Agility at Scale: Tactical and Strategic Approaches

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The Story I’m About to Tell
Agile software teams are building awesome race car engines...
...but they are surrounded by organizational tractors
To win the race we need to build a high performing race car…
…supported by an effective team to race it
Let’s explore three important questions….

What does it mean to scale agile?
How do you scale agile tactically?
How do you scale agile strategically?
Scaling Agile
Tactical vs. Strategic Scaling

**Tactical Agility at Scale**

The application of agile and lean strategies on IT delivery teams. This includes the ability to apply agile on teams of all sizes, on teams that are geographically distributed, on teams facing regulatory compliance, on teams addressing a complex domain (problem space), on teams applying a complex technologies, on teams where outsourcing may be involved, and combinations thereof.

**Strategic Agility at Scale**

The application of agile and lean strategies across your entire organization. From an IT point of view this includes the majority, if not all, of your IT delivery teams as well as a the IT-level teams support activities such as enterprise architecture, operations, support, portfolio management, IT governance, and other topics. From an enterprise point of view this includes all divisions and teams within your organization, not just your IT department.
Tactical: Agile Scaling Factors

- **Team Size**: Two - Hundreds
- **Geographic Distribution**: Co-located - Global
- **Organizational Distribution**: Single division - Outsourcing
- **Compliance**: None - Life critical
- **Domain Complexity**: Straightforward - Very complex
- **Technical Complexity**: Straightforward - Very complex

Source: disciplinedagiledelivery.com/agility-at-scale/

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What Scaling Factors Do Software Development Teams Face?

- Compliance
  - Non-Agile Teams: 45%
  - Agile Teams: 43%
- Organizationally Distributed
  - Non-Agile Teams: 64%
  - Agile Teams: 68%
- Complex Technology
  - Non-Agile Teams: 88%
  - Agile Teams: 92%
- Complex Domain
  - Non-Agile Teams: 42%
  - Agile Teams: 61%
- Team Size > 10
  - Non-Agile Teams: 37%
  - Agile Teams: 48%
- Geographically Distributed
  - Non-Agile Teams: 78%
  - Agile Teams: 61%

Source: DDJ State of the IT Union 2014 Q2 Survey

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Strategic: The Agile IT Department

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Scaling Agile Tactically
Important Observation: Empiricism and Constant Improvement Are Critical
Disciplined Agile Delivery (DAD) is a process decision framework

The key characteristics of DAD:

- People-first
- Goal-driven
- Hybrid agile
- Learning-oriented
- Full delivery lifecycle
- Solution focused
- Risk-value lifecycle
- Enterprise aware
DAD is a Hybrid Framework

DAD leverages proven strategies from several sources, providing a decision framework to guide your adoption and tailoring of them in a context-driven manner.
Important Observation:
Your Team is One of Many Teams
DAD Teams Are Enterprise Aware

• DAD teams strive to leverage and enhance the existing organizational eco system wherever possible

• Implications:
  – Work closely with enterprise groups
  – Follow existing roadmap(s) where appropriate
  – Leverage existing assets
  – Enhance existing assets

Community Awareness
“How can I give back to my community?”

Enterprise Awareness
“How can I help my organization?”

Team Awareness
“How can I help the team?”

Individual Awareness
“How can I be the best me?”

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Important Observation:
Every Person, Every Team, and Every Organization is Unique
Important Observation:
One Lifecycle Does Not Fit All
Strategies to Address Changing Stakeholder Needs

Formal Change Management

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Address Changing Stakeholder Needs

- Manage Work Items
  - Work item pool: Work item stack, Requirements backlog, Formal change management
  - Business value
  - Risk
    - Due date
    - Weighted shortest job first (WSJF)
    - Operational emergency
    - Dependency
  - During iteration
    - Future iterations
    - Never

- Prioritize Work
  - Active stakeholder participation
    - Indirectly via proxies
    - Indirectly via electronic means
  - Just-in-time (JIT) model storming
    - Look-ahead modeling
    - All-hands demos
    - Iteration demos

- Accept Changes

- Stakeholder Interaction with Team

- Elicit Requirements
We Can Explore Initial Scope In Different Ways

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Strategies for Funding Teams

Cost Plus

Time and materials (T&M)

Stage-gate funding

Fixed price/cost

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Secure Funding

Funding Strategy

- T&M plus performance bonus
  - Time and materials (T&M)
  - Stage gate
    - Fixed price/cost (ranged)
    - Fixed price/cost (exact)

Access Strategy

- IT funding pool
  - Informal request
  - Formal request
DAD is Goal-Driven, Not Prescriptive
Scaling Agile Tactically

Disciplined agile delivery with one or more scaling factors:
- Large teams
- Geographically distributed teams
- Compliance
- Domain complexity
- Technical complexity
- Organizational distribution

Disciplined Agile Delivery
- Delivery focus
- Risk-value driven lifecycle
- Self-organization with appropriate governance
- Goal driven
- Enterprise aware

Agile
- Construction focus
- Value driven lifecycle
- Self-organizing teams
- Prescriptive
- Project team aware

Tactical Agility at Scale

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Scaling From a Solid Foundation is Easier

• With a DAD-based approach, scaling becomes straightforward because a handful of process goals take the brunt of the tailoring:
  – Explore initial scope
  – Identify initial technical strategy
  – Move closer to a deployable release
  – Coordinate activities
Scaling Agile Strategically
The Disciplined Agile framework is now being extended to address the rest of IT.
Program Management

