

Security Director | Security Architect | Cryptography/Identity/NAC SME

Public Trust Level 5 | CISSP

Certified Cisco ISE (Identity Services Engine) System Engineer and **Certified Information Systems Security Professional (CISSP)**: • Seventeen years in Information Security. • Extensive experience in business development, management, architecture, design, implementation and operation of security systems, applications, and governance. • Highly-effective translator of technical concepts for non-technical audiences. • Capable presenter, instructor and trainer of C-level executives, engineers, operators/administrators, and users. • Recognized for outstanding ability to match technologies to requirements • Experienced with government and industry regulatory compliance, including HIPAA, FISMA, Sarbanes-Oxley, GLBA PCI, and EU Privacy and Data Protection Directives. • Expertise in design, implementation, operation, and management of crypto systems, especially Public Key Infrastructures (PKI).

PROFESSIONAL EXPERIENCE

[BIOMEDICAL CORPORATION] via *EPHELIAN, LLC*

US/UK/Suisse/Deutschland/Romania, 12/15 - Present

Cybersecurity Architect (IoT / Cloud / CE / HIPAA)

Contract with [name-withheld, confidential] to develop, design, architect, integrate, and implement security systems into a new cloud-based medical service and four new IoT medical devices coming to market in 2017. Duties include:

- Cloud system and security architecture, including Compute, SDN, IAM, MFA, and cryptographic subsystems;
- Medical IoT (MIoT) / Healthcare IoT (HCIoT) device security design and secure Software Lifecycle integration;
- PKI (ADCS) and symmetric cryptography architecture, design, implementation, and integration;
- Logical and security policy, process, and procedure development;
- Security consultation and design assistance for embedded systems development team;
- Security consultation and design assistance for mobile and desktop app development teams;
- Cloud and device integration design;
- Use cases and threat model development;
- Secure communications procedure design for cloud, sneakernet, and user interfaces;
- Encryption solutions design and implementation; and
- Ensuring compliance with HIPAA, FDA, and EU CE regulations.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)

Washington, DC, 09/15 - 01/16

Enterprise Identity and Access Management Specialist

Recruited to lead the vendor engagement of the EPA's Enterprise Identity and Access Management project. Responsible for PIV-authentication driver integration for single-token privileged- and standard-user authentication. Chosen to develop as local SME for LACS and PACS. Successfully defended a bid for Microsoft's Identity Management solution against a competing bid for Oracle's Identity Management solution.

ENTERPRISE VISION TECHNOLOGIES, INC. (EVT)

US, 05/15 - 09/15

Security Business Development Specialist

Sole Business Development specialist for Information Security, working with Regional Sales Manager to generate sales with F10 (Fortune Ten) clients for operational and network security and other services. Duties included working closely with vendor partners to deliver targeted client solutions; presenting concepts and technologies to C-level executives, and writing executive briefs for emerging technologies. Vendor partners include Cisco, F5, Centripetal Networks, ThreatConnect, Invotas, and Neustar.

WORLDWIDE TECHNOLOGY, INC. (WWT)

US/UK, 05/14 - 05/15

International Security Business Development Specialist

Specially recruited to join an all-star team of select professionals to help grow the nascent WWT security practice from \$20m to \$100 million in revenue in two years. Resident Business Development SME in cryptography/PKI, Identity and Access Management, and Network Access Control (Cisco ISE, Aruba ClearPass, and ForeScout CounterACT)

- Top producer of 15 team members, with official reports showing 58% (\$29million) of gross profit (GP) revenue responsibility on associated accounts through May 2015.
- Tasked with interfacing as top-level SME to aid Account Managers and Sales Engineers break into new accounts and grow the security offerings within existing accounts.
- Worked on opening new security opportunities for 26 unique accounts over 11 months.

UNIVERSITY OF CALIFORNIA, DAVIS, MEDICAL CENTER

Sacramento, CA, 03/14-05/14

Information Security Architect / NAC Engineer

Short-term staff augmentation to help strengthen a small InfoSec group, including writing policies, approving network security changes, and leading the Network Access Control effort to implement ForeScout CounterACT.

PROFESSIONAL DEVELOPMENT

Charlotte, NC, 09/13-03/14

CITRIX SYSTEMS, INC.

