Scale Agile to Large Teams

01/15/2018 • 7 minutes to read

In this article

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Many people wouldn't use the words "Big" and "Agile" in the same sentence. Large software organizations had earned a reputation of being big and slow to change. But that is changing. Many large organizations have successfully made the transformation to Agile. They have learned to scale Agile principles and have done so before scaling frameworks such as SAFe, LeSS, or Nexus became popular.

One such group, the Team Services organization at Microsoft, builds the Azure DevOps product. Team Services has 35 feature teams that release to production every 3 weeks.

Every team within Team Services owns everything from start to finish and beyond. They own customer relationships. They manage their own product backlog. They write and check code into the production branch. Every 3 weeks, the production branch is deployed and the release becomes public. The teams then monitor system health and fix live-site issues.

According to Agile principles, autonomous teams are more productive. An agile organization wants their teams to have autonomy over their day-to-day execution. But autonomy without alignment would result in chaos. 20 teams working independently would not produce a unified, high quality product. Alignment gives teams their purpose. Alignment ensures the teams meet organizational goals. Without alignment, even the best performing teams would fail.

To scale Agile, you must: enable autonomy for the team, while ensuring alignment with the organization.

To manage the delicate balance between alignment and autonomy, define your taxonomy, your planning process and use feature chats.

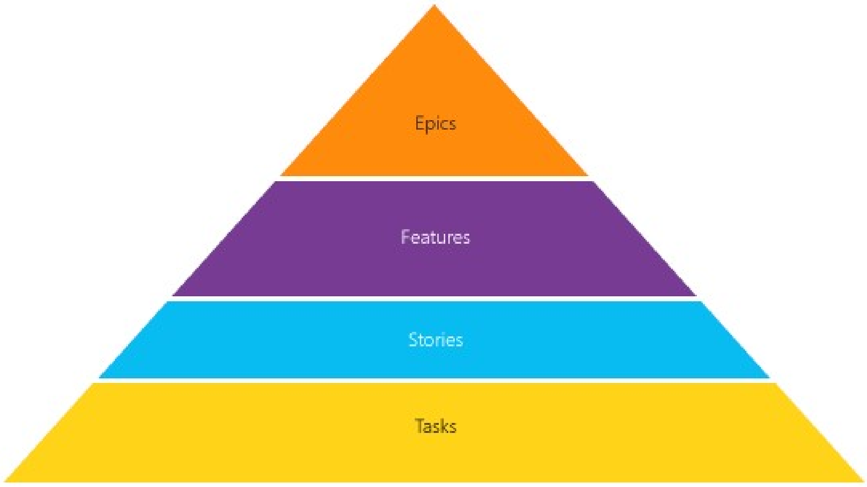
Taxonomy

A clearly defined taxonomy defines the nomenclature for your organization.

An agile team needs clearly defined backlog to be successful. So does the agile organization! You cannot expect the teams to be successful without clearly stating your organizational goals.

An agile organization needs to clearly define its goals and state how each team needs to contribute to those goals. To accomplish this, you must define a taxonomy for your organization.

A common taxonomy is Epics, Features, Stories, and Tasks.



Epics

Epics declare initiatives important the organizations success. Epics may take several teams and several sprints to accomplish, but they are not without an end. Epics have a clearly defined goal. Once attained the Epic is closed. The number of Epics in progress should be manageable, to keep your organization focused. Epics are broken down into Features.

Features

Features define new functionality required to realize an Epic’s goal. Features are the release-unit, that is, they represent what is released to the customer. Your published release notes can be built based on the list of Features recently completed. Features can take multiple sprints to complete, but should be sized to ensure a consistent flow of value to the customer. Features are broken down into stories.

