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Avoid the Hype and Find Real Value in Devops and PaaS

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Dubai, UAE | 20th April 2016

AGENDA

- DevOps: Problem statement, what, and why
- How to enable DevOps
- Cloud Architecture
- PaaS – OpenShift
- How OpenShift Accelerates DevOps
- Q&A

THE WORLD WE LIVE IN TODAY

Customers and consumers

- Ubiquitous access to data and services
- Impatient, want everything NOW
- Increased QoS expectations

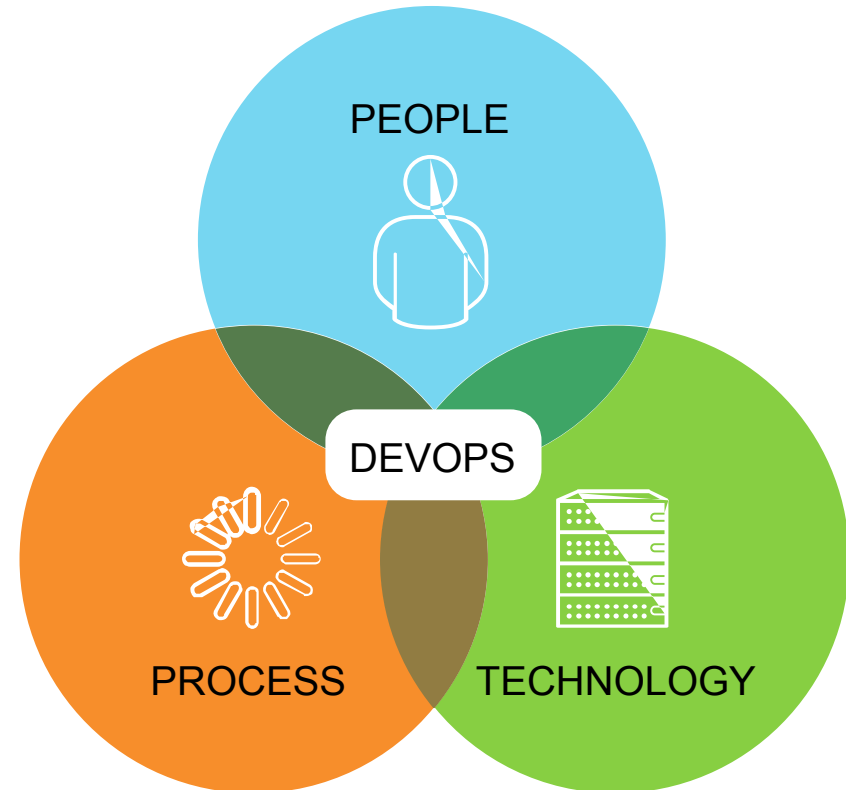
Businesses

- New opportunities and markets
- Threat of being disrupted, intense competition
- Small time frames to get products and services out



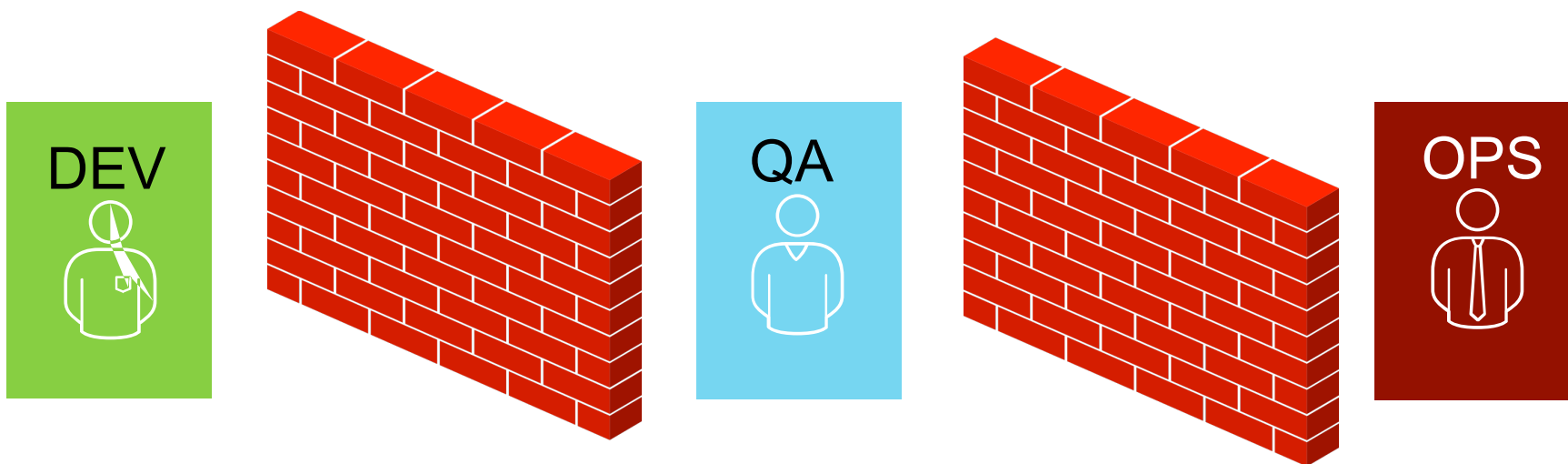
WHAT IS DEVOPS?

