

# Dynatrace, OpenShift & Ansible Building an Autonomous Enterprise Cloud

---

Red Hat Forum 2019, Utrecht



**Chris Geebelen**

Sales Engineer Manager,  
Dynatrace

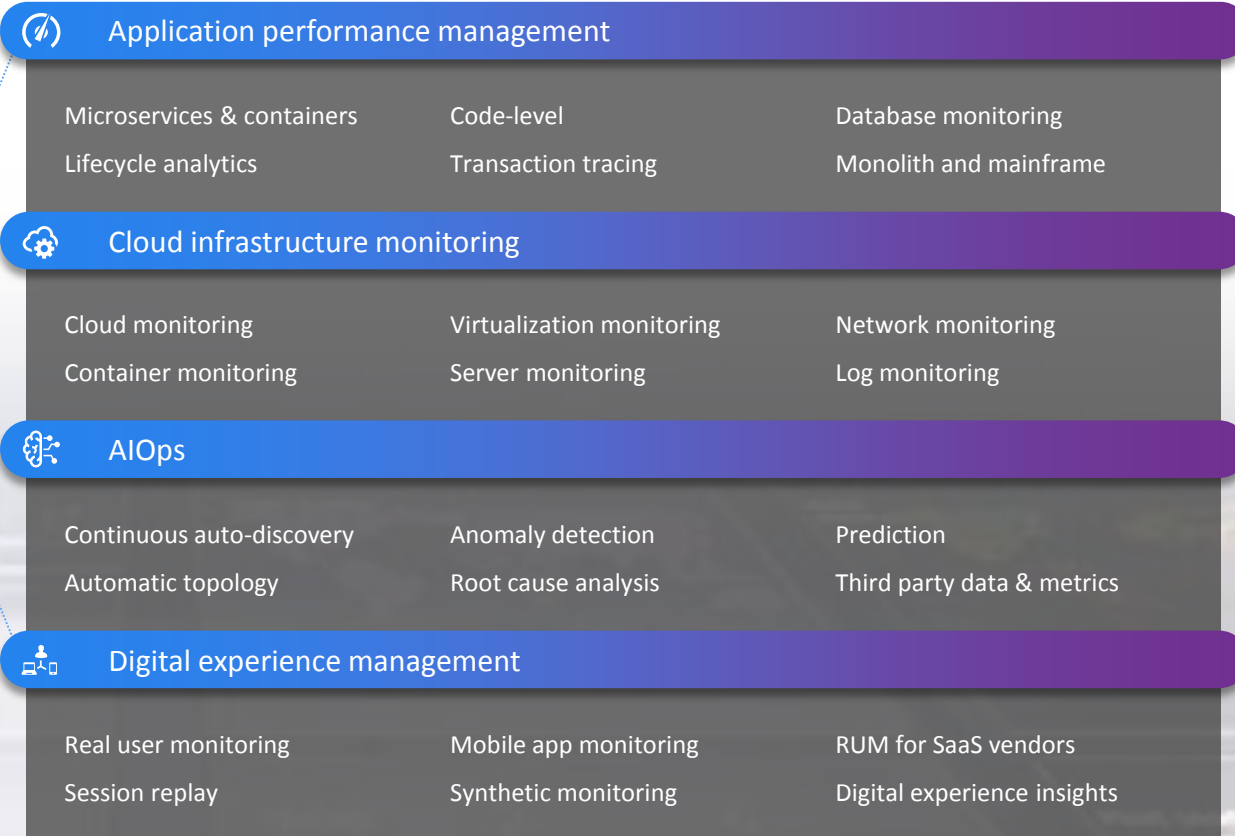
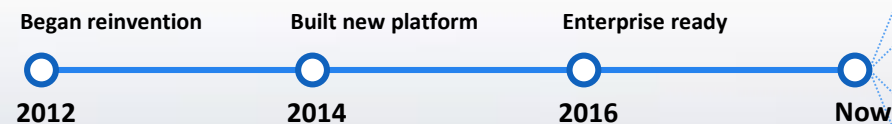


We are going into the fourth industrial revolution and facing “transformation” unlike anything humankind has experienced before.

