

10 years of Devops

Karthik Gaekwad
@iteration1





Atleast..
10 years of
Devops

Hoy hablaré sobre

- Historia de devops
- Significado de devops (de hoy en día)
- Donde Vamos- Devops 2.0
- 5 Aprendizajes Prácticos que puedes usar



Hello

- I'm Karthik Gaekwad
- NOT a DBA

ORACLE[®]
Cloud Native Labs

- <https://cloudnative.oracle.com/>
- Cloud Native advocate at Oracle Cloud
- Previous: developer on the Oracle Managed Kubernetes Team.



@iteration1

Hello



ORACLE[®]
Cloud Native Labs



- Been in Industry 15 years.
- In general, I like building stuff with friends.
- Love Teaching and building community.
 - Run DevOpsDays Austin, Container Days, Cloud Austin.
 - Chair All Day Devops Cloud Native track.
 - LinkedIn Learning Author for Learning Kubernetes (and more).



En qué trabajas?

Developer

Operations

SRE

Test/QA

Management

Historia de devops

Historia de devops

- 2008: Agile Conference
- Birds of a feather....“Agile Infrastructure” pitched by Andrew Clay Shafer.
- Patrick DeBois Attended the BOF.
- Andrew....didn't.
- Later on in the conference they connected to talk more about operations and development topics.

Historia de devops

10 deploys per day

Dev & ops cooperation at Flickr

John Allspaw & Paul Hammond

Velocity 2009

Historia de devops

- 2009: Post Velocity
- Patrick está triste por no asistir a la conferencia.
- Organizó una conferencia en Ghent.



The conference that brings development and operations together.

Home Contact Events Presentations Blog

DevOpsdays Ghent 2009

Twitter Facebook LinkedIn

welcome program reactions speakers participants

[Tweets from devopsdays events](#)

This is how the first devopsdays was announced:



The first devopsdays happened in Belgium - Ghent and was a great success. Have a look at the [reactions](#) is created and the [presentations](#) that were held. See you next time!

Historia de devops

- 2008: Agile Conference
- Birds of a feather....“Agile Infrastructure” pitched by Andrew Clay Shafer.
- Patrick DeBois Attended the BOF.
- Andrew....didn't.
- Later on in the conference they connected to talk more about operations and development topics.



Pero, que es devops?

Que es Devops



“DevOps is the practice of operations and development engineers participating together in the entire service lifecycle, from design through the development process to production support.”

<https://theagileadmin.com/what-is-devops/>

Pillars of Devops (CALMS)



Lean

Automation

Sharing

Culture

Measurement

A person's hands are shown holding a small globe of the Earth. The person is wearing a red sleeve. The background is a blurred outdoor scene with green grass and a bright sky. The text is overlaid on the image.

En un mundo ideal...

(That was the intention)....

@iteration1

A person's hand is shown holding a globe of the Earth. The background is a soft, out-of-focus sunset or sunrise over a field, with warm colors like orange and yellow. The text is overlaid on the image.

Significado de devops (Hoy)

Meaning is slightly different...

Pillars of Devops (cALMs)

Automation

Measurement

Culture

Lean

Sharing

A person is walking on a beach at sunset. The sky is a mix of orange, red, and blue. The person is in silhouette, walking from left to right. The beach is dark, and the ocean is visible in the background.

Por qué

Why did this happen?

Por qué

- Automation/Masurement es fácil de arreglar. (Easy)



Por qué

- La cultura organizacional es difícil de cuantificar (Organizational Culture is hard to quantify)



Por qué

- El cambio es difícil (Change is hard)



Por qué

- Our Devops definition changed and focused on a subset of pillars.
- Forgot that Devops was a people and alignment problem..





Devops

Devops

Devops

A low-angle, close-up shot of a person's legs and feet on a staircase. The person is wearing green pants and brown shoes with white socks. The staircase has grey concrete steps and yellow-painted wooden nosings. The text "A dónde ir desde aquí??" is overlaid in white, centered on the image.

