MOVE FAST

D-Stream Training Supplement: SAFe Alignment

THINK DIFFERENTLY

May 31, 2016

D-Stream Alignment to SAFe

Key Challenges:

- ➢ D-Stream is a project/program focused governance model. SAFe delivers content to releases, and is focused on continuous development, not time-bound projects.
- ➢ D3 assumes the same level of maturity for all features in the release.

Single Release Trains

- ➔ Use PIs to break development into manageable chunks
- ➔ Only one D2/D1 is planned
- ➔ Commitment for entire scope occurs prior to first PI
- ➔ Suited to SW, HW, or Mixed programs
- ➔ Requires some adjustments to specific D3 requirements

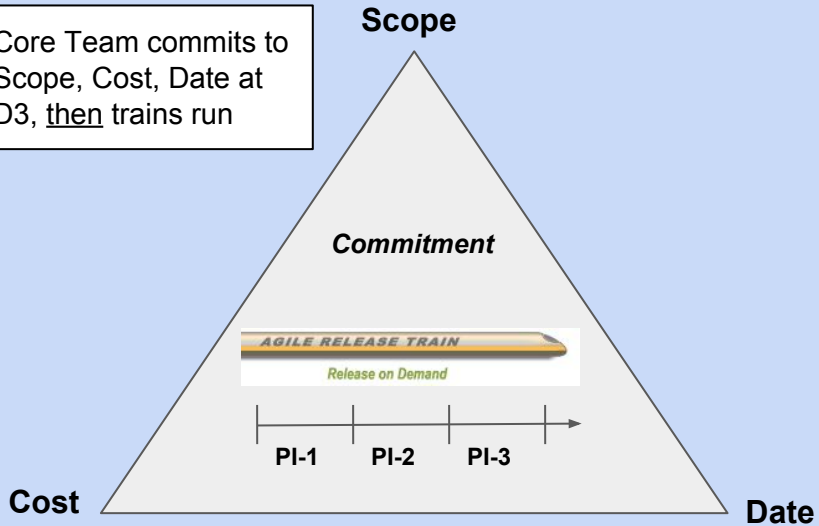
Continuous Product Line Trains

- ➔ Continuous product increments
- ➔ End of every product increment a potential D2/D1 event
- ➔ Currently used in Enablement
- ➔ Primarily suited to Software Programs
- ➔ Requires D-Stream adjustments in the relationship of train to program

Relationship of Program Core Team to SAFe Trains

Single Release Trains (Pilots)

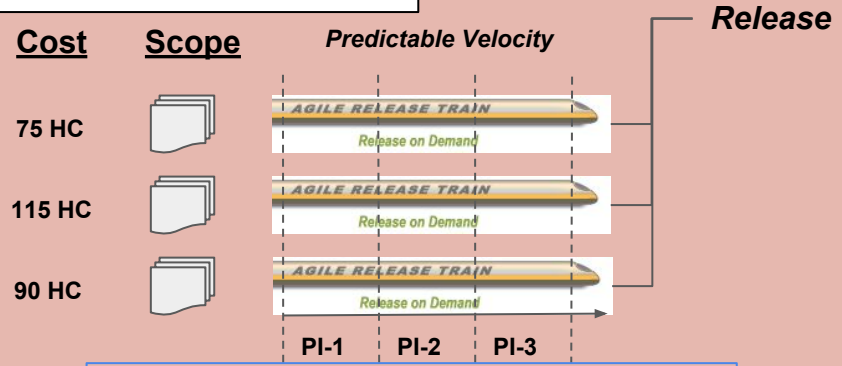
Core Team commits to Scope, Cost, Date at D3, then trains run



The Program Contains the Train

Continuous Product Line Trains

Trains commit to PI objectives based on the prioritized scope presented to them and their capacity, then Core Team will commit to D2 dates based on forecasts of train execution.



