How Continuous Delivery and Lean Management Make Your DevOps Amazeballs

Nicole Forsgren, PhD

Director of Organizational Performance & Analytics, Chef

CHEF

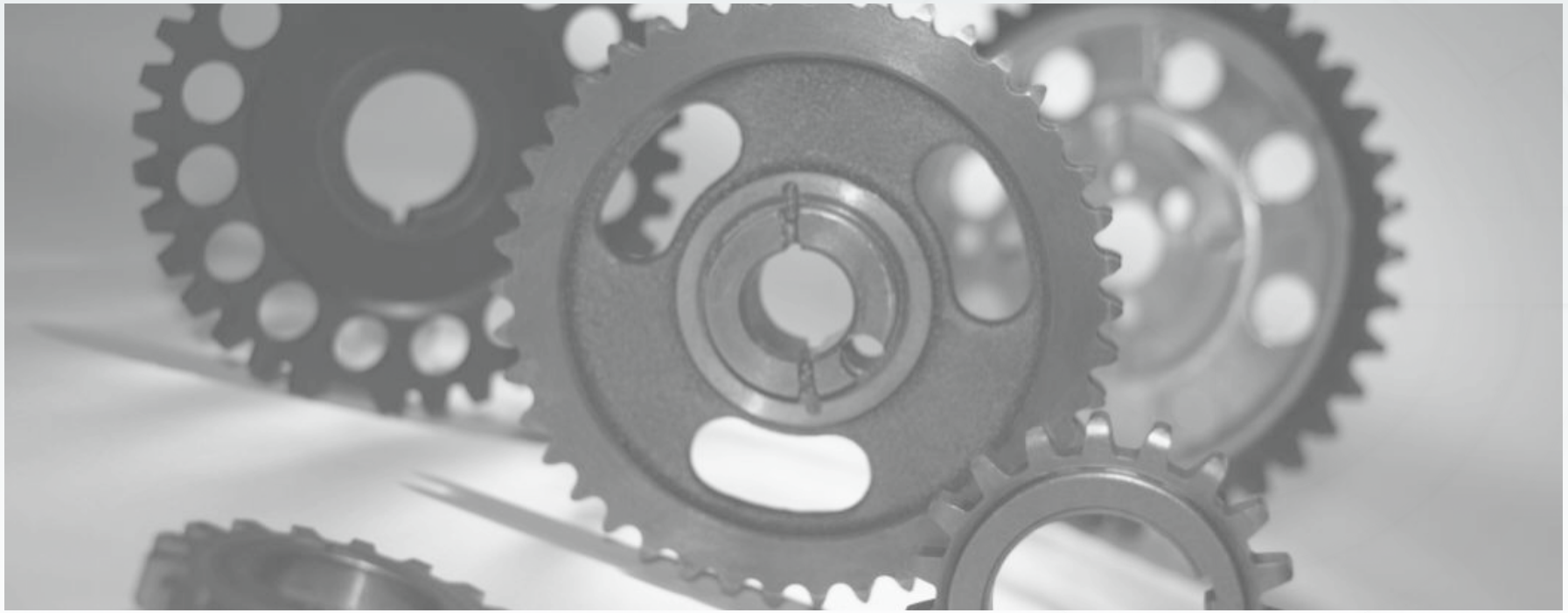
DevOps and the Bottom Line



@nicolefv

CHEF

One year later...



@nicolefv

CHEF

The Deets

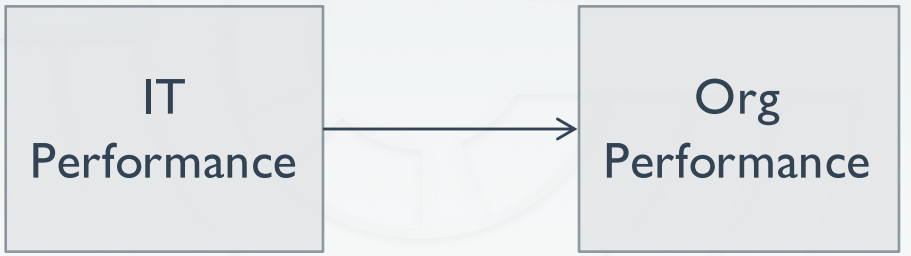
- 4,976 respondents in 2015
  - 9,288 respondents in 2014
- Three groups of IT Performers:
  - High
  - Medium
  - Low
- Statistics BINGO:
  - Correlation, CMV, PLS, SEM, EFA, varimax, Eigenvalue, factor, construct



@nicolefv

CHEF

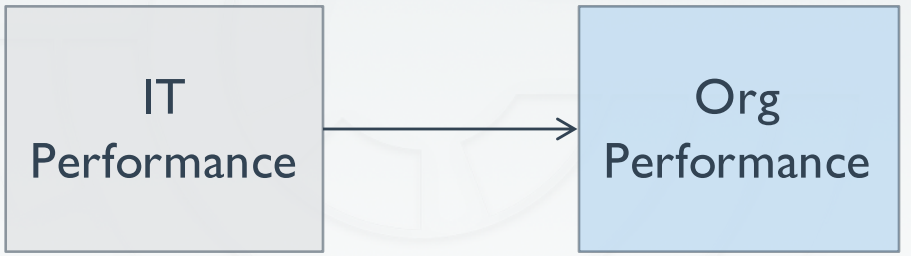
DevOps is good for business



@nicolefv

CHEF

DevOps is good for business



@nicolefv

CHEF

DevOps is good for business

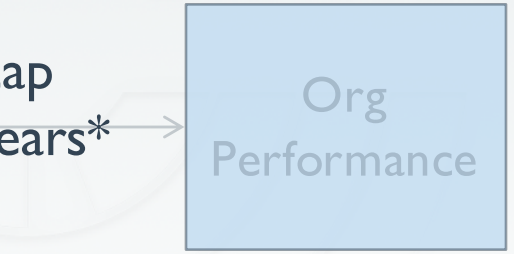
High Performing IT Organizations:

2x

More likely to exceed Profitability, Market share, and Productivity goals (2014 and 2015)

50%

Higher market cap growth over 3 years* (2014*)