**Klaus Schwab,**  
Head of World Economic Forum

# Reinventing Dynatrace

## We saw this coming...



**All-in-one software intelligence platform.**



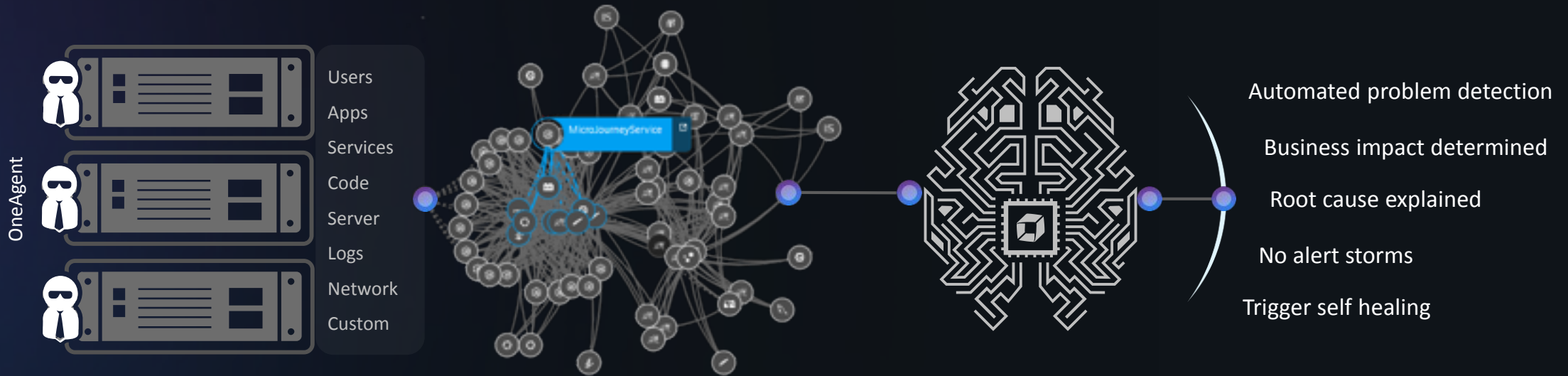
# Better data makes Dynatrace A.I. and massive automation possible

High fidelity data

Mapped end-to-end

Deterministic AI

Answers + Action




Completely automated



The world  
needs  
software to  
work perfectly





Others guess. **Davis knows.**

**Meet Davis.** The Dynatrace-AI purpose built to give you precise answers for smarter clouds.

# Davis is monitoring how many dependencies per problem?



Davis analyzed

209,492,640,819,000 dependencies





**Deterministic AI** performs a step-by-step fault tree analysis as is common in safety engineering.

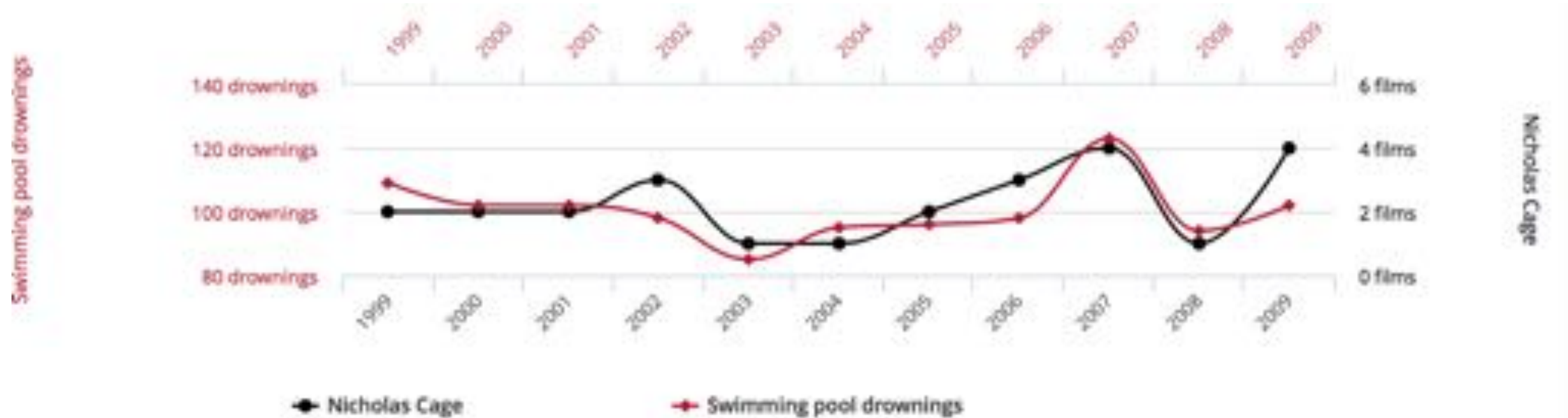


**Machine learning AI** is a statistical approach that correlates metrics, events, and alerts to build a multi-dimensional model of the analyzed system.



