

SESSION NUMBER ARIAL

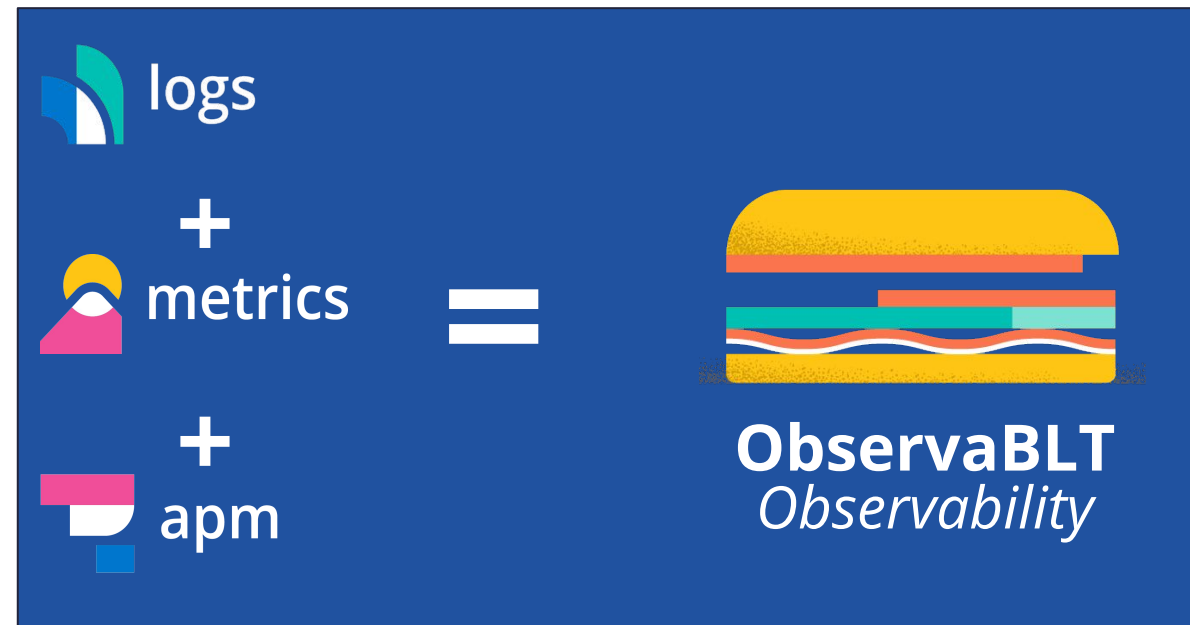
Who Watches the Watchers? A Jenkins Journey

Ivan Fernandez
Victor Martinez

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by CloudBees

Observability

- Observability, ObservaBLT, o11y
 - Logs + Metrics + Monitoring
 - Application Performance Monitoring (APM)
 - Machine Learning (ML)
 - Alerting
 - Dashboards
- Can we observe our CI/CD?



Problem Statement

Problem Statement

- More than 60 repositories
- 7 programming languages
- Different build tools
- Different package and distribution systems
- More than 25 Operating system versions supported
- Different architectures
- More than 50 integrations with tools, systems, and services

