The Sun Never Sets on the Problem Solving Workshop

Rochelle Tan,
Kevin Ho,
Steve Adolph

Photo Credit Marin Wick
Principles behind the Agile Manifesto

We follow these principles: Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

Welcome changing requirements, even late in development. Agile processes harness change for the customer’s competitive advantage.

Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

Business people and developers must work together daily throughout the project.

Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

Working software is the primary measure of progress.

Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

Continuous attention to technical excellence and good design enhances agility.

Simplicity—the art of maximizing the amount of work not done—is essential.

The best architectures, requirements, and designs emerge from self-organizing teams.

At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.
## SAFe Problem Solving Workshop

### SAFe “IP” Iteration

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Our Context: North American Multi National Energy and Petro Chemical Company

• Primary business objective – migrate legacy apps from the data center to “the cloud”
• SAFe Solution Train (team of teams of teams) – 400+ people on 4 Agile Release Trains (ARTs)
• 6th Program Increment (PI) - to date, no retrospective or inspect and adapt workshop conducted
The Sun Never Sets on The Solution Train
No Mothership – Everyone Online

While headquartered in North America, much of the value is created by teams beyond head office.

The Mothership – AKA Head Office - at the center of the Universe
SAFe Suggested 2 Hour Agenda for the Problem Solving Workshop

https://www.scaledagileframework.com/inspect-and-adapt/

**Step 1**
Agree on the problem to solve
- Insufficiently reliable release commitments

**Step 2**
Apply root-cause analysis (and 5 Whys)

**Step 3**
Identify the biggest root-cause using Pareto analysis

**Step 4**
Restate the new problem for the biggest root-cause
- Insufficient architectural runway

**Step 5**
Brainstorm solutions

**Step 6**
Identify improvement backlog items
- NFRs
7 Day Agenda for a Global Problem Solving Workshop (Definitely NOT a two hour workshop)

Our agenda

• **Dec 12th** by this date the teams are expected to have conducted a “mini retrospective” and identify what each team sees as program level issues.

• **Dec 13th** Publish and collate Issues discovered during the mini retrospectives.

• **Dec 13th** Open the vote on the published issue list to select the top 5 issues.

• **Dec 14th** Schedule the problem-solving workshop published and name the facilitators.

• **Dec 17th** Conduct problem solving sessions

• **Dec 19th** Present a summary of the workshop
Online Collaboration Tools

“We have not been in the news and we do not intend to be” - anonymous IT manager.

• Many excellent cloud based collaboration tools. But...
  • Mostly limited to internal tools

• Microsoft OneNote as shared whiteboard/flipchart
• PollEv.com for initially gathering and ranking issues.
Step 0: Train the Scrum Masters on the Process

• Scrum Master are the process owners
• Scrum Masters are the backbone of a highly distributed process
Step 1: Agreeing on the problem(s) to solve with 400 people around the globe. - PollEv.com

Giving everyone an “equal voice”

Most Critical Step

Key was not to just have a head office or even just a North American point of view on the issues

- Insufficiently reliable release commitments
- Insufficient architectural runway
Response options

There is no visibility for which tiger team owns certain features, (e.g. monitoring and alerts) This has lead to duplication of work

Dependencies between teams are not clear during sprints

Lack of team objectives and identity make it hard to understand what a team does.

Compliance activities take a long time

How should support be structured for cloud migrations

Jenkins has numerous errors

Uncertainty with the support model – e.g. who receives alerts about resources for a specific app – are unclear.

IaaS process not fully established

When individuals are on multiple teams it is difficult to impossible for them to attend all team ceremonies, and effectively participate in PI planning

Newly onboarded teams need more business scope/requirements feedback

We should show the benefit or value of each features in ADO

Teams that are not in the US or close to the pacific time zone are unable to participate in ART synch and other program level ceremonies.

How do we accommodate the ITSM waterfall based change management process with cloud tiger teams and support teams?
Top Problems

• There is no visibility for which team owns certain features (e.g. monitoring and alerts). This has led to duplication of work.

• Dependencies between teams are not clear during sprints.

• Lack of team objectives and identity make it hard to understand what a team does.

• Compliance activities take a long time.

• How should support be structured for cloud migrations?
Respect for People: Workshop Scheduling
Scheduling a compromise between respect for people and whole team

• Scheduled 3 two hour problem solving workshops
  • Noon central
  • 6 pm central
  • 10 pm central

• One topic assigned to each workshop

• Participants free to choose which workshop(s) they were interested in attending
Dual Facilitators for Each Workshop

• One “flying”, One monitoring chat and resolving tech issues.
• Backup in case of internet failure – like that never happens.
Steps 2 – 6:
Prior to the workshops, set up OneNote sections for each workshop
Online Workshop Agenda (2 hours)

- Tech check – access to OneNote - 10 minutes
- Intro to the problem solving workshop – 15 minutes
- Original Problem – 10 minutes
- (Step 2) Root Cause Analysis – 20 minutes
- (Step 3) Biggest Root Cause(s) – 10 minutes
- (Step 4) Problem Restatement – 15 minutes
- (Step 5) Brainstorm Solutions – 15 minutes
- (Step 6) Identify improvement backlog items and working agreements – 15 minutes
Primary Lesson Learned: **Do your retros!!**

- Prior lack of a problem solving workshop meant members of the trains were experiencing problems that were not on the management radar.
- There was little opportunity for the “colonies” to express their concerns.
- Find out what is really happening rather than make decisions on what you believe is happening.
Important Lessons Learned: True distributed workshops are logistically complex

• Demonstrate an agenda for conducting a global problem solving workshop that respected people and gave all team members equal opportunity to participate.

• Managing the logistics of a globally-distributed workshop are easily an order of magnitude more time consuming and complex than running a local face to face workshop.
  • Majority of our effort was in performing step 1 – finding the problem to solve. Steps 2 to 6 were conducted in a two hour online meeting.

• People require additional training ahead of time to run an effective distributed problem-solving workshop
Other Lessons Learned

• Surprise! – a large logistically complex workshop will not happen unless leadership drives it.
• Have two facilitators for each workshop.
• People do not mind losing sleep to solve a problem if the problem is of interest to them and it is their choice to participate or not.
• Even primitive collaboration tools can help you run a distributed problem-solving workshop(s).
Final Thoughts

*If we really believe in global software development then we must cultivate practices and operating procedures that treat all with respect and enable all voices to be equally heard otherwise we risk having a myopic mothership based view of the world.*
Thank you....Questions?
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