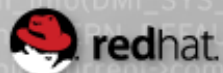


**RED HAT  
CONNECT**

## Developer Exchange

**LEARN MORE. CODE MORE. SHARE MORE.**

**June 11, 2013 | Boston, MA**



# DEVOPS IN THE ENTERPRISE

Robyn Bergeron  
Fedora Project Leader  
Red Hat

Langdon White  
Red Hat Enterprise Linux Developer Advocate  
Red Hat

June 11, 2013

# WELCOME TO DEVELOPER EXCHANGE

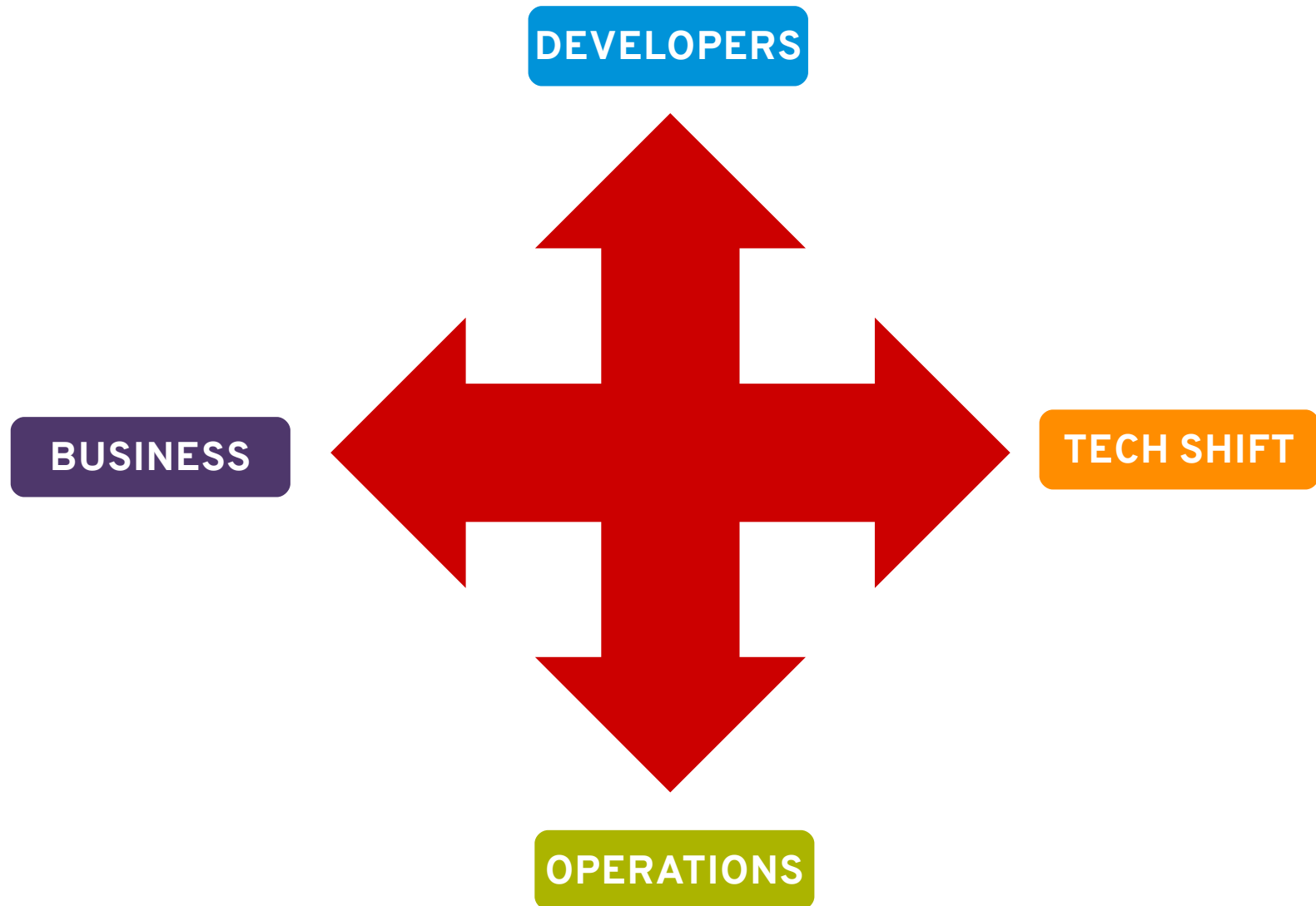
- This is the DevOps track!
- 5 sessions covering a smorgasbord of devops topics

