

Mingle® helps Rackspace deliver business value with high predictability while staying a step ahead of changing business priorities

Deck: How an enterprise-level hosting company capitalizes on Cloud Computing, plans for IPv6 transition, delivers continuously and shifts development priorities on a dime applying Agile and using ThoughtWorks Studios' Mingle



Executive Summary

Rackspace credits its commitment to exceptional customer service, branded Fanatical Support®, for making it the leading specialist in the Hosting and Cloud Computing industry; that can-do culture extends from the trenches to the executive suite. Since 2007, the Mingle Agile project management solution has been the linchpin for a globally distributed development team that internally supports Rackspace® offerings in a quicksilver market. Despite multiple changes in priorities such as provisioning the new Rackspace Cloud for over 110,000 customers and dealing with impending Internet Protocol version 6 address (IPv6) issues, the team has not slipped a single scheduled release in 2010. Mingle provides Rackspace management with actionable insight into their teams' velocity and other metrics while adapting to the company's evolving processes. This allows Rackspace to practice "real Agile": consistently hit a four-week delivery timeline with high predictability, master strategic new technology, and maintain transparency in the business.

The Culture

Agile is everywhere at Rackspace, where you'll find people:

- Holding a sprint planning meeting atop a mountain
- Hiring outspoken blogger Robert Scoble to launch the Building 43® Internet think tank
- Retrofitting an abandoned shopping mall as company's headquarters in San Antonio, Texas

The Customer

Founded in 1998, Rackspace has headquarters in San Antonio, Texas, nine data centers around the world and more than 3,400 employees. Its three core products are Rackspace® Managed Hosting, The Rackspace Cloud™, and Rackspace® Email & Apps. Three years ago, an internally-facing team developing systems to provision data center servers and networks dove into a strategic new programming technology and began using Mingle, the lightweight project management solution from ThoughtWorks Studios, as the nexus for their activities. The pioneering software development group counts 18 developers and one business analyst. To speed the learning curve for Ruby on Rails, a high-productivity, open-source platform that is crowding out Java in enterprise market share, Rackspace also worked with ThoughtWorks. Both for architectural and productivity reasons, Ruby turned out to be an especially fortuitous choice, given the shift toward cloud computing. So did Mingle, according to Rackspace.

Name another company in the world that hires a video journalist to go around and interview other companies. I study the bleeding edge of the Internet, then bring that back into Rackspace so they can respond to market conditions. This company is managed better than any other that I've worked for.

Scoble

The Challenge

As anyone following IT knows, "the business of hosting has been changing rapidly," says Troy Toman, Director of Software Development in San Antonio. "We are constantly opening new data centers, taking on new kinds of hardware and offering new services. We might need to enable the provisioning of a completely new service or device and we want to get it to market—fast. Being able to model those new services and change our development priorities quickly is the reason Agile and Mingle have been so good for us."

Agility requires constant vigilance, however. For example, when they began Agile software development, Rackspace Chief Technology Evangelist Dirk Elmendorf was a proponent of seven-day sprints to keep the team at a

productive clip. While the practice instilled excellent habits around requirements tracking via Mingle Story Cards and Trees, the metrics told another tale: Mingle's velocity charts showed activity spikes around every two weeks: "We were actually delivering value every two weeks. Once we changed to two week iterations, we saw a more constant flow of velocity."

Also, the team had accelerated productivity using Agile techniques, but needed a big-picture focus to meet governance goals and stay ahead of the market. By raising the abstraction level to "Epics" or Master Story Lists defined in Mingle, the team was able to better support the course being set by the business. "We were going week to week and accomplishing work, but not necessarily making progress on those big goals," says Toman. "If you look when our project kicked off with Mingle, we were purely a managed hosting company—Cloud Computing wasn't a big thing. But in the summer of 2009 we realized the focus was now on the cloud. We had new tactical objectives." That wouldn't be the only fork in the road.

