

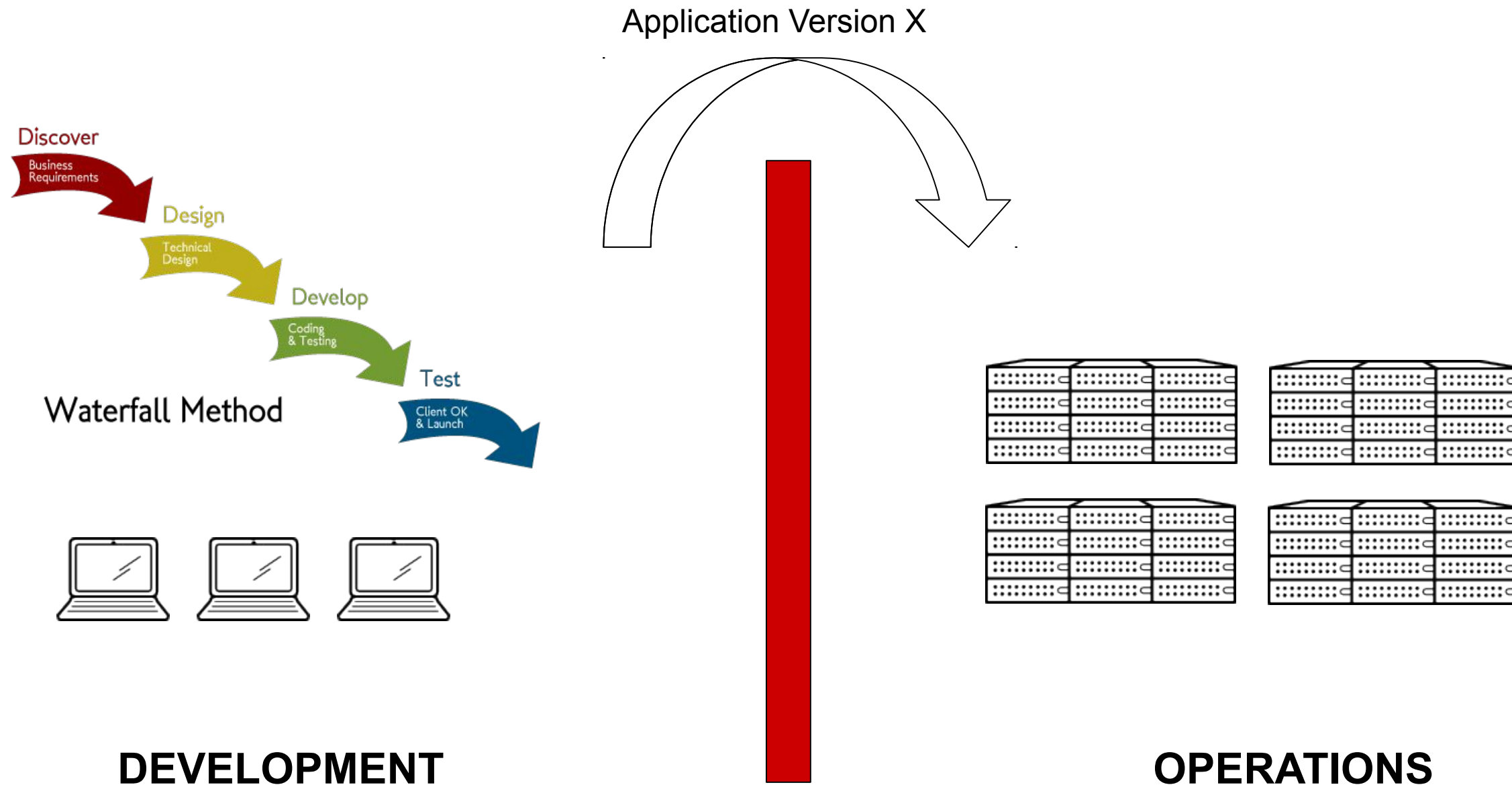


DevOps & OpenShift

**I keep hearing about DevOps...
What is it?**

**FOR MANY ORGANIZATIONS,
WHAT IS I.T. LIKE TODAY?**

WATERFALL AND SILOS



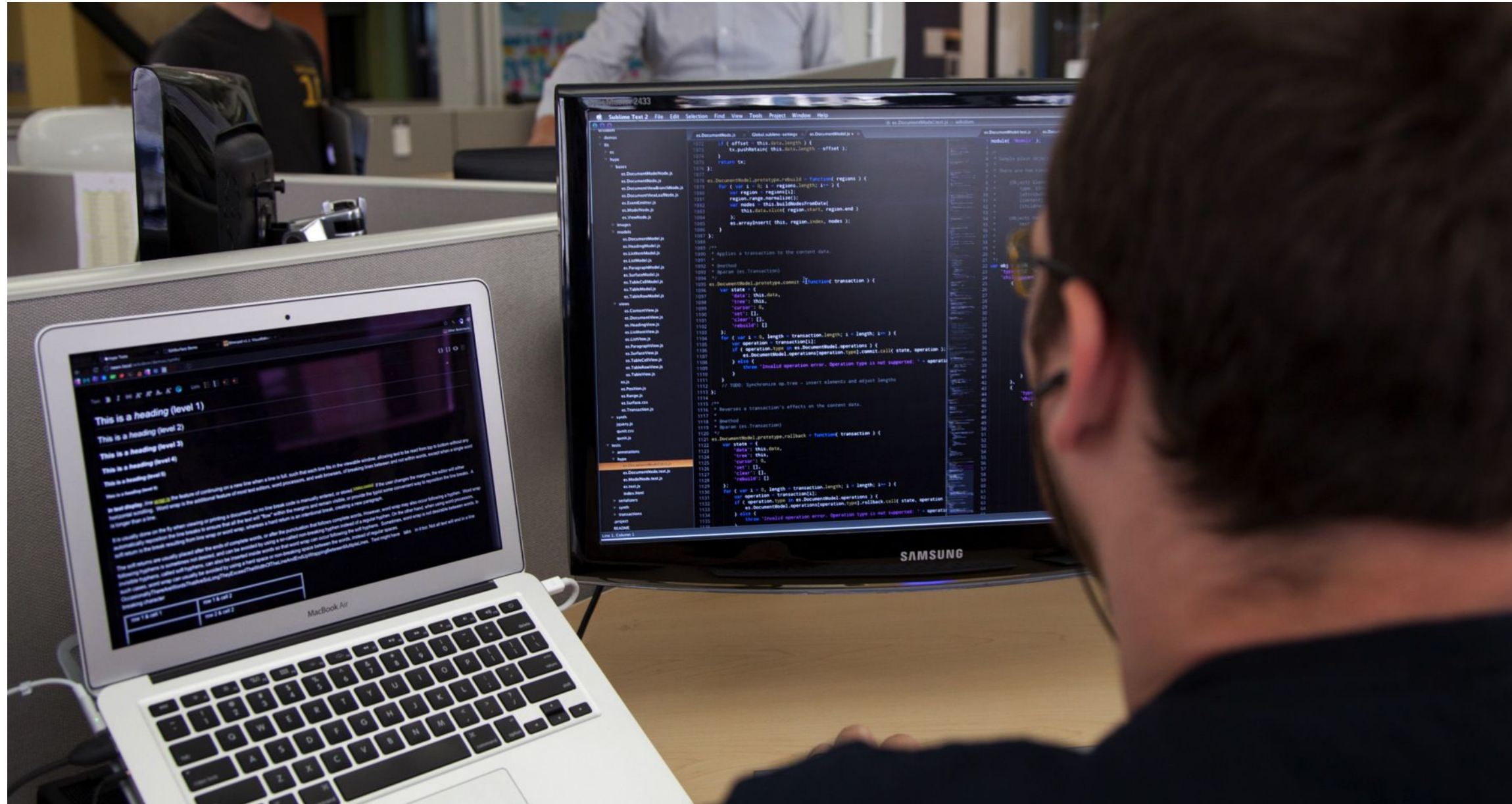
IT OPS IS UNDER PRESSURE



ENVIRONMENT IS OUT OF CONTROL



DEVELOPERS WANT THE LATEST TOOLS



THE BUSINESS IS DEMANDING MORE

AGILITY!

