

## ABT Leads “Lighthouse” SAFe® Initiative

### What

Cisco IT has been significantly expanding our use of Agile software development techniques over the past year to increase our teams’ productivity, accelerate release cycles, and deliver higher-quality and more relevant solutions to our customers. Based on our successes with smaller, straightforward projects, we recently started using the Agile methodology to achieve a continuous delivery model on large and complex projects with distributed teams.<sup>1</sup>

In mid-2015, the IT program managers for our Annuities Business Transformation (ABT) program, a large cross-functional initiative that spans three major IT groups within Cisco—Customer Care, Commerce, and Business Intelligence—took our use of Agile practices to an entirely new level in terms of scale. They saw the opportunity to adopt not only Agile development techniques, but also the Scaled Agile Framework® (SAFe®) methodology,<sup>2</sup> to align globally distributed development teams, increase efficiency and flexibility in the development process, and deliver business value faster to our customers.

The program team said that the decision to adopt Agile practices and the SAFe methodology was meant to help the team achieve two key business objectives:

- Delivering whole solutions with flexible combinations of hardware, services, and software to clients, instead of selling discrete products.
- Scaling the Cisco Services business by upgrading to a compliant, resilient, and highly available Oracle enterprise resource planning (ERP) platform.

To accelerate progress toward these goals, ABT stakeholders needed to create and align 30 Agile development Scrum teams (cross-functional teams that take software features from the concept phase to implementation) across three IT organizations and five Agile release trains (ARTs).<sup>3</sup> Sheer scale aside, aligning these teams was very challenging because only one, based in Bangalore, India, was collocated.

“We quickly learned how important it is to be very strategic about how we geographically distribute our Scrum teams,” says Rupa Mahal, an IT project manager for ABT. “The Agile development cycle is intense and there are so many meetings involved. Burnout can be a problem. There are also massive data needs to consider. It’s a huge challenge, and we are still working to improve.”

### Coaching Essential to Promoting Cultural Change

Moving to the SAFe methodology requires both a major cultural and mindset shift—including for leadership and stakeholders. ABT relied on highly experienced external coaches to help everyone understand the new practices and expectations and provide guidance throughout the transition.

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<sup>1</sup> “How Cisco IT Uses Agile Development with Distributed Teams and Complex Projects,” Cisco IT Insights, 2016: <http://www.cisco.com/c/en/us/solutions/collateral/enterprise/cisco-on-cisco/cs-boit-06172016-agile-development.html>.

<sup>2</sup> The SAFe methodology is designed to help large enterprises synchronize alignment, collaboration, and delivery for multiple Agile teams. For more on SAFe, see <http://www.scaledagileframework.com/about/>.

<sup>3</sup> SAFe defines an ART as a “long-lived, self-organizing team of Agile teams, a virtual organization (5-12 teams) that plans, commits, and executes together. For more information, see <http://www.scaledagileframework.com/agile-release-train/>.

“Everyone needed to be trained,” says Mahal. “No one could be passive in this process. Agile is very different from the waterfall process, where IT and the business only come together at certain points in the program. In the Agile paradigm, continuous stakeholder feedback and engagement are essential. Meeting this expectation can be a tough adjustment.”

The coaching was instrumental in helping ABT become a “lighthouse” SAFe initiative for enterprise IT at Cisco. Within less than a year, ABT was able to develop an Agile organization, implement a continuous delivery model, and:

- Accelerate its software release cadence, delivering 16 releases from August 2015 to June 2016
- Complete several optimizations in the order creation process for the Commerce tool (CCW) that will ultimately help to deliver a one-stop shop for all hardware, software, and services
- Migrate, with zero downtime, to the upgraded Oracle ERP System:
  - 13 TB and 2200 objects of Cisco Services Contract data
  - 30.1 billion records (5.4 TB) of Service Contracts
  - 55 million records of item data for the Services Supply Chain
  - 45 tables for the Business Intelligence group

Figure 1. Overview of ABT Agile Practice

### Our Journey: Now & The Future



### Why

Moving to Agile software development techniques and the SAFe methodology has been a major undertaking, but necessary for ABT to achieve its business objectives—and satisfy customers.

The waterfall development process took too long to deliver business results on large initiatives. Release dates were often rescheduled and realignment around the new dates was always a major effort, according to Mahal.

The rigidity of the waterfall development process prevented the ABT team from “pivoting” effectively—or at all—when they discovered that something in their original plan needed to change. By adopting the more flexible Agile methodology, along with a just-in-time “architectural runway” for development, the ABT team is now able to course-correct throughout projects, while also increasing speed to business value and delivering more relevant solutions to stakeholders.

The ability to pivot proved essential when one particular team on an Agile train discovered through testing that the intended user base was unlikely to adopt a significant portion of planned scope. The Agile project management office brought together project managers, product owners, and management for workshops to discuss how to address the problem.

According to Mahal, this approach helped the team avoid starting the project over and wasting any of their work. In their next Agile planning cycle, the team just pivoted in a slightly different direction.

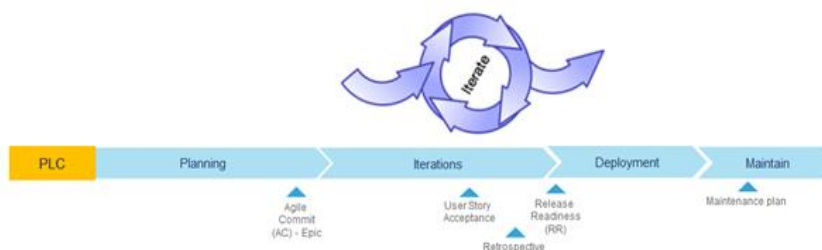
### Next Step: Transitioning to a DevOps Model

The next goal for the ABT team is to move to a DevOps (development and operations) model, where IT services is integrated with the development side and people are collaborating closely at all times. As steps toward continuous integration, quality assurance testers are now included in Scrum teams, and for some Customer Care initiatives, IT support team members are collaborating with developers.

“DevOps is key to true Agile transformation,” says Mahal. “If you don’t integrate IT services and development, you can’t move fast.”

As the team transitions to the DevOps model, she says the Agile software development lifecycle process will continue to help Agile teams maintain required compliance while also providing them with the maximum flexibility to work collaboratively and more efficiently.

**Figure 2.** Cisco IT Agile Software Development Lifecycle: Process and 5 Key Documentation Steps



Even though it took time for all teams across the three Cisco IT organizations involved in the ABT program to embrace SAFe, each success ultimately helped to create a “snowball effect,” says Mahal.

“When people started to see results, it drove engagement. Every single team on the project eventually decided to join us,” she explains. “While some haven’t adopted all of the best practices, they have largely taken part in all of the Agile mechanisms we need to work together.”

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