



The Cloud Native Elephant in the Room

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velocityconf.com/ca
#VelocityConf

ORACLE
Cloud Infrastructure

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**

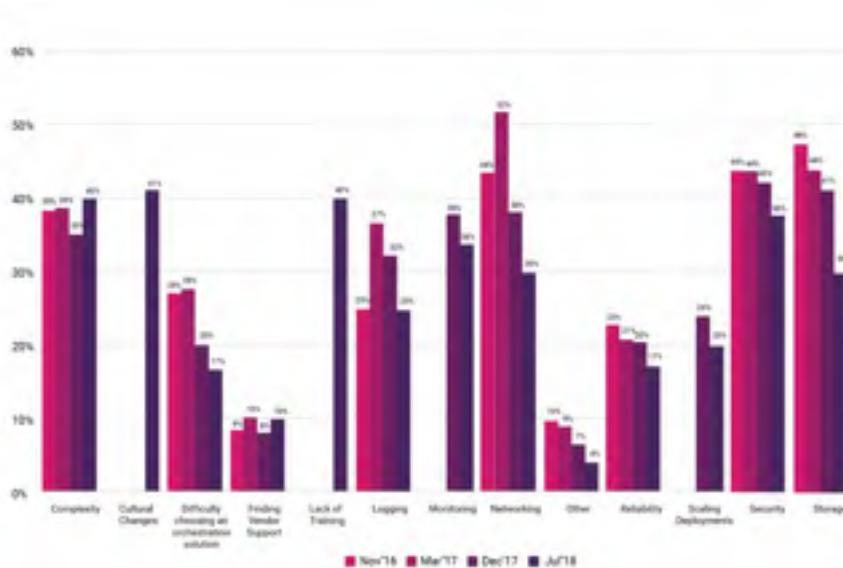




**Actually...
Maybe More
than One**

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

Source:

<https://www.cncf.io/blog/2018/08/29/cncf-survey-use-of-cloud-native-technologies-in-production-has-grown-over-200-percent/>

More People Issues!

Biggest Challenges Adopting New Practices & Tools

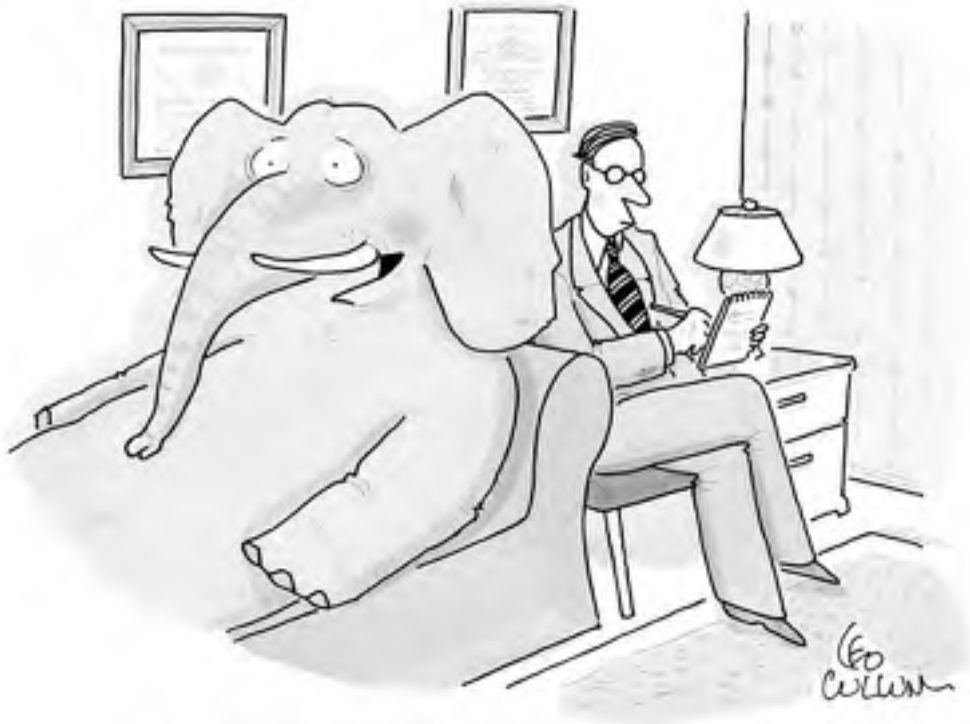


- **Replacing Ingrained Practices: 58%**
- **Resistance to Change: 50%**
- **Cross team Communication: 36%**
- **Inadequate Workforce Training: 27%**
- **Lack of Leadership Support: 26%**
- **Risk Averse Culture: 21%**

<https://about.gitlab.com/developer-survey/2018/>

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



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

Let's Deal with the Elephants in the Room

Source: New Yorker, <https://condenastore.com/featured/im-right-there-in-the-room-leo-cullum.html>

