

## WILLIAM ROBERTS

Network Technician | Network Engineer | Network Analyst

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## PROFESSIONAL SUMMARY

Network technician with telecom experience supporting the full customer service path, from the fiber handoff at the optical network terminal through customer edge routing and switching to the firewall, spanning OSI Layers 1 through 4. Managed SD-WAN, routing, and wireless deployments across Cisco Meraki, Plume, and Ubiquiti platforms. Operates a self-managed multi-VLAN network where the ISP gateway is bridged and all routing, DHCP, firewalling, and intrusion detection are consolidated onto pfSense virtualized on a Proxmox VE Type 1 hypervisor. Completing a B.S. in Cybersecurity and Information Assurance (December 2026) and CompTIA A+ and Network+ certified.

## TECHNICAL SKILLS

Routing and Switching: TCP/IP, IPv4, IPv6, BGP (Border Gateway Protocol) configuration verification, static routing, inter-VLAN routing, subnetting, CIDR, VLAN (Virtual LAN) configuration and tagging, 802.1Q trunking, network address translation (NAT), port forwarding, routing tables, default gateway configuration, MAC addressing, ARP

Platforms and Hardware: Cisco Meraki, Cisco networking devices, Ubiquiti, Plume, SD-WAN, pfSense, virtualized firewall appliance, optical network terminal (ONT), ISP gateway bridge mode and IP passthrough, customer premises equipment (CPE), routers, managed switches, wireless access points, WPA3, WPA2

Network Services: DNS (Domain Name System) administration, DNSSEC, recursive DNS resolution, Pi-hole, Unbound, DHCP (Dynamic Host Configuration Protocol), DHCP scope design, DHCP reservations, static address assignment, Active Directory Domain Services (AD DS), domain join troubleshooting, NTP, HTTP and HTTPS, SSH, ICMP, SNMP, syslog

Web Traffic and Proxy: NGINX, Nginx Proxy Manager, reverse proxy, Layer 7 host-based routing, upstream mapping, TLS termination, SSL offload, TLS/SSL certificate management, Let's Encrypt and ACME automation, virtual host configuration

Network Security: firewall administration and rule management, stateful packet inspection, access control lists, network segmentation, subnet segmentation, network access control (NAC), Suricata IDS/IPS, intrusion detection and prevention, WireGuard VPN, IPsec, remote access VPN, preshared keys

Monitoring and Troubleshooting: network monitoring, SNMP-based monitoring platforms, traffic analysis, packet capture, tcpdump, Wireshark, MTR, OSI-model troubleshooting methodology, latency and throughput analysis, interface diagnostics, log analysis, SIEM telemetry (Wazuh, OpenSearch, Filebeat), uptime monitoring

Infrastructure and Service Management: Proxmox VE, KVM virtualization, VM provisioning, TrueNAS SCALE, ZFS, Docker, Linux (Debian, Ubuntu), Windows Server, Active Directory, bash scripting, PowerShell, ServiceNow, Jira Service Management, SLA management, escalation workflows

## PROFESSIONAL EXPERIENCE

Data Support Technician (Contract through APT) | C Spire | February 2026 to July 2026 | Birmingham, AL

- Handled roughly 400 tickets per week on an MSP service desk serving 20,000+ business accounts across inbound phone, email, chat, and portal queues, including rotating on-call coverage for after-hours circuit and connectivity incidents.

- Supported the complete network service path for business fiber customers, from the fiber handoff at the optical network terminal (ONT) through customer edge routing and switching to the firewall, covering OSI Layers 1 through 4.

- Managed SD-WAN and managed-network deployments across Cisco Meraki, Plume, and Ubiquiti platforms, handling site connectivity, policy configuration, and centralized cloud-managed administration.

- Coordinated and validated WAN IP handoffs between provider infrastructure and customer edge devices, verifying BGP and static routing configurations, subnet assignments, and gateway reachability.

- Configured and troubleshooted routers, switches, firewalls, and wireless access points, including VLAN creation and tagging, subnet allocation, static IP assignment, interface and port configuration, and routed IP range delegation.

- Diagnosed VLAN tagging, subnet mask, default gateway, DNS resolution, and routing faults using structured OSI-model methodology, isolating failures by layer and reducing repeat tickets.

