On Demand Webinar

Introducing a Security Feedback Loop to your CI Pipelines

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How to Implement Security Scanning with Codefresh and Twistlock

- How Twistlock Improves Security
- Why Steelcase uses Security Scanning in their CI Pipelines
- How Codefresh Automation Works
- DEMO!
  Twistlock CLI / Docker image scanning as part of your Codefresh pipelines.

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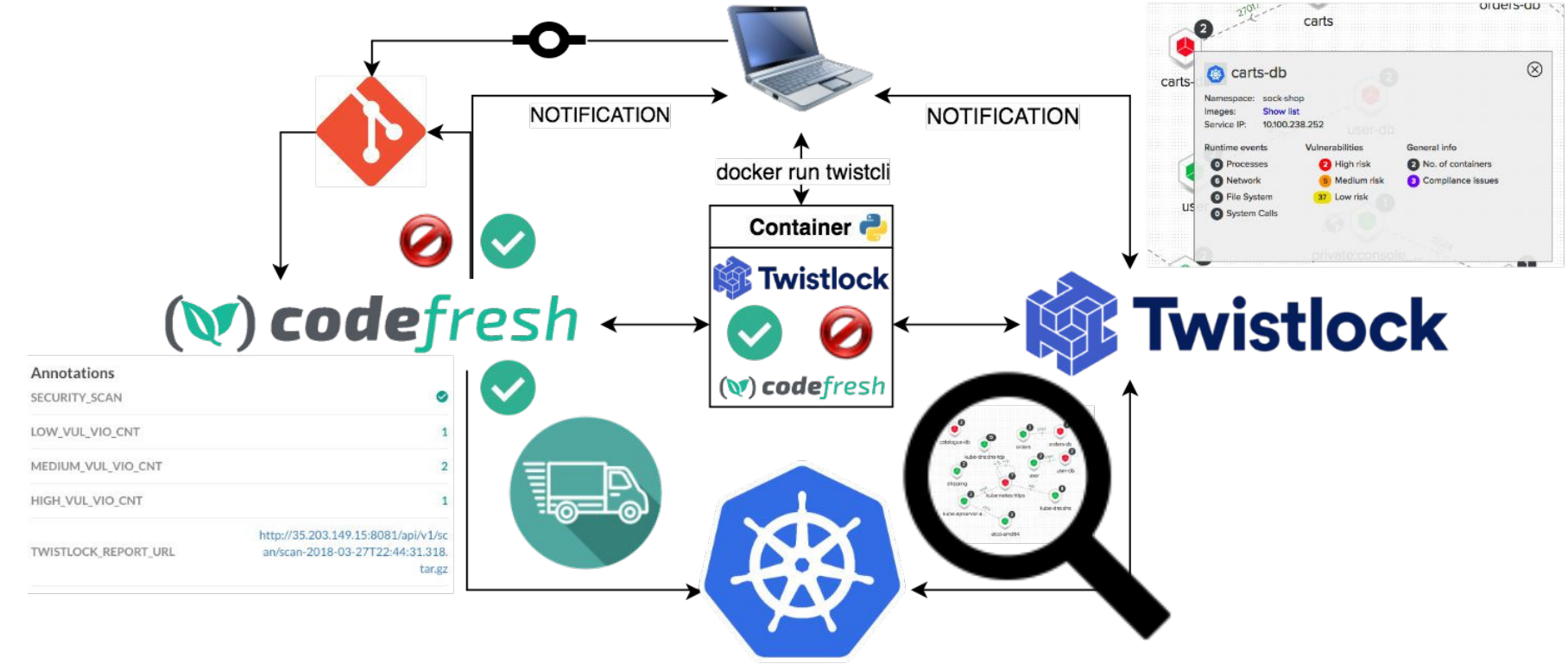
Steelcase

