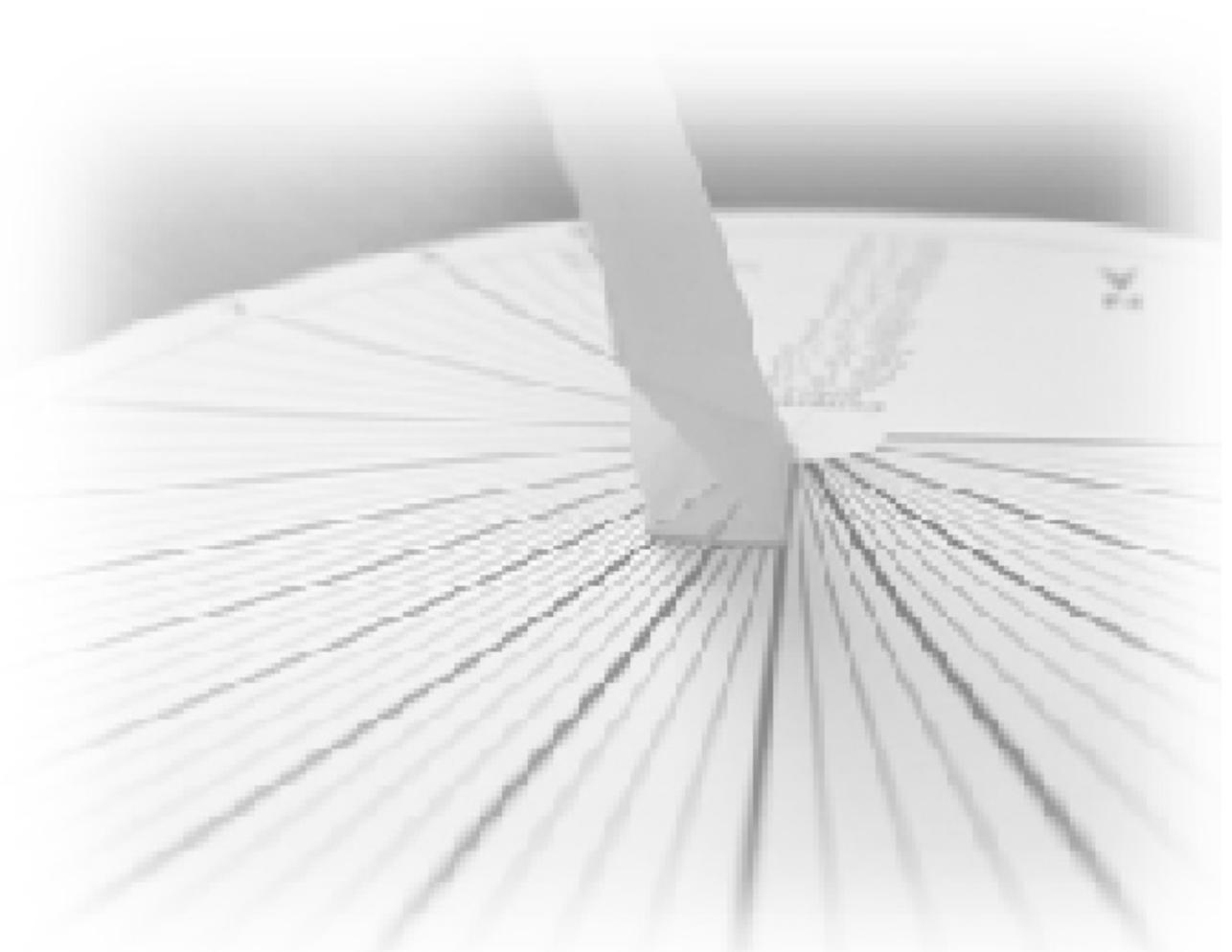


Net Objectives

ESSENTIAL WHITE PAPERS

Our Approach to the Scaled Agile Framework[®] (SAFe[®])

by Al Shalloway



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A Net Objectives Essential White Paper

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THE NET OBJECTIVES' END-STATE VISION USING SAFE

The Scaled Agile Framework® is a great platform to begin an Agile transformation. There are many concepts and directives that SAFe provides that are essential in doing Agile at Scale. SAFe provides a foundation of several elements of Lean Thinking – in particular, systems-thinking with a focus on removing delays in workflow and feedback with attention to quality. It also provides an approach that drives from delivering business value, while aligning technology with business strategy, with attention to having business strategy create the contexts for programs and team.

