



Agile University: Delivery School

Scaling and Distributed Delivery



High performance. Delivered.

Strategy | Digital | Technology | Operations

Agenda

Accenture Distributed Delivery Models & Considerations

Multiple Vendors - Communication Patterns

Scaling Considerations & Practices

Best Practices

Introduction

Agile Recommends

- Small teams: (7-10 team members)
- Co-located Team
- Onsite Customers



Does this mean that Agile cannot be scaled or distributed?

Distributed Agile ?



Distributed Agile is where :

- Groups/teams working on a shared-goal but located in different geographies
- The sponsors, end-users and the development teams operating from different locations

Challenges in Distributed Agile

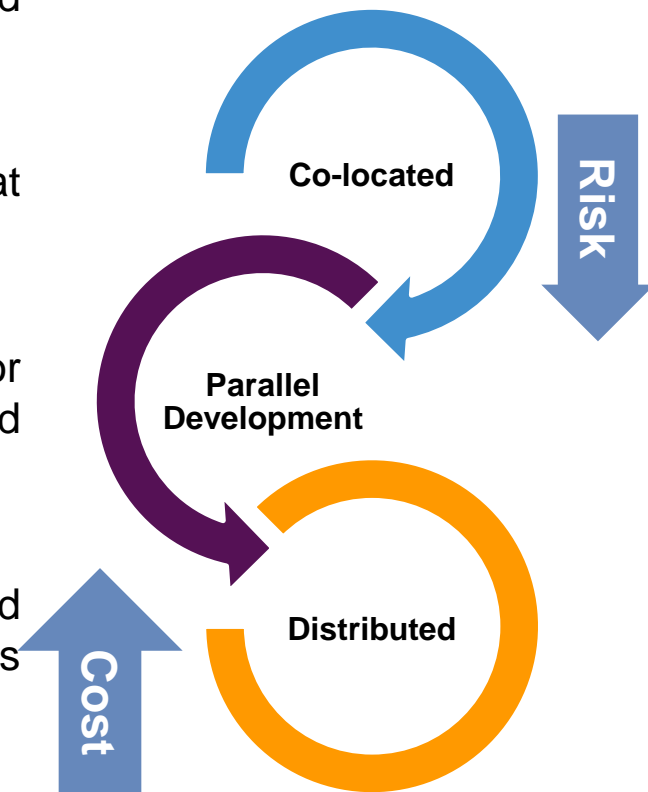
- **Planning / Tracking and Work Distribution**
- **Team Organization** across locations
- **Cultural Differences** within the teams across locations
- **Communication & Collaboration** across the teams
- Teams in **different Time Zones** across the globe
- **Lack of Face to Face** availability of Product Owner and Business Users with the Project Team
- **Multiple Sign-off** layers, delaying development



Accenture enables the right people at the right locations at the right time

Accenture Operating Models provide a set of options on how to organize and rotate Agile teams for **co-located** and **distributed** types of Agile projects:

- No solution fits all: the **right roles** in the **right locations** at the **right stage** of software development is dynamic.
- **Rotation** of key roles between locations is critical for establishing relationships and trust between distributed teams.
- Understanding the impact that **team distribution** and **dynamics** have on the overall project is key at early stages and should not be left until the project starts.



Distributed delivery Model 1 – Co-located

Interaction Style

- Co-located team
- Team works directly with the Product Owner/Business users

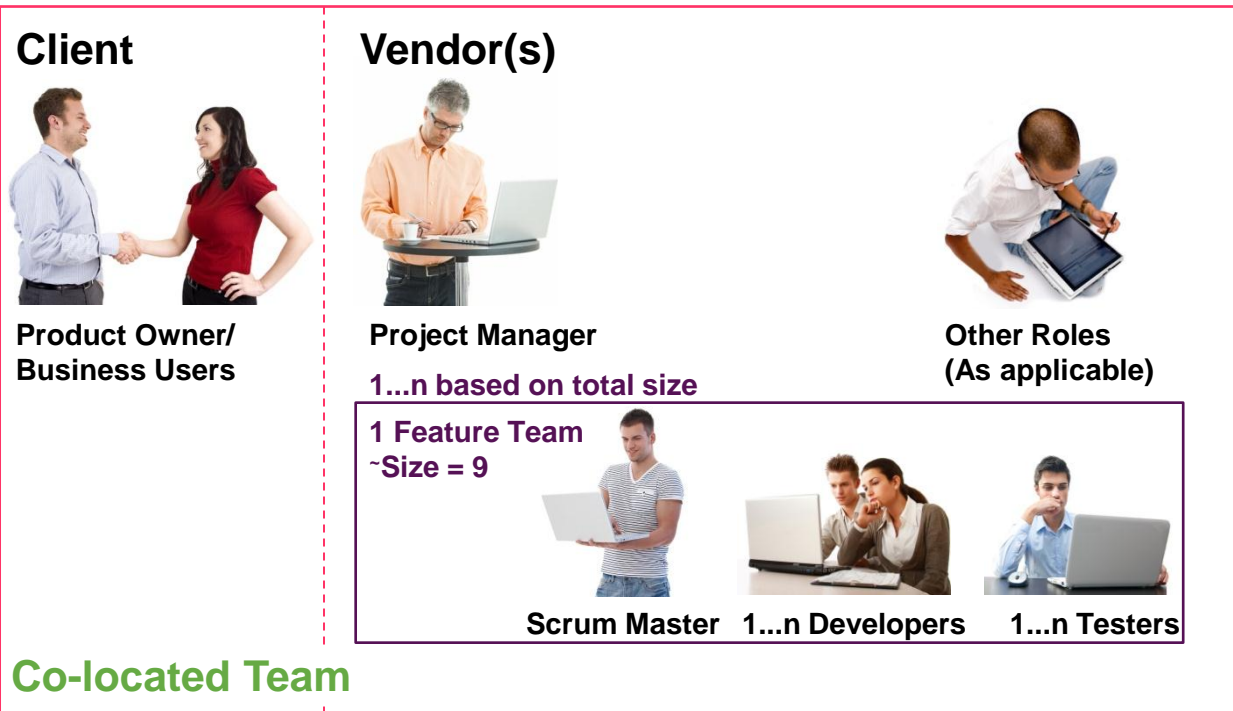
Selection Criteria

- Business requirements are too critical or confidential to be outsourced outside customer's location
- Team has limited knowledge of business functionality
- Limited availability of Business Users/Product Owner
- Adequate budget

Team Structure

- **Onshore:** Business Users, Product Owner and Delivery team (Project Manager, Designers, Developers, Configurators, Testers, Architects, Scrum master).

All roles are located at one place.



