Implementing SAFe
MDO (Intel) test case

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Agenda

- Who am I?
- Who are we (MDO)?
- What was the motivation to look for system level agile?
- How we did 8 trains within 2 months (with Christmas and New Years in the middle...)?
- Results – RP, Q1 results
- Lessons learned
Who am I?

- At Intel since 2001
- Product Development Eng.
- Integration team manager
- Agile coach
Our product – Test Program(s)

A Test Program is . . .
- Everything we know about how to manufacture the chip in a software format
- Over 2 million lines of code
- Delivered every 2 weeks
Our agile journey

Natural Evolution of our agile efforts

Number of scrum teams

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Number of Teams</th>
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<tbody>
<tr>
<td>Q3’12</td>
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<td>Q4’12</td>
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<tr>
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<td>26</td>
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<tr>
<td>Q3’13</td>
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I'm glad the hole is not on our side....

Scrum x

Scrum y
Scaling up

Natural Evolution of our agile efforts
MDO – Manufacturing Development Organization

~170 scrum teams

Product development value stream
Why Scaled Agile Framework?

- In an organization as large as MDO we need to standardize the planning and execution process we use to work together to deliver value.
- Scaled Agile Framework (SAFe) is a proven, public framework for applying Lean and Agile product development practices at enterprise scale.
- Good News – this is not a big leap for most of us, just the next step in our lean/agile evolutionary ladder.
How we did 8 trains within 2 months (with Christmas and New Years in the middle...)?
Step 1 – setting the rules

- **Scaled Scrum Rules**
  - #1 Scrum works on only 1 train at a time
  - #2 Train can have 5-15 scrums
  - #3 Train can have a maximum of 2 geos participating
  - #4 Train must have a min 3 hours of time zone overlap 4 days a week
Step 2 – “finding the kidney”
MDO ARTs

<table>
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<th>Train</th>
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<tr>
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<td>• 1-2 chips</td>
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Step 3 – tool & portfolio management

- 90% of MDO already used Rally
Step 4 – roles/meeting definitions

- Not all roles and meetings defined on SAFe adopted.
- We focused on:
Step 5 - Convincing/gaining buy-in
Teaser

Agile Release Train (ART)

Always on Track, Always on Time!
TO: MDO employees
FROM: Mohsen Fazlian
DATE: Jan. 17, 2014
RE: All aboard the Agile Release Train!

In WW04, many of you will be participating in our Agile Release Trains (ARTs) for the first time. ARTs help us standardize and scale Agile practices across MDO and link our work to make sure we deliver the maximum business value - on time and of high quality.

For more information on our scaled Agile approach, I encourage you to go to http://geto/procoff. The link has several great resources, including names of your local coaches who are ready to answer any questions you may have.

Thank you in advance for your participation, and for doing what it takes to enable MDO to make and meet its commitments.

See you on board!

- Mohsen
Training

- Agile coaches (ART’s uber-SM’s) & (some) BO’s
Communicating to managers/PO’s/SM’s

Purpose of the SAFe Intro

Create shared language and understanding within MDO for

**WHY** we are implementing SAFe and

**HOW** SAFe works at team and program levels

So that we will be able to create a shared vision for **WHAT** changes we should do to enable it.
Communication to the “crowd”

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- However, participation is not enough we need Unity and Uniformity – everyone participates and everyone follows the standard to insure we get the maximum benefit.
MDO – Release Planning Calendar

Q3’14 – Release Planning Event (ww28)

-4wks -3wks -2wks -1wk +1wk

Test Program Scrums - Planning Timeframe (ww28–ww39)

TP Sprint TP Sprint TP Sprint TP Sprint TP Sprint TP Sprint

MO Sprint MO Sprint MO Sprint MO Sprint MO Sprint MO Sprint

Module Scrums – Planning Timeframe (ww29–ww40)

Q3

TP Sprint TP Sprint TP Sprint

MO Sprint MO Sprint MO Sprint

Q4

TP Sprint TP Sprint TP

MO Sprint MO Sprint MO Sprint

Q2

TP Sprint TP Sprint

MO Sprint MO Sprint

Q4

TP Sprint TP Sprint

MO Sprint MO Sprint

External Team Input (ww26.5)

Milestones and Features Sent Out (ww24.5)

Milestones and Features Sent Out (CE/PDT and BO align on Milestones and CE sends out Features to Teams – in Rally)

Presentations from External Groups Prior to Release Planning Event

(External teams with dependencies on Train: Labs, Common Tools, IT, etc.)

Teams Prepare for Release Planning Event

(PO/Teams review Features and create Objectives 1wk prior to Event)

Release Planning Event Held

(Must complete and launch Trains by end of ww28)

AAR of Release Planning Event

(P&E complete Review/Retro of Event)

After Action Review (ww29.5)

Planning Event (ww28)

Team Preparation (ww27.5)

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Results and learning
Release planning

- 1st RP is A LOT of effort, afterwards gets much easier.
- RP using SAFe recipe helped highlight dependencies and risks (even showstoppers) far in advance of what we saw before.
- 2 day RP is hard to digest – provided some controlled slack so not everyone has to spend the entire time.
- Program board was very useful for showing in high level we have issues, but too much data on it to make it a real planning tool.
Lessons learned (cont.)

- Effective RTE has combination of technical background with deeper Agile mindset/experience.
- Having synchronized Agile Coaches that are $\frac{15}{2500}$ (0.6%) of the group helps drive across the board learning.
- Business Owners should take full SAFe training.
- Inspect & Adapt is key – “Progress over perfection” – just get started and then learn and adapt.
- **We need Daily SoS** – it’s critical – based on number of dependencies and learning throughout the PSI.
Q1 Release Results

- Visibility!
- Predictability – on track for 80% goal