

Bluetooth® Sites Gain Greater Stability & Availability at Rackspace

Case Study Synopsis

Activity on the *Bluetooth* Special Interest Group (SIG) Web sites was increasing dramatically as the *Bluetooth* wireless technology standard grew more popular and more widely accepted. But with this increased activity came an increased awareness of problems with the existing sites. Mission-critical systems were often unexpectedly down, which not only compromised cash flow from fees associated with some of the online programs, but also compromised the increasingly important public image of *Bluetooth* wireless technology as a world-class standard. Recognizing that it needed the help of an experience provider to manage site growth, the *Bluetooth* SIG decided to move its key sites to the managed hosting experts at Rackspace. Since then, the sites have experienced nearly 100 percent uptime and availability. This keeps the revenues flowing into the SIG and ensures that the public face of *Bluetooth* wireless technology is as strong and reliable as the wireless technology itself.

Bluetooth wireless technology is all about connecting things, but as adoption of the wireless standard exploded, the online systems supporting the members of the *Bluetooth* Special Interest Group (SIG) experienced some serious growing pains. Critical Web sites, including the one through which the SIG collects fees, would grow sluggish; some would go offline altogether. Upon investigating the problem, the SIG's Web masters often discovered that one or more sites had been down for hours or even days—yet the service providers hosting the sites had never noticed the problem. And, to add insult to injury, the SIG technologists would experience one of those frustrating “denial of responsibility” attacks situation when they tried to ascertain why a site was down. A service provider would say it was one of the applications; those developing the applications would say it was the service provider's hardware or the way the site was configured.

The fact of the matter was that the *Bluetooth* SIG had outgrown its old IT environment. No longer could it effectively support its members and the public with individual Web sites and applications developed on an ad hoc basis. No longer could it rely on service providers whose expertise lay in supporting organizations with lower availability and reliability requirements. The *Bluetooth* SIG needed a software infrastructure designed to support thousands of active users and a hosting partner capable of providing the strongest managed services. For software support, the SIG turned to VA Software and its SourceForge application. VA Software, in turn, introduced the SIG to the experts at Rackspace Managed Hosting.

Evolving in Sync with the Technology

The early interactions among members of the *Bluetooth* SIG organization took place in Yahoo! discussion groups in the late 1990s. As needs arose, SIG members from around the world would take it upon themselves to develop applications and databases for the entire community to use. This resulted in a kind of worldwide mosaic of developers, applications and Web sites. The only thing that all these systems had in common was that they were all hosted in completely different environments.

By July 2002, Bluetooth technology was well established, with in excess of 1 million *Bluetooth* enabled products shipping each week. More than 2,000 organizations belonged to the SIG and tens of thousands of individuals were involved in the development of the specification and products based on it. The members of the *Bluetooth* community realized that the SIG could no longer operate effectively with an all-volunteer staff and no oversight with regard to infrastructure development, so it hired a full-time staff of administrators and technologists—who

Profile

The *Bluetooth* Special Interest Group (SIG) established its global headquarters in Overland Park, Kansas, USA. The staff includes Executive Director Mike Foley and 15 marketing, engineering and operations professionals.

Situation

The ever-accelerating adoption of the *Bluetooth* wireless communications protocol had increased membership in the SIG and traffic on its systems—so much so that the SIG's existing service providers had difficulty ensuring site availability.

Solution

The SIG researched managed hosting options and moved www.bluetooth.org, qualweb.bluetooth.org, errata.bluetooth.org and www.bluetooth.com to the managed hosting experts at Rackspace.

Benefits

- Zero-Downtime Network Guarantee
- Lower hosting costs
- Improved application performance
- Award-Winning Fanatical Support®

“Our chief goal and mission is to raise the overall level of awareness of *Bluetooth* technology, to facilitate the growth of the specification and to support our members. Rackspace is at the heart of all three of those critical functions.”

Brandon Nott
Online Programs Coordinator for the *Bluetooth* SIG

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immediately inherited responsibility for all the different online systems supporting the community. As the new team of technologists surveyed the sprawling virtual domain, the problems arising from this ungoverned evolution began to become apparent.

Improving Availability & Reliability

For the *Bluetooth* SIG, the first step in taking control of the online programs was to get in touch with VA Software, whose SourceForge software provides powerful, consolidated capabilities for tracking and archiving all the discussions and correspondence related to the development of the *Bluetooth* specification. While this move would start to solve some of the known software infrastructure challenges, it would not solve the pressing availability and reliability challenges. SIG members asked VA Software for a recommendation and VA Software pointed the SIG to the experts at Rackspace. Based on the strength of that recommendation, the SIG began consolidating its worldwide infrastructure in the Rackspace data center.