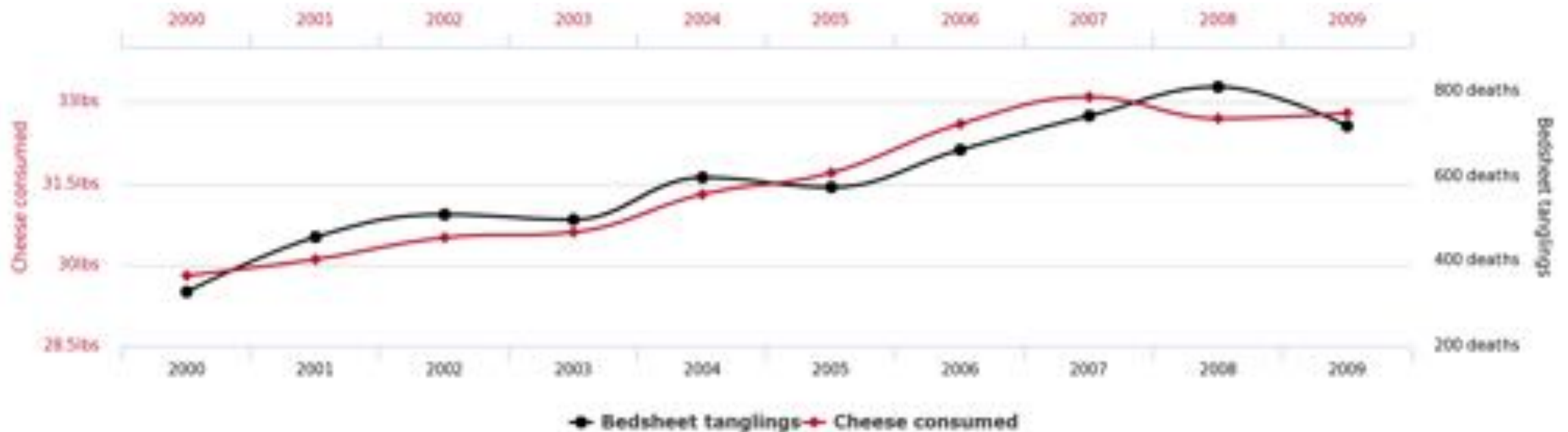
## Correlation vs Causation

Number of people who drowned by falling into a pool  
Correlates with  
Films Nicolas Cage appeared in  
**Correlation = 66,6%**



## Correlation vs Causation

Per capita cheese consumption  
**Correlates with**  
**Number of people who died by becoming tangled in their bedsheets**



# It's personal

---

“Dynatrace helps me, and my team, sleep at night. When everyone is struggling to do more with less, Dynatrace picks up the slack, and enables my team to have a better work/life balance.”



## Keeping DevOps cool in a heated environment

- November 2018, Woolsey fire, considered worst wildfire to hit S. California in modern history.
  - Consumed over 150 sq miles of canyons, homes, and businesses.
  - Displaced over ¼ million residents, burning for 2 weeks.
- When thousands of lives are at risk, software infrastructure can make the difference between life and death.
  - Traceability, scalability, and reliability are crucial aspects of a cloud strategy

