We will discuss the following topics:

- DevOps Value Stream
- Conceptual Framework & Approach
- DevOps Transformation Strategy & Roadmap
- Automation & the DevOps Tool Chain
- Practical Considerations and Pearls of Wisdom
- Questions?
JEAN DAHL: VP-GLOBAL PORTFOLIO DELIVERY, LexisNexis

Summary

- Vice President of Global Portfolio Delivery for LexisNexis Legal and Professional division where she is leading a 2000-person global Lean Agile + DevOps Transformation. She works closely with the business, global Product Management, and the Global Technology Organization to ensure a well-balanced transformation. She is responsible for the $140M New LexisNexis Global Portfolio & manages a staff of 50 portfolio and program managers, as well as portfolio support staff.

- She has more than 25-years of experience both selling and delivering transformation initiatives in both the private and public sectors, including banking, financial services, insurance, retail, travel & hospitality, utilities, communications, and life sciences. She has managed projects, programs, and portfolios ranging in $5M to $200M, with teams from 50 to 700 during her career for companies, such as Fidelity Investments, Southwest Airlines, Target Corporation, and USAA to name a few.

- She is an industry recognized Lean Agile thought leader, speaker, and regularly publishes on Agile Best Practices, as well as being a Lean Continuous Improvement, Scaled Agile Framework (SAFe®), and DevOps transformation expert.

- She is very active in the Agile community and has chaired the Agile Alliance Executive Forum; the Project, Program, and Portfolio track; and the Culture, Collaboration, and Teams track for the annual Agile Alliance conference.

Functional Expertise

- Strategy & Executive Alignment
- Product Development Models
- Project Portfolio Management
- Agile at Scale Methods & Transformations
- Agile Development Practices
- Continuous Integration & Delivery
- Enterprise/Global Program Management
- Agile/Waterfall PMO Start-ups and Turnarounds
- Agile Program Management
- Lean Business Process Improvement
- Change Management

Education & Certifications

- Master of Business Administration (MBA)–University of Texas. Major: Organizational Behavior. Minor: Accounting
- Bachelor of Science (BS)–University of Wisconsin. Major: Finance
- Scaled Agile Framework (SAFe®) Process Consultant (SPC)–Scaled Agile Academy (Trained by Dean Leffingwell-Creator)
- PMI Agile Certified Practitioner (ACP)–Since June 2013
- Project Management Professional (PMP)–Since May 2000
- Professional Scrum Master (PSM)–Scrum.org (Through Sabre Airline Solutions)
- Lean Six Sigma Master Black Belt (LSSMBB)–Cisco Systems Black Belt Certification program
- Adjunct Professor–Southern Methodist University-School of Engineering. Project Management Certification Program

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DevOps focuses on reducing time to market and making it possible to extend the frequent iterations of Agile into infrastructure and data environments. Overall success is measured by the speed, frequency, and quality of software releases.
Reducing cycle time, increasing frequency and quality of production releases, and minimizing QA downtime make up the top benefits recognized by implementing DevOps.

The Lean Agile + DevOps Conceptual Framework consists of 7 interrelated work streams requiring strong synergies and collaboration between Portfolio Management, Product Management, Application Development, Testing, Operations, & Infrastructure.
DevOps requires a holistic approach to transformation.

Invest the time in understanding the success factors for each and then socializing your strategy, roadmap, and change management plan to gain buy-in & approval from all of your stakeholders.
TRANSFORMATION STRATEGY AND ROADMAP
GETTING STARTED: DEVOPS TRANSFORMATION STRATEGY

Initiate
- Identify key stakeholders
- Build the strategic, tactical, and operational teams
- Identify dependencies and inhibitors
- Identify the Burning Platform for Change

Assess
- Conduct interviews
- Assess the current state
- Build the midterm tactical and operational strategies
- Assess Agile Technical Practices
- Define metrics and KPIs

Measure
- Score the DevOps parameters
- Create the DevOps heat-map
- Perform Root Cause Analysis
- Create the Detailed Scorecard
- Build the process improvement plan

Pilot
- Pilot DevOps components & Agile technical process improvements
- Realize the quick wins
- Register key learnings

Refine
- Evaluate Pilot findings
- Refine DevOps Adoption Approach
- Groom the Program Backlog
- Revisit Transformational Roadmap

Implement
- Build out environments and frameworks
- Onboard apps
- Roll-out Agile Technical Practices

Accomplish
- Establish DevOps practices and toolsets according to the Program Backlog
- Carry out coaching and training sessions for team members
- Register key findings

Measure & Optimize
- Evaluate steady state applications’ performance
- Document the lessons learned and best practices
- Take feedback from project teams
- Revisit Hoshin X Matrix & revise as necessary

Promulgate
- Look for further areas of improvement
- Continuously review processes to improve and optimize them
- Inform the wider organization
- Mentor and coach the stakeholders
- Report on Metrics & KPIs through the use of the Balanced Scorecard and Hoshin X matrix

- Define the target state
- Identify midterm tactics
- Establish DevOps Adoption approach
- Build the transformational Roadmap
- Create the Program Backlog
- Prioritize and sequence
- Build DevOps Center of Competency

- Conduct the DevOps Transformation Workshop
- Identify the areas of improvement and quick wins
- Build the Hoshin X matrix