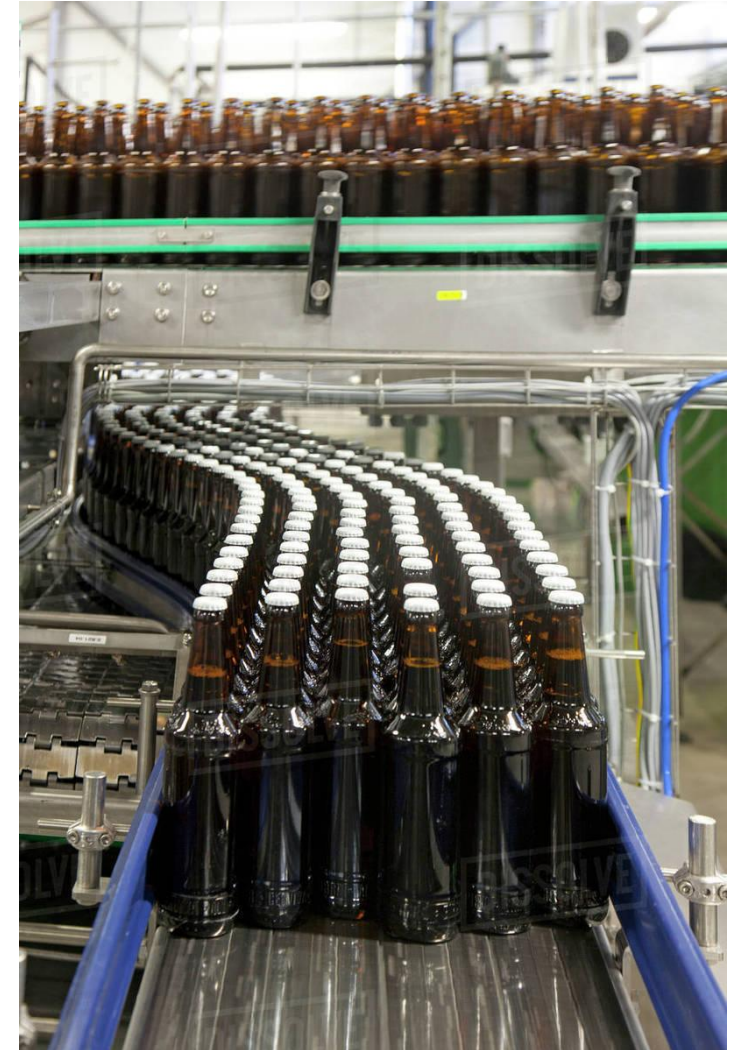


Solutions

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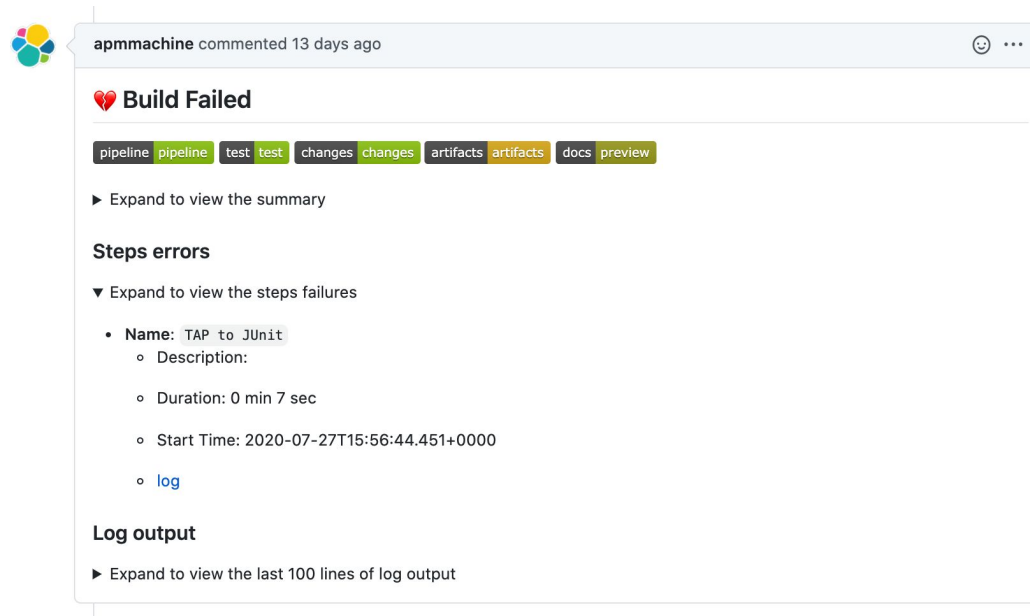
Standardisation

- One CI/CD to rule 'em all (Jenkins)
- Declarative pipeline
- Multibranch pipeline jobs
- Delegate build responsibility on build tools
- One click tag-based releases