Stories

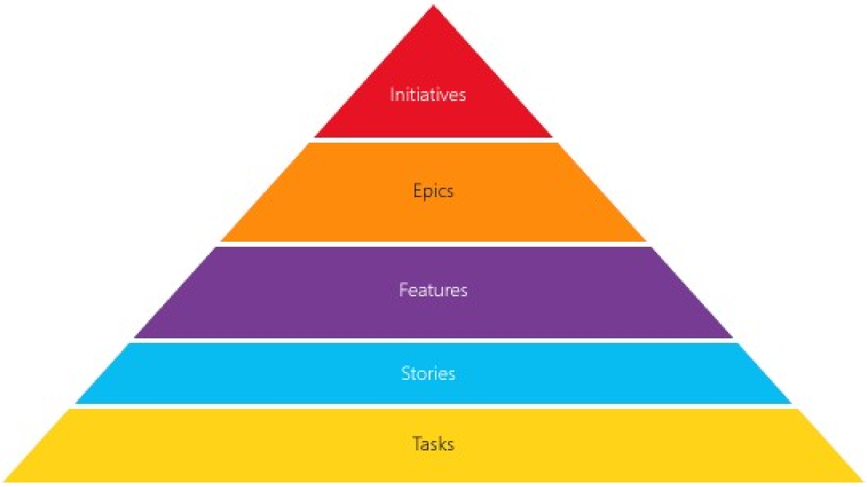
Stories define incremental value the team must deliver to create a Feature. The team breaks the Feature down into incremental pieces. A single completed story may not provide meaningful value to the customer. However, a completed story represents production-quality software. Stories are the team’s work unit. The team defines the stories required to complete a Feature. Stories optionally breakdown into Tasks.

Tasks

Tasks define the work required to complete a Story.

Initiatives

This taxonomy is not a one-size-fits-all. Many organizations introduce a level above Epics called Initiatives, Initiatives break down into Epics.

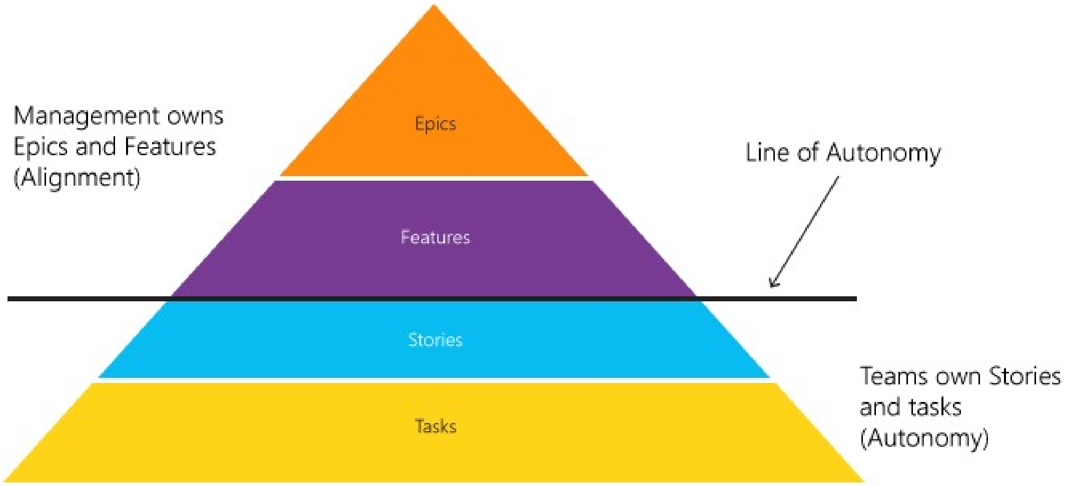


The names of each level can be tailored to your organization. However, the names defined above (Epics, Features, Stories) are fairly close to being industry standard.

Line of Autonomy

Once your taxonomy is set, define your Line of Autonomy. The Line of Autonomy is the point at which the team is the clear owner and management doesn't interfere.

The example below has drawn the Line of Autonomy below Features. Management owns Epics and Features, which provide alignment. Teams own Stories and Tasks and have autonomy on how they execute.