The screenshot shows the Mingle Story Wall interface. At the top, there is a navigation bar with tabs for Overview, Story Tree, Story Wall (selected), All, and History. A Project admin button is on the right. Below the navigation bar is a search bar with a dropdown menu set to "Story", an "ADD" button, and an "ADD WITH DETAIL" button. Below the search bar is a toolbar with "Hide quick add" and "Show help" buttons, and a "View as:" dropdown menu set to "List" with a "Grid" button. Below the toolbar is a configuration bar with "Group by: Status", "Sort by: Priority", "Color by: Priority", "Lane headings: Sum", and "Estimate" dropdown menus. Below the configuration bar is a "Rank cards" checkbox, "Maximize view", "Link to this page", and "Add / remove lanes" buttons. The main area is a Kanban board with five columns: "New (5)", "Ready for Development (8)", "Dev in Progress (14)", "In QA (1)", and "Accepted (1)". The "Dev in Progress" column is highlighted in light blue. Story cards are visible in each column, with titles and IDs. For example, in the "Dev in Progress" column, there is a card titled "Preferences at Project Level" with ID #21, and another titled "Output the Profile Selection Filters" with ID #13.

The Changes

Rackspace configures, provisions, and manages dedicated servers, firewalls, load balancers, and other equipment. In Cloud Hosting, most of those services are virtualized. When the market shifted, the internal software development priority changed from “supporting large numbers of customized solutions to supporting really large numbers of standardized solutions,” Toman explains. “We reprioritized our whole development stack. We kept the development team working while our analysts went off and figured it all out.” This was a contrast to Toman's past experiences: “When I've been involved in a development project that was waterfall (with fixed deadlines and deliverables) in the past, when we had a reprioritization like this, we were thrown into upheaval.” This time, instead of losing an entire quarter to planning, the team was able to turn on a dime and reorient their resources in less than 30 days—while developer productivity continued apace.

The team has reengineered its process to take advantage of Mingle's Tree capabilities by defining Epics such as “Auto Discovery for a Cabinet,” “Server Provisioning,” or “Server Recycling.” Burn-down charts underneath each Epic show not only velocity but also scope creeps across disparate efforts. That focus has enabled the team to continually ramp-up technical expertise and scale rapidly to meet market demand.

A new drama that looms this fall is the Hosting industry's version of Y2K: the transition to IPv6 as the number of available IP addresses runs out under the previous protocol. Talk to Toman for a few minutes and you'll hear one after another example of how much he's had to juggle changing goals like these. But he's found that the use of Mingle to track Story Cards and provide metrics about the team's current and past performance has led to a finely tuned delivery process that can handle upheavals easily, in a matter of hours.

In 2010, we have not only hit every release date without slipping any high priority features, we've also met every major ipv6 milestone.

The Rackspace Results

As Rackspace evolves its use of Mingle, the tool has become key to averting chaos and delivering results, according to Toman. Read on for the highlights:

Flexibility: Change has been the only constant over the past three years. As new priorities push aside existing projects, in as little as an hour, Toman can drag and drop cards from Virtual Story Walls and estimate when tasks and projects will be completed.

Global Collaboration: “There isn’t any way we could be working as closely between our global teams without Mingle.” The transnational team meets once a day by video conference and keeps track of all related Story Card conversations via the Mingle and Google Wave integration.

Adaptability: “Mingle has given us the freedom to evolve our process in the way that works best for the business.” When a new card attribute, the planning estimate, was added alongside the task estimate, it was easy to retroactively update this value on a large backlog of completed cards to determine trends going forward.

Acceleration: “Test-driven development has been a boon for making the codebase easy to understand and allowing us to move fast without making a lot of mistakes.” In Mingle, test management and defect tracking are tightly coupled to requirements. Rackspace has gained insight on bug status, testing progress, and project risks via visual defect workflows, bug-story links and card comments, and histories, as well as other artifacts.

Management Visibility: “We use the Mingle Query Language to pull out graphs. We build a view that the finance team wants to see, my customers have a view around delivery and there’s an overall velocity view that my managers care about relative to productivity.”