A movement to deliver software more efficiently by emphasizing **collaboration**, **communication**, and **integration** across different teams (Dev, QA, Ops) in an IT organization.



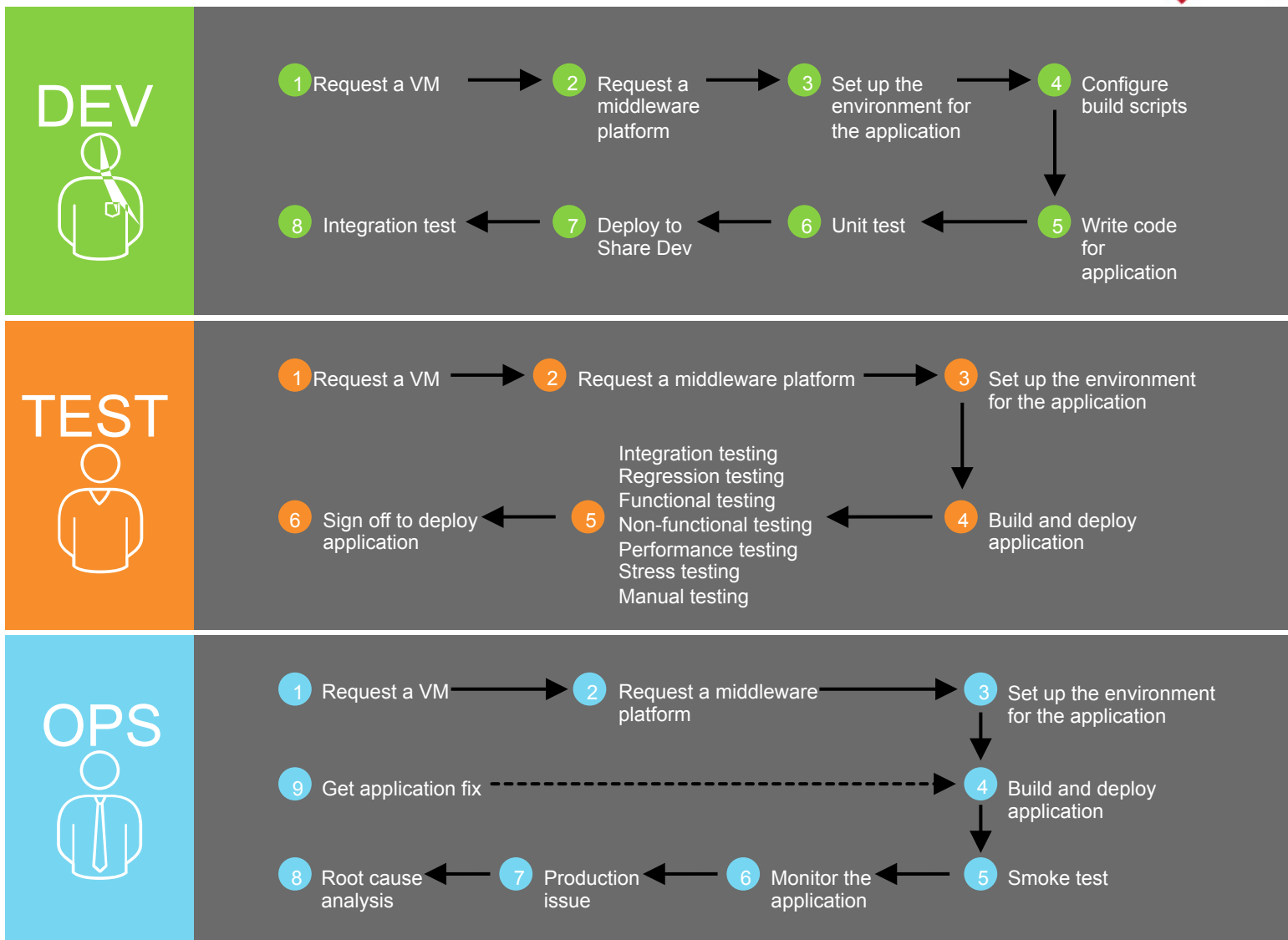
“THROW IT OVER THE WALL”