Management owns Epics and Features (Alignment)
Epics
Line of Autonomy
Features
Stories
Tasks
Teams own Stories and tasks (Autonomy)

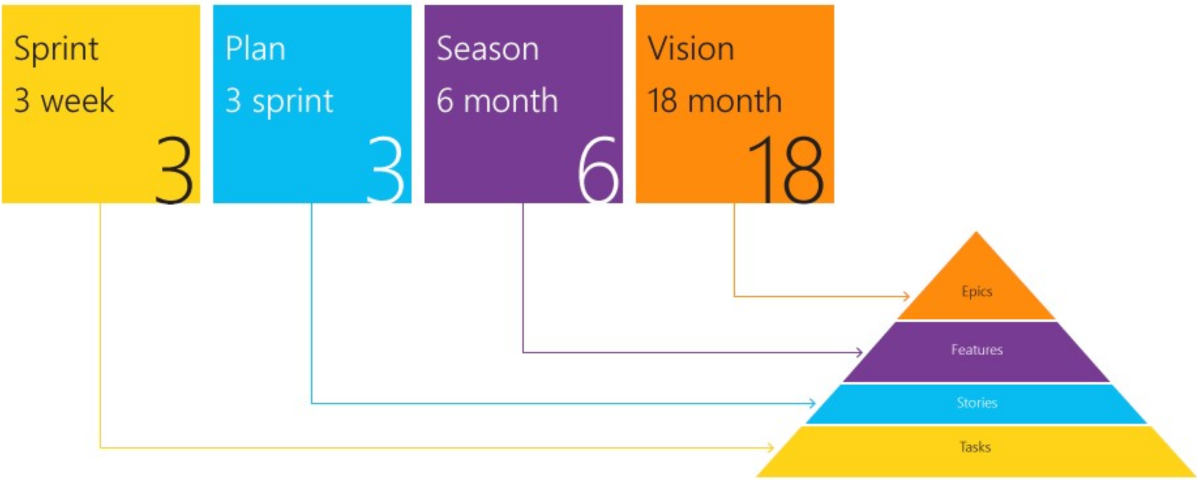
Management doesn't extend ownership below the Line of Autonomy. For example, management doesn't tell the team how to decompose stories, plan their sprint, or execute their work.

The team, however, must ensure their execution aligns with management's goals. While a team owns their backlog of stories, they must align their backlog with the Features assigned to them.

Planning

To scale Agile planning, you need a plan for each level of your taxonomy. Rolling wave planning is key: The plan provides direction for a fixed period of time, with expected calibration on regular intervals. For example, an 18-month plan could be calibrated every 6 months.

Here we define planning methods for each level of a taxonomy: Epics, Features, Stories, Tasks.



Vision

Expressed through Epics and sets the long-term direction of the organization. Management owns the plan and calibrates it every 6 months. Epics define what we want to complete in the next 18 months. The Vision is presented at an all-hands meeting. Expect to accomplish about 60% of the Vision plan.

Season

Described through Features and sets the strategy for the next 6 months. Features determine what we want to light up for our customers. Management owns the Seasonal plan and presents the Vision and Seasonal plans at an all-hands meeting. All team plans must align with the management's Seasonal plan. Expect to accomplish about 80% of the Seasonal plan.

3-Sprint Plan

Defines the Stories and Features the team will finish over the next 3 sprints. The team owns the plan and calibrates it every sprint. The team presents the plan to management via the Feature Chat (see below). The plan specifies how the team's execution aligns with the 6-month Seasonal plan. Expect to accomplish about 90% of the 3-Sprint plan.