VELOCITY!



WHAT CAN HAPPEN IN THIS ENVIRONMENT?

THE LATEST CRITICAL APP UPGRADE

THE LATEST CRITICAL APP UPGRADE

THE MAINTENANCE WINDOW STRETCHES PAST MIDNIGHT...



THE LATEST CRITICAL APP UPGRADE

THE MAINTENANCE WINDOW STRETCHES PAST MIDNIGHT...



THE PRODUCTION DATABASE BECOMES CORRUPTED DURING UPGRADE



THE LATEST CRITICAL APP UPGRADE

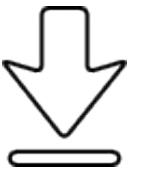
THE MAINTENANCE WINDOW STRETCHES PAST MIDNIGHT...



THE PRODUCTION DATABASE BECOMES CORRUPTED DURING UPGRADE



THE WEBSITE IS DOWN



THE LATEST CRITICAL APP UPGRADE

THE MAINTENANCE WINDOW STRETCHES PAST MIDNIGHT...



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THE IN-STORE POINT-OF-SALE SYSTEMS ARE DOWN



THE LATEST CRITICAL APP UPGRADE

THE MAINTENANCE WINDOW STRETCHES PAST MIDNIGHT...



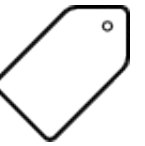
THE PRODUCTION DATABASE BECOMES CORRUPTED DURING UPGRADE



THE WEBSITE IS DOWN



THE IN-STORE POINT-OF-SALE SYSTEMS ARE DOWN



SALES DON'T HAPPEN



THE LATEST CRITICAL APP UPGRADE

THE MAINTENANCE WINDOW STRETCHES PAST MIDNIGHT...



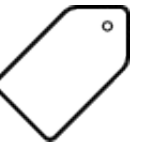
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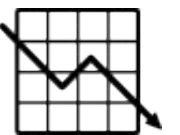
THE IN-STORE POINT-OF-SALE SYSTEMS ARE DOWN



SALES DON'T HAPPEN

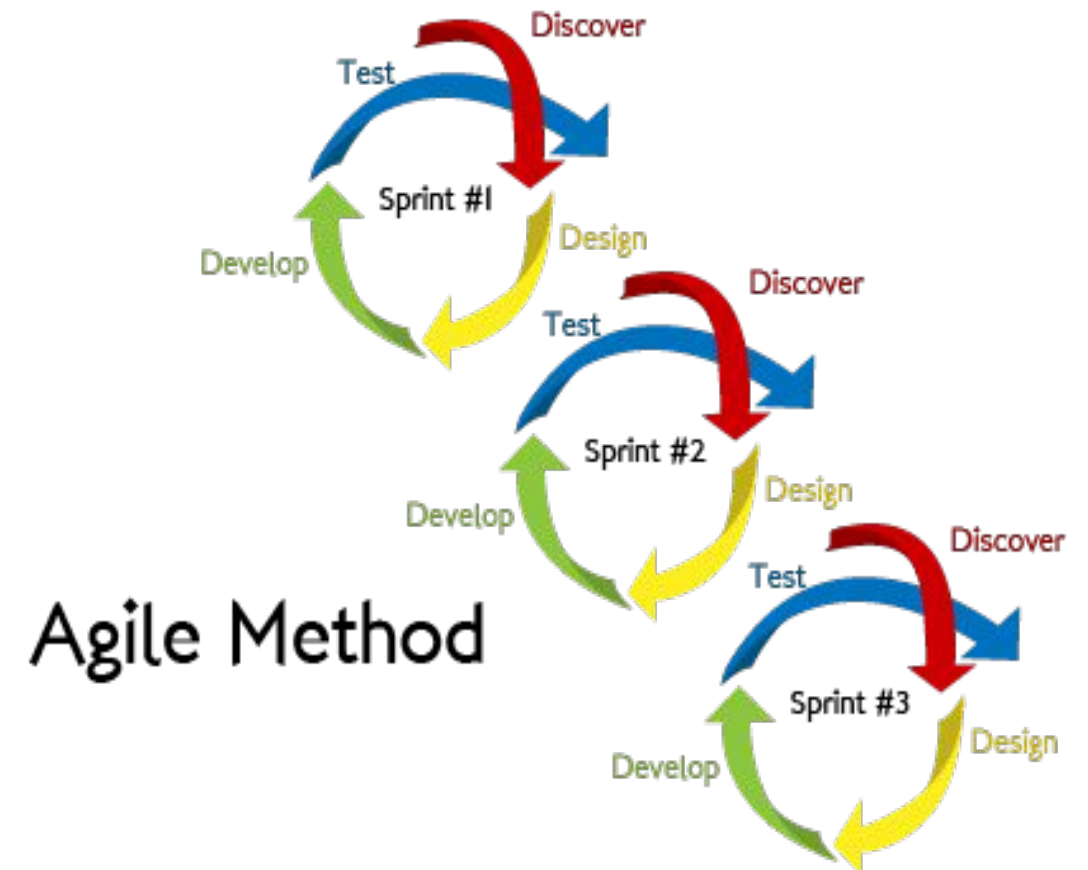
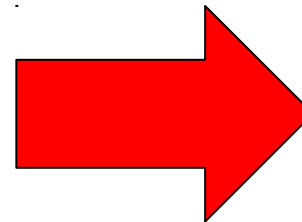
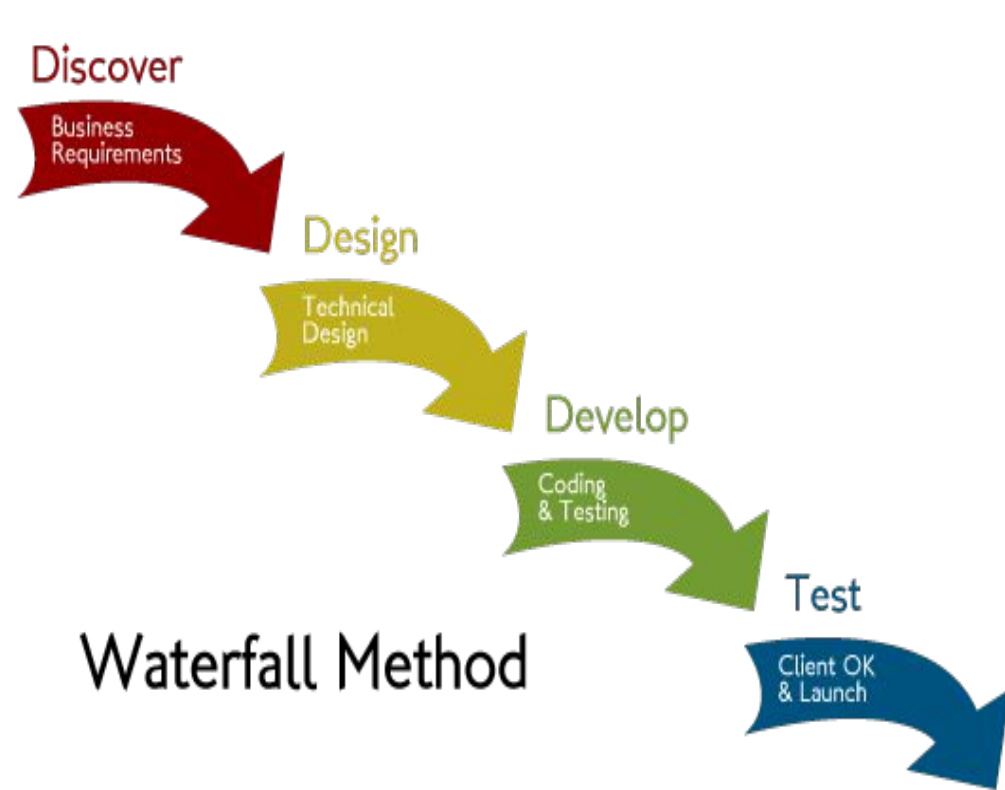


QUARTERLY EARNINGS ARE MISSED!



WHAT CAN I.T. DO?