After moving the *bluetooth.org* site to Rackspace and implementing the SourceForge system, the SIG started migrating legacy systems from the mosaic into the SourceForge framework. With the help of Rackspace and its support teams, the migrations went smoothly and without incident. Yet not all was entirely well. Its fee-collection system still had serious availability problems, despite running on a high-performance server in the Rackspace data center. This time, though, instead of encountering more denials of responsibility from the developers and the hosting service provider, the SIG encountered Rackspace's philosophy of Fanatical Support™—and soon isolated the sources of the problems.

"Rackspace was instrumental in helping us set up a logging system to identify exactly where the problems were occurring," says Brandon Nott, Online Programs Coordinator for the *Bluetooth* SIG. "We started with a general area of where we thought the problems might be and worked with technicians at Rackspace to identify the specific areas that needed monitoring. With Rackspace's detailed understanding of server processes, we generated an immense amount of data, which we then used to determine where the problems were originating. The collaborative approach to problem solving allowed us to troubleshoot problem areas quickly and very effectively."

As a consequence of Rackspace's dedication to helping solve this problem, stability of the site quickly improved. "We're now pretty close to 100 percent uptime," says Nott. "We're still adding patches today, but the site now has the appearance of extreme uptime—because Rackspace is on it immediately if it ever goes down."

Rackspace also ensures site availability with the strongest network connectivity to be found anywhere. Rackspace has a self-healing network infrastructure and service level agreements with eight network connectivity providers. The instant that Rackspace's network monitors detect a problem with one carrier, the self-healing network

tools automatically reroute packets to another carrier. As a result, the Rackspace network has had no downtime—zero—for more than 26 consecutive months. For the *Bluetooth* SIG, that's precisely the kind of connectivity required.

Bringing *Bluetooth.com* over to Rackspace

Just as the increased adoption of *Bluetooth* technology had increased traffic and user activity on the *bluetooth.org* sites and subsites designed for SIG members, so too had the public interest in *Bluetooth* technology increased traffic to the SIG's public-facing site, *bluetooth.com*. The original site had been designed to help individuals and companies learn about the capabilities of *Bluetooth* technology, but more recent implementations had expanded the site to present current news about Bluetooth products, invitations to events and even an online store where visitors could purchase merchandise emblazoned with the logo.

Traffic to the *bluetooth.com* site was climbing, and that was overloading the shared server hosting the site. Additionally, the site would occasionally go offline because of an event or error coming from another site on the host—all of which was combining to compromise the availability of this increasingly important site.

"It became very clear that we needed a dedicated server," says Jason Ketchum, Technical Evangelist with the *Bluetooth* SIG. "The experience we'd already had with Rackspace and the *bluetooth.org* site was so positive that it was clear that that was the route we should go with the *bluetooth.com* site as well."

Consequently, in the fall of 2003, *bluetooth.com* joined *bluetooth.org* in the Rackspace data center.

Bottom-Line Benefits

Solving the availability problem in the SIG's fee-collection site was crucial to the *Bluetooth* SIG. Today, fees flow through *bluetooth.org* with no interruption. With 40 to 50 new companies joining the SIG each month and new products entering the market each day, keeping that pipeline flowing smoothly is important to the SIG.

Revenue alone, however, is not the only reason that availability is important to the SIG. "The *bluetooth.com* site is such a public face, such a visible site, that if it's down for even an hour it's pretty bad," says Ketchum. "We have a lot of press who visit that site. Since we have such a large international effort, for us to be down at all—even if it's the middle of the night here—is pretty bad news for us."

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With availability approaching 100 percent at Rackspace, that's simply no longer an issue for the *Bluetooth* SIG.

"Rackspace definitely exceeded my expectations, and I had pretty high ones going in," says Eric Schneider, Marketing Programs Manager for the *Bluetooth* SIG. "It's not just availability and server quality and uptime—those are givens. They had to have that. But any time there is an issue or a problem, Rackspace has been very willing to dive in quickly and help me—and that goes for everyone I've talked to at Rackspace."

"Yeah, Rackspace has spoiled me," adds Ketchum. "I've talked to some of the support people at other companies and I've found it frustrating because I've grown accustomed to the responsiveness I routinely get from Rackspace. It's really quite amazing."

For the *Bluetooth* SIG and its 16-member staff, such managed hosting support is critical. Clearly, it would be impossible to provide the level of support that the sites require if the SIG was to rely on internal resources alone. And with so much at stake, it makes no sense to work with a provider that cannot deliver outstanding service.

"Our chief goal and mission," says Nott, "is to raise the overall level of awareness of *Bluetooth* technology, to facilitate the growth of the specification and to support our members. Rackspace is at the heart of all three of those critical functions."

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Marketing Programs Manager for the *Bluetooth* SIG



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