

Muhammad Talha Zia

Technical Consultant Network Security and Cloud

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Location: Riyadh, Saudi Arabia



Education

- **M.Sc. in Computer Networking** University of Bedfordshire, United Kingdom 2012 – 2014
- **B.E in Electronic Engineering** NED University of Engineering & Technology, Pakistan 2007 – 2011
- Degrees and Transcripts are attested and equalized from HEC Pakistan and Foreign, Commonwealth & Development Office, UK

Certifications and Trainings

- **HCIE – Cloud Service Solutions Architect (Written), HCIP – Cloud Computing OpenStack (Training):** Advanced skills in architecting and optimizing hybrid cloud solutions with a focus on security.
- **CCIE – Security (Written), CCNP Routing, CCNA:** Advanced skills in security architecture, network routing, and large-scale security solutions.

Work Experience (10+ Years)

- **Researcher | System Architect – Networks & Multimedia Systems – CS, Concordia University, Canada | July 2023 – Mar 2024**
 - Dockerized Media Streaming Solution: Developed scalable DASH 360° media streaming using Docker, ensuring flexible deployment across cloud environments.
 - Low-Latency Streaming Architecture: Optimized streaming with QUIC and 5G, achieving sub-second latencies for real-time delivery.
 - AI/ML for Network Optimization: Integrated machine learning for predictive traffic analysis, enhancing bandwidth management and stream stability.
 - Cloud & Security Integration: Leveraged AWS/Azure and VPN encryption to ensure secure content delivery and reduce global latency.
- **Instructor - Network/Security/Cloud (with Hands-on Engineering Experience) – CIT, UAE University, UAE | Jan. 2019 - Jun. 2023**
 - Leadership in Network Design & Security: Led advanced network design and security training for 3G/4G/5G networks, cloud computing, and network virtualization.
 - Strategic Network Solutions: Designed and deployed network infrastructures with Cisco Nexus, SD-Access, and VMware, improving performance and scalability.
 - Cloud & Virtualization Management: Deployed cloud and edge environments using OpenStack, Linux, and Kubernetes, optimizing resource allocation.
 - 5G & Autonomous Driving Solutions: Implemented 5G slicing for low-latency communication in autonomous vehicles, integrated with Cohda Wireless SDK for V2V communication.
- **Instructor - Network/Security (With Applied Networking Experience) – CoE, Al Ain University, UAE | Sept. 2014 – Dec. 2018**
 - Enterprise Network Leadership: Deployed Cisco Nexus 9000 and ISR routers, optimizing traffic management across the campus network.
 - Network Security Implementation: Developed and enforced security policies with Cisco ASA/Firepower, including VPNs and VLAN segmentation for secure access.
 - Wireless & Data Center Management: Managed Cisco WLC/APs, integrated 802.1X authentication, and deployed Cisco ACI for SDN in the data center.
 - Performance Optimization: Implemented Wi-Fi 6 technology for high-density areas, ensuring low-latency and optimal bandwidth distribution.

- **Network Engineer – Multinet Pakistan Private Ltd., Pakistan** | *May 2012 to July 2012*
 - Core Network Infrastructure: Managed core network spanning 800 elements and 200 sites, ensuring high availability with redundant paths and multi-homed connections.
 - Comprehensive Network Support: Provided support for MPLS, BGP, and OSPF routing protocols, ensuring optimal traffic routing and network resilience.
 - IP Transit & Internet Services: Configured and optimized IP transit services using Juniper MX480 and Cisco 7600, ensuring low-latency, high-throughput connections.
- **NOC Engineer – Augere Pakistan Private Ltd., Pakistan** | *Jan. 2011 to April 2012*
 - Advanced Network Troubleshooting: Provided Level 3 support for RAN, Core, and backhaul networks, utilizing Wireshark and SolarWinds for performance analysis.
 - Network Design & Capacity Planning: Conducted capacity planning based on network traffic trends, optimizing resources for scalability and performance.
 - Core Network Optimization: Managed IP-MPLS, VPLS, BGP, and OSPF, ensuring reliable data transport with high availability.
 - Vendor Coordination & Escalation: Coordinated technical escalations with Cisco, Huawei, and Juniper, ensuring quick resolution through ticketing systems.

Technical Expertise

Networking & Routing

- Expertise in BGP, MPLS, VLANs, IPv6, OSPF, NAT, DHCP, and IPsec VPN for robust network design and traffic optimization.
- Experience with VPLS, L3VPN, Inter-VLAN Routing, and BGP Peering for complex, scalable routing solutions.
- Skilled in network design, optimization, troubleshooting, and performance analysis to ensure resilient and high-performance networks.

Switching & Security

- In-depth knowledge of Palo Alto, Fortinet, Cisco ASA/FTD firewalls for network protection and security policy enforcement.
- Experience with SIEM tools (e.g., IBM QRadar) and DDoS protection (e.g., Arbor TMS4000) for real-time monitoring and threat mitigation.
- Expertise in IPsec, ACLs, network segmentation, and network security protocols for comprehensive protection.
- Proficient in penetration testing using Kali Linux, Nmap, and Metasploit for vulnerability assessments and security audits.

Cloud & Virtualization

- Strong experience with Kubernetes, Docker, OpenStack, 5G, and SDN for managing cloud-native and virtualized network services.
- Skilled in cloud orchestration and virtualized network management, including network slicing and 5G integration.

Management & Monitoring

- Proficient with network management and monitoring tools like SolarWinds, CACTI, and PRTG for performance tracking and issue resolution.

Skills

- Project & ICT Management: Proven track record in leading infrastructure projects, managing cross-functional teams, and optimizing ICT frameworks for enhanced security and scalability.
- Network Equipment & Platforms: Expert in configuring and securing Cisco, Huawei, and Juniper routers, switches, and firewalls (including Palo Alto and Fortinet) for enterprise networks.
- Penetration Testing & Vulnerability Assessment: Proficient with tools like Kali Linux, Metasploit, Burp Suite, Nmap, and Nessus for penetration testing and vulnerability assessments.
- Containerization & Automation: Advanced skills in Docker, Kubernetes, and Linux (Ubuntu) for containerized app deployment and network automation.

- **Multi-Vendor Data Center Design:** Expertise in managing complex multi-vendor data centers with Cisco Nexus switches, Juniper platforms, and F5 load balancers.
- **AI/ML for Network Optimization:** Leveraging AI/ML for network optimization, security protocol enhancement, and predictive maintenance.

Extra-Curricular

- Passionate about technology and innovation, actively staying updated with tech articles, industry papers, and trends in cybersecurity and infrastructure.
- Enjoys participating in sports like Tennis, Table Tennis, Cricket, and Football, fostering teamwork, leadership, and resilience.

LinkedIn & Research Profiles:

- [LinkedIn Profile](#)

References: Available upon request.