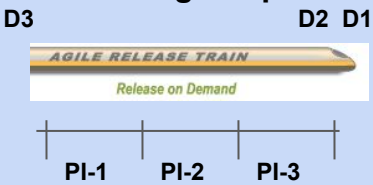
Programs Accept Content from the Trains

Release Train and Continuous Train Examples

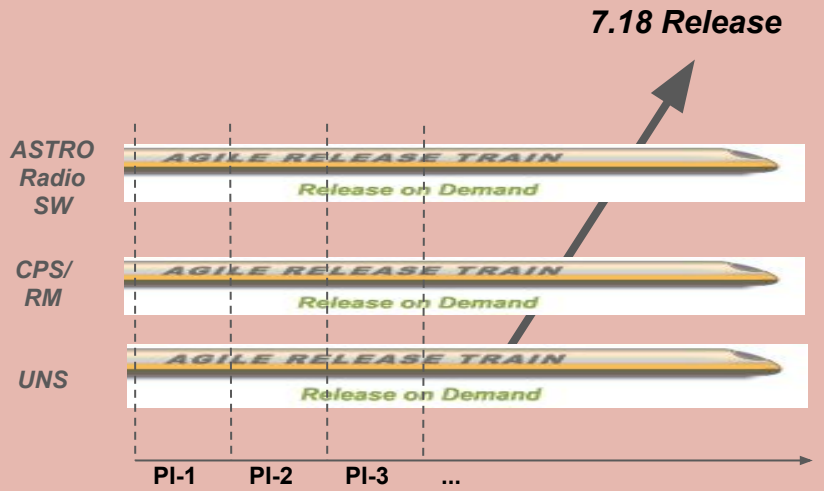
Single Release Train

Fusion 1.0

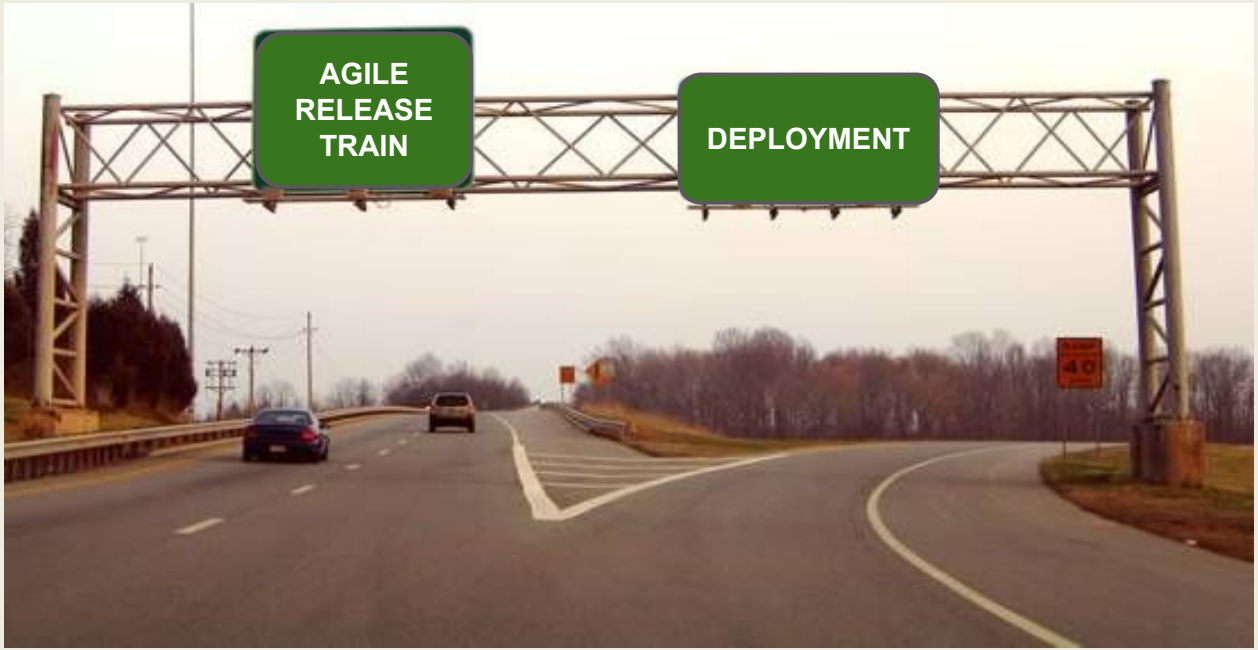
- ➔ HW and SW
- ➔ 3rd Party Integrations
- ➔ Single D3, D2, D1
- ➔ Scope Defined before first PI
- ➔ Delivered on a Cadence to enable rapid customer feedback and demo capability
- ➔ Introduced change requests at PI boundaries