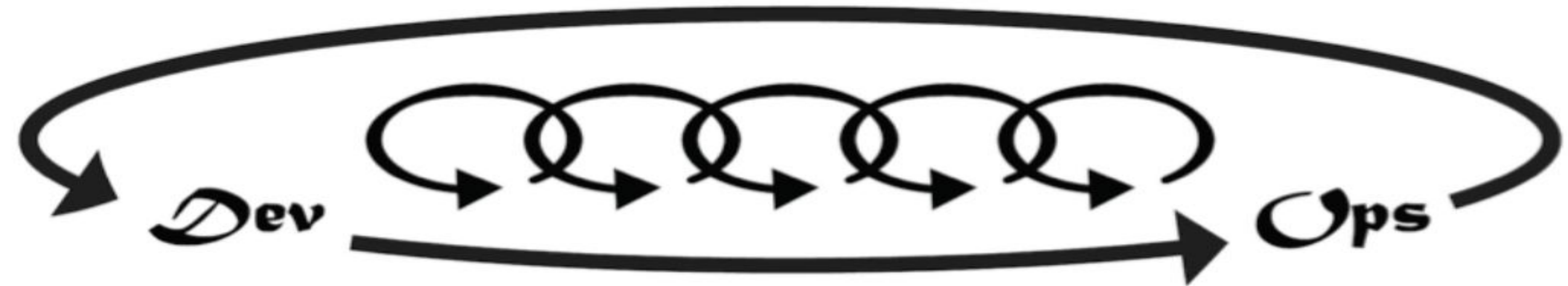
AGILE SOFTWARE DEVELOPMENT



AGILE SOFTWARE DEVELOPMENT



THE DEVOPSS MOVEMENT



Key concepts:

- Small changes -> Less Risk
- Fail fast and recover vs. Never fail
- Culture change: Acceptance of failure

WHAT CAN I.T. DO?

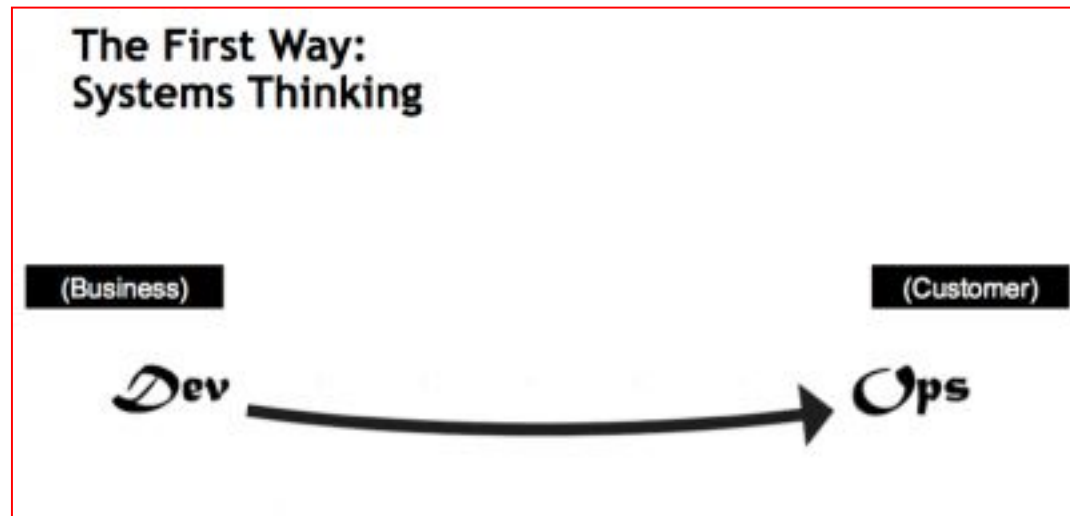
I.T. CAN TURN OPS AND DEV INTO DEVOPS

“DevOps is a software development method that stresses communication, collaboration and integration between software developers and information technology (IT) professionals.” [1]

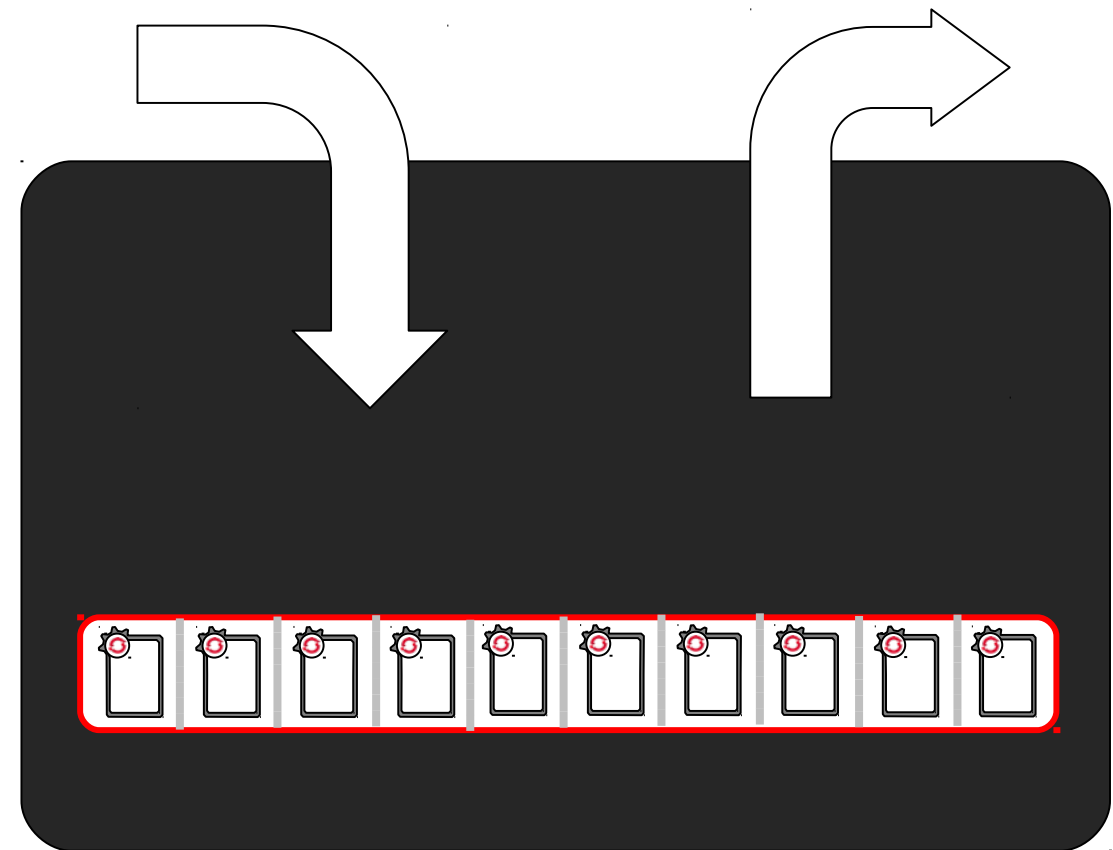


[1] <http://en.wikipedia.org/wiki/DevOps>

WHAT ENABLES DEVOPS?