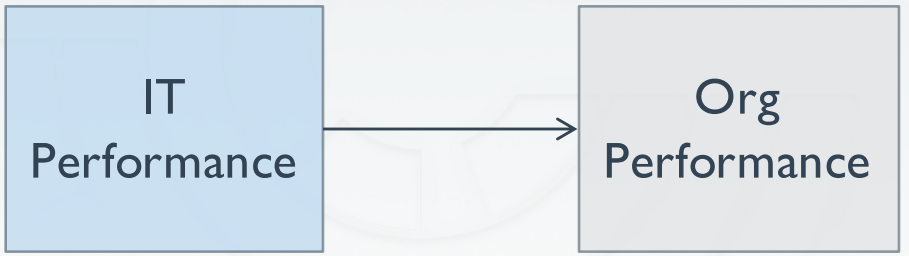


@nicolefv

The 2014 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

CHEF

DevOps is good for IT Performance



@nicolefv

CHEF

But what *IS* IT Performance?

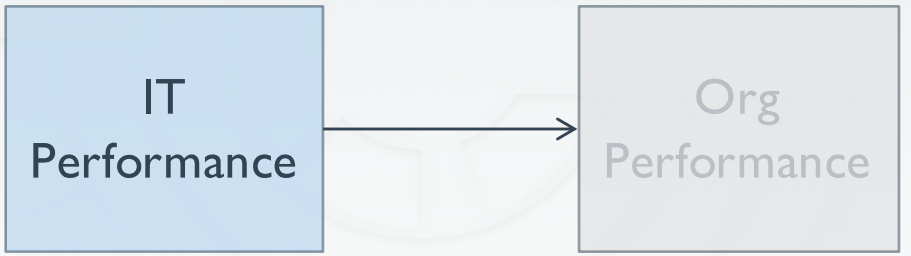
It is measured by:

Agility

- Deploy frequency
- Lead time

Reliability

- MTTR
- Change fail rate*



@nicolefv

CHEF

DevOps is good for IT performance

High Performing IT Organizations:

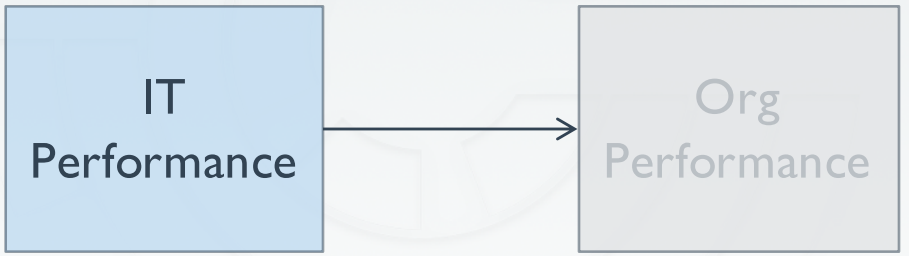
More *agile*

30x

More frequent Deployments (2015 and 2014)

200x

Faster lead times than peers (2015 and 2014)



@nicolefv

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

CHEF

DevOps is good for IT performance

High Performing IT Organizations:

More *reliable*

168x (2015)

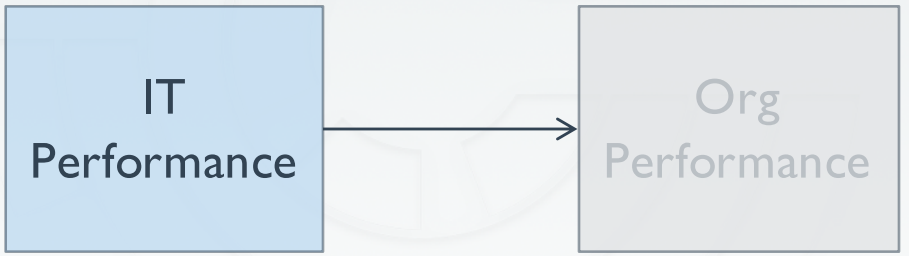
Faster Mean time to recovery (MTTR)

48x (2014)

60x

Change Success Rate*

3x



@nicolefv

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

CHEF

Key Factors that Correlate with Each Component:

MTTR

Version control for *all* production artifacts
Monitoring

Lead time for changes

Version control for *all* production artifacts
Automated testing

Deployment Frequency

Version control for *all* production artifacts
Continuous Delivery

Also Super Important:

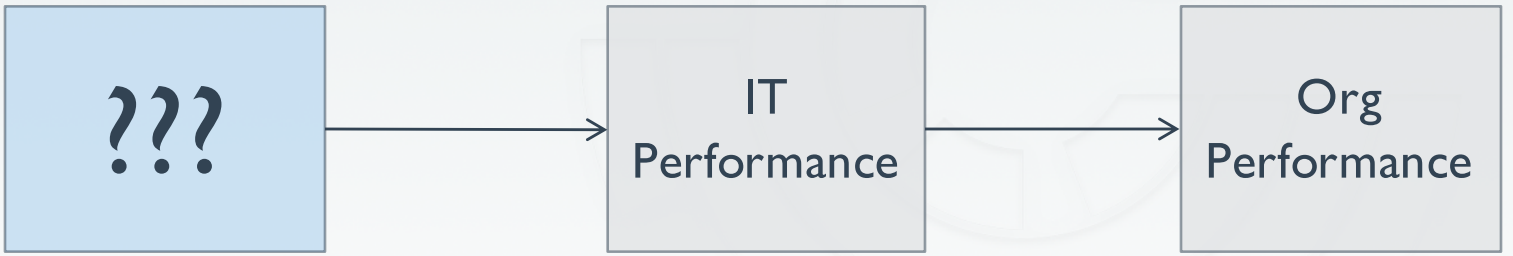
Culture***
Job satisfaction
Climate for learning