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



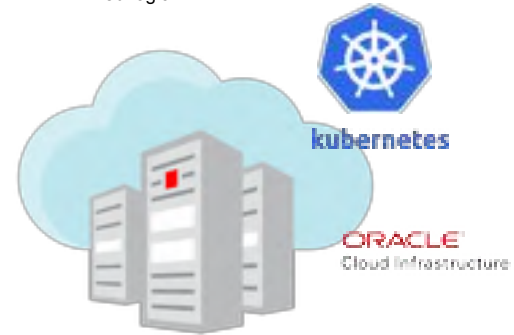
Inclusive: Modern & Traditional

WebLogic Teams...Kubernetes Operators



On-Premise Deployments

- 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



OCI Cloud Native Services

<https://github.com/oracle/weblogic-kubernetes-operator>

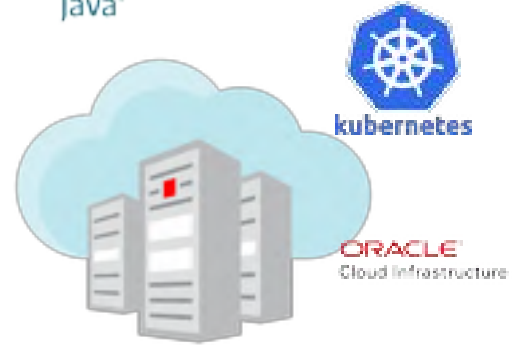
Inclusive: Modern & Traditional

Java Teams...polyglot and more



On-Premise Deployments

- 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



OCI Cloud Native Services



OpenJDK

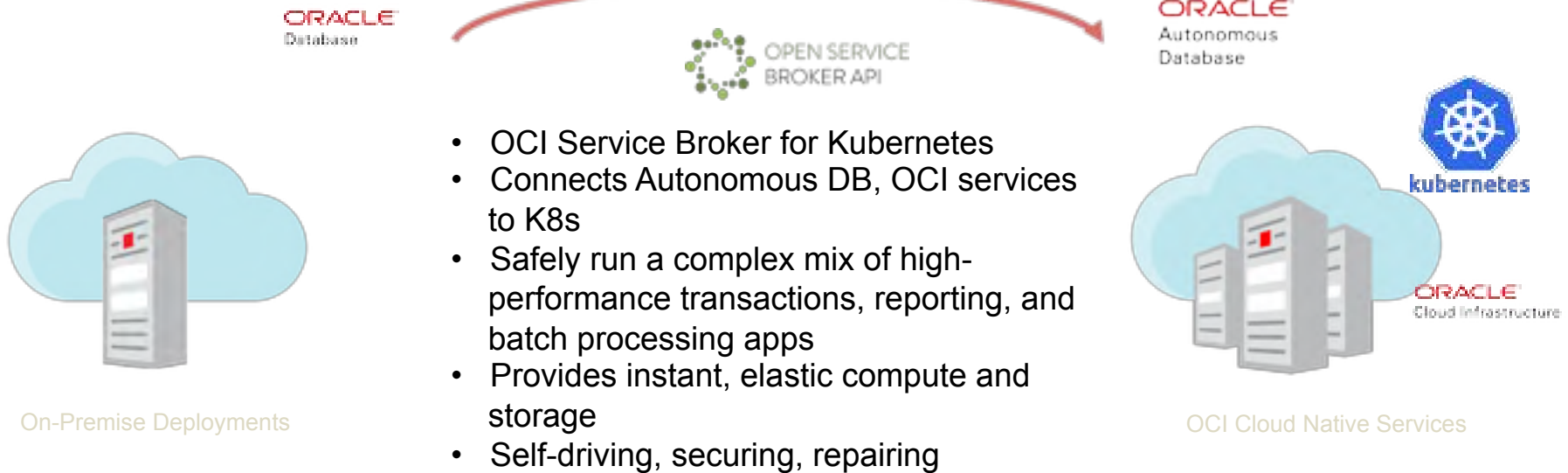
<https://github.com/oracle/helidon>



GraalVM

ORACLE
Linux

Inclusive: Modern & Traditional Database Teams



<https://github.com/oracle/oci-service-broker>

And DevOps Makes Us Happier

High performers spend



22%

less time on
unplanned work and rework

2.2x

Employees in high-performing teams were 2.2 times more likely to recommend their organization as a great place to work.

High performers spend



50%

less time remediating
security issues

What could you do with

10%
more
engineering time?



State of DevOps Report: <https://puppet.com/resources/white-paper/2016-state-of-devops-report>

Summary: Embrace the Elephants



Summary: Expanding the Cloud Native Community

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- Multi-cloud, Hybrid-cloud

2. Sustainable

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- Managed services defeat complexity

3. Inclusive

- Modern and traditional applications
- Enterprises and startups
- On-premise and cloud