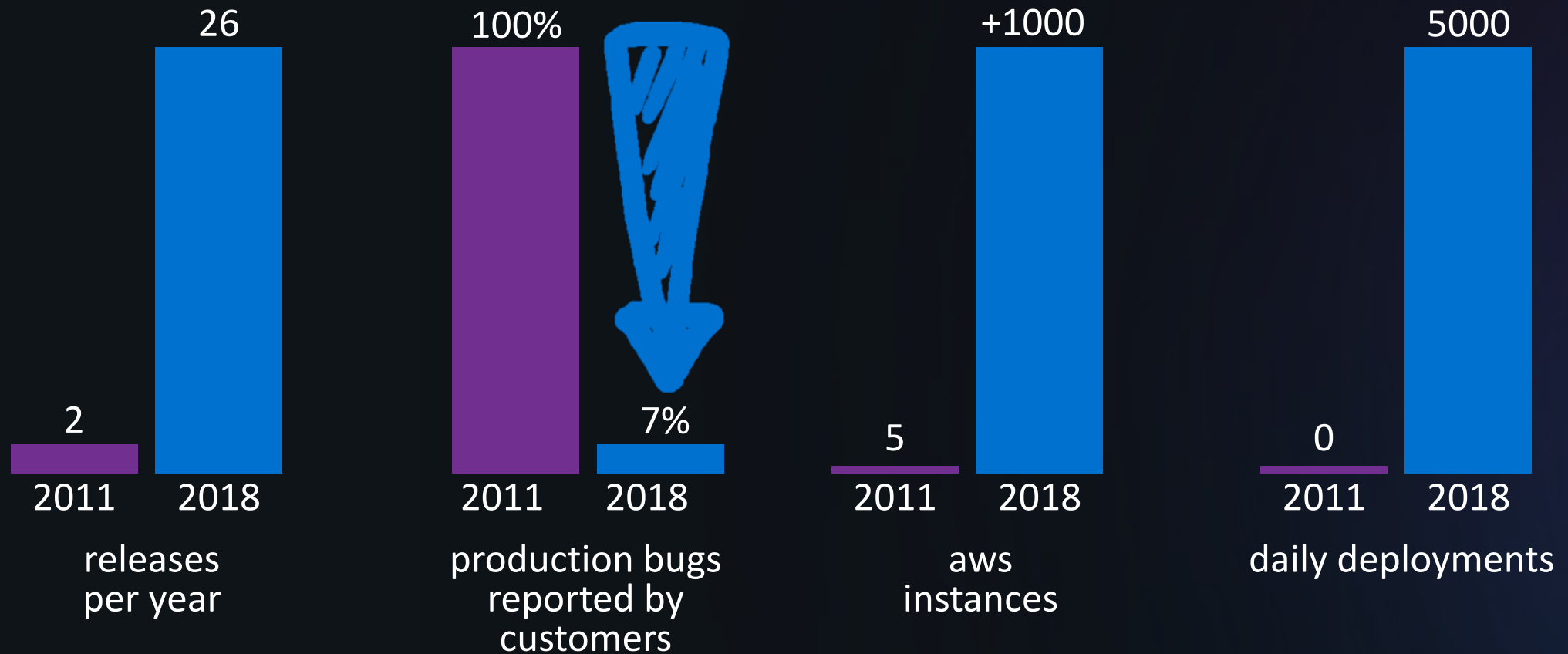


# Automate with confidence

---



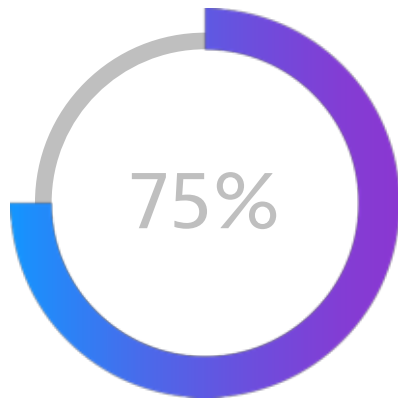
## Bringing the Dynatrace culture to the world



Dynatrace transformed Autonomous Cloud Operations  
For Development, Operations, Business

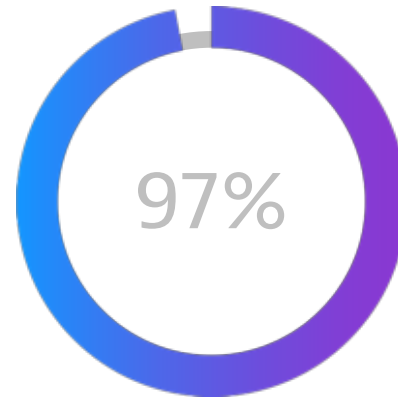
## ACM focuses on delivering software better, faster, and more frequently.