# WHAT IS DEVOPS?

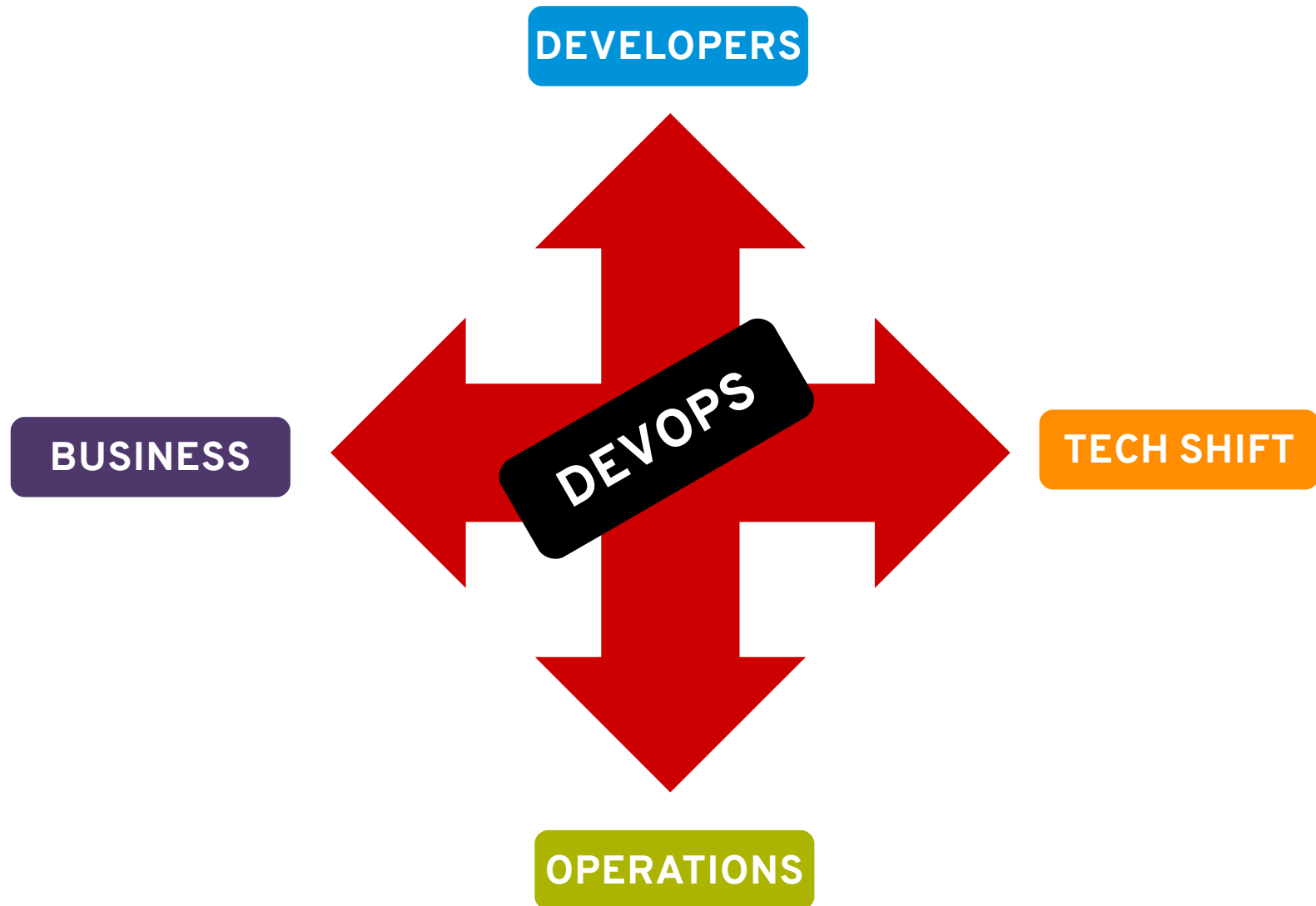
- “Infrastructure as code”
- A job description
- Or, per wikipedia....