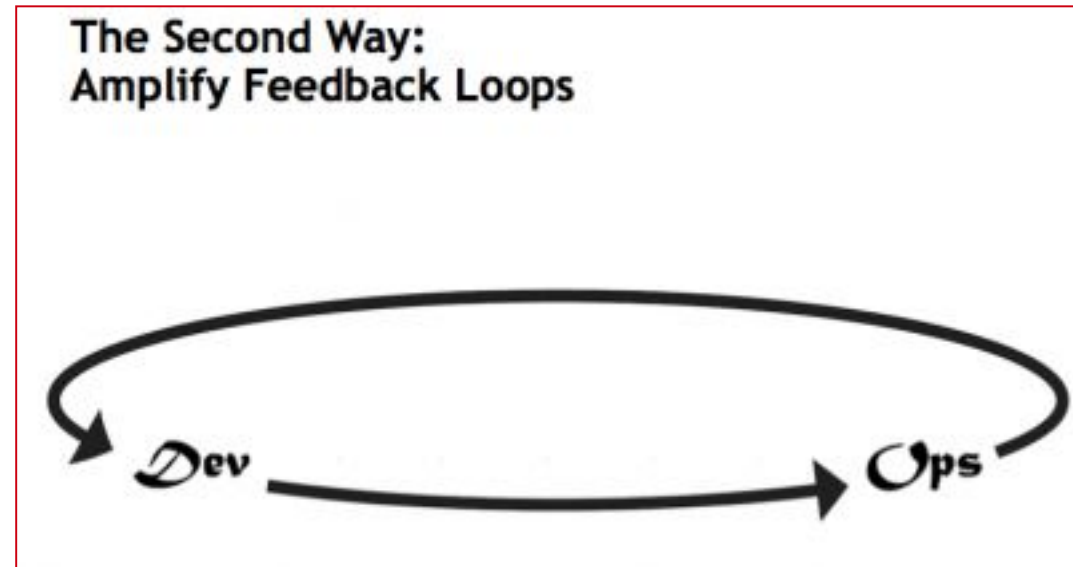


- ✓ **STANDARDIZED ENVIRONMENTS**
- ✓ **AUTOMATED PROVISIONING**

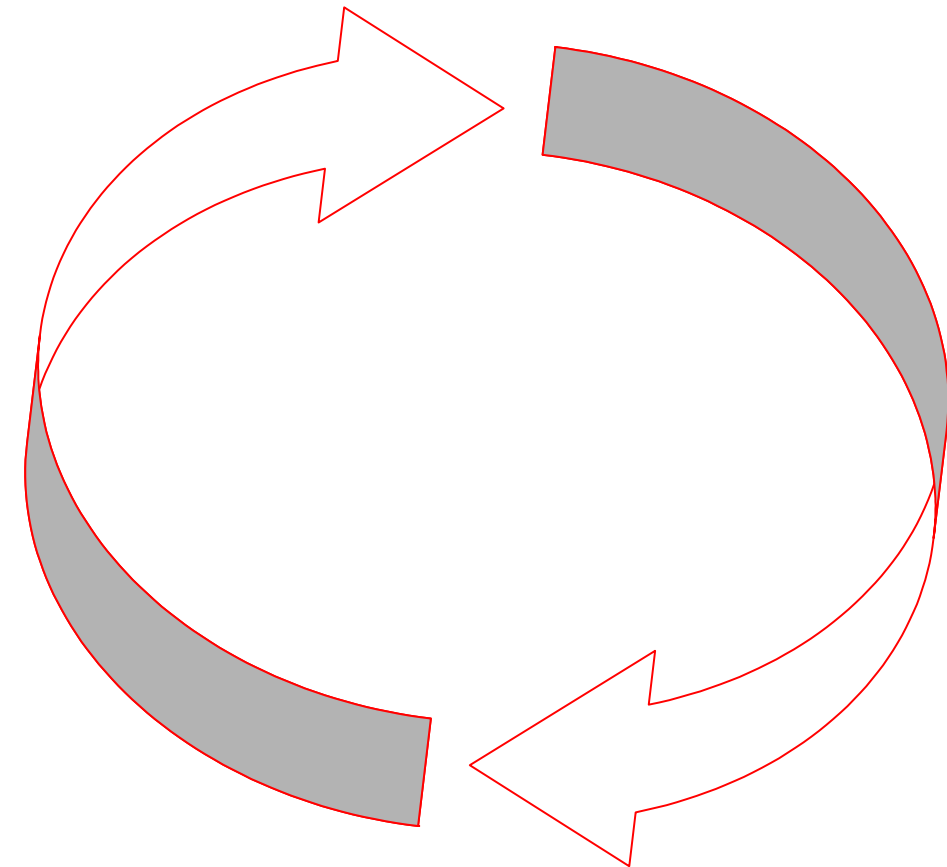


“Configuration in Code”

WHAT ENABLES DEVOPS?

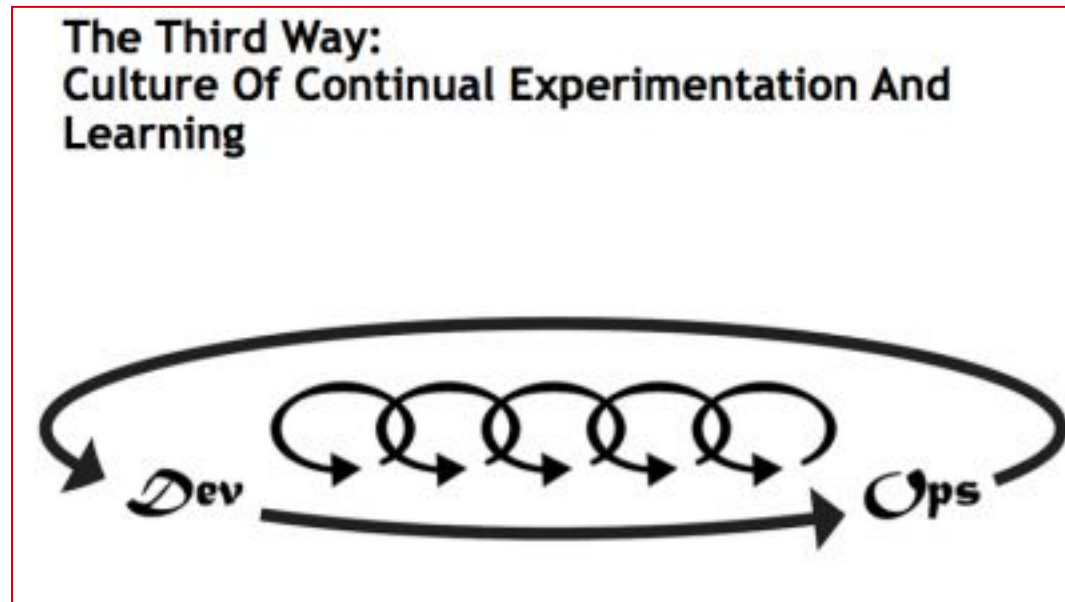


- ✓ **CONTINUOUS INTEGRATION**
- ✓ **CONTINUOUS DELIVERY**



CI/CD: Automated Testing and Deployment

WHAT ENABLES DEVOPS?