**Better**



fewer production incidents

**Faster**



reduction in deployment lead time

**More frequent**

8 → 26

releases per year

## Top Customer challenges

---



### **Consolidate tools and automate monitoring**

2.5 weeks average time from change to production



### **Moving towards Cloud-Native DevOps**

3 out of 10 deployments contained errors and affected users



### **Integrating into application lifecycle ecosystem**

On average 10 hours until production issues are assigned to a developer



### **Automating operational tasks**

Average MTTR is almost 5 days



### **Get applications ready to manage themselves**


Average hotfix time for an application is almost 5 days

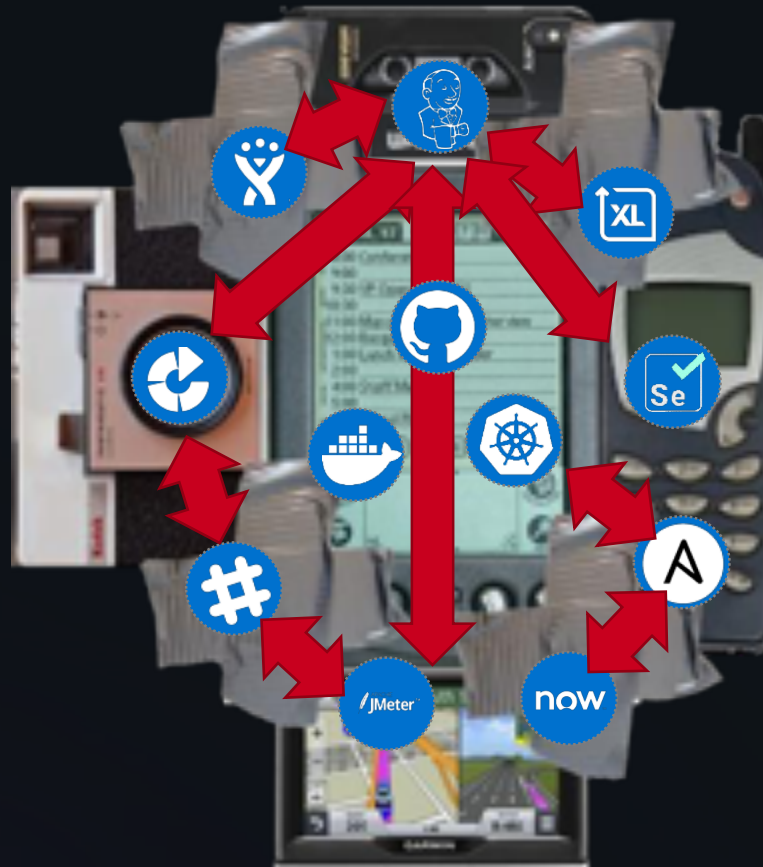


### **Running applications autonomously**

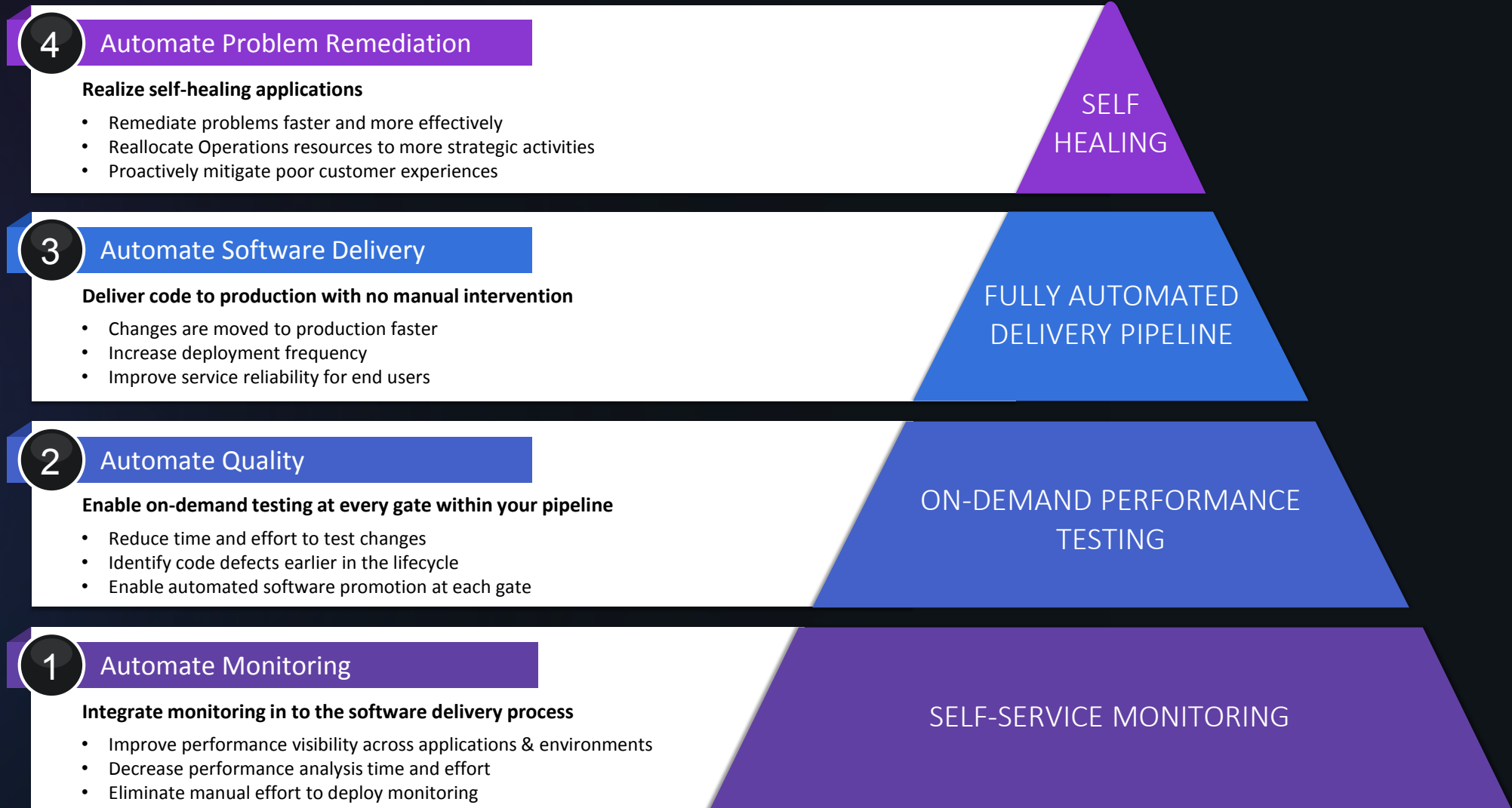
7 out of 10 issues are handled manually today