Distributed delivery Model 2 – Offshore Delivery Model

Interaction Style

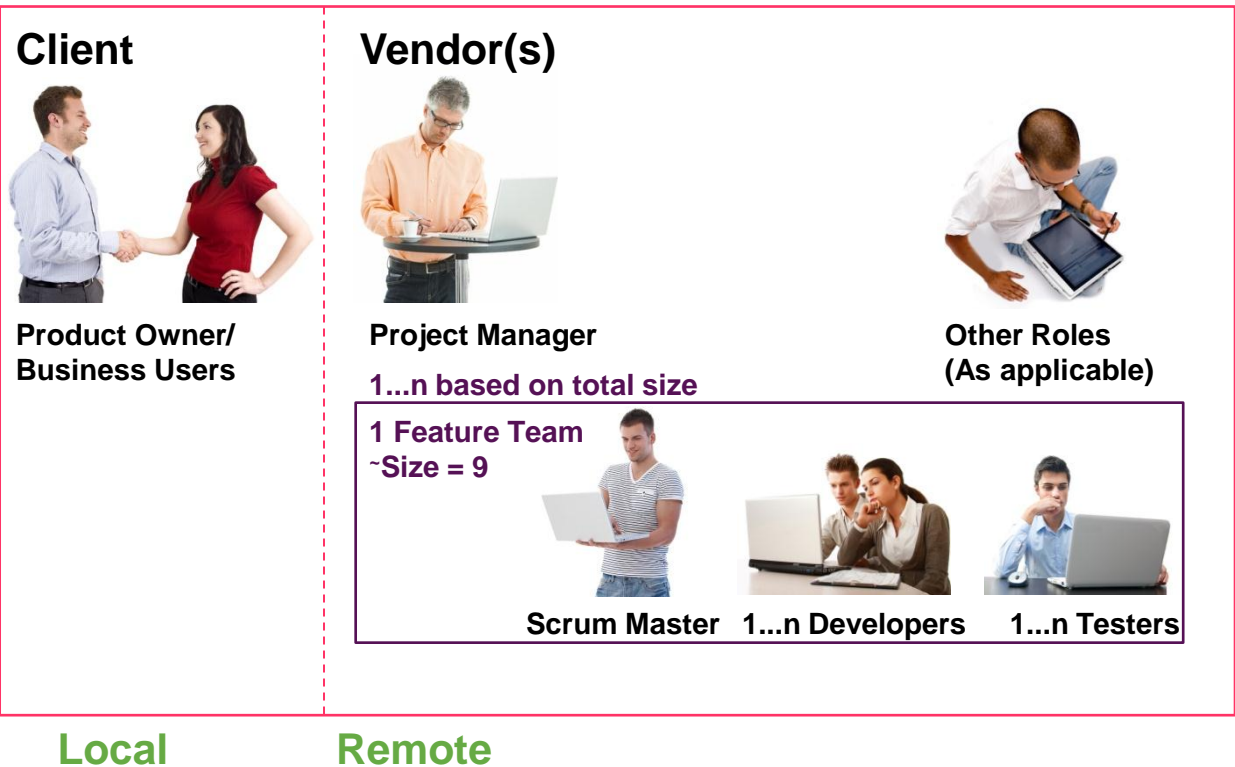
- Distributed team
- Team works directly with the Product Owner/Business users

Selection Criteria

- Simple Business requirements
- Team has good knowledge of business functionality
- High availability of Business Users/Product Owner

Team Structure

- **Onshore:** Business Users and Product Owner.
- **Offshore:** Delivery team (Project Manager, Designers, Developers, Configurators, Testers, Architects, Scrum master).



Distributed delivery Model 3 – Distributed delivery model with offshore development

Interaction Style

- Business Analyst/Quality Analyst(s) work directly with Product Owner
- The remote site team communicates through Business Analysts for the requirements and directly for the review

Selection Criteria

- Business requirements are complex or not very well-defined
- Remote site team has limited knowledge of business functionality
- Limited availability of Business Users/Product Owner

Team Structure

- **Onshore:** Business users, Business Analyst, Product Owner, Testers, Functional Designers (for Packaged development)
- **Offshore:** Development & Testing team (Project Manager, Designers, Developers, Configurators, Testers, Architects, Scrum master) , Business Analyst



Distributed delivery Model 4 – Distributed delivery model with parallel development

Interaction Style

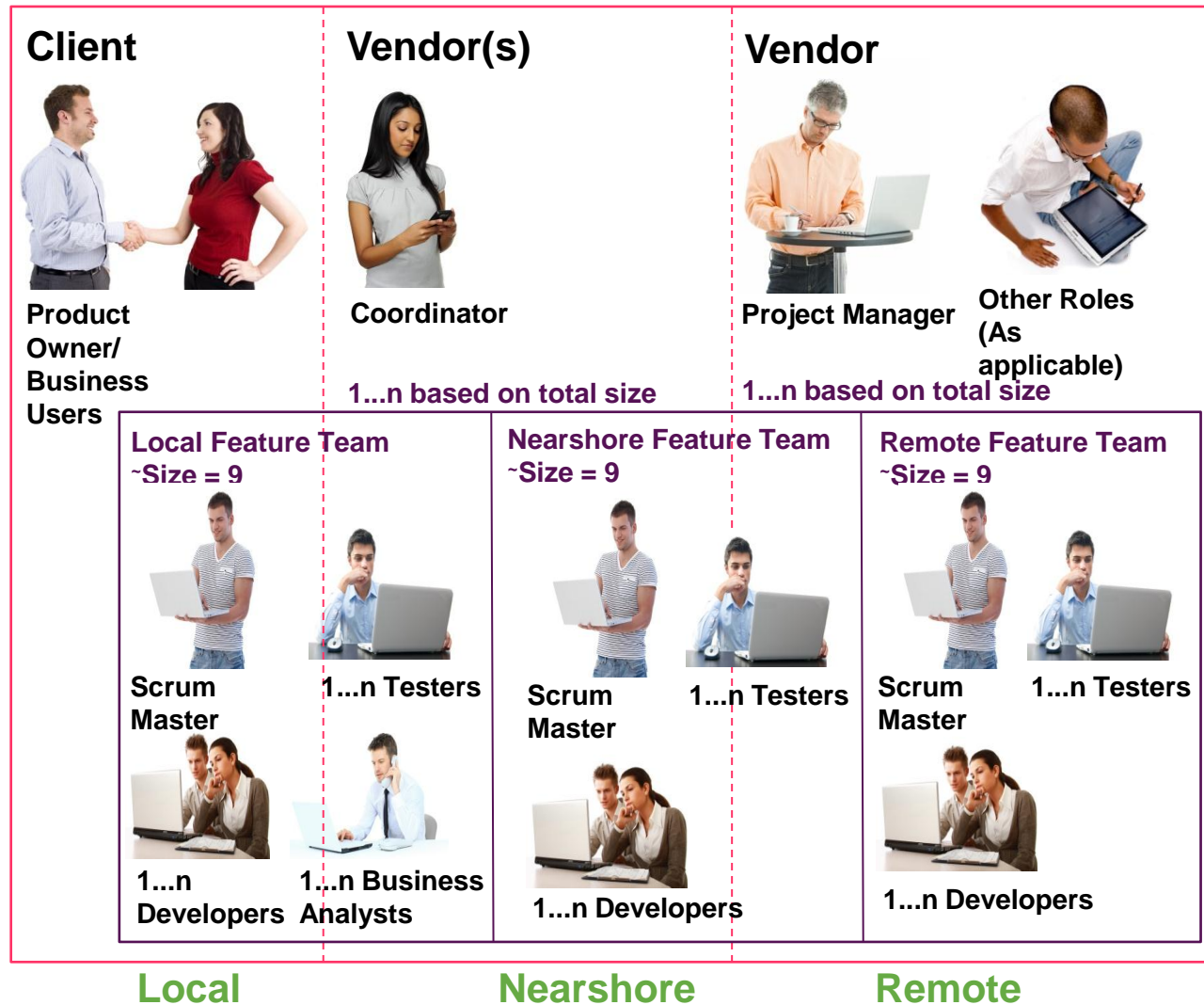
- Separate Scrums conducted locally as well as remote site
- The remote site team communicates with Business Analyst to understand the business requirements. Scrum Master can be at both locations.
- Teams need high level of tooling support (collaboration platforms)

