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Work Experience

Director of Network Engineering & IT Security (June 2018 – October 2023)

Ventus Wireless, LLC - Norwalk, CT

- Led and mentored team of six employees, including Network Engineers, Systems Engineers, and Data Center Technicians. This was a very hands-on senior engineering position which involved routinely guiding staff on highly technical topics, with an emphasis on security, efficiency and automation.
- Worked closely with other department leaders and the C-suite in support of resolving escalated customer issues and routine project requirements involving network, systems, or security.
- Managed PCI DSS compliance program, including third party vendors involved with routine penetration testing, network scans, and formal compliance reporting.
- Performed daily security event analysis via various methods including host-based IDS (OSSEC), SIEM (Splunk), Firepower Management Center, and SolarWinds.
- Monitored security mailing lists and other news sources for bleeding edge Cisco/Linux vulnerabilities, and regularly established action items to protect critical systems from exploitation.
- Designed next-generation PCI DSS compliant production data center environment and MPLS network, and led the team which successfully implemented it, thereby drastically improving network reliability, scalability, and security.
- Designed hybrid AWS/on-prem corporate enterprise environment in support of the closure of a legacy data center/office facility, and led the team which successfully implemented it. This included the configuration of AWS Direct Connect and IPsec VPN links to different AWS regions from Equinix co-location data centers, as well as deployment of multiple Cisco Firepower security appliances supporting company-wide remote access VPN and general connectivity needs. It also involved deployment of a series of isolated DMZ networks between production and corporate networks, in support of PCI DSS compliance.
- Installed and managed Nessus Professional, including execution of routine vulnerability scans of production and corporate network environments.
- Developed custom interface for management of Linux server software inventories (SBOM) and associated vulnerabilities (CVEs).
- Developed custom interface which integrated data from the SolarWinds Orion API and the Cisco SmartNet API, in support of SmartNet contract management/renewals.
- Developed custom automated system for configuring common redundant backhaul VPN connections to customer end points, including IPsec and BGP configurations, thereby eliminating hours of human labor associated with each deployment.

Senior Network Engineer (April 2011 – June 2018)

Ventus Wireless, LLC - Norwalk, CT

- Responsible for service provider PCI DSS compliant financial network and systems infrastructure in a 24x7x365 environment consisting of over 150,000 edge locations. This includes a core network spanning 3 data centers with multi-homed WAN circuits, hundreds of highly sensitive Linux servers and Cisco routers, and numerous redundant backhaul connections to financial payment processors and other associated private network destinations.
- Top tier technical escalation point for resolution of all issues pertaining to security, network, systems and data center operations.
- Identified and arranged remediation of major security vulnerabilities in network and server infrastructure, including bespoke software.
- Installed, configured, and maintained SolarWinds software (NPM, NTA, UDT, SAM) for monitoring of critical network equipment and Linux/Windows servers.

- Managed data center operations, including power distribution, UPS service contracts, equipment installation, and cabling. Assured that all work adhered to defined standards.
- Managed enhancements to network and server infrastructure pertaining to Payment Card Industry (PCI) compliance requirements, resulting in repeated successful audits.
- Coordinated upgrade of core routers (7206VXR to ASR 1006), switches (2960 to 4948E) and firewalls (PIX 525 to ASA 5525-X), including IPS implementation and segregation of customer traffic into multiple VRFs.
- Frequently interfaced with Sales and Solutions Engineering teams on new business opportunities, which many times involved successful conference calls and/or face-to-face meetings with existing or prospective customers regarding network/systems architecture.
- Designed and implemented unique networks based on customer requirements, including associated technical documentation and Visio diagrams.
- Designed and implemented custom network for Fortune 100 financial institution's ATM machines, including private cellular APNs and associated MPLS connectivity via various carriers. This involved numerous face to face meetings with the institution's Senior Global Information Security staff members, who ultimately approved the design for production use.
- Designed and implemented WAN network for global retailer's portfolio of 250+ stores in the USA and Canada.
- Developed custom software applications for use on a proprietary Linux-based router platform, with the primary focus on C and Bash scripting. This includes software for interfacing with Sierra Wireless 4G/LTE modules.