The suggested intake process can avoid overloading the technology group by enhancing the focus on the most important identified work. SAFe helps to create a holistic view covering the entire value stream and a planning method that facilitates vertical and horizontal coordination of stakeholders and teams. These concepts and directives are easily identifiable in the SAFe Big Picture which defines a path for success and everyone's role on the journey. These are good things and provides a good starting point for an organization.

For some organizations, SAFe by itself is sufficient, but for larger organizations (2,000+) that have inter-leaved products and whose shared services (e.g., business intelligence) are required to support multiple products, some additional practices are needed.

It is important to remember that SAFe is a framework and not a total solution in and of itself. There are many areas where SAFe provides mere awareness of issues you must solve, not a full solution. In addition, there are several practices we have found useful that are not included in the framework. While the standard courses and website might tell you what to achieve, they do little to tell you how to do it in many areas. The essential difference here is that we look to SAFe for ideas when provided solutions don't exactly fit the needs of your organization.

We use the principles of Lean-Agile to guide us, along with other practices (to be discussed later in this paper).

These principles and practices include the following:

- Alignment across portfolios to achieve quick value delivery
- Management of requests for shared services when requests come from trains in different portfolios
- The ability to track requirements properly with tools
- The role of management
- Acceptance Test Driven Development (ATDD)
- Agile architecture and Agile technical development
- Forming trains when cross-functional teams cannot be created
- How to migrate from component teams to feature teams
- Continuous integration
- Transitioning to SAFe when a full-blown all-at-once implementation will be less effective than focusing on what your problems are

This list delineates the picture of the end state for transformation. Once the organization is following these principles and practices, it will have



Alan Shalloway is the founder and CEO of Net Objectives. With over 40 years of experience, Alan is an industry thought leader in Lean, Kanban, product portfolio management, Scrum and agile design. He helps companies

transition to Lean and Agile methods enterprise-wide as well teaches courses in these areas. Alan has developed training and coaching methods for Lean-Agile that have helped Net Objectives' clients achieve long-term, sustainable productivity gains. He is a popular speaker at prestigious conferences worldwide. He is the primary author of *Design Patterns Explained: A New Perspective on Object-Oriented Design*, *Lean-Agile Pocket Guide for Scrum Teams*, *Lean-Agile Software Development: Achieving Enterprise Agility* and *Essential Skills for the Agile Developer*. Alan has worked in literally dozens of industries over his career. He is a co-founder and board member for the Lean Software and Systems Consortium. He has a Masters in Computer Science from M.I.T. and a Masters in Mathematics from Emory University. You can follow Alan on twitter @alshalloway

implemented the following essentials:

- Alignment via selection and sequencing of value
- Leadership and management
- Technological considerations
- Organizational structure and transformation

A successful transformation of an organization with SAFe must address all of these essentials. We will go through each of these here.

ALIGNMENT VIA SELECTION AND SEQUENCING OF VALUE

Alignment across portfolios is essential to avoid that challenge of most of a product being ready, but waiting for another train that's focusing on something else to complete the last bit. This is a common challenge we see with almost all SAFe implementations where a product cuts across portfolios. The reason is a lack of agreement amongst the business stakeholders on what to focus on. (Overall, we follow the SAFe guidelines for aligning among stakeholders, product owners, and product managers.)

In 2006 Net Objectives started using the concept of the minimum business increment (MBI) to address this problem. Essentially an MBI is the smallest chunk of business value that can be realized that makes sense from a business perspective (that is, marketing, deployment, sales, support and other issues must be considered). An MBI is selected based on which target market will achieve the greatest value. By using this context, the identification of what needs to be built can be achieved prior to the planning event.

Sequencing of these MBIs must also be guided by a definition of business value that is agreed to across the organization. We use an enhanced measure of business value by getting business stakeholders across portfolios to agree on what is important to the business (for example, revenue, customer experience, lowering costs, compliance, ...). Each company will have a different set. By achieving this agreement alignment on which MBIs are truly most important can be achieved. This is essential to manage where we put our capacity.

An important note here is that by sequencing

MBIs we are able to focus on which specific items need to be built in order to achieve business value realization. Sorting features by themselves are insufficient because sets of features don't always deliver value.