Selection Criteria

- Business requirements are complex and not well-defined
- Remote site team has limited knowledge of business functionality
- Limited availability of Business Users/Product Owner
- Development of some application areas cannot be shifted to remote locations

Team Structure

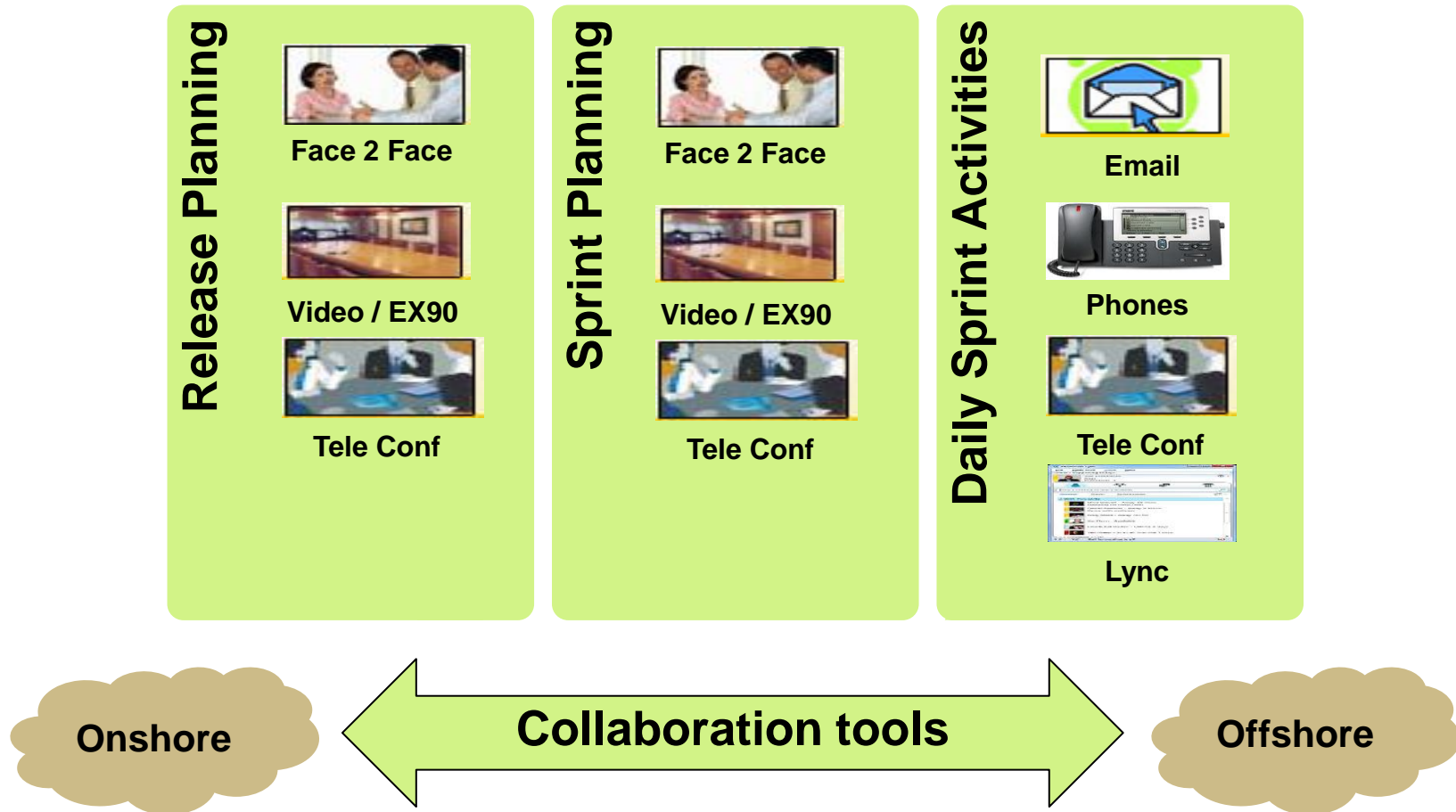
- **Onsite:** Business users, Product Owner, Business Analysts and Development team (Project Manager, Designers, Developers, Configurators, Testers, Architects, Scrum master)
- **Offshore:** Development team (Project Manager, Designers, Developers, Configurators, Testers, Architects, Scrum master)



Communication & Collaboration Practices

- Ensure there is the **right degree of documentation**
- Conduct daily inclusive **onsite/offshore stand-up** meetings
- Conduct frequent client meetings and **demos**
- Ensure effective usage of **collaboration tools**
- Provisioning for presence of an **onsite coordinator** and **client presence at offshore**
- Frequent **status reporting** to stakeholders
- Ensure **Retrospectives** are held for the teams to reflect on communication and collaboration issues and create actions to address them

Communication Infrastructure for Collaboration

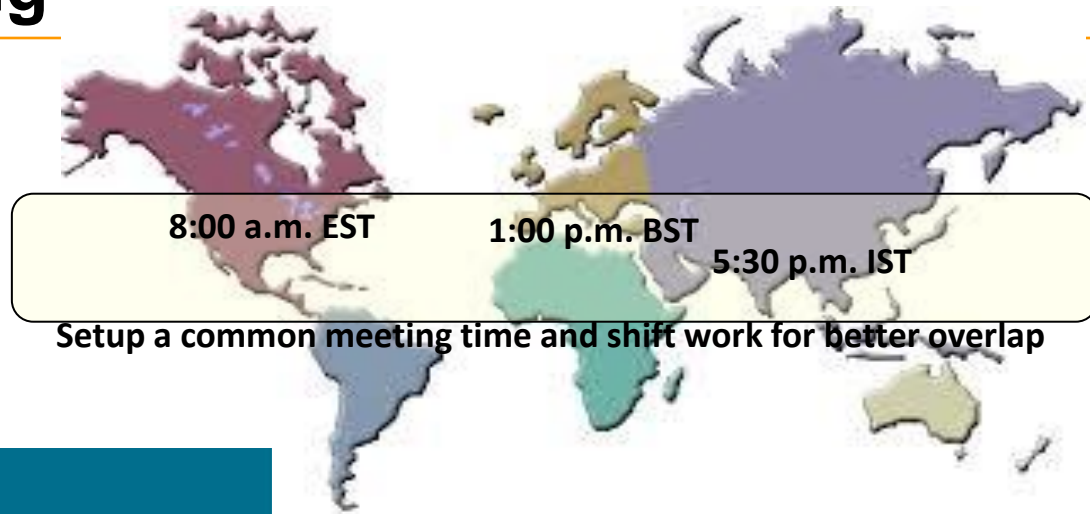


Cultural Differences

- Greater **empowerment** of teams
- **Rotation of coordinators** between locations
- **Frequent visits** by onshore team members to offshore and vice versa
- Organizing various **social events** and fun activities for team bonding
- Circulate photographs or videos of team members so people can match a face with a name