Systems Administration Supervisor (2008 – 2011) / Systems Administrator (2006 – 2008)

OLM, LLC - Trumbull, CT

- Responsible for all technical aspects and security of two data centers and over 1,500 servers in a diverse 24/7/365 environment consisting primarily of RedHat/CentOS/Debian/Ubuntu Linux servers.
- Maintained Cisco network consisting of 7206 routers, 6509 switch/routers, 4000/4500 switch/routers, and over 100 2950/2960 access switches.
- Configured BGP peering with four Tier-1 network providers, providing optimal routing paths to/from three data centers. Regularly monitored utilization on WAN circuits and load balanced ~1 Gbps of traffic in accordance with contracts to minimize usage costs.
- Implemented IPv6 network wide, across edge and core routers/switches, and also established IPv6 BGP peering with Internet service providers.
- Monitored servers and network components via Nagios, utilizing custom designed Nagios plugins. Also used OpenNMS for SNMP monitoring purposes.
- Developed a wide variety of custom applications, including a staff portal, client portal, remote reboot interface, Xen virtual server provisioning system, order processing system, and more.
- Performed security threat analysis for mission critical Linux servers. Planned and implemented solutions to protect servers from vulnerabilities and exploits. In some cases this involved performing custom back porting of C source code patches to legacy operating system versions.
- Advanced troubleshooting of Linux servers and associated software.
- Server hardware assembly and troubleshooting for a wide variety of Intel and AMD hardware platforms.
- Scheduled and performed regular maintenance on hundreds of mission critical servers.
- Directed and trained other staff members on proper technical procedures.
- Worked closely with Technical Services Manager on data center improvements and hardware orders.
- Provided clients with Tier-3 level support via email, support desk, and telephone.
- Worked closely with Technical Support staff on day to day data center operations.

Systems Administrator (2004 - 2006)

RP Design Web Services - Cheshire, CT

- Managed software, security, and overall operation of Linux servers both locally and remotely.
- Planned, purchased, and performed complete system installation of several Linux servers.

- Administered an office LAN, including Macs, Windows PCs, and Linux servers.
- Authored several web applications using PHP, MySQL, and JavaScript, including a complete web based interface for administration of the e-mail server.
- Coordinated with prestigious clients, both in person and over the telephone to resolve issues.
- Traveled to the Telehouse co-location facility on Staten Island to perform hardware maintenance on servers.

Education

BA Industrial Technology with Specialization in Networking (2006)

Central Connecticut State University, New Britain, CT

Computer Skills

Networking

- BGP, OSPF, HSRP, VRRP, VRF, MPLS, DMVPN, Netflow, SNMP, IPv4, IPv6, vPC, STP

Operating Systems

- RedHat/CentOS/Debian/Ubuntu Linux, FreeBSD, Windows Server

Programming

- C, Bash, PHP, SQL, HTML, CSS, JavaScript, JSON, XML

Applications

- Nessus, Splunk, nmap, iptables, FRRouting, SolarWinds, OpenNMS, Nagios, MySQL, Apache, BIND, Openswan, Libreswan, Qmail, Courier IMAP, Sendmail, OpenSSH, Subversion, KVM, Xen, Cisco AnyConnect, Cisco Umbrella, Cisco Meraki, Linux kernel, EVE-NG
- Microsoft Visio, Word, Excel, PowerPoint, Outlook

Hardware

- Cisco Routers: ISR 891/1841/19xx/26xx/28xx/29xx/39xx/42xx/43xx/44xx, 7206VXR, ASR 1xxx
- Cisco Switches: Catalyst 2950/2960/3560/3650/4000/4500/4948/4500/6500, Nexus 3600
- Cisco Firewalls: Firepower 11xx, 41xx, ASA 55xx
- Juniper Routers: M5/M7i/MX240/SRX3xx
- X86 server hardware assembly, upgrades, and troubleshooting