RICHARD A. STANLEY

Dr. Stanley has wide-ranging experience in all aspects of information assurance, from development and rollout to maintenance and training. He also has extensive experience in the design, deployment, installation, operation, and maintenance of telecommunications systems throughout the world. He is experienced in managing multidisciplinary projects and in working with multinational teams. He has developed and presented courseware in settings ranging from military training settings to university graduate schools, for both face-to-face and online student cohorts. Dr. Stanley has particular strengths in security, telecommunications networks, new business development and leadership.

SPECIALTIES

- Telecommunications Engineering
- System Development and Management
- Information Assurance
- System Design
- Requirements Analysis

EDUCATION

Ph.D. (Electrical Engineering), Worcester Polytechnic Institute, Worcester, MA
M.M.A.S. (Military Art & Science), USA Command and Staff College, Fort Leavenworth, KS
M.S. (Electrical Engineering), Lehigh University, Bethlehem, PA
B.S. in E.E. with Honors and College Honors, Lehigh University, Bethlehem, PA
Numerous management and technical courses to maintain professional competency, including diplomas from the U. S. Army Signal School, the U. S. Army Command and General Staff College and the Industrial College of the Armed Forces

EXPERIENCE

SRA International, Inc., Fairfax, VA, 2005 - 2014. Principal.

- Project Manager, HQMC C4 Support and Communications Engineer, Headquarters US Marine Corps. Responsible for technical analysis and system design for telecommunications systems in support of USMC operations in the 2012-2025 timeframe. Serve as primary USMC headquarters staff subject matter expert on communications systems of all types. Managed the SRA team supporting HQMC C4 as subcontractors to Booz | Allen | Hamilton.

The MITRE Corporation, Bedford, MA, 2003-2005. Department Head / Senior Principal INFOSEC Engineer.

- Senior Principal INFOSEC Engineer (2004-2005). Lead validator for selected Common Criteria Evaluation and Validation System evaluations to comply with NSTISSP 11. Provided consulting engineering support across a wide variety of security engineering areas, with emphasis on COMSEC and telecommunications security issues.

■ Department Head, Enterprise Security Solutions (2003-2004). Directed activities of a research and systems engineering organization responsible for developing security solutions for state of the art information systems, primarily for U. S. Government agencies. Responsibilities included the Common Vulnerabilities and Exposures (CVE) and Open Vulnerability Assessment Language (OVAL) programs, and significant work on systems accreditation and program management for the National Information Assurance Partnership (NIAP) under the direction of the National Security Agency. Responsible for the security of MITRE's internal networks, which are global in extent. Also responsible for numerous additional activities in areas of security and privacy policy for such customers as the Department of Homeland Security, Department of Energy, Department of Defense, etc.

Wheeler Associates, Ltd., Wayland, MA, Vice President (1981-present)

■ Direct business and technical activities of full-service technology and education consulting firm. Operated part-time for over 40 years, Wheeler is a small business specializing in custom technology and education solutions, especially in telecommunications and information security. Recent projects have included developing telecommunications and information security courseware and several custom hardware designs. Wheeler does not compete with prior full-time employers.

GTE Laboratories (now Verizon), Waltham, MA, Director (1991-2001)

■ Director, Program Coordination / Program Manager, Special Programs (1997-2001)
  • Managed selected multidisciplinary, cross-organization research and engineering projects with high visibility and high revenue potential to assure on-time, on-budget performance.
  • Directed basic telecommunications and information distribution research conducted for the U. S. Army under the Federated Laboratory program, a $4.9M, 5 year funded research contract. Managed program from teaming negotiations through proposal and award to contract completion. Key research advanced technology in:
    o Secure, ad hoc wireless networking
    o Public key infrastructure
    o High data rate communications
  • Managed the Cellular Telecommunications Industry Association Technical Analysis Laboratory, which developed technologies to identify and reduce cellular telephone cloning that are now industry standard. This technology reduced cellular fraud from 5% to less than one-half per cent of top line revenue.
  • Led collaboration and consultation activities with senior levels of federal and local law enforcement agencies to develop solutions for protecting critical national infrastructure against attack and mishaps.

■ Manager, Integrated Systems / Staff Manager, Engineering (1991-1997)
  • Directed development and demonstration of integrated software/hardware technology prototypes with business potential for GTE Strategic Business Units, working closely with business managers.
  • Program manager for secure, highly reliable, wireless LAN design for the New York Stock Exchange Wireless Data System, first ever used for floor trading. This WLAN had

the highest user density of any such system ever fielded. Led wireless network program from proposal stage through contract award to system delivery. System delivered on time and within budget; performed to specifications. Received GTE's highest recognition, the Warner Award, for work on this project.

