The Cloud Native Elephant in the Room

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Cloud Native: New Rules, New Game

• How we develop
  • DevOps Culture

• What platforms we use
  • Open Source + Community

• Where we run our apps
  • Public Cloud Infrastructure
But... There’s an Elephant in the Room
Actually...
Maybe More than One
It's **People Problems, Not Technical!**

Key Challenges in Using & Deploying Containers

- **Cultural Changes w/ Dev Team:** 41%
- **Complexity:** 40% up from 35%
- **Lack of Training:** 40%

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- **Security:** 38% down from 43%
- **Monitoring:** 34% down from 38%
- **Storage:** 30% down from 41%
- **Networking:** 30% down from 38%

More People Issues!

Biggest Challenges Adopting New Practices & Tools

- Replacing Ingrained Practices: 58%
- Resistance to Change: 50%
- Cross team Communication: 36%
- Inadequate Workforce Training: 27%
- Lack of Leadership Support: 26%
- Risk Averse Culture: 21%

So Why is That?

• Enterprise development teams – being left behind
  • Cultural change is slow and tough

• Transition is just starting – but complexity continues to grow
  • Too difficult to do it yourself

• Cloud lock-in rampant – limits agility
  • Limits choice, impedes progress = the opposite of open
Let’s Deal with the Elephants in the Room

"I'm right there in the room, and no one even acknowledges me."

To Build a Better Cloud Native Community

1. Open
   • No cloud lock-in
   • Multi-cloud, Hybrid-cloud

2. Sustainable
   • Curated, supported, consistent, unified
   • Managed services defeat complexity

3. Inclusive
   • Modern and traditional applications
   • Enterprises and startups
   • On-premise and cloud
Use Case: CERN – WebLogic, K8s

- Modernizing WebLogic apps to enable disaster recovery
- CERN leveraged open source (Kubernetes, Prometheus, …) for migration
- Kubernetes operator pattern critical to success of the project

Reduced WebLogic deployment time from 12 hours to 2 minutes
Inclusive: Modern & Traditional
WebLogic Teams…Kubernetes Operators

- WebLogic Server Kubernetes Operator
- Enables users to run WebLogic Server workloads in Kubernetes
- Allows WebLogic domain creation, configuration and management
- Scale up and scale down WebLogic clusters in Kubernetes

https://github.com/oracle/weblogic-kubernetes-operator
Inclusive: Modern & Traditional
Java Teams…polyglot and more

- Lean and fast Java framework for developing microservices
- Cloud native with Kubernetes support
- Built-in security, resilience and observability
- Offers both MicroProfile and Reactive programming models

https://github.com/oracle/helidon
Inclusive: Modern & Traditional
Database Teams

OCI Service Broker for Kubernetes

- OCI Service Broker for Kubernetes
- Connects Autonomous DB, OCI services to K8s
- Safely run a complex mix of high-performance transactions, reporting, and batch processing apps
- Provides instant, elastic compute and storage
- Self-driving, securing, repairing

https://github.com/oracle/oci-service-broker
And DevOps Makes Us Happier

Summary: Embrace the Elephants
Summary: Expanding the Cloud Native Community

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