

Mark S. Willis

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SUMMARY

I am a well-rounded, adaptable professional currently with over 10 years of experience in multiple Network Engineering and Cyber Security positions. Specifically, I have vast experience in Cisco Routing and Switching, Firewall Administration, Voice and Network Security for Enterprise Networks. I am highly versatile in Planning, Implementing, and Troubleshooting due to my experience with always-changing security-focused government networks.

PROFESSIONAL EXPERIENCE

Network Engineer

September 2016 – Present

BWX Technologies, Inc.

Lynchburg, VA

- Configure and maintain network infrastructure which includes three data centers consisting of Cisco Nexus 9K's, 7K's, 5K's and 3K fabric extenders, ISR 4300 series routers, wireless LAN controllers and over a dozen Cisco/Fortinet firewalls.
- Configure and maintain 30+ remote branch sites which include multiple MPLS and DMVPN connections and hundreds of Cisco routers and switches.
- Architected and implemented VeloCloud SDWAN technology company-wide, which included two hub sites and 30+ spoke sites. The implementation resulted in a measured 99.99% overall network uptime at remote locations with more than one WAN circuit running in parallel.
- Design, implement and maintain a complex routing infrastructure containing multiple WAN links utilizing BGP, EIGRP and policy-based routing to provide failover and redundancy in case of link failure.
- Deploy and maintain a wireless infrastructure consisting of 802.1x authentication and authorization, five Cisco wireless LAN controllers and a CVO (Cisco Virtual Office) controller.
- Spearheaded a push toward DevOps within the Operations team - stood up an Ansible installation in order to better automate the company network. Configured Ansible so that all networking devices were running a more standard base configuration, automated new router/switch installs and streamlined firmware upgrades.
- Manage over 15 Cisco and Fortinet firewalls, including NAT and access rules utilizing numerous contexts.
- Implemented and maintained ForeScout Network Access Control, including 802.1x company-wide.
- Ensure all Cisco IOS and NX-OS devices are compliant and schedule after-hours downtime to upgrade when new security vulnerabilities are released.

Network Engineer

July 2015 – September 2016

Lynchburg City Schools

Lynchburg, VA

- Network engineering and administration: manage and maintain a network infrastructure that includes over 300 Cisco switches.
- Upgraded and improved the network from a completely flat layer 2 domain to segregated layer 3 sites utilizing EIGRP. Route maps and policy-based routing were also introduced in order to have more control over the way traffic was routed through the network since the school division's infrastructure is shared with the city.
- Network security: manage Cisco 5585 ASA firewalls and a Lightspeed Rocket web filter in order to protect the students and provide a distraction-free classroom environment.
- Implemented QoS in order to provide stable voice, video and data traffic.
- Upgraded the lackluster and unreliable wireless infrastructure throughout the school division to a stable wireless solution capable of a total throughput of 80 Gbps at 25+ sites, utilizing 802.1x and including a guest VLAN and QoS tagging to ensure faculty members were not affected by guest traffic.
- Responsible for the voice infrastructure for the school division which includes three Call Manager servers and two Unity Connection servers, providing a voice solution to over 2,000 employees.

Senior Network Engineer / Senior Network Administrator

May 2014 – July 2015

United States Marine Corps – Combat Logistics Regiment 15

Camp Pendleton, CA

- Was in charge of establishing and maintaining Combat Logistic Regiment 15's LAN, Domain Controllers, and Exchange Servers on both unclassified and classified systems.
- Established IPsec tunnels, GRE tunnels, and DMVPN tunnels to other adjacent units in order to provide reliable, secure services to hundreds of end users.
- Implemented a dual routing protocol environment utilizing EIGRP, RIP, and redistributing to provide an efficient, stable backbone network.
- Drafted and implemented a baseline LAN topology that enabled Combat Logistic Regiment 15 to vastly improve their network's reliability and allow newcomers to easily be able to pick up where his/her predecessor left off.
- Managed a team of over 10 Marines, assigning different roles and ensuring the mission was always accomplished.

Senior Network Engineer / Network Security Engineer

August 2010 – May 2014

United States Marine Corps – 9th Communication Battalion

Camp Pendleton, CA

- Implemented, maintained, and troubleshot eBGP, iBGP, EIGRP, OSPF, and route redistribution on Cisco routers.
- Tweaked BGP in order to adapt to the mission's dynamic redundancy and scalability requirements by utilizing IP prefix lists, route maps, route reflectors, and AS-path prepending.
- Configured switch stacks (VLANs, trunking, inter-VLAN routing, VTP domains, STP, port security, and BPDU guard).
- Configured and monitored the Fortinet firewall and McAfee IDS in order to secure the network from all external threats on both Unclassified and Classified systems.
- Configured IPsec VPN tunnels utilized for secure communication between multiple sites.
- Designed and improved network infrastructure and IP schemes.

Helpdesk Technician / Network Administrator

June 2012 – December 2012

United States Marine Corps – 9th Communication Battalion

Lashkar Gah, Helmand Province, Afghanistan

Was in charge of administering and maintaining 3 network infrastructures, each providing a different level of classification and supporting over 5,000 end users. To do this, it was necessary to take on multiple different roles, including providing 24/7 helpdesk services to all NATO forces and U.S. government personnel located in Lashkar Gah, troubleshooting network outages, and ensuring 99.99% up-time in a combat zone environment.

- Successfully opened and closed 1,000+ trouble tickets, including Active Directory account lockouts, port security lockouts, software/hardware issues, cabling issues, DHCP problems, DNS issues, IP telephony related issues, etc.
- Maintained, monitored, and troubleshot (when necessary) EIGRP, OSPF, and multiple GRE and IPsec tunnels.
- Configured and installed TACLANEs (Tactical Local Area Network Encryption devices) in order to create GRE and IPsec tunnels between our site and the main server hub in Camp Leatherneck.
- Configured from a blank state, tested, and installed over a dozen new Cisco routers and switches to accommodate the expanding network and increase of personnel.

ACTIVE INDUSTRY CERTIFICATIONS

- CCNA (Cisco Certified Network Associate) Routing and Switching
- AWS Certified Cloud Practitioner
- CompTIA Security+ ce
- CompTIA Linux+
- CompTIA Project+

EDUCATION**Western Governors University**

August 2013 – July 2014; May 2016 – April 2018

Salt Lake City, UT

- Bachelor of Science, Information Technology – Security Emphasis