A key component of this approach is the integrated use of Acceptance Test-Driven Development (ATDD). By having product owners, developers and testers write stories together based on the MBIs everyone in the value stream understands what to build, why it's of value and the relative value of the pieces.

THE IMPORTANCE OF TOOLS SUPPORTING REQUIREMENTS

The key to alignment is for everyone to understand the relative importance of what they are working on. In particular, at the team level, the items on a backlog must be consistent with the overall order of the MBIs, pieces of which will often cut across multiple portfolios and trains. This requires sophisticated setup of the tools being used. While Net Objectives is tool neutral we have done this with several tools including AgileCraft, Rally, and Version One.

ALIGNMENT OF SHARED SERVICES AND DEVOPS

Adding Kanban's use for shared services and DevOps was a great addition for SAFe 4.0. However, merely having a role for it is insufficient. Because both shared services and DevOps are fielding requests from several different stakeholders and portfolios, alignment of what they are working on is also essential. The alignment via MBIs and tooling discussed previously can provide this.

LEADERSHIP AND MANAGEMENT

We extend SAFe's management concepts with Middle-Up-Down Management written by Ikujiro Nonaka, one of the co-authors of "The New New Product Development Game" which is the basis for Scrum. In a nutshell, the role of middle management is to see the direction of upper management and create an environment within which those doing the work can work autonomously to achieve it.

Fundamental to our approach is a set of agreements that all roles in the organization make together. Taken together, these agreements have an outsized impact on organizational development, keeping everyone aligned and on track for transformation.

The path to aligned management requires a set of agreements that everyone must agree to. We call these guardrails because it both gives a target to achieve while providing guidance on whether you are aligned with those goals.

These agreements are:

1. Work on items that will have us realize the greatest amount of business value across the enterprise
2. Collaborate with each other in order to maximize the realization of Business value across the enterprise
3. Ensure that all work is visible
4. Take the necessary steps to sustain or increase predictability
5. Keep the work throughout the value stream within our capacity
6. Encourage everyone to strive for continuous improvement

These agreements are clearly consistent with SAFe. By calling them out we provide guidance on what actions to take when a clear answer is not available.

TECHNOLOGY CONSIDERATIONS

The importance of Agile Architecture cannot be overstated in large scale Agile transformations. While SAFe continues to grow, this is an area where little has been added over the last couple of updates. Net Objectives was the contributor to SAFe for both ATDD and technology. We have a broad offering of services on:

- Agile architecture
- Emergent design (TDD and design patterns)
- Essential skills for the Agile developer

While it is often not required to start with these issues, it is essential that they be addressed relatively soon.

Net Objectives' approach here is a combination of on-site training and on-line guided self-study.

ORGANIZATIONAL STRUCTURE

SAFe provides good guidance on the end state of how teams are organized. The preference for feature teams over component teams is good. Unfortunately, many organizations find themselves in having difficulty in creating either of these. The reasons is that several people are often required to assist several teams at one time.

Net Objectives consultants provide guidance here in starting as far along as you can and changing over time as insights and new skills allow. This requires a combination of Scrum and Kanban at the team levels. We have created an integrated approach called Leanban. This enables consistent, effective use of Scrum and Kanban without the "Agile wars" we often see. In addition, we've pioneered several train organizational approaches that can be applied as needed.

TRANSFORMING AN ORGANIZATION WITH SAFE

All too many organizations just jump into SAFe with an "all-in all-the-way" attitude. Even when not adjusting the framework it is essential to transition to it at the pace the organization can accommodate. In any event, however, no one size fits all. We begin with understanding the challenges you are facing and how they interrelate to each other. The next step is to decide what improvements to start with. While there are a dozen practices that must be implemented in order to be effective in building software, it is best to focus on those that provide the most benefit and prepare the organization for the next ones. This provides everyone with a well-defined answer to "what do we do?"

Then, on a regular basis, we work with you to validate how you are doing and whether you should modify the assumptions and practices on which you are working. This enables the organization to have a well-defined solution that is tailored for them while adjusting it on a regular basis as the organization improves.

OTHER ARTICLES OF INTEREST

Go to www.netobjectives.com/articles to see the following articles:

- The Business Case for Agility
- Why Tailored Agile Transformations Are More Effective, Less Expensive and Less Risky

Check out the Net Objectives Portal at portal.netobjectives.com where an extensive amount of online self-study is available.