Communication

- Centralized contributor experience in one place
- Massage the build log test results



apmmachine commented 13 days ago

❤️ **Build Failed**

pipeline pipeline test test changes changes artifacts artifacts docs preview

► Expand to view the summary

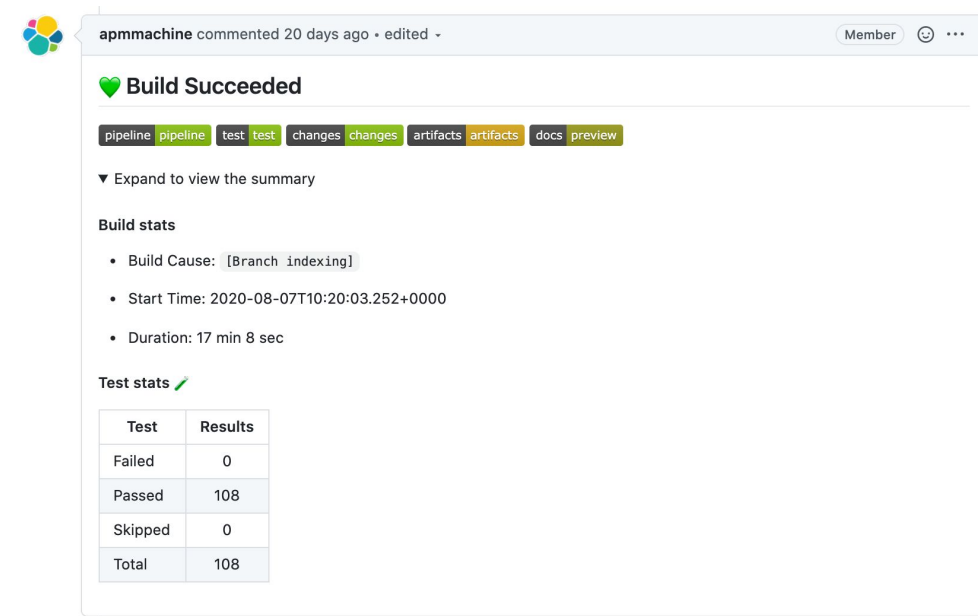
Steps errors

▼ Expand to view the steps failures

- **Name:** TAP to JUnit
 - Description:
 - Duration: 0 min 7 sec
 - Start Time: 2020-07-27T15:56:44.451+0000
 - [log](#)

Log output

► Expand to view the last 100 lines of log output



apmmachine commented 20 days ago • edited • Member

♥️ **Build Succeeded**

pipeline pipeline test test changes changes artifacts artifacts docs preview

▼ Expand to view the summary

Build stats

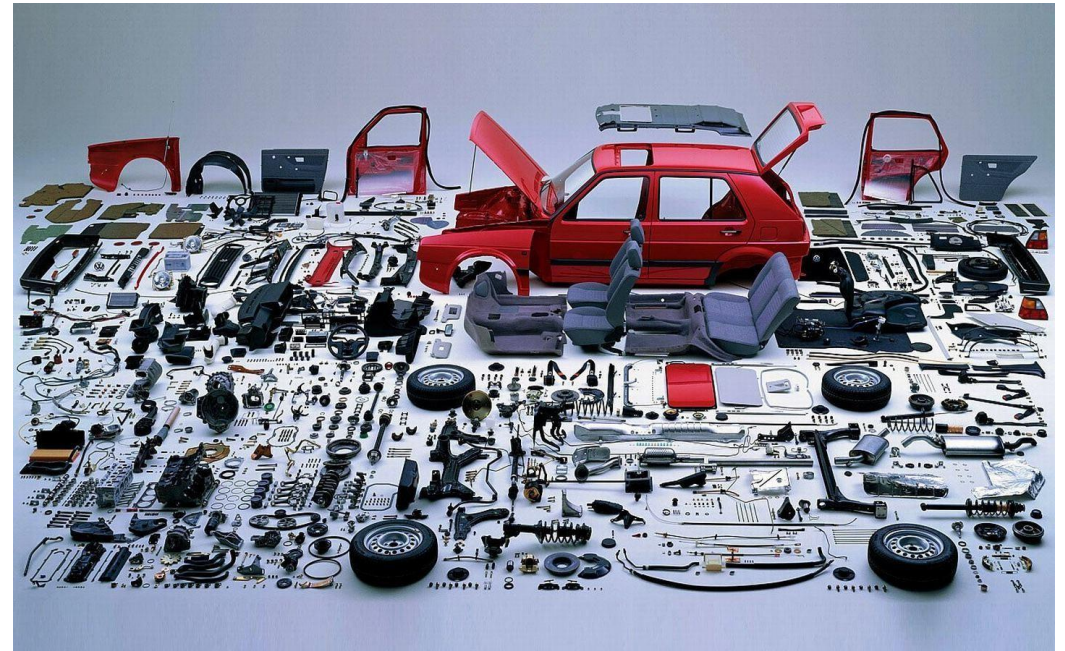
- Build Cause: [Branch indexing]
- Start Time: 2020-08-07T10:20:03.252+0000
- Duration: 17 min 8 sec

