

**Scaled Agile Framework (SAFe)****Scaling Agile and Scrum to Larger Projects**

- Small teams - self directed teams, rely on face to face communication
- Only short term planning: no big design up front, FDD recommends JEDI
- Single product owner (customer): answers developers' questions, sets priorities and release dates
- Scrum of Scrums: one solution: provides one technique to scale scrum to larger projects

**Overview of SAFe**

- Big picture -- larger long term applications

| Level            | Role                    | Title             | Requirements |
|------------------|-------------------------|-------------------|--------------|
| <b>Portfolio</b> | Long-term planning      | Portfolio Manager | Epics        |
| <b>Program</b>   | Large system management | Product Manager   | Features     |
| <b>Project</b>   | Traditional Scrum teams | Product Owner     | User Stories |

-

- Three levels of organization above

**Project Level of SAFe**

- Agile teams define, implement, and test user stories
- Small enterprises may have a few teams
- Larger enterprises may have pods of teams
- Use lean, scrum and or kanban
- Deliver components or features

**Project Level: agile Teams**

- 5-9 people
- Organized around a single component or feature
- May be supported by architects, technical writers, build support staff, internal IT

**Project Level: pods of agile teams**

- Larger systems may require groups of teams
- May have 3-10 teams
- Result is 50-100 people collaborating face to face
- Each team primarily works alone but the other teams are readily available for collaboration

**Project level: roles on agile teams**

- Product owner
- Scrum agile master

- Developer

#### **Project level: iterations**

- Standard time boxed intervals
- Iteration length is same for all teams
- Typically 2-4 weeks
- Need to integrate modules across teams
- Each release contains: 4/5 development sprints, 1 hardening iteration - resolve integration problems, fully shippable increment every 90 days or so

#### **Project level: user stories and tasks in the backlog**

#### **Project level: agile release train**

- Multiple agile teams delivering functionality
- Time boxed iterations with quality requirements
- Features in each release may change to meet the schedule
- Deliveries are made every time the train enters the station

#### **Program level: SAFe**

- Release management and product managers
- System team and release management team
- System level testing and release evaluation
- Coordinate work of agile teams in the project level
- Understand how the work should evolve over time

#### **Program level Releases**

- Each interaction produces a potentially shippable increment
- Typically 2-4 month intervals between releases
- May not want to release every increment to customer
- Defects, refactoring to remove technical debt
- May interfere with customer's licensing and service agreements

#### **Program level vision and features**

- The vision answers
- Release backlog consists of prioritized features
- Specify non functional requirements
- Product managers are responsible for overall vision

#### **Program Level: release planning**

- Taking that vision and
- Hold release planning meeting
- Create a roadmap to describe the plan of intent

#### **Program level: the roadmap**

- Release planning breaks features into stories
- Stories assigned to teams
- Interdependencies are identified and addressed
- Result is a roadmap, planned release dates each release includes themes, objectives, set of features

#### **Program level: product management**

- Scrum product owners: represents the interest of everyone with a stake in the resulting project

- Achieve initial and ongoing funding
- Create initial requirements
- SAFe product managers responsibilities are more broad: define the product, position the solution in the market

#### **Portfolio level of SAFe**

- Portfolio managers responsibilities: manage enterprise investments, manage enterprise resources
- Investment themes
- Epics

#### **Portfolio level: investment themes**

- Large enterprises make decisions once or twice per year on investment themes: existing offerings, new offerings, futures, sunset
- Themes identify key value propositions
- Themes are allocated a percentage of total working time
- Themes may span multiple years

#### **Portfolio level: Epics, features, stories, tasks**

- Themes are later defined as epics in the portfolio backlog
- I need office 365
- Epics are further refined into features
- Features to stories
- Stories to tasks