Antennagate:
Beta Testing in the Product Development Life Cycle

by M. E. Kabay, PhD, CISSP-ISSMP
Associate Professor of Information Assurance
School of Business & Management
Norwich University, Northfield VT

Akhan Almagambetov is one of the most brilliant students I have ever had the privilege of working with; he graduated magna cum laude in 2008 from Norwich University with a BSc in Computer engineering and three minors: mathematics, information assurance and computer science. He sent me the following thoughts out of the blue and I am pleased to offer readers a mildly edited version of his contribution about the problems Apple iPhone users experienced when they touched their phones: their antenna effectiveness was reduced and questions were raised about the accuracy of the signal strength indicator.<http://www.networkworld.com/news/2010/062810-iphone4-antenna-flap.html>

* * *

Thinking back to Apple’s “Antennagate” problem<http://gizmodo.com/5589336/apple-antennagate-and-why-its-time-to-move-on> of earlier this summer, I kept contemplating as to why one of the most powerful computer equipment companies—Apple—failed to see the things wrong with iPhone 4’s antenna before the public did. Numerous sources told me one thing: Apple does very limited outside beta testing of their new hardware solutions.

**Beta testing** (BT) is the second step in product development testing (which comes after the product has been internally tested, via a process commonly referred to as **alpha testing**). This step usually involves a limited audience of potential consumers, most of whom are outsiders and who have signed a non-disclosure agreement (NDA) with the company. These tests are usually administered by the manufacturers themselves, through custom-built BT portals (such as NETGEAR<https://www.beta.netgear.com/login.html>) or a beta-test administrator, such as Centercode<http://www.centercode.com>.

In the industry, Centercode is regarded as one of the best beta test companies in existence today.<URL REFERENCE> With over eight years of experience, they have a number of solutions—ranging from custom-designed BT portals to managed betas—to get manufacturers on their way to building a better, more robust product. When Centercode administers a beta test, manufacturers often get an overwhelming number of problem reports and feedback in the shortest time possible: Centercode specifically matches the best beta testers from its extensive pool of over 45,000 candidates to the client’s specific beta.<URL REFERENCE FOR ASSERTIONS>

From a tester’s perspective, all beta tests generally run for about two to three weeks (sometimes longer, depending on the requirements from the customer). Once volunteer testers have updated their profile in Centercode’s system, they are periodically matched to hardware (or software) betas and are notified of them via e-mail. Once a volunteer applies for a particular beta, it takes about a week to see whether they’re accepted into it or are rejected (in which case there is no notification). If accepted, they are required to verify shipping information and agree to the NDA. The product usually arrives the next day via an overnight shipment and the tester is on their way to making some company’s product even better. As an incentive, volunteers usually receive
some sort of compensation later on, such as payment, discounts or (usually) a retail version of the product tested.

Beta testing is a rewarding experience, both for the testers involved and the company which receives invaluable feedback from real-world users. Manufacturers should recognize the drawbacks to using only internal resources for testing of new products and accept third-party BT as an essential step in the development of solid, bug-free products—hardware and software—and a good way of minimizing the likelihood of incidents like the infamous “Antennagate.”

* * *

Akhan Almagambetov <http://www.linkedin.com/in/akhanalmagambetov> is currently working towards his PhD in the security of supervisory control and data acquisition (SCADA) systems at Syracuse University<URL FOR APPROPRIATE PAGE>. He has a personal Website <http://www.akhanalmagambetov.com> and welcomes comments.

* * *


Copyright © 2010 Akhan Almagambetov & M. E. Kabay. All rights reserved.

Permission is hereby granted to Network World to distribute this article at will, to post it without limit on any Web site, and to republish it in any way they see fit.