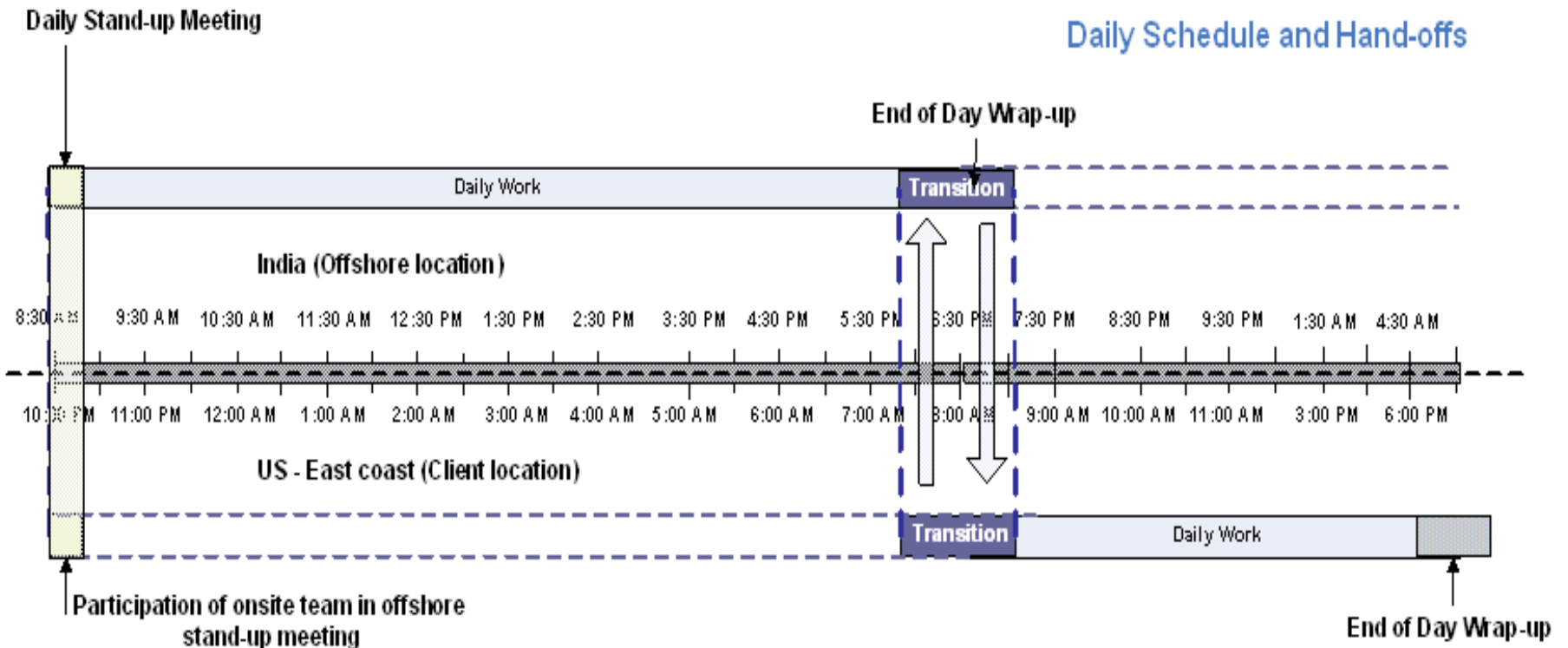
Cross-Culture Training

Getting Teams across the globe
to work together



Day in Life of an Agile Project - Overlap

- Combined stand up at start of the day
- Transition meetings immediately after that where required
- During closing hours another transition meeting for wrap up
- Certain locations may have to adjust the office timings to ensure sufficient overlap



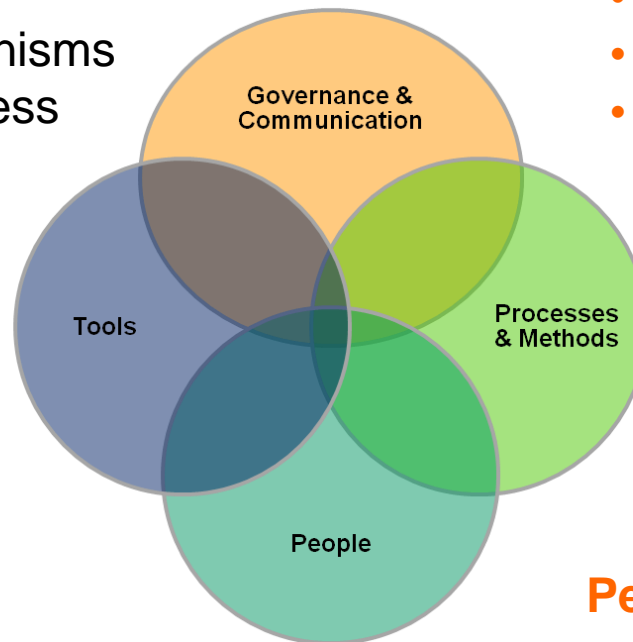
Other Considerations in Distributed Agile

Governance & Communication

- Sponsorship
- Governance Model
- Communication Mechanisms
- Business Responsiveness

Processes & Methods

- Requirement Nature
- Distributed Planning
- Distributed Estimating
- Project Management



Tools

- Collaboration enablers
- Configuration Management
- Continuous Integration

People

- Mindset
- Functional skills offshore
- Agile Experience
- Agile Training/Coaching

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Multiple Vendors - Communication Patterns

Scaling Considerations & Practices

Best Practices

Introduction to Multi-Vendor Environment

Today's enterprise has moved strategically from single-vendor environment to multi-vendor environment.

Key Characteristics

- Teams are formed from different vendor organizations
- Differences in Processes and Practices
- Different areas and levels of expertise
- Multiple cultures within each vendor organization

Benefits

- Experience the best of breed solutions
- Optimize performance
- Achieve reduced risks and cost
- Ensure specialized support
- Experience flexibility of choice

Multi-Vendor Models - Customer Managed

Criteria:

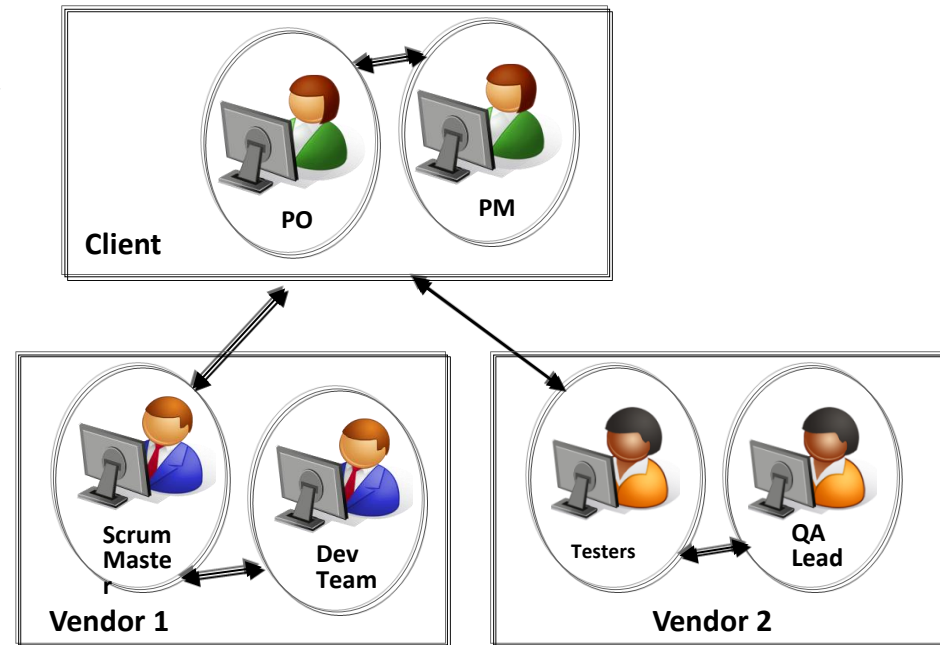
- Business requirements are Complex and / or Confidential
- Only one vendor owns the development work
- Client controls the coordination and communication between vendors

