DevOps: Start-up Speed, Enterprise Scale
If it takes just months now for new emergent technologies to insert themselves into the mainstream and change behavior, and you’ve got a 12-24 month development and deployment cycle (typical of most banks’ IT) – you’ll be at least three to four years behind if you want to wait to see someone else’s ROI demonstrated before you commit.” – Brett King, Banking 3.0
Inefficient software development impacts the entire business

LINE-OF-BUSINESS
Takes too long to introduce or make changes to mobile apps and services

OPERATIONS
Rapid app releases impact system stability and compliance

>70%
of budgets devoted to maintenance and operations

>45%
of customers experience production delays

>50%
of outsourced projects fail to meet objectives

>4-6 weeks
to deliver even minor application changes to customers

DEVELOPMENT/TEST
Speed mismatch between faster moving front office and slower moving back office systems, delaying time to obtain feedback

SUPPLIERS
Delivery in the context of agile

Systems of Engagement
Continuous client experience

Cloud-based Services

Systems of Interaction

Systems of Record
CRM
HR
DB
ERP

Partner value chain

IBM DevOps

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Application development realities

*Two speed IT*

**Rapid iterations**

- Develop
- Build
- Test
- Deploy

Production

API Catalog

**Slower iterations**

- Develop
- Build
- Test
- Deploy

Production

**Systems of Engagement**

**Systems of Record**
DevOps approach:
Apply agile & lean principles, accelerate feedback and improve time to value

1. Get ideas into production fast
2. Get people to use it
3. Get feedback

Line-of-business

Customer

Lean Transformation

Non-Value-added waste
Value-added production work
Software development through the ages

Waterfall
- Plan: 4 mo.
- Develop/Test: 12 mo.
- Deploy: 1 mo.
- Operate: 1 mo.
- Customer: 18 mo.

Agile
- Plan: 4 mo.
- Develop/Test: 1 mo.
- Deploy: 1 mo.
- Operate: 1 mo.
- Customer: 7 mo.

DevOps
- Plan: 1-3 days/wks/mos.
- Develop/Test: 1-3 days/wks/mos.
- Deploy: 1-3 days/wks/mos.
- Operate: 1-3 days/wks/mos.
- Customer: 1-3 days/wks/mos.
# Internal IBM SW improvements using a DevOps approach

<table>
<thead>
<tr>
<th>Lifecycle Measurements</th>
<th>2008</th>
<th>2010</th>
<th>2012 – 2014</th>
<th>Total Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Initiation</td>
<td>30 days</td>
<td>10 days</td>
<td>2 days</td>
<td>28 days</td>
</tr>
<tr>
<td>Groomed Backlog</td>
<td>90 days</td>
<td>45 days</td>
<td>On-going</td>
<td>89 days</td>
</tr>
<tr>
<td>Overall Time To Development</td>
<td>120 days</td>
<td>55 days</td>
<td>3 days</td>
<td>117 days</td>
</tr>
<tr>
<td>Composite Build Time</td>
<td>36 hours</td>
<td>12 hours</td>
<td>5 hours</td>
<td>700 %</td>
</tr>
<tr>
<td>BVT Availability</td>
<td>N / A</td>
<td>18 hours</td>
<td>&lt; 1 hour</td>
<td>17 hours</td>
</tr>
<tr>
<td>Iteration Test Time</td>
<td>5 days</td>
<td>2 days</td>
<td>14 hours</td>
<td>4 days</td>
</tr>
<tr>
<td>Total Deployment Time</td>
<td>2 days</td>
<td>8 hours</td>
<td>4 hours -&gt; 20 minutes</td>
<td>2 days</td>
</tr>
<tr>
<td>Overall Time To Production</td>
<td>9 days</td>
<td>3 days</td>
<td>2 days</td>
<td>7 days</td>
</tr>
<tr>
<td>Time Between Releases</td>
<td>12 Months</td>
<td>12 Months</td>
<td>3 Months</td>
<td>9 Months</td>
</tr>
<tr>
<td>Innovation / Maintenance</td>
<td>58% / 42%</td>
<td>64% / 36%</td>
<td>78% / 22%</td>
<td>+20% / -20%</td>
</tr>
</tbody>
</table>