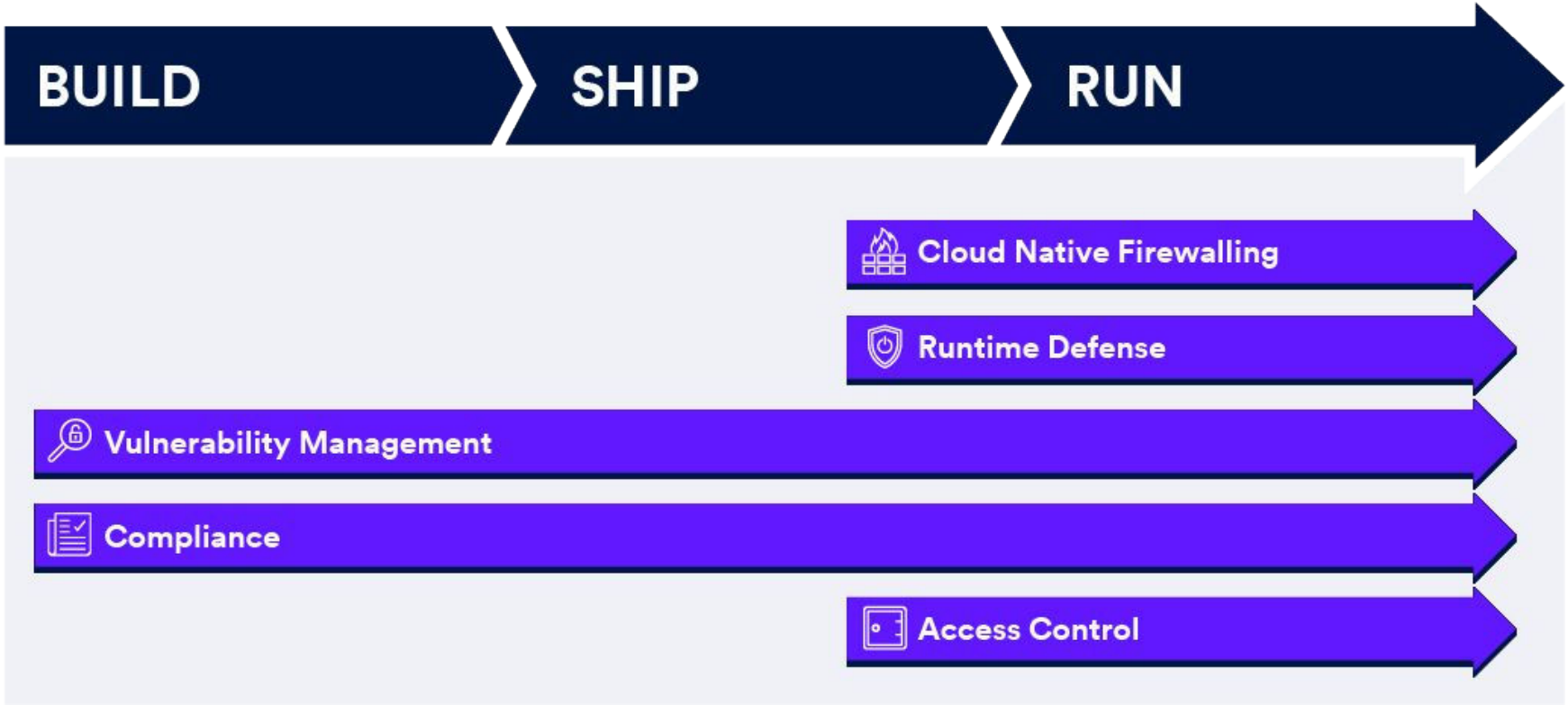
- Steelcase is a 106 year old furniture company.
- Steelcase also offers a various services like Workplace Advisor.
- Thousands of IOT devices deployed.
- Fortune 500 Customers.

Privacy is critical!

