

CAMERON PATTERSON

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I began my career at multinationals IBM and AT&T, attaining CCIE certification and Chartered Engineer status architecting, supporting and implementing key multi-national customer networks. Following these positions, I achieved life-long ambitions to travel around the world, to attain my PhD and to form my own consultancy – where I worked directly with energy and financial sector clients on their critical international infrastructures. I currently lead and develop the infrastructure and IT support divisions of a mid-sized multi-site financial business, making great strides to improve resilience, performance and responsiveness of both team and systems.

My unique blend of demonstrable leadership, communication and technical skills across multiple sectors, combined with in-depth analytical, research and development skills position me as a prime candidate to play a strategic role in helping solve your organisation's key forward challenges.

PROFESSIONAL CERTIFICATIONS – all actively maintained

- **C Eng** – Chartered Engineer with the IET #32351828
- **C Mgr** – Chartered Manager with CMI #P04462800
- **EurIng** – registered European Engineer with FEANI #27547
- **Cisco** – CCIE: Cisco Certified Internetworking Engineer #5634, Routing & Switching Full Lab
 - Cisco certifications also maintained in areas of wireless, network security, design and IP telephony (CCNA-W, CCSP, CCDP and CCNP-Voice)
- **Juniper** – JNCIA-Junos Certification, **Brocade** – Professional Certifications in Ethernet Fabric (BCEFP) and Networking (BCNP), **Microsoft** – MCP Windows Server 2012
- **Prince2** – practitioner, **ITIL** – foundation

CAREER HIGHLIGHTS

Mar/2015 – present Network Engineering Manager / Head of Infrastructure (WDA)

- Architectural lead: setting direction, technical requirements and budgets – negotiating, influencing, and delivering key networked infrastructure to the business
- Working closely with the executive team to deliver technology solutions in a timely and cost-effective fashion in a fast moving 24x7 financial sector business
- Responsible Manager for Layer-1 to Layer-4 IT support and projects across the company:
 - Leading a team of Infrastructure Communications Engineers and DBAs
 - Responsible for security, telephony, servers, and data networking operationally, and in new project engineering
 - Developing international working process between peer teams to ensure business continuity and high-service levels for call centre & Internet offerings
 - Additionally leading the IT support team located across multiple sites
 - 1st and 2nd level support teams supporting from end-users through to executive operational issues, developing KPIs, managing metrics and targets
 - Pro-active development of all team members in both technical and business skills
- Created the Major Incident procedure, formalising how to handle critical business events
- Led a root-and-branch evaluation of the existing IT and communication infrastructure:
 - Analyse and rework of solutions and existing supplier relationships to optimise service delivery to the business and reducing cost, justifying the work to the executive team
- Meeting financial regulatory and audit requirements:
 - Leading the business successfully through its first PCI-DSS security certification
 - Achieving FCA business compliance through demonstration of IT systems competence
 - Initiating and working through a full Asset Management scheme to prove compliance with Microsoft's licencing programme

Feb/2014 – Mar/2015 Lead Telecommunications Consultant (Contract, ConocoPhillips)

- Technical lead for the Europe, Middle East and Russian operational support team
 - Areas of responsibility included the design, refresh and maintenance of data centre, large-scale wired and wireless LAN, IP telephony and optimisation technologies
 - Devised creative service solutions to meet business needs and constraints in the challenging environments found both on and offshore, making use of diverse providers and access technologies, liaising with application and infrastructure teams
 - Equipment used encompassed Nexus, modular and stack-based switches, Cisco PRIME, ASR, CUCM, ASA, VPN and Riverbeds, with QoS deployed across the estate
 - Took responsibility for the professional development of members of the operational team, so that each individual had the opportunity to grow technically across the full range of technologies whilst remaining fully supported
 - Broadened my exposure to alternative vendor technology for comparative technical evaluation, completing professional certifications for Juniper and Brocade systems

Sep/2008 – Jan/2014 Computer Network Engineering (Manchester University)

- Communications development for the SpiNNaker high performance computing platform
 - Work covering mapping, routing, network management and system visualisation
 - Developing an SNMP MIB for use with Nagios, Cacti and other industry standard monitoring and management tools
 - Creating flexible real-time network visualisation software
 - Scripting in Perl and Python and low-level network programming in C and assembly
- Creating high-quality rigorous technical documentation
 - Lead and contributing author to more than 15 peer-reviewed journal and conference articles and presenting results at international conferences
 - Awarded a PhD as part of my work in the area of real-time communications and management: "Managing A Real-Time Massively-Parallel Neural Architecture"
 - Developing and delivering education and lab materials and providing support for Mobile Systems & Computer Networks units
- Consulting on department switching and routing networking decisions, security, strategies and assisting in troubleshooting issues
- Leading software development team for delivery of package of placing, routing and interconnecting software components across the high-performance networked system
- This role encompasses both the Medical Research Council funded PhD, Sep/2008 – Jun/2012 and staff position of Research Scientist, Jun/2012 – Jan/2014

Jan/2005 – Jun/2008 Financial Sector Telecommunications Consultant (Own Company)