*Double-digit revenue growth, increased client adoption, improved client satisfaction*
Enterprise capability for continuous software delivery that enables organizations to seize market opportunities and reduce time to customer feedback

Accelerate software delivery – for faster time to value

Reduce time to customer feedback – for improved customer experience

Balance speed, cost, quality and risk – for increased capacity to innovate

“The agile, “devops” culture will move from the software development lab to the front office. That will be required of sales and marketing, customer service, HR, product development… customers will expect you to behave differently. Rapid response, iterative, fast with quality. It is a rare front office today that is ready for this.” – Ginni Rometty
How to get started? – Next Steps

1. Design Your Future State DevOps Framework
   - Assess current state & determine bottlenecks
   - Define operational framework – organization, process, technology
   - Define actionable, prioritized roadmap with pilots

2. Build & Pilot
   - Build / create the DevOps framework
   - Address gaps between current state and end state
   - Conduct pilots

3. Optimize & Expand
   - Optimize framework
   - Onboard next set of applications
   - Continue to monitor and measure impact
Scaled Agile Framework (SAFe)

SAFe best practices and guidance based on lean and agile principles apply to all layers in a team-of-teams infrastructure to improve time-to-value and ensure business ROI for Enterprise organizations.

- **Get up and running quickly** with out-of-the-box infrastructure to lead a SAFe project.
- **Improve agility and predictability** with role-based dashboards for visibility to continuously adjust business goals in real-time.
- **Simplify change to culture and process** with quick and easy access to SAFe guidance.

Automation for your continuous delivery teams...

**Benefit**

Free interdependent teams from time-consuming, error prone tasks and unify across tools and processes to improve time to market and customer experience.

**Features**

- Open, unifying platform for all platform teams – mobile, cloud, agile, waterfall, test, and mainframe
- Automated dashboards -- a real-time hub of the team’s activity
- Planning, tracking, traceability and visibility from requirements to daily work – reduces the chaos as things change
- Scrum, SAFe, and waterfall processes - built-in and customizable
- Integrations -- extend the value of existing tools:

  Available on-premise or as a cloud managed service

[IBM Collaborative Lifecycle Management and IBM Lifecycle Integration Adapters]

Plug-&-Play components provide incremental adoption to solve your pain points over time

jazz.net/products/clm
Automating your deployments…

Drive down cost
Reduce amount of manual labor, resource wait-time, and rework by eliminating errors & providing self-service environments

Speed time to market
Increase frequency of software delivery through automated, repeatable deployment processes across development, test and production

Reduce risk
Robust configuration management, coordinated release processes, audits, and traceability

IBM UrbanCode Deploy with Patterns is a full-stack environment management and deployment solution that enables users to design, deploy and update full-stack environments to multiple clouds.

IBM UrbanCode Deploy automates the deployment of applications, databases and configurations into development, test and production environments, helping to drive down cost, speed time to market with reduced risk.

IBM UrbanCode Release is an intelligent collaboration release management solution that replaces error-prone manual spreadsheets and streamlines release activities for application and infrastructure changes.

ibm.biz/continuousdeployment
For rapid app dev, test, run…

- IBM Bluemix DevOps Services solution in the cloud for building and running mobile, web and cloud applications …easily …rapidly
- Collaborate with your team using integrated agile tracking and planning tools
- Share your code with free public or private Git or CLM SCM repos, or link to your code in GitHub
- Code with the built-in Web IDE or Eclipse or your tool of choice

ibm.biz/DevOpsServices
Start your DevOps Journey with an IBM Assessment Workshop

**Overview**

- No charge
- Led by IBM DevOps Solution Architects
- For executives and managers in application development and IT Operations

**Workshop Objectives**

- Identify obstacles and inhibitors across the software delivery pipeline
- Find hidden sources of waste / business value
- Determine which DevOps practices directly address your specific needs
- Develop a vision and a pragmatic approach to get started

**Legend:**

- Green: Productive effort
- Gray: Wasted effort
We can help with your DevOps transformation

- **DevOps for execs, managers**
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  - [ibm.com/developerworks/devops](ibm.com/developerworks/devops)

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- **Read The Phoenix Project**: A Novel About IT, DevOps, and Helping Your Business Win – Gene Kim
Thank you for coming today
....and welcome to DevOps Unleashed!

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