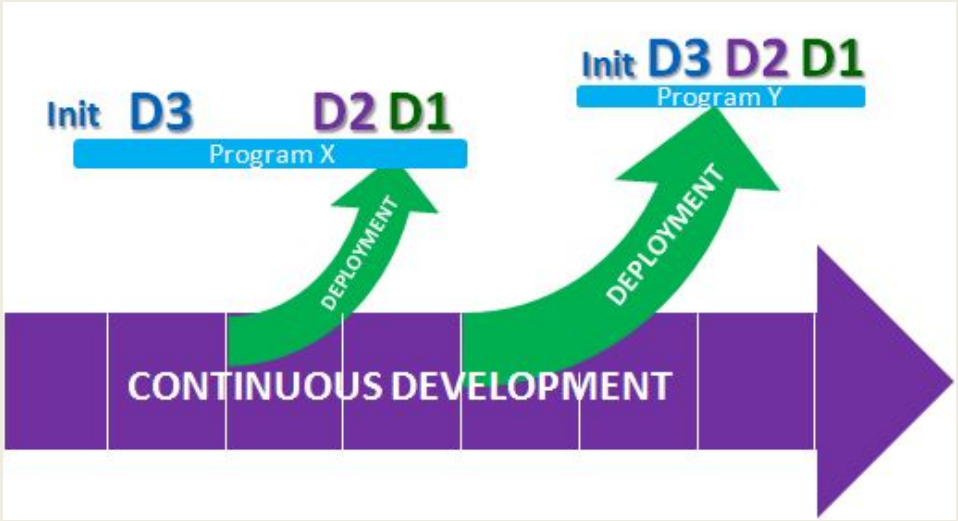
Continuous Product Line Train



“Off Ramp” Model



D-Stream Initiation with SAFe



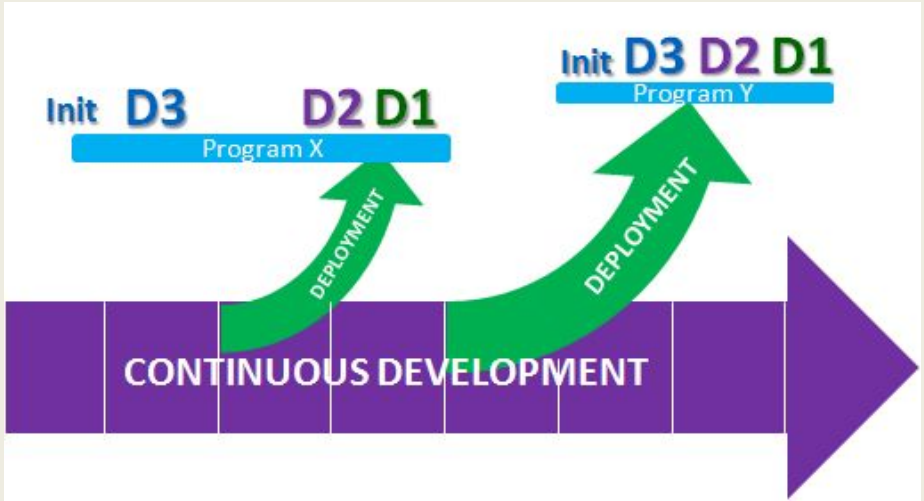
Initiation is of a Release (Deployment), not of a Train