Walled off people, walled off processes, walled off technologies



Opportunities to improve at a **system level** are potentially lost

TRADITIONAL SOFTWARE DELIVERY



REALIZING EFFICIENCIES



STANDARDIZATION



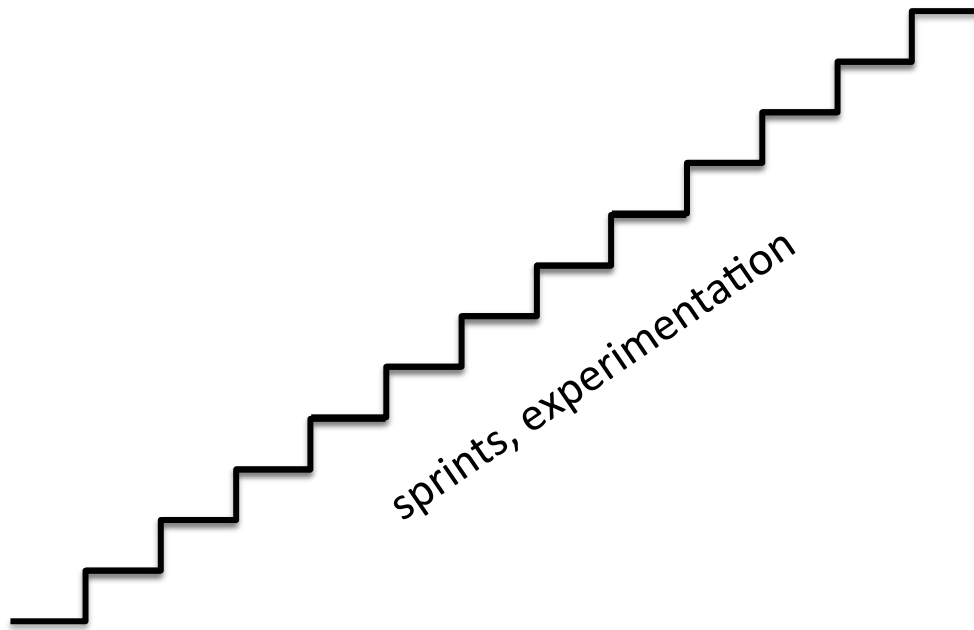
AUTOMATION



CONTINUOUS
IMPROVEMENT

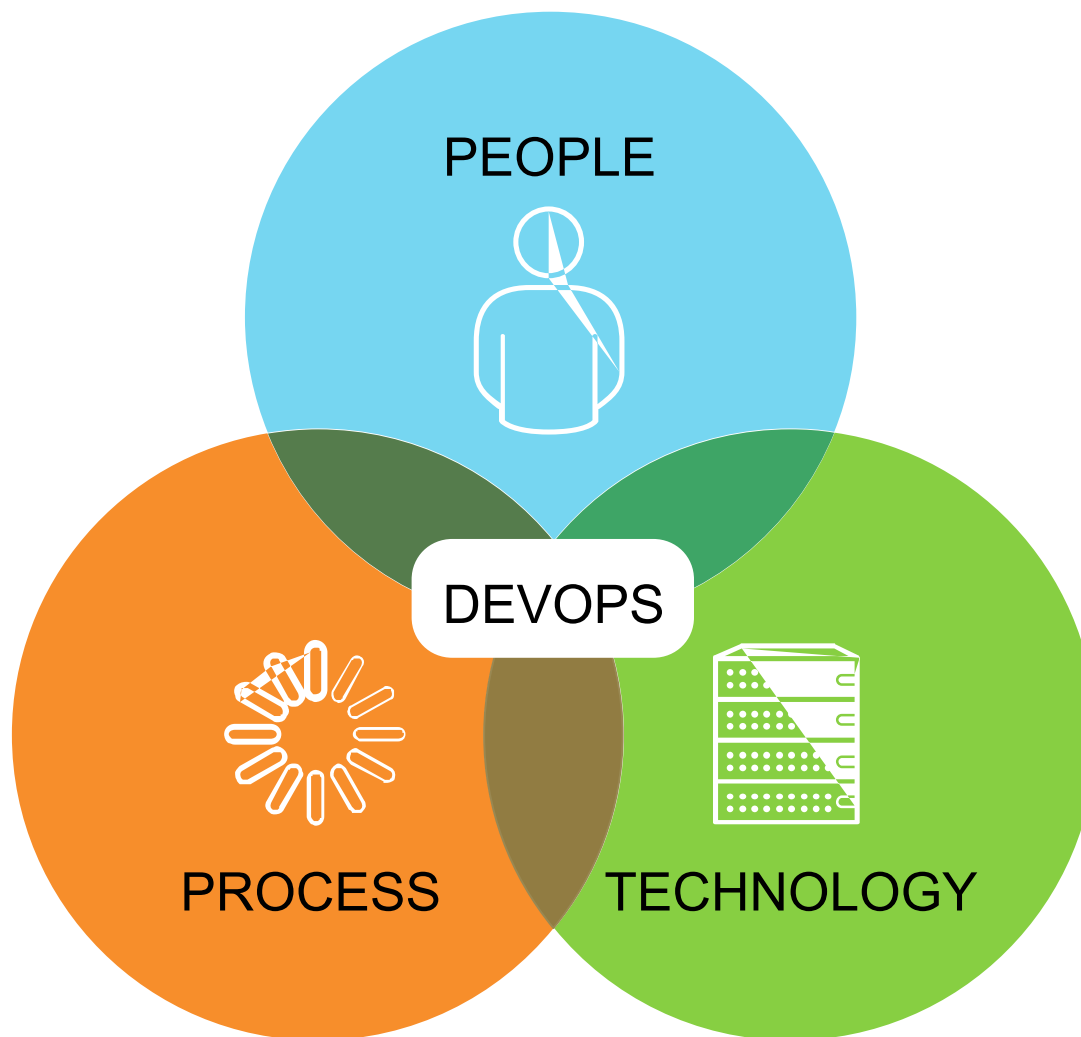
DEVOPS TRANSFORMATION

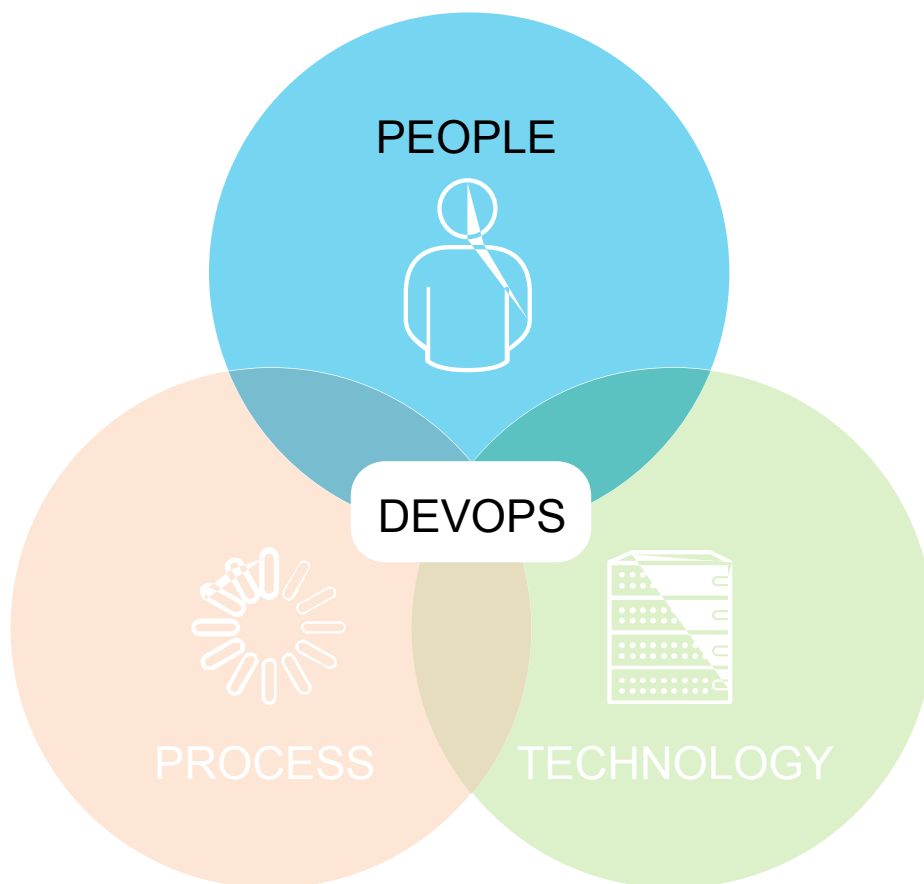
Target State



S.M.A.R.T.
Metrics

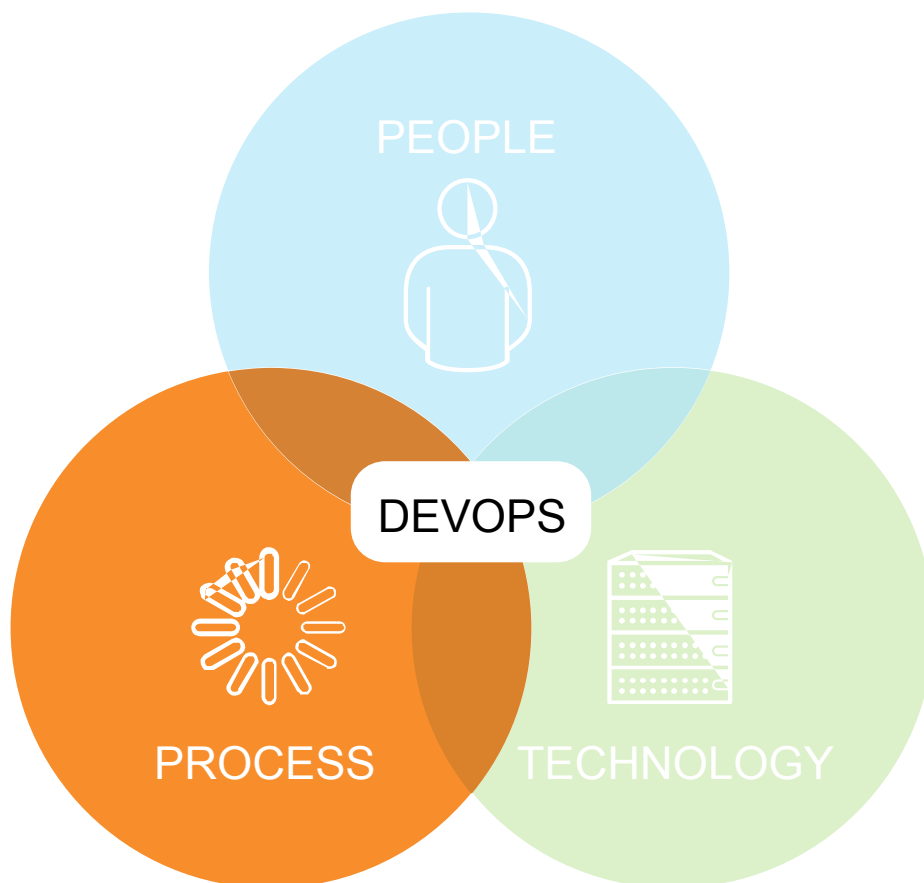
Current State





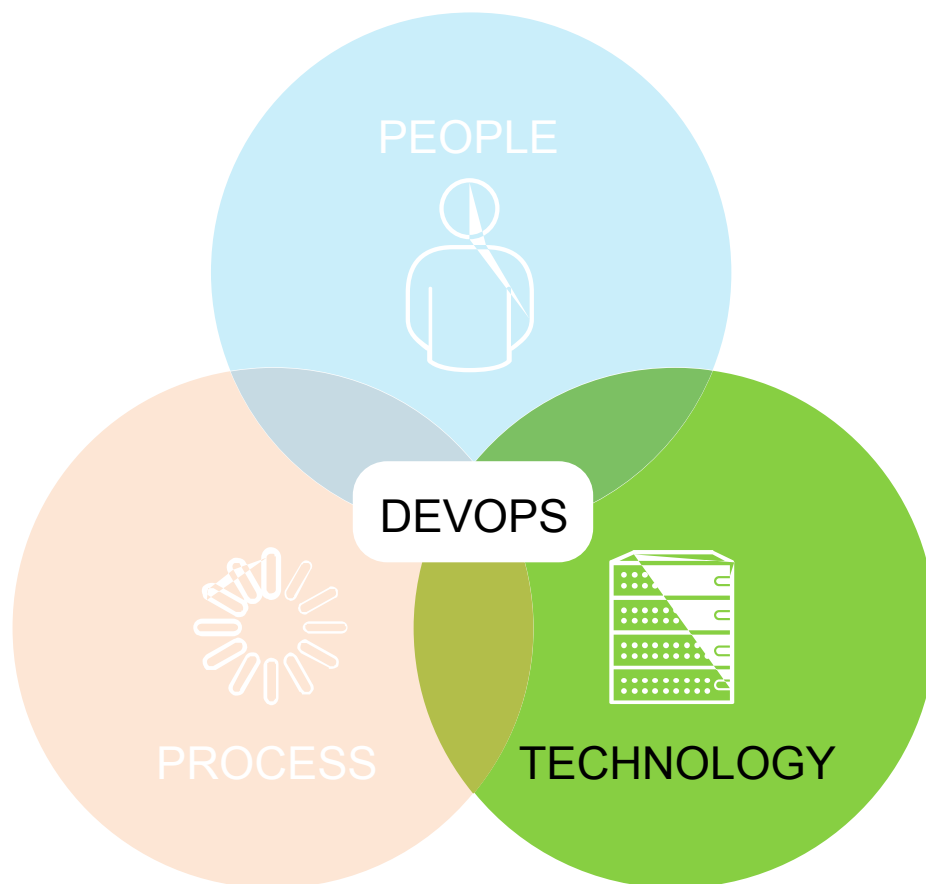
PEOPLE

