

Rakesh Bharania – KI6GIJ

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Profile

Nearly 12 years experience at Cisco Systems, solid technical background in IP Networking, information security and radio communications. Experienced emergency responder from small-scale to regional incidents. Exceptional writing and customer presentation skills for both technical and non-technical audiences. Plays well with others!

Technical Experience

Cisco Systems, Inc. **Sept. 2006 - Present**
Technical Marketing Engineer – S3BU

As part of the S3BU Marketing team, acted as a technical resource for radio, networking, emergency response and procedure questions from Cisco S3BU Engineering, Field Sales, Product Sales Specialists, etc relative to Cisco IPICS and other public-safety oriented products. Architected and implemented industry-first P.25-based ISSI interoperability network using DMVPN technologies, bringing together multiple radio vendors in an IP interoperability 'sandbox.' Built and maintained Cisco IPICS Demo networks used for customer demonstrations by Field Sales, PSS, TACOPS, EBCs, etc, including UHF/VHF radio systems, multicast routers, Cisco Call Manager Express IP Telephony, 802.11-based wireless, etc. Designated SME for Cisco IPICS features, such as the IPICS Policy Engine.

Presented numerous EBC/tradeshows sessions to customers – both operational (DoD, police, fire, EMS, etc) and technical (IT, radio tech) audiences. Demonstrated the ability to synthesize operational needs of first responders with technical capabilities of Cisco products, and radio technologies. Presented classes on Cisco IPICS, radio technology and the Incident Command System (ICS) to internal Cisco audiences.

Wrote marketing collateral and technical whitepapers for IPICS and associated technologies

Cisco Systems, Inc. **2005 – 2006**
Network Consulting Engineer

Provided security consulting as part of Cisco's Advanced Services group to major enterprise and service provider customers. Delivered Cisco's Incident Readiness Assessment and Network Security Architecture Review services. Wrote whitepapers on risk assessment, audit, and network security methods for Cisco's MySDN website. Worked with Cisco's Product Security Incident Response Team (PSIRT) as a trusted advisor regarding unannounced vulnerabilities in Cisco products.

Cisco Systems, Inc. **2000 – 2005**
Information Security Architect

Worked with Cisco IT organizations in designing new company-wide applications by representing "the voice of security." Drafted and evangelized several Cisco-wide Information Security policies. Presented multiple security training sessions on a variety of topics to large and varied technical and non-technical audiences. Evaluated security properties of Cisco standard technologies and applications such as Siebel eBusiness. Worked with third-party vendors to bring their products to Cisco standards. Primary architect in designing Cisco's security regarding Application Service Providers (ASPs), and Extranet operations. Wrote whitepapers and other position statements

regarding various security technologies and issues. Subject Matter Expert (SME) on Application Service Provider, and Extranet security, AVVID Voice Over IP GSD, various Cisco technologies (routers, switches, etc) and cryptography. Designed systems to comply with relevant legislation, such as CA SB 1386, Sarbanes-Oxley (SOX), etc. Evangelized security throughout Cisco Systems via classroom sessions, video-on-demand, as well as to the industry-at-large via KnowledgeConnect, SANS, etc.

As part of Cisco's internal Risk Assessment team, performed Information Security audits based on CRAM (ISO 17799/FIPS-199). Conducted multiple risk assessments on various domestic and international Cisco and Cisco-partner facilities, involving dozens of interviews and multiple on-site visits. Gathered data using standard tools and procedures, drafted reports, and presented findings to senior management.

Interfaced with other Cisco security teams such as PSIRT and CIAG, and remained an active member of Cisco's internal security community. Interacted with senior management within IT and other Cisco organizations. Presented multiple security briefings to Cisco customers via EBC presentations.

**Cisco Systems, Inc
Extranet Security Analyst**

1999 – 2000

Responsible for designing policy regarding Cisco's extranet and other third-party access into Cisco. Provided approval for access list changes. Worked with relevant Cisco IT teams to implement security technologies in extranet infrastructure. Worked with various business units and other extranet sponsoring organizations to evaluate access needs and justifications. Documented procedures used for Extranet security decisions. Led training on security matters and technologies such as IPSec for Extranet infrastructure teams.

**Cisco Systems, Inc.
Customer Support Engineer**

1996 – 1999

Provided frontline phone and email support as part of Cisco's Technical Assistance Center (TAC) with a high degree of customer satisfaction on simple to extremely complex customer networks. Occasionally provided on-site support to critical customers.

Supported Cisco's security platforms including PIX Firewall, Centri Firewall, Cisco NetRanger IDS, Cisco Secure AAA servers, IPSec and Cisco Encryption Technology products. Additionally, supported various "web scaling" products such as LocalDirector and Distributed Director, Cisco DNS/DHCP server, Cisco MicroWeb Server, Cisco Remote and Cisco Multinet software. Also supported Cisco IOS (10.3 – 12.1) routing and Catalyst switching platforms (RIP through BGP routing protocols, IP and other routed protocols, HSRP and other associated router technologies, basic LAN switching).

Also provided customer incident response assisting customers in classifying and responding to in-progress security incidents, such as denial of service. Acted as SME and conducted training on a number of the above-mentioned technologies. Helped build TAC's Security Technical Response Team (TRT). Worked closely with Cisco PSIRT as well as Serviceability Design and Cisco product development teams.