Steelcase


NOTIFICATION
NOTIFICATION
docker run twistcli
Container
Twistlock
codefresh
codefresh
Twistlock
carts
carts-db
Namespace: sock-shop
Images: Show list
Service IP: 10.100.238.252
Runtime events
Processes
Network
File System
System Calls
Vulnerabilities
High risk
Medium risk
Low risk
General info
No. of containers
Compliance issues
Annotations
SECURITY_SCAN
LOW_VUL_VIO_CNT 1
MEDIUM_VUL_VIO_CNT 2
HIGH_VUL_VIO_CNT 1
TWISTLOCK_REPORT_URL http://35.203.149.15:8081/api/v1/scan/scan-2018-03-27T22:44:31.318.tar.gz

Introducing the Twistlock *Platform*



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Security scanning is a critical part of vulnerability management:

1. Reduce cost compared to fixing flaws in production
2. Eliminate high or critical vulnerabilities as soon as possible
3. Improved code quality helps avoid costly breaches

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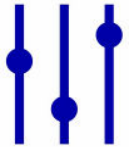
Advantage of scanning with Twistlock

Accuracy:
Fewer false positives and negatives



Control:
Set thresholds based on vulnerability or compliance status

Fix status:
Put remediation information in developers' fingertips

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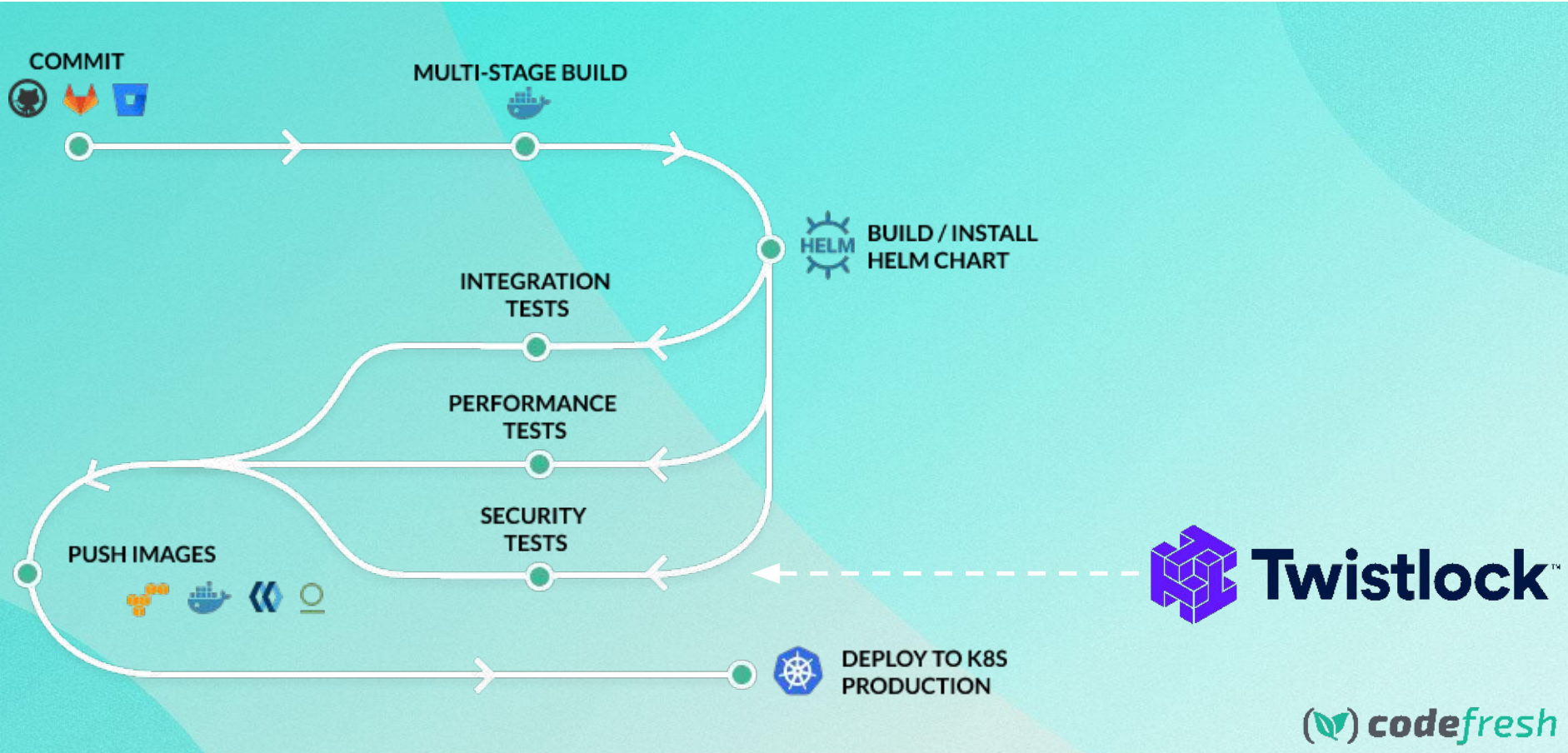
What thresholds can I set with Twistlock?