- Performed packet-level and path analysis with tcpdump, Wireshark, MTR, and SNMP-based monitoring to identify configuration drift, packet loss, and service degradation, and to determine whether faults sat on the customer or provider side of the demarcation point.
- Monitored routing devices, circuit health, and traffic flows for anomalies and outages, and triaged incidents in both ServiceNow and Jira Service Management against SLA and escalation targets.
- Verified diagnoses with Tier 2 engineering before dispatching field technicians, then walked technician and customer through resolution and confirmed stability on follow-up.

Creator and Lead Developer | Red Whistle ([joinredwhistle.com](https://joinredwhistle.com)) | July 2026 to Present | Mobile, AL

- Designed RWP-1, a custom wireless mesh relay protocol over LoRa long-range radio delivering authenticated messages across multi-hop paths without cellular or internet infrastructure, implementing message signing, replay protection, addressing, and hop management in embedded C.
- Designed Bluetooth Low Energy GATT service structure for device-to-phone communication.

Creator and Security Engineer | ScanForge | 2025 to 2026 | Birmingham, AL

- Built a multi-tenant external attack surface assessment platform evaluating DNS records, email authentication (SPF, DKIM, DMARC), TLS and HTTPS configuration, and HTTP security headers against a prioritized remediation model.

Parts Specialist and Technical Support | O'Reilly Auto Parts | 2025 | Mobile, AL

- Diagnosed vehicle faults from reported symptoms through structured elimination, isolating the failing component before recommending a part or repair.
- Performed hands-on electrical and charging system testing, verifying each diagnosis against measured results, and queried the parts catalog database to resolve component fitment by vehicle specification.
- Provided technical support to customers with no mechanical background, the same explanatory skill later applied to business network faults.

## KEY PROJECTS

Segmented Multi-VLAN Network | pfSense on Proxmox VE, Suricata IDS/IPS | Ongoing

- Removed the ISP gateway from the routing path by placing it in bridge mode, consolidating routing, DHCP, DNS, NAT, and firewalling onto a pfSense instance virtualized on a Proxmox VE Type 1 hypervisor so all north-south traffic transits a single inspected control point.
- Designed segmentation across multiple VLANs and subnets isolating infrastructure, service, and client traffic, with inter-VLAN routing policies enforcing least-privilege communication between segments.
- Administer Suricata intrusion detection and prevention inline at the perimeter with stateful packet inspection and custom rule sets, and secured wireless with WPA3 placing guest clients into a restricted segment by default.
- Operate an NGINX reverse proxy performing Layer 7 host-based routing to internal upstreams, with TLS termination and SSL offload backed by automated Let's Encrypt issuance and renewal.

DNS and Remote Access Infrastructure | Pi-hole, Unbound, WireGuard, Wazuh | Ongoing

- Operate network DNS with Pi-hole and Unbound performing DNSSEC-validating recursive resolution rather than forwarding to third-party resolvers, keeping query data in-network.
- Configured DNS sinkholing for malicious and telemetry domains, analyzing query logs for anomalous resolution and command-and-control callback patterns.
- Deployed WireGuard VPN with per-peer keypairs and preshared keys layered over public key authentication, with allowed-IP scoping restricting each peer to its assigned address.
- Administer a Wazuh SIEM collecting host, authentication, and configuration telemetry, with custom detection rules and tuned thresholds preserving coverage on DNS and firewall configuration changes.

Windows Domain Network Services Lab | Windows Server 2025, Active Directory, DHCP, DNS | December 2025 to January 2026

- Built a virtualized Windows Server 2025 domain controller running Active Directory Domain Services (AD DS) across four virtualized operating systems on two physical machines, configuring the DNS services that domain join and service location depend on.
- Designed and administered DHCP across the 10.3.1.0/24 scope, issuing dynamic addresses to standard user clients, configuring reservations for administrative roles, and assigning static addresses to the domain controllers.

- Diagnosed domain join and authentication failures along the addressing and name resolution path, isolating causes between client IP assignment, DNS resolution, and reachability to the domain controller, and clearing stale leases through DHCP renewal.

## EDUCATION

Western Governors University | Bachelor of Science, Cybersecurity and Information Assurance | Expected December 2026

## CERTIFICATIONS

CompTIA A+, certified September 2026 | CompTIA Network+, certified September 2026 | CompTIA Security+, in progress | Cisco CCNA, in progress | Microsoft Office Specialist