- Developed and executed $2.6M in funded research for GTE Labs which involved:
  - Designing and deploying state-of-the-art integrated software and hardware systems, including caller verification system that reduced wireless fraud by nearly 100 % within 30 days of first use
  - Developing a prototype secure wireless coaching communications for professional sports teams
  - Developing and fielding a prototype fiber-optic based RF transport system to extend cellular telephone coverage
  - Designing and developing an automated system to measure and evaluate wireless telephone user behavior
  - Developing a prototype multiple fiber opto-electronic module for DARPA
- Chaired Network Infrastructure element of GTE Security & Fraud Prevention Technology Team, which developed and implemented a common security policy across the corporation.

Contel Technology Center, Chantilly, VA, Principal Scientist (1988-1991)

- Principal Scientist (1988-1991). Designed, built, staffed, and put into operation state-of-the-art telecommunications software and hardware research laboratory to support network technology and security research for start-up corporate research laboratory. Evaluated using wireline modems and coding algorithms on wireless voice channels instead of more costly cellular modems, to reduce the cost to Contel of providing wireless data service.

Prior experience includes software and hardware engineering, manufacturing, and engineering management worldwide that includes major hardware and software development programs; original research; quality assurance; manufacturing; and telecommunications operations while serving as a United States Army Signal Corps officer and while employed by the IBM Corporation GPD Laboratories, General Motors AC Division, and Bryant Division of Westinghouse Corporation. Duties included Product Manager, U. S. Army Civilian Personnel System (a custom software system to provide personnel management from recruitment to retirement); Army Ada Program Manager and Deputy Director, Ada Joint Program Office (responsible for development and deployment of the Ada programming language and creation of the Software Engineering Institute); Director, Advanced Systems Concepts Office, U. S. Army Information Systems Engineering Command (responsible for identification and evaluation of emerging commercial information technology suitable for transition to battlefield use); and Chief Engineer, Multinational Force and Observers (responsible for design and installation of multimode communications system supporting the multinational peace force that ensures the Camp David peace treaty between Egypt and Israel). Extensive experience in military field communications planning and execution. Commanded a 500-man signal company in combat in Vietnam, which received the Meritorious Unit Citation for my period of command. Performed some of the original research on TEMPEST while at IBM GPD Laboratories. Have taught at the FBI Academy, Defense Systems Management College, US Air Force Technical Training Center,

US Air Force Academy, Brandeis University, Suffolk University, University of Massachusetts at Boston, Northeastern University, The University of Phoenix Online, and City Colleges of Chicago, as well as at numerous professional conferences and seminars

Worcester Polytechnic Institute, 2000-present. Adjunct Teaching Professor
- Responsible for development and presentation of information security, signal detection theory, advanced networking, cryptography, and other courses in electrical engineering and cybersecurity.

HARDWARE AND SOFTWARE SKILLS

FORTRAN, Assembly language, Ada, VBasic, Microsoft Word, Excel, PowerPoint

LICENSES AND CERTIFICATIONS

- Registered Professional Electrical Engineer (Commonwealth of Massachusetts), License 42574
- Amateur Radio License, W1JZX (Amateur Extra Class)
- Former Certified Information Systems Security Professional (CISSP), Certificate Number 4200

HONORS AND AWARDS

GTE Warner Award for technical achievement and innovation (highest corporate technical honor)
GTE Laboratories Superior Performance Award
Legion of Merit with Oak Leaf Cluster, Bronze Star Medal with Oak Leaf Cluster, Meritorious Service Medal with 4 Oak Leaf Clusters, Joint Service Commendation Medal, Army Commendation Medal with 3 Oak Leaf Clusters, Vietnam Service Medal with 3 campaign stars, Multinational Force and Observers Medal, Vietnam Campaign Medal, National Defense Service Medal, numerous other military decorations and citations
Tau Beta Pi engineering honors society
Eta Kappa Nu electrical engineering honors society

PROFESSIONAL AFFILIATIONS

Life Senior Member, Institute of Electrical and Electronics Engineers
American Radio Relay League
Radio Society of Great Britain
Former Faculty member of the Cryptography and Information Security Research Laboratory, Worcester Polytechnic Institute
Former member, New York Electronic Crimes Task Force, chaired by U. S. Secret Service
Former member, New England Electronic Crimes Task Force, chaired by U. S. Secret Service (founding member)