@nicolefv

The 2014 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

CHEF

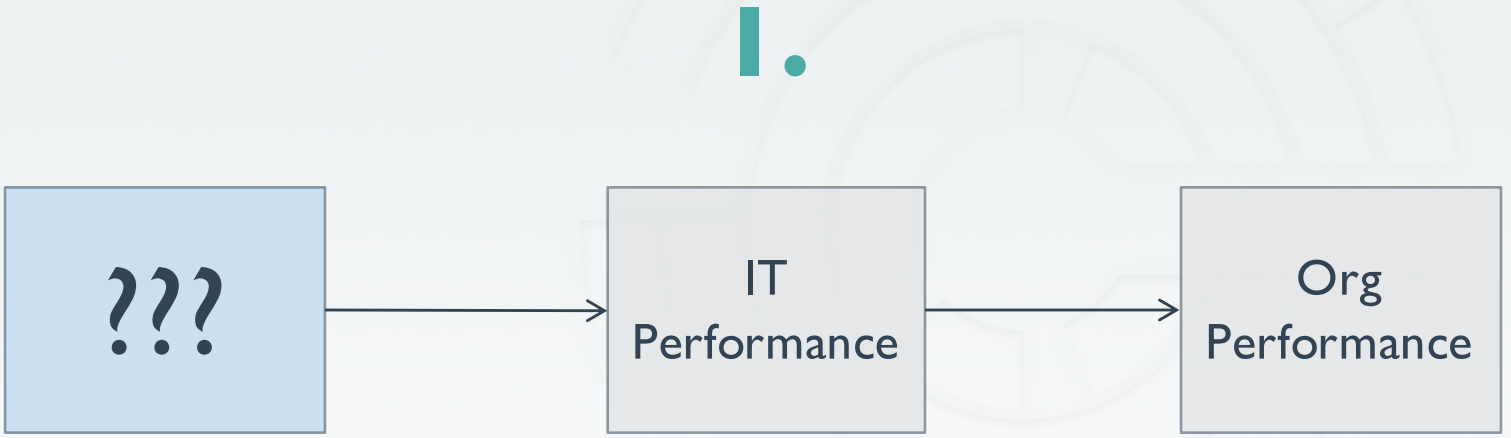
But what *drives* IT Performance?



@nicolefv

CHEF

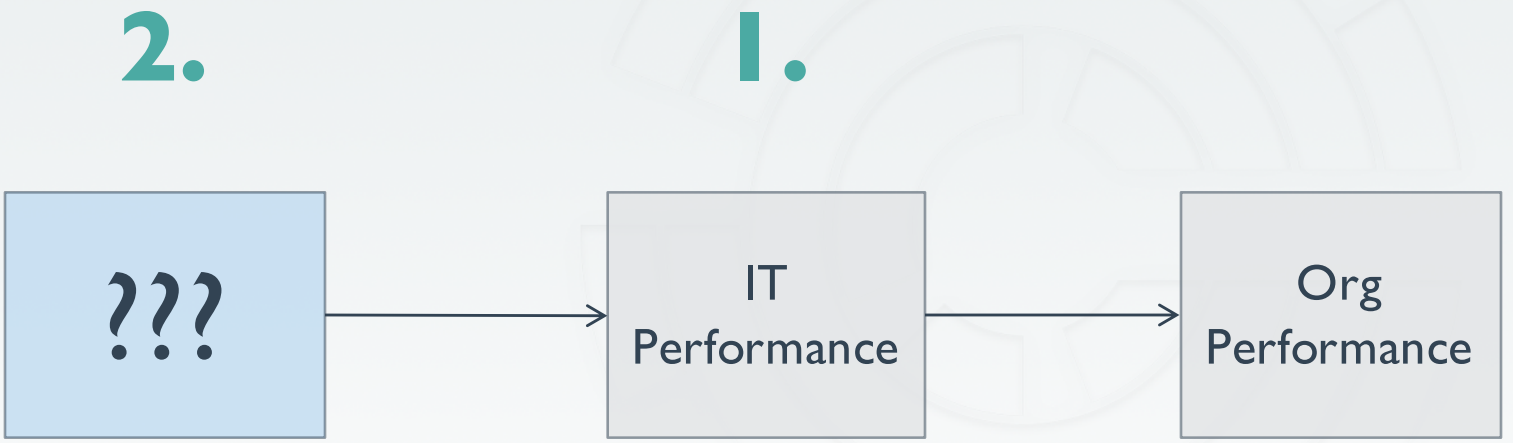
But what *drives* IT Performance?



@nicolefv

CHEF

But what *drives* IT Performance?



@nicolefv

CHEF

But what *drives* IT Performance?

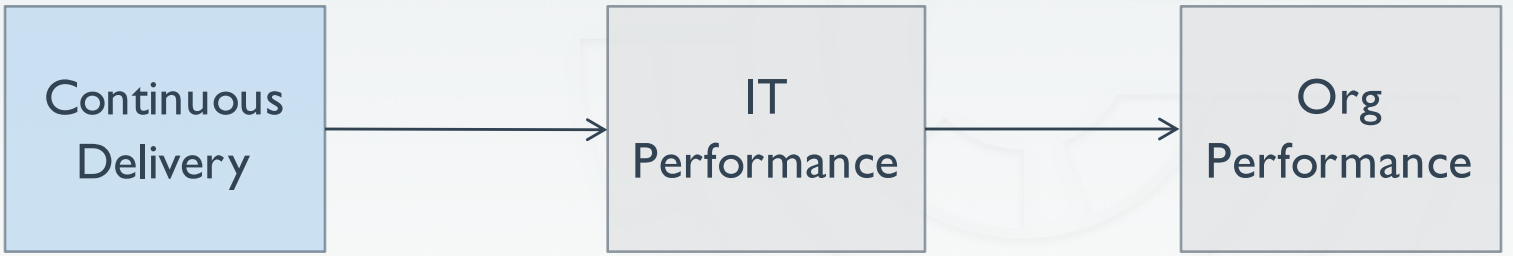
2. 1. $$$





@nicolefv

But what *drives* IT Performance?

