## SUMMARY

This workshop introduces how architects can work in a SAFe® environment. The architectural roles in scaled Agile are explored. The workshop emphasizes the qualities of architecture and code that enhance Agile development.

## DESCRIPTION

Agile Architecture is a set of values and practices that support the active evolution of the design and architecture of a system, concurrent with the implementation of new business functionality. With this approach, the architecture of a system, even a large system, evolves over time while simultaneously supporting the needs of current users. This avoids the "Big Up-Front Design" and starting and stopping of stage-gated methods. The system always runs, and it thereby supports a more continuous flow of value.

Agile architecture enables incremental value delivery by balancing between two end points—emergent design and intentional architecture. Emergent design provides the technical basis for a fully evolutionary, incremental implementation approach, and it helps the design respond to immediate user needs. The design emerges as the system is built and deployed. At the same time, however, organizations must respond to new business challenges with larger-scale architectural initiatives that require some intentionality and planning. Intentional architecture provides guidance and technical governance to Agile programs and teams for certain overarching technical constructs. These provide for commonality of approach, elimination of redundancy, and higher robustness of the full system. Together, these activities create the Architectural Runway needed to enable teams to deliver business value faster and more reliably.

The principles of Agile Architecture include:

- Design emerges, architecture is a collaboration.
- The bigger the system, the longer the runway.
- Build the simplest architecture that can possibly work.
- When in doubt, code or model it out.
- They build it, they test it.
- There is no monopoly on innovation.
- Implement architectural flow.

For more, see *www.scaledagileframework.com* and *www.scaledagileframework.com/agilearchitecture*.

**Note:** Net Objectives is a contributor to SAFe, especially its discussion of ATDD. While this workshop is neither authorized by Scaled Agile, Inc. nor provides certification related to SAFe, it is consistent with the intent of SAFe.

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## WORKSHOP OBJECTIVES

This two-day workshop provides an in-depth discourse into the Scaled Agile Framework's approach to Agile Architecture as well as the roles of the Enterprise and System Architect. It was designed specifically for SAFe by Net Objectives, the premier provider of technical Agile services.

### We are ideally suited to deliver this workshop

Net Objectives has been doing Agile at scale since 2004. We have pioneered dozens of practices that have now become commonplace in the Agile community. Some of have become integrated into the SAFe framework and other have not yet such as ATDD and architecture.

The Net Objectives team has been providing thought leadership in eXtreme Programming, Design Patterns, TDD, ATDD, Emergent Design and more for over 15 years, including the publication of multiple award winning books.

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## LEARN MORE
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## LEARNING OBJECTIVES

In this workshop, you will:

- Understand Agile and Lean principles
- Become familiar with scaled Agile
- Distinguish the role of the architect in Lean-Agile and scaled Agile
- Appreciate the need for testability
- Review the quality attributes needed for Agile programs

## WORKSHOP OUTLINE

1. Introduction to Lean, Agile, and SAFe
   - Big picture
   - Additional issues
   - Agile Principles
   - Iterative and incremental
   - Larger-scale Agile
   - Lean principles
   - Flow
   - Small chunks
   - Large-scale Agile
   - Systems thinking
2. Architecture and Design
   - Architects
   - Documentation
   - Architectural scheduling
   - Architectural runway
   - Architectural principles
3. Build Quality In
   - Quality introduction
   - Acceptance tests
   - Example of acceptance tests
   - Context Diagram
   - Test anatomy
   - System boundary
4. Architecture and Design Qualities
   - Code qualities
   - Advice from the Gang of Four
   - Design Pattern overview
   - Abstraction

- Commonality-Variability Analysis
- Analysis Matrix

## LEVEL

Advanced

## TARGET AUDIENCE

This workshop is intended for both Enterprise and System Architects of organizations undertaking scaled Agile (SAFe and other frameworks).

## ATTENDEE MATERIALS

Workshop materials will be provided at the start of the class.

## ROOM SETUP AND EQUIPMENT

One computer per two students.

Students usually sit at tables, four students per table.

Flip chart and whiteboard for the instructor.

A projector with screen.

## PREREQUISITES

This workshop is intended for enterprise and system architects. Participants should have the skills required to do fill those roles.

## WORKSHOP LENGTH

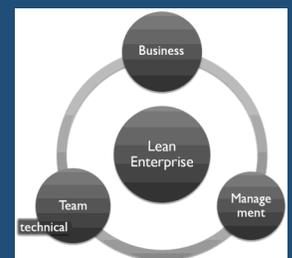This workshop is structured with both teaching and an optional coaching session:

- 2 days: All teams together
- 1 day: Teams coached individually

## MAXIMUM NUMBER IN CLASS

24

# NET OBJECTIVES

We are committed to delivering the principles, practices, and perspectives that businesses must know in order to maximize their return on their technology solution and software development efforts. We combine our experience and a time proven approach based on lean thinking to continuously extend the capability of what is possible in creating effective technology delivery organizations (IT or product). We provide these learned methods to our clients to assist them in achieving their goals and in assisting them in making their organizations more successful.

Full course descriptions may be found at
www.NetObjectives.com/training



Lean ● Agile ● Kanban Patterns ●
TDD ● ATDD ● Assessments ●
Consulting Training ● Coaching