- Cultural paradigm shift
- Cross-training of skills
- Collaboration and involvement of teams across all aspects from designing through monitoring of application
- The question everyone should ask is “Is my application driving business value based on the state it is in now?”
- Short-lived and interim DevOps Enablement Team can be created in organizations



PROCESS

- Agile methodologies
- Improvement Kata
- Kanbans
- Governance and continuous feedback loops to reduce and eliminate technical debt
- Automate everything
- If something breaks, don't hack. Fix the automation script and start over.
- Common frames of reference (for dev, qa and ops) for application monitoring in production



TECHNOLOGY

- Automation is key. OpenShift provides lots of required automation capabilities
- out-of-the-box.
- Standardize software versions, patch levels, and provisioning mechanisms
- Faster application environment provisioning, root cause analysis
- Notifications and pro-active monitoring

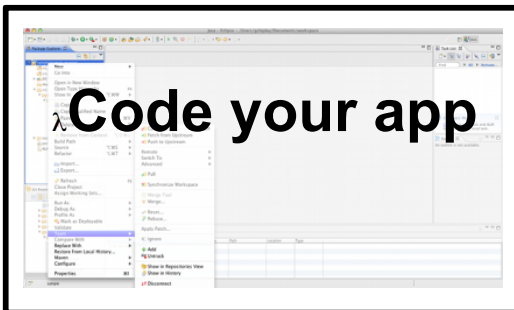
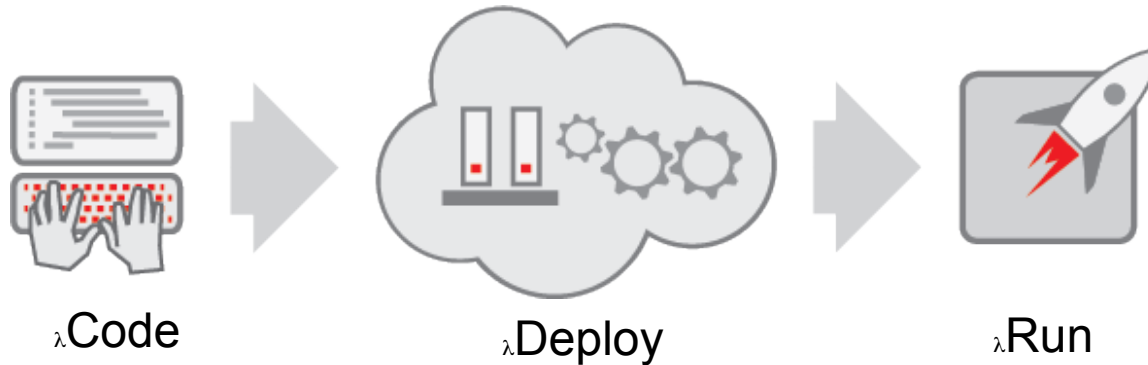
ENTER CLOUD

