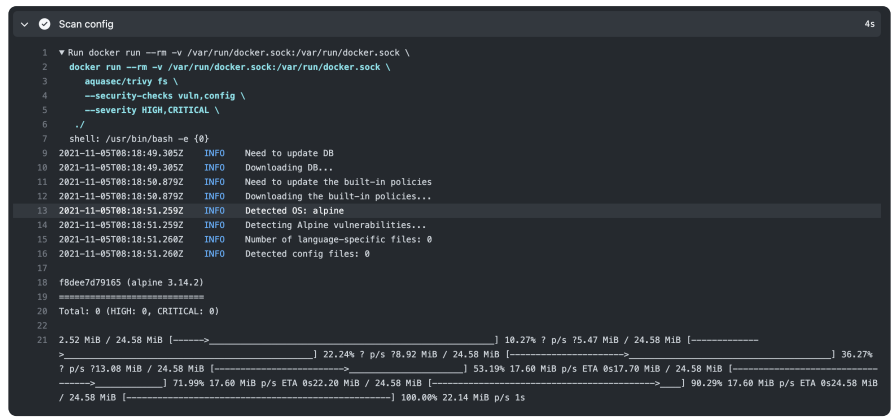
- https://github.com/guzhongren/Buildkite-Dashboard/runs/4093499534?check_suite_focus=true



Config

```
docker run --rm -v \
  /var/run/docker.sock:/var/run/docker.sock \
  aquasec/trivy config \
  --severity HIGH,CRITICAL \
  --security-checks vuln,config \
  --exit-code 1 \
  ./
```

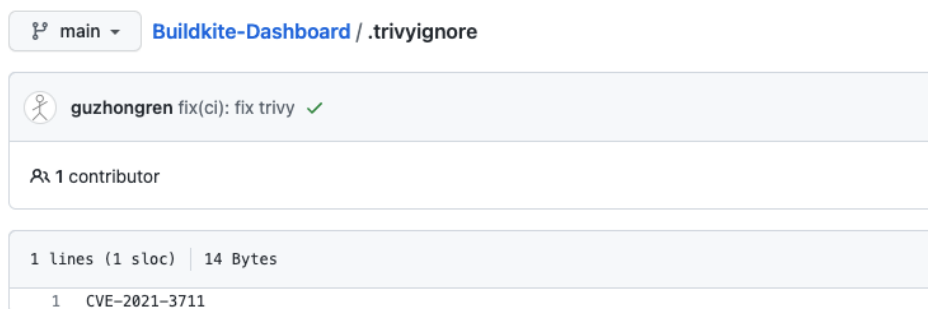
- https://github.com/guzhongren/Buildkite-Dashboard/runs/4093499534?check_suite_focus=true



.trivyignore

```
CVE-2021-3711
```

- https://github.com/guzhongren/Buildkite-Dashboard/blob/main/.trivyignore



Refs

- https://aquasecurity.github.io/trivy
- https://github.com/aquasecurity/trivy
- http://guzhongren.github.io/2021/08/container-image-scanner-trivy/
- …

Q & A

Thank you!