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Jeffery A. Stout

PROFILE OF ACHIEVEMENTS

- 11 years of Telecommunication, Broadcast and Service Provider experience for small to International Enterprise companies.
- Design, implementation, and administration of advanced data networks including fixed and wireless broadband data networks
- Strengths in IOS, Unix/Linux, TCP/IP, Network Security, DNS/BIND , AAA RADIUS, and Network Security.
- Current area of focus 802.11 Municipal Meshed Wireless Network build out. Focus on OSPF, BGP and Microwave backhaul
- Extensive experience with ISP and MVNO design and implementation for IP OSPF, BGP and MPLS Networks.
- Significant experience in securing IP networks and backend systems, using different types of Firewalls and VPN's
- Design and implementation of both LSLB (Local Server Load Balancing) and GSLB(Global Server Load Balancing) using protocols such as , GSLB, VRRP, HSRP, GLPB, and Hardware Load balancers, Foundry, Radware and F5.
- Security auditing; SNORT, Nessus, nMap, Ethereal, TCP Dump and Global Network Element Monitoring and Management
- Extensive Operations support coupled with Project and People management.
- Full project life cycle development, requirement(s) gathering , SOW (Scope of Work) writing, configuration, implementation, monitoring, training/presentation(s) hand off to IT or Operations

PROFESSIONAL EXPERIENCE

Earth Link
Sr. MUNI City Design Engineer; Western Region   **06/06 – Current**

- Manage city build out project which includes managing multiple teams, including field engineering, network operations, and sustaining engineering for multiple cities; Anaheim, Milpitas, Pasadena, San Francisco, and Long Beach California
- Engineering design support for implementation and configuration of Earth Links Municipal Wireless 802.11 network
- Wireless Mesh Design configuration and maintenance for 802.11a/b/g Nodes for single and dual radios configurations operating primarily in the 2.4, 5.2 and 5.7GHz frequency range. Micro Wave unlicensed and licensed back haul
- Micro Wave unlicensed and licensed back haul 11Ghz – 36Ghz utilizing vendors like Dragon Wave and Ortogon.
- Develop daily business processes with department stakeholders and department directors, creating process flows and responsibility org charts with departmental signoffs and defining clear deliverables between organizations
- Managing multiple vendors and system integrators to engage in different areas of the project, site build construction, vendor analysis/comparisons, and "tool" set up for managing network with hand off to operations.
- Working with RF engineering team to plot RF propagation coverage model through analysis tools as well as defining deltas between theory and actual field implementation
- Develop link budget parameters with different vendor technologies using vendor specified transmit power and Receiver Sensitivity, antenna gain, cable loss, and antenna patterns.
- Capacity injection layer design and administration with 900Mhz, 5.2-5.8Ghz utilizing Alvarion, and Motorola canopy
- Identify Terrestrial carriers for backbone connectivity to back end data center, levering dynamic fail-over routing using OSPF and BGP throughout both the city rings as backbone inter-connections.
- Extensive Linux administration for EMS, implementation and administration along with performance monitoring and throughput measurement for overall network "pulse" and health.
- Next generation design for MPLS, VPLS solution utilizing alternative vendors like Alcatel, Juniper, and Nortel

Japan Communications Inc, @ CCT
Sr. IP Network Architect   **2/04 – 4/06**

- Design, administration, and capacity planning for Japan's largest MVNO (Mobile Virtual Network Operator)
- R&D to support 60,000+ end-user PHS, and EVDO data IP network customers.
- Porting Japan's proven MVNO Data Network model to the US creating an International MVNO with roaming.
- Adherence to SOX compliancy, took private company through IPO, Reporting of all next work assets and estimation on ROI for internal auditors. Followed international ISO standards, Headquarters was in Tokyo, satellite office in Denver, C (tunnel ca)pacity

Jeff Stout (cont'd)
- Session management using Cisco SESM and SSG and beta testing ISG, using portal and walled garden capabilities
- Extensive AAA design and Implementation using FUNK and custom postgreSQL backend data store
- Solaris 2.9 and 2.10 SA, Red Hat AS and ES Server Administration, DNS, SNMP with Nagios, Cacti, MRTG, and iperf
- Cisco 6509 layer 2/3 configuration and administration for Core OSPF backbone along with 2801/2811/7206 administration
- Cisco C10008 implementation and administration for Internet Access Termination of all end user L2TP initiated tunnels

Network Consultant   5/97 – 1/04
Clients included: Verizon Wireless, CSG/Iplanet AT&T Cometa Communications, RHI, Department of Revenue DMV, ATECS, IP Wireless, IBM, ICG Communication, Jato Communications. All projects completed on time successfully.