NIST DEFINITION OF CLOUD COMPUTING

- on-demand self service
- broad network access
- resource pooling
- rapid elasticity
- measured service

WHAT IS PAAS

λ A Cloud Application Platform



PAAS LETS YOU ACCELERATE APP DELIVERY



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Physical

How to Build an App:

1. Have Idea
2. Get Budget
3. Submit hardware acquisition request
4. Wait
5. Get Hardware
6. Rack and Stack Hardware
7. Install Operating System
8. Install Operating System Patches
9. Create user Accounts
10. Deploy framework/appserver
11. Deploy testing tools
12. **Code**
13. Test
14. Buy and configure Prod servers
15. Push to Prod
16. Launch
17. Order more servers to meet demand
18. Wait...
19. Deploy new servers
20. Etc.

Virtualized

How to Build an App:

1. Have Idea
2. Get Budget
3. Submit VM Request request
4. Wait
5. Deploy framework/appserver
6. Deploy testing tools
7. **Code**
8. Test
9. Configure Prod VMs
10. Push to Prod
11. Launch
12. Request VMs to meet demand
13. Wait
14. Deploy app to new VMs
15. Etc.

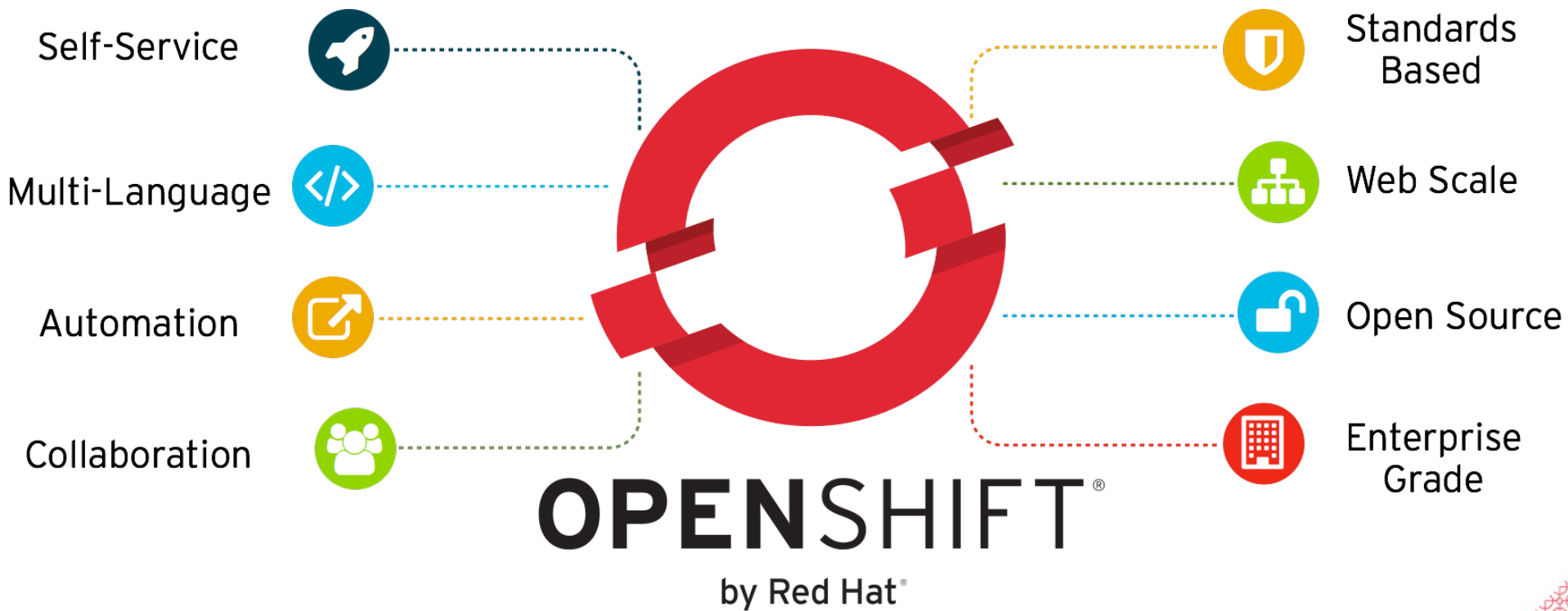
With PaaS

How to Build an App:

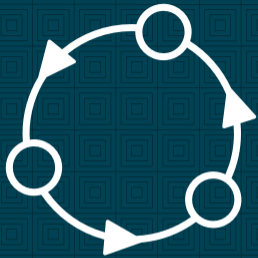
1. **Have Idea**
2. **Get Budget**
3. **Code**
4. **Test**
5. **Launch**
6. **Automatically Scale**