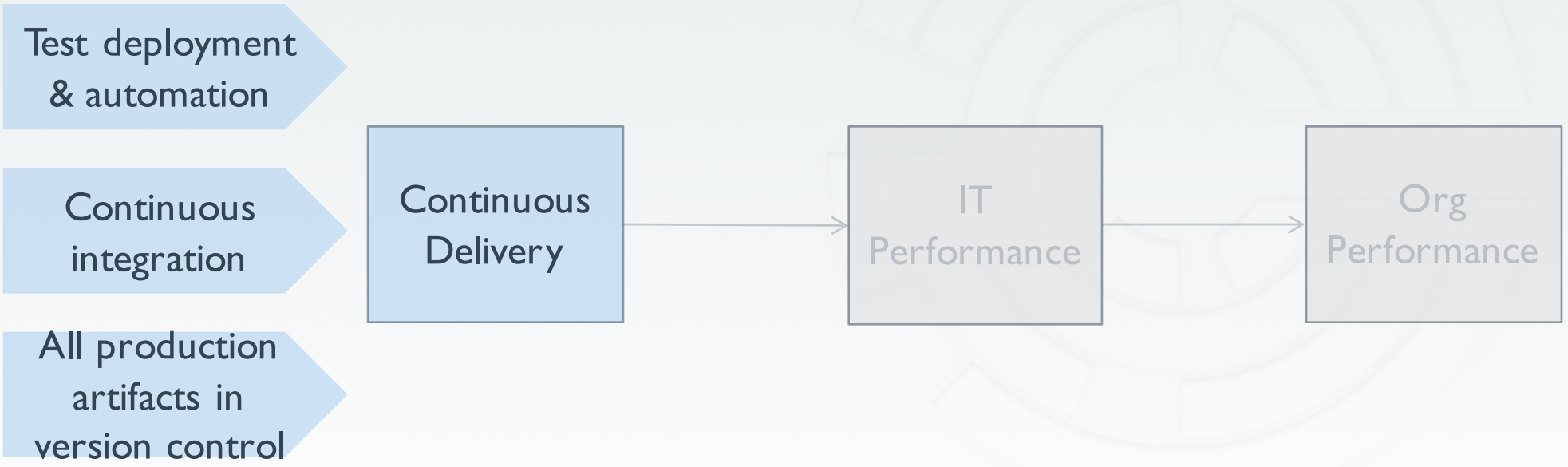


@nicolefv

CHEF

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

Continuous Delivery practices

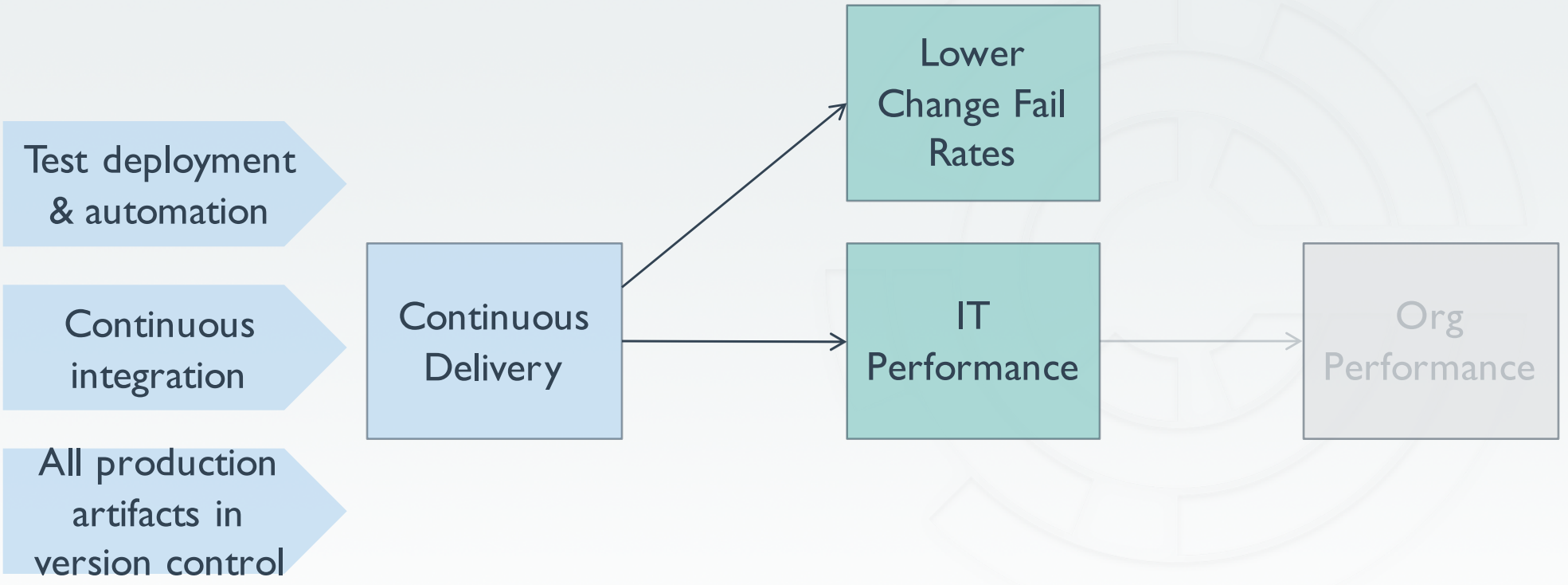


@nicolefv

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

CHEF

Continuous Delivery makes our work better



@nicolefv

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

CHEF

"We never had testability before. We have it now. We have this experience and know this stuff is working, and working with controls."