Benefits:

- Closer collaboration with the Client
- Vendors obtain first hand information
- Less potential gaps in communication
- Decision making process is faster
- Clients can benefit from centralized monitoring and tracking

Challenges:

- More Client involvement is required throughout the project life cycle
- Potential delays in information shared between vendors
- Milestones are driven by the Client which can lead to delays in arriving at a consensus between vendor teams



Multi-Vendor Models - Vendor Collaboration

Criteria:

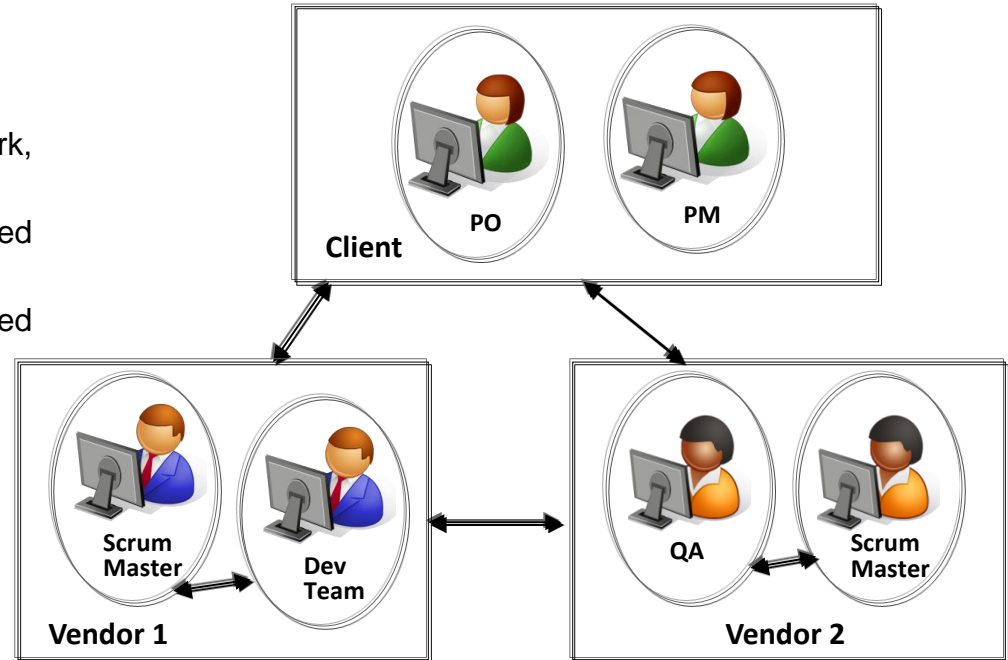
- Business requirements are Simple
- Only one vendor owns the development work, the other is QA
- Coordination and communication is managed by the vendors
- Only the critical transactions are coordinated by the Client

Benefits:

- Less time spent by the Client
- Faster response to change
- Risk mitigation is improved
- Decrease in communication delays across vendor teams

Challenges:

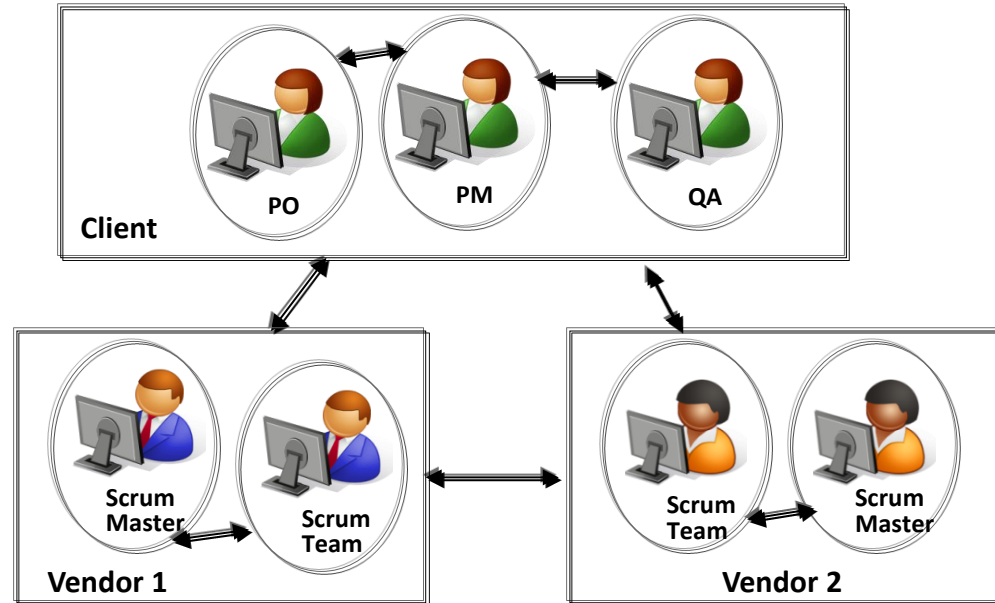
- Decision making may be slower
- Good leadership and communication skills are required from vendors
- Getting a consolidated dashboard may be time consuming (monitoring and tracking is done by individual vendors)



Multi-Vendor Models - Parallel Scrums

Criteria:

- Business requirements are Complex but less dynamic
- Individual vendor teams have well-defined and mature processes
- Development can be owned by multiple vendors
- Coordination and communication is managed by the vendors
- Only the critical transactions are coordinated by the Client



Benefits:

- Ownership of the individual components is clear and distinct
- Issues arising out of cultural difference is controllable since the coordination with client is limited to few vendor stakeholders
- Milestones are decided and agreed upfront by individual vendor teams bringing consensus forward

Challenges:

- Strong Continuous Integration environment is required
- Management skills are required by individual vendor teams
- Integration risk is higher as it is conducted at a later stage of the project by the Client teams

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Scaling and its Considerations

While launching a large-scale agile project that requires more than a couple of Scrum teams then careful consideration should be given to how you scale the management of the project.

Infrastructure:

- Scaled infrastructure requirements
- Consistent source structure: common source code
- Multiple environments
 - Sandboxed team development & testing environments
 - Integration environments
- Automation: Builds, Testing and Integration

Tools:

- Communication tools used in small teams
 - ✓ Whiteboards, post-it notes, charts
 - ✓ Simple, informal Designs
 - ✓ Small open source utilities

...May not scale for larger teams: a more robust and scalable set of tools that can be used by multiple teams, including distributed teams is required.
- Guidance: on the use of online collaboration tools for effective collaboration