## What we have seen organizations actually do!

- Building Custom Integrations with OpenSource & Commercial tools for
    - Deployment Pipelines
    - Testing Pipelines
    - Auto-Remediation
    - Notifications
    - Auditing
- 

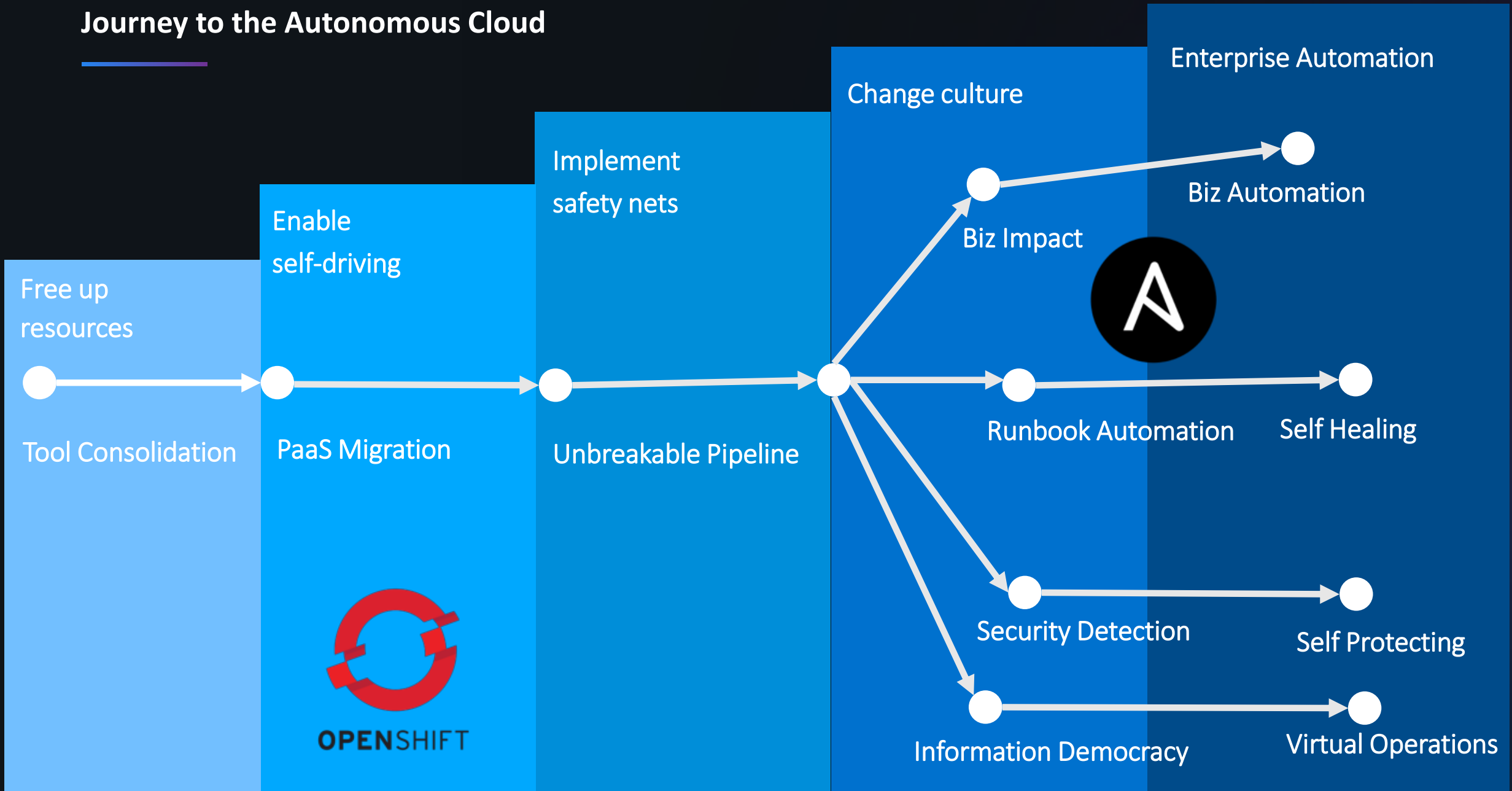


# The ACM Methodology





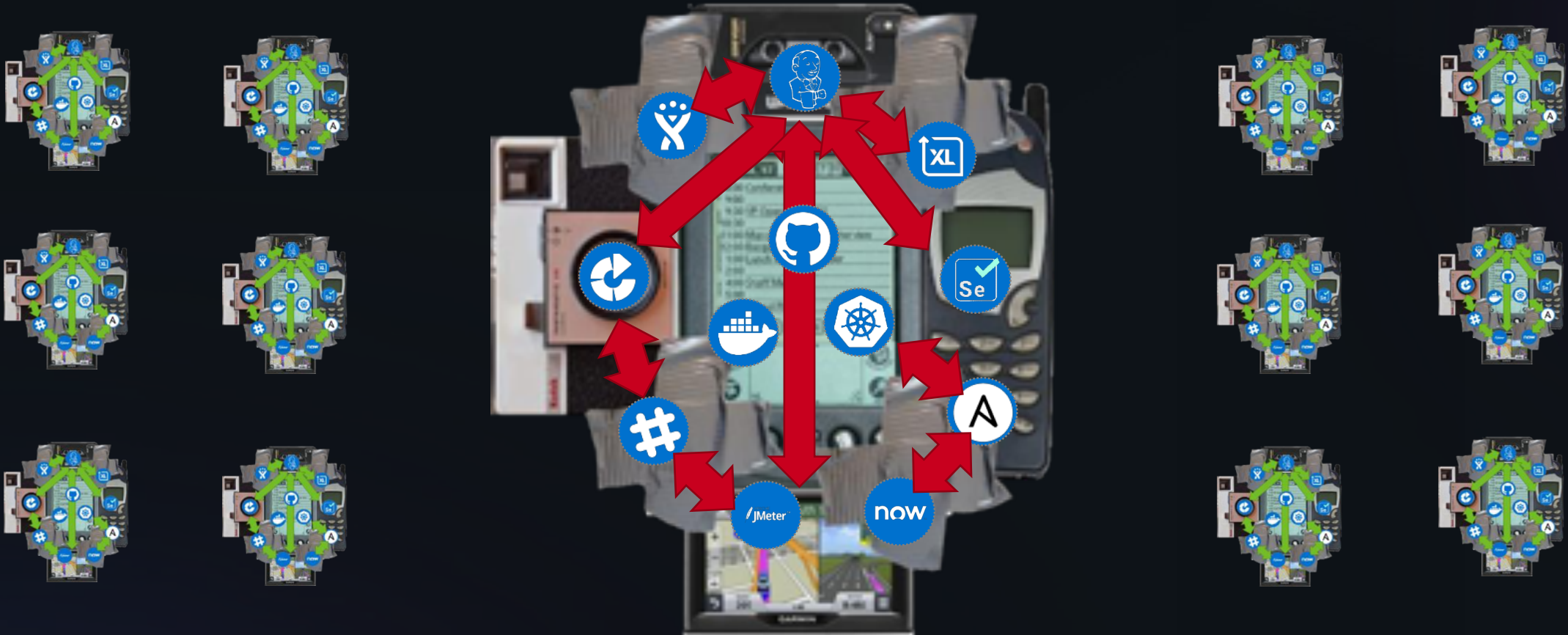
# Journey to the Autonomous Cloud



First:  keptn solves the Continuous Delivery Problem!

*Quote:*

*“Pipelines seem to be becoming our new future unmanageable legacy code!”*



## Designed for modern applications

---



### GitOps-based collaboration

All keptn workflows are based on the GitOps paradigm.



### Operator patterns for all logic components

Logic components can be reused for other operational tasks.



### Monitoring and operations as code

Developer-friendly definition of monitoring and operational tasks.



### Built on and for Kubernetes

Built for modern cloud-native environments.



### Event-driven and serverless

Powerful with a minimal resource footprint.

