

Upholding a Secure Future

Dr. Parag Pruthi, Founder, Chairman & CEO, NIKSUN

With the advent of the digital age, technological advances have also introduced a grim new reality. No longer constrained to the exclusive domain of technology-centric publications, cyber security is now a pivotal part of everyday news, conversation and life. Take for instance the recent “technical glitch” at the New York Stock Exchange. Cyber security stocks in backend markets surged as the Exchange’s network was unavailable, leaving the trading floor closed. This heightened awareness of cyber security is an empowering, yet frightening dilemma: the inevitable vulnerabilities and drawbacks arising from technological reliance have finally caught up with us.

When I launched NIKSUN back in 1997 as a startup in my garage, the public Internet was still in its infancy and along with its many benefits was also to become the harbinger of cyber attacks. Within a span of two decades, the far-reaching effects of cyber attacks are being felt globally and cyber security has catapulted to become the fastest growing industry.

Breaches, data leaks, and attacks leave governments, service providers, and corporate giants vulnerable and under the unwanted scrutiny of the public eye, not to mention the associated economic costs. In order to combat the new ways in which hackers are finding and exploiting vulnerabilities, one needs to operate in a culture that promotes innovation and forward thinking.

Oftentimes customers may not fully understand what they really need to combat cyber threats. At NIKSUN, entrepreneurialism is flourishing and our engineers are encouraged to think out-of-the-box and not be constrained solely by customer requirements. Such an environment fosters creative thinking and allows engineers the freedom to develop solutions that help protect data from

potentially unexploited threat vectors.

This approach has been instrumental in a breakthrough innovation that was not on anyone’s radar but is now paving the way for a paradigm shift in the marketplace.

Engineering curiosity and a can-do attitude enabled us to construct solutions not only for traditional, but also virtual as well as hybrid and mobile networks. The outcome is high fidelity instrumentation and security in what is known today as the Internet of Things (IoT), a market which NIKSUN now leads.

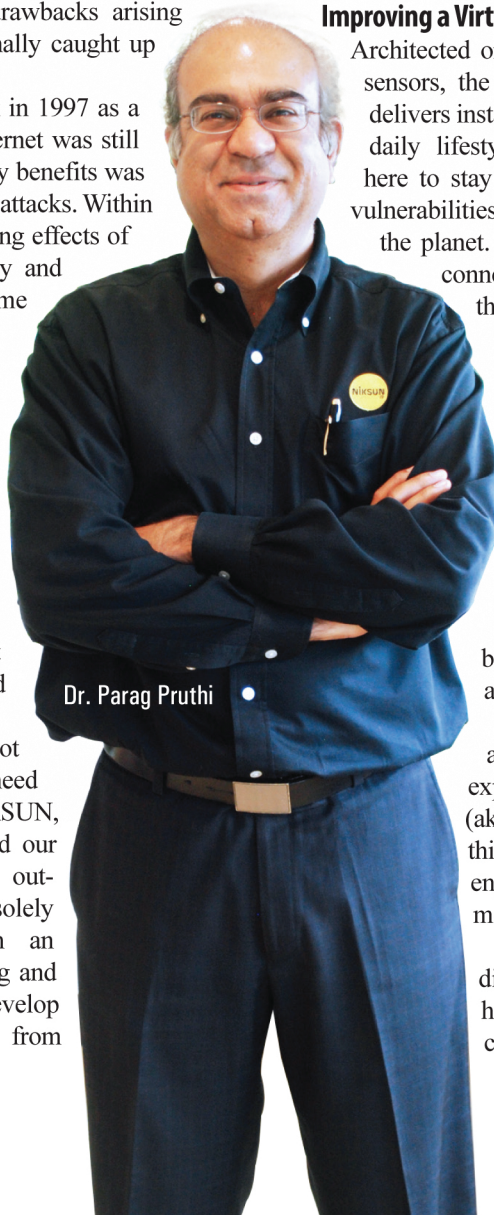
Improving a Virtual Future

Architected on cloud computing and data-gathering sensors, the IoT is both mobile and virtual as it delivers instantaneous connectivity for an improved daily lifestyle. Hinging on connectivity, IoT is here to stay and it won’t be long before security vulnerabilities impact a majority of the population on the planet. For example, today’s automobiles are connected to and can be “programmed” from the Internet (regardless of whether you use such the feature, it is unfortunately embedded in your car). As a result, hackers can wirelessly disable and/or alter the functioning of your instrumentation gauges, steering, brakes, transmission and much more!

Therefore, we must prepare to prevent and defend against those hoping to usurp the power of the IoT for malicious intents: power blackouts, crime, espionage, theft, war and terrorism.

In response to the IoT’s extreme availability, speeds, connectivity and exposure to unknown vulnerabilities (aka, zero-day attacks), NIKSUN’s open thinking environment has allowed its engineers to come up with solutions to match.

NIKSUN’s history is rooted in deep dive forensics that began as purely hardware-based appliances. One of the cornerstones that we consciously hold



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to is to provide solutions that never inhibit, but rather grow and scale as needed. This power has been further harnessed to operate in cloud and virtual settings, maintaining the security and performance of machine-to-machine (M2M) transactions.

Practical for complex enterprise applications, NIKSUN virtual solutions are designed to maximize security and performance while minimizing the need for manual intervention, allowing our customers to focus primarily on their business strategies instead of ongoing background assets, transactions, services and applications. And with every tick of the clock we have been strategically utilizing our resources to expand the flexibility of NIKSUN virtual solutions, enabling them to be compatible with whatever service or function the IoT demands.

Establishing First-Hand Industry Precedents

While we still heavily focus on the development of products for network security and performance monitoring in virtual environments, NIKSUN has simultaneously made unheard

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of advances in hardware deployment capabilities. With little fanfare and carrying a big stick, as of 2014 we have engineered, developed and deployed a solution for corporations, service providers, financial institutions, governments and intelligence agencies looking to scale from 20Gbps to beyond 100Gbps on a single platform. Why? Because we can and because it's the right way—this is the challenge for every NIKSUN employee.

So what's the end result? NIKSUN engineers delivered an unprecedented solution with 15 times the current standard processing capacity while consuming 60 percent less power, all requiring 80 percent less rack space over any other industry solution. And this has become the fastest selling product in the market! These requirements did not come from any specific customer, any specific user, or any analyst prediction. Rather, it came out of an innate desire to do things more efficiently, to do them right and to make a difference. Of course, analysts are now going to look at this and profess it to be the “new trend.”

Today, cyber security is not merely interesting news nor a current technology trend, it has arrived as the foremost suspect in our minds when the technology that supports our daily interests and essential infrastructure goes awry. For the future does not merely sit idly in the cloud, it is an ongoing revolution in every tier of how organizations and services operate at unprecedented speeds, variances and volumes.

To combat the innovation of hackers, whether they are state sponsored or financially motivated, one has to give freedom of thought and to motivate those who are fighting to defend against nefarious cyber criminals. The dream I envisioned nearly two decades ago has become a reality and now with the best team in place, NIKSUN is ready to secure M2M platforms and IoT functionalities. With each step that NIKSUN takes, it moves away from today and towards the cusp of tomorrow. 