– Product Owner for Yahoo Chef implementation



@nicolefv

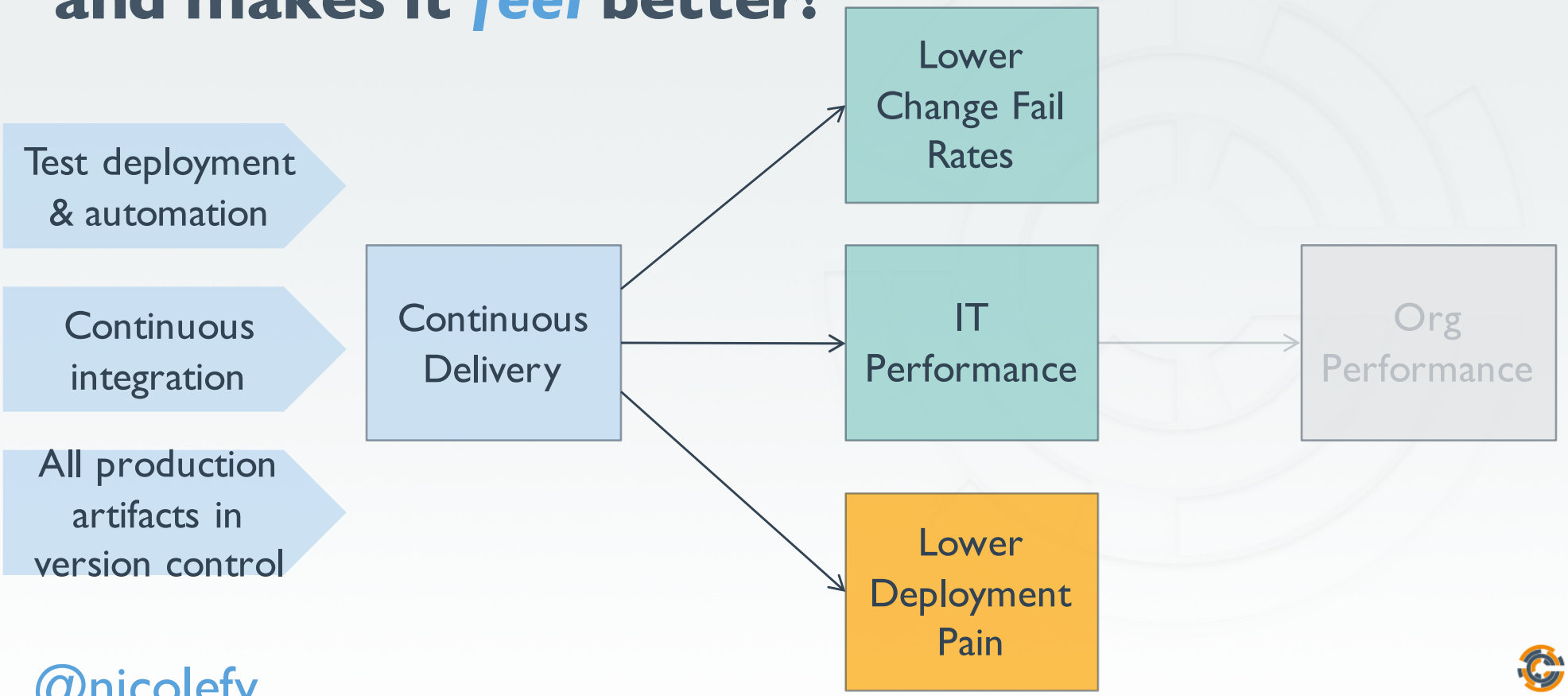
Automated configuration and deployment of 250,000 nodes

- Can deploy up to 140k node configurations in 8 hours.

Can patch entire infrastructure within 6 hours of a patch being made available

CHEF

Continuous Delivery makes our work better… and makes it *feel* better!

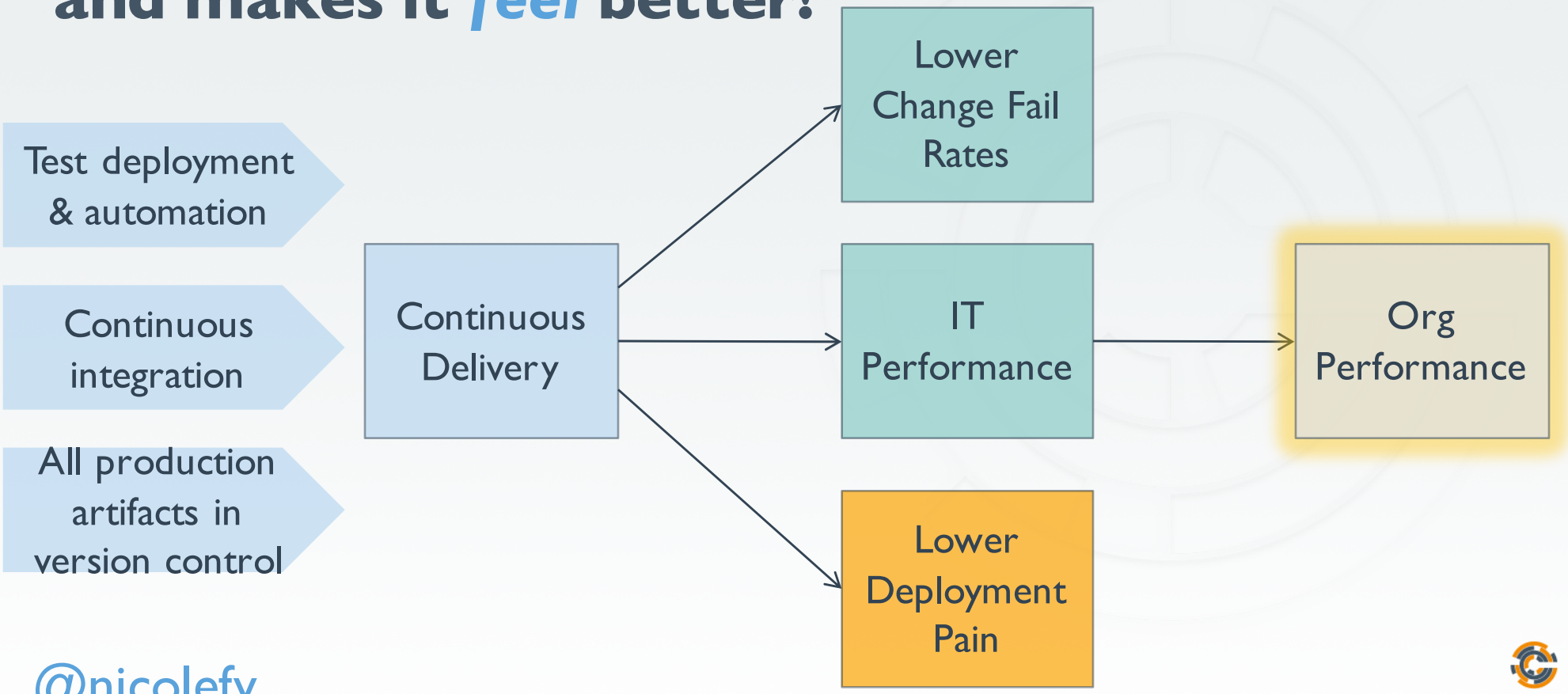


@nicolefv

CHEF

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

Continuous Delivery makes our work better… and makes it *feel* better!