A dónde ir desde aquí??









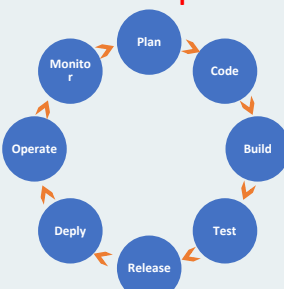
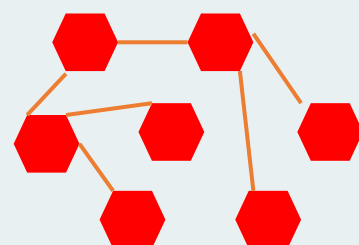
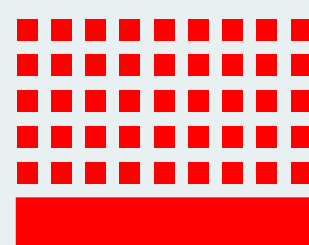
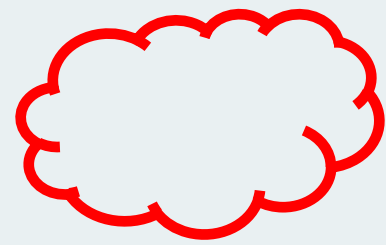
Where to go?

- Business does not stop.
- Business always wants to go faster.



DORA State of Devops Report 2019

Evolution of Development and Deployment

	Development Process	Application Architecture	Deployment and Packaging	Application Infrastructure
~ 1980	<p>Waterfall</p> 	<p>Monolithic</p> 	<p>Physical Server</p> 	<p>Datacenter</p> 
~ 1990				
~ 2000	<p>Agile</p> 	<p>N-Tier</p> 	<p>Virtual Servers</p> 	<p>Hosted</p> 
~ 2010				
Now	<p>DevOps</p> 	<p>Microservices</p> 	<p>Containers</p> 	<p>Cloud</p> 



Alignment between technical
and business

Alignment in the technical
team

A large-scale construction project is shown, featuring a complex wooden roof structure. Numerous workers, many wearing blue shirts and hats, are positioned across the roof, engaged in various tasks. The structure is composed of many wooden beams and trusses. A prominent vertical element of red corrugated metal siding is visible in the center-right. The background is a clear, overcast sky.

Devops is a people
problem
Keep your teams working
effectively.