Scaling Considerations

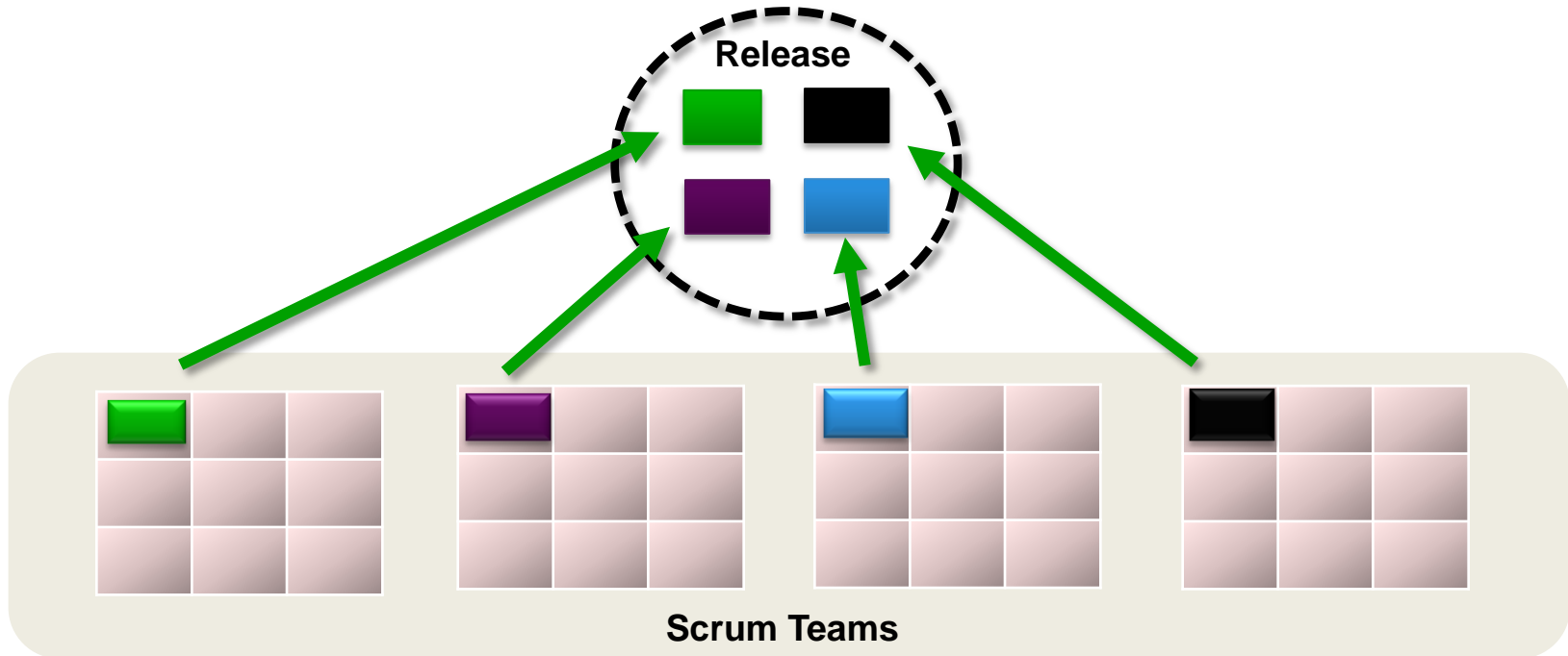
People:

- Formal organization structure balanced with informal practices
- Use of additional roles to the ones prescribed by Scrum
- Use of formal communication to support informal communication
- Common understanding for the Agile practices
- Usage of standardized tools and assets

Processes:

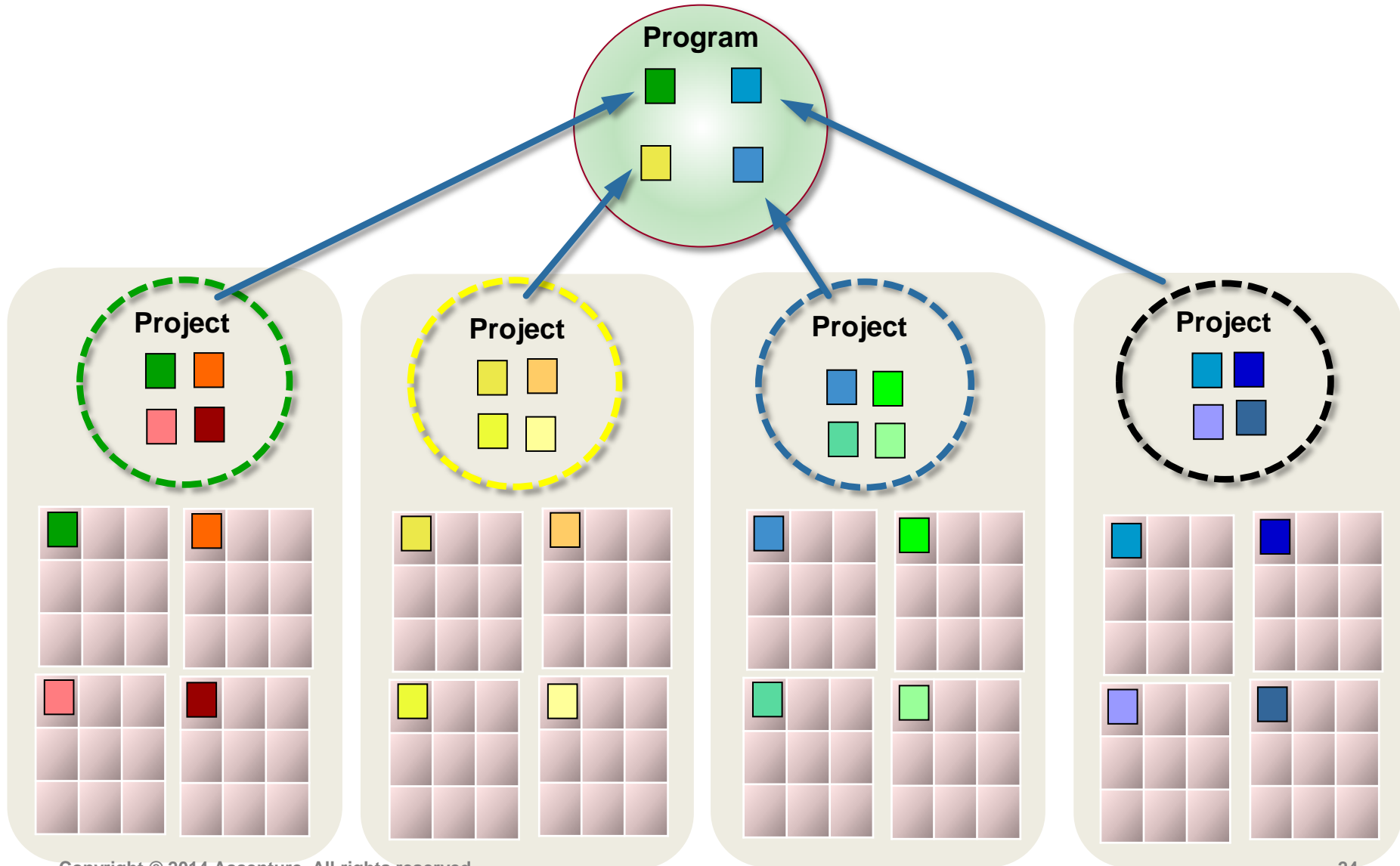
- In larger projects, the entire product is planned at 5 levels – the product vision, roadmap, release, Sprint and daily plan.
- The Product Vision is mapped to Plan phase. The Roadmap is mapped to the Analyze phase. Release Plan is mapped to Sprint 0 phase and the iteration plan is performed in each Sprint as Sprint Planning, and also daily planning is done by each team member.
- This multi-layer planning allows the projects to scale to larger teams and complex applications.