DevOps (a portmanteau of development and operations) is a software development method that stresses communication, collaboration and integration between software developers and information technology (IT) professionals. DevOps is a response to the interdependence of software development and IT operations. It aims to help an organization rapidly produce software products and services.

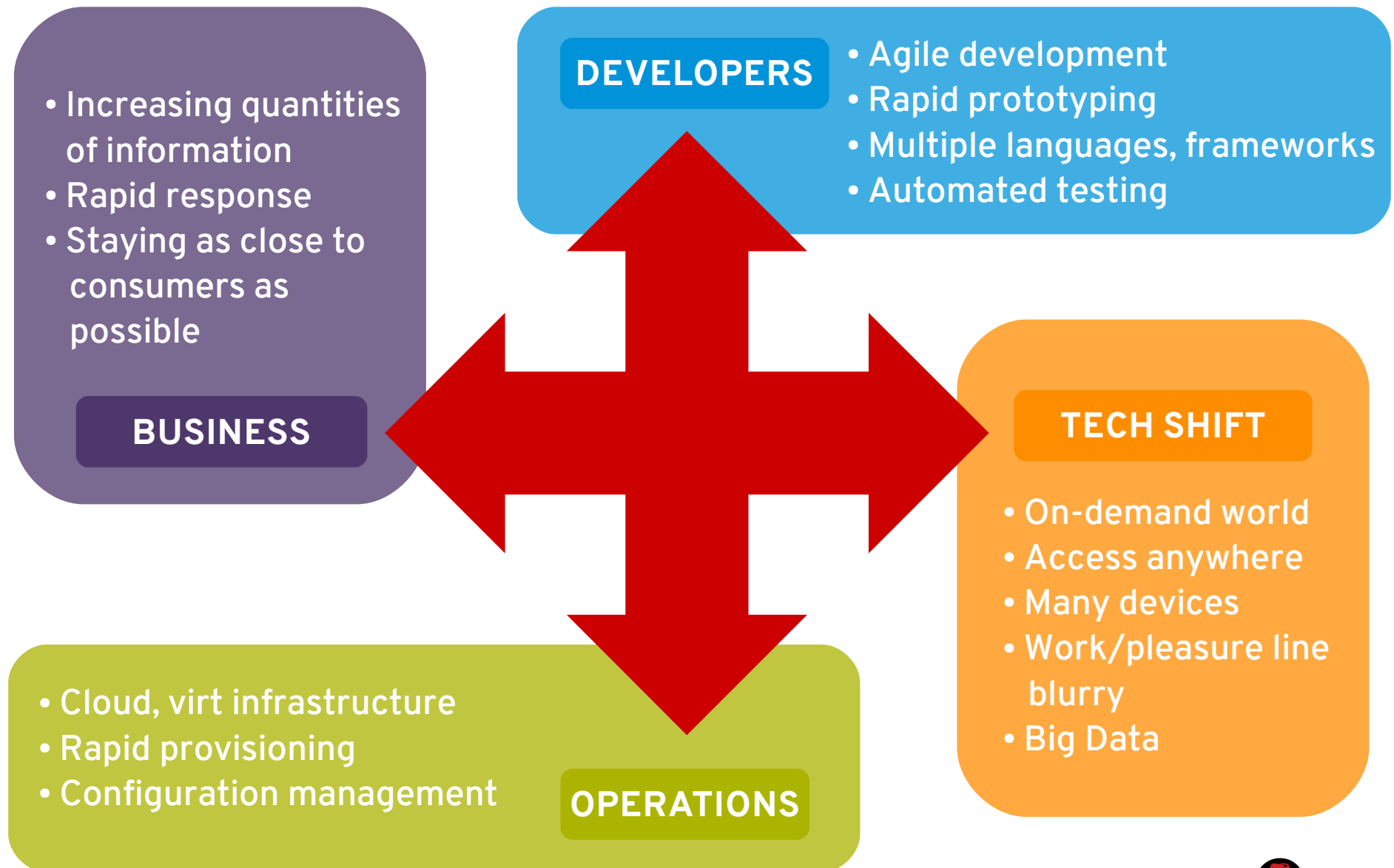
# THE DEVOPS VIEW



# THE DEVOPS VIEW



# CONVERGING INTERESTS, NEEDS



# COMMON THEMES

- On-demand: Now, now, now!
- More demands, with the same resources
- Delivering technology and applications everywhere, at any time

**WE NEED AGILITY.**



# AGILITY

## DEVELOPERS

- Write, test, deploy code almost instantly
- Dev environment same as test & production, easily
- Faster deployment == faster feedback

## OPERATIONS

- Faster provisioning of hardware, access
- Dev environments in version control == less confusion, conflicts with developers
- Configuration management makes admin life scalable
- Metrics and statistics become meaningful, actionable

## BUSINESS

- Agility is the “do or die” difference
- End to end ability to make meaningful decisions about business operations, faster

# WHAT PREVENTS AGILITY NOW?

- Bottlenecks.
  - Traditionally a manufacturing problem
- Fragile code
- Special snowflakes
- Bad Process, Tribal processes
