

SEI Global Wealth Services

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Case Study:

A Launch in Two Weeks

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Why would a highly successful financial services company make a fast and aggressive move from their existing development process to the Scaled Agile Framework?

The Context

SEI (NASDAQ: SEIC) is a leading provider of outsourced asset management, investment processing, and investment operations solutions for corporations, financial institutions, financial advisors, and affluent individuals. Their core system was written in the 1970s and extended over the next several decades to meet the needs of their continuously expanding client base. In 2006 they began building a highly configurable next generation platform, the SEI Wealth Platform, which would allow them to more quickly extend the system's functionality, serve more markets, lower their processing costs, and maintain their existing quality standards.

The Challenge

"Our greatest challenge was the magnitude of building a complex global securities accounting and trading system pursuing multiple market segments, many with different front office, middle office, and back office needs," explains Bob Crudup, SEI's CIO. "In order to maintain system efficiencies *and* to meet the evolving needs of multiple markets the research and development was complex and release cycles were long. We believed in the marketability of the product, but we needed to deliver more functionality faster to increase sales."

"We wanted to satisfy all stakeholders," says Jim McBride, SEI's SVP Director of Development, "and dealing with multiple stakeholders required negotiations and trade-offs. But in trying to satisfy everyone, we ended up satisfying no one." After SEI's last major release, SEI realized change was needed. That deployment took six months to release and added 200 features across multiple market segments. "I was proud that we delivered so much functionality, and that everyone got some of what they wanted. However, when we surveyed our stakeholders, we realized there wasn't enough value to be a newsworthy event for their market."

A Solution for Scaling

SEI knew they needed to move to an enterprise agile delivery model which aligned their portfolio and programs by value streams. "In researching options, I was not finding a framework with the maturity and depth we needed," says Mona Roccia, director of SEI's Program Portfolio Management Office (PPMO) and Agile Center for Excellence (ACE). "And then I came upon the Scaled Agile Framework. We brought in Dean Leffingwell and Drew Jemilo for an on-site, four-day leadership workshop. In the first two days, we learned about lean principles, product development flow, agile practices, and the nuts and bolts of the Scaled Agile Framework. On the third day, we applied it in our context, identifying our value streams and designing the organizational changes needed to support the adoption of SAFe."

It is often a challenge to structure a large enterprise around value streams, the sequence of activities intended to produce a consistent set of deliverables of value to customers. SEI's domain knowledge, software development expertise, technical platform, and organizational structure was aligned around

service bundles, or business objectives (e.g., client management, practice management, and asset management). These service bundles are combined and configured in different ways for each customer in each market unit.

“It was tough getting a critical mass of functionality into a release,” says Rob Wrzesniewski, Solutions Manager for the SEI Advisor market. “I wanted us to structure our trains around our markets.”

Even though maintaining the existing structure – by service bundle – would have been easier, they took the plunge. Their first Release Train would be dedicated to the Advisor Market.

Two Weeks to Launch

Mona Rocchia continues: “On the morning of the fourth day of the workshop, our Leadership Team divided into three scrum teams to plan our adoption of SAFe. By the end of the day, we had a plan: we were launching our first Agile Release Train in two weeks.”

The two weeks of preparation were intense. The Leadership Team created their backlog and identified their sprint cadence: three days each. “We didn’t have nine days to fail,” said Sharon Wolfgang, QA Manager. “We did sprint planning at the start of each sprint, held our daily scrums, ran demos, and conducted retrospectives. We also held scrum of scrums to synchronize with the other teams.”

Some aspects of the preparation were easy: SEI has a large campus outside of Philadelphia with the space to hold their first Agile Release Train Quickstart. Some tasks, like filling the roles of Scrum Master and Product Owner, were more of a challenge.

But they made it. Teams were formed, Scrum Masters and Product Owners were identified, and the key stakeholders were gathered.

On October 1st and 2nd, all teams were trained together at one time by a single instructor in SAFe ScrumXP. On October 3rd and 4th, one hundred team members and stakeholders gathered for their first Release Planning Meeting. It ended in success: the teams had a clear set of prioritized, committed objectives. “Teams finally understood they were empowered,” says Eric Jaffe, the Release Train Engineer. “No one was making their commitments for them. They estimated their own work and made their own commitments based on the business objectives aligned to the business strategy.”

Just as each team named itself, the Agile Release Train also had a name: the Polar Express... the train of “Just Believe!”

Continued Improvements

SEI has a distributed development model with some developers located in Oaks, PA and India and Business Owners in Oaks and London U.K.

They encountered a second challenge while increasing the number of software development practitioners. “We grew to 400 developers across 30 teams on a code base of 40,000 objects,” says Jim McBride. “We developed in parallel and needed to branch our code more and more. To support this level of parallel development, we put in place substantial development infrastructure: multiple development environments, configuration management, and complex deployment processes.”

Prior to SAFe, SEI’s Wealth Platform development employed an iterative development style, never waterfall, which pursued parallel development facilitated by multiple teams working in parallel. To

simply plan and isolate development, they had to branch the code; supporting their ability to deploy parallel releases. They used multiple code branches in order to go faster but began to observe that they had to branch more and more. This level of parallel development and deployment had substantial infrastructure demands for development environments, configuration management and deployment processes.

SEI's Wealth Platform had 400 developers across 30 development teams working on 4 - 6 releases concurrently on a code base of 40,000 software objects. SEI's last major release caused them to change 20,000 objects. As part of the SAFe implementation and working with the SAFe architecture methodologist Alex Yakyma along with their highly skilled SEI resources, they reduced the code branching from 5 - 7 on average to now a single code branch. The concept of "Developing on Cadence and Delivering on Demand" assisted them in converging everyone to the same cadence with a common code branch. The end result was the ability to simplify build-deploy processes, align to a single continuous integration environment, reduce multi-tasking and streamline their supporting processes and teams. They were able to accomplish this by their second release (PSI-2).

At the end of PSI-1 SEI development was on their way to business alignment with their Market Units' goal of delivering higher value business results in a shorter delivery cycle. They were able to reduce multi-tasking across releases and allow their now self-organizing, empowered teams to hear directly from the business, commit to business objectives for effective delivery, and provide the business with the transparency and interaction they had been requesting.

Bob Crudup, SEI's CIO says "I am pleased to lead the effort for this methodology change from waterfall/iterative development to the Scaled Agile Framework. We strictly adhere to SAFe from the Executive level through to the team deliverables. This effort has aligned our business focus and development focus by executing to the alignment of Investment Themes set by our Executive Program Portfolio Management (PPM) Process. The Portfolio Program Management Office provides metrics to the PPM in order for program execution to be governed. Such metrics include but are not limited to planning predictability, delivery predictability and utilization. Our tracking to date has shown an estimated 20%-25% increase in client satisfaction due to the focus and delivery of highly valuable software since the implementation of SAFe. While our implementation of the program is pretty much complete we will maintain our focus on continued improvement in order to enhance and improve on delivering high business value to our clients."