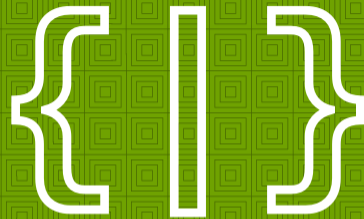
CRITICAL FEATURES FOR BOTH DEV AND OPS



VALUE OF OPENSIFT



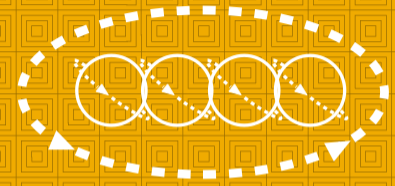
**Expedite
Innovation To Market**



**Accelerate
Application Development**

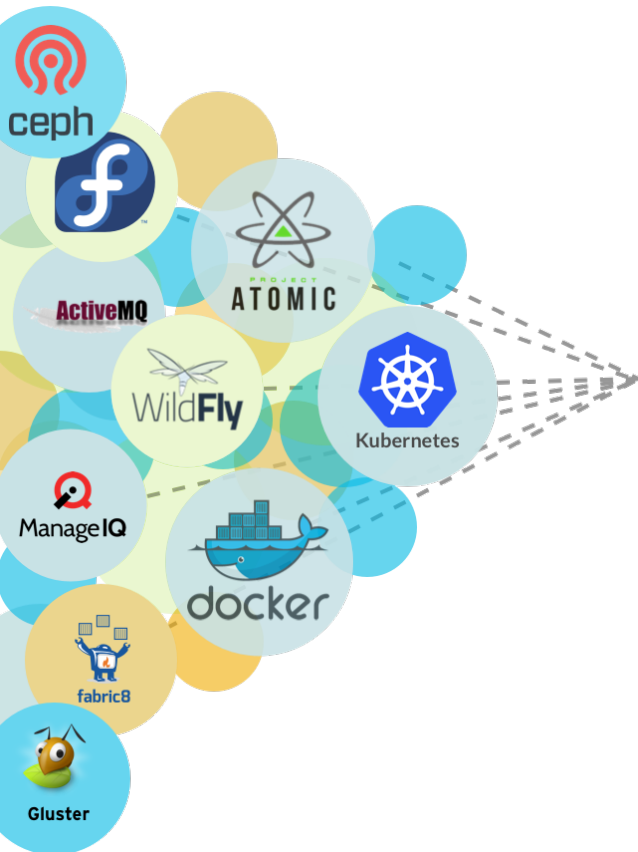


**Increase
Operational Efficiency**



**Enable
DevOps**

COMMUNITY POWERED INNOVATION



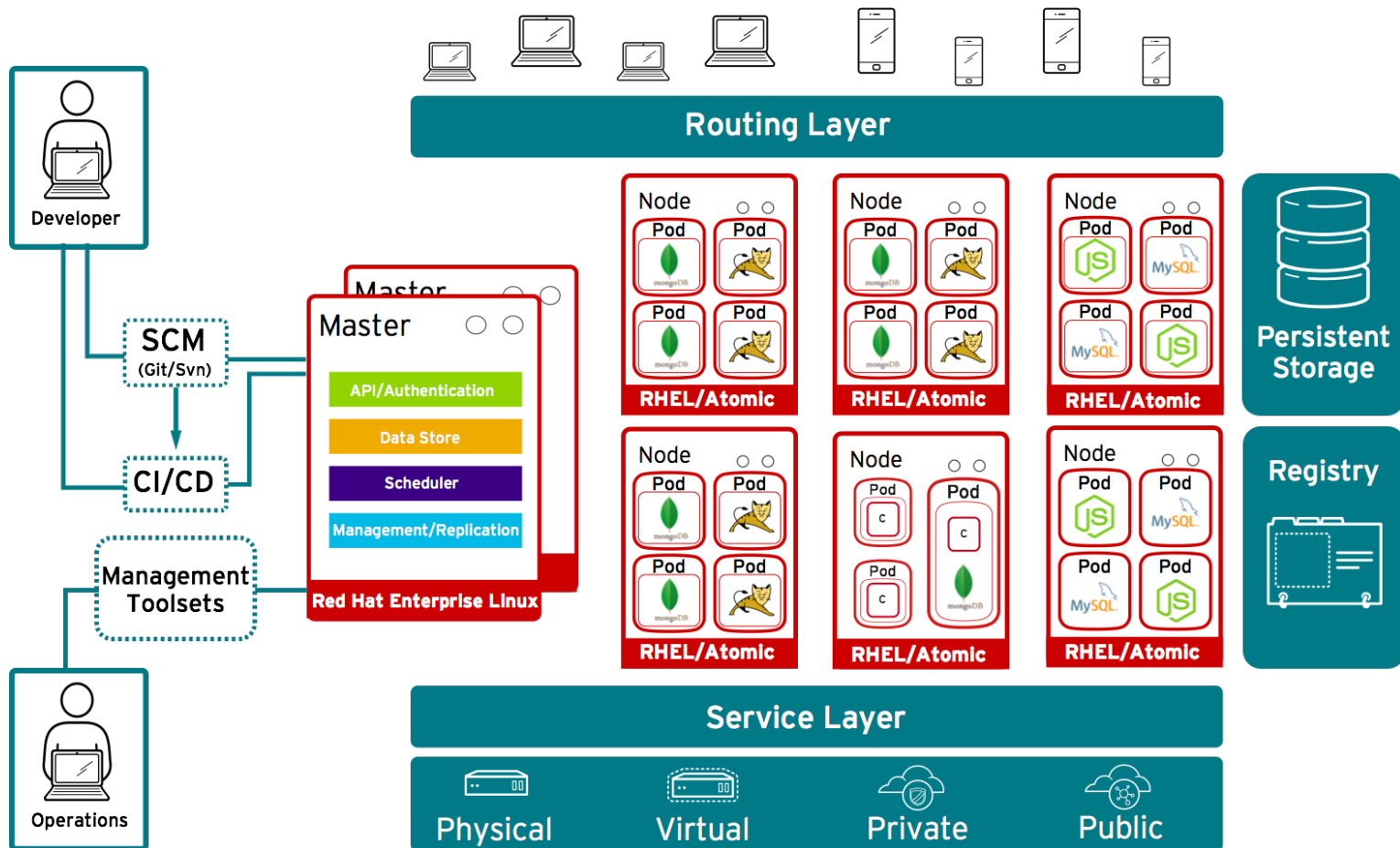
OPENSIFT
origin

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10,000FT VIEW



HOW OPENSHIFT ACCELERATES DEVOPS

Automation is a cornerstone of DevOps practices.



APPLICATION LIFE CYCLE AUTOMATION

Application