BUSINESS-DRIVEN SOFTWARE DEVELOPMENT

Business-Driven Software Development is Net Objectives' proprietary integration of Lean-Thinking with Agile methods across the business, management and development teams to maximize the value delivered from a software development organization. This approach has a consistent track record of delivering higher quality products faster and with lower cost than other methods.

Business-Driven Software Development goes beyond the first generation of Agile methods such as Scrum and XP by viewing the entire value stream of development. Lean-Thinking enables product portfolio management, release planning and critical metrics to create a top-down vision while still promoting a bottom-up implementation.

Our approach integrates business, management and teams. Popular Agile methods, such as Scrum, tend to isolate teams from the business side and seem to have forgotten management's role altogether. These are critical aspects of all successful organizations. Here are some key elements:

- Business provides the vision and direction; properly selecting, sizing and prioritizing those products and enhancements that will maximize your investment.
- Teams self-organize and do the work; consistently delivering value quickly while reducing the risk of developing what is not needed.
- Management bridges the two; providing the right environment for successful development by creating an organizational structure that removes impediments to the production of value. This increases productivity, lowers cost and improves quality.

BECOME A LEAN-AGILE ENTERPRISE

Involve all levels. All levels of your organization will experience impacts and require change management. We help prepare executive, mid-management and the front-line with the competencies required to successfully change the culture to a Lean-Agile enterprise.

Prioritization is only half the problem. Learn how to both prioritize and size your initiatives to enable your teams to implement them quickly.

Learn to come from business need not just system capability. There is a disconnect between the business side and development side in many organizations. Learn how BDSO can bridge this gap by providing the practices for managing the flow of work.

WHY NET OBJECTIVES

While many organizations are having success with Agile methods, many more are not. Much of this is due to organizations either starting in the wrong place, such as focusing on the team when that is not the main problem, or using the wrong method, such as using Scrum or Kanban because they are popular.

Net Objectives is experienced in all of the Agile team methods (Scrum, XP, Kanban) and integrates business, management and teams. This lets us help you select the right method for you.

LEARN TO DRIVE DEVELOPMENT FROM THE DELIVERY OF BUSINESS VALUE

What really matters to any organization? The delivery of value to customers. Most development organizations, both large and small, are not organized to optimize the delivery of value. By focusing the system within which your people are working and by aligning your people by giving them clear visibility into the value they are creating, any development organization can deliver far more value, lower friction, and do it with fewer acts of self-destructive heroism on the part of the teams.

THE NET OBJECTIVES TRANSFORMATION MODEL

Our approach is to start where you are and then set out a roadmap to get you to where you want to be, with concrete actionable steps to make immediate progress at a rate your people and organization can absorb. We do this by guiding executive leadership, middle management, and the teams at the working surface. The coordination of all three is required to make change that will stick.

OUR EXPERTS

Net Objectives' consultants are actually a team. Some are well known thought leaders. Most of them are authors. All of them are contributors to our approach.



Al Shalloway



Alan Chedalawada



Guy Beaver



Scott Bain



Max Guernsey



Luniel de Beer

SELECTED COURSES

Executive Leadership and Management

Lean-Agile Executive Briefing
Preparing Leadership for a Lean-Agile/SAFe Transformation

Product Manager & Product Owner

Lean-Agile Product Roadmaps
PM/PO Essentials

Lean-Agile at the Team

Acceptance Test-Driven Development
Implementing Team Agility
Team Agility Coaching Certification
Lean-Agile Story Writing with Tests

Technical Agility

Advanced Software Design
Design Patterns Lab
Effective Object-Oriented Analysis and Design
Emergent Design
Sustainable Test-Driven Development

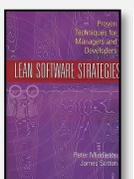
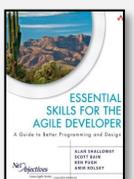
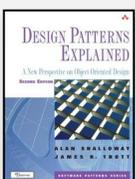
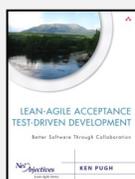
DevOps

DevOps for Leaders and Managers
DevOps Roadmap Overview

SAFe®-Related

Implementing SAFe with SPC4 Certification
Leading SAFe® 4.0
Using ATDD/BDD in the Agile Release Train (workshop)
Architecting in a SAFe Environment
Implement the Built-in Quality of SAFe
Taking Agile at Scale to the Next Level

OUR BOOKS AND RESOURCES



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