  - “Brent”
- Not knowing what people (aka: Customers) really want
  - and not being able to iterate quickly with them

# DEVOPS AND AGILITY

- Reduce time to deliver
- Make efficient use of dev/test environments
- Minimize downtime, minimize time to recovery
- Fewer (or smarter) failures
- Meet business needs **faster**.

Devops practices evolve the organization towards greater agility through repeatable, reliable methodologies.

# THREE THINGS

CULTURE

PROCESS

TOOLS

# PROCESS

- Taking the time to document.
- Removing linchpins
- Understand your development, deployment processes
  - Agile, Kanban, etc.
- Take the time to assess, break down barriers
- Make things repeatable, reliable.
- NO SILOS

# TOOLS

- Repositories/Source Code Management
- Build systems
- Software collections
- Continuous integration
- Testing
- Configuration management
- Deployment – self or hosted (IaaS, PaaS)

# CULTURE

- The most important
- Continuous improvement
- Work together, not against each other.
- Shared goals
- Improving communication
- Building for devops is everyone's job.
  - Quality
  - Operations requirements
- No more silos! Collaboration is key.

**COME TOGETHER.**





# EVOLUTION, NOT REVOLUTION

- There is no magic switch – this won't be an overnight process for you, or anyone.
- But you can get on the right track as an enterprise.

