

Michael Kiernan

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PROFESSIONAL SUMMARY

Senior Network Engineer with 9+ years of experience designing, modernizing, and supporting multi-campus enterprise LAN, Wi-Fi, routing, authentication, and firewall environments. Hands-on with Aruba and Cisco switching and wireless, OSPF, BGP, VRRP, MPLS, Palo Alto and Fortinet firewalls, 802.1X/RADIUS, and high-availability operations, with current focus on AWS and hybrid-cloud networking. Experienced leading complex migrations, acting as a senior technical escalation point, documenting standards, and coordinating vendors without direct people management.

CORE EXPERTISE

Enterprise Networks: Aruba CX/AOS switching, Aruba wireless/controllers, Cisco Catalyst, LAN/WAN, IPv4 routing, OSPF, BGP, VRRP, MPLS, ECMP

Layer 2 & Resiliency: VLANs, spanning tree, LACP, segmentation, redundant switching, high availability, firmware and lifecycle management

Access & Security: 802.1X, RADIUS, EAP-PEAP, eduroam, certificate trust and PKI planning, Fortinet firewalls and NAC, Palo Alto firewalls, BYOD/guest access, policy enforcement and segmentation

Operations & Engineering: Root-cause analysis, major incident escalation, monitoring, change control, technical standards, diagrams, runbooks, configuration baselines

Platforms & Automation: Aruba Central, AirWave, ClearPass migration planning, AWS and hybrid-cloud networking, Azure, Active Directory, Python, PowerShell, Node.js, TypeScript, C#

PROFESSIONAL EXPERIENCE

Network Engineer | MCPHS University

06/2021 - Present

Worcester, MA

- Provide technical leadership and senior escalation support for enterprise switching, wireless, routing, authentication, and firewall services across the Worcester, Boston, and Manchester campuses.
- Spearheaded the phased migration of more than 170 Cisco switches to Aruba while maintaining 80+ Cisco Catalyst switches during the transition, supporting a stable multi-vendor environment with minimal disruption.
- Maintain switching firmware, configuration standards, lifecycle plans, and change documentation; perform monthly upgrades using controlled maintenance practices to reduce risk and keep platforms current.
- Design, operate, and troubleshoot resilient campus LAN and WAN services using IPv4 routing, OSPF, VLANs, spanning tree, link aggregation, and redundant core and distribution architectures.
- Support enterprise Aruba Wi-Fi across classrooms, offices, residence spaces, and high-density environments, including coverage, capacity, roaming, client authentication, and performance troubleshooting.
- Lead design and troubleshooting work for 802.1X and RADIUS-based access, including eduroam, EAP-PEAP, certificate trust, BYOD onboarding, and current ClearPass migration planning for identity-based access control.
- Manage and troubleshoot firewall policy and segmentation across Palo Alto and Fortinet platforms, including reorganizing more than 1,000 Palo Alto firewall rules to improve clarity and ongoing operational support.
- Use network monitoring and packet-level troubleshooting to lead root-cause analysis and corrective actions, contributing to a 50% reduction in outage duration.
- Develop network diagrams, firmware and inventory tracking, implementation plans, and operational documentation that reduced troubleshooting time by 30%; coordinate vendors and service providers to reduce deployment time by 45%.

Worcester, MA

- Led the design and implementation of a two-campus migration from Brocade to Aruba switching, completing the transition with minimal disruption and improving network performance by 20%.
- Oversaw day-to-day LAN, WAN, wireless, and security operations for the Worcester and Leicester campuses and served as the escalation point for complex connectivity and infrastructure incidents.
- Redesigned the Aruba wireless environment, earned the Aruba OS 8 Certificate, and built custom captive portal pages that simplified BYOD onboarding and improved user satisfaction by 40%.
- Configured and supported OSPF, MPLS, VLAN segmentation, spanning tree, and resilient switching; deployed a 10 Gb fiber connection between campuses to replace a 100 Mb link.
- Maintained network security through platform updates, threat management, and firewall policy controls, helping reduce security incidents by 25%.
- Administered Active Directory, Azure, and Microsoft 365 and collaborated on PowerShell automation for batch changes during the Microsoft Teams rollout.
- Standardized and rebuilt data closets and server rooms, improving documentation, cable management, troubleshooting speed, and future scalability.
- Contributed to capacity planning, traffic analysis, and technical documentation used to support upgrades, maintenance, knowledge transfer, and long-term network support.
- Partnered with outside engineering vendors on design reviews, implementation planning, and major infrastructure upgrades, translating operational needs into practical network changes.

EDUCATION & CERTIFICATIONS

Bachelor's Degree | Programming Concentration in Interactive Media | Becker College, Worcester, MA | 2016

CompTIA Network+ Certification | Aruba OS 8 Certificate | AWS Certified Advanced Networking - Specialty (ANS-C01), in progress, CISSP (In Progress)

Professional Development | Completed HPE Aruba Networking ClearPass Configuration Training (Rev. 25.21)