THE DEVOPS MATURITY CURVE

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CA Technologies
Today’s Business Environment
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- 38 years
- 13 years
- 4 years
- 88 days
- 35 days
How To Survive & Thrive In The Application Economy
CA, September 2014

Are You Under Pressure to Release New Applications Faster, and Why?

- Yes - Customer demand: 60%
- Yes - Competitive actions: 60%
- Yes - Revenue shortfalls: 19%
- No: 6%

Investing for the Application Economy

- No Change: 6%
- Increase 1-20%: 39%
- Increase 20-40%: 33%
- Increase 40-60%: 14%
- Increase 60-100%: 4%

Percent of Development Done In-house

- 2 years ago: 33%
- Now: 39%
- In 2 years’ time: 44%
Rates Of Software Releases Are Increasing

10 deploys per day
Dev & ops cooperation at Flickr

“New application projects surge in 2013 and beyond.”

 amazon.com

11.6 Seconds
The Appeal of DevOps...Increase Number of Releases

“Its all about number of releases!”
Key Themes Within DevOps

A scientific, Data Driven approach to product development

Better Collaboration between Development And Operations

Using Automation and to manage infrastructure as code

Development and Operations adopting best practice from each other
DevOps Maturity Model

- **Continuous Improvement**
- **Schedule Based**
- **Waterfall**
- **Reactionary**
  - "Shift-Left" Agile & Lean Development
- **Pervasive Automation, Process Optimisation**
- **Customer Driven Development**
- **Closed Loop**
- **Enterprise DevOps**

**Axes:**
- **SPEED**
- **QUALITY**

**Throughput:**
- Closed Loop
- Customer Driven Development
- Pervasive Automation, Process Optimisation
- "Shift-Left" Agile & Lean Development
- Reactionary
- Schedule Based
- Waterfall

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The Challenge of Today's Complex and Dynamic IT Environment

**LACK OF API TESTING**
(too many bugs escape downstream)

**LACK OF AUTOMATED TESTING**
(small changes could have major unintended consequences)

**LACK OF VISIBILITY INTO PROD. APPS**
(no visibility into the customer experience)

**LACK OF RELEASE AND ENVIRONMENT AUTOMATION**
(manual processes lead to poor release quality)
Pace-Layered Application DevOps Approach

Systems of Innovation

Systems of Differentiation

Systems of Record

Source: Gartner
The Theory of Constraints uses a process known as the Five Focusing Steps to identify and eliminate constraints (i.e. bottlenecks).
Snap Poll: Do you have an Agile development strategy?
Kanban principles #1
Constraints for Agile Development

“I can’t do anything until I have everything... and I never have everything!”
Service Virtualization

“I have everything I need, when I need it!”
# Kanban principles #2

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<tr>
<th>Pending</th>
<th>Analysis</th>
<th>Development</th>
<th>Test</th>
<th>Deploy</th>
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High release volumes also bring challenges

“Gartner believes that more than 80% of all mission-critical IT service outages result from people and process errors and failures, and of those outages, more than 50% result from a lack of coordination between change, release and configuration management processes.”

IDC Survey 2009

High Costs

75% of IT operation teams’ is spent on application release.
(Forrester, 2009)

60%

Release Failures

60% of application failure & downtime is release related.
(IDC Survey 2009)
Automate where you can – process not a project

LACK OF RELEASE AND ENVIRONMENT AUTOMATION
(manual processes lead to poor release quality)
Release Automation
Automating the Steps Required to Deploy the Software Package

- Will my existing scripts work with these packages/changes?
- What order do I install these different components?
- Do I need to turn off any services before or after I start?

- What servers?
- What OS?
- What middleware?
- Any special network access controls?

- What version?
- What configurations?
- How is this different than my dev environment?

- What combination of packages get deployed?
- Do I have the right packages?
CA’s Continuous Delivery

Total Integrated Solution - Orchestrating and Accelerating the Software Development Lifecycle

Increase speed/frequency of software releases
Automate workflow across existing tool chains
Automate application release and promotion

On-demand platforms and environments that end-users need
Governance, visibility, and cost transparency that managers require
Leverage hybrid clouds and enable cloud portability
What can you measure?

- Number and frequency of software releases
- Defect escape ratio
- Time/cost per release
- MTTR
- Outages / performance issues impact
- Cost of resources to deliver applications
ING Bank
Tesco background

- Global retailer
- 530,000 employees across 12 markets
- 75 million shopping trips/week
- Online grocery expansion key to future growth
The business challenge

2.5 Specialist Skills

Multiple silo’d teams

Significant Planning 1 deployment

Complex 2 weeks

Competitive Pressures

IT not moving at speed of business
The ROI/business impact

Change the skills required to perform deployments. “Lower the barrier to entry”

Allow collaboration between geographically dispersed teams.

Reduce deployment time from days to minutes
New state of IT

Zero touch orchestration

IT extremely responsive to the business

Highly agile

4500+ deployments per month

Enabling Rapid delivery of services

8 Release Managers

Complex
Ask yourself these and more

1. Where are your “brake points”?  
2. Is each release a project or a process?  
3. Are you automating as much as you can?  
4. How important is governance?  
5. What do you measure and how often?
Come to the stand or ask to join the Sim Game