Scaling Practices – Scrum of Scrums



Scrum of Scrums Meetings are attended by Scrum Masters or senior members of each team

Scaling Practices – Scrum of Scrum of Scrums



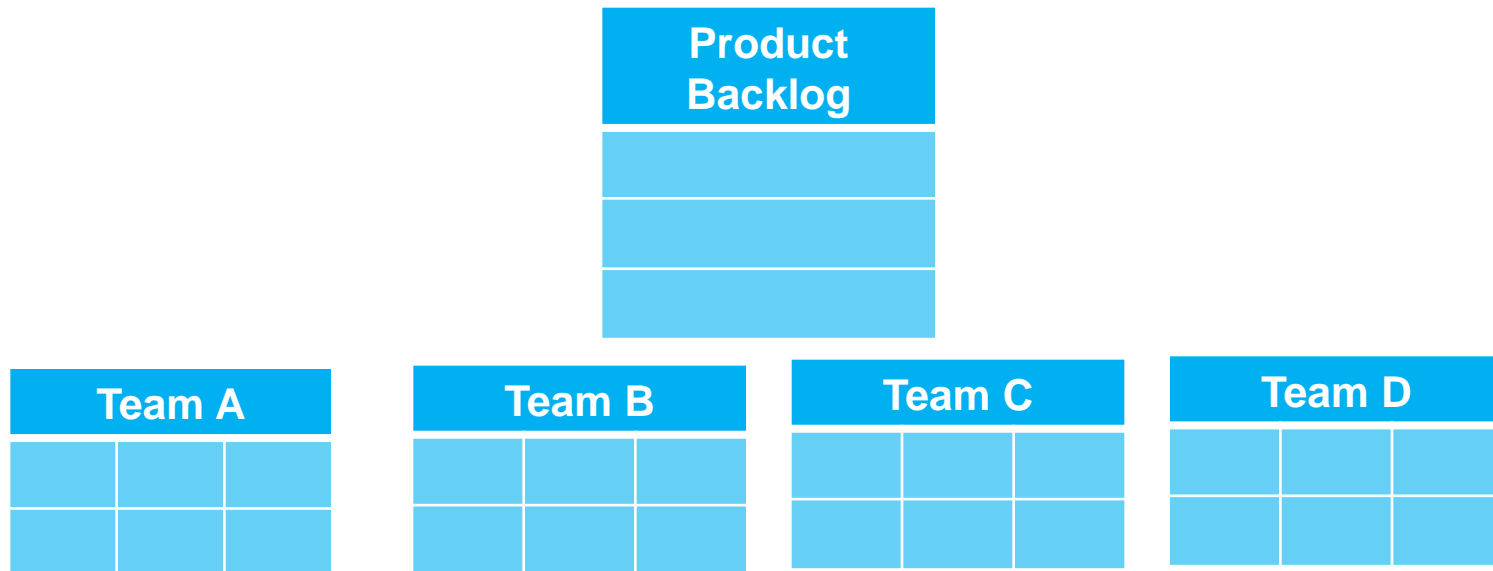
Scaling Product Backlog

If the project team size is large ~50 People then we can take three approaches to scale the Agile Project

Approach 1 - When building something where all the modules are intimately integrated, a single, tightly managed, master backlog may work well.

- Divide project team into multiple teams and they can work from one Product Backlog
- One Product Owner will be responsible for that Product Backlog

Product Owner

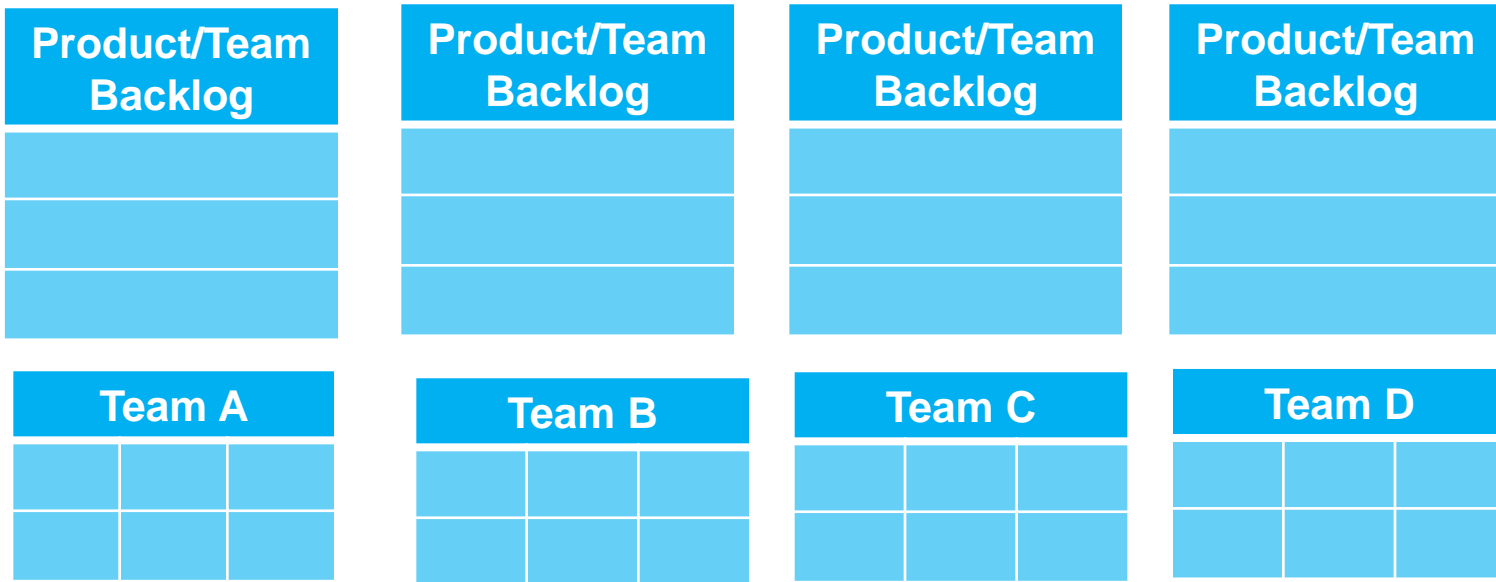


Scaling Product Backlog

Approach 2 — While working on different technical implementations for the same product.

- Divide project team into multiple teams
- Assign one Product Backlog to each team
- One Product Owner will be responsible for all Product Backlogs