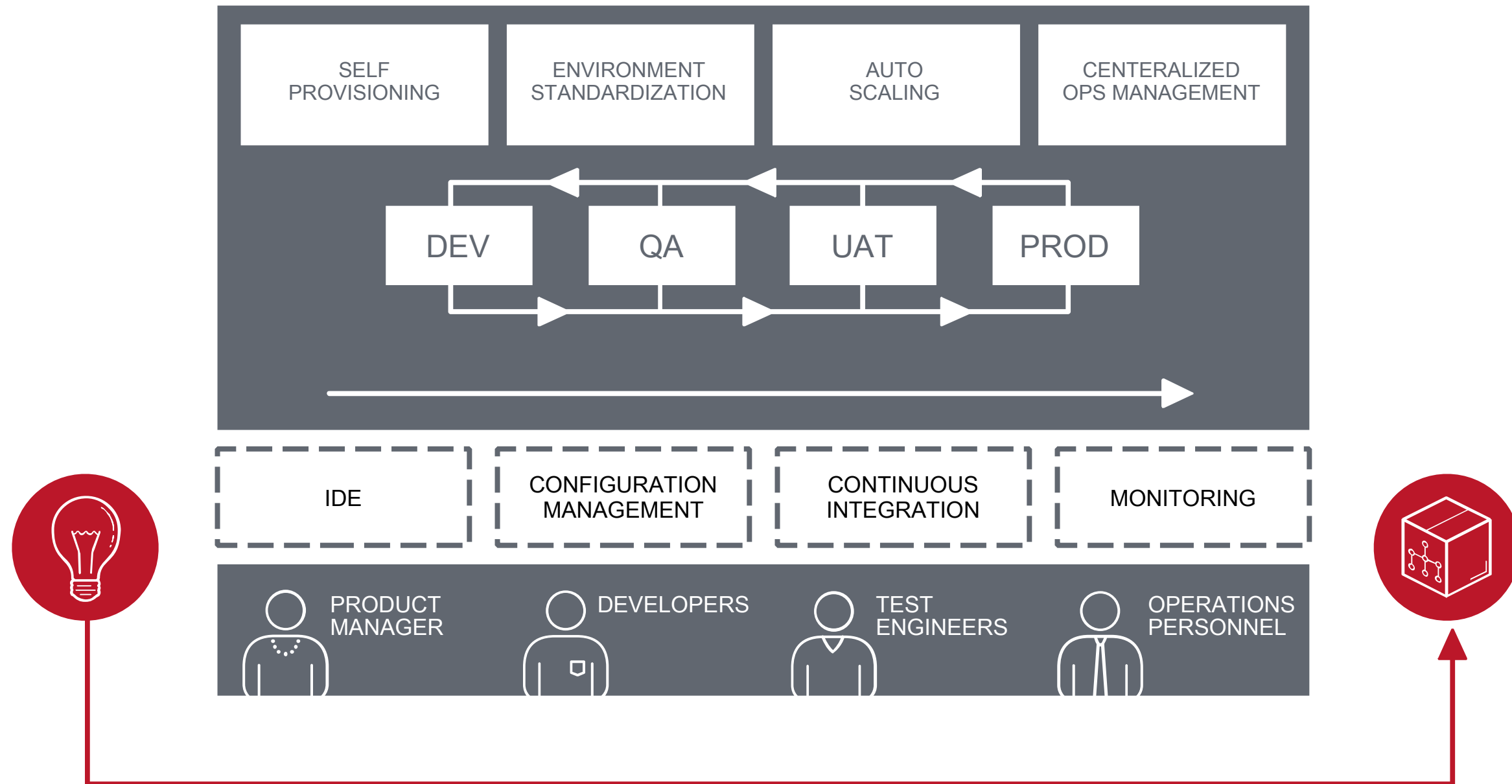


- ✓ DEVELOPER SELF-SERVICE
- ✓ RAPID PROTOTYPING

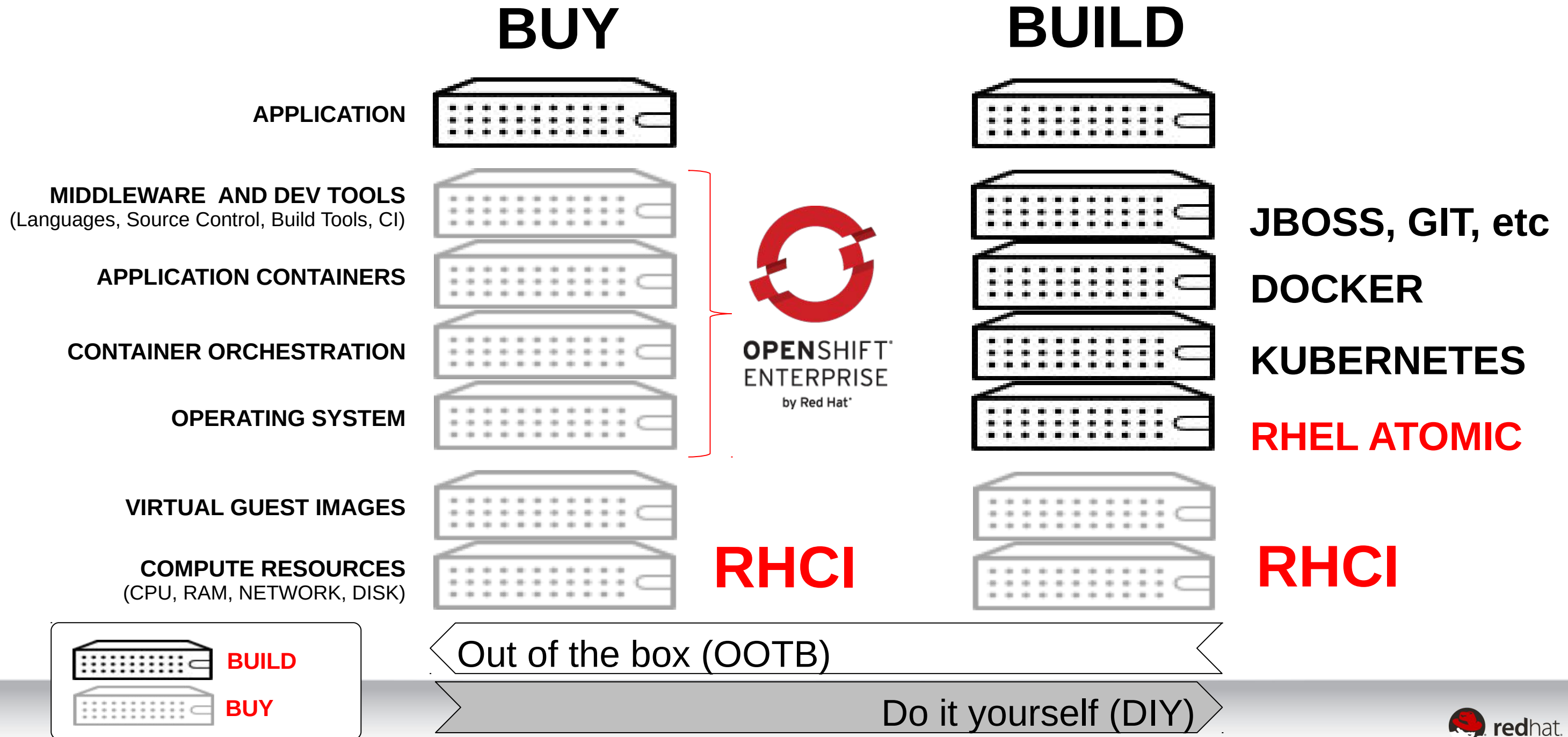


Continuous Innovation

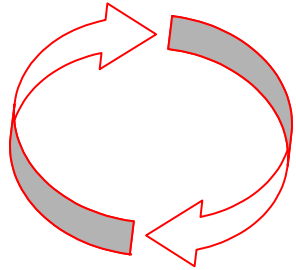
REDUCE CYCLE TIME FROM IDEA TO FEATURE



DEVOPS ENABLERS FROM REDHAT



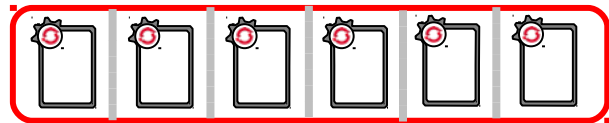
DEVOPS IMPLEMENTED MAKES LIFE BETTER



**ACCELERATED APP DELIVERY
FOR THE BUSINESS**



**SELF-SERVICE ACCESS TO THE
LATEST TOOLS FOR DEVS**

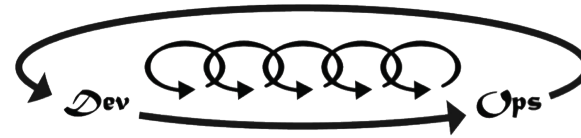


**STANDARDIZED AND
CONTROLLED ENVIRONMENTS
FOR OPS**

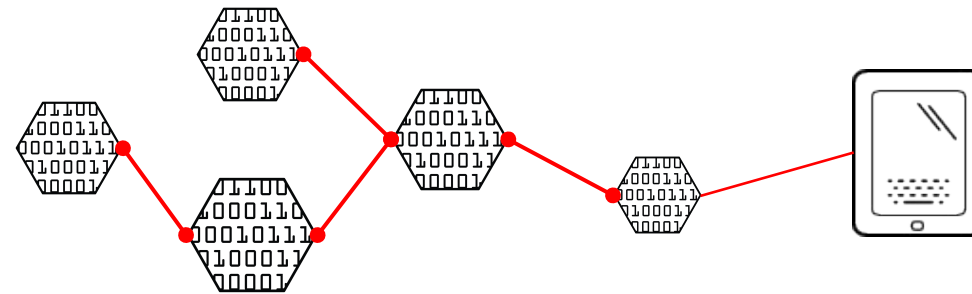


TOP OF MIND FOR CUSTOMERS...

