The Business Challenge

In 2012, the airline’s senior leadership and business unit heads issued a mandate to start being agile in order to make the organization more adaptive and able to react faster to changes. To accomplish this, one team of IT developers focused on mobile applications adopted Scrum, a framework for developing and sustaining complex products. Shortly thereafter, more Scrum teams formed in various business units for web and mobile applications.

In early January 2015, four Scrum teams formed to work on the airline’s mobile loyalty app. Each team within this particular business unit focused on a different piece of the mobile app – front-end, back-end, user experience design and testing – and had one Product Owner – the person on a Scrum Team responsible for maximizing the value of the product – amongst them.

While the individual teams were doing Scrum well, they found themselves facing integration issues between them caused by all the dependencies they faced. In addition to this challenge, there was also an additional directive from leadership to be even more agile. Lorenz Cheung, Professional Scrum Trainer, Agile Coach and Scrum Master at the airline, wanted to find a way for these four separate Scrum Teams to create integrated work before scaling more to deliver on the mandate for higher agile adoption.
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Solution - The Nexus Framework
In order to address the integration challenges, this business unit adopted Nexus, a framework for scaling Scrum created by Ken Schwaber, co-creator of Scrum, working with his Scrum.org community members. Nexus is an exoskeleton that rests on top of multiple Scrum teams who work together to build one product. Building on the Scrum framework and values, Nexus drives to the heart of scaling: helping to overcome cross-team dependencies and integration issues. On top of the Scrum Framework, the Nexus Framework adds Nexus Sprint Planning, Nexus Daily Scrum, Nexus Sprint Review, Nexus Retrospective and Refinement as events. It also introduces the Nexus Integration Team, a team who is accountable for ensuring that an Integrated Increment is produced at least every Sprint.

The business unit is now using Nexus across these four Scrum Teams composed of approximately 40 people, with a single Product Owner. Since they had been successfully using Scrum before adopting Nexus, they already had many elements similar to Nexus – including one Product Owner for the product, shared Sprint Planning and a shared Sprint Review – making it an easy and natural progression to apply Nexus.

By following the Nexus Framework, which focuses on minimizing and removing dependencies across teams while enabling integration, the four Scrum Teams are able to work independently.
yet together on a single product, requirements, domain knowledge and software and test artifacts. Each Sprint, they focus on a single, integrated increment, enabling them to deliver working software at the end of each Sprint, truly following Scrum and sufficiently meeting their definition of Done.

Results
By using Nexus, this airline’s business unit has been able to better meet the needs of their customers by releasing features more frequently. For instance, after conducting a focus group, the Development Teams were able to take the user feedback from the research session, incorporate it into the app and release new capabilities in just two weeks, directly addressing and delivering on stakeholder input and therefore delivering value back to customers and the overall business. Before applying Nexus, the Scrum Teams were producing an integrated increment every eight weeks. Now, with Nexus they’re producing one every two to four weeks, with a goal of more consistently delivering every two weeks.

Looking Ahead
Though the international airline started small with just one Nexus in the Loyalty Business Unit, in the future, there could be more product teams adopting Nexus as the airline continues to develop internal expertise in Scrum and become more product-centric.

“We wanted to use Nexus in order to produce one integrated increment at least every Sprint in order to get out to market faster to gain and respond to direct customer feedback,” explained Lorenz Cheung, Professional Scrum Trainer, Agile Coach and Scrum Master. “Ideally we’d like to form more product-centric Nexus Teams to deliver working software on a continuous basis and have standardized measurement company-wide to gauge the agile maturity level and success of all the Nexus and Scrum Teams.”

About Scrum.org
Based on the principles of Scrum and the Agile Manifesto, Scrum.org provides comprehensive training, assessments, and certifications to improve the profession of software delivery.

Throughout the world, our solutions and community of Professional Scrum Trainers empower people and organizations to achieve agility through Scrum.

Ken Schwaber, the co-creator of Scrum, founded Scrum.org in 2009 as a global organization, dedicating himself to improving the profession of software delivery by reducing the gaps so the work and work products are dependable.

Visit www.scrum.org/nexus for more whitepapers and case studies about the Nexus framework in action.

Join a Scaled Professional Scrum training workshop to experience a case study hands-on, where you will learn over 50 practices to reduce complexity and dependencies at scale. Find a course at www.scrum.org/SPS