Test stats ✓

Test	Results
Failed	0
Passed	108
Skipped	0
Total	108

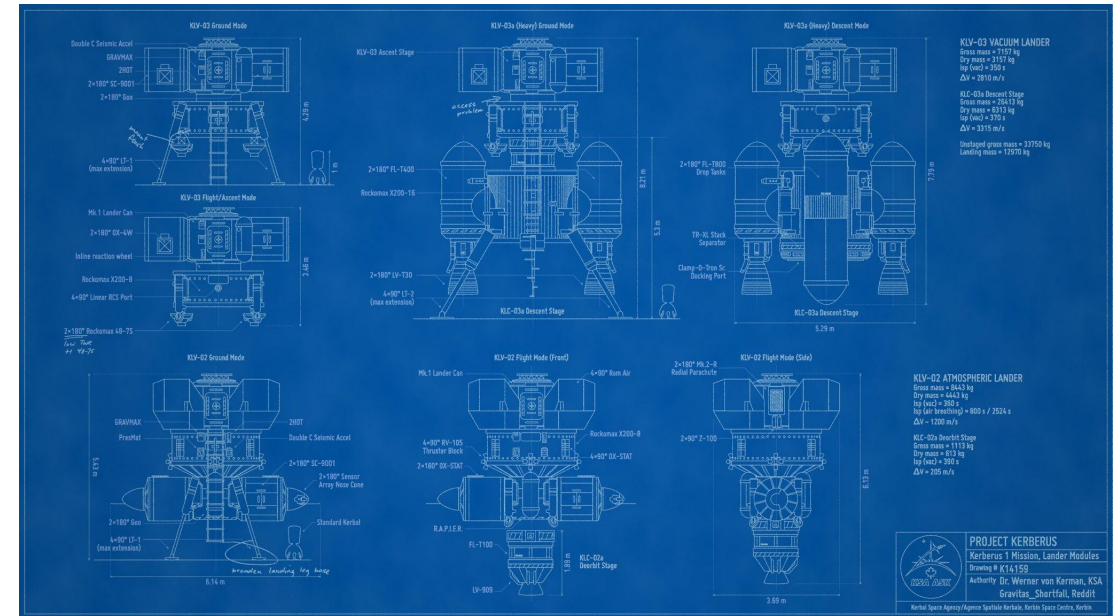
Don't repeat yourself

- Identify common processes and patterns
- Shared library (~120 steps)



