

Jari Arkko's remarks at the workshop on the impact of (non-)adoption of Internet standards on cyber security, IGF meeting, September 4<sup>th</sup>, 2014.

I want to emphasise the need for broad approach to dealing with something like cyber security, for instance:

- technical standards
- industry and vendor best practices
- corporate and individual best practices
- legal and law enforcement frameworks

As an example, employing a secure service needs both the technology, the sound application that technology in a network, careful users that employ all the tools in a safe manner, and ways to deal problems as they arise.

It is usually not productive to place the burden on just one of these aspects. We cannot fix all problems just with technology, for instance, nor with just better governance processes.

But back to best practices. I wanted to briefly talk about how we in the standards organisations and IETF in particular deal with this. Of course, we write technical standards, in IETF called Standards Track RFCs. We also sometimes provide guidance on the best ways to use and deploy those standards. In the IETF we call these BCPs. One example that we have been recently working on is BCP on TLS usage in the UTA working group.

But these types of recommendations are not limited to just IETF, for instance RIPE and NANOG often discuss best practices. And ISOC is running a new program for BCOPs.

I think we should be making more use of them, both to recommend best ways to use the technology, and to recommend the use of key technologies. I think it would be useful and I believe much more good guidance could be given. As an example, the last year's requests from some politicians to build national or continent-wide Internets,

and how perhaps those efforts might have been better spent on turning on security technology. E.g., a national e-mail system vs. requiring that e-mail providers in that country turn on server-to-server TLS.

But it is always not easy. There are plenty of examples of slow deployment of new technology, and how it is to convince people to take it on. The other thing that I wanted to mention is that most major new things come with some complexities. A good example of that is the discussion on the role of proxies and caching when it comes to deploying even more HTTPS/TLS technology.

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