Team Lead and mentor role on projects that involved numerous members. Self reliant and initiative seeking on projects, where I was the only member. Strict complicacy for "NEBS", Bellcore and Telecordia standards for ISO certification. Engaged on projects that included design, configuration and implementation of both SMB and International IP data Networks. Working for fortune 500 and fortune 100 companies. Configuring redundant and High Availability networks using Local Clustering, Local Load balancing, and GSLB Global Server (Node) Load balancing between different data centers both Nationally and Internationally to ensure 5 nine reliability 99.999% uptime. Roll out's that consisted of small 10 node networks up to 5000 nodes both fixed and wireless broadband. Pre-sales engagements to generate requirement documents; a precursor to writing the SOW, SOW generation with adherence to specific compliancy regulations SOX, ISO 9000 SANS top 10. Above all using best practices and proven methodology to secure network both inside and out using the latest security technology, Firewalls, IPS, IDS, AAA, VPN (IPSec, SSL) security auditing and penetration testing. At the conclusion of the projects, delivered all pertinent documentation and lead training session either with an operation team, IT staff or one-on-on train the trainer. Post sales including support, maintenance, trouble shooting and upgrades. Extended hand on work with Carrier class and enterprise network vendors, including but not limited to Cisco, Juniper, Foundry, F5, Radware, Netscreen, Lucent, Nortel (for full description see Hardware Experience below) I am very versed in the aforementioned entire product line, from an administration perspective and product feature set knowledge. I have hosted many vendor "cook off" to test the features and capacity between competing vendor products. I have managed many different vendors directly and through channel partners.

Verizon Wireless
3G Data Network Engineer
- Administration of all Data related products for 2.5 and 3G 1xRTT and EVDO network Elements
- Designed based on Bellcore and Telecordia ISO standards and practices.
- Motorola CBSC rev 16.1.5 PKTIF configuration and administration for PCF to PDSN PPP termination
- Motorola OMC, OMC-IP administration for process management, RF base station development
- Motorola MM RPM administration, provisioning and processor utilization report analysis
- Perl scripting for CDL Data manipulation of Bouncing Busy Hour, throughput and utilization reports
- UTStarComm/3COM TC1K and TC2K PDSN implementation and administration for 3G call termination
- UTStarComm/3COM IFW IS/95 2.5 administration and configuration for circuit data call termination
- Solaris 2.8 and 2.9 system administration, user monitoring (passwd mgmt, access rights) and security OS hardening
- Cisco 6509 configuration and administration for core switching.
- Cisco 3602/7206 administration for core RAN. OSPF backbone Cisco 10,008 implementation for BGP WAN
- Security administration and auditing on all UNIX and Nortel systems, password enforcement and OS Hardening

CSG Systems/Iplanet for AT&T and Cometa Communications
Network Security Engineer
- Steel Belted FUNK RADIUS design, testing and implementation
- RADIUS Authentication Server development to terminate 802.11 PPP traffic from WiFi base stations
- Perl scripting for user information using MD5 Hashing and SHA1 encryption for data storage
- MySQL design, development and implementation for end user database storage
- MySQL database replication, and backup design and development
- Beta Testing environment design and setup for all new product enhancements and new releases

RHI International Inc.
Network Security Engineer
- Network configuration and administration for Solaris, and Windows NT/2000 and 2003
- Firewall and Network Auditing using the following tools
  - nmap Port Scanner, Microsoft Baseline Security Analyzer, N-Stealth WebScanner, HFNetChk,
  - Founstones; fport, superscan, fpipe, DdosPing. Nessus and OS command line tools.
- Active Directory Sanity Checking. Permission configuration of Local and Group settings
- Policy Checking for Local and Group Securities, Security Template configuration and implementation

Jeff Stout (cont'd)
- Penetration Testing using outside networks to obtain access to interior networks
- DNS configuration and security testing of Current Implemented Name Resolution Services
- Intrusion Detection configuration using various IDS and file system monitoring tools, and SMNP setup and administration
- Router IOS Configuration coupled with ACL's and Firewall Rulebase configuration and IOS administration
- Documentation and reporting of all finding, listing vulnerabilities, liabilities and recommended changes