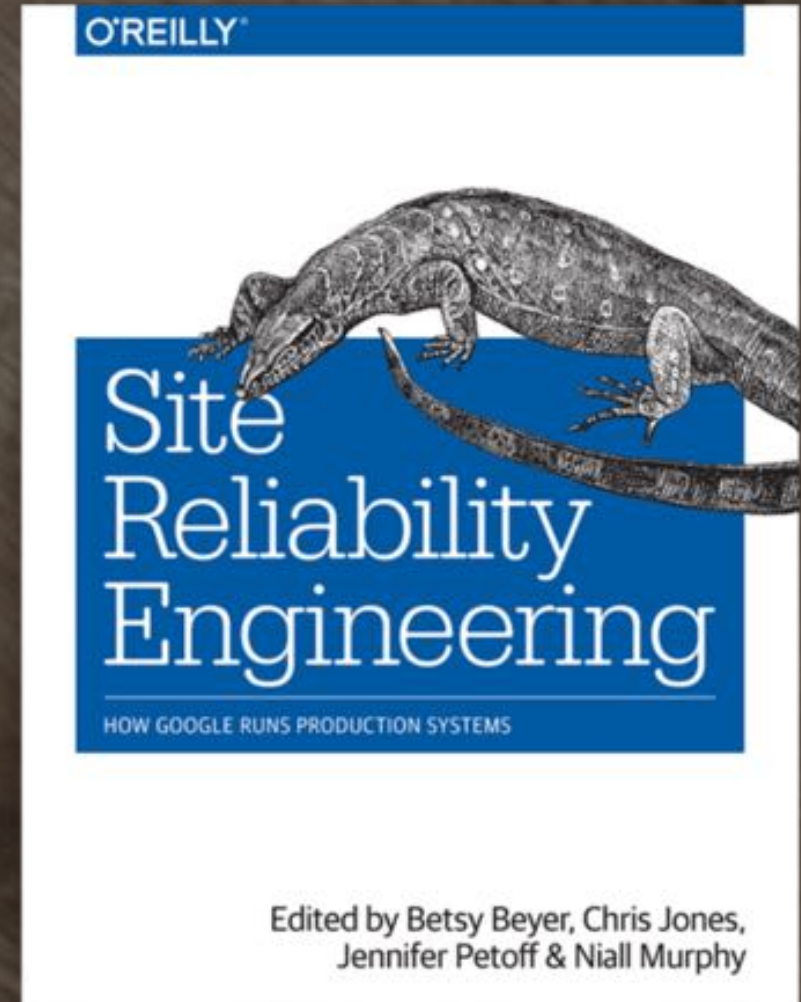


Donde Vamos- Devops 2.0

Current and Future Trends

SRE

- Subset of Devops
- Responsible for the **availability, latency, performance, efficiency, change management, monitoring, emergency response, and capacity planning** of their service(s).
- <https://landing.google.com/sre/sre-book>