- Can be early or late
- Not all scope will be known
- Long lead and HW support should be planned

Initiation of a HW Program supported by a Train requires:

- Prioritization of HW support into funnel for Train(s)
- Determination of whether dial-up of Train(s) is required

D3/D2/D1 with SAFe



- D-Stream checkpoints are bound to the program, above the level of the train itself
- D3 commitment can be early or late, depending on when commitment for specific features is required
- For each D2/D1 there will be an “exit ramp” off the main train, where any post-development testing of the complete release occurs before launch (final box testing, regression testing, SIT, etc.)
- Opportunity lies in optimizing the length and capacity needs of the off ramp
- The goal of the train is to become very predictable

Single Release Train (Pilots)

- Key Points:
  - The program and the train are one and the same
  - The Pipeline Management Team can choose to commit only key features, and leave bandwidth for other features to be prioritized in later Product Increments (PIs)
- Modifications to the D3 Requirements:
  - Feature Descriptions and Budgetary Estimates at D3 can be only for the first PI
  - WAGs (Initiation-level) estimates can be used for other features
  - Bandwidth can be left unassigned to specific features with prioritization happening at each PI
  - Each set of features gets a refined BE as it is aligned with a program increment
  - Deliverables for some requirements can be updated per PI (e.g., OSS Plan, IA Activities, Data Privacy Review) as features are matured and committed

Continuous Product Line Trains

- Key Points:
  - The Train is ***continuous***; the Program has a ***beginning*** and ***end***
  - A Release draws content from the Train(s) to deliver content externally with a single D2/D1
  - D3 binding can be early or late
    - Use Early Binding to commit features to customers early in support of business needs (when early commitment of one or a few key features is more important)
    - Use Late Binding to specify the <u>complete</u> scope of the Release, which will only be known one PI before D2/D1 (when completeness is more important)
- For Continuous Product Line Trains, D3 relates to the program/project that is above the level of the train itself. The D-Stream checkpoints are on the level of the program, not the train.
- A program is the cost-scope-schedule lockdown for a release. A program manager will reference:
  - the currently-staffed trains (cost);
  - the currently prioritized feature/epic queues (scope); and
  - the known velocity of the trains,

