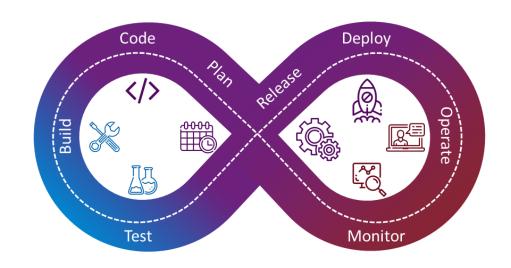


Bridging the DevOps Chasm at Lincoln Financial Group

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Key DevOps Themes



Span the Business and Technology divide

 Culture, training, process, tools

Design your infrastructure for growth

- Lay the groundwork you need to scale
- Design for future needs

Set clear goals

- Define desired outcomes
- Track the right metrics to get there



Who Is Lincoln Financial Group?

Premier provider of life insurance, annuities, retirement plan services and group protection

Founded in 1905
Ranked #205 on the 2018 Fortune 500 list by revenue as of 2017

\$256B in assets under management as of June 2018

Focused on enhancing people's lifestyles and retirement outcomes

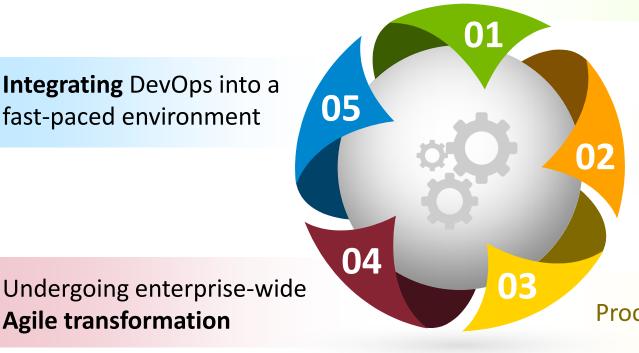


Challenging Environment

Highly regulated, many restrictions

Integrating DevOps into a fast-paced environment

Agile transformation

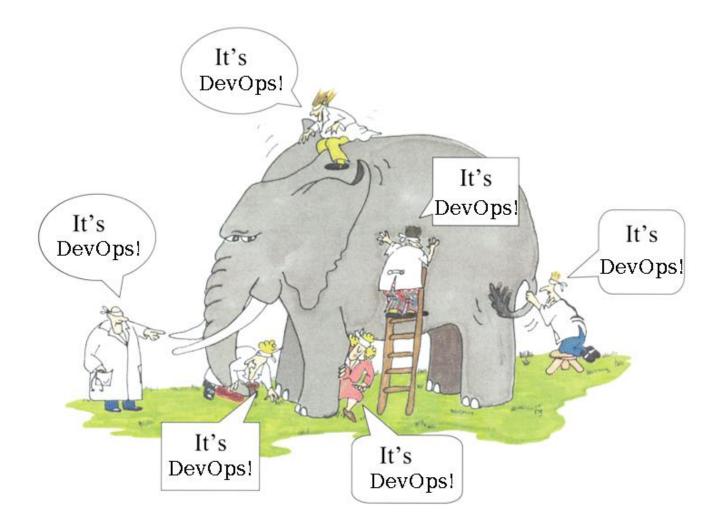


Complex mix of modern and legacy applications

Process speeds vary widely



DevOps – The Elephant In The Room





DevOps Is A Culture Change

Changing culture to deliver high quality working software faster



...a philosophy where teams are accountable for everything required to get their code developed, tested and deployed to production, while shared service teams provide the automation and tools to enable them.