Department of Revenue
Network Architect
- Discovery of Current network work Physical Topology, all WAN Frame-Relay circuits, data center LAN and Remote offices
- Create Detailed Diagram (Visio) of Current Network, WAN, LAN and all Frame Cloud
- Determine all network WAN data path origination and termination as well as all routing methodologies
- Document and develop current network design as well as develop recommended network upgrades and enhancements
- VPN Design, integration of isolated Development network into production network. Active Directory and DNS design.
- PIX 515 configurations; ACL list design, and implementation, DMZ design and setup. L2TP and PPTP fixup configuration.
- Windows 2003 Server RRAS VPN configuration for Microsoft VPN client authentication

ATECS
Sr. Network Engineer
- Experimenting and testing new OSS systems and core network technologies to deliver optimal benefits, higher revenues, and lower costs to end customers as well as Enhancing Security to compliment current network designs
- International implementation of CDMA Wireless data networks in Asia Pacific regions
- Red Hat 6.2 thru 8.0 Administration both GUI and CLI for DNS, Apache and Web Based registration servers
- Using advanced new technologies to implement IP centric broadband networks based upon client/customer requirements
- RADIUS, Billing, Firewall and data network transport implementation for a variety of Information Technology customers
- Windows 2000 and 2000 Small business Server for testing of Authentication, billing, and any LAN business requirements

IP Wireless
Sr. Systems Engineer
- Advanced 3G wireless Broadband Internet Service Provisioning, using Proprietary CDMA technology
- Motorola CPX, INC Radio Network Controller with GPRS packet datanode
- NodeB Radio Signal Converter, setup, configuration, and administration
- Solaris 2.8 system administration. Red Hat 6.1 – 7.2 DNS/BIND, Apache, NFS set up and administration coupled with rigorous security administration
- Cisco Access Registrar RADIUS testing and administration
- Security Design, PIX 515/525, IDS (SNORT) Policy Based Packet Filtering, PKI
- L2TP to pass user PPP data across the Internet
- Software release functionality testing upgrading, downgrading to different releases for different markets
- Phillips UE portable wireless Modem configuration and testing of PPP and PPPoE
- Cisco 3000 and 3005 VPN Concentrator Setup and Administration
- Windows 2000 Server with Media Services (IIS, Streaming Media server) configuration for testing of wireless data transfer rates. Microsoft terminal services configuration for Remote administration and tunneling Java applets over the internet.

IBM
Network Security Engineer
- Nokia 330, 440, 530 and 650 , Installation, configuration and support
- All IPSO and CheckPoint Administration
- CheckPoint Provider1 Enterprise Management
- Cisco PIX 535 and Local Directors
- Alteon Content Load Balancers
- AIX System administration
- AIX SNG firewalls, and SOCKS servers
- Nortel Contivity and Chekpoint VPN's

ICG Communications
Sr. InterNetworking Engineer
- Unix Systems Administration (Solaris 2.6. 2.7 2.8) DNS/BIND, SSH, OS "hardening", NFS and Volume Management
- Cisco Access Registrar RADIUS Design, Test, and Implementation
- Beta tested and implemented Replacement National RADIUS (Dial-Up) for Wholesale ISP Dial Up
- Cisco 7206 LAC and LNS, PPP to L2TP configuration
- Cisco 8500 NAS configuration for RADIUS Authentication, Cisco 6500 QOS routing configuration

Global Crossing Telecommunications, Inc.   7/00 – 6/01
Sr. OSS Development Engineer
- Network Management HP OpenView, PerfView ,Glance +, NetCool Probes and Object Servers. MRTG,
- SNMP scripting using Perl and TCL/tk.and SNMP agents
- Network Design implementation/deployment 1500 nodes Cisco 5500,6500, Lucent CBX550 ATM
- Network Configuration and Network Security (Check Point 4.0-4., Nokia 440's, VPN's, SSH, PKI, ACE Servers, SNORT IDS for 23 city roll out, OS Security "Hardening,, Split/Split DNS, Nmap, Saint, promiscuous Ethernet mode monitoring)
- Apache Web Configuration, PHP, Mod Perl.
- Developed tools for VOIP, SONET, ATM, and IP/VPN Networks
- Built and secured all the SUN Solaris servers that the tools reside on including any/ all the UNIX administration necessary to accomplish this, as well as all Oracle Installation and configuration. (8.10, 8.13, 8.15, 8.17)
- Maintained/configured the regional LAN and WAN network(s) including extensive DNS design and implementation
- EMC Calerra and SUN A5200 SAN File Servers
- "switched" packet traffic offload to VOIP Network (SONUS GSX ,SS7 Policy Server and Soft switches)
- Disaster/Recovery Planning and implementation of solution

