Agile @ Scale

Making the Case for the Lean Enterprise

Watson IoT

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We're going to try something called agile programming.

That means no more planning and no more documentation. Just start writing code and complaining.

I'm glad it has a name.

That was your training.
What about this?

- No way to improve systematically
- Too little visibility
- Too early commitment to a design that didn't work
- Late delivery
- Problems discovered too late
- Under-estimated dependencies
- Massive growth in complexity
- Hard to manage distributed teams
- Phase gate SDLC isn't helping reduce risk
- Poor morale
Agenda

1. Lean & Agile for Dummies
2. Challenge & Rationale for the “Lean” Enterprise
3. References
Lean & Agile for Dummies
Moving to a continuous delivery model in order to increase time to value requires balancing both the efficiency and effectiveness of the organization as a whole, not just at the team level.

Lean: Balance Efficiency & Effectiveness
to deliver the right things right!

Are we moving as fast as possible?

Efficiency
- Continuous Improvement
- Elimination of bottlenecks and waste
- Reduced rework

Are we driving it in the right direction?

Effectiveness
- Continuous feedback
- Reduced cycle times
- Faster time to value with high quality

Are we moving as fast as possible?
Are we driving it in the right direction?
Lean-Agile Values

House of Lean

Value in the shortest sustainable lead time

VALUE

Respect for people and culture
Flow
Innovation
Relentless improvement

Agile Manifesto

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

- **Individuals and interactions** over processes and tools
- **Working software** over comprehensive documentation
- **Customer collaboration** over contract negotiation
- **Responding to change** over following a plan

*That is, while there is value in the items on the right, we value the items on the left more.*
Lean-Agile Principles

- Take an **economic view**
- Apply **systems thinking**
- Assume **variability**; preserve alternatives
- Manage risk and efficacy with **fast, synchronous learning cycles**
- Develop systems **incrementally**; integrate and test **frequently**
- Facilitate flow by **limiting WIP, reducing batch sizes** and manage queue lengths
- Base milestones on objective evaluation of **working systems**
Building incrementally accelerates value delivery

**WATERFALL**
- Requirements
- Design
- Implementation
- Verification

**INCREMENTAL DELIVERY**

Documents
Documents
Unverified System
System

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And delivers better economics

Early delivery provides fast value with fast feedback
Nothing beats an Agile Team

- Cross-functional, self-organizing entities that can define, build and test a thing of value
- Applies basic scientific practice: Plan—Do—Check—Adjust
- Delivers value every two weeks
Except a team of Agile Teams

- Align 50-125 practitioners to a common mission
- Apply cadence and synchronization, Program Increments every 6-12 weeks
- Provide Vision, Roadmap, architectural guidance
Bringing together the necessary people
Business results

- 10 – 50% happier, more motivated employees
- 20 – 50% increase in productivity
- 30 – 75% faster time-to-market
- 25 – 75% defect reduction

www.scaledagileframework.com/case-studies
Financial Services / Electronics / Software / Telecom / Retail & Distribution / Government / Healthcare / Insurance / Medical Technology / Pharmaceutical / Media / Manufacturing / COTS Software / Customer Care & Billing / Outsourcing

Northwestern Mutual
- Life insurance giant saves $12 million and stays 18 months ahead of schedule with SAFe

Sony Interactive Entertainment
- $30 million in savings and initial planning time cut by 28% with SAFe

Cisco
- SAFe improves quality and drives continuous delivery of new features for the largest networking company in the world

Hewlett Packard Enterprise
- SAFe helps HPE improve quality by 20% while delivering faster

TomTom
- SAFe helps the world's leading navigation technology company fail fast, adapt to change, and release faster and more often

Accenture Technology
- Improved demand management & traceability from portfolio through to Agile delivery teams

NHS
- SAFe enables transition from waterfall to Agile in a highly regulated environment

AstraZeneca
- SAFe delivered millions in benefits in first year and significantly faster time-to-value

LEGO Digital Solutions
- unleashes their "systematic creativity" in adapting SAFe to their context
Moving to a continuous delivery model in order to increase time to value requires balancing both the efficiency and effectiveness of the organization as a whole, not just at the team level.

Lean: Balance Efficiency & Effectiveness
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Are we driving it in the right direction?

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Challenge & Rationale for the “Lean” Enterprise
Most Enterprises…

- Must manage development and delivery across teams using multiple processes and tooling, at least during the transformation – maybe forever!
- Require formal governance and project management
- Have heterogeneous tooling environments
- Want visibility into development and non-development tasks in a single place
- Outsource some work in order to deliver more quickly
- Have largely distributed teams
Does this mean you can’t adopt lean and agile practices?
The Enterprise needs more than just SCRUM

<table>
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<th>Standard coding practices</th>
<th>Code review</th>
<th>Parallel development</th>
<th>Manage Business Processes</th>
<th>Continuous testing</th>
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<td>Continuous delivery</td>
<td>Manage projects</td>
<td>Manage delivery across multiple, distributed team</td>
<td>Maintain process of formal governance</td>
<td>Orchestrate delivery across teams delivering at different speeds</td>
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<td>Get visibility into development and non-development tasks in a single place</td>
<td>Leverage shared teams</td>
<td>Manage dependencies</td>
<td>Collaborate effortlessly to support independent, self-governing agile teams</td>
<td>Innovate</td>
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**CHALLENGE** - How do we *orchestrate* all of this *consistently*?
Do successful agile teams = successful enterprises?