Infrastructure













Production Support Shared Services
(Ex. Performance Testing,
Security Testing)



DevOps Strategy and Execution Approach

Automation and Agility enable DevOps

GO DEEP THEN BROAD

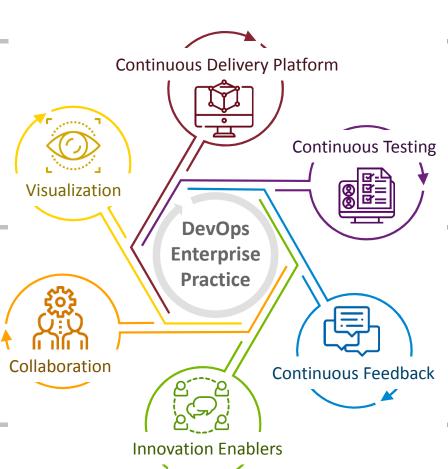
- Early Adopter Business Unit
- Initial Focus on Agile Pods
- Document Learning

MAINFRAME & DEVOPS

- Specialist MF DevOps Skills
- Partner with a vendor with MF DevOps experience
- Start small

CENTER OF EXCELLENCE

- Knowledge Sharing
- DevOps Evangelists
- Best Practices
- Collaboration



BUSINESS UNIT SPECIFIC ADOPTION

- Identify Business Unit DevOps Leader
- Conduct Value Stream Analysis
- Create Business Unit Roadmap

RUN ORG & DEVOPS

- Pipeline Considerations
- Determine Applicability and include on Business Unit Roadmap

STEERING COMMITTEE

- Governance
- Prioritization
- Decision Making
- Overall DevOps Roadmap



Building DevOps Enterprise Practice

Visualization [

- Maturity Metrics
- Pipeline Dashboard
- Overall DevOps KPI



Continuous Delivery Platform

- Source Code Management
- Continuous Integration
- Automate Build
- Automate Deployment
- Infrastructure as Code
- Automate Release Management
- Pilot Projects



Continuous Testing

- Test Automation
- Test Driven Development
- Service Virtualization
- Test Data Management



Collaboration

- DevOps Working Group
- Shift Left Ops & Security
- Trust and Collaboration enable Innovation



Innovation Enablers

- Self Service Infrastructure
- Cloud Strategy
- Microservices Architecture
- API Strategy
- Innovate Time



Continuous Feedback

- Continuous Monitoring
- Production Telemetry
- Reduce MTTR



Key Steps

In addition to our DevOps practice, Enterprise Release Management played a pivotal role in laying the foundation for Lincoln's DevOps journey...from Pilot to Enterprise Adoption



Transition from manual tasks to automated pipeline

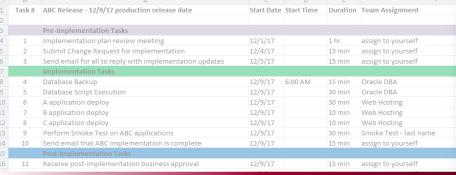
Metrics/Dashboards

Communicate success and document improvements

XL Release: Manual & Automated Workflow Strategy

Former State = spreadsheet, doc, etc.

Current State = XL RELEAS



Phase 1:

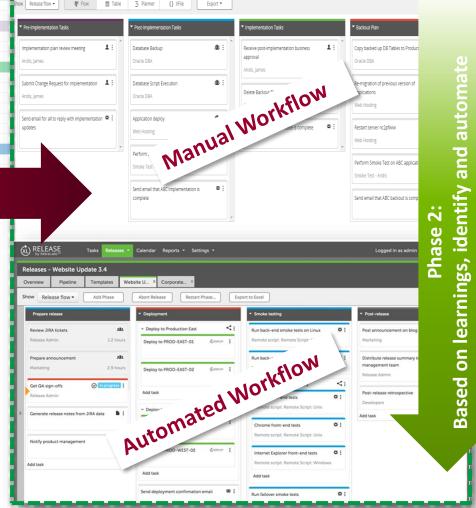
Spreadsheet to organized, largely manual

Phase 1: Manual Workflow (Production Only)

- Repeatability in the release process
- Auditing
- Reporting
- Visibility into progress of actual releases across all teams

Phase 2: Automated Workflow (Dev → Prod)

- Consistent, less manually-intensive releases
- Less error prone
- Better visibility across all tools in your release process





What Our Release Community Is Saying

"It gave a clear picture of active tasks and ongoing tasks which seems beneficial to me"



"Tasks are now more organized"

"I can concentrate on coordinating the release tasks more now that the status communications are automated & automatic"