# BUT I'M NOT WEB 2.0!

**Committee  
Decisions!**

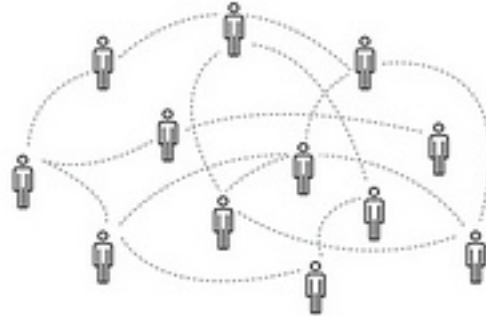
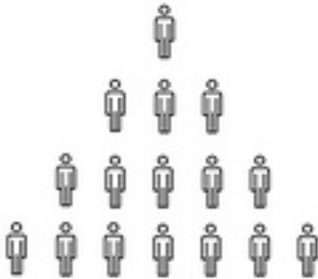
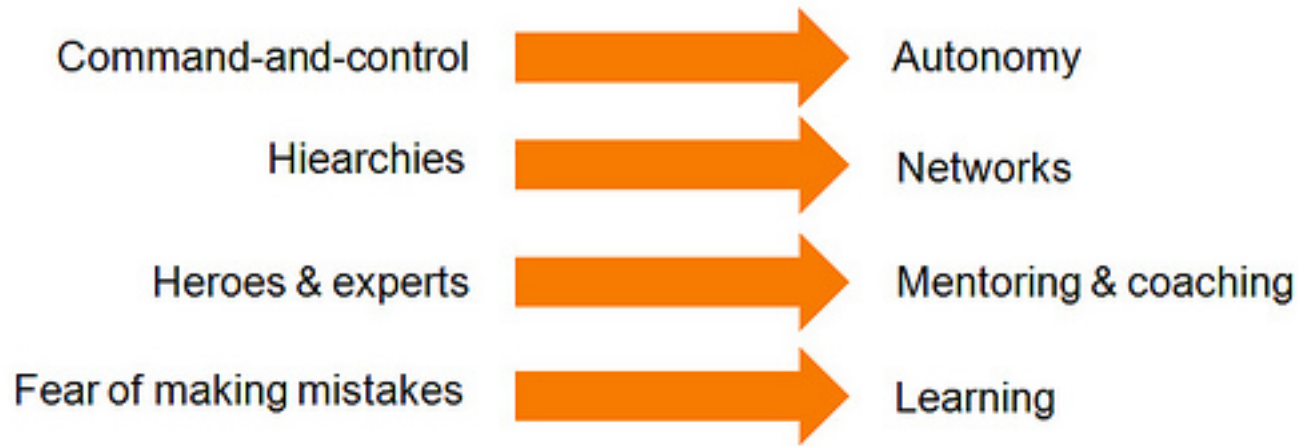
**Change  
resistant!**


