

Making the Edge as Secure and Profitable as Possible

By Tal Eisner

Imagine the following scenario: Your company sells roads; yes, roads for vehicles to drive on. What kind of vehicles? Any kind! From family cars, mini cars, motorcycles, and bicycles to medium size-family cars, couples cars, and youth cars to large cars, MPVs, SUVs, jeeps and four-wheel drives.

And last but not least, extra large cars – trucks, semitrailers, and even larger than that.

Your job in this company? You have to make sure it all runs smoothly and safely on the road, and that

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all drivers pay the toll on time and no drivers get a free pass.

Simple, isn't it? Well, let's see if this is indeed the case. We said a road, right? How many lanes? That's not up to you to decide. That's Marketing's decision. Their job is to plan the most fashionable and profitable road possible.

But wait. We said your job is to make sure it all runs smoothly, right? What happens then if the road has 12 lanes and traffic lights operate only at certain times of the day? After all, Marketing does not want to 'inconvenience' drivers; they want to keep them coming back! And who wants to return to a congested road?

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Now that we have the design of the road, let's see who is going to use it. No, hold it again, that's not up to you either. That's Sales and Marketing. They want 'everyone' on the road, as many drivers as possible, no matter what. But what if some drivers have a bad toll-payment history in other roads across the county? Well marketing does not deal with 'past' history! Marketing (so it wants to believe) makes history and ensures the future! (Sigh.)

Gee, this job is beginning to look complicated...

Now, how do you make sure all goes smoothly on your road? CCTV is a must to see everything clearly at all times, right? What about manned toll booths for collecting the money? Can you trust them? How do you know that the money they collect is actually put in the safe at the end of the day? That they don't 'forget' anything in their pocket? Are you beginning to grasp the complexity involved?

Now, let's look at the same scenario but in the information and telecom highway:

Back in the old days, even the most advanced, hi-tech-like edge networks streamed what today seems an insignificant amount of data. The 'Send' and 'End' buttons were top-notch technology, and so was the

result of clicking them. Relatively simplistic days for those in charge of ensuring all went smoothly and that the money reached the pockets of the shareholders at the end of the day.

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Today, however, network congestions are sometimes very hard to map. The data road becomes an endless lane with a periodic incessant flow of vehicles and drivers. Just like toll-booth managers, CSPs must find efficient ways to ensure that all drivers return home safely, that there are no accidents on the roads, and, perhaps most importantly, that everyone pays the toll. Moreover, most telcos are branched and congested firms, with thousands of employees, numerous departments and countless representatives.

Building a solid, first-rate network (be it mobile 3.5G-4G, IP-based, transmitting VOB (Voice over



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Broadband) or VOIP (Voice over IP), or even analogue wireline requires a focal point, an independent and global unit with suitable binoculars to observe, oversee and constantly monitor everything going through it to make certain it runs smoothly and with no interference.

These units, often called Fraud-Prevention and/or Antifraud Department are the telco's bodyguards. They work in the background; their role is crucial but often underestimated. They do not operate the network, yet the network cannot function without them. They do not market new products, but there would be no marketing without their supervision. They do not sell anything, but they scrupulously review the sales process at all times.

Where is this unit in the organization? Sometimes they work under the company's CFO (for obvious reasons; after all, profitability is the bottom line and security is crucial to finance), sometimes in the Security Department.

Securing is the core task of these departments; in other words, making the telecom operation secure against threats, vulnerabilities, and risks. How is this security achieved? Many times OSS/BSS manufacturers work with these units and provide them with suitable tools and know-how. While having a tool is critical, it is not enough, not nearly enough.

Going back to our road, in order to protect and secure it, you clearly need to understand what it is you are protecting, against whom and what, and where the 'snake in the grass' is. This is where fraud-prevention managers often find themselves, sinking in the depth of their own pond.

Networks today are mature, rich and sometimes hard to map. In this environment, network 'guards' must have an excellent understanding of what they are up against to maximize security. Therefore, the map they'll seek will seldom be found in their immediate surroundings. They need the help of someone 'who travelled these roads before'.

An external OSS/BSS expert must gain access to a telco's innermost secrets, become very intimate with it. Once this relationship is strengthened, fraud managers and their team can better map the outline of the road and its risks. Many times, it is this very external consultant who provides these units with a path to a better day-to-day operation in a very complex mission. In other words, secure the edge and ensure it is profitable and near risk-free, just like *management* likes it.