Product Owner

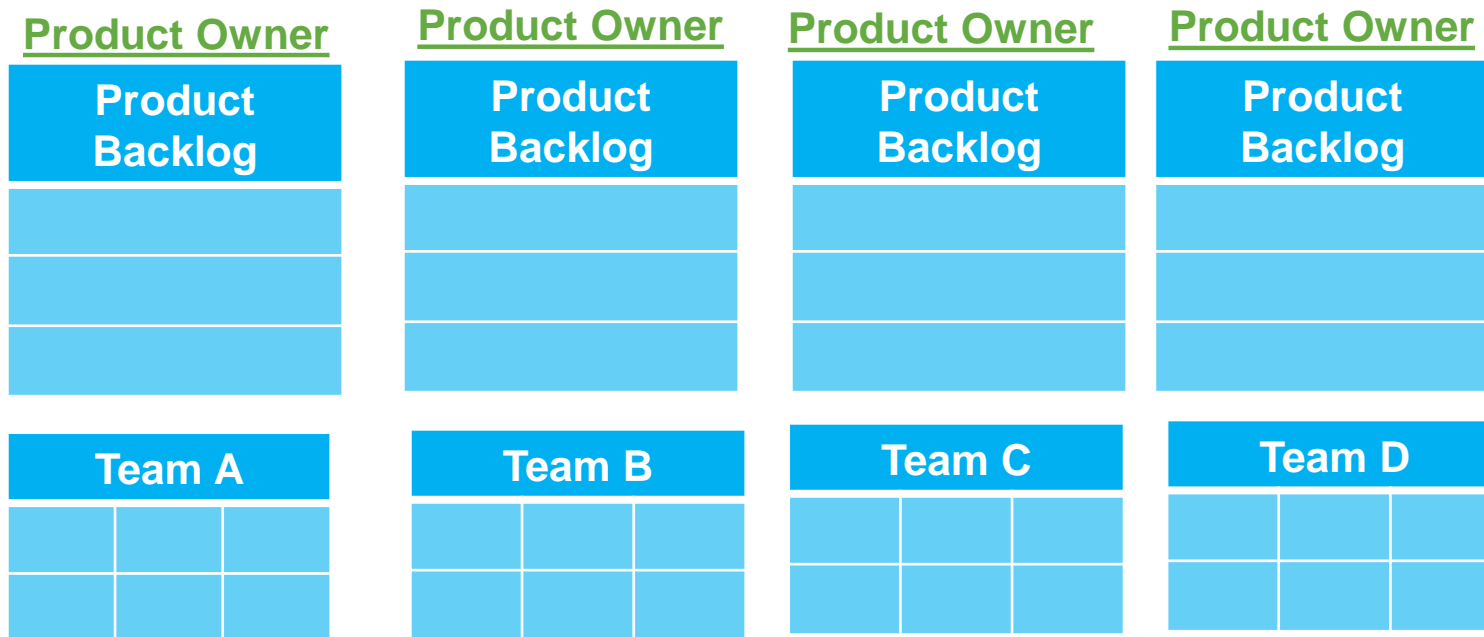


Scaling Product Backlog

Approach 3 – When teams are working on different functional modules that are independent of each other with different functional leads

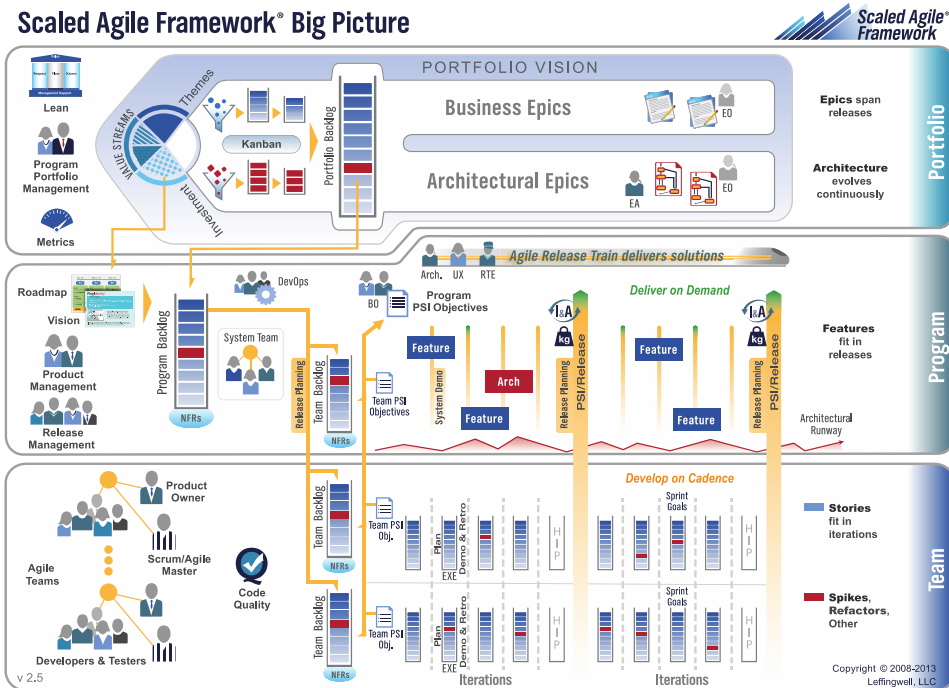
- Divide project team into multiple teams
- Assign one Product Backlog to each team
- Assign one Product Owner to each Product Backlog
- All Product Owners will report to one senior Product Owner

Senior Product Owner



Scaled Agile Framework – Scaling Agile to Enterprise Level

The Scaled Agile Framework® (pronounced SAFe™) is an interactive knowledge base for implementing agile practices at enterprise scale. It is a proven, publicly-facing framework for applying Lean and Agile practices at enterprise scale.



CORE VALUES

1. Program Execution
2. Alignment
3. Code Quality
4. Transparency

**Synchronizes
alignment,
collaboration and
delivery for large
numbers of teams**

<http://www.scaledagileframework.com/>

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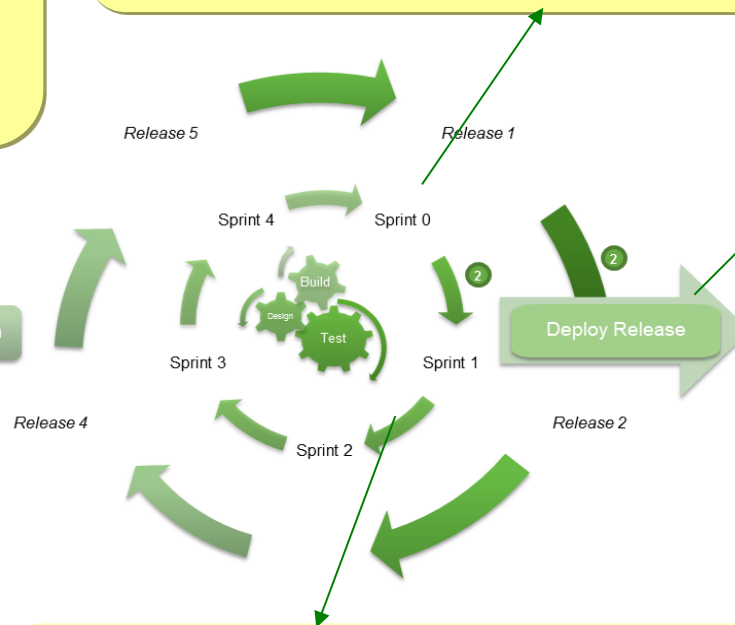
Best Practices

Some of the Best Practices

- Ensure contracting guidelines for Agile are consulted
- Consider infrastructure and communication overheads for estimation
- Adopt the operating model which is best suited for the requirements

- Conduct a joint release planning with all the vendors
- Consider cross-vendor dependencies while deciding the priorities and estimates
- Consider Architectural and Testing dependencies while planning

- Ensure that there is a common integration environment and it is accessible by all the vendors
- Conduct cross-team review for the integration test scripts
- Common defects log which is shared across vendors



- Conduct / participate in a process alignment workshop
- Ensure all vendors have the same understanding of requirements. Conduct a workshop if required
- Setup a robust change management process
- Setup the required infrastructure and test it

- Conduct Scrum of Scrums with the different vendors involved
- Joint Sprint Planning to plan the test cycles, if done by different vendors
- Agree on a common definition of Done
- In case of design dependencies across vendors, ensure that a common design is agreed and shared
- Ensure that a common set of metrics is tracked

Questions & Answers