SELECTED INVENTIONS AND PUBLICATIONS

Patents

- U. S. Patent 8,301,191, "Method and apparatus for integrated communication services provisioning for health care community," (with A. Mosleh).
- U. S. Patent 7,899,910, "Method and apparatus for integrated communication services provisioning for health care community," (with A. Mosleh).
- U. S. Patent 6,836,467, "Method for modeling radioports in a wireless communication network design."
- U. S. Patent 3,408,557, "Constant Source Current Regulating System," (with T. Horgan). (The purpose of this patent was to counter electronic emanations from information processing equipment.)

Books

- Stanley, Richard A., *Managing Risk in the Wireless Environment: Security, Audit and Control Issues*, Information Systems Audit and Control Association, 2005.
- Stanley, Richard A., *Data Communications Systems*, Heath Company, 1996 (unpublished)
- Stanley, Richard A., *Communications Systems,* Heath Company, 1988, ISBN 0-087119-202-0
- Stanley, Richard A., *Data Communications and Networks*, Heath Company, 1986, ISBN 0-087119-151-2

Theses

- Stanley, Richard A., *Modeling and Optimizing Wireless Network Infrastructure Economic Cost*, Ph.D. dissertation, Worcester Polytechnic Institute, Worcester, MA, 1998.
- Stanley, Richard A., *Conversion of the Defense Communications System from Analog to Digital Form*, Master of Military Art and Science thesis, U. S. Army Command and General Staff College, Fort Leavenworth, KS, 1974.
- Stanley, Richard A., *Theory and Design of Microwave Semiconductor Parametric Amplifiers*, M.S. thesis, Lehigh University, Bethlehem, PA, 1964.
- Stanley, Richard A., *On the Stability of Electronic Oscillators*, College Honors thesis, Lehigh University, Bethlehem, PA, 1963.

Chapters

- Stanley, Richard A., "Information Security," Chapter 6 of *Cybercrimes: A Multidisciplinary Analysis*, Sumit Ghosh and Elliot Turrini editors, Springer-Verlag, Heidelberg, Germany, 2010 ISBN 978-3-642-13546-0
- Stanley, Richard A., *"*Military Communications," invited chapter, *The Froelich/Kent ENCYCLOPEDIA OF TELECOMMUNICATIONS*, Marcel Dekker, Inc., New York, 1996, Volume 11, pp. 99-127.

Courseware

- *Computer Security*, EE579S, Worcester Polytechnic Institute
- *Network Security*, EE579T, Worcester Polytechnic Institute
- *Information Security Management*, EE579U, Worcester Polytechnic Institute
- *Signal Detection and Estimation*, ECE531, Worcester Polytechnic Institute
- *Cryptography and Data Security*, ECE578, Worcester Polytechnic Institute
- *Advanced Computer and Communications Networks,* ECE537, Worcester Polytechnic Institute
- *Finance for Non-financial Managers,* Learning Tree International Courses 280 (UK/Sweden, France) and 281 (US/Canada)
- *Computer Security*, CMPSC652, Suffolk University
- *Network Security*, CMPSC653, Suffolk University
- *Computer and Network Security,* CS697, University of Massachusetts at Boston
- *Legal and Ethical Issues in Network Security*, Northeastern University