Everything as Code

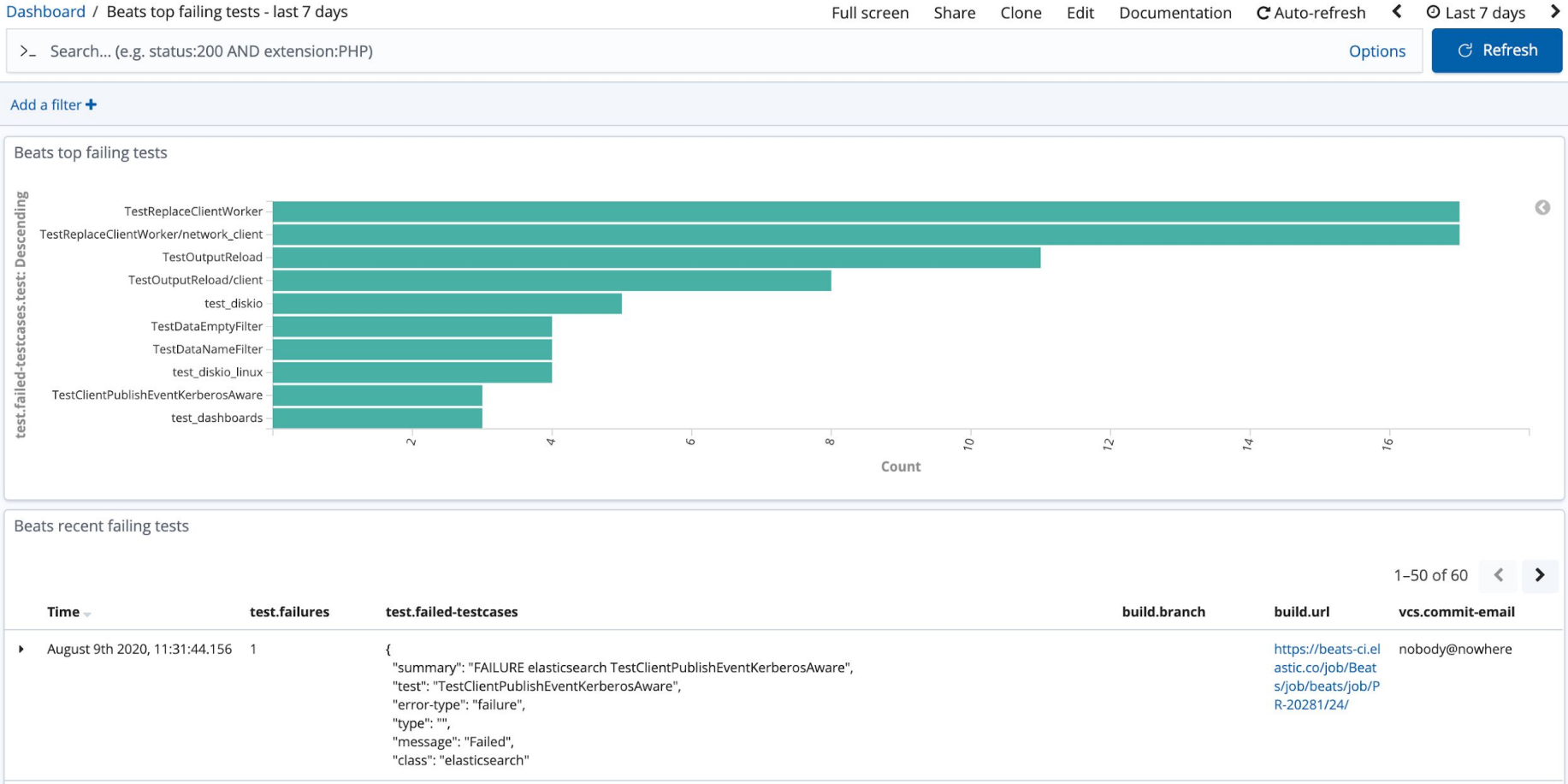
- Infrastructure
- CI/CD Jobs definition
- Local test environments
- Ephemeral test environments
- Release/Dev/Dev-next test environments
- Docs as Code