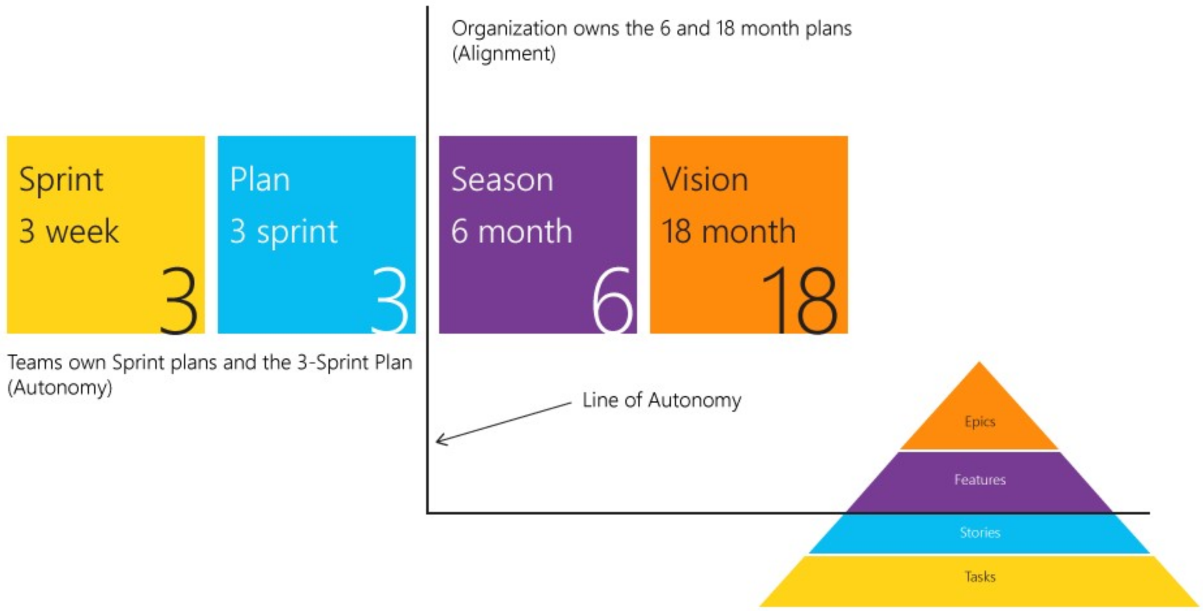
Sprint Plan

Defines the Stories and Features the team will finish in the next sprint. The team owns the sprint plan and emails it to the entire organization for full transparency. The plan includes what the team accomplished in the past sprint and their focus for the next sprint.

Expect to accomplish about 95% of the Sprint plan

Line of Autonomy

The Line of Autonomy is drawn to show where teams have planning autonomy. The above planning process draws the Line of Autonomy as follows:


Organization owns the 6 and 18 month plans (Alignment)
Sprint 3 week 3
Plan 3 sprint 3
Season 6 month 6
Vision 18 month 18
Teams own Sprint plans and the 3-Sprint Plan (Autonomy)
Line of Autonomy
Epics
Features
Stories
Tasks

As stated above, Management doesn't extend ownership below the Line of Autonomy. They provide guidance using the Vision and Season plans and give teams autonomy to create 3-Sprint and Sprint plans.

Feature Chats – where autonomy meets alignment

A Feature Chat is a low-ceremony meeting where each team presents their 3-Sprint Plan to management. This meeting ensures team plans align with the organizational goals. It also helps management stays informed on what the team is doing. While the 3-Sprint plan is calibrated every sprint, Feature Chats are held as-needed, every 1-3 sprints.

A Feature Chat meeting allocates 15 minutes to each team. With 10 feature teams, you could schedule these meetings over a 2.5-hour time block. Each team prepares a 3-slide deck, with the following slides:

Features

The features the team will light up in the next 3 sprints.

Debt

How the team is managing their technical debt. Debt is anything that doesn't meet management's quality bars. The Director of Engineering sets the quality bars, which are the same for all teams (alignment). Example quality bars include # bugs/engineer, % unit tests passing, and performance goals.

Issues/Dependencies

Anything that impacts the team's progress. Issues the team can't resolve or dependencies on other teams that need escalation. Each team, not middle managers, presents their slides directly to management. The team presents how their 3-Sprint plan aligns with the 6-month seasonal plan. Leadership asks clarifying questions and suggests changes in direction. They can also request follow-up meetings to resolve deeper issues.

If a team's plan fails to align with management's expectations, management may request a re-plan. In this rare event, the team will re-plan and schedule a second feature chat to review it.

Trust – the glue that holds it alignment and autonomy

together

When practicing Agile at scale, trust is a 2-way street:

Management must trust teams to do the right thing. If management doesn't trust the teams, they won't give teams autonomy.

A team earns trust by consistently delivering high quality code. If teams aren't trustworthy, management won't give them autonomy.

Management must provide clear plans for teams to align with and trust their teams to execute. Teams must align their plans with the organization and execute in a trustworthy manner.

As you look to scale agile to large organizations, the key is to give teams autonomy while ensuring they are aligned with organizational goals. The critical building blocks are clearly defined ownership and a culture of trust. Once you have this foundation in place, you will find that Agile can scale very well.

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Gregg Boer is a Principal Group Program Manager in Azure DevOps. A big believer in the benefits of Agile, Gregg drives the vision for Agile management solution provided by Microsoft's Azure DevOps and Team Foundation Server products.