Westwind Media.com   6/99 – 5/2000
Sr. Network Engineer
- WAN Network Design and Implementation including Network BackUp/restore, Disaster/Recovery planning risk management
- Configuration, implementation and support for Windows Media Encoders and Windows Media Streaming Servers, as well as Real Networks Producers and Real Streaming Servers
- Wireless 10 Mb and DS3 ISP Wireless connections, for streaming content
- Maintenance and support of 120+ LAN/WAN Server Farm (Solaris, AIX, Windows NT Enterprise, Linux Clusters)
- Windows NT and 2000 configuration, implementation and administration, using Active Directory, and Multiple trusted domains. Ghosting images and continually patching for security, updates and enchancements.
- Administration for Cisco 7513, 7206 and 2622 Routers, configuring routes, ACL's and VLANS, Spanning Tree, Port Trunking
- BIND 8.12 Administration and updates
- Site Scope SNMP Traffic Administration
- Firewall setup and maintenance, Proxy server configuration and administration.

Level 3 Communications LLC   5/98 – 3/99
IP-Core Implementation Engineer

- DNS management and Implementation for End-User Customers
- Global Wide IP-Address management and delegation to End-User customers Managing a /13 (eight class B networks)
- Network Design and Capacity planning for US and European cities using QIP
- Subnetting,/CIDR Cisco BGP, OSPF and RIP route announcements
- Cisco Access Registrar RADIUS management and Implementation, using our server to proxy to customer's main authentication server for Managed Modem Services
- LDAP Customer Database Administration
- Checkpoint Firewall rule design and implementation
- Rwhois Data base design, implementation, configuration and administration

Network and Systems Consultant   5/95 – 4/98
Clients include: Sony, AT&T WorldNet, Janus Funds, RHI. BeWell Net, InfoNow, Quest Diagnostics
All projects completed on time successfully.
Supervising Call center environments mentoring agents in technical as well as customer service and call experience. Managing 12 to 15 agents at a time. Extensive ISP troubleshooting dial-up issues including server RAS and modem connectivity problems. PPP and SLIP and BBS configuration and administration. Network "firefighting". Windows NT 3.51, Solaris 2.51, Novell 3.11 and 4.12. Cisco IOS 10.1, BayNetwork and Well Fleet routers and switches.

HARDWARE EXPERIENCE

Alvarion
- BreezeAccessII
- Breeze Access LB
- Breeze Access VL
- AlvariSTAR NMS

Cisco
- PIX 515,525, ASA5510,5520
- 2600, 2800, 3800,7200, 7500 10000 and 12000 series
- 2900, 3500XL, 4000, 5500, 6500/7600 series switches VPNSM, MWAN, FWSM
- 3000 VPN concentrators
- Cisco 8850 ATM Switches

Cooper Mountain
- Cooper Edge DSLAMS

Dragon Wave
- Air Pair 50/100/200

EMC
- Calerra and CLARiiON

Juniper
- M40, M160, ERX routers
- Netscreen NS25, NS208

Lucent
- CBX 200, 250, 500,
- GX-550 ATM Switches

Tropos
- 3210, 4210, 5210 Wireless Mesh Nodes
- Tropos Control and Insight EMS Servers

Motorola
- INC Radio Network Controllers
- CBSC 16.1.5
- OMC's running Solaris
- PKTIF PCF's
- MM RPM's
- Canopy 5.2-5.8Mhz Back haul radios

Network Appliance
- F85, F740 SANS Storage Array's

Nortel
- Alteon 180
- Shasta 5000 BSN
- Shasta PDSN
- Contivity VPN's

Redback
- SMS 500
- 1800 DSLAMS

Sonus
- GSX switch
- PSX policy
- SGSX SS7 signaling
- VOIP Hardware

Sun Micro Systems
- Ultra 2, 5, 10, 60, 80
- Netra 1125, E220, E250, E420, E450, E4500, E6500, E10000, SunFire V120, V250 SunFire V210, V240, T2000,
- SUN SAN Disk Array's N7000, A5200, A1000, D1000

IBM
- RS6000
- pSeries 610, 620, 640 and 660
- OS/370 OS/390

Cabletron
- SSR8 routers
- MMAC 6500 and 9000 switches

OPERATING SYSTEMS
- Extensive Solaris 2.5.1-2.10
- AIX 4.3-5.1
- IRIX 5.1- 6.5
- HP-UX 10.x-11.x
- Cisco IOS 10.2- 12.4
- CatOS