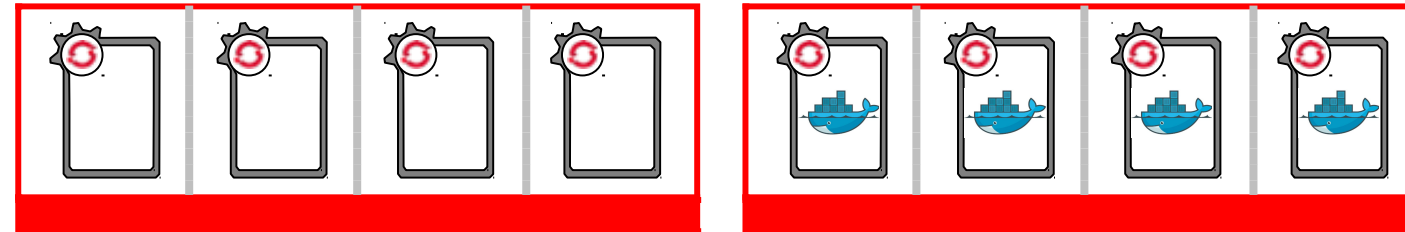
DEVOPS



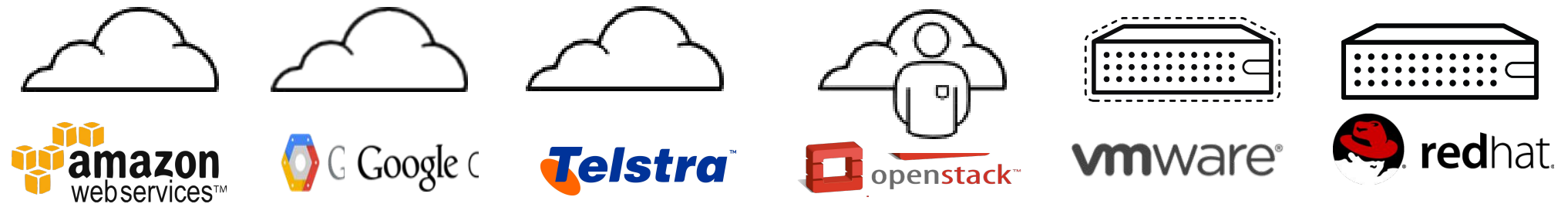
MICROSERVICES



CONTAINERS



CLOUD



Public

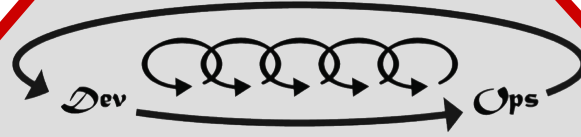
Private

Virtualized

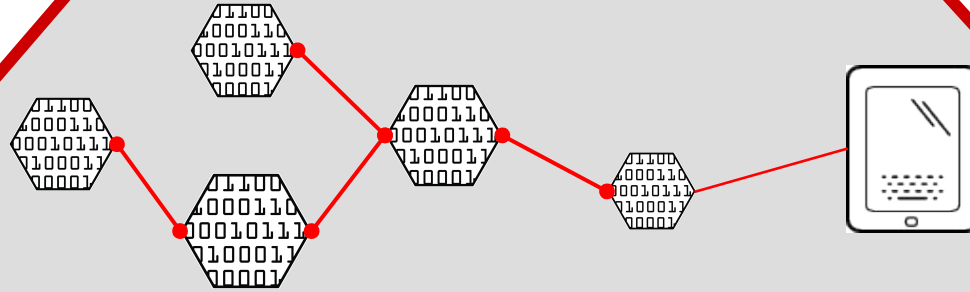
Bare Metal

It's the OpenShift Solution

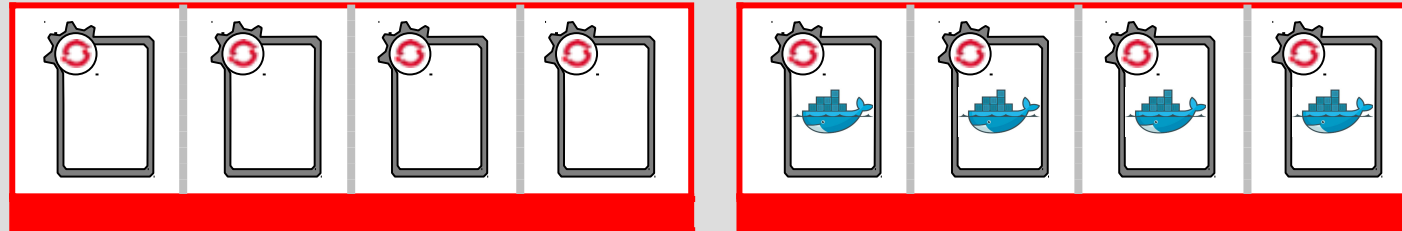
DEVOPS



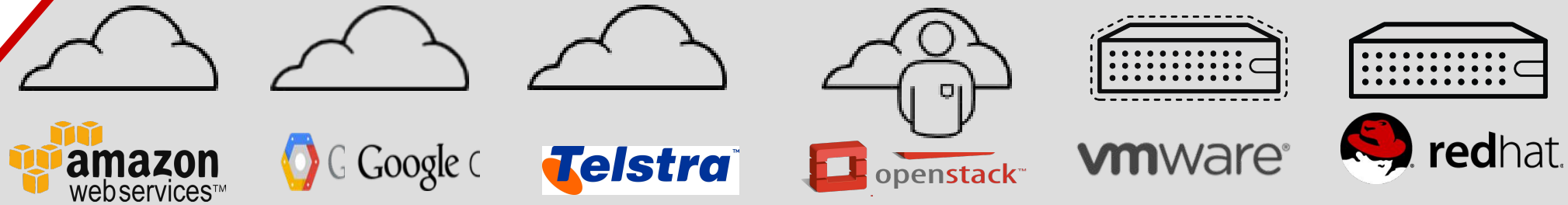
MICROSERVICES



CONTAINERS



CLOUD



Public

Private

Virtualized

Bare Metal

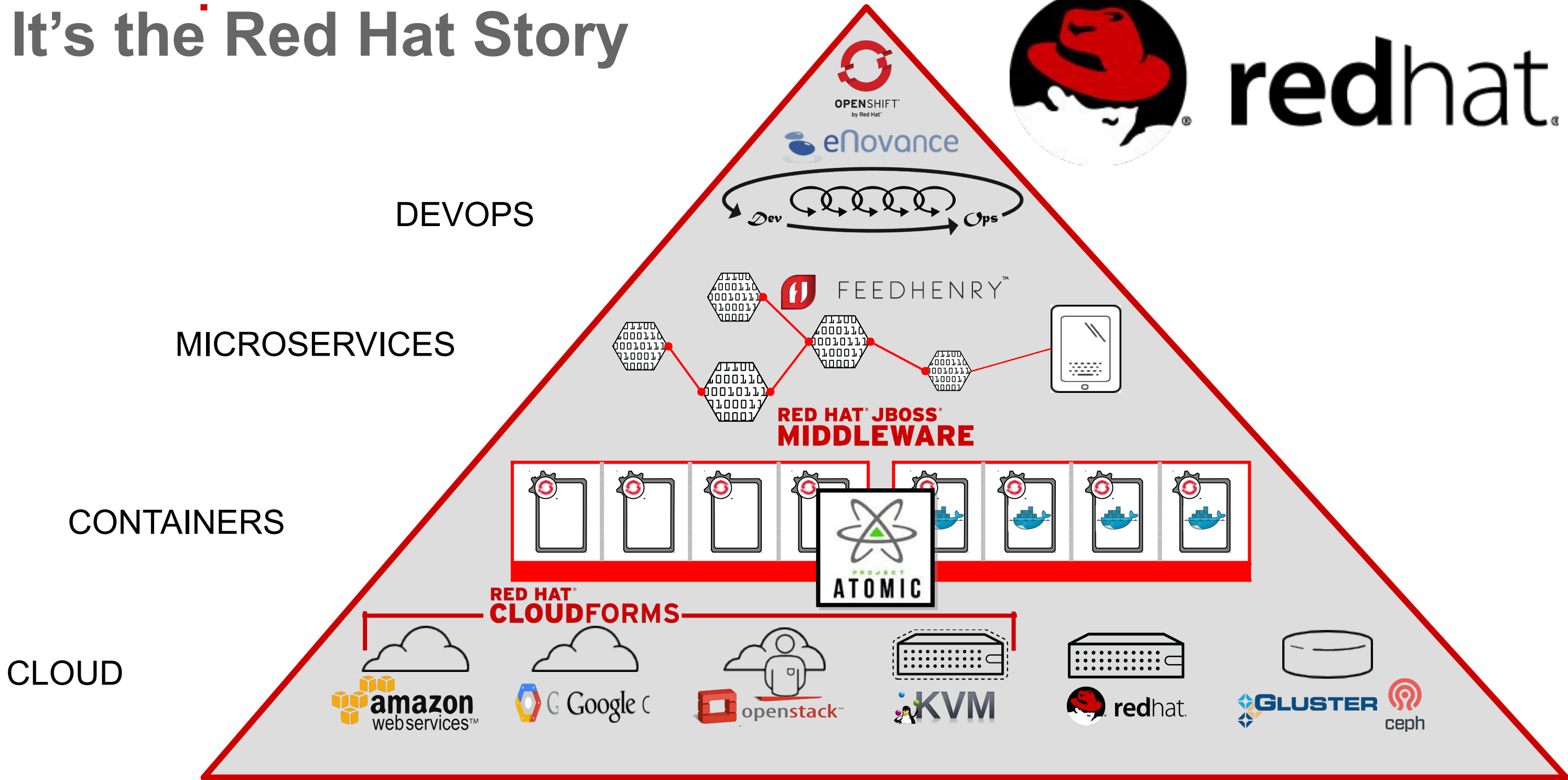


OPENSHIFT
by Red Hat

It's the Red Hat Story



redhat.





SPAWAR



accenture



CISCO™

DELL

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technologies