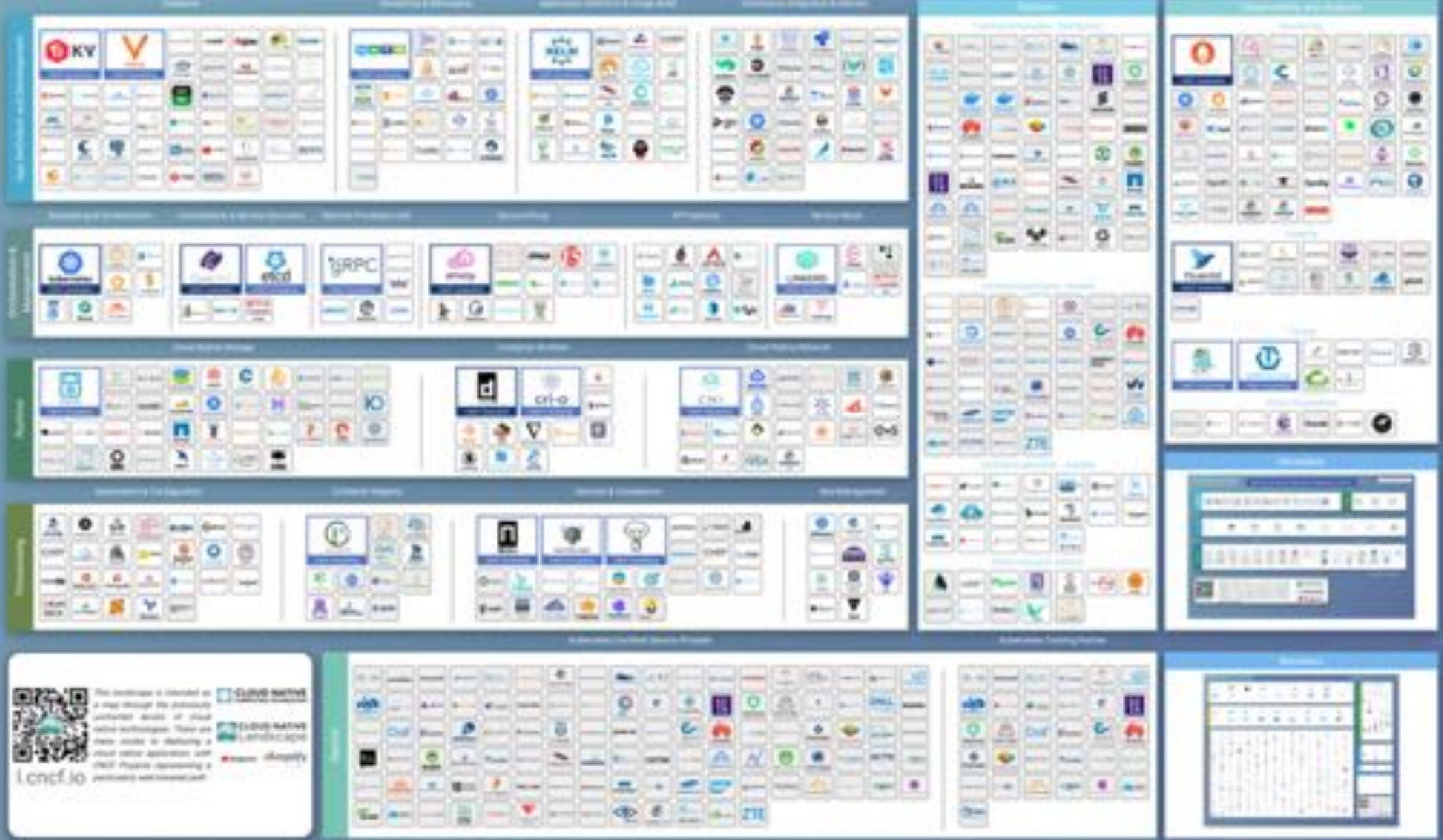
Rise of Cloud Native

“A new computing paradigm that is optimized for modern distributed systems environments capable of scaling to tens of thousands of self healing multi-tenant nodes”

-Cloud Native Computing Foundation

Rise of Cloud Native

- Based on Kubernetes and container technology
- Rich landscape, big community, but complicated to navigate.





l.cncf.io

Rise of Serverless

- New Execution Model.
- Cloud Provider manages your resources.
- You only manage your code.

Observability

- Understanding what is going on in distributed systems.
- **Observability** is a measure of how well internal states of a system can be inferred from knowledge of its external outputs.
- Determine system behavior from system outputs.

New Era in Testing, Security, Database

- New groups joining the movement:
 - DevTestOps (<https://testingindevops.org/>)
 - DevSecOps (<https://www.devsecops.org/>)
 - DevDBOps
- Under represented groups joining the shift, embrace them.

Vendors Embracing Opensource



Vendors Embracing Opensource


Oracle's Cloud Native Environment

We will continually enhance and improve as the technology evolves

Observability & Analysis	Prometheus • Fluentd • Crashcart
App Definition & Development:	Jenkins X • Helm • MySQL • Spark • Kafka
Orchestration & Management:	Kubernetes • Istio • Envoy
Runtime:	Containers • Kata • CRI-O • CNI – Calico & Flannel • Ceph • Gluster
Provisioning:	Terraform • Vagrant • Ansible • Chef • Puppet • Clair • Notary

5 Aprendizajes Prácticos que puedes usar





Learn what the other side is
doing

Devops == Collaboration

A vintage, silver-colored microphone with a ribbed grille is positioned on the right side of the frame. It is mounted on a stand, and the background is a dark, gradient surface. The lighting highlights the metallic texture of the microphone.


Understand your business

They pay you \$

A vintage, ribbed microphone on a stand is positioned on the right side of the image. The microphone is a classic, rounded design with horizontal slats. The background is a dark, gradient surface, possibly a stage or a studio backdrop. The text is overlaid on the left and center of the image.

Use Architecture to your advantage

Helps you get back on track

A vintage, ribbed microphone on a stand is positioned on the right side of the frame. The background is dark, and the foreground shows a light-colored surface. The text is overlaid on the left side of the image.

Always be learning...
Or your might have to find a new job...

A vintage, silver-colored microphone with a ribbed grille is positioned on the right side of the frame. It is mounted on a stand, and the background is a dark, gradient surface. The lighting is soft, highlighting the texture of the microphone's grille.

Be empathetic

Technology will always be there. People might not...

10 years of Devops

Karthik Gaekwad
@iteration1