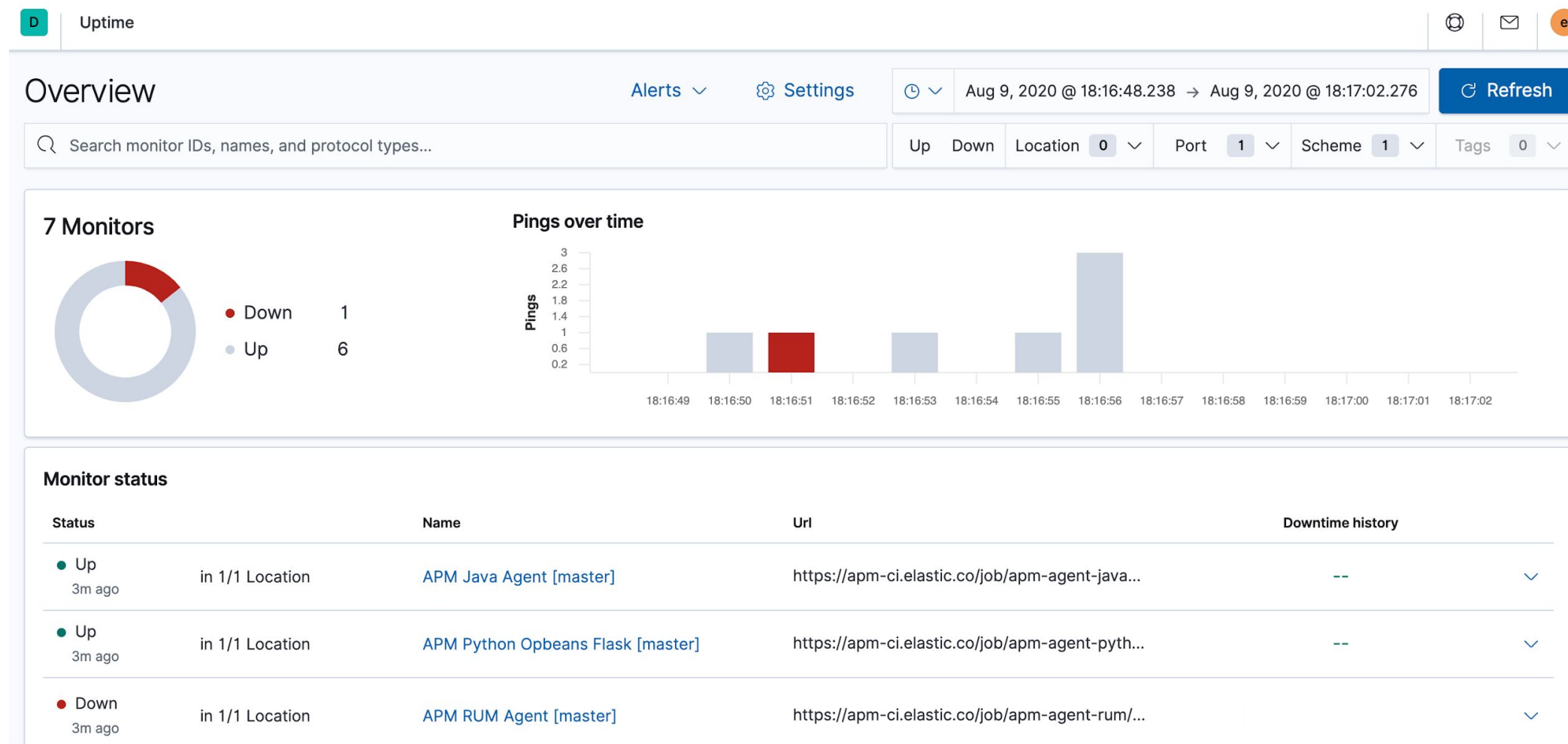
Test 'em all

- Unit and functional testing for the Jenkins shared library.
- Use master branch in the MBP for the jenkins shared library.
- Docker images
- Ansible deployments
- InSpec for the packer images.
- Helm charts
- pre-commit in the git repositories.
- Scan tools

Build Data in Elastic Stack



Monitoring 'em all with Elastic Stack



Continuous Delivery

- Every successful merge on a branch should generate binaries
- Permanent environments for demos, testing and development
- Updated on daily basis
- ITs test snapshots on daily basis
- Dogfooding of our Elastic Cloud platform (SaaS)

FOSS

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Open Source

- Contribute back to the FOSS:
 - Using weekly releases.
 - Using latest plugin versions.
- Why?
 - We like to be on the edge.

Future

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Future

- Centralized dashboard
- Machine Learning

Thank you!



<https://github.com/elastic/apm-pipeline-library>



<https://www.elastic.co/blog/>

Arts credit

<https://www.flickr.com/photos/big-dave-diode>

<http://www.tnwallpaper.com/themepack-volkswagen.html>

<https://dissolve.com/stock-photo/Bottles-production-line-bottling-royalty-free-image/101-D145-221-143>

<https://www.aeroexpo.online/it/prod/advanced-innovative-engineering-aie/product-185027-39745.html>

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<https://www.cgtrader.com/3d-models/aircraft/part/rs-25-space-shuttle-rocket-engine>

https://www.dlf.pt/ddetail/TRoRiwJ_jet-gas-turbine-engine-aircraft-engine-borescope-inspection/

<https://www.dreamstime.com/automotive-engine-d-illustration-image145207557>

<https://d3lp4xedbqa8a5.cloudfront.net/s3/digital-cougar-assets/streetmachine/2017/09/27/Misc/V12-LS1-engine.jpg>

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