Articles

- Stanley, Richard A., "The Influence of MTSO Placement on Wireless Network Cost," *Eleventh IEEE International Symposium on Personal, Indoor, and Mobile Radio Communications,* London, England, Sept. 2000
- Stanley, Richard A., "Designing a Minimal Cost Wireless Network: A Case Study," *The Fifth IEEE Symposium on Computers and Communications ISCC'00*, Antibes, France, July 4-6, 2000.
- Stanley, Richard A., "Cost-Effective Allocation of Radioports Under Constant Offered Load," *Proceedings of Fourth IEEE International Conference on Personal Wireless Communications (ICPWC)*, Jaipur, India, 1999.
- Stanley, Richard A. and Resheff, Samuel, "Optimizing Wireless Interconnection Network Costs," *International Journal of Wireless Information Networ*ks, Volume 6, Number 2, April 1999.
- Stanley, Richard A. and Resheff, Samuel, "An Analysis of Fixed Wireless Network Interconnect Costs," *Proceedings of the Ninth IEEE International Symposium on Personal, Indoor, and Mobile Radio Communications, 1998.*
- Stanley, Richard A. and Levesque, Allen H., **"**Cost-effective Selection of Radio Access Ports in Dense Wireless Systems," *Proceedings of Ninth IEEE International Symposium on Personal, Indoor, and Mobile Radio Communications, 1998.*
- Stanley, Richard A., "A Methodology for Evaluating and Optimizing Wireless System Infrastructure Costs," *Proceedings of The Seventh IEEE International Symposium on Personal, Indoor, and Mobile Radio Communications, 1996.*
- Stanley, R.; Tang, D.; Tatlock, R.; Robertson, F.; Garrison, J., "Evaluating Pay-Telephone Service on Coastal Ferries," *Proceedings of the Third IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, 1992,* pp. 69-74.
- Stanley, R.; Tang, D.; Tatlock, R.; Robertson, F.; Garrison, J., "Results of Channel Sounding Measurements on Two Ferry Routes in Vancouver, B.C., Canada," *Conference Proceedings of the 1992 IEEE International Conference on Selected Topics in Wireless Communications*, pp. 456-461.

- Stanley, Richard A., "Systems Issues in Wireless Communications," *Conference Proceedings 1992 IEEE International Conference on Selected Topics in Wireless Communications*, pp. 423-424.

Invited Presentations and Professional Chairs

- *Audits of Wireless IT Environments*, National Internal Audit and Anti-Fraud Conference, Blue Cross Blue Shield Association, Philadelphia, PA, May 18, 2006
- *Wireless Data Infrastructure Security Issues*, Information Systems Audit and Control Association Conference, San Francisco, CA, May 7, 2002
- *Overview of Wireless Technologies*, Information Systems Audit and Control Association Conference, San Francisco, CA, May 6, 2002
- *Wireless Security*, Information Systems Audit and Control Association, New England Chapter 25th Anniversary Meeting, Boston, MA, June 22, 2001
- Co-Chair, *International Conference on Electronic Crime*, New York, NY, Jan 31-Feb 2, 2001.
- *Using Cryptography to Combat Wireless Fraud -- A Case Study*, Worcester Polytechnic Institute Crypto Seminar, Worcester, MA, December 6, 1999.
- Panel Chair: *Cross-Protocol Roaming*, Cellular Telecommunications Industry Association Wireless Fraud & Security '99, Orlando, Florida, October 11-13, 1999.
- Session Chair: *Wireless Technology*, The Fourth IEEE Symposium on Computers and Communications   ISCC '99, Sharm el-Sheikh, Egypt, July 7, 1999.
- *Trends & Tradeoffs for Future Bandwidth Requirements*, Future Communications Networks Conference, New York, NY, June 22, 1999.
- *Security of Your Network*, Cellular Telecommunications Industry Association Eighth Annual Workshop on Wireless Security, Orlando, Florida, November 9-11, 1998.
- *Fraud, Feds, and Us: Crime in the Information Age*, New England Regional Computer and Telecommunications Crime Conference, New Haven, CT, September 28-29, 1998.
- *Identifying Security and Encryption Concerns for Wireless Data Transmissions*, ICM Conference on Profiting from Wireless Data, Chicago, IL, August 5-6, 1998.
- *Wireless Fraud*, New York Electronic Crimes Task Force Quarterly Meeting, New York, NY, May 5, 1998.
- *Encryption Theory and Practice*, Cellular Telephone Industry Workshop on Network Vulnerability, Salt Lake City, UT, January 13-16, 1998.
- *Internet Security*, Training course for field agents, FBI Academy, Quantico, VA, September 22-26, 1997.
- Program Chairman, *CASE-Ada*, CASExpo-Fall '89, San Francisco, CA, October 23-27, 1989.
- Panel Chair, *Computer-Assisted Software Engineering Implementing Ada and STARS Technology*, CASExpo Spring '89 Conference, Washington, DC, May 9-11, 1989.
- *Indications and Warning*, 1976 NORAD Commanders' Conference, Colorado Springs, CO, February 1976.
- *The Threat to North America*, Defense Intelligence Agency Working Group, Washington, DC, May 27, 1975.
- *Electronic Warfare and North American Defense*, presented to Communications-Electronics

Systems Staff Officer Course, Keesler Technical Training Center, Keesler AFB, MI, August 1, 1974.