All.Net Analyst Report and Newsletter

Welcome to our Analyst Report and Newsletter

Raising all boats – by improving the average

Much of my career has been focussed on the top end of information protection, but a fact of life in the information age is that there are billions of people in millions of enterprises that do not and will not have the sort of expertise necessary to be effective at protecting themselves against the most common threats. The question is, how can we raise all boats and improve the lot of the average enterprise.

Why is it such a problem?

With more than a billion people likely connected to the Internet and likely another 5 billion to be connected soon, nearly every person on the planet will be a "user" using some platform to connect to every other person and many billions of things. Running information is as revolutionary as running water, only it feeds the brain instead of the body. Billions of brains with all of the limitations of human cognition connected to billions of things, and running information everywhere. It could be as revolutionary as anything ever imagined.

And yet, there is trouble in paradise. Running information isn't restricted to truth in whatever context you see or claim it. Errors, omissions, deceptions, malice, manipulation, social influence, software and protocol weaknesses, all of the human imperfections and their side effects, are all able to spread to everyone and do so quickly. Running information includes running lies, misattribution, frauds, and all of the other things that information protection has fought for so long. And now the battle expands to the temporarily innocent. And as they learn the perils of the Internet and their new and amazing platforms integrate them into the global marketplace of ideas, how will we afford protection to them all?

As a consultant, each enterprise takes days, weeks, months to get on the right path, and that assumes they have the will, means, and knowledge to move in directions identified for them based on their own particulars. But for a billion small enterprises around the globe, that translates into billions of weeks of effort. We can imagine that the producers of the platforms will solve it all for us, but this has never been true to date, and is unlikely in the foreseeable future. Even if they all tried their hardest, the simple fact is that the knowledge to succeed on a technical basis at this scale while providing the services and capabilities desired and assumed today does not exist. And even if it did, the technical issues are only the tip of the iceberg.

How do we get it done?

Somehow, we need to help a billion people make better decisions and give them the tools to act on those decisions. Today, these decisions require expertise applied on a situational basis. But that won't cut it at the scale of a billion. Somehow, we need to mix technology with know-how and situational specifics to produce desired outcomes. Today, there are very few examples of anything approaching comprehensive codification of know-how, even for experts who might know how to use it. And even if it did exist, there are many different situations that call for different approaches and solutions. The scale of the problem relative to the total available expertise is such that it will take a long time to we don't yet know where.

The best approach we have found to date is a decision support approach exemplified by the reference architecture and decision support framework for industrial control systems published at all.net in the last few months. It may or may not work, scale, be sensible, or whatever, but right now, it's the best we can do.

This approach is founded on the notion that there are decisions that have to be made and only a finite number of choices. Unlike the tuning of volume on a radio, where it's more or less continuously variable, information protection decisions tend to be satisficing (anything that is good enough will do) from a relatively small set of alternatives. This approach is to:

1. Identify the decisions that have to be made.

2. Lay out the alternatives for each decision.

3. Identify what differentiates the alternatives as a basis for the decisions.

4. Get the information the decision-maker needs to decide.

5. Make a decision.

6. Check for consistency across the decisions and making changes as necessary.

Building it out for the masses

This works today, but scale is still a critical issue. It takes a full day with an expert, the decision-makers, and the sources of information to do an initial decision-making process. About 10 days later, within another day or so of internal standards and expert effort and some client review, the process can produce a current and future state that works but may take time to accomplish.

The next better/faster/cheaper version of this will involve specialization. We think that for specific types of businesses, say a shoe store, design patterns may be developed that allow us to get the decisions down to a few hours of effort by the business, producing a set of rules and procedures with built-in workflows, and leading to a defined process for information protection. It won't solve all problems, but it might get to the point where 90% of the small businesses in the world have straightforward decisions that lead to processes and actions that are well-developed and repeatable and work well enough to make them safe against the vast majority of the threats they face in terms of information protection. Supported with technology to implement and automate many of the processes, this might become a relatively low-burden standard practice for class after class of business, leaving only the larger and more complex businesses with a more complex and larger-scale decision-making process.

Summary and conclusions

In time, there is hope that the vast majority of protection programs necessary for the billions of small- and micro- businesses can become well enough understood and automated as to substantially raise the bar for threats and reduce the effort for defenders to a level supportable by even the smallest of business. We think there is a path forward for this, but we don't know how long it will take to get there, or how it will twist and turn along the way.

For too long, information protection has been an elite practice for the elite and wealthy, leaving the rest of the world on its own and suffering. We can raise all boats, but we have to decide to do so, and find a way to get from here to there. Stay tuned for progress...