# Pipeline Analytics: The foundation of DevSecOps



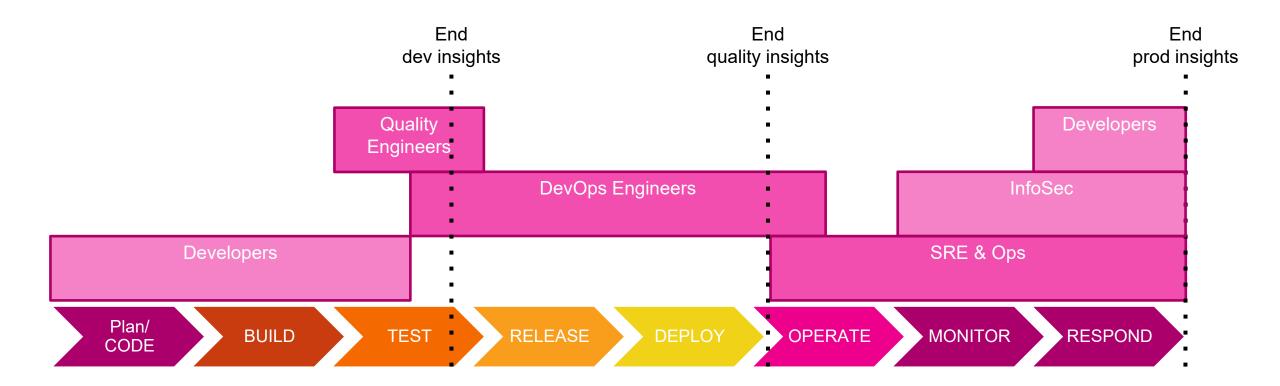




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#### **Visibility Silos**



#### DevSecOps is a practice.

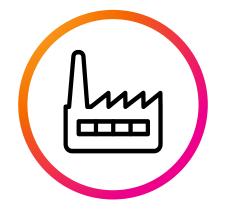
That practice MUST be visible.

