Adrian Bool

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St Albans, UK

*Technical security specialist, network security architect and problem solver
with extensive experience in a wide range of systems and environments in
the Defence, Central Government, Healthcare and Internet Service Provider
sectors.*

Key Skills

- **Network Security**; Over a decade of experience in the design, implementation and management of secure network environments; with detailed knowledge of the principal IP protocols, PKI and hardware/software products from vendors such as Palo Alto Networks, Juniper, F5, Cisco, L3 TRL and more.
- **Automation**; Focused on deploying and configuring networking devices and Linux systems securely and consistently using industry-standard tools such as Terraform and Ansible, complimented by custom scripts written in Python.
- **Infrastructure**; Experienced in deploying VMware products including ESXi, vCenter, vSAN, NSX-T and the AVI Advanced Load Balancer with configuration management using Terraform.
- **Systems**; Extensive Linux experience together with familiarity with Windows Servers including Microsoft's Active Directory, Certificate Authority and Network Policy Server components. Programming within a Unix environment using the Rust, Python and C languages.
- **Information Security**; Authored security policies adhering to HMG Infosec standards and NCSC guidance.
- **Architecture**; Proven record taking a business requirement and providing a secure, timely and cost-effective design including readable, attractive HLD and LLD documents.

Career History

Network Security Consultant for FCDO, qaTest

September 2023 - May 2024

During this short-term contract for this key UK Government Department, I successfully deployed an existing network design for a secondary data centre, enhancing resiliency and disaster recovery.

The network consisted of a Juniper QFX-based EVPN/VXLAN underlay network upon which a VMware NSX-T overlay network operated, with interconnectivity provided by a mix of Palo Alto Networks firewalls and Juniper SRX firewalls.

I introduced automation to the deployment wherever advantageous, leading to a drastically reduced deployment time and improved consistency across the environment. I leveraged Ansible to manage all Juniper devices and Linux systems and Terraform to orchestrate the configuration of NSX-T.

Network Security Consultant for MoD, BT Defence

August 2020 - August 2023

Provided the design (HLD & LLD), implementation and management of the networking aspects of a secure, multi-tenant environment.

The network consisted of Palo Alto Networks firewalls operating in conjunction with VMware NSX-T. An EVPN-VXLAN network hosted on Juniper QFX switches provided the underlay network. I was also responsible for the deployment and configuration of the environment's Linux virtual machines. It was with BT that I first leveraged

Ansible and Terraform; with this experience allowing me to provide the later deployment for qaTest in a highly efficient manner.

All systems were deployed according to CIS best practices, ensuring a secure and robust environment.

Network Security Consultant, M&S
September 2017 - April 2020

Brought significant cost savings and increased agility to Marks & Spencer by designing and implementing a new DMZ environment, replacing an expensive third-party service provider. The DMZ leveraged Palo Alto Networks firewalls, F5 Load Balancers and Juniper switches.

The deployment required extensive use of F5's APM module to provide SAML-based single-sign-on authentication to the customer's legacy applications.

In addition I rolled out Palo Alto Network firewalls to M&S offices across Europe and Asia — replacing legacy Cisco ASA firewalls — providing the security benefits of best-in-class Next Generation Firewalls.

Technical Director, Cyber Security Team
March 2016 - June 2022

As a partner in Cyber Security Team Ltd, I worked with several clients on smaller contracts such as:

- Network security reviews.
- Network Access Control PoC in a Cisco/Microsoft environment.
- Federated Authentication (using SAML and Azure AD) integrated with Palo Alto Networks' SSL VPN feature.

Senior Network Consultant, Nuffield Health
October 2012 - December 2015

Co-designed a new Data Centre Network & Security Architecture based upon Palo Alto Networks' Next Generation Firewalls together with Cisco firewalls and switches. We implemented a smooth migration of NH's two Data Centres to the new infrastructure; providing increased resilience, improved security controls and a new employee VPN service based upon GlobalProtect.

I delivered the network elements of the migration of Nuffield Health's clinical imaging system, rolling Palo Alto Network firewall pairs to over thirty hospital sites. My network design provided a clean and near instantaneous cut-cover between imaging systems at each hospital site, minimising downtime and removing the need for medical systems engineers to visit each hospital site, saving Nuffield Health over £200k.

Director, Network Revolution
April 2011 - March 2016

Network Revolution Ltd was the original name for Cyber Security Team Ltd. An ex-colleague and I founded Network Revolution to provide network security consultancy services - specifically with next generation technologies such as IPv6, DNSSec and the new firewalls coming to market at the time — particularly Palo Alto Networks' Next Generation Firewalls.

Network Consultant, IX Reach
April 2010 - October 2012

I deployed, managed and supported IX Reach's Carrier Ethernet (Layer 2), IPv4 and IPv6 services which provide international connectivity for European ISPs into foreign Internet Exchange Points such as LINX and AMSIX.

Security Team for HMRC, Capgemini
March 2009 - April 2010

As a contractor on Capgemini's Aspire account to HMRC I vetted system architecture documents to ensure that they complied with HMRC's Security Policies. I advised System Architects on methods to resolve areas of their designs that were not compliant with policy.

Infrastructure Specialist for DWP, EDS
February 2006 - February 2009

Working in the Department of Work and Pensions' SOC Team, I helped improve the security of estate through the management of security incidents, performing vulnerability assessments and security audits.

I later proposed, designed and implemented a secure access gateway from the EDS to the DWP network. This system enabled EDS to move roles offshore, dramatically reducing cost on the account.

Network Engineer, Capgemini Spain
July 2004 - January 2006

In late 2003 I moved to Spain, took six months out to learn Spanish, then started work for Capgemini Spain where I was part of the Spanish team managing Capgemini UK's network which provided service to over 5000 users. Devices ranged from Cisco 2601 routers to Cisco 6500 combined router/switches together with Checkpoint, Cisco and Cyberguard firewalls.

Director of Core Networks, VIA NET.WORKS
April 2000 - September 2003

I designed, deployed and managed VIA NET.WORKS' International Core Network. VIA's Core Network, based on high-end Cisco routers, interconnected their operations across Europe and into North America, providing the in-country operations with fast, reliable access to upstream Internet Service Providers and many of the world's principal Internet Exchange Points including LINX, DeCIX, PAIX, AMSIX and MAE-West.

Technical Director, U-NET
September 1994 - March 2000

U-NET was among the first UK ISPs and grew to be one of the largest and most popular ISPs in the UK at the time - regularly winning the '#1 UK ISP' award from the Internet Magazine.

I was the first employee of this start-up and the responsibility was placed upon me to provide the technical infrastructure upon which the service was provided. Principal equipment included Unix servers from Sun Microsystems, access devices from both Ascend and Cisco and switches and routers from Cisco.

Professional Qualifications

2017, 2018 & 2021	Palo Alto Networks Certified Network Security Engineer - PCNSE
2006	Certified Information Security Professional - CISSP
2004	Cisco Certified Network Associate - CCNA

Education

2003	Spanish, Enforex, Madrid, Spain (275 hours)
1991—1994	Electronic Engineering (BEng), University of East Anglia, Norwich, England
1989—1991	A Levels in Physics (A), Electronics (B), Mathematics (C)
1984—1989	GCSEs in English Language & Literature (A, A), Physics (A), Chemistry (A), Mathematics (A), Geography (A), Religious Studies (B), French (C), Art (D)

Interests

Passionate about new technologies including:

- Learning the Rust programming language.
- Learning the basis of Machine Learning, AI and self-hosting Large Language Models (LLMs).
- Keeping up to date with the latest security threats and mitigations.