Brian Sniffen

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Recent Employment

Fellow, *Akamai Technologies* 2018–

Applied technical expertise to advance the mission of the company. Most people with this title are individual contributors; I also managed a department of 30–50 persons. Breaking those out here:

Vice President, System Safety & Resilience, *Akamai Technologies*

- Cross-functional project leadership: Principal technical lead of the "severe vulnerability" process, a board-supervised, CEO-managed investment in serious technical debts across the company. We significantly mitigated Twenty-five major vulnerabilities since 2013. Created the program structure that allowed us to repeatedly achieve projects across VP domains and business units.
- De-risked products & accelerated product launch: Led the 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. Created the CMM4 "EZPath" system that applies Reinertsen's lean product flow ideas to bring review & analysis capability into product groups—removing latency and putting Engineering and Product VPs in control of their own launch timing.
- Team building and repair: Healed a broken and burned out team. An extraordinarily high-functioning team in 2006 had suffered from scaling and personnel problems by 2010. It moved under my supervision. After two years of intense training, motivation, and re-organization, we had mature processes for assessments against PCI-DSS, HIPAA/HITRUST, ISO 27002, Sarbanes-Oxley, and FedRAMP. I hired a new Director of Compliance, brought him up to speed, promoted him to a peer, and spun off a high-functioning Compliance team. Also grew and spun off the teams that became the Office of the CSO and the operational Sensing team.
- Values-first leadership: Greatly exceeded norms for employee retention (one undesirable departure in ten years), development of talent, and diversity & inclusion. Reduced to practice a system for training recent-graduate engineers to the "Architect" mid-career level, reducing need to compete for these scarce people on the open market.

Chief Security Architect, *Akamai Technologies*

- Industry Expert: Foresaw the future of tech and technical businesses that will affect Akamai, and changed that future as appropriate. Engaged with standards bodies, built relationships with peers across industry and academy, and informed execs of coming risks. Engaged with the TLS 1.3 working group, averting a competitor-driven standards change that would have obsoleted core Akamai technology.
- Influence: Persuaded Engineering and Product VPs to prioritize security improvements, **ensure progress on security initiatives**, and pay down on technical debt. Used the boundaries of the mandatory incident-response & severe-vulnerability processes as terrain to adjust BATNA of Engineering leadership and drive voluntary improvements.
- Safety: Overhauled a long-standing and highly successful incident-response program to focus on learning from incidents and making new mistakes—rather than showing operational excellence in creating the same problems for the same customers. Brought in ideas from MIT Prof. Leveson's STAMP/CAST analysis to emphasize **systems engineering** and blame-free, all-levels reviews. Incident frequency dropped, quality of customer communications improved, and process maturity improved. Transferred first-responder duties from *ad hoc* phone trees to a 24/7 staffed operator desk, cutting response latency from 20 minutes to 2 minutes.
- Sales: **Collaborated with sales** to handle objections from customer security teams—both indirectly, through an operational "SecSales" team, and directly through EBCs with security-sensitive customers. Worked with an operational team to seed their database of high-quality technical responses to objections, reducing workload on senior staff by reducing responses to practice and improving process. Brought escalations from every-other-deal to a rare event. Handled those escalations to close "impossible" deals.

Chief Security Architect, *Akamai Technologies* 2012–2018

Principal Security Architect, *Akamai Technologies* 2011–2012

Senior Security Architect, *Akamai Technologies* 2009–2011

Security Architect, *Akamai Technologies* 2008–2009

Lead Researcher, Secure Technology Solutions, *MITRE Corporation* 2006–2008

Senior Researcher, Secure Technology Solutions, *MITRE Corporation* 2003–2006

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). Typical projects were briefed to IC GS-15s. Publications are at https://www.evenmere.org/~bts/#papers

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

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

- Akamai Faster Forward: Crypto at Scale, invited talk at CRYPTO 2016
- TLS 1.3: Internet Crypto For the Next Decade, Affinity 2018

For more, see https://evenmere.org/~bts/#papers and https://evenmere.org/~bts/#talks.

Organizations

Life member ARRL, ACM. Member IEEE, IACR.

Education

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

Plus continuing coursework on modern cryptography, mostly from Silvio Micali. Thesis: *Trust Economies in the Free Haven Project*, which informed early decisions in the Tor privacy-protecting network system.