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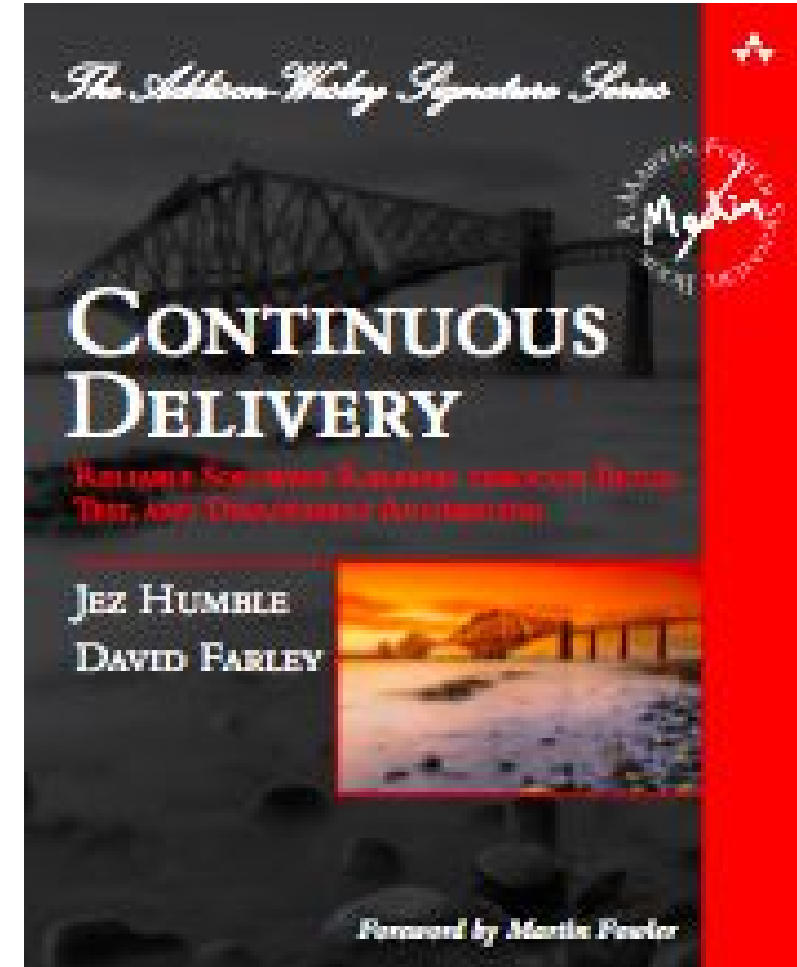


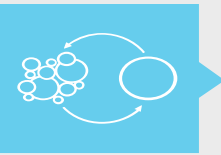
redhat.®

What is Continuous Delivery ?

“Continuous Delivery is a software development discipline where you build software in such a way that the software can be released to production at any time”

Martin Fowler





DEFINITION:

- ! ! "

BENEFITS:

- % & "
- \$ "

TOOLS:

- ' # \$



DEFINITION:

() *

BENEFITS:

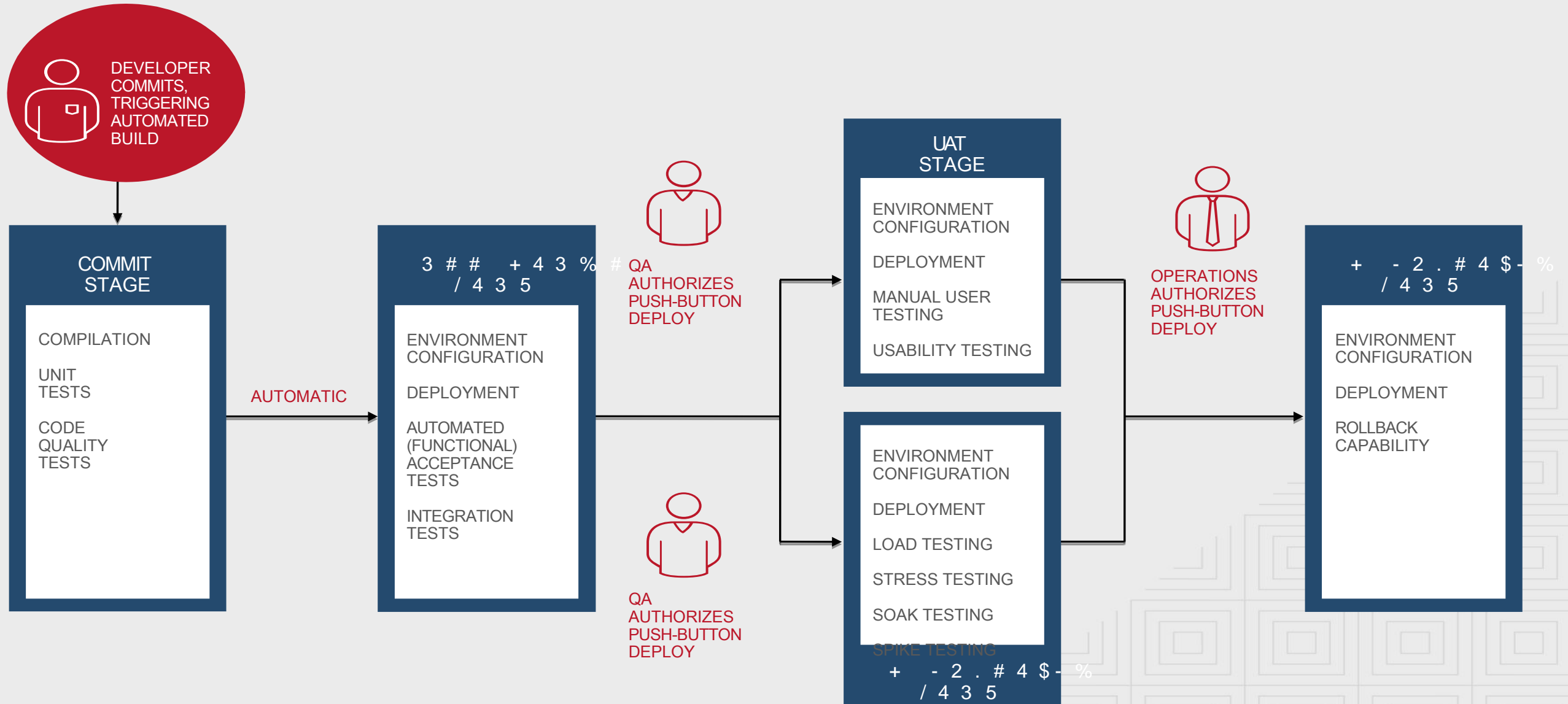
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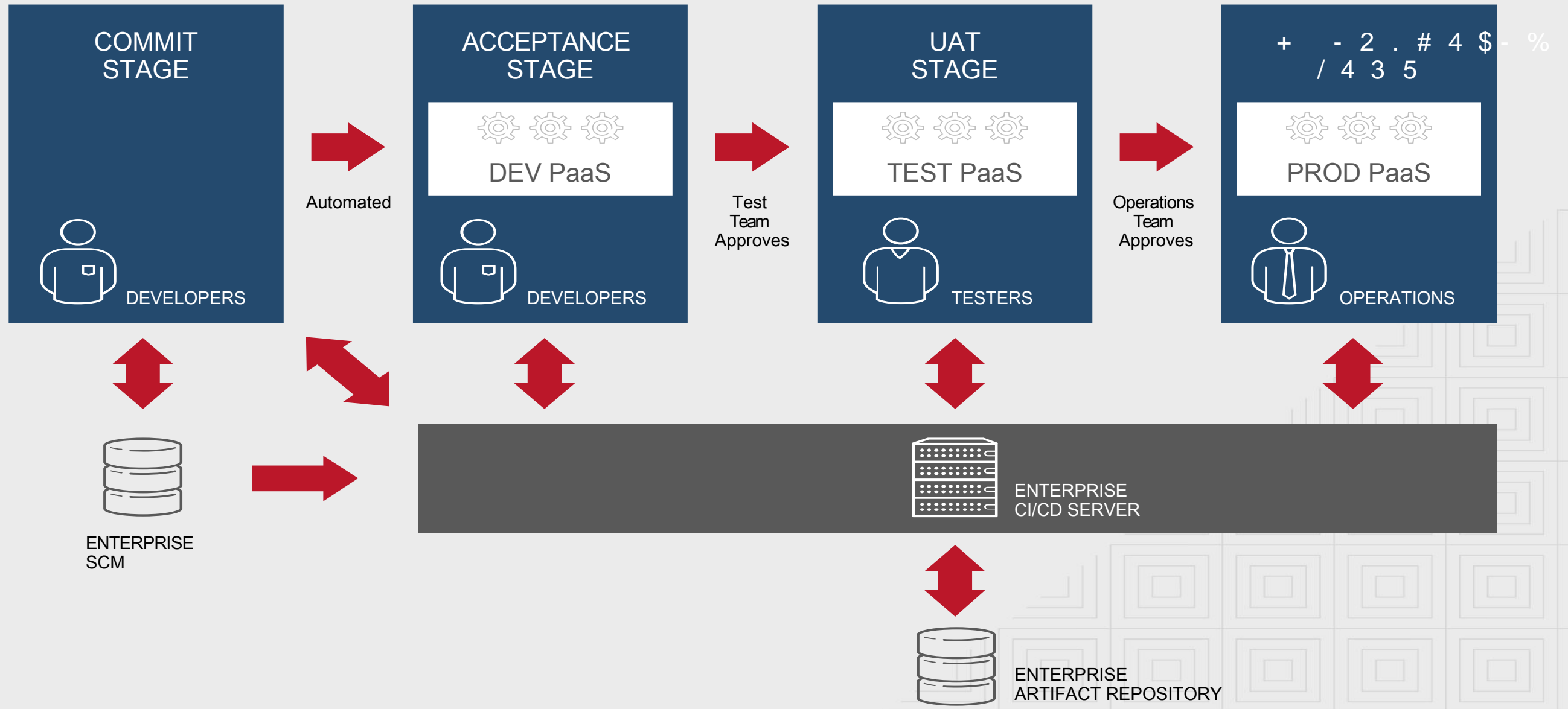
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Source: Humble and Farley, *Continuous Delivery*, 2011