@nicolefv

CHEF

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

But what else *drives* IT Performance?

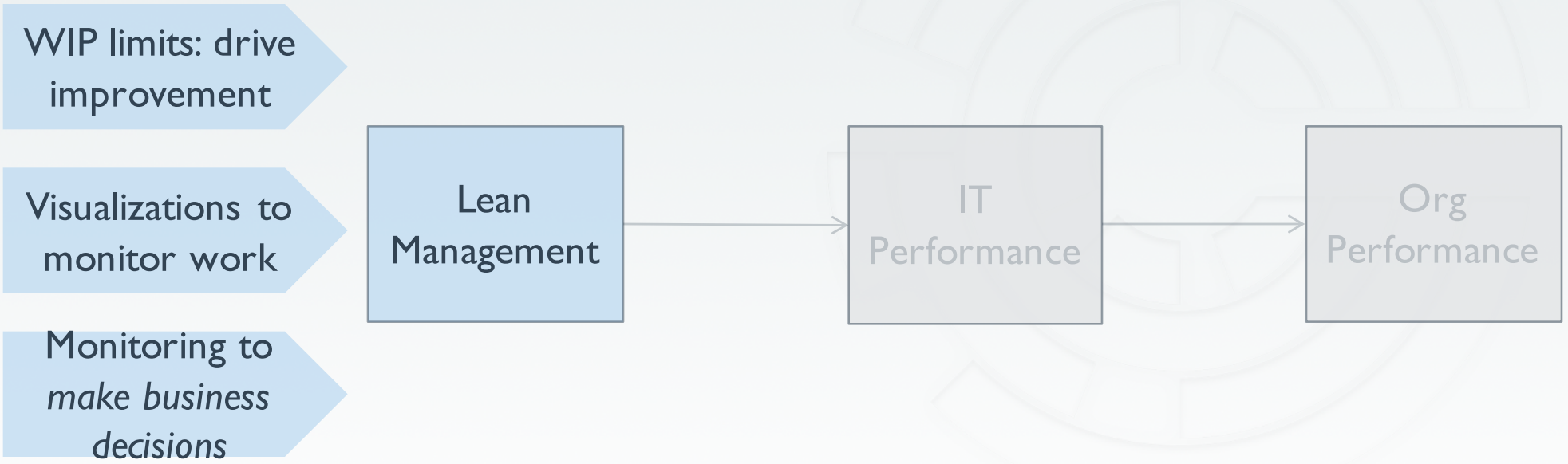


@nicolefv

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

CHEF

Lean Management practices

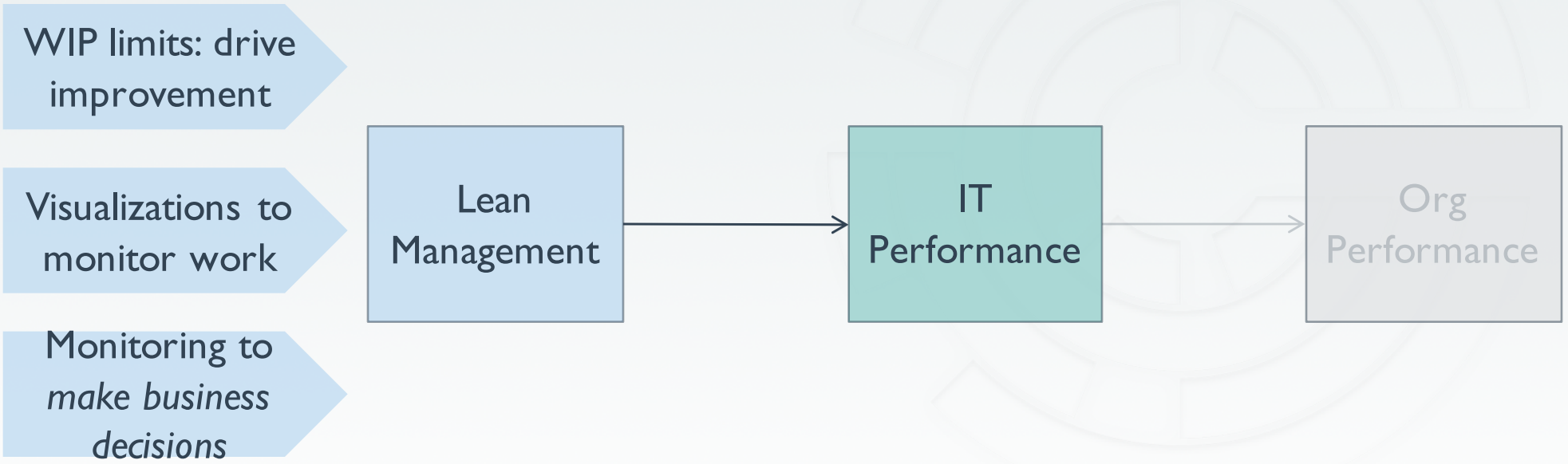


@nicolefv

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

CHEF

