

Statement on Synaptic Laboratories Ltd. by Brian Snow  
Independent Security Consultant  
Former US NSA for 35 years including Technical Director for 12

Saturday, 23 July 2011

*Brian Snow has worked as an independent security consultant for Synaptic Laboratories Limited over several years. He has studied the TruSIP design and has approved his following statement for public release:*

“In my career at NSA developing secure equipments for government use, whether built by NSA, or built under contract to NSA by commercial firms, or by reviewing commercial products and recommending changes that might make them more suitable for government work, I was frequently depressed by how hard it was to get the design teams to FIRST address the primitives needed to support the security architecture, THEN address the other features and controls needed to interface with non-secure equipments or human users. It really does make a difference!

When security is involved, "He who gets to the interface first, wins" is true, and it REALLY matters.

Synaptic Laboratories Ltd. is one of those rare firms that really tries to address security issues FIRST, as the principal driver of their products. It gives them a "leg up" on getting the overall architecture right. Or if not perfectly right, certainly closer than those who first design around marketable user features, then try to tack on security as an after-thought.

The approach has obvious value in their current TruSIP design effort. It is clear as to what they are about, the content appears sound and it is obvious how each component "fits" in a security sense into the overall architecture. This is work that many other firms shun or slight, but it IS necessary. Their basic approach is directly relevant to Governments and/or any commercial companies that deploy products that must function correctly in high-risk environments (that is, facing targeted malice).

Evaluating products to ascertain they can meet security goals in various environments is never easy; but, in my experience, by addressing security first in design efforts, an evaluation will ALWAYS go more smoothly than an evaluation for a product that tries to meet the same security goals, but does not address security FIRST in its design process.

Synaptic Laboratories has a sound design process; this design approach and TruSIP need to be championed and moved forward to actual products.”

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***"Brian Snow has done more than anyone I know for national security,"*** Prof. Richard Ford,  
Director of the Harris Institute for Assured Information, Florida Institute of Technology.

**Brian Snow BIO** (as found at the Institute for Security, Privacy and Information Assurance [http://ispia.ucalgary.ca/people/biographies/brian\\_snow](http://ispia.ucalgary.ca/people/biographies/brian_snow) )

Mathematician/computer scientist, Brian taught mathematics and helped lay the groundwork for a computer science department at Ohio University in the late 1960's. He joined the National Security Agency (NSA) in 1971 where he became a cryptologic designer and security systems architect.

Brian spent his first 20 years at NSA doing and directing research that developed cryptographic components and secure systems. Many cryptographic systems serving the U.S. government and military use his algorithms; they provide capabilities not previously available and span a range from nuclear command and control to tactical radios for the battlefield. Computer Security, Network Security and strong Assurance were major aspects for these systems. He created and managed NSA's Secure Systems Design division in the 1980s. He has many patents, awards, and honors attesting to his creativity.



His later years at NSA were the model for what it means to be a senior Technical Director at NSA (similar to a Chief Scientist or Senior Technical Fellow in industry); he served in that capacity in three major mission components –

- The Research Directorate (1994-1995),
- The Information Assurance Directorate (1996-2002), and
- The Directorate for Education and Training -- NSA's Corporate University (2003-2006)

He was the first Technical Director appointed at the “Key Component” level at NSA, and the only “techie” at NSA to serve in such a role across three different Directorates. Throughout those years, his Credo was:

*“Managers are responsible for doing things right;  
Technical Directors are responsible for finding the right things to do.”*

Brian Snow recently had an honor bestowed on him; he is now a “Distinguished Member of the Cryptomathematics Institute (CMI)” at the NSA (2011).

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