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SUMMARY

A respected computer and network security expert, and active in the UNIX, TCP/IP communities since 1979, and since 1992, Avolio has specialized in Internet and computer security, writing, teaching, consulting, and project management.

EDUCATION

M.S. Computer Science, Indiana University (1979)
B.S. Computer Science, University of Dayton (1977)

WORK EXPERIENCE

2006 - Present: JHU/APL, Applied Information Sciences Department, Information Operations Systems Group (VIY and VIW)

- IARPA Science and Technology Engineering (ISTE) task—technical system engineering support for program design, proposal development, and source selection (trusted agent role), and transitioning into test and evaluation.
- DHS Science & Technology—reviewing technology roadmaps, and making recommendations.
- STACS—System engineering and security evaluation of a cross-domain/MLS data fusion problem for Space Department
- SSDS—IA evaluation of shipboard self-defense system as part of multi-group team for NSAD.
- FAA—SBS Security Lead, overseeing certification and accreditation process, managing other contractors security assessments of new SBS technology, answering technical questions that came out of a rulemaking process for using the new technology, and advising SBS director on all matters pertaining to SBS information security.
- Project Manager for the I19 (NSA) IA contract, heading up APL's Risk Assessment Team and participating in the Malware Content Filtering task, a joint team comprised of representatives from NSA/I19, DISA, JTF-GNO, and the Services.

1998 - 2007: Avolio Consulting, Inc.

Avolio was principal and founder of a Maryland-based corporation specializing in computer and network security. Avolio Consulting, Inc. started in mid-1998. Typical clients were small security start-ups, security product vendors—large and small, and security-related companies.

Avolio was in demand as a writer, instructor, and speaker at conferences, both in the US and Europe.

2005 - 2006: Cybertrust Corporation

Worked as a contract employee as the Manager of the Risk Intelligence Team. Built and supervised team that gathered network- and computer-security intelligence, and produced product in the form of customer-usable and -actionable reports, action steps, and analysis.

2004 - 2005: BAE Systems ATI

Supervised project managers, working to apply information assurance background and knowledge to classified customer's requirements.

1992 - 1998: Trusted Information Systems

Vice President of Technology Marketing: Responsibilities included M&A activity, product positioning in the market, relations with press and industry analysts. Corporate Information Security Officer. Prior to that, was Vice President of Marketing for the Network Security Products group in TIS and product manager and development manager for the Gauntlet and the Firewall Toolkit products and worked in commercial security consulting. Started at TIS as a principal project leader.

1984 - 1992: Digital Equipment Corporation

Senior consultant and senior manager with Digital Equipment Corporation, leading a group of top-level sales support specialists for the Mid Atlantic Area of Digital (supervised 9 sales engineers). Previously, was a senior consultant for UNIX and TCP/IP networking. Among other duties there, managed and maintained one of DEC's Internet gateways and was instrumental in producing Digital's Internet firewall product.

1979 - 1984: National Security Agency

Was responsible for UNIX system specification and deployment in support of field organizations; also managed and programmed UNIX systems.

SKILLS AND CAPABILITIES

Areas of expertise include firewalls, intrusion detection, cryptography, security management, and electronic mail systems. Avolio has excellent people-management and motivational skills. He is an excellent speaker and teacher.

APL TRAINING

APL Leaders Workshop
APL AISD Project Manager Training

MAJOR PUBLICATIONS

Project ATHENA BAA

“Customer Risk Assessment Guide” [APL Whitepaper AI-07-104]: J.M. Valencia, K.Z. Snow, K.N. Wood, F.M. Avolio

“Malware Content Filtering (MCF) System Plan” for NIPRNet

“Producing Your Network Security Policy,” July 2007. This paper, written for WatchGuard Technologies, Inc., lays out a common-sense approach to writing corporate security policies. http://www.watchguard.com/docs/whitepaper/securitypolicy_wp.pdf.

“Painless PGP.” PGP Corp. delivers practical PKI deployment for securing e-mail with PGP Universal. This is a “Test Center” product evaluation from the December 2003 *Information Security Magazine*.
<http://www.avolio.com/papers/painlesspgp.html>.

“Security Review: SSL VPNs,” a whitepaper written for Aventail.
http://www.avolio.com/papers/SSLVPN_SecWP.pdf.

“Sidewinder Runs the Gauntlet,” From the April 2003 *Information Security Magazine*, a review of the Sidewinder G2 Firewall Appliance.
<http://www.avolio.com/papers/testcenter.html>.

“Gateway Guardians,” From the January 2003 *Information Security Magazine*, a review of 5 E-mail firewalls.
<http://www.avolio.com/papers/gatewayguardians.html>.

Sendmail: Theory and Practice, Frederick M. Avolio and Paul Vixie, Digital Press; 2nd edition (December 21, 2001). ISBN-10: 155558229X.

SECURITY CLEARANCE

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