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Vulnerabiquity and the Value of Rugged Infrastructure

As I write this **CrossTalk** introduction, we're coming off of a nightmarish patch week with over 120 patches streaming from industry. Despite SQL injection celebrating its 10th birthday, the 2010 Verizon Business Data Breach Investigations Report clocked its use in 89% of last year's breached records. Our reality is that software vulnerabilities are ubiquitous. Our reality is a state of Vulnerabiqiuty. Our reality leaves much room for improvement–and yet I remain optimistic.

In the physical world, we've come to depend on concrete, steel, and iron to support our bridges, our tunnels, our skyscrapers … Architects, engineers, and the like carry an awesome responsibility to provide safe and reliable foundations for society and our lives. Chances are you aren't living in perpetual fear that your office building will collapse upon you. For the most part, our infrastructure is dependable.

This is not the case with our digital infrastructure and software. Software has increasingly become modern infrastructure. Ones and zeros permeate most aspects of our daily existence. Yet software is not nearly as trustworthy or reliable as our physical infrastructure. For those in security, we've become painfully aware of the seemingly infinite vulnerabilities in digital infrastructure. The Information Superhighway is a battlefield. Practitioners spend millions every year deploying critical patches to fragile software. Criminals leverage software weaknesses to perpetrate breaches of identity, credit card data, and intellectual property. Moreover, nation states exploit weak software threatening our physical, economic, and national security. Since we depend upon software as foundational infrastructure, it must be up for the task.

We need better. We deserve better. Thanks to a focus on value, we may be on the cusp of bringing about substantive change. People seek what they value. We reward and measure what we value. We demand value. Where there is demand, supply will follow. Rugged is an affirmative value–not a cost or inhibitor. Rather than focus on supply, Rugged articulates and fosters demand. Rugged is comprehended and coveted by business people. Rugged evokes our desire for available, survivable, supportable, defensible infrastructure for what matters most to us. While others look for the worst in developers, Rugged seeks to encourage the best in them. To date, software security has focused on technology. Whoever coined "People, Process, and Technology" was brilliant to put people first, and technology last. We've skipped people and values–and as a consequence software security has remained relegated to the .0001% of the greater industry. Success will require ubiquitous demand for the value of Rugged infrastructure–the supply will follow.

To my delight, we've realized our Rugged Manifesto <http://www.ruggedsoftware.org> was a bit off the mark. While it successfully speaks to the hearts and values of many developers, the most dramatic successes have instead been on the demand side. People want and deserve better and more reliable digital infrastructure than today's status quo. They have taken Rugged to greater heights. We've seen tangible examples of where "security" has failed but "Rugged" has borne fruit.

Buyers are seeking more Rugged infrastructure. Employers are seeking more Rugged developers. Inspired neophytes are seeking Rugged training. Rugged is not a spectator sport. It needs you. This is the beginning. Please take to heart the articles in this issue as they address the problem at hand and let's collectively drive an end to the era of Vulnerabiquity. How will you help us to drive toward the Rugged Age?

Joshua Corman
Research Director for Enterprise Security at The 451 Group
Co-Founder of Rugged Software