### The use cases of DevSecOps

Build more secure applications



Secure the application factory



Secure applications in production

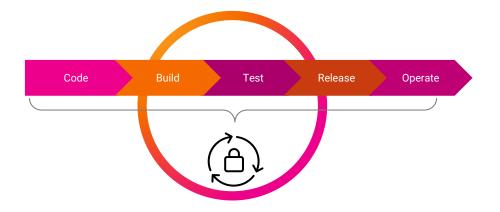


## Characteristics of DevSecOps

Integrated Using Automation

**Shift Security Left** 

At DevOps Speed







#### The practice is not one-size-fits-all

Make your DevSecOps practice visible

CIO, CTO, CISO

**Build more secure apps** 

Developers
Quality Engineers
DevOps Engineers

Secure the app factory

DevOps Engineers
Site Reliability Engineers(SRE)
Security

Secure apps in prod

Site Reliability Engineers(SRE)
Security

#### The practice is not one-size-fits-all

Make your DevSecOps practice visible

**Pipeline Analytics** 

**Build more secure apps** 

**Pipeline Analytics** 

Secure the app factory

Pipeline Analytics SIEM

Secure apps in prod

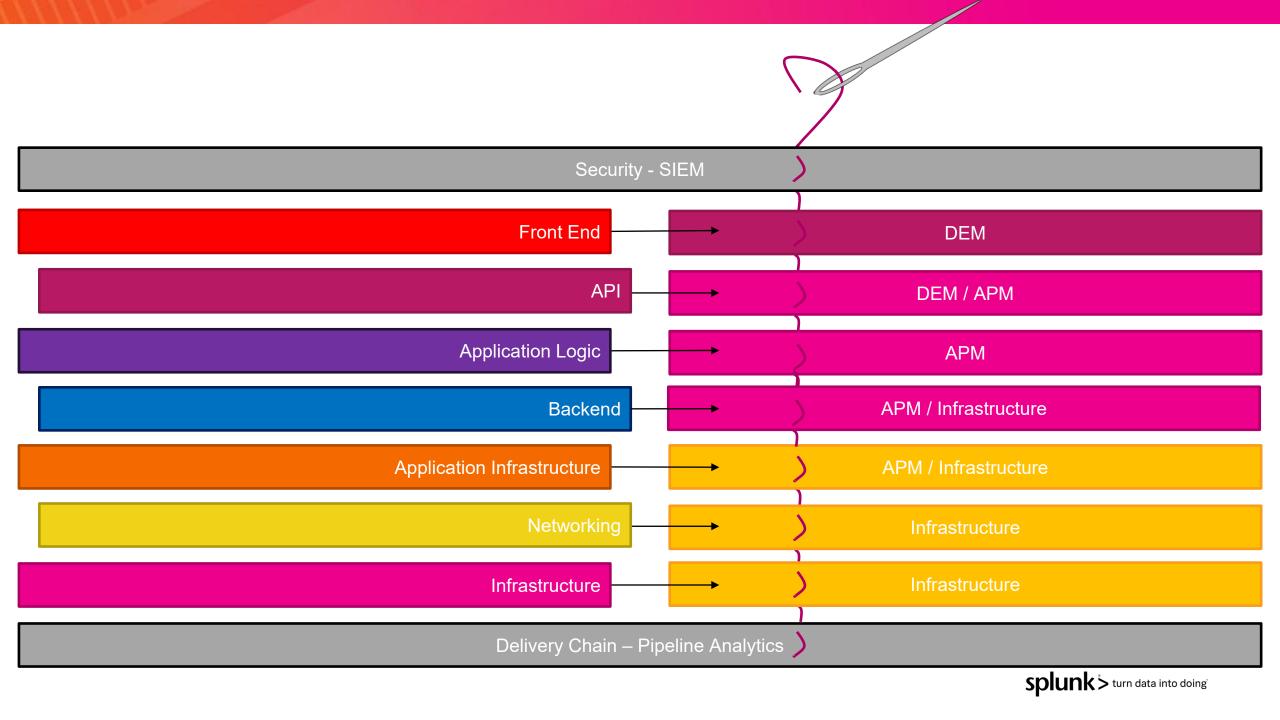
SIEM
Observability
Incident Response



# The SDLC is the App of Apps

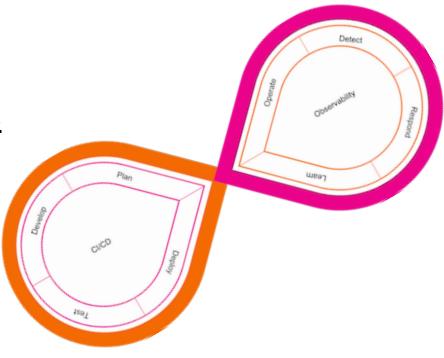
#### Which Means it should be:

- Operable
- Securable
- Measurable



#### Why - pipeline analytics

- If the delivery chain is down, no code ships
- Your SDLC is part of <u>your attack surface</u>
- Speaking the **same language** saves time
- On going reduction of <u>tech debt</u>
- Can't <u>Shift-Left</u> without it



#### What - pipeline analytics

- Monitor your SDLC
- Create Value Stream and Team Level KPIs
- Audit and Secure your SDLC

#### Measure - Know the meaning of good

- Choosing your measurement
- Is it measurable?
- Meet DORA
  - Deployment Frequency (DF)
  - Lead Time for Changes (MLT)
  - Change Failure Rate (CFR)
  - Time to Recover/Restore (MTTR)
- And the others:
  - Work in Progress (WIP)
  - Cost of Downtime
  - Amount of un-planned work
  - Activity by Repo/Artifact
  - Branch aging summary

#### How - pipeline analytics

- Gather metrics and logs from your tool chain
- Correlate data across tools & teams
- Observe

#### Monitor – Meet your SLO

- Infra Metrics: Memory, CPU, Disk, Network IO
- Status Up/Down
- RED Rate, Error, Duration
- USE Utilization, Saturation, Error

#### Audit & Secure – Stop bad actors

- SDLC Data:
- Secrets
- Code
- Deploy:
- Artifact Scanning
- Repo Activity
- Access:
- Requests by policy/entity
- Auth by type/method
- Request by IP
- Request by URI
- Request/Auth Denials

Select Time

July

50



100

150

200

250

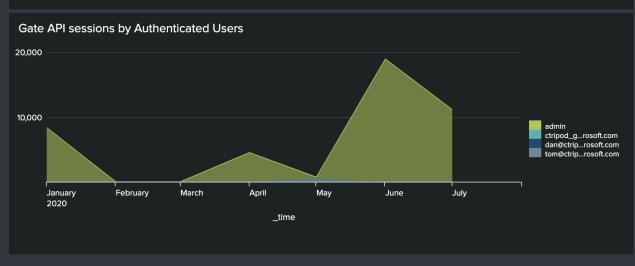
300

350

400

450





Deployments to Namespace Environment - by Deployment Account			
Spinnaker Deployment Accounts	Deployment Namespaces <b>♦</b>	count \$	total \$
kubeconfig-sa-kops	default siren istio-system	34 6 4	44
kubeconfig-sa-oke-us-phx-1	prod default ingress-nginx	24 2 2	28
kubeconfig-sa-eks	chad-qa dev quickstart	8 8 4	20
spinnaker	spinnaker	20	20

# Thank You!