Santa Clara, CA, 07/13-09/13

Cryptographic Architecture Subject-Matter Expert

Project-based staff augmentation SME for securing Authenticode and other code-signing keys for the Citrix enterprise. Led engineer group of selection committee for Hardware Security Modules (HSMs) from Thales and SafeNet.

- Promoted to team lead the second day of the contract based on expertise, experience, and personal presentation.
- Designed and architected fully-featured key protection and use mechanism conforming to industry best practices.
- Documented full solution, including architectural blueprint and Key Management Infrastructure and policy texts.

UNITED STATES POSTAL SERVICE (USPS) VIA *VERSA INTEGRATED SOLUTIONS, INC.*

05/13-07/13

Cloud Security Architect

Security design for an RFP solution for submission to compete for the Federal Cloud Credential Exchange (FCCX). Research solutions included Microsoft Azure Government and Amazon Federal AWS (pending FedRAMP approval) and integration with Facebook, Yahoo, and other federated identity platforms

- Designed a patentable solution for identity credential pass-through, keeping identity, destination, and platform information separate, allowing authentication and authorisation through three parties (supplicant, credentialing authority, and relying entity) while maintaining strict privacy between the parties

U.S. FOOD AND DRUG ADMINISTRATION (FDA) VIA *VERSA INTEGRATED SOLUTIONS, INC.*

Silver Spring, MD, 01/10-07/13

Cisco ISE Engineer / Network Security Architect

Contracted to FDA to co-lead twelve-member team in architecture/design, testing and implementation of NAC and ISE infrastructures for the FDA enterprise wired and wireless networks: 15,000+ users in 100+ field offices worldwide, with more than 55,000 registered devices.

- Designed, built, and deployed authentication/authorisation solution for EAP-TLS 802.1x for agency-wide wireless
- Hand-selected by Branch Chief as sole cryptographic Subject-Matter Expert (SME) for the agency.

SME for 802.1x design and integration with FDA Public Key Infrastructure

As Cryptography SME for FDA, managed agency's PKI; design/implement cryptography-based security solutions. Coordinated re-initialization of entire Public Key Infrastructure during changeover to new PKI vendor.

- Helped coordinate rollout and operation of new HSPD#12 (PIVcard) badges to FDA workforce.
- Designed new template and enrollment methods for user certificates for PIVcards.

PROFESSIONAL DEVELOPMENT

8/09-12/09

ZIMMERMAN ASSOCIATES, INC.

Elkridge, MD, 4/09-8/09

Principal Information Systems Security Officer (ISSO) for FEMA Map Service Center (MSC)

Designed, implemented and audited enterprise security systems; managed FISMA (Federal Information Security Management Act) compliance, audits and other regulatory assertions and certifications. Also designed, created and presented security-awareness training. Wrote policies and procedures governing security requirements.

2020, LLC

Baltimore, MD, 3/08-3/09

Principal ISSO for the Common Working File (CWF) for Centers for Medicare and Medicaid Services (CMS)

As firm's principal security officer, ensured confidentiality and integrity of CWF development process and related Health Insurance Portability and Accountability Act (HIPAA) data. Designed/implemented/audited enterprise systems and physical security infrastructure. Managed FISMA compliance, audits and other regulatory assertions/certifications. Wrote and conducted company-wide security-awareness training.

- Shepherded company from start to finish through error-free Phase I of FISMA audit within a month of hire. (Zero POA&Ms generated.) Successfully obtained compliance in a fraction of the normal time.
- Helped design the rules and requirements for HSPD#12 compliance for Federal Contractors for 20/20.

LACONIC SECURITY, LLC

Boulder, CO, 11/07-3/08

Senior Security Consultant

Lead architect/engineer for design of Cisco Network Admission Control (NAC) infrastructure for municipal government installation, including 802.1x and cryptographic system design and integration. Conducted network assessment/analysis for optimal architectural configuration/integration.

Director of Global Information Security

Recruited as first-ever **Director of Information Security**, to create a seamless domestic Information Security operation, reporting to Senior Executive Vice President of Operations. Founded Global Information Security (GIS) group. Developed strategy for security administration, monitoring, and coordination in seven international regions.