DevOps platform automation leads to efficient, repeatable DevOps application life cycle management. **OpenShift is an accelerator to application DevOps.**



MIDDLEWARE PLATFORM AUTOMATION

Web/app servers | Libraries

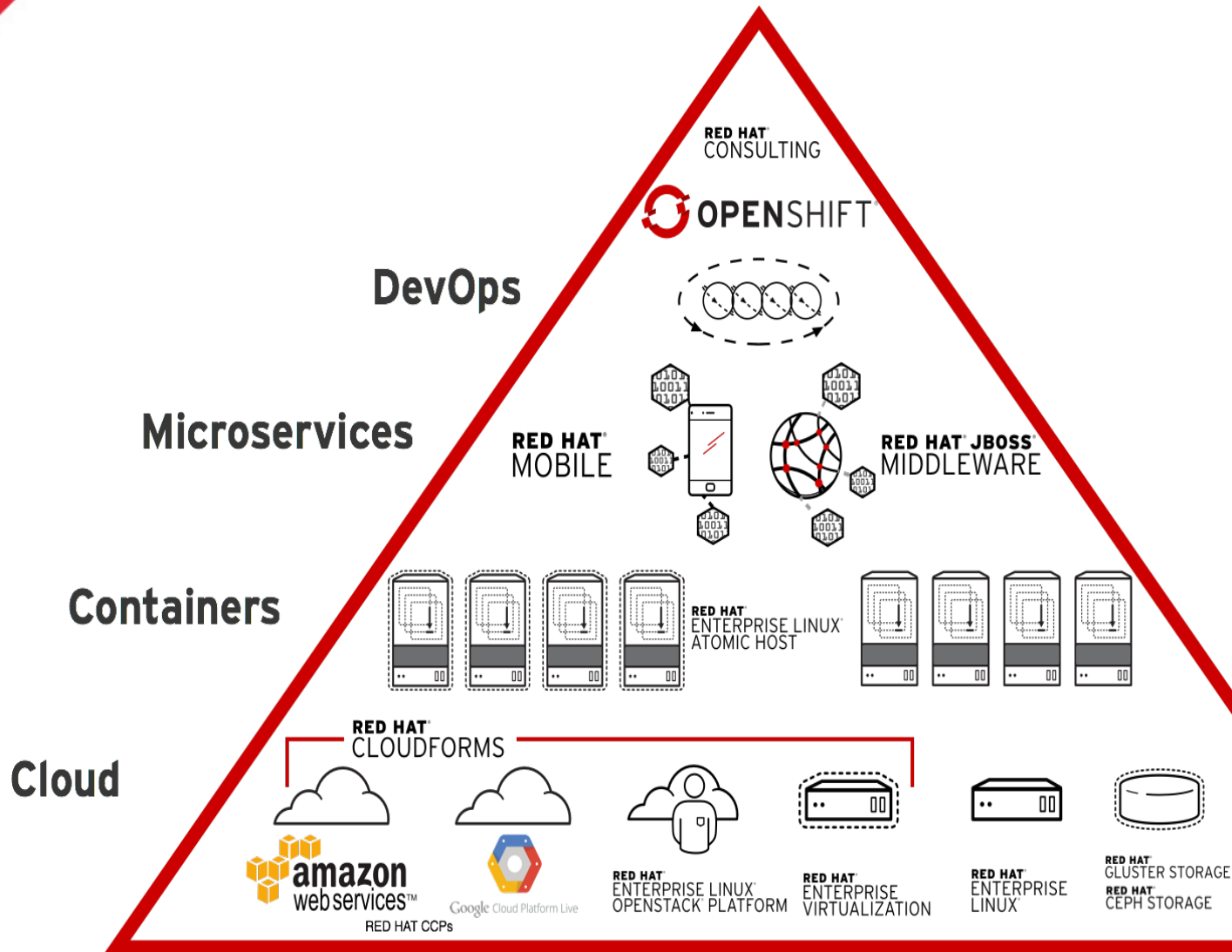
OpenShift is advanced platform automation. Does not replace DevOps collaboration, but **provides a framework** for it, so you don't have to roll your own.



INFRASTRUCTURE AUTOMATION

Virtualization | OS | Bare metal

RED HAT BRINGS IT ALL TOGETHER





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THANK YOU

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