Right-Weight Process: “Our developers have never once complained about Mingle. It’s probably the only tool we use where I don’t have a developer begging me for an alternative.” From a governance perspective, no one has to know Mingle: “Reports we generate get pulled into slides and distributed to executives and we don’t have to answer questions wondering what we’re doing.”

Continuous Delivery: “Mingle lets us do real Agile. It used to be, ‘In this release we’ll do this amount of features.’ Then, the four-week release goes to six weeks and you get into this unpredictable, feature-driven cycle. With Continuous Delivery, we ship every four weeks. We can see where everything is in pipeline at any given time. It’s not so much about delivering faster but about being more predictable to the business.”

Back to the Culture

And that Agility pervades Rackspace. Chief Technology Evangelist Elmendorf is genial as he describes how the company only builds out as much as it knows it will need and use. Clearly, Rackspace isn’t afraid to backtrack if it needs to.

People can use Agile as an excuse to say ‘Oh, it will be ready when it’s ready’ - Using Mingle, our business knows what it’s going to get.

Toman

“There’s nothing worse than being under the thumb of a lot of cost that you can’t get away from. I think that’s aside effect of our nature but also from living through the bubble, when people made bad business decisions and that kept building on itself,” Elmendorf told Scoble recently. “It’s like being at that blackjack table and you keep doubling down, hoping it’s going to work out in the end. And for most companies it didn’t work out.” Mingle’s adaptability enables Rackspace to stay a step ahead of changing business priorities, while flexibly responding to their unique project processes. Additionally, as Rackspace’s system-of-record and collaborative team space, Mingle provides actionable insight and real-time visibility for the entire team.



About ThoughtWorks Studios

ThoughtWorks Studios is a global leader in Agile software development tools, and its products can be found in development organizations seeking sustainable Agile adoption. The company's Adaptive Application Lifecycle Management (ALM) solution provides a platform for managing all aspects of software development, from requirements definition and project management to test automation, quality assurance, and release management. Adaptive ALM comprises the integration of three products: Mingle (Agile project management), Twist (Agile testing), and Go (Agile release management). Each tool is available as part of a complete lifecycle solution or as a standalone product. Backed by more than 17 years of experience in Agile delivery, ThoughtWorks Studios is the product division of ThoughtWorks Inc., a pioneer in Agile development. ThoughtWorks Studios has over 400 customers in more than 20 countries, including 3M, Honeywell, BBC, eBay, Barclays, Vodafone, McGraw-Hill, and Rackspace. The company headquarters is located in San Francisco and Bangalore, with offices in London and select cities in Europe, Asia, and Australia. For more information, visit www.thoughtworks-studios.com.



Mingle, an Agile management and collaboration tool, provides a common workspace for all team members and an automated system of record for all projects. Mingle can adapt any existing workflow process and easily manages daily development activities. Offering true-to-life visibility in the entire development process for all stakeholders, Mingle helps development teams become more open and collaborative.



Go is a solution for Agile release management, which enables businesses to release software on demand. Go improves collaboration between developers, testers, and operations and provides fast feedback on the production readiness of your software. Using Go, teams can model the delivery process, perform push-button deployments, and trace from deployments back to version control.



Twist, an automated Agile testing solution, provides English-like constructs, making the testing process more productive for all team members. As applications grow in complexity, Twist helps to more easily maintain complex test suites. These suites keep pace with application development and are held as long-living assets.

Mingle Benefits

Easy-to-Use Interface

Mingle's user interface recreates the card wall experience in an online environment. This shared space available to all team members provides visibility into the movement of work from development through to deployment.

Improved Collaboration

With Mingle, development teams can work directly with business stakeholders throughout a project, from recording feature requirements in a story card to showing overall development progress. Managing their projects in Mingle allows team to show consistent and predictable product progress to business stakeholders.

Engineering Best Practices

Mingle reduces tedious tasks such as manually determining project status, which provides more time for each team to focus on software delivery rather than the software tool. With this emphasis on production, teams more easily adopt engineering best practices.

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