

Detect, Debug, Deploy with Codefresh & LightStep

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Solutions Architect

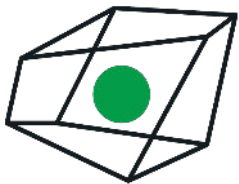


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Agenda

- Codefresh and Lightstep
- CI/CD and Observability
- Demo: Detect, Debug, Deploy
- Summary

Find the sample app at <https://github.com/austinparker/helm-sample-app>

Codefresh

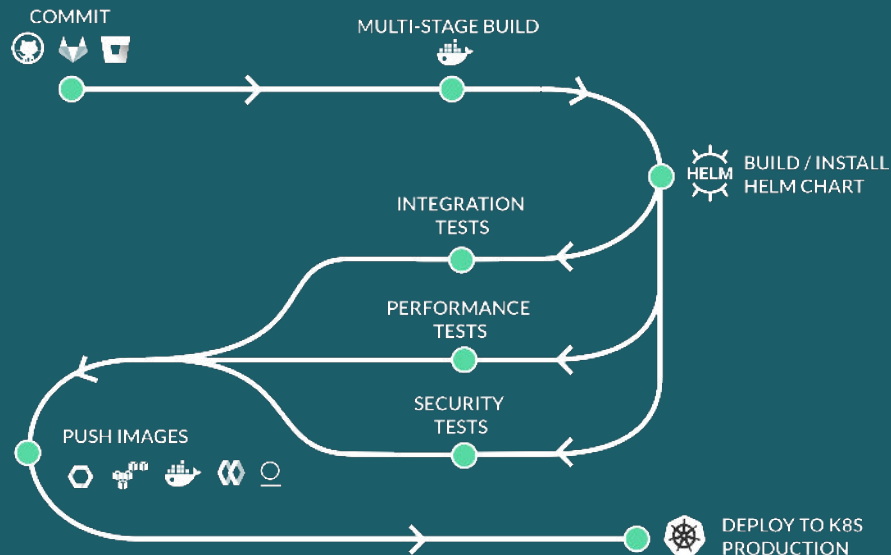
The 1st container-native
CI/CD Platform for
Microservices

 Container-native

 Intuitive & Robust

 Enterprise Ready

 Flexible Delivery



Observability with *context*

- Analyze 100% of requests and scale
- Automatic deployment regression detection
- Aggregate trace analysis
- Real-time and effective root cause analysis
- Alerting with Context
- Easy Setup with no vendor lock-in



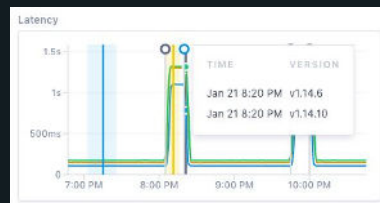
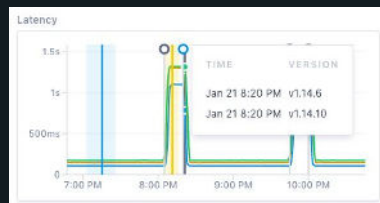
Lightstep

Compare Operations ⓘ
Average critical path latency per operation

Operation	Baseline	Regression	Change
write-cache-inventory	68.5ms	333ms	+268ms
database-update-inventory	38.5ms	33.4ms	-5.2ms
update-inventory-inventory	16ms	16.9ms	-1.1ms
set-merchcached	5.2ms	5.22ms	+28µs
UPDATE-inventory-db	4.6ms	3.47ms	-1.1ms

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**Observability is the process and practice
of understanding your system.**



Monitoring vs. Observability

Monitoring, as a discipline, requires you to pre-define *normal* and then freeze it, with ruthless efficiency, suborning agility and humanity and adaptiveness in the sake of producing a steady-state system.

THE NEW STACK

There's too many unknowns in modern software to just throw together some dashboards and call it a day.

Think about the things you might need or want to know...

- "Why does a particular type of user account have worse response times?"
- "What's correlated with this particular failure?"
- "When did this error start occurring?"



CI/CD and Observability

- CI/CD speeds up your development velocity, but this velocity comes with tradeoffs.
- How do you know that your changes are improving performance, or resolving a performance issue?
- You need observability tools to measure and understand your system.

Instrumenting for Observability

- You need to add instrumentation to your service code to emit telemetry data.
- OpenTelemetry (<https://opentelemetry.io>) is a vendor-neutral telemetry API and SDK

```
import (  
    ...  
    "go.opentelemetry.io/otel/plugin/othttp"  
    sdktrace "go.opentelemetry.io/otel/sdk/trace"  
    "github.com/lightstep/opentelemetry-exporter-go/lightstep"  
)  
...  
func initTracer() {  
    tp, err := sdktrace.NewProvider(...)  
    global.SetTraceProvider(tp)  
}  
...  
mux.Handle("/", othttp.NewHandler(http.HandlerFunc(indexHandler), "root", othttp.WithPublicEndpoint()))
```

Setting Up...

- We have a Kubernetes cluster set up already.
- Our sample application has a preconfigured Helm chart, and we've already deployed a version of the application.
- Let's assume we want to release a new version of our application...

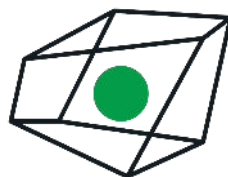
Demo

Detect, Debug, Deploy

Summary

- Codefresh makes it easy to continuously release and rollback deployments of your services.
- Lightstep is the best way to quickly and accurately understand your service health, and know when you need to rollback - or give you confidence that everything is OK.

Find a learning path for this webinar at
<https://docs.lightstep.com/paths/codefresh-path>



Lightstep

Questions?



Lightstep

Sign up for a free 14 day trial at <https://go.lightstep.com/trial> and get started today!



Signup for a FREE account with UNLIMITED builds

& schedule a 1:1 with our experts at

<https://codefresh.io>

And the winner is...

Thanks for joining! All attendees
were entered to win a Nintendo
Switch from  **Lightstep**