Lean Management makes our work better



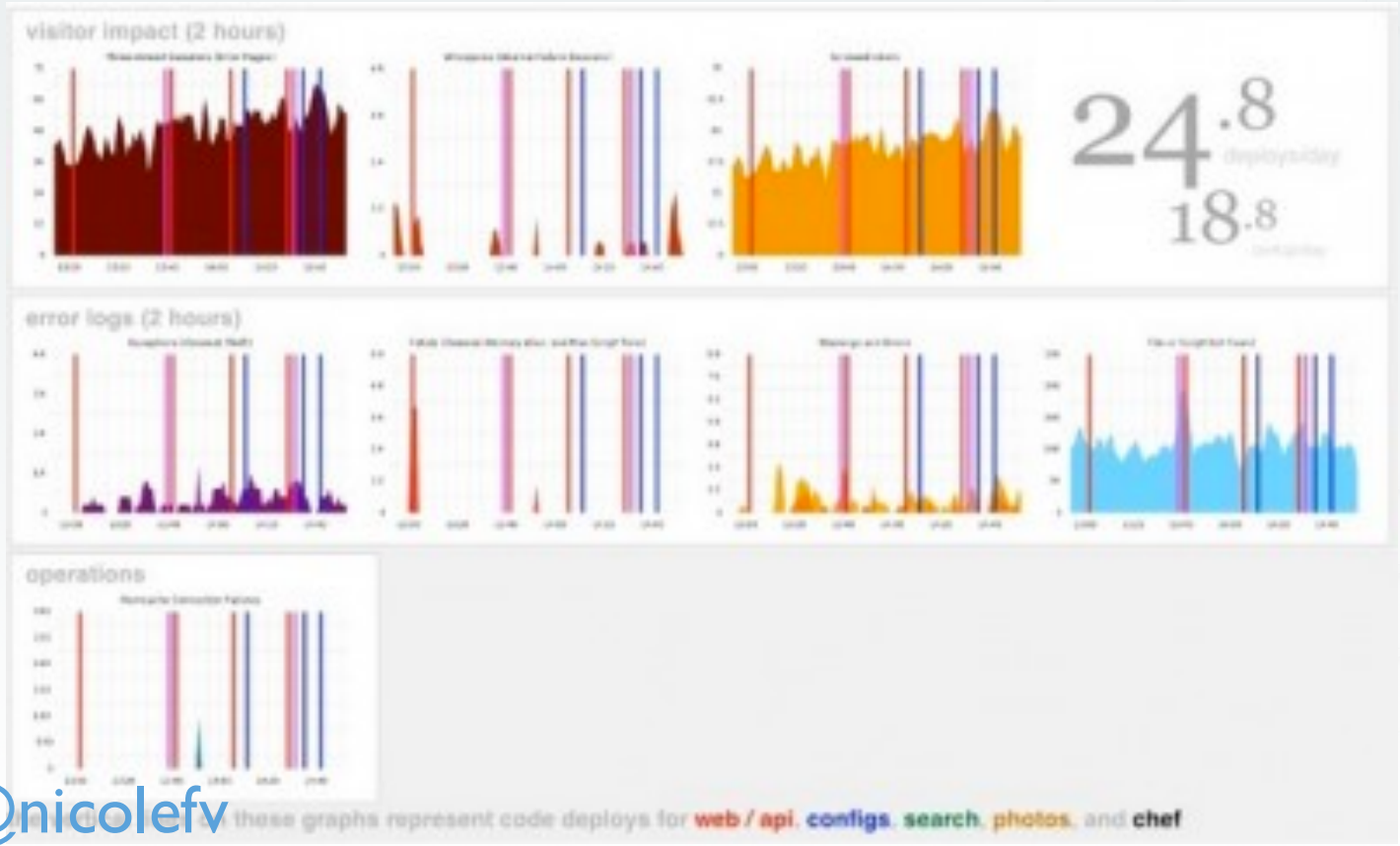
@nicolefv

CHEF

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

"If it moves, graph it."

- Michael Rembetsy, Vice President Operations, Etsy

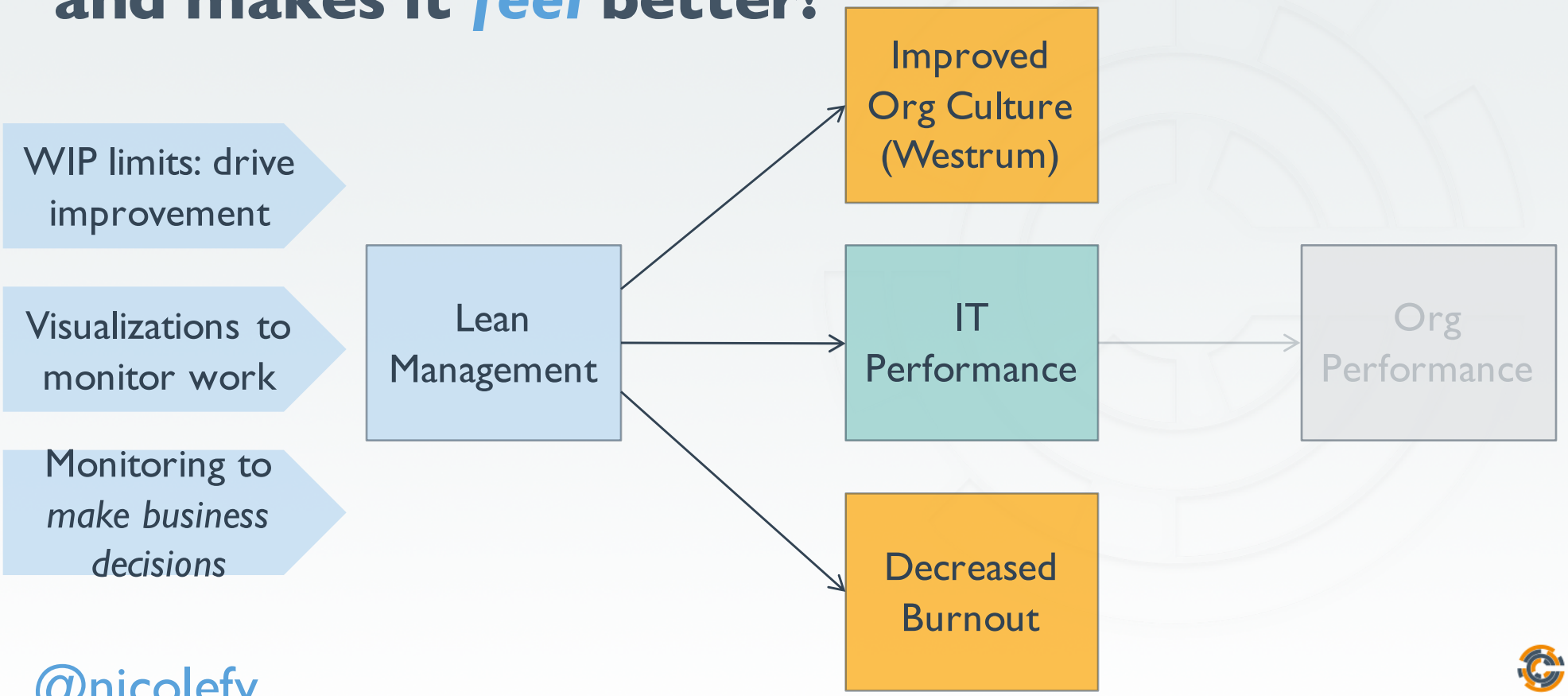


Etsy

@nicolefv

CHEF

Lean Management makes our work better… and makes it *feel* better!