- Balance competing priorities
  - Allocate to delivery team
  - Allocate to open source product
  - Plan team capacity
  - Monitor team capacity

- **Business value**
  - Risk
    - Due date
    - Weighted shortest job first (WSJF)
    - Operational emergency
    - Dependency

- Feature team
- Component team
- Internal open source team
- Product owner team
- Architecture owner team
- Management team

- **Coordination meetings**
  - Visualize work
    - Big room planning
    - Agile modeling sessions
    - Checkpoint meetings

- Multiplier cadences
- **Common cadences**
  - Disparate cadences

- **Continuous delivery cadence**
  - Incremental delivery cadence
  - Infrequent delivery

- Re-prioritize dependent requirement
- Re-prioritize depended requirement
- Rethink dependent requirement
- Rethink depended requirement
- Accept dependency

- Rework dependent item
- Rework depended item
- Accept dependency

- Monitor and measure
  - Develop program-level metrics
  - Develop program guidance

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Important Observation:
There’s A Lot More to Scaling Agile than a Fancy Poster

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The Story I Told
Disciplined agile delivery teams produce consumable solutions often and early.

Agile delivery teams must tailor their approach to address the situation that they find themselves in, particularly when working at scale – Context counts.
• An Agile IT organization must be responsive to the needs of the rest of the enterprise while “keeping the lights on”.

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• An agile enterprise is able to anticipate and respond swiftly to changes in the marketplace

• It does this through an organizational culture and structure that facilitates change within the context of the situation that it faces

• Agile enterprises require a learning mindset in the mainstream business and underlying lean and agile processes to drive innovation
Some thoughts…. 

Your organization is unique

You need to tailor your approach to reflect the evolving context of the situation that you face

One “process size” does not fit all, one organizational strategy does not fit all, nor does one tooling strategy

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Thank You!

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AgileModeling.com
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Contact us at ScottAmbler.com
Scott Ambler + Associates is the thought leader behind the Disciplined Agile Delivery (DAD) framework and its application. We are a boutique IT management consulting firm that advises organizations to be more effective applying disciplined agile and lean processes within the context of your business.

Our website is ScottAmbler.com
We can help
Additional Slides
Shuhari and Disciplined Agile Certification

At the *shu* stage you are beginning to learn the techniques and philosophies of disciplined agile development. Your goal is to build a strong foundation from which to build upon.

At the *ha* stage you reflect upon and question why disciplined agile strategies work, seeking to understand the range of strategies available to you and when they are best applied.

At the *ri* stage you seek to extend and improve upon disciplined agile techniques, sharing your learnings with others.
Tactical Scaling Requires...

- A disciplined approach
  - Full delivery lifecycle
  - Enterprise awareness
  - Goal-driven approach

- A bit more up-front thinking
  - Explore the initial scope a bit deeper
  - Identify the initial technical strategy in a bit more detail

- More sophisticated coordination
  - Individuals and interactions

- More sophisticated governance
  - The greater the risk, the greater the need for effective governance

- More sophisticated validation
  - Teams at scale are typically tackling harder problems

- More sophisticated tooling
Disciplined Agilists Take a Goal Driven Approach

**Goal**

- Explore the Initial Scope
- Form the Initial Team
- Address Changing Stakeholder Needs

**Factor**

- Source
- Team size
- Team structure
- Team members
- Geographic distribution
- Supporting the team
- Availability

**Option**

- Default Option

**Advantages**

**Disadvantages**

**Considerations**

- Indicates a preference for the options towards the top

- Co-located
- Partially dispersed
- Fully dispersed
- Distributed subteams

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Governance is Built Into DAD

- Governance strategies built into DAD:
  - Risk-value lifecycle
  - Light-weight milestone reviews
  - “Standard” opportunities for increased visibility and to steer the team provided by agile
  - Enterprise awareness
  - Robust stakeholder definition
Collaboration Pattern: Enterprise IT Team

• Individuals are members of both a delivery team and an enterprise team

• Common examples include:
  – Architecture Ownership Team (Enterprise Architecture)
  – Product Ownership Team (Product Management)
  – Product Delivery Office (Portfolio Management)

• The delivery teams determine who will be in the enterprise role for them

• Potential scheduling challenges for the people in the enterprise roles due to multi-team commitments

• The leaders of each enterprise team may be a full time position
Example: Architecture Ownership (AO) Team

- Responsible for developing the architecture/technology roadmap
- Delivery teams determine who the architecture owner (AO) is, and that person becomes part of the AO team
- The AO team meets regularly to evolve the roadmap based on the hands-on learnings from the AOs
- Ecommerce organization: 7 person AO team (of 250 IT people)
- Software product org: 10 person AO team (of 130 IT people)
Collaboration Pattern: Services Team

• Specialized services teams fulfill requests from delivery teams

• Common examples of specialized services:
  – Infrastructure/network
  – Database administration
  – Security
  – Facilities

• The specialized services team will often have a service level agreement (SLA) that the work to

• Potential for the services team to become a bottleneck

• They may supply specialists on a short term basis to some delivery teams
Example:
Database Administration (DBA) Team

- Responsible for supporting database development and database operation in production
- The delivery team submits a request, the DBA Team prioritizes it and then fulfills it

- Ecommerce org: 5 person team (of 250 IT people)
- Software org: 2 person team (of 40 IT people)