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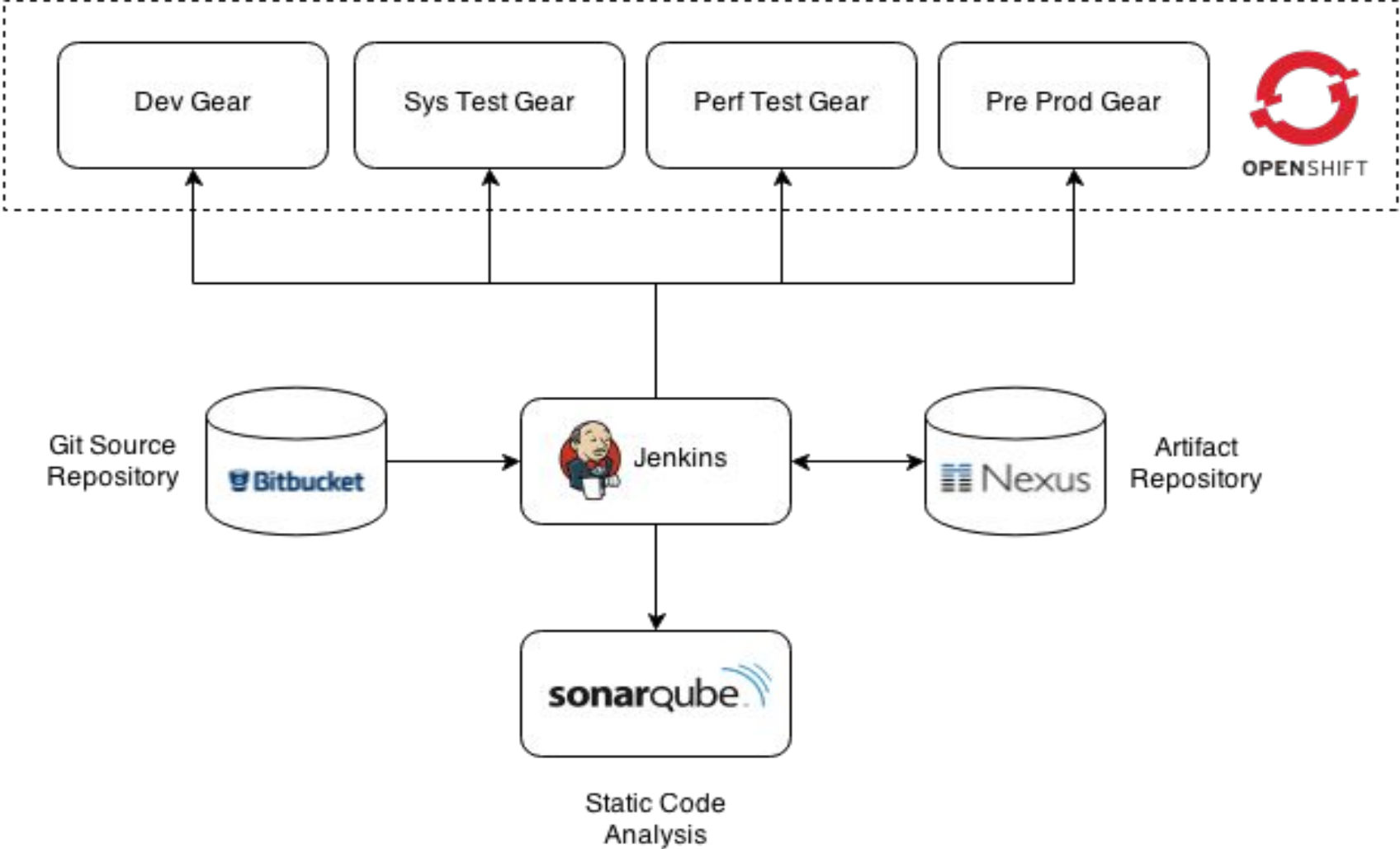
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OpenShift DEMO



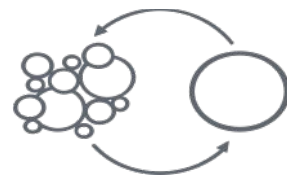
HOW OPENSIFT ACCELERATES DEVOPS



Solves platform automation...

- Standardized operating environments
- Environment configuration as code
- Self-provisioning

...so the DevOps focus can be on application delivery



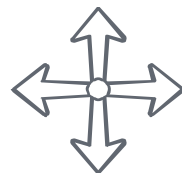
Continuous integration/delivery

- Integration with major DevOps tools
- Just-in-time delivery (and teardown) of single-purpose platforms for resource efficiency



Ready-to-go framework for application configuration as code

- Action hooks
- Cartridges
- Environment variables



Auto-scaling