Emergency Response Experience

**American Red Cross – Disaster Services
Mass Care Volunteer
Disaster Computer & Communications Operations
First Aid Station Team**

1992 – Present

As part of American Red Cross disaster relief, managed volunteers, crewed Emergency Communications Response Vehicles (ECRVs), crewed disaster evacuation shelters, installed and managed VoIP, 802.11 Wireless networking and computer equipment, and other disaster relief efforts for major disasters, including Malibu-Calibwas, CA Firestorm (1993), Northridge, CA earthquake (1994), Santa Clara County CA floods (1997), September 11th 2001 terrorist attacks, Oklahoma City Tornadoes (2003) and Hurricane Katrina (2005) Additionally participated in numerous local disasters, such as single dwelling house fires and local Hazardous Materials incidents.

As a member of Health Services' FAST team, staffed first aid stations for major events (such as Gilroy Garlic Festival), providing a BLS-level of care.

These various roles involved interacting with disaster victims, emergency responders with local, State and Federal agencies (e.g. FEMA/DHS), members of other disaster relief organizations, members of the television and newspaper press as well as the general public in rapidly changing disaster and emergency environments.

**Black Rock City – Emergency Services Department
Emergency Medical Services**

2005 – Present

Provided emergency medical response (BLS) and to sick and injured participants of the Burning Man festival in the Black Rock Desert, Nevada and to the Black Rock Fire Arts Festival in San Francisco. Managed incidents using the Incident Command System. Worked with paramedic, fire, law enforcement and air ambulance crews.

**Cisco Systems – Emergency Response Team
ERT Volunteer**

1999 – Present

First responder to emergencies on the Cisco Systems campus. Incidents and training include fires, building evacuation, medical emergencies, hazardous materials (HazMat), light search and rescue. Provided first aid (BLS), triage and incident command (NIMS/ICS-based) during medical responses on the Cisco campus. Interacted with paramedic and fire crews. Demonstrated the ability to remain calm and deal with victims during emergency incidents.

Patent

“System and Method of Modelling an Information Security Risk” – Patent Pending (2004).
Co-Inventor of a method used to rapidly establish a risk profile and triage for IT infrastructure projects.

Industry Engagement & Publications

In addition to the following, I was a regular contributor for technical content for www.cisco.com from 1996-2006. Example documents are available upon request.

**Forum Of Incident Response Teams (FIRST)
Conference Speaker**

2005

Presented "Risk Triage and Prototyping in Information Security Engagements" at the FIRST 2005 Conference in Singapore.

Cisco MySDN

2005 - Present

"Risk Triage For Security Vulnerability Announcements" (nominated for AS Leading Practice)
<http://www.cisco.com/web/about/security/intelligence/vulnerability-risk-triage.html>

"Risk Triage and Prototyping In Information Security Engagements"
<http://www.cisco.com/web/about/security/intelligence/risk-triage-whitepaper.html>

"Preventing Identity Theft Through Privacy Architecture"
http://www.cisco.com/web/about/security/intelligence/05_09_Identity-Theft.html

"Mr Router's Neighborhood"

2002- Present

Regular presenter on internal Cisco television program on Internet security topics.

**SANS Institute
Conference Speaker**

2001 - 2004

Participated in various SANS (System Administration, Networking and Security) Technical Conferences held throughout the country. Presented technical material to audiences of up to 80 students per class. Presented topics include:

- Application Service Provider Security: Lessons From Cisco Systems
- Understanding IPsec and SSL/TLS
- Security Basics (Track 1): Encryption Fundamentals
- Learning from Project Failure
- Introducing Voice over IP (VoIP) for Security Professionals

A review of my "Understanding IPsec and SSL/TLS" presentation is available at
http://www.sans.org/NS2001/NS2001_review.htm

**Cisco Systems Training
Class Developer**

1998

Subject-Matter Expert (SME)/developer for the PIX Firewall portion of the Managing Cisco Network Security (MCNS) 1.0 course for Cisco customers. Designed course objectives and scenarios.

**CCIE Program
Test Development Participant**

1997

Submitted questions related to firewalls and cryptography for the written portion of the Cisco Certified Internetwork Expert – Security exam. Worked with other participants to ensure high-quality test questions and answers.

Education and Industry Certifications

Bachelor of Science, Telecommunications Management
DeVry University, Pomona CA

March 1996.
Magna Cum Laude / GPA 3.69/4.0

Master of Science, Telecommunications Management
Completed two years of program
Golden Gate University, San Francisco CA
GPA 3.8/4.0

Certified Information Systems Security Professional (CISSP) – 2000
Cisco Certified Network Associate (CCNA) - 2000
Emergency Medical Technician (EMT-B) - 2004
National Incident Management System (NIMS):
 100: Introduction to Incident Command System
 200: ICS For Single Resources and Initial Action Incidents
 700: NIMS Introduction
Licensed General-class radio amateur – KI6GIJ

Affiliations

Electronic Frontier Foundation (EFF)
Aircraft Owners and Pilots Association (AOPA)
Institute of Electrical and Electronics Engineers (IEEE)