**Bureaucracy!**

**Quarterly  
earnings!**

**Unrealistic  
deadlines!**

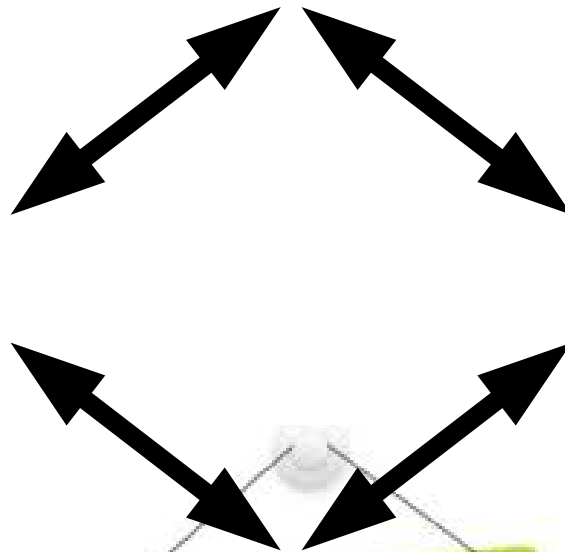
# ENTERPRISE-CLASS CONCERNS



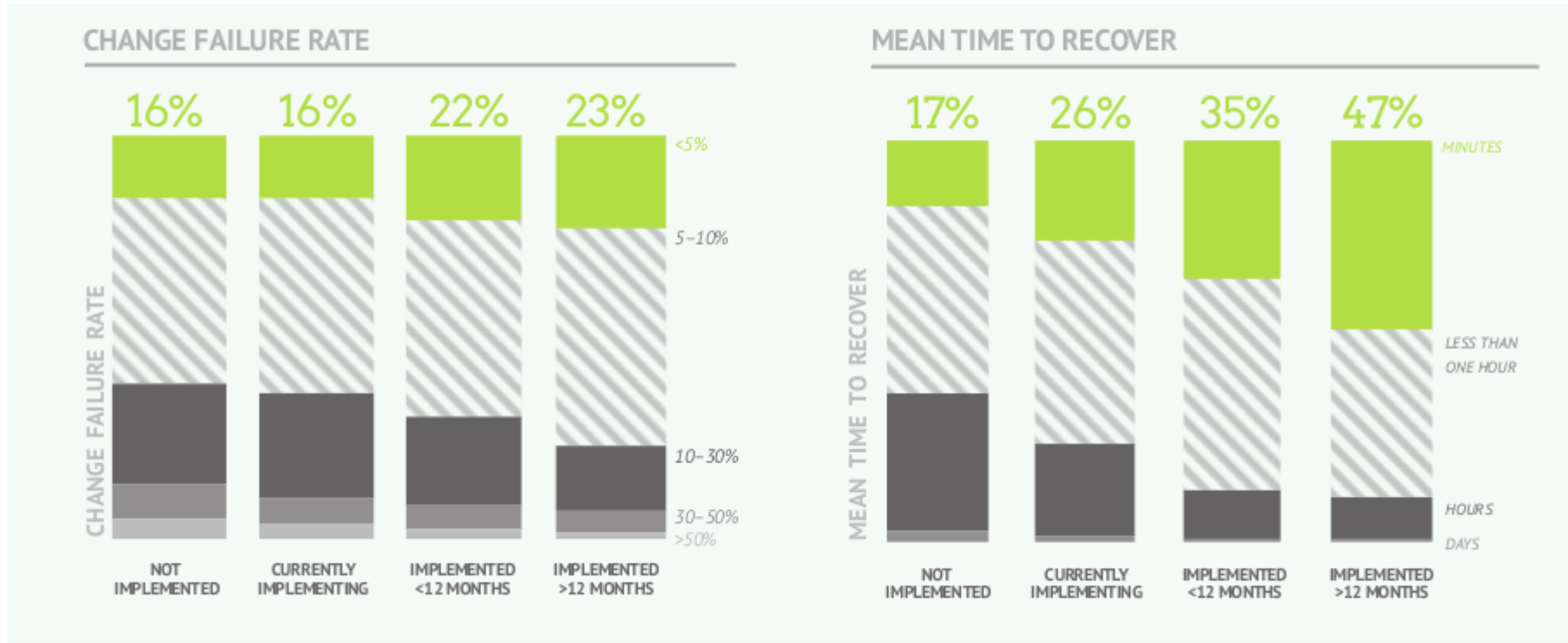
 Oscar Berg, [www.thecontenteconomy.com](http://www.thecontenteconomy.com)



# HOW CAN YOU MAKE YOUR BOSS CARE?



# BUT SHOW ME THE PROOF!



## Deploy code 30 times more frequently.

High performing organizations deploy code 30 times more often, and 8000 times faster than their peers, deploying multiple times a day, versus an average of once a month. Frequent deployments coupled with faster change lead times enable operational agility.

## Have 50 percent fewer failures.

High performing organizations have double the change success rate and restore service 12 times faster than their peers. Fewer failures and faster recovery mean less risk to the business when changes are deployed.

(Source: Puppet Labs 2013 State of DevOps Report)

# RED HAT SOLUTIONS

- Software Collections
- OpenShift (on-premise and hosted)
- OpenStack & Red Hat Enterprise Linux
- JBoss – Maven, Jenkins, etc.

# BOTTOM LINE: GET STARTED HERE

- Automation
- Reliable environments
- Statistics: Measure & analyze
- Take pieces – start small, build bigger over time
- Read “The Phoenix Project”
- Don't ask for permission – change your operating style
- Use the right tools to do your job!



# ATTRIBUTIONS

- Voluntary Compliance:  
<http://www.flickr.com/photos/triciawang/>
- SecuRail:  
<http://www.flickr.com/photos/followtheseinstructions/>
- Culture Shift: <http://www.flickr.com/photos/oscarberg/>
- Money: <http://www.flickr.com/photos/duaneschoon/>
- Pillars: <http://www.flickr.com/photos/42311564@N00/>
- Pressure: <http://www.flickr.com/photos/milosadame/>



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