Jan/2006 – Jan/2007 Royal Bank of Scotland Group

Jan/2005 – Jan/2006, May/June 2008 Standard Life Group

- Provided design leadership and operational technical support for highly-available internal and Internet communication services across thousands of users
 - Creation of data centre standard equipment configurations and documentation
 - Testing and evaluation of network hardware devices and software releases
 - Led team and planned datacentre switch software upgrade programme
 - Proof of concept testing for secure internal and multi-homed BGP Internet and MPLS VPN connectivity services
 - Working with strategic partners and key stakeholders across the business, particularly in change and incident support management
- Responsible for LAN / WAN network security, quality of service and voice over IP telephony
 - Using Cisco ACS, TACACS+, MQC, and developing scripts to consistently deploy, maintain and test configurations and their security compliance
 - Worked implementing Cisco Call Manager and IPCC call centre software, defining its design and interfaces to the public telephone network and Nortel VoIP solutions

- Developing management scripts and tooling, out of hours 3rd level support and working closely with the customer to build and develop their troubleshooting skills
- Specification, tendering and bid / technical evaluation for equipment and suppliers
 - Liaising with global telecommunication vendors for ADSL and dialup home connectivity solutions, and for diverse high-capacity Internet circuits
 - Maintaining relationships with key equipment providers
- Presentation and demonstration of technical solutions to both executive and network engineering teams, including on-going performance and KPI reports
- Technical Design Authority with pre-sales responsibilities
 - Working closely with accounts and sales teams to identify leads and opportunities

Jun/1999 – Jan/2005 Network Architect (AT&T Business)

- Team leader for 15 strong UK and European network implementation group
- Product and process development for new services at network core and edge
 - Incorporating xDSL technologies across multiple European telecom markets to provide consistent, saleable, secure MPLS networking solutions
 - Defining and testing provisioning toolsets for global deployment, and interfacing with reporting and management tools including Concord, Tivoli Openview etc.
- Team leader for multiple, large-scale, successful global customer networking deployments
 - Managed a team of 10 engineers on the EMEA deployment of IBM's next generation Power9 internal network using AT&T's MPLS service. Carried out resource and project planning, work allocation and managed escalations on the project, and globally led the international interconnection migration work
 - Led an international team of 12 on an accelerated MPLS and voice network deployment for Maersk Sealand at over 300 sites worldwide
- Creation of laboratory environment for proof-of-concept (POC), training and development
- Writing standards and procedures documents, detailing best practice and minimum standards for secure network implementations across IP VPN, MPLS, Internet and LAN services
- Devising and delivering educational materials within Europe and Africa, both in person and using tele-presence tools and software

Aug/1996 – Jun/1999 Telecommunications Specialist (IBM Global Network)

- Creation of tooling and automation to minimise provisioning error rates
 - Using JavaScript and Perl to reduce group workload
- Responsible for infrastructure capacity management and trend analysis
 - Introduced statistics to forecast demand and ensure capacity availability
 - Produced business cases for new infrastructure investment
- Mentoring and coaching new employees
 - Including employees on the graduate scheme, and experienced hires
- Devised the concept and business case for a region-wide "virtual team"
 - Created documentation to ensure consistent high quality customer implementations
 - Developed and presented a 3-day training course in support of this initiative hosting overseas virtual team members and delivering it on-site across Europe

SKILLS & TRAINING

- **Detailed Experience** of Cisco routers, WAN and LAN switches of all scales, 24x7 support and 3rd level troubleshooting, Nexus, L2, L3, Internet and managed service provider, enterprise, data centre, access technologies, MPLS, BGP, multiprotocol, QoS, Unified communications and VoIP systems. Management and SNMP, security, ASA, firewalls, encryption and IPSec, VPN, real-time media and multicast, office software, scripting and embedded programming using C, C++, ARM Assembly and Python
- **Technical** classroom sessions including: MATLAB, Perl, Quality of Service, MPLS VPN, Advanced BGP & OSPF, LAN switching, CCIE Boot camp, ATM, Design and Troubleshooting
- **Personal / Business Skills** courses including: team leading, project management, coaching and mentoring, Prince2, ISO9000, risk management, interviewing and assessment centres
- **Clean full U.K. driving licence**

EDUCATION

- **PhD Computer Network Engineering:** Manchester University
- **B Eng (Hons)** [First Class]: Computer Systems Engineering, Lancaster University
- **A Levels:** Computing, Pure & Applied Mathematics, Physics
- **GCSEs:** English, Mathematics, Dual Science, Geography, History, I.T., Design Technology
- **Level 5 management diploma:** CMI

OUTSIDE INTERESTS

- **Travelling:** Including round the world in the first 4 months of 2008
- **Sports:** Hiking and walking, following Motor Racing and its telemetry, playing Badminton
- **Broadcast:** Multimedia, IPTV, Video and Audio recording and editing with particular emphasis on the real-time delivery of voice and video data. Played active roles at many voluntary radio stations across the country including:
 - *Lancaster:* <http://www.bailriggfm.co.uk>, where I undertook broadcast presenter and Chief Engineer positions, and was elected as Station Manager. My most significant achievement in this role was creating the successful application for the UK's first permanent FM license for a student radio station
 - *Edinburgh:* <http://castlefmScotland.com>, (formerly Leith FM), I volunteered with this community radio station, undertaking duty management and taking on the Chief Engineer role including completely re-engineering the station's technology, improving facilities, resilience, reliability and installing a second studio
 - *Manchester:* <http://www.fusefm.co.uk>, presenting and engineering team roles, helping mentor the next generation of broadcast engineers