Alert or block specific package based on specific vulnerability level
Example 1: Block all High vulnerabilities in XXXX library

Alert or block specific builds based on compliance issues
Example 2: Alert on builds that have Medium or higher compliance issues

Incorporate status of fixes for added control
Example 3: Block all builds Medium or higher that have a known fix

Where does Twistlock integrate with Codefresh?



Why Codefresh?

Adopting Kubernetes by cobbling together lots of tools and scripts is costly and time consuming

- Build servers
- Staging servers
- Build automation
- Webhooks
- Docker registry
- Kubectl
- Helm
- CI Tests
- Integration Tests
- UI Tests
- Performance Tests
- Security Scans
- Deployment tools
- Secrets management
- Configuration testing
- Traceability Dashboards

Codefresh is a DevOps Platform Built for Kubernetes

Kubernetes
CI/CD Pipelines

Self-Service Test
Environments

Release
Management

Docker & Helm
Registry

Steelcase Use Cases

Before/Why?

- how much security is enough security?
- No security implementation in code and docker container configuration?
- Hard to control what security standards and practices are followed when there are multiple developer teams working on different applications.
- Get unified security standards for all the microservices.
- ?Secure application from within.

Why Automate:

- Catch up with Security ask!
- Doesn't satisfy the laws of DevOps speed.
- Scan the images before they go to production or even master.
- Fast and Secure development with continued feedback.
- In microservice model, faster onboarding of a secure microservice with no compromise in security standards.
- Less security patch releases to production.

Now

- Automated security scan in protected branches.
- Logical conditions to run it in other specific branches.
- All new microservices have to have security steps configured in CI build.

Next

- Fail the CI build if the results cross threshold.
- Block the merge or PR to protected branch when results crosses thresholds for security and compliance.

DEMO

Twistlock / Codefresh Integration

- Docker image containing Twistlock CLI, Codefresh CLI and Python scripting to tie the two together.
- Runs locally and on Codefresh (Docker Swarm or K8S)
- Adds Docker image metadata (Annotations)
  - Compliance and Vulnerability counts for each level [critical, high, medium, low]
  - Security Scan results Pass/Fail
  - Twistlock Report URL
- Determine Build Success or Failure based on exit code of the Twistlock scan and pass that back to Version Control System

https://github.com/SC-TechDev/docker-twistcli

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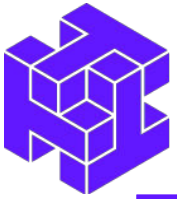
CHECK OUT OUR BLOG POST:
codefresh.io/blog



Twistlock™

Talk to Twistlock

Sign up for a Free Trial!
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Get a Codefresh Demo

Schedule 1:1
@ Codefresh.io

Thank You For Joining Us