Team success
- More Story Points, higher velocity
- More Features
- Shorter cycle times
- Lower defects
- Cool new stuff

Enterprise success
- Improved time to “happy customer”
- Increased market share
- Improved competitiveness
- Lower risk

A “project” is more than just a single “feature”
Focus on transformations that matter!

### Drive Economic value
- Focus on value-based delivery
- Adopt an economic view to prioritize investments

### Align Business & Engineering
- Ensure investments map directly to business strategy
- Reduce wasted time, effort, resources

### Effectively Manage Change
- Shift how you act and make decisions
- Abide by “work in progress” limits

### Manage Distributed Teams
- Unify process, vocabulary
- Gain cross-team visibility

### Establish Delivery Intelligence
- Ensure a single source of truth
- Enable automated audit trail

### Address Quality
- Focus on the user, employ design thinking
- Implement validation earlier in the process
Transform the environment

**People:** Establish an organization-wide culture with the right set of skills to embrace lean and agile values – everywhere, across all teams, every day

**Process:** Apply lean and agile principles in the planning, development, deployment and delivery of value and then monitoring feedback to improve – continuously

**Tools:** Provide a framework that enables the implementation of lean and agile practices – easily – while also providing traceability and visibility of work across multi-disciplinary teams
References
Who are our customers and what are they saying?

“We worked with IBM and looked into Collaborative Lifecycle Management tools that allow them to implement the whole SAFe® framework so that their development can be done in a rapid fashion, and they can respond to those changes through technological releases more often.”
-- Zeeshan Huque, President MarqueeTec Inc.

“We cannot go implement agile and SAFe® without choosing the right tool… in the end, we picked IBM.”
-- Igal Levi, VP Operational Excellence

“We increased delivery capacity by 40 percent and reduced bugs by 35 percent because software quality is verified constantly during the lifecycle.”
-- Júlio César Fausto, Agile Coach

“As by using this tool, everyone is using the same methodologies, so it helps us with collaboration and making sure all of the teams are working in the same way.”
-- Remy Spagnoli, Process and Tools Manager
SAFely Scaling Agile at the US State Department

Business Need

• Reduce or eliminate siloed system development
• Improve transparency of connected systems to understand cross-system dependencies
• Improve release delivery cycle time
• Modernize tooling to support distributed environments

Solution Implementation

IBM Collaborative Lifecycle Management cross-domain solution
• SAFe methodology adoption in CLM tooling (SAFe 4.0)
• Scaled Agile Coaching embedded into the team as part of transformation

Key Benefits

• 50% of systems moved to SAFe process in 18 months, enabled by CLM with SAFe
• Improved efficiency and productivity through much higher collaboration among and across distributed teams
• “Right-sized role-based” insight through highly configurable dashboards and embedded reports
• Rave reviews from consumers due to focus on end-user experience driven from Systems organized around Value Streams
SAFe® Implementation at NICEActimize

Business Need
- Improve quality and efficiency
- Reduce feature cycle time
- Adopt a business-oriented sense of ownership for a “complete” deliverable
- Increase R&D throughput
- Provide insight into cross-system dependencies

Solution Implementation
- IBM Rational Team Concert with Scaled Agile Framework® (SAFe®) methodology

Key Benefits
- Unified methodology and singular “vocabulary” has improved collaboration and broken down silos
- Improved quality and efficiency in less than 6 months, and still improving!

Rational Collaborative Lifecycle Management (RTC, RDNG, RQM)
Scaled Agile Framework® (SAFe®)
Pôle emploi reduces software development backlog with the Scaled Agile Framework (SAFe)

**Business Need**
- Address a serious work backlog for development teams
- Improve processes and address urgent customer requests more quickly
- Unify processes across waterfall and agile teams to effectively manage work
- Eliminate manual methods (spreadsheets, reports) that fail to provide adequate visibility

**Solution Implementation**
- IBM Rational Team Concert with Scaled Agile Framework® (SAFe®) methodology
- 1,000 internal and external staff members are now using the technology

**Key Benefits**
- 90% satisfaction rate among project managers
- Increased visibility with near real-time access to status
- Automated reporting so that users receive better information in less time
- Unified “way of working” with improved collaboration across all teams (internal and external)
- Faster on-boarding for new teams
**Business Need**

- Improved alignment and visibility between engineering effort and investment and business strategy
- Roadmap views for the business, for customers, for stakeholders
- Progress and status across multiple, inter-dependent teams delivering change
- Collaboration across multiple non-engineering stakeholder organizations: support, marketing, sales, enablement

**Solution Implementation**

- IBM Collaborative Lifecycle Management cross-domain solution with the SAFe support – customized for our organization

**Key Benefits**

- Improved visibility, traceability and reporting end-to-end
- Credible roadmaps that can be shared with customers and stakeholders based on “real data!”
- Much better stakeholder involvement in establishing delivery priorities
Learn more

References/Case Studies:

- [Blog] Words of wisdom from a few of the scaled agile "experts" at Interconnect 2017
- NICEActimize DevOps.com interview: IBM InterConnect 2017 w/Igal Levi, NICE Actimize
- Pôle emploi: Scheduling and prioritizing development backlog with the Scaled Agile Framework
- Softplan: Gaining robust visibility with IBM Rational software and the Scaled Agile Framework methodology
- US Department of State: Customer Reference
  - Video
  - IBM.com

SAFe Landing Page

Getting Started with SAFe

SAFe 4.5 Assets

Contact Us: safeinfo@bg.vnet.com, asilber@us.ibm.com
Thank You