- Led design, implementation and operation of comprehensive, highly effective vulnerability-management program that eliminated 50,000+ active vulnerabilities, reducing unpatched vulnerabilities by 95% in first three months:
 - Led team through investigation of web-enabled and conventional applications for vulnerabilities. Recommended solutions and presented monthly security status reports to Senior Executive Vice President.
 - **Post-implementation, maintained average of less than one vulnerability per system companywide.**
- Published full complement of security policies in preparation for Sarbanes-Oxley compliance.
- Developed company-wide information-security training program.
- Managed security portion of PCI DSS 1.0 and 1.1 compliance projects.
 - **Achieved PCI compliance for all retail and e-commerce operations.**

CYBERTRUST, INC.

Herndon, VA, 5/05-5/06

Senior Social Engineer / Architectural Consultant

- Incident response following virus outbreak, rootkit detection/removal and network traffic analysis for major educational and publishing enterprise.
- Security review and risk analysis of new system design for 3-million-user, full-service web-based financial suite. Identified major vulnerability in design stage, sparing company both reputational and monetary risks.

BANK OF AMERICA CORPORATION

Charlotte, NC, 11/04-4/05

Senior Consultant / Supplier Security Assessor (contracted through TekSystems, Inc.)

Key member of project team to ensure supplier compliance with OCC regulations and industry best practices. Managed risk assessments for vendors, providing assistance with remediation plan development and execution.

CONSTELLATION ENERGY GROUP

Baltimore, MD, 8/03-8/04

Identity Management / Cryptographic Specialist (contracted through TekSystems, Inc.)

Strategic security infrastructure architect/project manager for strategic security infrastructure projects, including all credentialing and authentication systems within corporate environment.

- Researched solutions to common identity-management problems such as cryptographic access, provisioning, authoritative information sources and credentialing, including smart cards and other token-based authentication.
- Developed cohesive 802.1x (EAP) authentication solution for 802.11a/b/g technologies enterprise-wide.
- Designed Windows 2003 Certificate Services (PKI) schema and certificate structure for enterprise use.
- Implemented enterprise-wide Password Self-Service portal.
 - **Reduced password-reset helpdesk calls by a minimum of 5,000 annually, saving more than \$110,000 per year.**

WACHOVIA BANK

Winston-Salem, NC, 5/00-8/02

Chief PKI Architect / Information Security Architect

Direct report to Senior Vice President of Information Security, designing and implementing corporation-wide PKI. Designed as combined technical/business solution, both for internal use and for sale to retail and corporate customers. Defined technical direction for PKI and provided input for selection for each component.

- Wrote major portions of certificate policy (CP) and certificate practice statements (CPS) for PKI.
- Served on purchasing/licensing negotiations team for PKI components.
 - **Saved more than \$15 million in licensing and infrastructure costs through industry and technical knowledge**
- Designed SCIF for housing root and sub-CAs.
- Selected as Cisco wireless 802.1x infrastructure security architect; tested/secured wireless network infrastructure.
 - **Discovered undocumented flaw in Cisco 802.1x implementation.**
- Performed wireless device network vulnerability analysis.
 - **First person to identify "WAP-gap" vulnerability in RIM mobile device infrastructure.**

AETNA CORPORATION

Middletown, CT, 5/99-5/00

IT Security Specialist, Security Architecture & Engineering

PKI specialist, part of team managing maintenance and upkeep for production PKI environment. Ensured compliance with federal security regulations from Health Care Financing Administration (HCFA) and HIPAA.

- Smart Card team member: Research, design, prototyping and testing for smart card implementation. Evaluated smart card systems for large-scale commercial deployment (up to 5 million customers) and enterprise-wide security enhancement. Feasibility and logistics studies for issuance, revocation and bulk loading of card data.
- Designated as PGP Corporate Decryption and Authenticode keyholder; managed all corporate HSMs.

EDUCATION/CERTIFICATION

- **Certified Information Systems Security Professional (CISSP)** 2004; renewed 2007, 2010, and 2013
- **Cisco certifications (2012):** Cisco ISE (Identity Services Engine) System Engineer; Cisco ISE Field Engineer; Cisco Security Sales Specialist; Cisco Content Security Sales Specialist; Cisco Sales Expert v6
- University of North Carolina, Charlotte: International Business and foreign-language courses 2002