- Conduct Voice of the Customer
- Define the elements of the strategic intent (mission, vision, long-term strategy)
- Identify scope of engagement based on DevOps Conceptual Framework
- Identify the value streams

- Evaluate Continuously
- Improve Continuously
- Strategize
- Recognize
- Analyze

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## ROADMAP: LEAN AGILE + DEVOPS IN 10 STEPS

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<thead>
<tr>
<th>Step</th>
<th>Epic</th>
<th>2016/Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>2017/H1</th>
<th>H2</th>
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<tbody>
<tr>
<td>1</td>
<td>Map the Value Streams to identify and eliminate waste</td>
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<td>2</td>
<td>Create end-to-end, cross-functional features teams</td>
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<td>3</td>
<td>Implement Agile values, principles, and practices to foster a culture of Agility</td>
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<td>4</td>
<td>Deploy “Just in Time” Portfolio Management focused on “Just Enough” Feature Design</td>
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<td>5</td>
<td>Implement Test Driven Development (TDD)</td>
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<td>6</td>
<td>Practice Version Control and Configuration Management</td>
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<td>7</td>
<td>Automate as much of the Continuous Integration components as possible</td>
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<td>8</td>
<td>Develop the Continuous Deployment pipeline</td>
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<td>9</td>
<td>Implement “Push Button” Deployment/Release</td>
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<td>10</td>
<td>Monitor Application &amp; Server Performance</td>
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AUTOMATION & THE DEVOPS TOOL CHAIN
PRACTICAL CONSIDERATIONS AND PEARLS OF WISDOM
DevOps is not a grass roots movement (Buy-in must come from the top)
- DevOps is not like Agile in that a bunch of developers or operations people can adopt and implement the tools and practices required for it to be successful in a vacuum
- The name itself denotes the combination of the DEV and OPS organizations
- DEV and OPS must work together and solicit upper level executive support
- Buy-in must come from both organizations and it must be supported by executives across both organizations

Don’t become a DevOps Cargo Cult! (Develop a solid business case to support the change)
- Don’t just go through the motions and think you’ll get the result you are looking for; Cultural and process changes are required
- Ensure your culture moves with the necessary change that must occur
- Also, the reasons behind the change must be understood
- And the desire to change must be mutual to reap the rewards across the IT value stream
- Otherwise, you’ll just be going through the motions and not getting the end result you are expecting

All aboard... the train is about to leave the station! (Getting the business involved early on your DevOps journey)
- To gain the full benefits of DevOps, the entire organization must get involved
- Creating a lightning fast IT Value stream (train) without the upfront involvement of the Product Management organization (aka the business) is a waste of time and money
- The whole point of DevOps is to get ideas converted into products and out to the market faster
- Make sure that you have the right stakeholders identified and they are aboard with what you are trying to accomplish
PROCESS

- **Big Bang DevOps is a disaster waiting to happen (Reap the benefits of Incremental Progress)**
  - DevOps is a value stream
  - You can break it apart and realize value at each stage
  - So, be realistic about how much change your organization can handle
  - Simply implementing better Agile Development practices can reap great returns
  - Start out by keeping your goals narrow and focused and monitor your organization’s Change Fatigue curve

- **Finding Your True North (Build a realistic DevOps transformation strategy and roadmap)**
  - DevOps... like Agile... is a journey
  - The current way your organization works today was build up over time
  - Define your transformation strategy by determining how far down the road you want to move and where at any given point in time you want to be
  - You will need a transformation roadmap with both DEV & OPS in mind

- **Cowboy Coders need not Apply (Disciplined Agile Development practices are a must)**
  - DevOps is not just about tools
  - Don’t forget the “DEV” part of DevOps
  - Discipled development practices are required to be successful with DevOps
  - The developers will need to become much more disciple and quite possibly need to learn a whole new way of working
Is the Porsche really worth it? (Making the Right Tool Choices)
- First, educate yourself on what DevOps is and isn’t
- Invest some time and money into performing a DevOps Readiness Assessment
- Be realistic about your current DEV and OPS maturity levels
- Understand the stacks and technologies and the tool options that are available
- Is open source the way to go or do you want to make a major investment in software and hardware?
- Weigh out the risk, rewards, and benefits

Having your head in the clouds isn’t necessarily a bad thing! (Understanding your choices when it comes to “The Cloud”)
- A solid cloud strategy must be defined
- Which elements are you going to consider... PaaS, IaaS, SaaS?
- Which model fits best for your organization... Public, private, or hybrid?
- You need to understand your requirements and how best to ensure you make the right decisions

iROBOT: Building the Machine (The role Automation plays in DevOps)
- Remember... The end goal is to automate as much as possible
- Run a Proof of Concept, Inspect & Adapt; Run a Pilot, Inspect & Adapt; Implement... Rinse & repeat for the entire tool chain
SUMMARY: DEVOPS TAKES A VILLAGE

- Make sure you understand the effects of DevOps on People, Process, and Technology
  - It requires
    - People buying into and supporting the cultural change that it brings
    - Processes that are new and different from the old ways of working that must be accepted and embraced, because the old ways of doing things just won’t work anymore
    - Technology must be viewed as the enabler that brings people and process together
QUESTIONS?