@nicolefv

CHEF

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

"I was trying to figure out why my team was working themselves to death but not getting anything done… By implementing WIP limits, we were able to focus on our work. Finishing work feels better than sprinting and feeling like a hero in the moment, because that's only a moment."

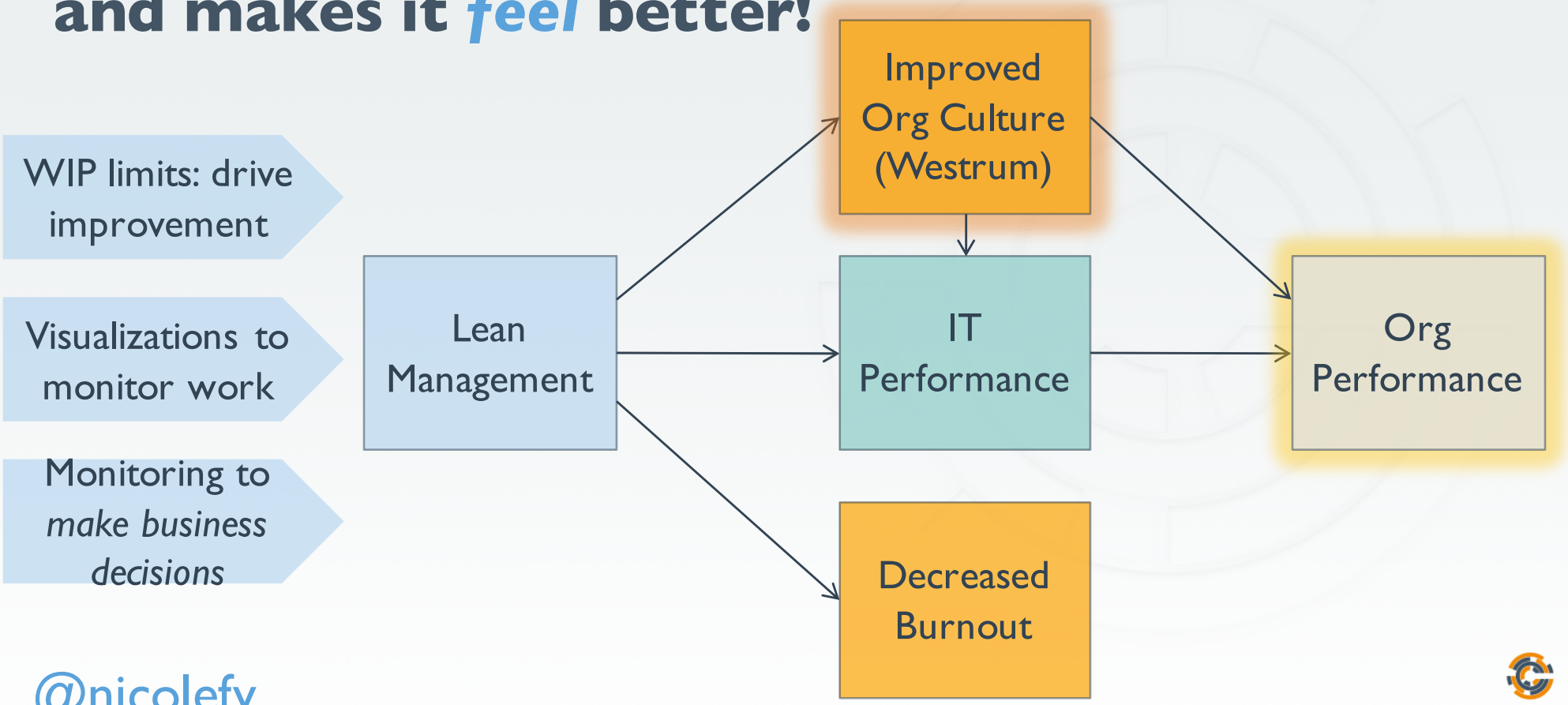
- Julia Wester,
Development Manager
for Turner Sports,
Turner Broadcasting



@nicolefv

CHEF

Lean Management makes our work better… and makes it *feel* better!



@nicolefv

The 2015 DevOps Survey of Practice and its resulting database are the property of Puppet Labs, Inc. and Gene Kim and Associates, LLC. All rights reserved.

CHEF

DevOps drives IT & Organizational Performance

- ☐ Tooling and automation
- ☐ Practice and process
- ☐ Culture

@nicolefv

CHEF

DevOps drives IT & Organizational Performance

☑ Tooling and automation

Continuous Delivery

☑ Practice and process

Lean Management

☑ Culture

Westrum – high trust & information flow

@nicolefv

CHEF

DevOps Benchmarking

From the team that brought you the Puppet Labs *State of DevOps Report*: Gene Kim, Jez Humble & Nicole Forsgren, PhD

- Benchmark your performance across four axes: culture, automation, process, measurement
- Compare your IT Performance against the industry standard
- Get a personalized report with results you can share

@nicolefv

CHEF

Want to learn more?

To receive the following:

- **An exclusive invite to our DevOps benchmarking tool**
- A chance for a personalized analysis of your results with Gene, Jez, and Nicole
- A copy of this presentation
- A copy of the metrics guidance whitepaper from the DevOps Forum

Just send an email

To: nicolefv@sendyourslides.com

Subject: devops

CHEF

Thank you

nicole@chef.io
@nicolefv
nicoleforsgren.com

