DevOps Community Of Practice
@nathenharvey

chef.io
The changing role of IT organizations

DevOps practices are driving IT organizations into reshaping the way their teams operate.
Service-oriented IT
Centers of Excellence

THOUGH T LEADERS

BEST PRACTICE S

STRATEG Y

TREND S

IDEAS

TECHNOLOG Y

KNOWLEDGE
Centers of Excellence

THOUGHT LEADERS

BEST PRACTICES

STRATEG Y

TRENDS

TECHNOLOGY

KNOWLEDGE

IDEAS
Service-oriented IT

- SERVICE OPERATIONS
- MIDDLEWARE/ESB/PLATFORM
- APPLICATION DEVELOPMENT
- SERVICE DELIVERY
- INFRASTRUCTURE SERVICES
You aren’t my only customer
The business takes control
The business takes control
Vertical Integration
Vertical Integration with Communities of Practice

Application Development Community

Infrastructure Services Community

LOB Line of Business

LOB Line of Business

LOB Line of Business
Centers of Excellence

- Thought Leaders
- Best Practices
- Strategic Thinking
- Ideas
- Technology
- Knowledge
Communities of Practice

CONTINUOUS AUTOMATION

ECOMMERCE

IOT

DATACENTER OPS

MANAGED SERVICES

BUSINESS

HARDWARE

ANALYTICS
Community of Practice

- Collaborative
- Inclusive
- Do Change
Focus on business outcomes
Quantifying outcomes to deliver software at speed

Velocity: time from idea to ship

**SPEED**
Measure of rate of software change
- Deployment frequency
- Time from commit to deploy

**EFFICIENCY**
Measure of effectiveness of software change
- Change failure rate
- Mean time to resolve

**RISK**
Measure of quality of software change
- Compliance audit frequency
- Time deploying remediation
Focus on Speed
Measuring the rate of software change

<table>
<thead>
<tr>
<th>HIGH IT PERFORMERS</th>
<th>MEDIUM IT PERFORMERS</th>
<th>LOW IT PERFORMERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-demand</td>
<td>Week - Month</td>
<td>Month – 6 Month</td>
</tr>
<tr>
<td>&lt; 1 Hour</td>
<td>Week - Month</td>
<td>Month - 6 month</td>
</tr>
</tbody>
</table>

USE CASES INCLUDE:
- Application Delivery
- Build Pipelines

Standard Bank pushes ideas from **commit to deploy in 18 minutes** with Chef
Focus on Efficiency
Measuring the effectiveness of software change

<table>
<thead>
<tr>
<th>CHANGE FAILURE RATE</th>
<th>MEAN TIME TO RESOLVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH IT PERFORMERS</td>
<td>MEDIUM IT PERFORMERS</td>
</tr>
<tr>
<td>0-15%</td>
<td>16-30%</td>
</tr>
<tr>
<td>&lt; 1 Hour</td>
<td>&lt; 1 Day</td>
</tr>
</tbody>
</table>

USE CASES INCLUDE:
- Configuration Management
- Server Drift

Intuit reduced change **failure rate by 90%** with Chef
Equifax easily scans and maintains security policies with Chef.
Continuous automation metrics are at odds

Improving on one metric can *negatively impact* the others

A focus on increasing speed to meet business requirements...

...can introduce more errors into the environment...

...and open up security holes faster than teams can react.
Achieving Continuous Automation

Capture outcomes at each step in the journey to continuous automation

- Increased speed to meet business requirements...
- ...while eliminating redundant steps and rework...
- ...and maintaining continuous adherence to policy.
Align Incentives & Objectives

• On my team responsibilities are shared
<table>
<thead>
<tr>
<th>To Do</th>
<th>Doing</th>
<th>Done</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Kanban</td>
<td>Learn about Kanban</td>
<td>Get some sticky notes!</td>
</tr>
<tr>
<td>Try Kanban Tool</td>
<td></td>
<td>Get a whiteboard</td>
</tr>
</tbody>
</table>
Failure is an opportunity to learn

• On my team failures are treated primarily as opportunities to improve the system
Assessing Information Processing

• On my team…
  ● information is actively sought
  ● failures are learning opportunities, and messengers of them are not punished
  ● responsibilities are shared
  ● cross-functional collaboration is encouraged and rewarded
  ● new ideas are welcomed
  ● failures are treated primarily as opportunities to improve the system
## A typology of organisational cultures

<table>
<thead>
<tr>
<th>Pathological (power-oriented)</th>
<th>Bureaucratic (rule-oriented)</th>
<th>Generative (performance-oriented)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low cooperation</td>
<td>Modest cooperation</td>
<td>High cooperation</td>
</tr>
<tr>
<td>Messengers shot</td>
<td>Messengers neglected</td>
<td>Messengers trained</td>
</tr>
<tr>
<td>Responsibilities shirked</td>
<td>Narrow responsibilities</td>
<td>Risks are shared</td>
</tr>
<tr>
<td>Bridging discouraged</td>
<td>Bridging tolerated</td>
<td>Bridging encouraged</td>
</tr>
<tr>
<td>Failure leads to scapegoating</td>
<td>Failure leads to justice</td>
<td>Failure leads to enquiry</td>
</tr>
<tr>
<td>Novelty crushed</td>
<td>Novelty leads to problems</td>
<td>Novelty implemented</td>
</tr>
</tbody>
</table>

[https://continuousdelivery.com/images/westrum.png](https://continuousdelivery.com/images/westrum.png) | [http://qualitysafety.bmj.com/content/13/suppl_2/ii22](http://qualitysafety.bmj.com/content/13/suppl_2/ii22)
DevOps

A cultural and professional movement focused on how to build and operate high-velocity organizations, born from the experiences of its practitioners.
Your company needs you more than ever.
Your company needs you more than ever. The most ambitious version of you.
1998:
- Don't get in strangers' cars
- Don't meet ppl from internet

2016:
- Literally summon strangers from internet to get in their car

Carol Nichols
@Carols10cents

Tweet your reply

99.9K Retweets 155K Likes
PROGRESS

/ Continuous automation
/ Effortless infrastructure
/ Any app, anywhere
TIME IS PRECIOUS.
Community
Our Foundation
Questions That Matter in Service to Real Work

• How do we decrease the time between software deployments?
• How do we minimize the time required to detect incidents?
• How do we minimize the time required to recover from incidents?
• How do we improve cross-team collaboration?
Thank You!

Nathen Harvey
VP, Community Development
Chef Software, Inc.

@nathenharvey   

CHEF