- JUNOS
- Linux
  - Slackware 3.6
  - RedHat AS and ES
  - CentOS 3.x – 4.4
- OpenBSD 2.x
- FreeBSD 4.x & 5.x

- NetBSD 1.5
- Windows 2000 Advanced Server and 2003 Server
- Novell 3.x- 5.x
- DOS 4.3-6.22

SOFTWARE EXPERIENCE
- Hundreds of installation and configurations of Solaris 2.8 and 2.10, including file system layout, system utilities, patches, disk mirroring using Solaris DiskSuite, or Veritas, and any other tools and services that needed to be installed, on Enterprise Class SUN Servers (E450 or better.)
- Thousands of installations of Linux focusing on Red Hat and Centos for Production server environments, Debian, SUSE and Ubuntu for desktop implementations.
- Oracle Enterprise 7.4.3, 8.1.5, 8.1.6 configuration and installation of over 100 Oracle Database servers running on SUN Enterprise Class Servers

- Real Audio Networks Server
- RTSP protocols
- Microsoft Media Server
- MMS protocols AFS and AFX
- SendMail, Q-Mail, GroupWise
- BIND 4.0- 8.2x
- Extensive SNMP Management

- Nagios
- HP Open View
  - ITO/VPO, PerfView
  - Glance Plus

- Netcool/OmniBus Object Servers, probes and ISM's

- Cisco Works 2000 Suite
- Big Brother/Big Sister
- Apache w/ PHP and Mod Perl
- IIS 3.x-5.0.Visual Source Safe
- LDAP
- Resonate IP Load Balancing
- DNS Round Robin

SECURITY EXPERIENCE

Jeff Stout (cont'd)

- TCP/IP Packet filtering
- Check Point Firewall 1, 2000 and NG Administration
- Novell Border Manager
- Cisco **A**ccess **C**ontrol **L**ists
- Cisco PIX 501, 515, 525
- MD5, Triple DES, Blowfish
- SSH Servers and Clients
- IPSEC, IKE
- Secure ID/ACE one time password authentication

- IP Chains, IP Tables firewalls
- Nmap, Nmapfe
- Etherreal
- SANS Training
  - o Incident Handling
  - o Intrusion Detection
  - o Firewalls
  - o Perimeter Protection
- SAINT, SATAN
- SNORT, ACID, Barnyard

- Nokia 440, 530, 650 Firewall Servers
- Juniper NS25, NS50, NS208 firewalls
- Dsniff, CA SniffIT
- AAA Merit RADIUS
- Cisco/AIC RADIUS
- Steel Belted RADIUS
- Cisco VPN Concentrators
- Check Point VPN using Secure ID for authentication

PROGRAMMING EXPERIENCE

- VB Scripting
- Korn/Bash Shell Scripting

- TCL/tk
- Basic Perl

- Basic Python
- Basic HTML and XML

CERTIFICATIONS/LICENSES

- **C**ertified **C**isco **N**etwork **A**ssociate
- Finished Practical for GIHC
- Studying for CISSP

- Studying for SSCP certification
- **C**ertified **N**ovell **A**dministrator 4.1.1

- FCC Commercial Radio Operator License
- FCC Radiotelephone License

EDUCATION

Red Rocks Community College
Computer Aided Drafting

Barnes Business College
Computer Information Systems

TRAINING

- Tropos Advanced Meshed Network Administration
- Introduction to Cisco Routers
- Advanced Configuration of Cisco Routers
- CheckPoint Firewall 1 Administration
- CheckPoint Firewall 1 Advanced Administration
- CheckPoint Firewall 1 VPN Administration
- Minacom QOS Administration
- HP OpenView IT/Operations Administration
- MicroMuse NetCool/OmniBus Administration

- NetCool/OmniBus Advanced Administration
- SANS Incident Handling/Intrusion Detection
- SANS Network Systems Security Auditing
- SANS Firewall Perimeter Protection and VPN's
- Intro to UNIX
- Fundamentals of Solaris 2.x

References

Adrian Montoya	**303-520-3100**		**Accountant**
Mike Johnson	**720-260-2617**		**Sr. Network Engineer CCNP**
Randy Ross	**303-884-1751**		**Network Developer**
Wayne Bronikowski	**303-223-0541**	**303-884-8546**	**NEMS Engineering Manager**
John Kleet	**303-885-9299**	**303-985-0599**	**Audio Engineering, Stage Design**
Gil Gilland	**303-223-0506**		**UNIX Systems Engineer/DBA**
Austin Rother	**858-748-7640**	**858-395-9292**	**Communication Engineer**