> "One of the tasks was missed and it showed release progress less than 100%, so we came to know a task is still pending"



"XL Release is so easy to use"

"Great visibility into releases across the enterprise"



"The tool is enabling more automation"



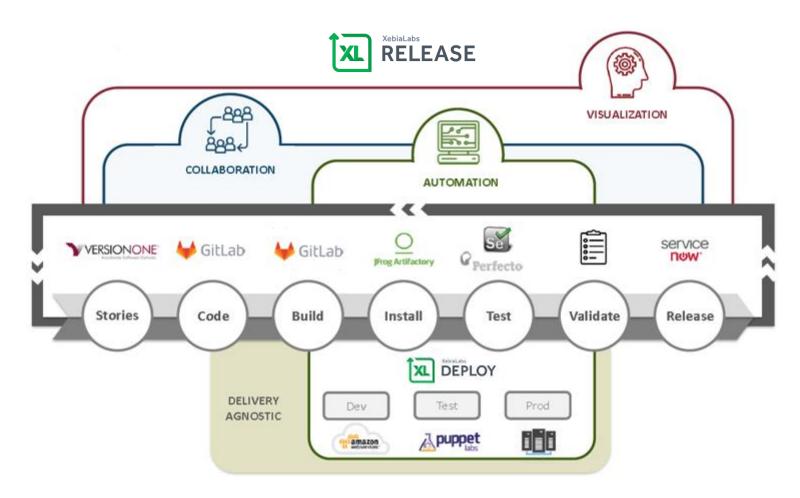
"Scheduling is a bit easier"

"As a Release Manager my time spent preparing for a release has decreased because of XL Release"



Initial Results

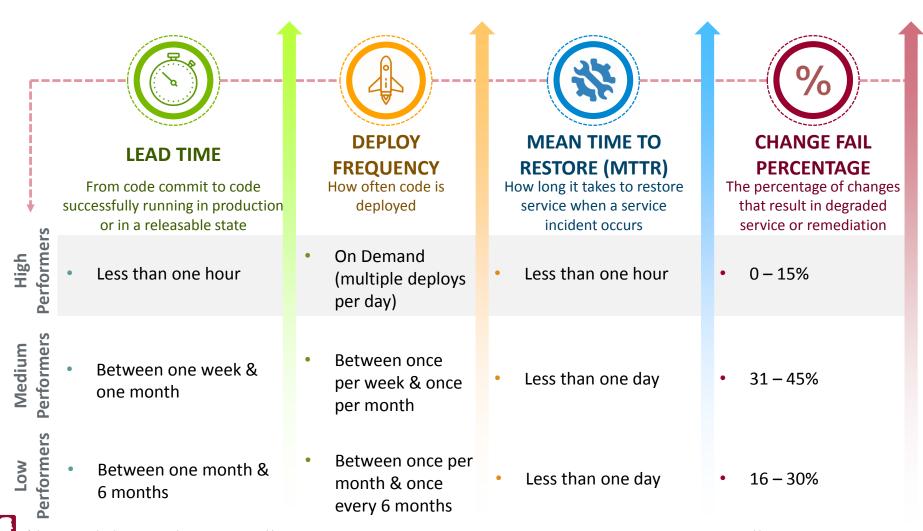
- Defined DevOps Enterprise Patterns
- Defined DevOps Tools and Processes
- DevOps Focused Value Stream Analysis
- Integrated/Customized Tools





Defining Delivery Performance

Delivery performance predicts higher organizational performance, measured in terms of **productivity**, **profitability** & **market share**.



Key Takeaways

- 1. Address the culture change first before doing anything else
- Agile & DevOps aren't separate bring the processes together into one!
- 3. Equip your **release management team** to build a **bridge from DEV to PROD** culture, tools, training
- 4. Run pilots to see what does/doesn't work this approach also helps discover/solidify your requirements
- 5. Think ENTERPRISE one offs won't allow you to scale
- 6. Create an enterprise release automated pipeline this is your enterprise pattern which all teams will leverage
- 7. Define **relevant metrics** for delivery performance **track them**!



QUESTIONS?



THANK YOU





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