

# Brian Sniffen

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## Recent Employment

**Chief Architect & Senior Director**, Information Security, *Akamai Technologies* 2008–present

Hired to implement “Plan B,” a vision of a research-based backstop to a traditional network-admin security team. By 2010, delivered results sufficient to replace the traditional team with an applied research team. We’ve hired for a long-term view and (typically) a background outside IT security—emphasizing fields with a strong Safety Engineering culture (Chem. Eng., Aero-Astro), or an adversarial focus (e.g., veterans). In 2016, that team is responsible for:

- Safety: Set Akamai’s incident response, train first responders, and engage directly with crises. We did the work in 2012 and 2013 that let Akamai survive 2014 (Heartbleed, Shellshock, etc.) without trauma.
- Cryptography: Centralized crypto and specialized security engineering, leading re-investment in cryptographic excellence after a period of benign neglect.
- Debt Reduction: Technical leadership of the “severe vulnerability” process, a board-supervised, CEO-managed investment in serious technical debts across the company. Twelve of the top twenty actionable debts are mitigated or better, since 2013.
- Product & Platform Architecture: security architecture team reviewing new products, including bringing that team from CMM1 work coordination by e-mails and a chat system to CMM3 publication of professional reviews that have become the go-to resource for a technical overview across the company.
- Compliance: Healing a broken and burned out team. Company myth says we had push-button ISO 17799 assessments in 2006, but this had rotted by 2010. After two years of intense training, motivation, and re-organization, we have mature processes for assessments against PCI-DSS, HIPAA/HITRUST, ISO 27002, Sarbanes-Oxley, and FedRAMP. SOC2 is underway.

**Lead Researcher**, Secure Technology Solutions, *MITRE Corporation* 2003–2008

Designed and implemented a variety of security tools and programs for government sponsors, managed teams of up to 10 people on tasks of up to 4 full-time equivalents. Coordinated with remote contributors and sponsors while anticipating sponsor’s future and inarticulable needs. Principal technical reference for trusted computing technology (TPMs). Publications are at <http://www.evenmere.org/~bts/#papers>

**Security Engineer**, Systems Engineering, *Akamai Technologies* 2000–2002

## Selected Skills & Conversation Topics

legend :current, :rusty, ·nascent/lapsed

comms :writing, :editing, :teaching, :speaking  
management :walking around, :one on ones, :listening, :remote  
languages :Haskell, :Python, :OCaml, :C, :C++, ·Objective C, ·Scheme, ·Java, ·PHP, :Perl, :Bash, :L<sup>A</sup>T<sub>E</sub>X  
natural languages :American English, :Latin, ·Greek (Attic, Koine), ·Hebrew  
web tech :XML, :HTML, ·CSS, :SQL, :JS, :DNS, :HTTP, :TLS, ·SMTP, ·Persona  
tools :git, :p4, :GNU Make, ·autotools, ·CPSA, ·Alloy, :Emacs, :vi  
network :IPv4, :IPv6, :TCP, :UDP  
topics :board games, :amateur radio, :modernist cooking, :cognition, :conflict, :planetary scale computing  
authors R. Coram, J. Boyd, A. Grove, N. Leveson, V. Rao

## Patents

- Appraising systems with zero knowledge proofs; US 8422683 B2, US 8750520 B2
- Registry of modular services and a method for automatically selecting an appropriate service to provide particular logical guarantees; US 8300788 B2
- Attestation architecture and system; US 9276905 B2

## Selected Talks & Publications

See <https://evenmere.org/~bts/#papers> and <https://evenmere.org/~bts/#talks>.

## Education

**Bachelor of Science**, Computer Science and Engineering, *Massachusetts Institute of Technology* 2000

Plus continuing coursework on modern cryptography, mostly from Silvio Micali. A thesis on *Trust Economies in the Free Haven Project* is available at <http://web.mit.edu/brians/www/thesis.pdf>.