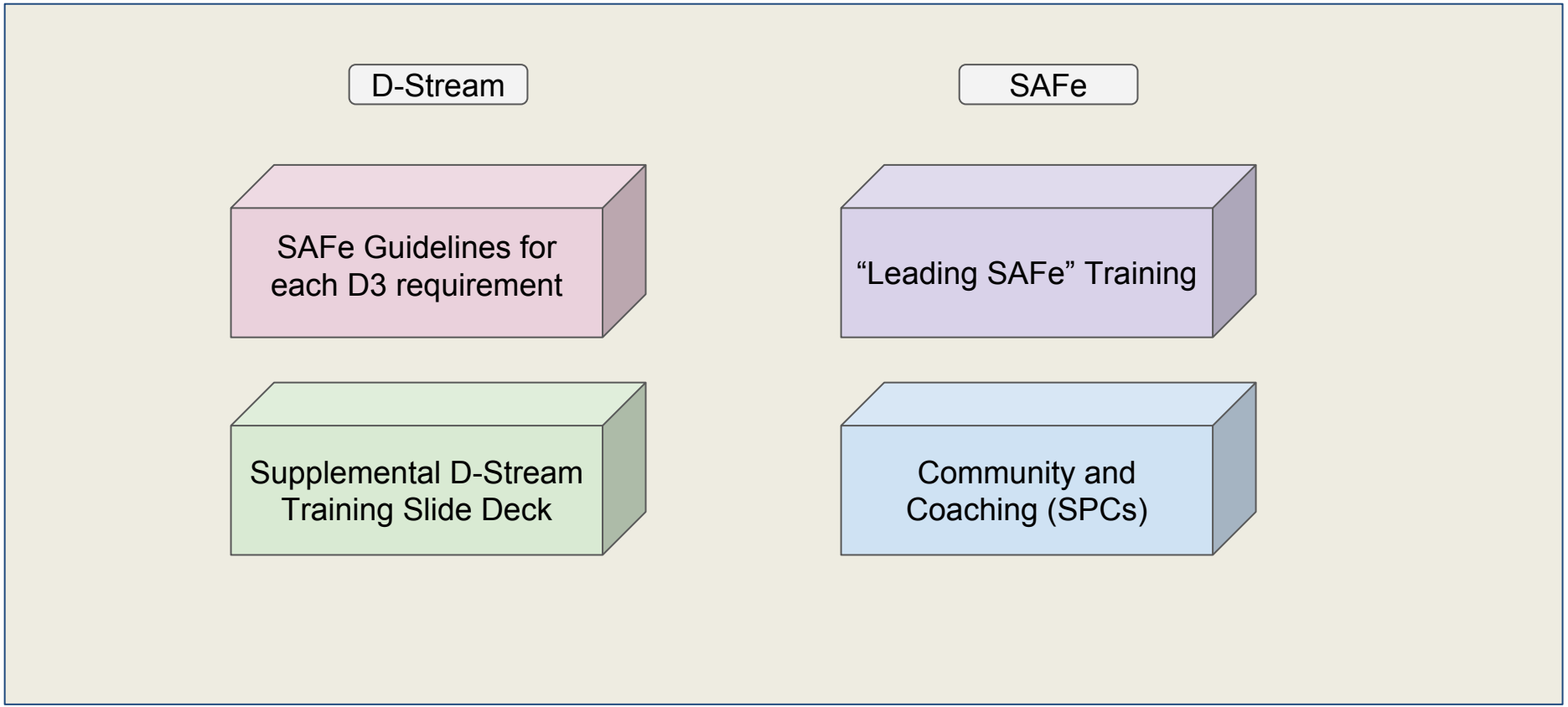
  in order to commit to the schedule for the scope of the program/release
- Train adjustments can be requested by program manager (dial up on train(s), reprioritization of scope, etc.) to meet program needs

Continuous Product Line Trains (cont.)

- Examples of D-Stream Requirements Owned by the Train
  - Budgetary Estimates - Done as each set of features is aligned with a product increment
  - Technology, Architecture & Platform Strategy - Reviewed per feature
  - OSS, IA, Secure Design Plans - Updated each PI based on the feature set
  - Some requirements will move over to Definition of Done for the Train
- Examples of D-Stream Requirements Owned by the Program Core Team
  - Baselined Feature Descriptions - While the feature descriptions are clearly used by the trains, the scope of the release is owned by the Project Core Team
  - Supply Chain Activities - For a SW release for an existing product, needs to be done no later than 1 PI before the off ramp. (At least D2 - 3 Months). New HW products would have their own traditional D-Stream plan.
- Examples of D-Stream Requirements with Mixed Ownership
  - Program Schedule - Trains commits to PI objectives based on the scope and their velocity. Program Core Team commits to D2 dates based on the Train's forecasts of when scope will be available, and based on the estimate of the staffing/time needed for the off ramp (final box test, SIT testing, etc.)
  - 3rd Party Supplier - Train will treat 3rd party deliverables as an activity outside the train, and manage the integration as a backlog item in the appropriate PI. If the Project scope requires the integration of 3rd Party SW, the Project Core Team owns management of this dependency.

* See D-Stream Checkpoint Requirements v1.01 for descriptions of ownership for each D3 requirement.

Resources Available



Thank You