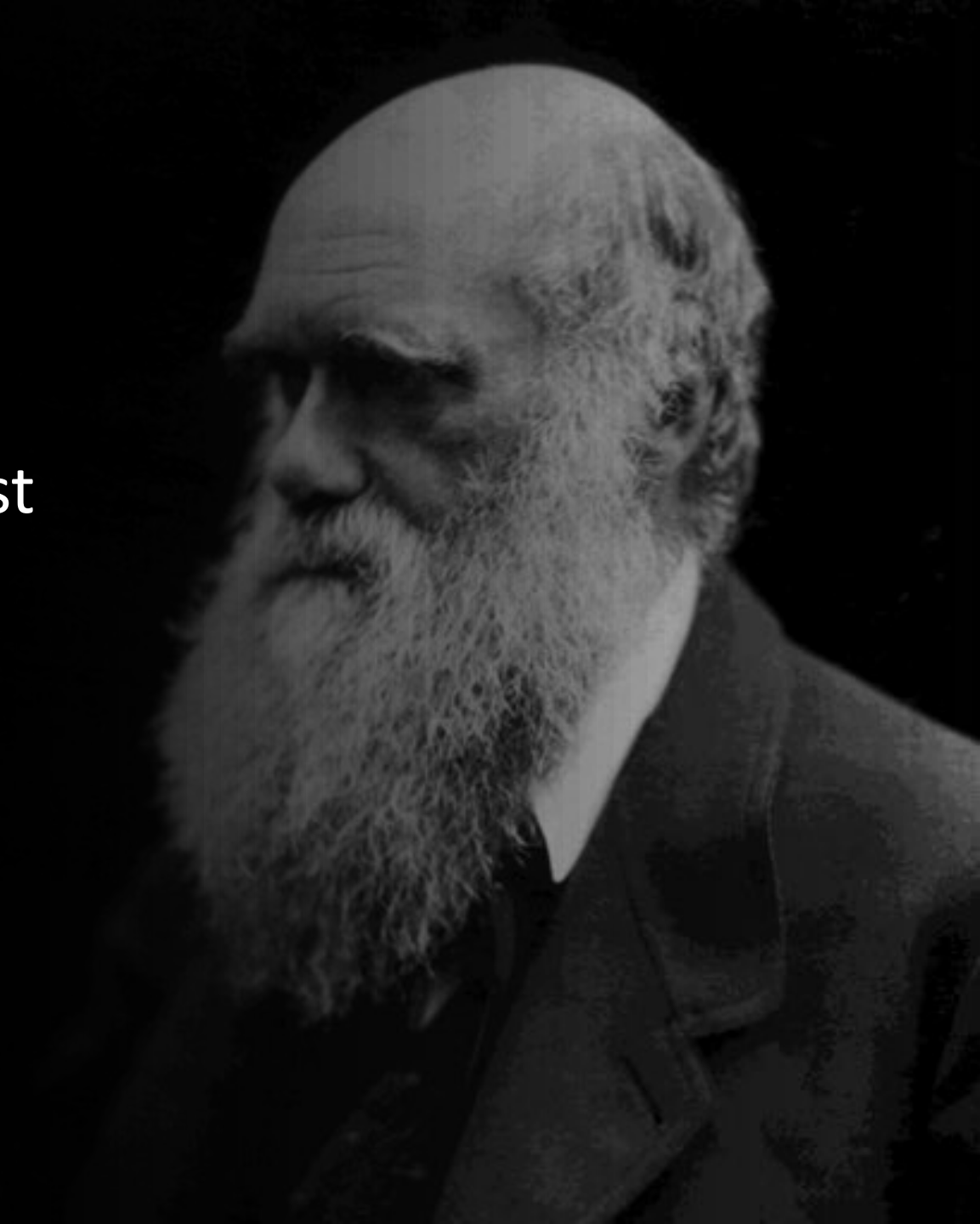


### Pluggable tooling

All tools leveraged by keptn can be replaced based on your tool preferences.

“It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to *change*.”

- Charles Darwin, 1809



# Think you know Dynatrace? Think again.



**600+ engineers in R&D make it all possible**

66% more than nearest competitor

New releases every 2 weeks

26 releases per year



**A trusted leader**

9 year leader in Gartner MQ

#1 market share leader

Trusted by 72 out of the Fortune 100

**Get ready to be amazed in 5 minutes or less**

[dynatrace.com/trial](https://dynatrace.com/trial)

**Come meet us for a Live demo**



OpenShift  
Primed Partner

Pivotal

Technology  
partner



Docker Certified



AWS Advanced Technology  
Partner



Azure Partner



