



Building a Smarter Planet: 3 in a Series

## A smarter planet is a more secure planet.

The digital instrumentation and global interconnection of our planet are generating a treasure trove of information. This data can help us tackle broad, systemic problems and inefficiencies that have vexed the world for decades—in areas ranging from traffic congestion and energy to food safety and healthcare. That holds enormous promise.

It also raises new challenges. By one estimate, the volume of created content will quintuple in the next two years—to more than 2.5 zettabytes. (A zettabyte is a 1 followed by 21 zeros.) Seventy percent of that content will be created by individuals who have no responsibility to secure it—but most of what they produce (85 percent) will wind up in environments controlled by organizations that *will* have that responsibility.

At the same time, according to the FBI, cybercrime is now more widespread than narcotics, and its techniques are evolving, its targeting becoming more focused. The average company's computer infrastructure is attacked nearly 60,000 times every day. There have been 354 million reported data privacy breaches over the past five years in the United States alone.

Further, the digital and physical infrastructures of our world are increasingly merging, infusing our power grids, banking systems, retail supply chains and city streets with intelligence. Are we now exposing them to the same risks as our Web sites?

While there is no “silver bullet” to completely protect such a vast, complex and dynamic reality, new, holistic approaches are succeeding in strengthening security across enterprises and critical infrastructures. The emerging “secure by design” model is based on how people, processes and technology come together in a unified system. It embeds protective measures and features at key points, and uses high-speed data analytics

to help uncover threats before attackers launch them. It also enables multiple systems to work together to enhance the security and sustainability of the whole.

Dallas-based electricity distributor Oncor has deployed a smart meter network that is also a more secure meter network. It provides integrity to energy data, creates Web-based trust with consumers—and has saved nearly \$250 million.

At New Zealand's Westpac bank, fraud detection tools use a combination of rules and predictive analytics to help identify constantly changing credit card fraud patterns.

Through fraud intelligence, a commercial bank in Germany reduced the time it takes to check its money-laundering watch list from 8–12 hours to less than 15 minutes.

And as healthcare becomes a growing target of threats, some in the industry are adopting two-factor authentication for physical and digital assets in order to enable hundreds of authorized people—and only authorized people—to access patient information. Others in the industry “de-identify” patient profiles and medical images before they are aggregated.

Across multiple industries and sectors of society, security is a key component of our planet's vital systems. And those systems are shared—and shaped—by businesses, cities, government agencies and communities. Which means that, as these systems get smarter, we all have the collective responsibility to also make them secure and reliable. Fortunately, this is a future we can have—if we come together with forethought to design security and privacy for a smarter planet.

Let's build a smarter planet. Join us and see what others are doing at [ibm.com/smarterplanet](http://ibm.com/smarterplanet)

